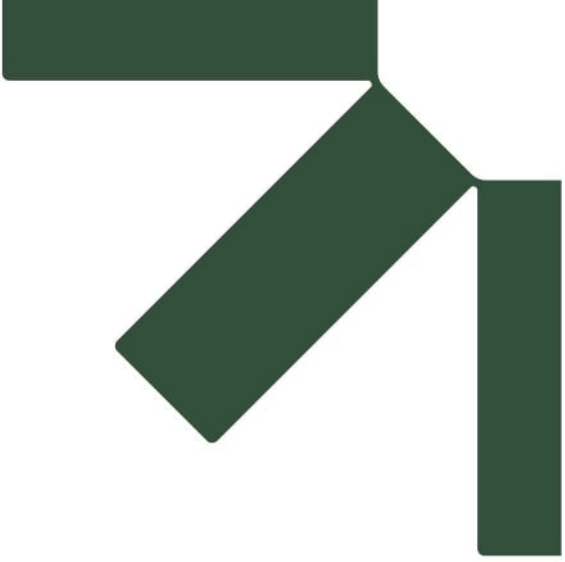




Appendix E Hertfordshire County Council SuDS Proforma

Flood Risk Assessment and Surface Water Drainage Strategy

Wymondley Battery Energy Storage System

Pivoted Power LLP (part of EDF Energy Renewables Ltd)

SLR Project No.: 402.065238.00001

10 April 2025

Surface Water Drainage Statement

In order to provide the required information on surface water drainage from the proposed development this pro-forma must be completed in full and be submitted with any planning application which seeks permission for 'major' development. This information contained in this form will be used by Hertfordshire County Council in its role as Lead Local Flood Authority and 'statutory consultee' on SuDs for all 'major' planning applications. The pro-forma is supported by the [Defra/EA Guidance on Rainfall Runoff Management](#). The pro-forma should be considered alongside other supporting SuDS Guidance, but focuses on ensuring flood risk is not made worse elsewhere. The SuDS solution must operate effectively for as long as the development exists. This pro-forma is based upon current industry standard practice.

1. Site Details

Site	Wymondley BESS
Address & post code or LPA reference	land off Stevenage Road, Ashbrook, Little Wymondley, Hertfordshire, SG4 7JL
Grid reference	TL 21578 26739
Is the existing site developed or Greenfield?	Greenfield
Total Site Area served by drainage system (excluding open space) (Ha)*	0.876
Topographical survey plan showing existing site layout, site levels and drainage system	not available

* The Greenfield runoff off rate from the development which is to be used for assessing the requirements for limiting discharge flow rates and attenuation storage from a site should be calculated for the area that forms the drainage network for the site whatever size of site and type of drainage technique. Please refer to the Rainfall Runoff Management document or CIRIA manual for detail on this.

2. Impermeable Area

	Existing	Proposed	Difference (Proposed-Existing)	Notes for developers & Local Authorities
Impermeable area (ha) (catchment areas to be shown on a plan)	0 ha	0.876 ha	0.876 ha	If the proposed amount of impermeable surface is greater, then runoff rates and volumes will increase. Section 6 must be filled in. If proposed permeability is equal or less than existing, then section 6 can be skipped & section 7 filled in.
Drainage Method (infiltration/sewer/watercourse)	watercourse	watercourse		If different from the existing, please fill in section 3. If existing drainage is by infiltration and the proposed is not, discharge volumes may increase. Fill in section 6.

PPG Paragraph 080

3. Proposing to Discharge Surface Water via

	Yes	No	Evidence that this is possible	Notes for developers & Local Authorities
Existing and proposed calculations	☒	☐	greenfield runoff rate calculations in Appendix F and Table 5-1. Post development runoff rates in Appendix I.	Please provide Hydraulic modelling calculations of existing and proposed run-off rates and volumes in accordance with a recognised methodology or the results of a full infiltration test (see line below) if infiltration is proposed.
Infiltration	☐	☒	Appendix B	e.g. soakage tests. Section 6 (infiltration) must be filled in if infiltration is proposed.
To watercourse	☒	☐	section 2.2	e.g. Is there a watercourse nearby? Please provide details of any watercourse to which the site drains including cross-sections of any adjacent water courses for appropriate distance upstream and downstream of the discharge point (as agreed with the LLFA and/or EA).
To surface water sewer	☐	☒		Confirmation from sewer provider that sufficient capacity exists for this connection.
Combination of above	☐	☒		e.g. part infiltration part discharge to sewer or watercourse. Provide evidence above.
Has the drainage proposal had regard to the SuDS hierarchy?	☒	☐		Evidence must be provided to demonstrate that the proposed Sustainable Drainage proposal has had regard to the SuDS hierarchy.
Layout plan showing where the sustainable drainage infrastructure will be located on site.	☒	☐	Appendix H	Please provide plan reference numbers showing the details of the site layout showing where the sustainable drainage infrastructure will be located on the site. If the development is to be constructed in phases this should be shown on a separate plan and confirmation should be provided that the sustainable drainage proposal for each phase can be constructed and can operate independently and is not reliant on any later phase of development.

Technical Standards S2 and S3

4. Peak Discharge Rates – This is the maximum flow rate at which surface water runoff leaves the site during a particular storm event.

	Existing Rates (l/s)	Proposed Rates (l/s)	Difference (l/s) (Proposed-Existing)	Notes for developers & Local Authorities
Greenfield QBAR	0.9	0.9		Mean annual Greenfield peak flow - QBAR is approx. 1 in 2 storm events. Use that figure in Section 7a.
1 in 1	0.8	0.9	0.1	Proposed discharge rates (with mitigation) should be as close as reasonably practicable to predevelopment greenfield run-off rates with long term storage or Qbar, they must be no greater than existing rates for all corresponding storm events. e.g. discharging all flow from site at the existing 1 in 100 event increases flood risk during smaller events. If discharging to watercourse post development results need to be with and without a surcharged outfall. The critical results need to be provided for both the critical storm by level and critical storm by outflow.
1 in 30	2.1	0.9	1.2	
1 in 100	2.7	0.9	1.8	
1 in 100 plus climate change	4.0	1.0	3.0	To mitigate for climate change the proposed 1 in 100 +CC must be no greater than the existing 1 in 100 runoff rate. If not, flood risk increases under climate change should be added to the peak rainfall intensity. EA Guidance - Flood Risk Assessments: Climate Change Allowances https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

Technical Standards S4 to S9

5. Calculate discharge volumes –The total volume of water leaving the development site for a particular rainfall event. Introducing new impermeable surfaces increases surface water runoff and may increase flood risk outside the development.

	Existing Volume (m³)	Proposed Volume (m³)	Difference (m³) (Proposed-Existing)	Notes for developers & Local Authorities
1 in 1	13.8	27.7	13.9	Proposed discharge volumes (without mitigation) should be no greater than existing volumes for all corresponding storm events. Any increase in volume increases flood risk elsewhere. Where volumes are increased section 6 must be filled in.
1 in 30	37.4	28.1	-9.3	
1 in 100	48.1	29.4	-18.7	
1 in 100 plus climate change	73.5	31.7	-41.8	To mitigate for climate change the volume discharge from site must be no greater than the existing 1 in 100 storm event. If not, flood risk increases under climate change.

6. Calculate attenuation storage – In order to minimise the negative impact on flood risk resulting from increased volumes runoff from the proposed development, storage must be provided.

		Notes for developers & Local Authorities
Storage volume required to retain discharge rates as existing (m ³)	1247	Volume of water to attenuate on site if discharging at existing rates. Can't be used where discharge volumes are increasing
Where will the storage be provided on site?	gravel subbase and SuDS pond	

7. How is Storm Water stored on site?

Storage is required for the additional volume from site but also for holding back water to slow down the rate from the site. This is known as attenuation storage and long term storage. The intention is to not discharge that volume into the watercourses so as not to increase flood risk elsewhere.

			Notes for developers & Local Authorities
Infiltration	State the Site's Geology/drift material overlaying)	diamiction and glaciofluvial deposits	Avoid infiltrating in made ground.
	Does the site have a high ground water table? Yes/No?	no	If yes, please provide details of the site's hydrology.
	Is the site within a known Source Protection Zones (SPZ)? Yes/No?	Yes	Infiltration rates are highly variable and refer to Environment Agency website to identify and source protection zones (SPZ)
	Are infiltration rates suitable?	no	Infiltration rates should be no lower than 1×10^{-6} m/s.
	Is the site contaminated? If yes, consider advice from others on whether infiltration can happen.	unknown but assumed no (greenfield)	Water should not be infiltrated through land that is contaminated. The Environment Agency may provide bespoke advice in planning consultations for contaminated sites that should be considered.
	State the distance between a proposed infiltration device base and the ground water (GW) level	Not infiltrating	Need 1m (min) between the base of the infiltration device & the water table to protect Groundwater quality & ensure GW doesn't enter infiltration devices. Avoid infiltration where this isn't possible.
	Were infiltration rates obtained by desk study or infiltration test?	infiltration test	Infiltration rates can be estimated from desk studies for outline planning permission if a back-up attenuation scheme is provided. Site specific BRE 365 tests should be provided for Full planning Permission
Is infiltration feasible?	Yes/No?	no	If infiltration is not feasible how will the additional volume be stored?. The applicant should then consider the following options in the next section.

7a. Storage requirements

Where infiltration is not possible, then the developer must confirm that either of the two options below will be implemented for dealing with the amount of water that needs to be stored on site.

Option 1 Simple – Store both the additional volume and attenuation volume in order to make a final discharge from site at **QBAR**. This is preferred if no infiltration can be made on site. This very simply satisfies the runoff rates and volume criteria.

Option 2 Complex – If some of the additional volume of water can be infiltrated back into the ground, the remainder can be discharged at a very low rate of 2 l/sec/hectare. A combined storage calculation using the partial permissible rate of 2 l/sec/hectare and the attenuation rate used to slow the runoff from site.

		Notes for developers & Local Authorities
Please confirm what option has been chosen and how much storage is required on site.	Option 1 is chose requiring 1247m3 of storage	The developer at this stage should understand the site characteristics and be able to explain what the storage requirements are on site and how it will be achieved.

8. Additional Consideration to comply with the Technical Standards and PPG

		Notes for developers & Local Authorities
Which Drainage Systems measures have been used?	gravel compound / filter drain and swale	SUDS can be adapted for most situations even where infiltration isn't feasible e.g. impermeable liners beneath some SUDS devices allows treatment but not infiltration. See CIRIA SUDS Manual C753.
How will exceedance events be catered on site without increasing flood risks (both on site and outside the development)?	exceedance will discharge south into the existing pond or (if also exceeded) across Stevenage Road and into the watercourse	Safely: not causing property flooding or posing a hazard to site users i.e. no deeper than 300mm on roads/footpaths.
How are rates being restricted?	hydrobrake	Hydrobrakes to be used where rates are between 2l/s to 5l/s. Orifices not be used below 5l/s as the pipes may block. Pipes with flows < 2l/s are prone to blockage.
Drainage during construction period	swale installed prior to bess construction	Provide details of how drainage will be managed during the construction period including any necessary connections, impacts, diversions and erosion control.
Key Drainage components / Features	hydrobrake or blockage of existing pond culvert	Which component if blocked (even partial) will lead to flooding?

Technical Standards S10 to S12

9. Management and Maintenance of SuDs

Details are required to be provided of the management and maintenance plan for the SUD, including for the individual plots in perpetuity.

How is the entire drainage system to be maintained in perpetuity?	please refer to Section 5.9 of the report. Maintenance to be the responsibility of the client.	Clear details of the maintenance proposals of all elements of the proposed drainage system must be provided to show that all parts of SuDs are effective and robust. Provide a management plan to describe the SUDS scheme and set out the management objectives for the site. It should consider how the SuDs will perform and develop over time anticipating any additional maintenance tasks to ensure the system continues to perform as designed. — Specification notes that describe how work is to be undertaken and the materials to be used. — A maintenance schedule describes what work is to be done and when it is to be done using frequency and performance requirements as appropriate. — A site plan showing maintenance areas, control points and outfalls. Responsibility for the management and maintenance of each element of the SUDS scheme will also need to be detailed within the Management Plan. Where open water is involved please provide a health and safety plan within the management plan.
Please confirm the owners/adopters of the entire drainage systems throughout the development. Please list all the owners.	Yes - EDF Renewables	If these are multiple owners then a drawing illustrating exactly what features will be within each owner's remit must be submitted with this Proforma. Please give details of each feature and how it will be managed in accordance with the details in the management plan.
Please provide details demonstrating that any third party agreements required using land outside the application site have been secured.	Not required	

The above form should be completed using evidence from information which should be appended to this form. The information being submitted should be proportionate to the site conditions, flood risks and magnitude of development. It should serve as a summary of the drainage proposals and should clearly show that the proposed discharge rate and volume as a result of development will not be increasing. Where there is an increase in discharge rate or volume, then the relevant section of this form must be completed with clear evidence demonstrating how the requirements will be met.

This form is completed using factual information and can be used as a summary of the surface water drainage strategy on this site.

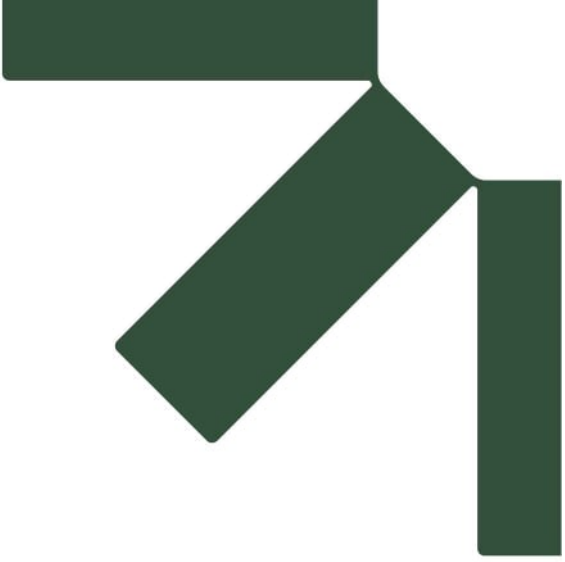
Form Completed By **Chloe Nelson**

Qualification of person responsible for signing off this pro-forma **BSc, MSc, MCIWEM**

Company **SLR Consulting**

On behalf of (Client's details) **EDF Renewables**

Date: **17/03/2024**



Appendix F Greenfield Runoff Rates

Flood Risk Assessment and Surface Water Drainage Strategy

Wymondley Battery Energy Storage System

Pivoted Power LLP (part of EDF Energy Renewables Ltd)

SLR Project No.: 402.065238.00001

10 April 2025

EDF Renewables

Wymondley ISS

SLR Project No.: 402.065238.00001

6 June 2024

Revision: 01

ReFH2 Greenfield Runoff Analysis Methodology and Summary of Results

1.0 Introduction and Background

This document sets out the methodology applied to assess the Greenfield Runoff Rates and Volumes for the Site and summarises the results of this analysis.

2.0 Methodology

This methodology follows the guidance set out in the ReFH Technical Guide Greenfield Runoff Rate and Values¹ for the assessment of Greenfield Runoff Rates and Volumes using the ReFH2 software². This follows the guidance set out by the Environment Agency in the Flood Estimation Guidelines³, recommendations made in the Estimating flood peaks and hydrographs for small catchments research project⁴ and Construction Industry Research and Information Association (CIRIA) SuDS Manual (C753)⁵.

The latest best practice guidance recommends that for plot scale areas of less than 0.5km² (50ha) in size, greenfield runoff calculations are estimated based on an area of 0.5km² and then rescaled to the actual size of the catchment.

Design rainfall depths and catchment characteristics are obtained from the FEH Webservice⁶. The time to peak (Tp) and baseflow lag (BL) parameters for a 0.5km² catchment or development area if great than 0.5km² are then calculated using the plot scale equations in ReFH2, assuming an Aerial Reduction Factor (ARF) of 1 for the design rainfall and using the default Seasonal Correction Factor (SCF) for the winter storm and default rainfall event duration and timestep.

The area is then updated to the development area or 1ha (to obtain the per hectare greenfield runoff rate) maintaining an ARF of 1 and the rainfall event duration, timestep, Tp

¹ <https://refhdocs.hydrosolutions.co.uk/Drainage-Design-Applications/Greenfield-Runoff-Rates-and-Volumes/>

² <https://www.hydrosolutions.co.uk/software/refh-2/>

³ <https://www.gov.uk/government/publications/flood-estimation-guidelines>

⁴ <https://www.gov.uk/flood-and-coastal-erosion-risk-management-research-reports/review-of-methodology-for-estimating-flood-peaks-and-hydrographs-for-small-catchments>

⁵ CIRIA, *The SuDS Manual (C753)*. December 2015

⁶ <https://fehweb.ceh.ac.uk/>

and BL parameters for a 0.5km² catchment. With the “as rural” total peak flow results providing the Greenfield Runoff Rate for the development area (or if the area is set to 1ha the per hectare Greenfield Runoff Rate).

The Greenfield Runoff Volumes are then estimated using the same parameters as for the Greenfield Runoff Rates, with the rainfall event duration updated to be 6 hours and a timestep of 8 minutes. The “as rural” direct runoff volume results provide the Greenfield Runoff Volumes for the development area (or if the area is set to 1ha the per hectare Greenfield Runoff Volume).



3.0 Analysis

3.1 Data Import

The FEH point descriptors for the site have been obtained from the FEH Webservice⁶ for the Site. These have been reviewed and found to be representative of the conditions at the Site. The FEH Descriptors of the site are presented in Table 3-1.

Table 3-1: FEH Descriptors

Descriptor	Value
Point Descriptor	E: 520839 N: 226910
SAAR (mm)	609
PROPWET	0.3
BFIHOST19	0.704

A review of BGS GeoIndex 1:50,000 scale Bedrock and Superficial deposits mapping indicate that the site is underlain by high permeability chalk bedrock overlain by superficial deposits of Diamicton and Glaciofluvial Deposits which could have moderate to high permeability depending on the lithology of the deposit locally. This is reflected in the BFIHOST19 value of 0.704 indicating that the catchment has relatively high permeability.

3.2 Climate Change Allowances

The most recent advice on climate change is provided by the Environment Agency⁷. In line with this advice, the upper end 2070's allowance of 35% and 40% for the 3.3% and 1% AEP events respectively have been applied.

3.3 Initial Catchment Area

The initial ReFH2 rainfall, Tp and BL parameters have been estimated based on a catchment area of 0.5km² (50ha).

3.4 Rainfall Parameters

The following rainfall events have been assessed:

- 100% AEP – 1:1 year;
- 50% AEP – 1:2 year;
- 3.3% AEP – 1:30 year;
- 3.3% AEP + 35% CC – 1:30 year + 35% Climate Change;
- 1% AEP – 1:100 year; and
- 1% AEP + 40% CC – 1:100 year + 40% Climate Change.

⁷ <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>



The default recommended rainfall event duration of 03:30:00 hh:mm:ss and timestep of 00:30:00 hh:mm:ss has been maintained, with the ARF updated from the default value of 0.98 to 1.000.

3.5 Runoff Parameters

Based on the analysis of a 0.5km² (50ha) catchment, the Tp and BL parameters have been estimated as 2.346 Hours and 51.397.

3.6 Greenfield Runoff Rate Rescaling

To obtain the per hectare Greenfield Runoff Rate, the catchment area was updated to be 1ha, with the recommended rainfall event duration, timestep, Tp and BL for a 0.5km² catchment retained along with an ARF value of 1 and the default winter storm seasonality.

3.7 Greenfield Runoff Volumes

To obtain the Greenfield Runoff Volumes for drained area of the development, the rainfall event duration and timestep was updated to be 06:00:00 hh:mm:ss and 00:08:00 hh:mm:ss respectively. Tp and BL for the recommended duration storm on a 0.5km² catchment was retained along with an ARF value of 1 and the default winter storm seasonality.



4.0 Summary of Results

The following tables summarise the Greenfield Runoff Rates, Greenfield Runoff Volumes and Long-Term Storage estimate results of the ReFH2 analysis. These values will corroborate what is provided within the ReFH2 output reports.

Table 4-1: Greenfield Runoff Rates for 1ha Area

Annual Exceedance Probability	Greenfield Rates (l/s)
100% (1 in 1 year)	0.9
50% (1 in 2 year)	1.0
3.3% (1 in 30 year)	2.4
3.3% + 35% Climate Change	3.4
1.0% (1 in 100 year)	3.1
1.0% + 40% Climate Change	4.6

Table 4-2: 6-Hour Greenfield Runoff Volumes for 1ha Area

Annual Exceedance Probability	Greenfield Runoff Volume (m ³)
100% (1 in 1 year)	15.8
50% (1 in 2 year)	18.5
3.3% (1 in 30 year)	42.7
3.3% + 35% Climate Change	61.5
1.0% (1 in 100 year)	54.9
1.0% + 40% Climate Change	83.9



5.0 Closure

This document has been prepared by SLR Consulting Limited (SLR) with reasonable skill, care and diligence, and taking account of the timescales and resources devoted to it by agreement with the Client as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

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SLR's standard procedure for Greenfield Runoff Rate and Greenfield Runoff Volume analysis using the ReFH2 methodology has been developed using the latest SuDS and ReFH2 guidance.

This report details the methodology applied and results of the Greenfield Runoff Rate and Volume calculations.

Regards,

SLR Consulting Limited

Prepared by:

Chloe Nelson, BSc, MSc
Senior Hydrologist





Making Sustainability Happen

UK Design Flood Estimation

Generated on 11 December 2024 12:43:44 by chloenelson
Printed from the ReFH2 Flood Modelling software package, version 4.1.8879.22466

Summary of estimate using the Flood Estimation Handbook revitalised flood hydrograph method (ReFH2)

Site detailsChecksum: 2572-2BDD

Site name: FEH_Point_Descriptors_520839_226910_v5_0_1

Easting: 520839

Northing: 226910

Country: England, Wales or Northern Ireland

Catchment Area (km²): 0.01 [0.5]*

Using plot scale calculations: Yes

Model: 2.3

Site description:None

Model run: 1 year

Summary of results

Rainfall - FEH22 (mm):	18.00	Total runoff (ML):	0.01
Total Rainfall (mm):	11.21	Total flow (ML):	0.04
Peak Rainfall (mm):	3.79	Peak flow (m ³ /s):	0.00

Parameters

Where the user has overridden a system-generated value, this original value is shown in square brackets after the value used.
* Indicates that the user locked the duration/timestep

Rainfall parameters (Rainfall - FEH22)

Name	Value	User-defined?
Duration (hh:mm:ss)	03:30:00	No
Timestep (hh:mm:ss)	00:30:00	No
SCF (Seasonal correction factor)	0.62	No
ARF (Areal reduction factor)	1 [1]	Yes
Seasonality	Winter	No

Loss model parameters

Name	Value	User-defined?
Cini (mm)	71.35	No
Cmax (mm)	712.45	No
Use alpha correction factor	No	No
Alpha correction factor	n/a	No

Routing model parameters

Name	Value	User-defined?
Tp (hr)	2.35 [1]	Yes
Up	0.65	No
Uk	0.8	No

Baseflow model parameters

Name	Value	User-defined?
BF0 (m ³ /s)	0	No
BL (hr)	51.4 [38.19]	Yes
BR	2.63	No

Urbanisation parameters

Name	Value	User-defined?
Sewer capacity (m ³ /s)	0	No
Exporting drained area (km ²)	0	No
Urban area (km ²)	0	No
Effective URBEXT2000	0	n/a
Impervious runoff factor	0.7	No
Imperviousness factor	0.4	No
Tp scaling factor	0.75	No
Depression storage depth (mm)	0.5	No

Time series data

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m³/s)	Net Rain (mm)	Runoff (m³/s)	Baseflow (m³/s)	Total Flow (m³/s)
00:00:00	0.4556	0.0000	0.0458	0.0000	2.2E-05	2.2E-05
00:30:00	1.0198	0.0000	0.1035	0.0000	2.18E-05	2.56E-05
01:00:00	2.2360	0.0000	0.2321	0.0000	2.19E-05	4.17E-05
01:30:00	3.7871	0.0000	0.4091	0.0001	2.28E-05	8.6E-05
02:00:00	2.2360	0.0000	0.2510	0.0002	2.54E-05	0.000185
02:30:00	1.0198	0.0000	0.1168	0.0003	3.11E-05	0.00034
03:00:00	0.4556	0.0000	0.0527	0.0005	4.08E-05	0.00052
03:30:00	0.0000	0.0000	0.0000	0.0006	5.47E-05	0.000693
04:00:00	0.0000	0.0000	0.0000	0.0007	7.18E-05	0.000819
04:30:00	0.0000	0.0000	0.0000	0.0008	9.03E-05	0.000853
05:00:00	0.0000	0.0000	0.0000	0.0007	0.000108	0.000813
05:30:00	0.0000	0.0000	0.0000	0.0006	0.000124	0.000736
06:00:00	0.0000	0.0000	0.0000	0.0005	0.000137	0.000646
06:30:00	0.0000	0.0000	0.0000	0.0004	0.000147	0.000564
07:00:00	0.0000	0.0000	0.0000	0.0003	0.000156	0.000499
07:30:00	0.0000	0.0000	0.0000	0.0003	0.000162	0.000445
08:00:00	0.0000	0.0000	0.0000	0.0002	0.000167	0.000396
08:30:00	0.0000	0.0000	0.0000	0.0002	0.000171	0.000348
09:00:00	0.0000	0.0000	0.0000	0.0001	0.000173	0.000299
09:30:00	0.0000	0.0000	0.0000	0.0001	0.000174	0.000254
10:00:00	0.0000	0.0000	0.0000	0.0000	0.000174	0.000214
10:30:00	0.0000	0.0000	0.0000	0.0000	0.000173	0.000189
11:00:00	0.0000	0.0000	0.0000	0.0000	0.000171	0.000176
11:30:00	0.0000	0.0000	0.0000	0.0000	0.00017	0.000171
12:00:00	0.0000	0.0000	0.0000	0.0000	0.000168	0.000168
12:30:00	0.0000	0.0000	0.0000	0.0000	0.000166	0.000166
13:00:00	0.0000	0.0000	0.0000	0.0000	0.000165	0.000165
13:30:00	0.0000	0.0000	0.0000	0.0000	0.000163	0.000163
14:00:00	0.0000	0.0000	0.0000	0.0000	0.000162	0.000162
14:30:00	0.0000	0.0000	0.0000	0.0000	0.00016	0.00016
15:00:00	0.0000	0.0000	0.0000	0.0000	0.000159	0.000159
15:30:00	0.0000	0.0000	0.0000	0.0000	0.000157	0.000157
16:00:00	0.0000	0.0000	0.0000	0.0000	0.000156	0.000156
16:30:00	0.0000	0.0000	0.0000	0.0000	0.000154	0.000154

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m ³ /s)	Net Rain (mm)	Runoff (m ³ /s)	Baseflow (m ³ /s)	Total Flow (m ³ /s)
17:00:00	0.0000	0.0000	0.0000	0.0000	0.000153	0.000153
17:30:00	0.0000	0.0000	0.0000	0.0000	0.000151	0.000151
18:00:00	0.0000	0.0000	0.0000	0.0000	0.00015	0.00015
18:30:00	0.0000	0.0000	0.0000	0.0000	0.000148	0.000148
19:00:00	0.0000	0.0000	0.0000	0.0000	0.000147	0.000147
19:30:00	0.0000	0.0000	0.0000	0.0000	0.000145	0.000145
20:00:00	0.0000	0.0000	0.0000	0.0000	0.000144	0.000144
20:30:00	0.0000	0.0000	0.0000	0.0000	0.000142	0.000142
21:00:00	0.0000	0.0000	0.0000	0.0000	0.000141	0.000141
21:30:00	0.0000	0.0000	0.0000	0.0000	0.00014	0.00014
22:00:00	0.0000	0.0000	0.0000	0.0000	0.000138	0.000138
22:30:00	0.0000	0.0000	0.0000	0.0000	0.000137	0.000137
23:00:00	0.0000	0.0000	0.0000	0.0000	0.000136	0.000136
23:30:00	0.0000	0.0000	0.0000	0.0000	0.000134	0.000134
24:00:00	0.0000	0.0000	0.0000	0.0000	0.000133	0.000133
24:30:00	0.0000	0.0000	0.0000	0.0000	0.000132	0.000132
25:00:00	0.0000	0.0000	0.0000	0.0000	0.000131	0.000131
25:30:00	0.0000	0.0000	0.0000	0.0000	0.000129	0.000129
26:00:00	0.0000	0.0000	0.0000	0.0000	0.000128	0.000128
26:30:00	0.0000	0.0000	0.0000	0.0000	0.000127	0.000127
27:00:00	0.0000	0.0000	0.0000	0.0000	0.000126	0.000126
27:30:00	0.0000	0.0000	0.0000	0.0000	0.000124	0.000124
28:00:00	0.0000	0.0000	0.0000	0.0000	0.000123	0.000123
28:30:00	0.0000	0.0000	0.0000	0.0000	0.000122	0.000122
29:00:00	0.0000	0.0000	0.0000	0.0000	0.000121	0.000121
29:30:00	0.0000	0.0000	0.0000	0.0000	0.00012	0.00012
30:00:00	0.0000	0.0000	0.0000	0.0000	0.000118	0.000118
30:30:00	0.0000	0.0000	0.0000	0.0000	0.000117	0.000117
31:00:00	0.0000	0.0000	0.0000	0.0000	0.000116	0.000116
31:30:00	0.0000	0.0000	0.0000	0.0000	0.000115	0.000115
32:00:00	0.0000	0.0000	0.0000	0.0000	0.000114	0.000114
32:30:00	0.0000	0.0000	0.0000	0.0000	0.000113	0.000113
33:00:00	0.0000	0.0000	0.0000	0.0000	0.000112	0.000112
33:30:00	0.0000	0.0000	0.0000	0.0000	0.000111	0.000111
34:00:00	0.0000	0.0000	0.0000	0.0000	0.00011	0.00011

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m ³ /s)	Net Rain (mm)	Runoff (m ³ /s)	Baseflow (m ³ /s)	Total Flow (m ³ /s)
34:30:00	0.0000	0.0000	0.0000	0.0000	0.000109	0.000109
35:00:00	0.0000	0.0000	0.0000	0.0000	0.000107	0.000107
35:30:00	0.0000	0.0000	0.0000	0.0000	0.000106	0.000106
36:00:00	0.0000	0.0000	0.0000	0.0000	0.000105	0.000105
36:30:00	0.0000	0.0000	0.0000	0.0000	0.000104	0.000104
37:00:00	0.0000	0.0000	0.0000	0.0000	0.000103	0.000103
37:30:00	0.0000	0.0000	0.0000	0.0000	0.000102	0.000102
38:00:00	0.0000	0.0000	0.0000	0.0000	0.000101	0.000101
38:30:00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
39:00:00	0.0000	0.0000	0.0000	0.0000	9.94E-05	9.94E-05
39:30:00	0.0000	0.0000	0.0000	0.0000	9.85E-05	9.85E-05
40:00:00	0.0000	0.0000	0.0000	0.0000	9.75E-05	9.75E-05
40:30:00	0.0000	0.0000	0.0000	0.0000	9.66E-05	9.66E-05
41:00:00	0.0000	0.0000	0.0000	0.0000	9.56E-05	9.56E-05
41:30:00	0.0000	0.0000	0.0000	0.0000	9.47E-05	9.47E-05
42:00:00	0.0000	0.0000	0.0000	0.0000	9.38E-05	9.38E-05
42:30:00	0.0000	0.0000	0.0000	0.0000	9.29E-05	9.29E-05
43:00:00	0.0000	0.0000	0.0000	0.0000	9.2E-05	9.2E-05
43:30:00	0.0000	0.0000	0.0000	0.0000	9.11E-05	9.11E-05
44:00:00	0.0000	0.0000	0.0000	0.0000	9.02E-05	9.02E-05
44:30:00	0.0000	0.0000	0.0000	0.0000	8.93E-05	8.93E-05
45:00:00	0.0000	0.0000	0.0000	0.0000	8.85E-05	8.85E-05
45:30:00	0.0000	0.0000	0.0000	0.0000	8.76E-05	8.76E-05
46:00:00	0.0000	0.0000	0.0000	0.0000	8.68E-05	8.68E-05
46:30:00	0.0000	0.0000	0.0000	0.0000	8.59E-05	8.59E-05
47:00:00	0.0000	0.0000	0.0000	0.0000	8.51E-05	8.51E-05
47:30:00	0.0000	0.0000	0.0000	0.0000	8.43E-05	8.43E-05
48:00:00	0.0000	0.0000	0.0000	0.0000	8.34E-05	8.34E-05
48:30:00	0.0000	0.0000	0.0000	0.0000	8.26E-05	8.26E-05
49:00:00	0.0000	0.0000	0.0000	0.0000	8.18E-05	8.18E-05
49:30:00	0.0000	0.0000	0.0000	0.0000	8.1E-05	8.1E-05
50:00:00	0.0000	0.0000	0.0000	0.0000	8.03E-05	8.03E-05
50:30:00	0.0000	0.0000	0.0000	0.0000	7.95E-05	7.95E-05
51:00:00	0.0000	0.0000	0.0000	0.0000	7.87E-05	7.87E-05
51:30:00	0.0000	0.0000	0.0000	0.0000	7.8E-05	7.8E-05

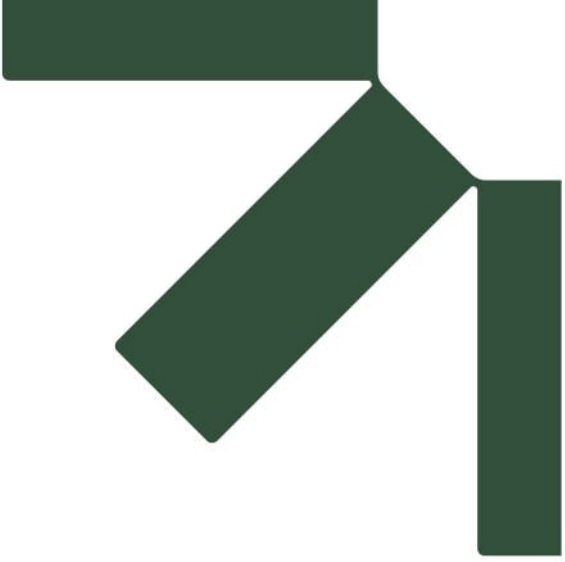
Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m ³ /s)	Net Rain (mm)	Runoff (m ³ /s)	Baseflow (m ³ /s)	Total Flow (m ³ /s)
52:00:00	0.0000	0.0000	0.0000	0.0000	7.72E-05	7.72E-05
52:30:00	0.0000	0.0000	0.0000	0.0000	7.65E-05	7.65E-05
53:00:00	0.0000	0.0000	0.0000	0.0000	7.57E-05	7.57E-05
53:30:00	0.0000	0.0000	0.0000	0.0000	7.5E-05	7.5E-05
54:00:00	0.0000	0.0000	0.0000	0.0000	7.43E-05	7.43E-05
54:30:00	0.0000	0.0000	0.0000	0.0000	7.35E-05	7.35E-05
55:00:00	0.0000	0.0000	0.0000	0.0000	7.28E-05	7.28E-05
55:30:00	0.0000	0.0000	0.0000	0.0000	7.21E-05	7.21E-05
56:00:00	0.0000	0.0000	0.0000	0.0000	7.14E-05	7.14E-05
56:30:00	0.0000	0.0000	0.0000	0.0000	7.07E-05	7.07E-05
57:00:00	0.0000	0.0000	0.0000	0.0000	7E-05	7E-05
57:30:00	0.0000	0.0000	0.0000	0.0000	6.94E-05	6.94E-05
58:00:00	0.0000	0.0000	0.0000	0.0000	6.87E-05	6.87E-05
58:30:00	0.0000	0.0000	0.0000	0.0000	6.8E-05	6.8E-05
59:00:00	0.0000	0.0000	0.0000	0.0000	6.74E-05	6.74E-05
59:30:00	0.0000	0.0000	0.0000	0.0000	6.67E-05	6.67E-05

Appendix

Catchment descriptors *

Name	Value	User-defined value used?
BFIHOST	0.67	No
BFIHOST19	0.7	No
PROPWET	0.3	No
SAAR (mm)	609	No

Values in square brackets are the original values loaded from the FEH Web Service or FEH CD-ROM



Appendix G National Grid Wymondley Substation: GPR Survey

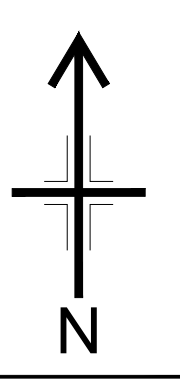
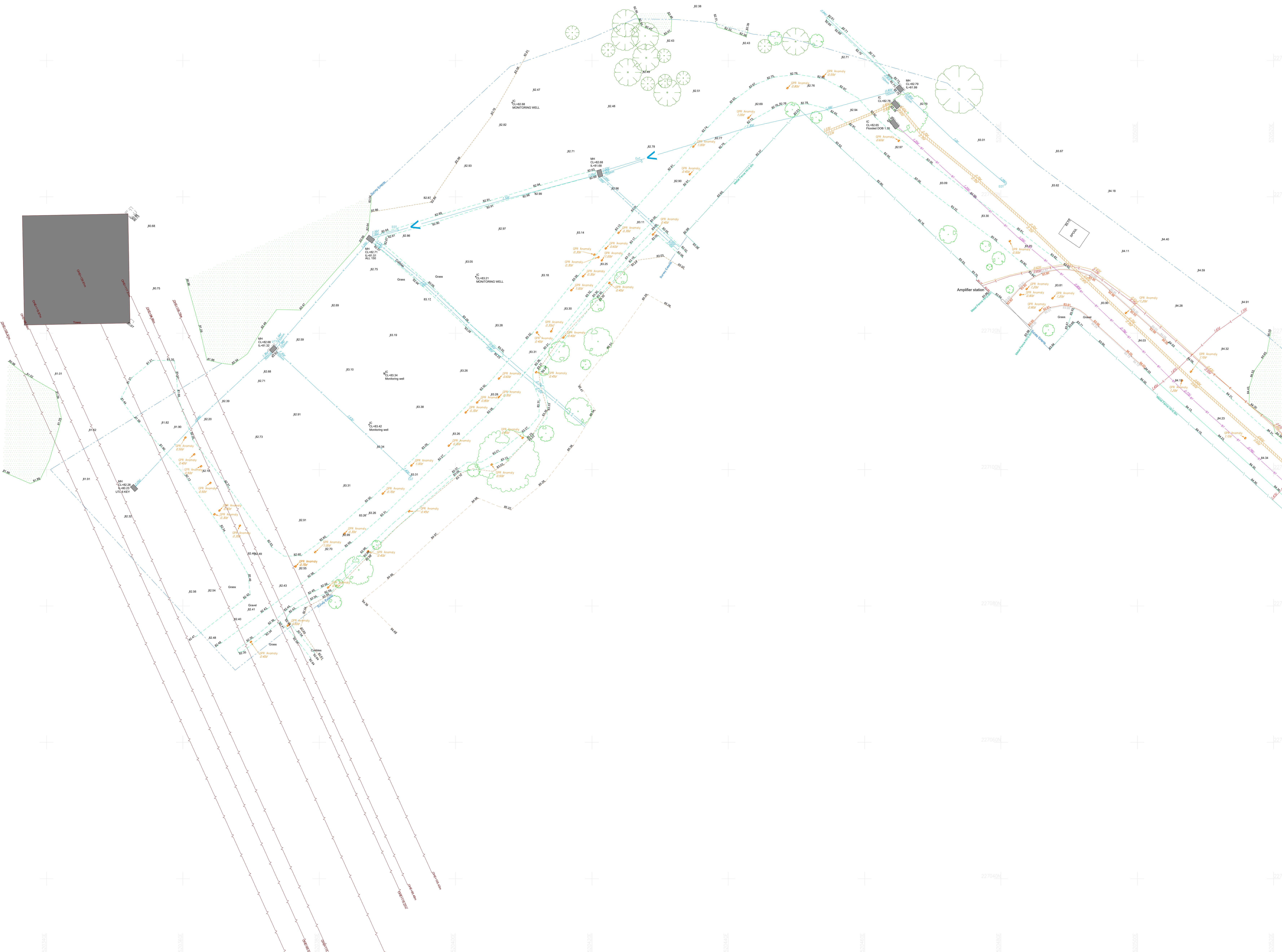
Flood Risk Assessment and Surface Water Drainage Strategy

Wymondley Battery Energy Storage System

Pivoted Power LLP (part of EDF Energy Renewables Ltd)

SLR Project No.: 402.065238.00001

10 April 2025



GRID: OS NATIONAL GRID
Using the OS GPS Network and applying OSTN15 Transformation
and then removing the scale factor for true distances with a one-step
transformation centred on: BS01
DATUM: OS LEVEL DATUM
Using the OS GPS Network and applying OSGM15 National Geoid
Model to obtain local area corrections

Topographic Legend

- | | |
|-----------------|----------------|
| Bottom of Bank | OH Electric |
| Top of Bank | Railway Line |
| Building | Road Centre |
| Building Canopy | Road Markings |
| Concrete Base | SC Hard/Hard |
| Contour Major | SC Hard/Soft |
| Contour Minor | SC Soft/Soft |
| Fences | Steps |
| General | Tree Canopy |
| Kerb Bottom | Vegetation |
| Kerb Top | Visible Trench |
| Walls | Walls |
| OH Comms | Water Edge |

Topographic Abbreviations

- | | |
|------------------------------|--------------------------------|
| AV Air Valve | PB Pedestrian Beacon |
| BH Borehole | PBX Post Box |
| BO(L) Borehole (Illuminated) | PGR Pedestrian Guard Rail |
| BS Bus Stop | PM Parking Meter |
| Cab Cabinet | PO Post |
| CL Cover Level | RE Rodding Eye |
| COL Column | RSL(R) Road Sign (Illuminated) |
| Conc Concrete | RWP Rain Water Pipe |
| DC Drainage Channel | SH(L) Sign Post (Illuminated) |
| DFBin Dog Foul Bin | SPCam Speed Camera |
| DP Down Pipe | ST Stop Tap |
| EP Electricity Pole | SV Sluice Valve |
| ER Earth Road | SVP Soil Vent Pipe |
| FFL Finished Floor Level | TBox Telephone Box |
| FF Fire Hydrant | TL Traffic Light |
| FP Flag Pole | TOF Top of Fence Level |
| GP Gate Post | TOW Top of Wall Level |
| GV Gully | TP Telecoms Pole |
| IC Inspection Cover | VP Vent Pipe |
| KO Kerb Outlet | WB Waste Bin |
| LP Lamp Post | WM Window Bottom Level |
| MH Manhole | WO Wash Out |
| MP Marker | WTT Window Top Level |
| Marker Post | WV Water Valve |
| | MW Monitoring Well |

Utility Legend

- | | |
|--------------------|-------------------|
| Air Line | SWD Sewer |
| Alarm Cable | Survey Extents |
| BT Cable | Heating Pipes |
| CATV Cable | HV Electric Cable |
| Chamber Extent | Kingston Comms |
| Comms Cable | OS Pipe |
| CWD Sewer | Rising Main |
| Earth Wire/Tape | Traffic Control |
| Electric Cable | Unknown Utility |
| Fibre Optic Cable | Vent Pipe |
| Fuel Line | Water |
| FWD Sewer | GPR Detection |
| Gas Pipe | Assumed Route |
| Band of Cables | Records Route |
| Empty Service Duct | Drainage |
| | Backdrop |
| | /Cable Riser |

Utility Abbreviations

- | | |
|--------------------------|---------------------------|
| CP Cathodic Protection | LoS Loss of Signal |
| Cut Disconnected Utility | MDPE Middle Density PE |
| DI Ductile Iron | SI Spun Iron |
| DoB Depth of Bottom | TLC Traffic Light Control |
| DoC Depth of Cover | UDI Unreliable Depth Info |
| ED Empty Duct | Unidentified |
| EoT End of Trace | uPVC Unpolyvinyl Chloride |
| PE Polyethylene | UTR Unable to Raise |
| HDPE High Density PE | UTT Unable to Trace |
| | VC Verified Clay |

Manufacturer Stated Depths

- Detected Using Electromagnetic Location Methods
e.g. Any metallic pipe/cable. Accuracy $\pm 2.5\%$ of depth reading.
- Detected Using Electromagnetic Location Methods
eg. Using a Sonde to locate drainage pipework
Accuracy $\pm 2.5\%$ of depth reading.
- Detected Using Ground Penetrating Radar
e.g. A plastic pipe or service not located by other means.
Accuracy depends on ground conditions.

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If this drawing and any associated drawings should be used in relation to works, we advise that the users of this information follow the principles detailed by the Health and Safety Executive guidance directive HSG 47, 'Avoiding Danger from Underground Services'. Further details of this directive are available at www.hse.gov.uk

Notes

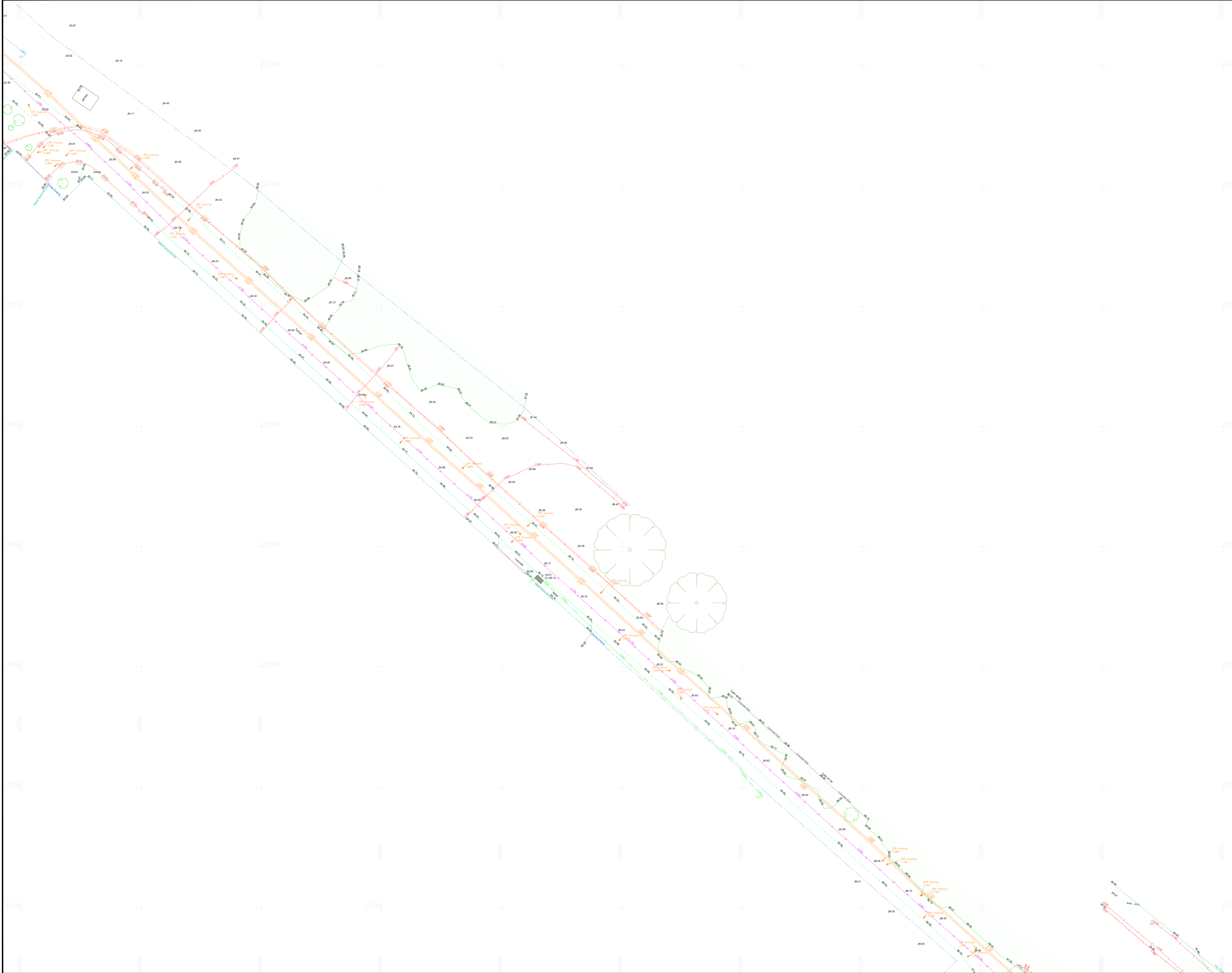
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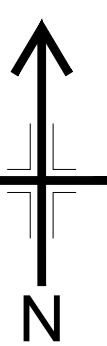
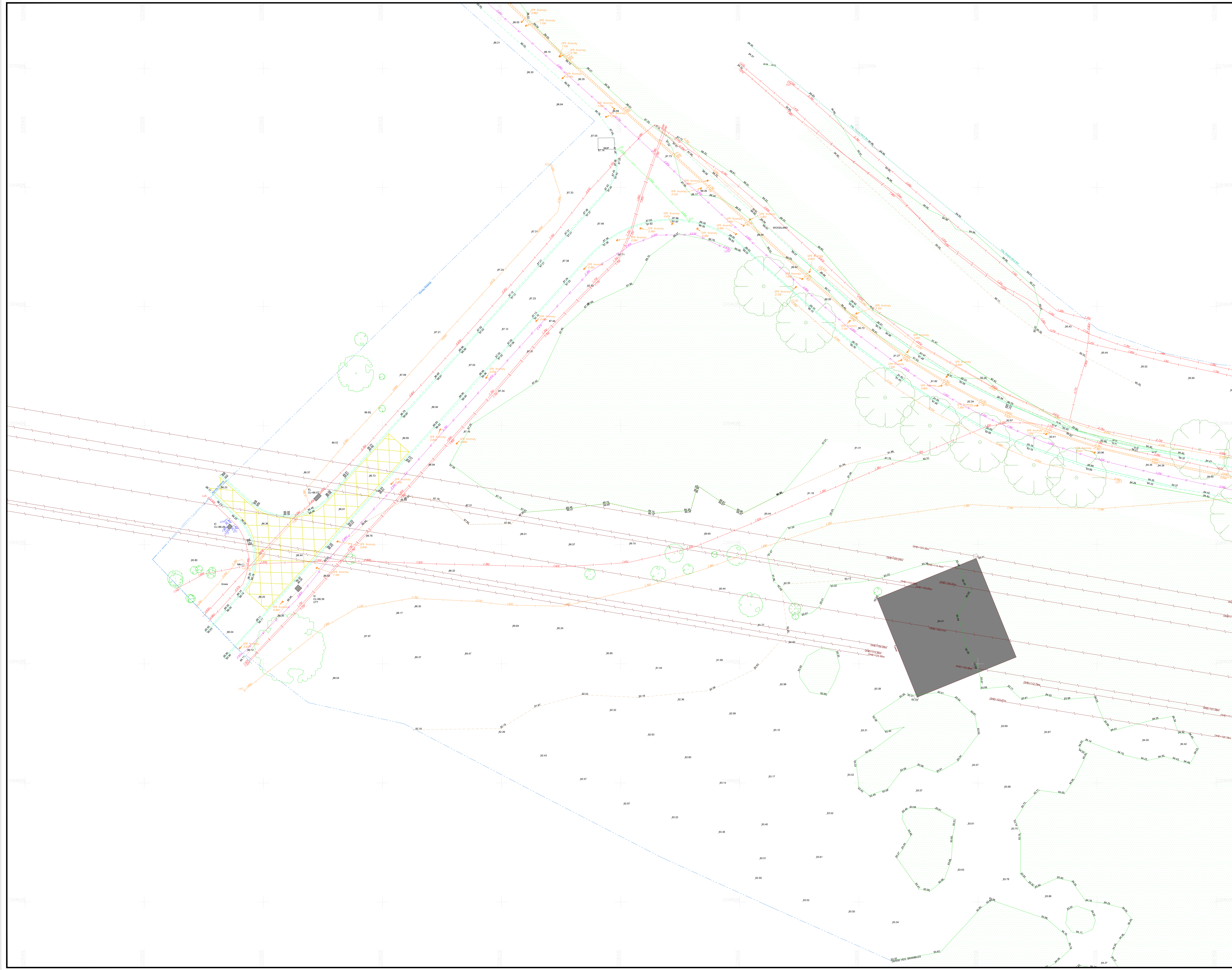
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ALL HATCHING IS FOR PRESENTATIONAL PURPOSES ONLY.

Rev.	Date	Comments

Client	EDF
Site Location:	Blakemore End road Little Wymondley SG4 7J
Purpose of Drawing	GPR Utility Mapping Survey, presented on a Topographical Survey drawing provided by Centara
Surveyed:	A.C. B.G. & T.N.
Checked:	D.H.
Date:	29/07/2024
Drawn:	R.C.
Authorised:	N.B.
Scale:	1:200@A0
Scale 1:200 0 5 10 15	
Office 10, Ripley Drive, Normanton Business Park, Wakefield, WF6 1QT. info@centara-ltd.com	
Project No	110099
Revision Status	00
Sheet Number:	1 OF 4





GRID: OS NATIONAL GRID
Using the OS GPS Network and applying OSTN15 Transformation
and then removing the scale factor for true distances with a one-step
transformation centered on: BG01
DATUM: OS LEVEL DATUM
Using the OS GPS Network and applying OSGM15 National Geoid
Model to obtain local area corrections.

Topographic Legend

- | | | | |
|--|-----------------|--|------------------|
| | Bottom of Bank | | OH Electric |
| | Top of Banking | | Railway Line |
| | Building | | Road Center |
| | Building Canopy | | Road Markings |
| | Concrete Base | | SC Hard-Shoulder |
| | Contour Major | | SC Hard-Shoulder |
| | Contour Minor | | SC Soft-Shoulder |
| | Fences | | Steps |
| | General | | Tree Canopy |
| | Kerb Bottom | | Vegetation |
| | Kerb Drop | | Visible Trees |
| | Kerb Top | | Walls |
| | OH Comms | | Water Edge |

Topographic Abbreviations

- | | | | |
|-------|-----------------------|--------|--------------------|
| AV | Air Valve | PS | Pedestrian Beacon |
| B | Borehole | PSB | Post Box |
| (S)BL | Bollard (illuminated) | PM | Parking Meter |
| S | Bus Stop | PGR | Parking Guard |
| C | Canopy | P | Paving Machine |
| CL | Canister | Pt | Post |
| CLE | Cover Level | R | Roading Eye |
| C | Column | RS(L) | Road Sign (illum.) |
| C | Curb | RW | Rain Water Pipe |
| CD | Drainage Channel | SP(L) | Sign Post (illum.) |
| DF | Dug Foul Bin | SPCarn | Speed Camera |
| DFBin | Foul Bin | S | Sign Tap |
| E | Electricity Pole | SV | Street Valve |
| EP | Earth Road | SVP | Surface Valve |
| F | Fence | SF | Signal Box |
| FF | Fire Hydrant / Level | T | Traffic Light |
| F | Flag Pole | TOF | Top of Fence Level |
| G | Gas | TL | Telephone Line |
| GV | Gas Valve | TP | Telecoms Pole |
| G | Gully | V | Valve |
| H | Handicapation Curve | WB | Water Bin |
| K | Keel Outlet | WM | Water Meter |
| XO | Lamp Post | WO | Wash Out |
| M | Manhole | WV | Water Valve |
| MP | Marker | WW | Water Top Level |
| MP | Marker Post | WTW | Window Tap |

Utility Legend

- | | | | |
|--|--------------------|--|-----------------|
| | Air Line | | SWD Sewer |
| | Alarm Cable | | Survey Pipe |
| | BT Cable | | Heating Pipe |
| | CATV Cable | | HV Electric |
| | Chamber Extent | | Kingston Core |
| | Comms Cable | | Oil Pipe |
| | CWD Sewer | | Rising Main |
| | Earth Wire/Tape | | Traffic Control |
| | Electric Cable | | Unknown U |
| | Fibre Optic Cable | | Vent Pipe |
| | Fuel Line | | Water |
| | FWD Sewer | | GR Detect |
| | Gas Pipe | | Assumed R |
| | Band of Cables | | Records R |
| | Empty Service Duct | | Drainage |
| | | | Backdrop |

Utility Abbreviations

- | | | | |
|------|----------------------|----------------|-----------------------|
| CP | Cathodic Protection | LoS | Loss of Signal |
| Cut | Disconnected Utility | MDPE | Middle Density PE |
| DI | Ductile Iron | SI | Spun Iron |
| DoB | Depth of Bottom | TLC | Traffic Light Control |
| DoC | Depth of Cover | UDI | Unreliable Depth |
| ED | Empty Duct | uPVC | Unplasticised |
| EOE | End of Trace | PVC | Polyvinyl Chloride |
| PE | Polyethylene | UTR | Unable to Raise |
| HDPE | High Density PE | UTT | Unable to Trace |
| | VC | Vitrified Clay | |

Manufacturer Stated Depths

- Detected Using Electromagnetic Location Methods
e.g. Any metallic pipe/cable. Accuracy $\pm 2.5\%$ of depth reading.
- Detected Using Electromagnetic Location Methods
eg. Using a Sonde to locate drainage pipework
Accuracy $\pm 2.5\%$ of depth reading.
- Detected Using Ground Penetrating Radar
e.g. A plastic pipe or service not located by other means
Accuracy depends on ground conditions.

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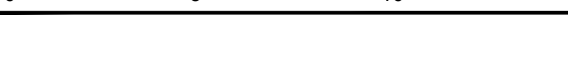
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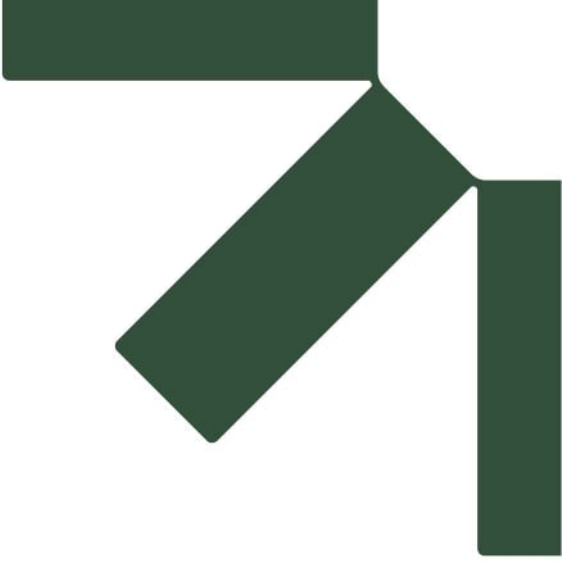
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Rev.	Date	Comments

Client	EDF		
Site Location:	Blakemore End road Little Wymondley SG4 7J		
Purpose of Drawing	GPR Utility Mapping Survey, presented on a Topographical Survey drawing provided by Centara		
Surveyed:	A, C, B, G & T M	Drawn:	R C
Checked:	D H	Authorised:	N B
Date:	29/07/2024	Scale:	1:200/A0
Scale 1:200 			
			
Office 10, Ripley Drive, Normanton Business Park, Wakefield, WF6 1QT. info@centara-ltd.com			
Project No	110099	Revision Status	00
Sheet Number:		3 OF 4	



Appendix H Surface Water Drainage Drawing

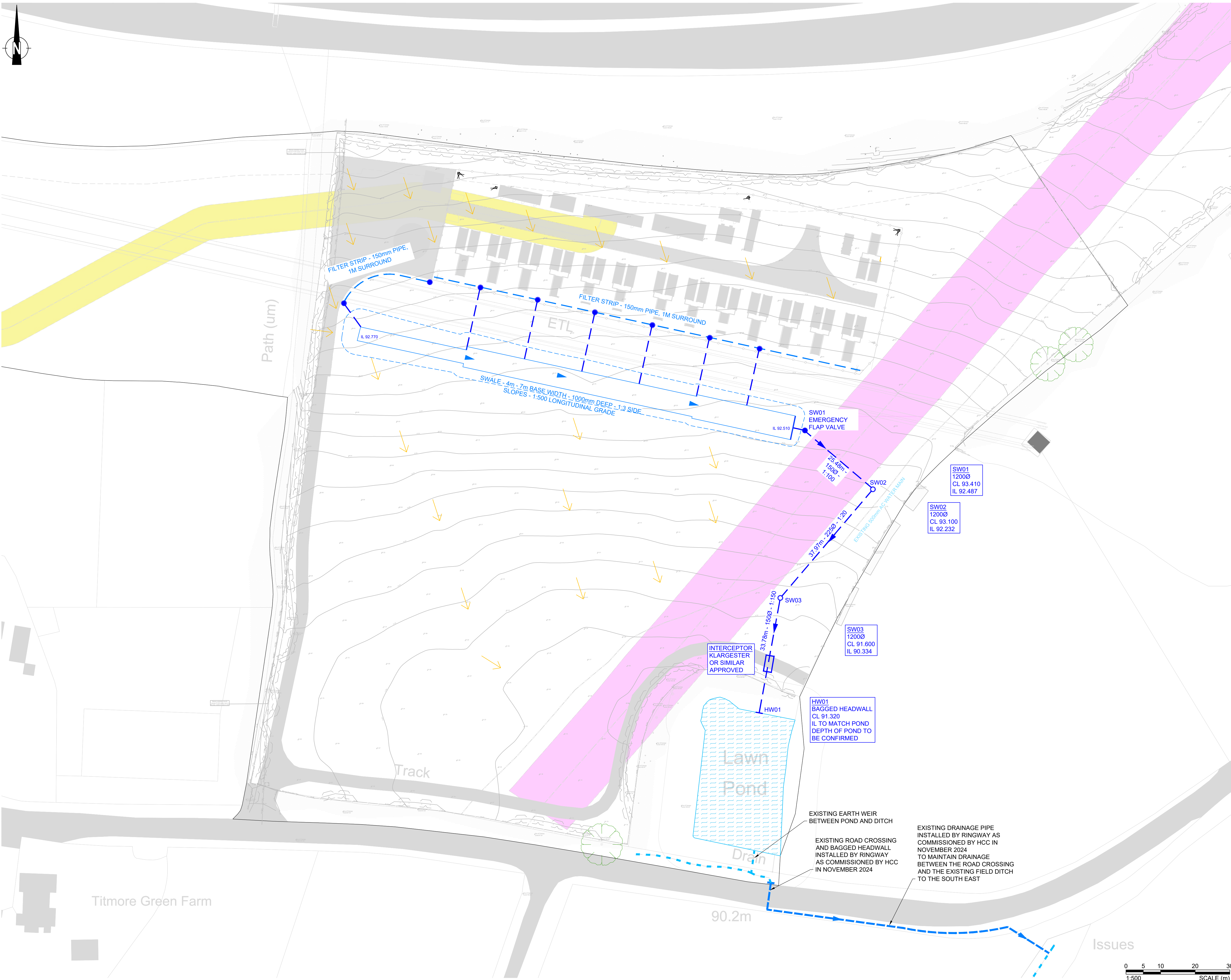
Flood Risk Assessment and Surface Water Drainage Strategy

Wymondley Battery Energy Storage System

Pivoted Power LLP (part of EDF Energy Renewables Ltd)

SLR Project No.: 402.065238.00001

10 April 2025



NOTES:

LEGEND:

- EXISTING DITCH
- UNDERGROUND POC CABLE ROUTE
- UNDERGROUND POC EASEMENT
- NG GAS CONDUIT
- NG GAS EASEMENT (10m)
- EXISTING UNDERGROUND WATER PIPE
- EXISTING OVERHEAD ELECTRICAL LINE
- EXISTING POND
- PROPOSED SURFACE WATER SEWER AND CHAMBER
- PROPOSED FLOW CONTROL CHAMBER
- PROPOSED BAGGED HEADWALL
- PROPOSED SWALE
- OVERLAND FLOW RATE

AWAITING TECHNICAL APPROVAL

This drawing has NOT been technically approved by Local Authority and/or Water Authority. All works subject to change through technical review process with relevant approving authorities.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

PLEASE REFER TO THE HEALTH AND SAFETY FILE FOR A FULL LIST OF THE HAZARDS ASSOCIATED WITH THIS WORK - THE FOLLOWING ARE THE MOST SIGNIFICANT ITEMS TO BE AWARE OF.

CONSTRUCTION

- OPERATIVES TO TAKE PRECAUTIONS WHEN WORKING ADJACENT TO OR WITHIN DEEP EXCAVATIONS. METHOD STATEMENT TO BE PRODUCED BY CONTRACTOR PRIOR TO WORKS COMMENCING.
- ATTENTION IS DRAWN TO THE EXISTENCE OF BOTH EXISTING UNDERGROUND AND OVERHEAD UTILITIES.

ENVIRONMENTAL

- EXISTING WATERCOURSES IN CLOSE PROXIMITY TO WORKS. A POLLUTION PREVENTION STRATEGY AND WORKING METHOD STATEMENTS TO BE PRODUCED BY THE CONTRACTOR FOR ALL WORKS.
- CONSIDERATION GIVEN TO NOISE LEVELS GIVEN PROXIMITY TO EXISTING PROPERTIES.
- CONSIDERATION GIVEN TO GROUND CONDITIONS. CONTRACTOR TO REVIEW GEOTECHNICAL REPORT PRIOR TO UNDERTAKEN EXCAVATION WORKS.

WORK CAN ONLY BE CARRIED OUT BY SUITABLY TRAINED AND BRIEFED PERSONNEL.

P01	UPDATED BACKGROUND	10/04/25	DE	JG	DE
P01	FIRST ISSUE	06/03/25	EMM	DE	DE
Rev	Amendments	Date	By	Chk	Auth

www.slrconsulting.com

Drawing Status & Suitability Code

FOR INFORMATION

S2

Client

PIVOT POWER
EDF RENEWABLES

Project

WYMONDLEY BESS

Drawing Title

PROPOSED DRAINAGE STRATEGY
GENERAL ARRANGEMENT

Scale

1:500

@ A1

SLR Project No:
402.065238.00001

Designed EMM	Drawn EMM	Checked DE	Authorised DE
Date 19.02.25	Date 19.02.25	Date 06.03.25	Date 06.03.25

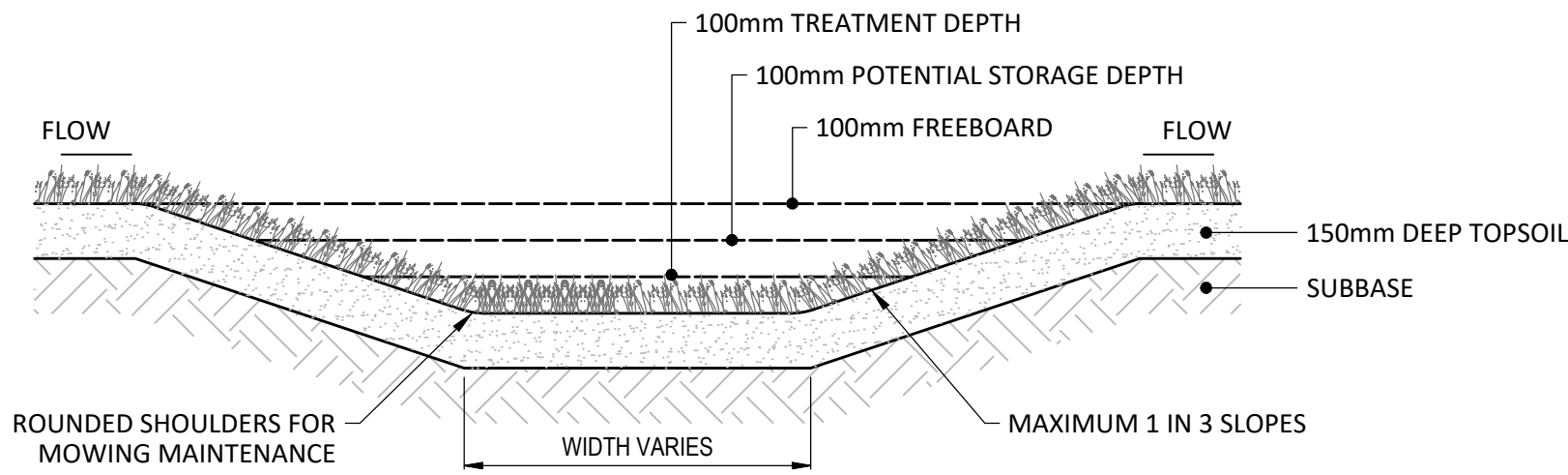
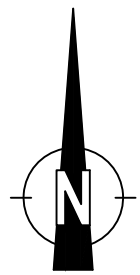
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Rev
P02

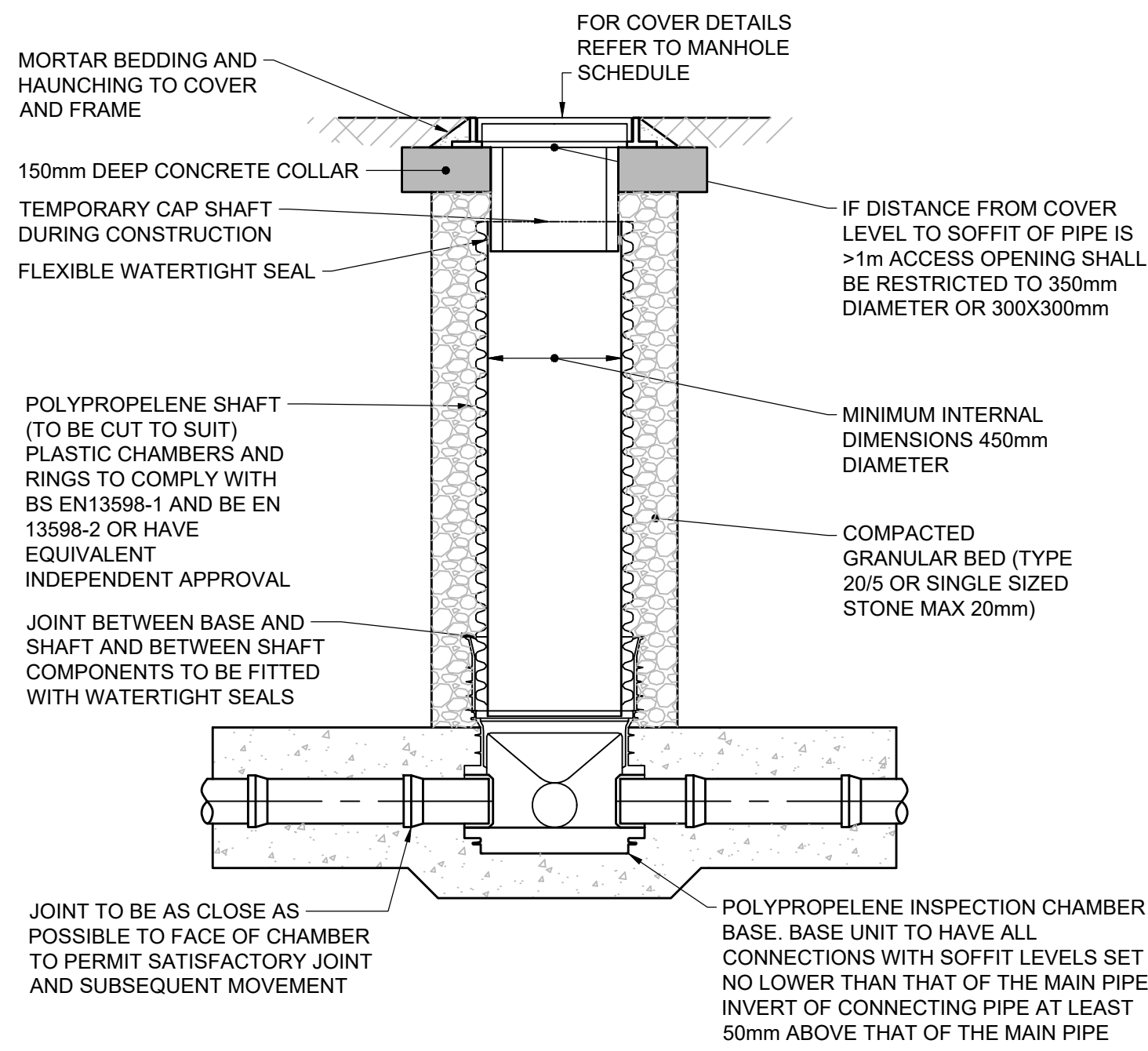
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13/03/2025

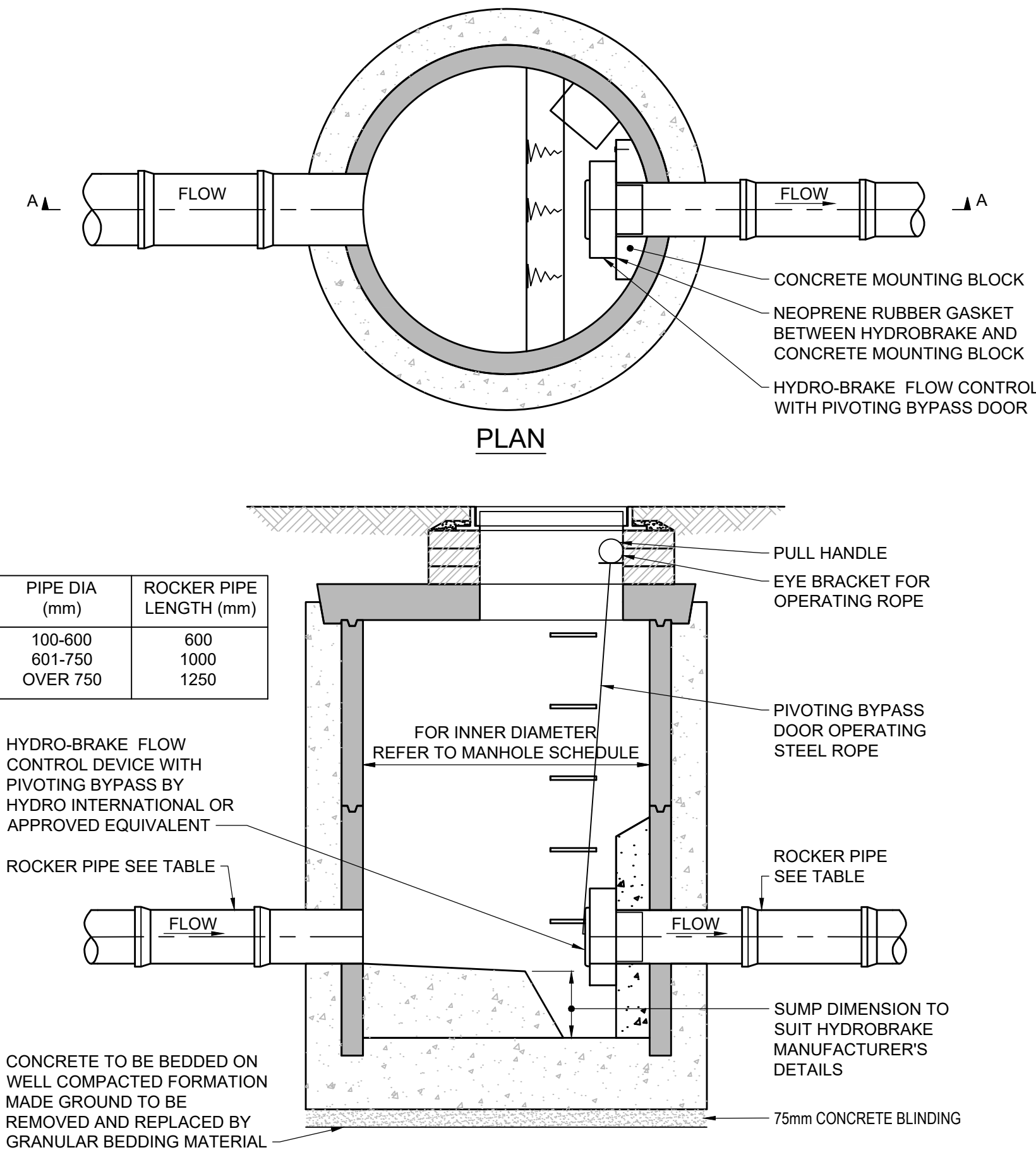
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TYPICAL SWALE/BASIN DETAIL

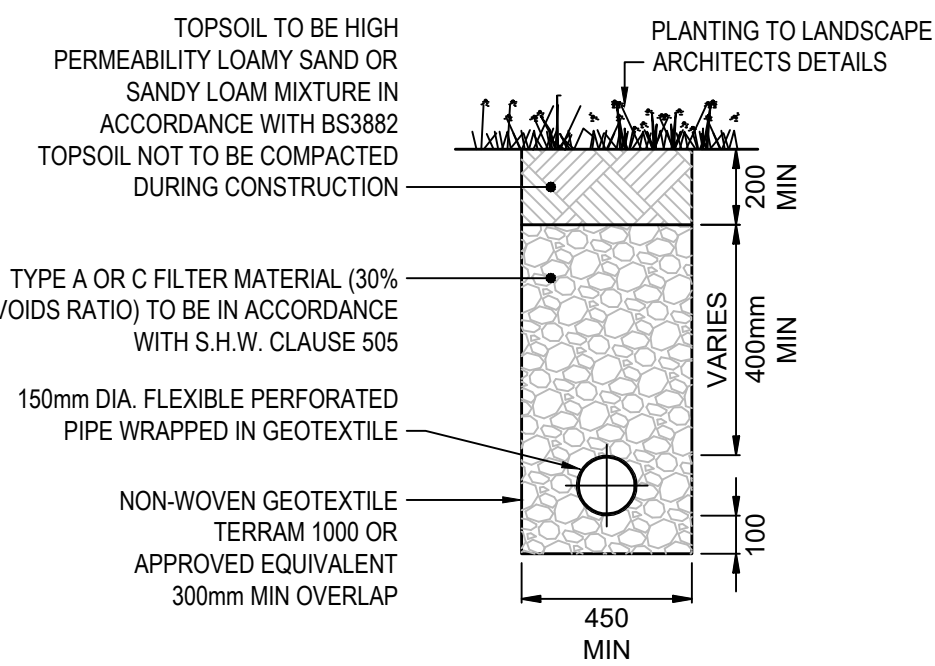


INSPECTION CHAMBER - TYPE D
DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE UP TO 3m
FLEXIBLE MATERIAL CONSTRUCTION FOR USE IN AREAS
SUBJECT TO LIGHT VEHICLE LOADING



VORTEX FLOW CONTROL DEVICE IN CHAMBER

1:20



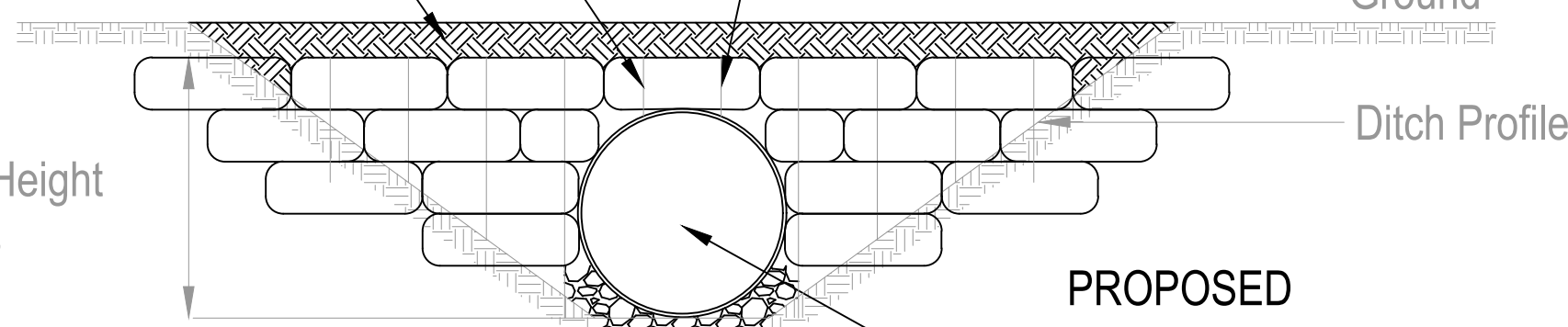
FILTER DRAIN DETAIL

1:20

EACH CONCRETE BAG TO BE
SPIKED TO THE ONE BELOW

150MM TOPSOIL & SEED

Ditch Height
Varies



BAGGED HEADWALL STANDARD
DETAIL

150mm - 600mm Ø Pipe

NOTES:

1. NO PART OF THIS DRAWING MAY BE COPIED, TRANSFERRED, OR MADE AVAILABLE TO USERS OTHER THAN THE ORIGINAL RECIPIENT, INCLUDING ELECTRONICALLY, WITHOUT PRIOR PERMISSION FROM PIVOT POWER EDF RENEWABLES.
2. DO NOT SCALE FROM DRAWINGS, WORK TO FIGURED DIMENSIONS ONLY.
3. ALL LEVELS ARE IN METERS UNLESS STATED OTHERWISE.
4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS AND SPECIALISTS DRAWINGS, THE SPECIFICATION AND THE CONTRACT DOCUMENTS.
5. THIS DRAWING IS BASED ON:
 - PROPOSED LAYOUT PLAN 'WYM-EDFR-BESS-CIV-PLN-300.04' PROVIDED BY EDF 18/02/2025
6. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER FOR ACTION.

AWAITING TECHNICAL
APPROVAL

This drawing has NOT been technically approved by Local Authority and/or Water Authority.
All works subject to change through technical review process with relevant approving authorities.



SAFETY, HEALTH AND
ENVIRONMENTAL INFORMATION

PLEASE REFER TO THE HEALTH AND SAFETY FILE FOR A FULL LIST OF THE HAZARDS ASSOCIATED WITH THIS WORK - THE FOLLOWING ARE THE MOST SIGNIFICANT ITEMS TO BE AWARE OF.

CONSTRUCTION

1. OPERATIVES TO TAKE PRECAUTIONS WHEN WORKING ADJACENT TO OR WITHIN DEEP EXCAVATIONS. METHOD STATEMENT TO BE PRODUCED BY CONTRACTOR PRIOR TO WORKS COMMENCING.
2. ATTENTION IS DRAWN TO THE EXISTENCE OF BOTH EXISTING UNDERGROUND AND OVERHEAD UTILITIES.

ENVIRONMENTAL

1. EXISTING WATERCOURSES IN CLOSE PROXIMITY TO WORKS. A POLLUTION PREVENTION STRATEGY AND WORKING METHOD STATEMENTS TO BE PRODUCED BY THE CONTRACTOR FOR ALL WORKS.
 2. CONSIDERATION GIVEN TO NOISE LEVELS GIVEN PROXIMITY TO EXISTING PROPERTIES.
 3. CONSIDERATION GIVEN TO GROUND CONDITIONS. CONTRACTOR TO REVIEW GEOTECHNICAL REPORT PRIOR TO UNDERTAKEN EXCAVATION WORKS.
- WORK CAN ONLY BE CARRIED OUT BY SUITABLY TRAINED AND BRIEFED PERSONNEL.

P01	FIRST ISSUE	-	DE	CN	DE
Rev	Amendments	Date	By	Chk	Auth



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Drawing Status & Suitability Code	S2
FOR INFORMATION	

Client	PIVOT POWER EDF RENEWABLES
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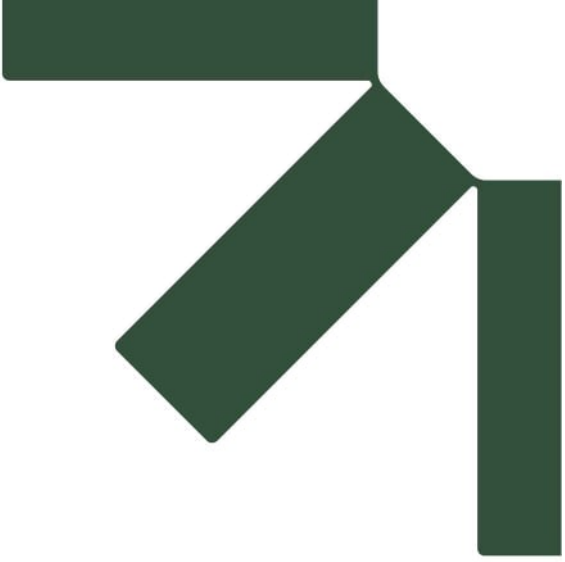
Project	WYMONDLEY BESS
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Drawing Title	TYPICAL DRAINAGE DETAILS
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Scale 1:500 @ A1		SLR Project No. 402.065238.00001	
Designed DE	Drawn DE	Checked CN	Authorised DE
Date 10.03.25	Date 10.03.25	Date 13.03.25	Date 13.03.25

Drawing Number	065238-SLR-GEN-XXX-DR-D-0501	Rev	P01
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Appendix I Drainage Model Outputs

Flood Risk Assessment and Surface Water Drainage Strategy

Wymondley Battery Energy Storage System

Pivoted Power LLP (part of EDF Energy Renewables Ltd)

SLR Project No.: 402.065238.00001

10 April 2025

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	50.0		

Adoptable Manhole Type

Max Width (mm)	Diameter (mm)	Max Width (mm)	Diameter (mm)
374	1200	749	1500
499	1350	900	1800

>900 Link+900 mm

Max Depth (m)	Diameter (mm)	Max Depth (m)	Diameter (mm)
1.500	1050	99.999	1200

1:3 Swale Link Type

Shape	Trapezoidal	Auto Increment (mm)	50	Velocity	Manning
Barrels	1	Preferred Cover (m)	0.010	ks (mm) / n	0.032
Height (mm)	500	Steep Slope (1:X)	350		
Side Slope (1:X)	3.0	Follow Ground	✓		

Available Diameters (mm)

500

Circular Link Type

Shape	Circular	Auto Increment (mm)	75
Barrels	1	Follow Ground	x

Available Diameters (mm)

100 | 150

(Trench) Link Type

Shape	Rectangular	Height (mm)	735	Follow Ground	x
Barrels	1	Auto Increment (mm)	75		

Available Diameters (mm)

100

(Trench) Link Type

Shape	Rectangular	Height (mm)	1505	Follow Ground	x
Barrels	1	Auto Increment (mm)	75		

Available Diameters (mm)

100

(Trench) Link Type

Shape	Rectangular	Height (mm)	1525	Follow Ground	x
Barrels	1	Auto Increment (mm)	75		

Available Diameters (mm)

100

(Trench) Link Type

Shape	Rectangular	Height (mm)	1495	Follow Ground	x
Barrels	1	Auto Increment (mm)	75		

Available Diameters (mm)

100

(Trench) Link Type

Shape	Rectangular	Height (mm)	1524	Follow Ground	x
Barrels	1	Auto Increment (mm)	75		

Available Diameters (mm)

100

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
J1	0.120	5.00	94.410		521483.086	226708.811	1.640
J2	0.033	5.00	94.200		521498.137	226705.590	1.461
PLAT01	0.048	5.00	94.590		521519.775	226725.251	1.090
J3	0.032	5.00	93.950		521514.763	226701.943	1.245
PLAT02	0.059	5.00	94.395		521536.329	226721.582	1.395
J4	0.032	5.00	93.800		521531.334	226698.350	1.129
PLAT03	0.062	5.00	94.265		521552.883	226717.913	1.505
J5	0.032	5.00	93.720		521547.905	226694.757	1.083
PLAT04	0.065	5.00	94.155		521569.438	226714.244	1.525
J6	0.032	5.00	93.650		521564.476	226691.164	1.047
PLAT05	0.070	5.00	94.015		521585.992	226710.805	1.495
J7	0.032	5.00	93.550		521581.047	226687.571	0.981
PLAT06	0.203	5.00	93.940		521600.392	226707.384	1.524
J8	0.056	5.00	93.495		521595.462	226684.445	0.956
J9			93.410		521609.633	226681.372	0.900
SW01			93.410	1200	521611.911	226680.878	0.923
SW02			93.100	1200	521631.246	226664.282	0.868
SW03			91.600	1200	521606.519	226635.474	1.266
HW01			91.320		521604.742	226601.399	1.327

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	J1	J2	15.456	0.032	92.770	92.739	0.031	498.6	4000	5.35	50.0
1.001	J2	J3	16.957	0.032	92.739	92.705	0.034	498.7	4000	5.73	50.0
2.000	PLAT01	J3	23.841	0.600	93.500	92.904	0.596	40.0	100	5.33	50.0
1.002	J3	J4	16.956	0.032	92.705	92.671	0.034	498.7	6000	6.10	50.0
3.001	PLAT02	J4	23.763	0.600	93.000	92.703	0.297	80.0	150	5.57	50.0
1.003	J4	J5	16.956	0.032	92.671	92.637	0.034	498.7	6000	6.46	50.0
4.001	PLAT03	J5	23.685	0.600	93.000	92.704	0.296	80.0	150	5.57	50.0
1.004	J5	J6	16.956	0.032	92.637	92.603	0.034	498.7	6000	6.83	50.0
5.001	PLAT04	J6	23.607	0.600	93.000	92.764	0.236	100.0	150	5.61	50.0
1.005	J6	J7	16.956	0.032	92.603	92.569	0.034	498.7	6000	7.20	50.0
6.001	PLAT05	J7	23.754	0.600	92.800	92.642	0.158	150.0	150	5.70	50.0
1.006	J7	J8	14.750	0.032	92.569	92.539	0.030	491.7	7000	7.51	50.0
7.001	PLAT06	J8	23.463	0.600	92.800	92.644	0.156	150.0	150	5.67	50.0
1.007	J8	J9	14.500	0.032	92.539	92.510	0.029	500.0	7000	7.82	50.0
1.008	J9	SW01	2.331	0.032	92.510	92.487	0.023	100.0	300	7.89	50.0
1.009	SW01	SW02	25.481	0.032	92.487	92.232	0.255	100.0	150	9.10	50.0
1.010	SW02	SW03	37.965	0.032	92.232	90.334	1.898	20.0	150	9.91	50.0
1.011	SW03	HW01	34.121	0.032	90.334	89.993	0.341	100.0	150	11.53	50.0
3.000	PLAT01	PLAT02	16.956	0.600	93.950	93.660	0.290	58.5	150	5.21	50.0
4.000	PLAT02	PLAT03	16.956	0.600	93.045	92.760	0.285	59.5	150	5.22	50.0
5.000	PLAT03	PLAT04	16.957	0.600	92.915	92.630	0.285	59.5	150	5.22	50.0
6.000	PLAT04	PLAT05	16.907	0.600	92.805	92.520	0.285	59.3	150	5.22	50.0
7.000	PLAT05	PLAT06	14.801	0.600	92.665	92.416	0.249	59.4	150	5.19	50.0

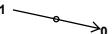
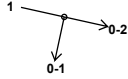
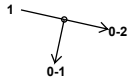
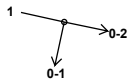
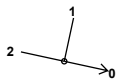
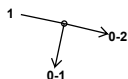
Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	0.739	2033.1	21.7	1.140	0.961	0.120	0.0	36	0.149
1.001	0.739	2032.8	27.6	0.961	0.745	0.153	0.0	42	0.164
2.000	1.223	9.6	8.7	0.990	0.946	0.048	0.0	75	1.383
1.002	0.771	2892.8	42.1	0.745	0.629	0.233	0.0	42	0.165
3.001	1.125	19.9	10.7	1.245	0.947	0.059	0.0	78	1.144
1.003	0.771	2892.8	58.5	0.629	0.583	0.324	0.0	50	0.187
4.001	1.125	19.9	11.2	1.115	0.866	0.062	0.0	81	1.157
1.004	0.771	2892.8	75.5	0.583	0.547	0.418	0.0	59	0.208
5.001	1.005	17.8	11.7	1.005	0.736	0.065	0.0	89	1.073
1.005	0.771	2892.8	93.1	0.547	0.481	0.515	0.0	67	0.225
6.001	0.818	14.5	12.6	1.065	0.758	0.070	0.0	109	0.920
1.006	0.788	3349.7	111.5	0.481	0.456	0.617	0.0	68	0.230
7.001	0.818	14.5	36.7	0.990	0.701	0.203	0.0	150	0.833
1.007	0.782	3321.6	158.3	0.456	0.400	0.876	0.0	83	0.260
1.008	0.556	39.3	158.3	0.600	0.623	0.876	0.0	300	0.563
1.009	0.350	6.2	158.3	0.773	0.718	0.876	0.0	150	0.357
1.010	0.783	13.8	158.3	0.718	1.116	0.876	0.0	150	0.798
1.011	0.350	6.2	158.3	1.116	1.177	0.876	0.0	150	0.357
3.000	1.318	23.3	0.0	0.490	0.585	0.000	0.0	0	0.000
4.000	1.306	23.1	0.0	1.200	1.355	0.000	0.0	0	0.000
5.000	1.306	23.1	0.0	1.200	1.375	0.000	0.0	0	0.000
6.000	1.308	23.1	0.0	1.200	1.345	0.000	0.0	0	0.000
7.000	1.307	23.1	0.0	1.200	1.374	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	15.456	498.6	4000	1:3 Swale	94.410	92.770	1.140	94.200	92.739	0.961
1.001	16.957	498.7	4000	1:3 Swale	94.200	92.739	0.961	93.950	92.705	0.745
2.000	23.841	40.0	100	Circular	94.590	93.500	0.990	93.950	92.904	0.946
1.002	16.956	498.7	6000	1:3 Swale	93.950	92.705	0.745	93.800	92.671	0.629
3.001	23.763	80.0	150	Circular	94.395	93.000	1.245	93.800	92.703	0.947
1.003	16.956	498.7	6000	1:3 Swale	93.800	92.671	0.629	93.720	92.637	0.583
4.001	23.685	80.0	150	Circular	94.265	93.000	1.115	93.720	92.704	0.866
1.004	16.956	498.7	6000	1:3 Swale	93.720	92.637	0.583	93.650	92.603	0.547
5.001	23.607	100.0	150	Circular	94.155	93.000	1.005	93.650	92.764	0.736
1.005	16.956	498.7	6000	1:3 Swale	93.650	92.603	0.547	93.550	92.569	0.481
6.001	23.754	150.0	150	Circular	94.015	92.800	1.065	93.550	92.642	0.758
1.006	14.750	491.7	7000	1:3 Swale	93.550	92.569	0.481	93.495	92.539	0.456
7.001	23.463	150.0	150	Circular	93.940	92.800	0.990	93.495	92.644	0.701
1.007	14.500	500.0	7000	1:3 Swale	93.495	92.539	0.456	93.410	92.510	0.400
1.008	2.331	100.0	300	Circular	93.410	92.510	0.600	93.410	92.487	0.623
1.009	25.481	100.0	150	Circular	93.410	92.487	0.773	93.100	92.232	0.718
1.010	37.965	20.0	150	Circular	93.100	92.232	0.718	91.600	90.334	1.116
1.011	34.121	100.0	150	Circular	91.600	90.334	1.116	91.320	89.993	1.177
3.000	16.956	58.5	150	Circular	94.590	93.950	0.490	94.395	93.660	0.585
4.000	16.956	59.5	150	Circular	94.395	93.045	1.200	94.265	92.760	1.355
5.000	16.957	59.5	150	Circular	94.265	92.915	1.200	94.155	92.630	1.375
6.000	16.907	59.3	150	Circular	94.155	92.805	1.200	94.015	92.520	1.345
7.000	14.801	59.4	150	Circular	94.015	92.665	1.200	93.940	92.416	1.374

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	J1		Junction		J2		Junction	
1.001	J2		Junction		J3		Junction	
2.000	PLAT01		Junction		J3		Junction	
1.002	J3		Junction		J4		Junction	
3.001	PLAT02		Junction		J4		Junction	
1.003	J4		Junction		J5		Junction	
4.001	PLAT03		Junction		J5		Junction	
1.004	J5		Junction		J6		Junction	
5.001	PLAT04		Junction		J6		Junction	
1.005	J6		Junction		J7		Junction	
6.001	PLAT05		Junction		J7		Junction	
1.006	J7		Junction		J8		Junction	
7.001	PLAT06		Junction		J8		Junction	
1.007	J8		Junction		J9		Junction	
1.008	J9		Junction		SW01	1200	Manhole	Adoptable
1.009	SW01	1200	Manhole	Adoptable	SW02	1200	Manhole	Adoptable
1.010	SW02	1200	Manhole	Adoptable	SW03	1200	Manhole	Adoptable
1.011	SW03	1200	Manhole	Adoptable	HW01		Junction	
3.000	PLAT01		Junction		PLAT02		Junction	
4.000	PLAT02		Junction		PLAT03		Junction	
5.000	PLAT03		Junction		PLAT04		Junction	
6.000	PLAT04		Junction		PLAT05		Junction	
7.000	PLAT05		Junction		PLAT06		Junction	

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
J1	521483.086	226708.811	94.410	1.640					
						0	1.000	92.770	4000
J2	521498.137	226705.590	94.200	1.461					
						1	1.000	92.739	4000
						0	1.001	92.739	4000
PLAT01	521519.775	226725.251	94.590	1.090					
						0-1	2.000	93.500	100
						0-2	3.000	93.950	150
J3	521514.763	226701.943	93.950	1.245					
						1	2.000	92.904	100
						2	1.001	92.705	4000
						0	1.002	92.705	6000
PLAT02	521536.329	226721.582	94.395	1.395					
						1	3.000	93.660	150
						0-1	3.001	93.000	150
						0-2	4.000	93.045	150
J4	521531.334	226698.350	93.800	1.129					
						1	3.001	92.703	150
						2	1.002	92.671	6000
						0	1.003	92.671	6000
PLAT03	521552.883	226717.913	94.265	1.505					
						1	4.000	92.760	150
						0-1	4.001	93.000	150
						0-2	5.000	92.915	150
J5	521547.905	226694.757	93.720	1.083					
						1	4.001	92.704	150
						2	1.003	92.637	6000
						0	1.004	92.637	6000
PLAT04	521569.438	226714.244	94.155	1.525					
						1	5.000	92.630	150
						0-1	5.001	93.000	150
						0-2	6.000	92.805	150
J6	521564.476	226691.164	93.650	1.047					
						1	5.001	92.764	150
						2	1.004	92.603	6000
						0	1.005	92.603	6000
PLAT05	521585.992	226710.805	94.015	1.495					
						1	6.000	92.520	150
						0-1	6.001	92.800	150
						0-2	7.000	92.665	150
J7	521581.047	226687.571	93.550	0.981					
						1	6.001	92.642	150
						2	1.005	92.569	6000
						0	1.006	92.569	7000
PLAT06	521600.392	226707.384	93.940	1.524					
						1	7.000	92.416	150
						0	7.001	92.800	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
J8	521595.462	226684.445	93.495	0.956		1	7.001	92.644	150
						2	1.006	92.539	7000
						0	1.007	92.539	7000
J9	521609.633	226681.372	93.410	0.900		1	1.007	92.510	7000
						0	1.008	92.510	300
SW01	521611.911	226680.878	93.410	0.923	1200	1	1.008	92.487	300
						0	1.009	92.487	150
SW02	521631.246	226664.282	93.100	0.868	1200	1	1.009	92.232	150
						0	1.010	92.232	150
SW03	521606.519	226635.474	91.600	1.266	1200	1	1.010	90.334	150
						0	1.011	90.334	150
HW01	521604.742	226601.399	91.320	1.327		1	1.011	89.993	150

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	240	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	0.0		

Storm Durations

15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
2	0	0	0
30	0	0	0
30	35	0	0
100	0	0	0
100	40	0	0

Node SW01 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	92.487	Product Number	CTL-SHE-0048-1000-0850-1000
Design Depth (m)	0.850	Min Outlet Diameter (m)	0.075
Design Flow (l/s)	1.0	Min Node Diameter (mm)	0

Node PLAT01 Online Orifice Control

Flap Valve	x	Invert Level (m)	93.500	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.030		

Node PLAT02 Online Orifice Control

Flap Valve	x	Invert Level (m)	93.000	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.030		

Node PLAT03 Online Orifice Control

Flap Valve	x	Invert Level (m)	93.000	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.030		

Node PLAT04 Online Orifice Control

Flap Valve	x	Invert Level (m)	93.000	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.030		

Node PLAT05 Online Orifice Control

Flap Valve	x	Invert Level (m)	92.800	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.030		

Node PLAT01 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	94.200	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	5	Depth (m)	0.300
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	13.400		

Node PLAT02 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	94.000	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	21	Depth (m)	0.300
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	13.500		

Node PLAT03 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	93.900	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	25	Depth (m)	0.300
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	17.100		

Node PLAT04 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	93.800	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	25	Depth (m)	0.300
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	20.900		

Node PLAT05 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	93.600	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	52	Depth (m)	0.300
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	23.700		

Node PLAT06 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	93.500	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	64	Depth (m)	0.300
Safety Factor	2.0	Width (m)	20.000	Inf Depth (m)	0.300
Porosity	0.30	Length (m)	32.750		

Node PLAT02 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Link	3.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	93.660	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	33	Diameter (mm)	1000

Node PLAT03 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Link	4.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	92.760	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	72	Diameter (mm)	1000

Node PLAT04 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Link	5.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	92.630	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	70	Diameter (mm)	1000

Node PLAT05 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Link	6.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	92.520	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	96	Diameter (mm)	1000

Node PLAT06 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Link	7.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	92.416	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)		Diameter (mm)	1000

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	63.612	18.000
1 year 15 minute winter	44.640	18.000
1 year 30 minute summer	40.288	11.400
1 year 30 minute winter	28.272	11.400
1 year 60 minute summer	26.488	7.000
1 year 60 minute winter	17.598	7.000
1 year 120 minute summer	21.377	5.649
1 year 120 minute winter	14.203	5.649

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 180 minute summer	18.080	4.653
1 year 180 minute winter	11.752	4.653
1 year 240 minute summer	14.934	3.947
1 year 240 minute winter	9.922	3.947
1 year 360 minute summer	11.722	3.016
1 year 360 minute winter	7.620	3.016
1 year 480 minute summer	9.286	2.454
1 year 480 minute winter	6.170	2.454
1 year 600 minute summer	7.598	2.078
1 year 600 minute winter	5.191	2.078
1 year 720 minute summer	6.746	1.808
1 year 720 minute winter	4.534	1.808
1 year 960 minute summer	5.486	1.445
1 year 960 minute winter	3.634	1.445
1 year 1440 minute summer	3.917	1.050
1 year 1440 minute winter	2.633	1.050
1 year 2160 minute summer	2.791	0.771
1 year 2160 minute winter	1.923	0.771
1 year 2880 minute summer	2.336	0.626
1 year 2880 minute winter	1.570	0.626
1 year 4320 minute summer	1.822	0.476
1 year 4320 minute winter	1.200	0.476
1 year 5760 minute summer	1.559	0.399
1 year 5760 minute winter	1.009	0.399
1 year 7200 minute summer	1.382	0.353
1 year 7200 minute winter	0.892	0.353
1 year 8640 minute summer	1.259	0.321
1 year 8640 minute winter	0.813	0.321
1 year 10080 minute summer	1.171	0.299
1 year 10080 minute winter	0.756	0.299
2 year 15 minute summer	104.292	29.511
2 year 15 minute winter	73.187	29.511
2 year 30 minute summer	66.282	18.756
2 year 30 minute winter	46.514	18.756
2 year 60 minute summer	43.138	11.400
2 year 60 minute winter	28.660	11.400
2 year 120 minute summer	31.620	8.356
2 year 120 minute winter	21.008	8.356
2 year 180 minute summer	25.798	6.639
2 year 180 minute winter	16.769	6.639
2 year 240 minute summer	20.893	5.522
2 year 240 minute winter	13.881	5.522
2 year 360 minute summer	16.061	4.133
2 year 360 minute winter	10.440	4.133
2 year 480 minute summer	12.563	3.320
2 year 480 minute winter	8.347	3.320
2 year 600 minute summer	10.189	2.787
2 year 600 minute winter	6.962	2.787
2 year 720 minute summer	8.990	2.409
2 year 720 minute winter	6.042	2.409
2 year 960 minute summer	7.245	1.908
2 year 960 minute winter	4.799	1.908

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
2 year 1440 minute summer	5.130	1.375
2 year 1440 minute winter	3.448	1.375
2 year 2160 minute summer	3.609	0.997
2 year 2160 minute winter	2.487	0.997
2 year 2880 minute summer	2.988	0.801
2 year 2880 minute winter	2.008	0.801
2 year 4320 minute summer	2.295	0.600
2 year 4320 minute winter	1.511	0.600
2 year 5760 minute summer	1.941	0.497
2 year 5760 minute winter	1.256	0.497
2 year 7200 minute summer	1.703	0.434
2 year 7200 minute winter	1.099	0.434
2 year 8640 minute summer	1.538	0.392
2 year 8640 minute winter	0.993	0.392
2 year 10080 minute summer	1.420	0.362
2 year 10080 minute winter	0.916	0.362
30 year 15 minute summer	279.208	79.006
30 year 15 minute winter	195.935	79.006
30 year 30 minute summer	179.649	50.834
30 year 30 minute winter	126.069	50.834
30 year 60 minute summer	118.405	31.291
30 year 60 minute winter	78.665	31.291
30 year 120 minute summer	74.786	19.764
30 year 120 minute winter	49.686	19.764
30 year 180 minute summer	57.246	14.731
30 year 180 minute winter	37.211	14.731
30 year 240 minute summer	44.780	11.834
30 year 240 minute winter	29.751	11.834
30 year 360 minute summer	33.285	8.565
30 year 360 minute winter	21.636	8.565
30 year 480 minute summer	25.513	6.742
30 year 480 minute winter	16.950	6.742
30 year 600 minute summer	20.401	5.580
30 year 600 minute winter	13.939	5.580
30 year 720 minute summer	17.807	4.772
30 year 720 minute winter	11.967	4.772
30 year 960 minute summer	14.131	3.721
30 year 960 minute winter	9.361	3.721
30 year 1440 minute summer	9.758	2.615
30 year 1440 minute winter	6.558	2.615
30 year 2160 minute summer	6.691	1.849
30 year 2160 minute winter	4.610	1.849
30 year 2880 minute summer	5.430	1.455
30 year 2880 minute winter	3.649	1.455
30 year 4320 minute summer	4.031	1.054
30 year 4320 minute winter	2.654	1.054
30 year 5760 minute summer	3.315	0.849
30 year 5760 minute winter	2.145	0.849
30 year 7200 minute summer	2.839	0.724
30 year 7200 minute winter	1.832	0.724
30 year 8640 minute summer	2.511	0.641
30 year 8640 minute winter	1.621	0.641

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year 10080 minute summer	2.275	0.580
30 year 10080 minute winter	1.469	0.580
30 year +35% CC 15 minute summer	376.930	106.658
30 year +35% CC 15 minute winter	264.513	106.658
30 year +35% CC 30 minute summer	242.526	68.626
30 year +35% CC 30 minute winter	170.193	68.626
30 year +35% CC 60 minute summer	159.846	42.243
30 year +35% CC 60 minute winter	106.198	42.243
30 year +35% CC 120 minute summer	100.960	26.681
30 year +35% CC 120 minute winter	67.076	26.681
30 year +35% CC 180 minute summer	77.282	19.887
30 year +35% CC 180 minute winter	50.235	19.887
30 year +35% CC 240 minute summer	60.453	15.976
30 year +35% CC 240 minute winter	40.164	15.976
30 year +35% CC 360 minute summer	44.934	11.563
30 year +35% CC 360 minute winter	29.209	11.563
30 year +35% CC 480 minute summer	34.443	9.102
30 year +35% CC 480 minute winter	22.883	9.102
30 year +35% CC 600 minute summer	27.541	7.533
30 year +35% CC 600 minute winter	18.818	7.533
30 year +35% CC 720 minute summer	24.039	6.443
30 year +35% CC 720 minute winter	16.156	6.443
30 year +35% CC 960 minute summer	19.077	5.023
30 year +35% CC 960 minute winter	12.637	5.023
30 year +35% CC 1440 minute summer	13.173	3.531
30 year +35% CC 1440 minute winter	8.853	3.531
30 year +35% CC 2160 minute summer	9.032	2.496
30 year +35% CC 2160 minute winter	6.224	2.496
30 year +35% CC 2880 minute summer	7.331	1.965
30 year +35% CC 2880 minute winter	4.927	1.965
30 year +35% CC 4320 minute summer	5.442	1.423
30 year +35% CC 4320 minute winter	3.583	1.423
30 year +35% CC 5760 minute summer	4.475	1.145
30 year +35% CC 5760 minute winter	2.896	1.145
30 year +35% CC 7200 minute summer	3.833	0.978
30 year +35% CC 7200 minute winter	2.474	0.978
30 year +35% CC 8640 minute summer	3.390	0.865
30 year +35% CC 8640 minute winter	2.188	0.865
30 year +35% CC 10080 minute summer	3.072	0.784
30 year +35% CC 10080 minute winter	1.983	0.784
100 year 15 minute summer	352.788	99.827
100 year 15 minute winter	247.571	99.827
100 year 30 minute summer	228.855	64.758
100 year 30 minute winter	160.600	64.758
100 year 60 minute summer	151.449	40.023
100 year 60 minute winter	100.619	40.023
100 year 120 minute summer	93.485	24.705
100 year 120 minute winter	62.109	24.705
100 year 180 minute summer	71.014	18.274
100 year 180 minute winter	46.161	18.274
100 year 240 minute summer	55.350	14.627
100 year 240 minute winter	36.773	14.627

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year 360 minute summer	41.012	10.554
100 year 360 minute winter	26.659	10.554
100 year 480 minute summer	31.411	8.301
100 year 480 minute winter	20.869	8.301
100 year 600 minute summer	25.100	6.865
100 year 600 minute winter	17.150	6.865
100 year 720 minute summer	21.892	5.867
100 year 720 minute winter	14.713	5.867
100 year 960 minute summer	17.336	4.565
100 year 960 minute winter	11.484	4.565
100 year 1440 minute summer	11.924	3.196
100 year 1440 minute winter	8.013	3.196
100 year 2160 minute summer	8.113	2.242
100 year 2160 minute winter	5.590	2.242
100 year 2880 minute summer	6.535	1.752
100 year 2880 minute winter	4.392	1.752
100 year 4320 minute summer	4.785	1.251
100 year 4320 minute winter	3.151	1.251
100 year 5760 minute summer	3.890	0.996
100 year 5760 minute winter	2.518	0.996
100 year 7200 minute summer	3.300	0.842
100 year 7200 minute winter	2.130	0.842
100 year 8640 minute summer	2.895	0.739
100 year 8640 minute winter	1.868	0.739
100 year 10080 minute summer	2.605	0.665
100 year 10080 minute winter	1.681	0.665
100 year +40% CC 15 minute summer	493.904	139.758
100 year +40% CC 15 minute winter	346.599	139.758
100 year +40% CC 30 minute summer	320.396	90.661
100 year +40% CC 30 minute winter	224.840	90.661
100 year +40% CC 60 minute summer	212.028	56.033
100 year +40% CC 60 minute winter	140.867	56.033
100 year +40% CC 120 minute summer	130.879	34.588
100 year +40% CC 120 minute winter	86.953	34.588
100 year +40% CC 180 minute summer	99.419	25.584
100 year +40% CC 180 minute winter	64.625	25.584
100 year +40% CC 240 minute summer	77.490	20.478
100 year +40% CC 240 minute winter	51.483	20.478
100 year +40% CC 360 minute summer	57.416	14.775
100 year +40% CC 360 minute winter	37.322	14.775
100 year +40% CC 480 minute summer	43.975	11.621
100 year +40% CC 480 minute winter	29.216	11.621
100 year +40% CC 600 minute summer	35.140	9.612
100 year +40% CC 600 minute winter	24.010	9.612
100 year +40% CC 720 minute summer	30.649	8.214
100 year +40% CC 720 minute winter	20.598	8.214
100 year +40% CC 960 minute summer	24.271	6.391
100 year +40% CC 960 minute winter	16.077	6.391
100 year +40% CC 1440 minute summer	16.693	4.474
100 year +40% CC 1440 minute winter	11.219	4.474
100 year +40% CC 2160 minute summer	11.358	3.139
100 year +40% CC 2160 minute winter	7.826	3.139

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +40% CC 2880 minute summer	9.149	2.452
100 year +40% CC 2880 minute winter	6.149	2.452
100 year +40% CC 4320 minute summer	6.700	1.752
100 year +40% CC 4320 minute winter	4.412	1.752
100 year +40% CC 5760 minute summer	5.445	1.394
100 year +40% CC 5760 minute winter	3.525	1.394
100 year +40% CC 7200 minute summer	4.620	1.178
100 year +40% CC 7200 minute winter	2.982	1.178
100 year +40% CC 8640 minute summer	4.053	1.034
100 year +40% CC 8640 minute winter	2.616	1.034
100 year +40% CC 10080 minute summer	3.647	0.930
100 year +40% CC 10080 minute winter	2.354	0.930

Results for 1 year Critical Storm Duration. Lowest mass balance: 98.72%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	J1	930	92.814	0.044	1.2	0.0000	0.0000	OK
960 minute winter	J2	930	92.814	0.075	1.5	0.0000	0.0000	OK
15 minute summer	PLAT01	10	93.990	0.490	5.0	0.0000	0.0000	SURCHARGED
960 minute winter	J3	930	92.814	0.109	2.3	0.0000	0.0000	OK
15 minute summer	PLAT02	10	93.110	0.110	9.7	0.0000	0.0000	OK
960 minute winter	J4	930	92.814	0.143	3.0	0.0000	0.0000	OK
120 minute summer	PLAT03	70	93.033	0.273	7.7	2.0785	0.0000	OK
960 minute winter	J5	930	92.814	0.177	3.0	0.0000	0.0000	OK
120 minute summer	PLAT04	70	93.025	0.395	9.4	4.0185	0.0000	OK
960 minute winter	J6	930	92.814	0.211	2.4	0.0000	0.0000	OK
120 minute summer	PLAT05	70	93.000	0.480	10.1	5.4043	0.0000	SURCHARGED
960 minute winter	J7	930	92.814	0.245	2.3	0.0000	0.0000	OK
120 minute summer	PLAT06	68	92.965	0.549	18.3	6.0150	0.0000	SURCHARGED
960 minute winter	J8	945	92.814	0.275	4.5	0.0000	0.0000	OK
960 minute winter	J9	930	92.814	0.304	2.3	0.0000	0.0000	SURCHARGED
960 minute winter	SW01	915	92.814	0.327	3.0	0.3703	0.0000	SURCHARGED
480 minute winter	SW02	248	92.258	0.026	0.9	0.0295	0.0000	OK
2880 minute winter	SW03	1440	90.384	0.050	0.9	0.0566	0.0000	OK
2880 minute winter	HW01	1440	90.020	0.027	0.9	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)
960 minute winter	J1	1.000	J2	1.2	0.044	0.001	3.8565	
960 minute winter	J2	1.001	J3	1.5	0.052	0.001	6.6888	
15 minute summer	PLAT01	2.000	J3	1.3	0.851	0.133	0.0359	
15 minute summer	PLAT01	3.000	PLAT02	3.6	0.962	0.156	0.0641	
960 minute winter	J3	1.002	J4	2.3	0.046	0.001	13.6465	
15 minute summer	PLAT02	3.001	J4	0.6	0.497	0.028	0.0270	
15 minute summer	PLAT02	4.000	PLAT03	9.1	0.625	0.393	0.2117	
960 minute winter	J4	1.003	J5	2.7	0.049	0.001	17.6009	
120 minute summer	PLAT03	4.001	J5	0.2	0.386	0.012	0.0243	
120 minute summer	PLAT03	5.000	PLAT04	6.0	0.439	0.260	0.2756	
960 minute winter	J5	1.004	J6	2.2	0.044	0.001	21.6719	
120 minute summer	PLAT04	5.001	J6	0.1	0.306	0.008	0.0114	
120 minute summer	PLAT04	6.000	PLAT05	6.9	0.393	0.299	0.2976	
960 minute winter	J6	1.005	J7	1.7	0.038	0.001	25.8639	
120 minute summer	PLAT05	6.001	J7	0.8	0.441	0.054	0.1366	
120 minute summer	PLAT05	7.000	PLAT06	9.6	0.655	0.415	0.2606	
960 minute winter	J7	1.006	J8	-1.6	0.037	0.000	29.8534	
120 minute summer	PLAT06	7.001	J8	16.8	0.997	1.165	0.3836	
960 minute winter	J8	1.007	J9	1.9	0.015	0.001	33.0452	
960 minute winter	J9	1.008	SW01	3.0	0.124	0.078	0.1641	
960 minute winter	SW01	Hydro-Brake®	SW02	0.9				
480 minute winter	SW02	1.010	SW03	0.9	0.271	0.065	0.1364	
2880 minute winter	SW03	1.011	HW01	0.9	0.254	0.146	0.1238	129.6

Results for 2 year Critical Storm Duration. Lowest mass balance: 98.72%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	J1	1410	92.883	0.113	1.1	0.0000	0.0000	OK
1440 minute winter	J2	1410	92.883	0.144	1.4	0.0000	0.0000	OK
15 minute summer	PLAT01	10	94.006	0.506	8.2	0.0000	0.0000	SURCHARGED
1440 minute winter	J3	1410	92.883	0.178	2.1	0.0000	0.0000	OK
15 minute summer	PLAT02	12	93.221	0.221	16.8	0.0000	0.0000	SURCHARGED
1440 minute winter	J4	1410	92.883	0.212	2.6	0.0000	0.0000	OK
30 minute summer	PLAT03	22	93.185	0.425	22.5	4.5008	0.0000	SURCHARGED
1440 minute winter	J5	1410	92.883	0.246	2.2	0.0000	0.0000	OK
30 minute summer	PLAT04	23	93.167	0.537	22.3	6.3823	0.0000	SURCHARGED
1440 minute winter	J6	1410	92.883	0.280	1.9	0.0000	0.0000	OK
30 minute summer	PLAT05	23	93.135	0.615	19.2	7.6896	0.0000	SURCHARGED
1440 minute winter	J7	1410	92.883	0.314	2.6	0.0000	0.0000	OK
30 minute summer	PLAT06	21	93.098	0.682	31.3	7.9897	0.0000	SURCHARGED
1440 minute winter	J8	1410	92.883	0.344	4.2	0.0000	0.0000	OK
1440 minute winter	J9	1410	92.883	0.373	3.7	0.0000	0.0000	SURCHARGED
1440 minute winter	SW01	1380	92.883	0.396	4.4	0.4481	0.0000	SURCHARGED
15 minute summer	SW02	14	92.258	0.026	0.9	0.0299	0.0000	OK
30 minute summer	SW03	144	90.384	0.050	0.9	0.0566	0.0000	OK
30 minute summer	HW01	141	90.020	0.027	0.9	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)
1440 minute winter	J1	1.000	J2	1.1	0.043	0.001	8.7036	
1440 minute winter	J2	1.001	J3	1.4	0.049	0.001	12.2335	
15 minute summer	PLAT01	2.000	J3	1.3	0.855	0.136	0.0363	
15 minute summer	PLAT01	3.000	PLAT02	6.8	1.148	0.292	0.1004	
1440 minute winter	J3	1.002	J4	1.9	0.040	0.001	21.7593	
15 minute summer	PLAT02	3.001	J4	0.8	0.554	0.041	0.0345	
15 minute summer	PLAT02	4.000	PLAT03	15.5	0.922	0.670	0.2985	
1440 minute winter	J4	1.003	J5	2.0	0.044	0.001	25.9522	
30 minute summer	PLAT03	4.001	J5	0.8	0.545	0.038	0.0331	
30 minute summer	PLAT03	5.000	PLAT04	13.6	0.841	0.587	0.2985	
1440 minute winter	J5	1.004	J6	1.7	0.037	0.001	30.2605	
30 minute summer	PLAT04	5.001	J6	0.7	0.494	0.040	0.0341	
30 minute summer	PLAT04	6.000	PLAT05	9.8	0.644	0.425	0.2976	
1440 minute winter	J6	1.005	J7	-1.2	0.036	0.000	34.6887	
30 minute summer	PLAT05	6.001	J7	1.0	0.479	0.072	0.1040	
30 minute summer	PLAT05	7.000	PLAT06	11.8	0.671	0.511	0.2606	
1440 minute winter	J7	1.006	J8	-2.1	0.033	-0.001	38.7395	
30 minute summer	PLAT06	7.001	J8	21.3	1.214	1.476	0.3996	
1440 minute winter	J8	1.007	J9	2.8	0.011	0.001	41.9661	
1440 minute winter	J9	1.008	SW01	4.4	0.111	0.112	0.1641	
1440 minute winter	SW01	Hydro-Brake®	SW02	0.9				
15 minute summer	SW02	1.010	SW03	0.9	0.555	0.065	0.1363	
30 minute summer	SW03	1.011	HW01	0.9	0.254	0.146	0.1238	13.4

Results for 30 year Critical Storm Duration. Lowest mass balance: 98.72%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2160 minute summer	J1	2160	93.118	0.348	2.2	0.0000	0.0000	OK
2160 minute summer	J2	2160	93.118	0.379	2.3	0.0000	0.0000	OK
15 minute summer	PLAT01	12	94.134	0.634	21.9	0.0000	0.0000	SURCHARGED
2160 minute summer	J3	2160	93.118	0.413	2.6	0.0000	0.0000	OK
30 minute summer	PLAT02	22	94.020	1.020	41.4	3.7488	0.0000	SURCHARGED
2160 minute summer	J4	2160	93.118	0.447	2.4	0.0000	0.0000	OK
30 minute summer	PLAT03	25	93.925	1.165	50.9	17.4926	0.0000	SURCHARGED
2160 minute summer	J5	2160	93.118	0.481	2.1	0.0000	0.0000	OK
60 minute summer	PLAT04	43	93.825	1.195	30.4	18.0195	0.0000	SURCHARGED
2160 minute summer	J6	2160	93.118	0.515	3.8	0.0000	0.0000	SURCHARGED
60 minute summer	PLAT05	49	93.693	1.173	28.8	22.0871	0.0000	SURCHARGED
2160 minute summer	J7	2160	93.118	0.549	5.5	0.0000	0.0000	SURCHARGED
30 minute summer	PLAT06	24	93.581	1.165	81.8	24.5210	0.0000	SURCHARGED
2160 minute summer	J8	2220	93.118	0.579	7.8	0.0000	0.0000	SURCHARGED
2160 minute summer	J9	2160	93.118	0.608	4.3	0.0000	0.0000	FLOOD RISK
2160 minute summer	SW01	2220	93.118	0.631	2.7	0.7138	0.0000	FLOOD RISK
15 minute summer	SW02	12	92.259	0.027	0.9	0.0306	0.0000	OK
4320 minute summer	SW03	1740	90.384	0.050	0.9	0.0566	0.0000	OK
4320 minute summer	HW01	1740	90.020	0.027	0.9	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)
2160 minute summer	J1	1.000	J2	1.7	0.041	0.001	28.6179	
2160 minute summer	J2	1.001	J3	1.3	0.040	0.001	34.8609	
15 minute summer	PLAT01	2.000	J3	1.5	0.884	0.152	0.0393	
15 minute summer	PLAT01	3.000	PLAT02	19.8	1.375	0.852	0.2985	
2160 minute summer	J3	1.002	J4	1.2	0.033	0.000	53.1770	
30 minute summer	PLAT02	3.001	J4	1.9	0.707	0.094	0.2274	
30 minute summer	PLAT02	4.000	PLAT03	27.3	1.549	1.181	0.2985	
2160 minute summer	J4	1.003	J5	-1.7	0.035	-0.001	58.1811	
30 minute summer	PLAT03	4.001	J5	1.8	0.689	0.089	0.2262	
30 minute summer	PLAT03	5.000	PLAT04	13.8	0.785	0.599	0.2985	
2160 minute summer	J5	1.004	J6	-1.5	0.035	-0.001	63.3065	
60 minute summer	PLAT04	5.001	J6	1.7	0.636	0.094	0.2225	
60 minute summer	PLAT04	6.000	PLAT05	16.1	0.912	0.694	0.2976	
2160 minute summer	J6	1.005	J7	-3.2	0.036	-0.001	68.5447	
60 minute summer	PLAT05	6.001	J7	1.7	0.483	0.120	0.3902	
60 minute summer	PLAT05	7.000	PLAT06	16.7	0.950	0.724	0.2606	
2160 minute summer	J7	1.006	J8	-4.6	0.035	-0.001	72.3285	
30 minute summer	PLAT06	7.001	J8	32.4	1.840	2.241	0.4131	
2160 minute summer	J8	1.007	J9	3.8	0.011	0.001	75.5808	
2160 minute summer	J9	1.008	SW01	2.7	0.119	0.068	0.1641	
2160 minute summer	SW01	Hydro-Brake®	SW02	0.9				
15 minute summer	SW02	1.010	SW03	0.9	0.557	0.067	0.1351	
4320 minute summer	SW03	1.011	HW01	0.9	0.254	0.146	0.1238	213.0

Results for 30 year +35% CC Critical Storm Duration. Lowest mass balance: 98.72%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
4320 minute winter	J1	4140	93.283	0.513	1.2	0.0000	0.0000	SURCHARGED
4320 minute winter	J2	4200	93.283	0.544	2.0	0.0000	0.0000	SURCHARGED
15 minute summer	PLAT01	13	94.243	0.743	29.4	1.1811	0.0000	SURCHARGED
4320 minute winter	J3	4200	93.283	0.578	2.2	0.0000	0.0000	SURCHARGED
30 minute summer	PLAT02	24	94.128	1.128	52.4	9.7950	0.0000	FLOOD RISK
4320 minute winter	J4	4200	93.283	0.612	1.9	0.0000	0.0000	SURCHARGED
60 minute summer	PLAT03	45	94.015	1.255	43.3	23.5696	0.0000	FLOOD RISK
4320 minute winter	J5	4200	93.283	0.646	2.0	0.0000	0.0000	SURCHARGED
60 minute summer	PLAT04	51	93.904	1.274	38.4	24.1325	0.0000	FLOOD RISK
4320 minute winter	J6	4200	93.283	0.680	2.9	0.0000	0.0000	SURCHARGED
120 minute summer	PLAT05	88	93.781	1.261	34.9	29.8140	0.0000	FLOOD RISK
4320 minute winter	J7	4200	93.283	0.714	4.0	0.0000	0.0000	FLOOD RISK
60 minute summer	PLAT06	44	93.654	1.238	92.8	40.0143	0.0000	FLOOD RISK
4320 minute winter	J8	4200	93.283	0.744	4.1	0.0000	0.0000	FLOOD RISK
4320 minute winter	J9	4140	93.283	0.773	3.2	0.0000	0.0000	FLOOD RISK
4320 minute winter	SW01	4140	93.283	0.796	3.3	0.9006	0.0000	FLOOD RISK
15 minute summer	SW02	11	92.259	0.027	0.9	0.0308	0.0000	OK
4320 minute winter	SW03	4200	90.386	0.052	1.0	0.0588	0.0000	OK
4320 minute winter	HW01	4200	90.021	0.028	1.0	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)
4320 minute winter	J1	1.000	J2	1.7	0.032	0.001	45.6449	
4320 minute winter	J2	1.001	J3	1.6	0.033	0.001	54.0895	
15 minute summer	PLAT01	2.000	J3	1.6	0.906	0.166	0.0418	
15 minute summer	PLAT01	3.000	PLAT02	21.5	1.464	0.924	0.2985	
4320 minute winter	J3	1.002	J4	1.7	0.028	0.001	78.5767	
30 minute summer	PLAT02	3.001	J4	2.0	0.699	0.099	0.2397	
30 minute summer	PLAT02	4.000	PLAT03	26.9	1.530	1.167	0.2985	
4320 minute winter	J4	1.003	J5	1.6	0.031	0.001	84.1530	
60 minute summer	PLAT03	4.001	J5	1.9	0.654	0.094	0.2395	
60 minute summer	PLAT03	5.000	PLAT04	14.3	0.813	0.620	0.2985	
4320 minute winter	J5	1.004	J6	1.1	0.033	0.000	89.8498	
60 minute summer	PLAT04	5.001	J6	1.8	0.637	0.099	0.2398	
60 minute summer	PLAT04	6.000	PLAT05	16.4	0.934	0.711	0.2976	
4320 minute winter	J6	1.005	J7	-2.2	0.036	-0.001	95.6584	
120 minute summer	PLAT05	6.001	J7	1.7	0.427	0.117	0.4182	
120 minute summer	PLAT05	7.000	PLAT06	16.5	0.939	0.716	0.2606	
4320 minute winter	J7	1.006	J8	-3.5	0.030	-0.001	98.8193	
60 minute summer	PLAT06	7.001	J8	32.9	1.869	2.276	0.4131	
4320 minute winter	J8	1.007	J9	3.0	0.006	0.001	102.0312	
4320 minute winter	J9	1.008	SW01	2.7	0.110	0.069	0.1641	
4320 minute winter	SW01	Hydro-Brake®	SW02	1.0				
15 minute summer	SW02	1.010	SW03	0.9	0.556	0.068	0.1340	
4320 minute winter	SW03	1.011	HW01	1.0	0.260	0.157	0.1305	229.9

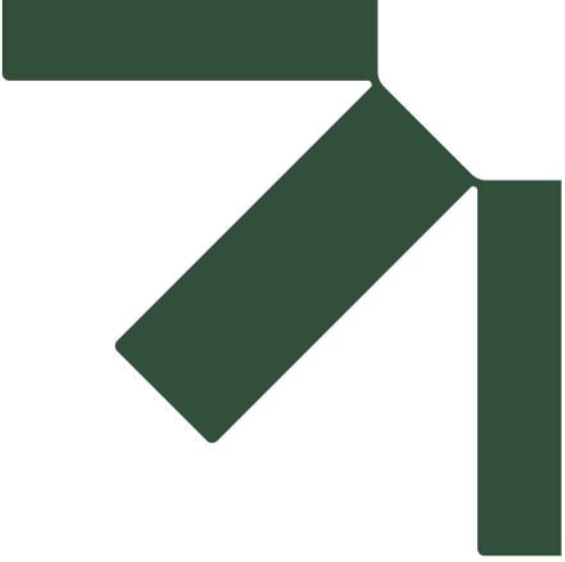
Results for 100 year Critical Storm Duration. Lowest mass balance: 98.72%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2160 minute winter	J1	2160	93.213	0.443	1.9	0.0000	0.0000	OK
2160 minute winter	J2	2160	93.213	0.474	2.5	0.0000	0.0000	OK
15 minute summer	PLAT01	12	94.232	0.732	27.7	0.7573	0.0000	SURCHARGED
2160 minute winter	J3	2160	93.213	0.508	3.4	0.0000	0.0000	SURCHARGED
30 minute summer	PLAT02	23	94.106	1.106	49.6	8.5255	0.0000	FLOOD RISK
2160 minute winter	J4	2160	93.213	0.542	2.9	0.0000	0.0000	SURCHARGED
60 minute summer	PLAT03	44	93.997	1.237	42.6	22.3265	0.0000	FLOOD RISK
2160 minute winter	J5	2160	93.213	0.576	3.0	0.0000	0.0000	SURCHARGED
60 minute summer	PLAT04	50	93.888	1.258	36.5	22.7981	0.0000	FLOOD RISK
2160 minute winter	J6	2160	93.213	0.610	4.7	0.0000	0.0000	SURCHARGED
60 minute summer	PLAT05	53	93.761	1.241	41.2	28.0023	0.0000	FLOOD RISK
2160 minute winter	J7	2160	93.213	0.644	5.3	0.0000	0.0000	SURCHARGED
60 minute summer	PLAT06	44	93.638	1.222	88.4	36.7288	0.0000	SURCHARGED
2160 minute winter	J8	2160	93.213	0.674	6.6	0.0000	0.0000	FLOOD RISK
2160 minute winter	J9	2160	93.213	0.703	4.6	0.0000	0.0000	FLOOD RISK
2160 minute winter	SW01	2100	93.212	0.725	1.9	0.8202	0.0000	FLOOD RISK
15 minute summer	SW02	11	92.259	0.027	0.9	0.0307	0.0000	OK
2160 minute winter	SW03	2160	90.385	0.051	0.9	0.0576	0.0000	OK
2160 minute winter	HW01	2160	90.020	0.027	0.9	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)
2160 minute winter	J1	1.000	J2	2.0	0.041	0.001	38.1213	
2160 minute winter	J2	1.001	J3	2.2	0.039	0.001	45.6025	
15 minute summer	PLAT01	2.000	J3	1.6	0.904	0.164	0.0416	
15 minute summer	PLAT01	3.000	PLAT02	21.3	1.452	0.914	0.2985	
2160 minute winter	J3	1.002	J4	2.2	0.032	0.001	67.4754	
30 minute summer	PLAT02	3.001	J4	1.9	0.696	0.098	0.2388	
30 minute summer	PLAT02	4.000	PLAT03	27.2	1.542	1.176	0.2985	
2160 minute winter	J4	1.003	J5	1.3	0.035	0.000	72.8098	
60 minute summer	PLAT03	4.001	J5	1.8	0.647	0.093	0.2393	
60 minute summer	PLAT03	5.000	PLAT04	14.1	0.803	0.612	0.2985	
2160 minute winter	J5	1.004	J6	-2.3	0.037	-0.001	78.2641	
60 minute summer	PLAT04	5.001	J6	1.7	0.637	0.098	0.2393	
60 minute summer	PLAT04	6.000	PLAT05	16.4	0.934	0.711	0.2976	
2160 minute winter	J6	1.005	J7	-4.0	0.039	-0.001	83.8331	
60 minute summer	PLAT05	6.001	J7	1.8	0.481	0.123	0.4182	
60 minute summer	PLAT05	7.000	PLAT06	16.8	0.953	0.726	0.2606	
2160 minute winter	J7	1.006	J8	-4.5	0.026	-0.001	87.2972	
60 minute summer	PLAT06	7.001	J8	32.7	1.860	2.265	0.4131	
2160 minute winter	J8	1.007	J9	4.0	0.005	0.001	90.5408	
2160 minute winter	J9	1.008	SW01	1.9	0.090	0.049	0.1641	
2160 minute winter	SW01	Hydro-Brake®	SW02	0.9				
15 minute summer	SW02	1.010	SW03	0.9	0.561	0.068	0.1343	
2160 minute winter	SW03	1.011	HW01	0.9	0.257	0.151	0.1268	118.0

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 98.72%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2880 minute summer	J1	2820	93.410	0.640	3.0	0.0000	0.0000	SURCHARGED
2880 minute summer	J2	2820	93.410	0.671	3.0	0.0000	0.0000	SURCHARGED
15 minute summer	PLAT01	13	94.310	0.810	38.7	3.8946	0.0000	FLOOD RISK
2880 minute summer	J3	2880	93.410	0.705	3.8	0.0000	0.0000	SURCHARGED
60 minute summer	PLAT02	43	94.226	1.226	48.0	15.4193	0.0000	FLOOD RISK
2880 minute summer	J4	2880	93.410	0.739	3.7	0.0000	0.0000	SURCHARGED
60 minute summer	PLAT03	49	94.128	1.368	47.6	31.2894	0.0000	FLOOD RISK
2880 minute summer	J5	2880	93.410	0.773	3.9	0.0000	0.0000	SURCHARGED
60 minute winter	PLAT04	58	94.016	1.386	38.5	33.0058	0.0000	FLOOD RISK
2880 minute summer	J6	2820	93.410	0.807	5.0	0.0000	0.0000	FLOOD RISK
120 minute summer	PLAT05	92	93.889	1.369	40.6	39.2927	0.0000	FLOOD RISK
2880 minute summer	J7	2820	93.410	0.841	6.2	0.0000	0.0000	FLOOD RISK
120 minute summer	PLAT06	84	93.754	1.338	83.9	61.2402	0.0000	FLOOD RISK
2880 minute summer	J8	2820	93.410	0.871	10.0	0.0000	0.0000	FLOOD RISK
4320 minute winter	J9	3840	93.410	0.900	4.1	0.0000	22.5000	FLOOD
2880 minute summer	SW01	2820	93.410	0.923	3.5	1.0439	5.2323	FLOOD
4320 minute summer	SW02	4320	92.260	0.028	1.0	0.0316	0.0000	OK
2880 minute winter	SW03	2820	90.388	0.054	1.0	0.0609	0.0000	OK
2880 minute summer	HW01	2880	90.022	0.029	1.0	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)
2880 minute summer	J1	1.000	J2	2.2	0.032	0.001	60.4698	
2880 minute summer	J2	1.001	J3	2.6	0.036	0.001	70.7705	
15 minute summer	PLAT01	2.000	J3	1.7	0.918	0.173	0.0438	
15 minute summer	PLAT01	3.000	PLAT02	22.1	1.405	0.948	0.2985	
2880 minute summer	J3	1.002	J4	2.6	0.029	0.001	99.9990	
60 minute summer	PLAT02	3.001	J4	2.1	0.679	0.103	0.3779	
60 minute summer	PLAT02	4.000	PLAT03	21.3	1.211	0.924	0.2985	
2880 minute summer	J4	1.003	J5	-1.7	0.035	-0.001	106.0145	
60 minute summer	PLAT03	4.001	J5	2.0	0.656	0.099	0.3766	
60 minute summer	PLAT03	5.000	PLAT04	15.0	0.850	0.648	0.2985	
2880 minute summer	J5	1.004	J6	-3.1	0.035	-0.001	112.1480	
60 minute winter	PLAT04	5.001	J6	1.9	0.637	0.105	0.3759	
60 minute winter	PLAT04	6.000	PLAT05	16.5	0.936	0.712	0.2976	
2880 minute summer	J6	1.005	J7	-4.2	0.038	-0.001	118.3995	
120 minute summer	PLAT05	6.001	J7	1.7	0.438	0.118	0.4182	
120 minute summer	PLAT05	7.000	PLAT06	16.8	0.956	0.729	0.2606	
2880 minute summer	J7	1.006	J8	-5.4	0.036	-0.002	120.8313	
120 minute summer	PLAT06	7.001	J8	31.3	1.778	2.165	0.4131	
2880 minute summer	J8	1.007	J9	3.6	0.012	0.001	124.0109	
4320 minute winter	J9	1.008	SW01	2.7	0.107	0.069	0.1641	
2880 minute summer	SW01	Hydro-Brake®	SW02	1.0				
4320 minute summer	SW02	1.010	SW03	1.0	0.268	0.075	0.1506	
2880 minute winter	SW03	1.011	HW01	1.0	0.265	0.168	0.1366	165.7



Appendix J Drainage Model Outputs: Residual Risk (Blockage)

Flood Risk Assessment and Surface Water Drainage Strategy

Wymondley Battery Energy Storage System

Pivoted Power LLP (part of EDF Energy Renewables Ltd)

SLR Project No.: 402.065238.00001

10 April 2025

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	50.0		

Adoptable Manhole Type

Max Width (mm)	Diameter (mm)	Max Width (mm)	Diameter (mm)
374	1200	749	1500
499	1350	900	1800

>900 Link+900 mm

Max Depth (m)	Diameter (mm)	Max Depth (m)	Diameter (mm)
1.500	1050	99.999	1200

1:3 Swale Link Type

Shape	Trapezoidal	Auto Increment (mm)	50	Velocity	Manning
Barrels	1	Preferred Cover (m)	0.010	ks (mm) / n	0.032
Height (mm)	500	Steep Slope (1:X)	350		
Side Slope (1:X)	3.0	Follow Ground	✓		

Available Diameters (mm)

500

Circular Link Type

Shape	Circular	Auto Increment (mm)	75
Barrels	1	Follow Ground	x

Available Diameters (mm)

100 | 150

(Trench) Link Type

Shape	Rectangular	Height (mm)	735	Follow Ground	x
Barrels	1	Auto Increment (mm)	75		

Available Diameters (mm)

100

(Trench) Link Type

Shape	Rectangular	Height (mm)	1505	Follow Ground	x
Barrels	1	Auto Increment (mm)	75		

Available Diameters (mm)

100

(Trench) Link Type

Shape	Rectangular	Height (mm)	1525	Follow Ground	x
Barrels	1	Auto Increment (mm)	75		

Available Diameters (mm)

100

(Trench) Link Type

Shape	Rectangular	Height (mm)	1495	Follow Ground	x
Barrels	1	Auto Increment (mm)	75		

Available Diameters (mm)

100

(Trench) Link Type

Shape	Rectangular	Height (mm)	1524	Follow Ground	x
Barrels	1	Auto Increment (mm)	75		

Available Diameters (mm)

100

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
J1	0.120	5.00	94.410		521483.086	226708.811	1.640
J2	0.033	5.00	94.200		521498.137	226705.590	1.461
PLAT01	0.048	5.00	94.590		521519.775	226725.251	1.090
J3	0.032	5.00	93.950		521514.763	226701.943	1.245
PLAT02	0.059	5.00	94.395		521536.329	226721.582	1.395
J4	0.032	5.00	93.800		521531.334	226698.350	1.129
PLAT03	0.062	5.00	94.265		521552.883	226717.913	1.505
J5	0.032	5.00	93.720		521547.905	226694.757	1.083
PLAT04	0.065	5.00	94.155		521569.438	226714.244	1.525
J6	0.032	5.00	93.650		521564.476	226691.164	1.047
PLAT05	0.070	5.00	94.015		521585.992	226710.805	1.495
J7	0.032	5.00	93.550		521581.047	226687.571	0.981
PLAT06	0.203	5.00	93.940		521600.392	226707.384	1.524
J8	0.056	5.00	93.495		521595.462	226684.445	0.956
J9			93.410		521609.633	226681.372	0.900
SW01			93.410	1200	521611.911	226680.878	0.923
SW02			93.100	1200	521631.246	226664.282	0.868
SW03			91.600	1200	521606.519	226635.474	1.266
HW01			91.320		521604.742	226601.399	1.327

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	J1	J2	15.456	0.032	92.770	92.739	0.031	498.6	4000	5.35	50.0
1.001	J2	J3	16.957	0.032	92.739	92.705	0.034	498.7	4000	5.73	50.0
2.000	PLAT01	J3	23.841	0.600	93.500	92.904	0.596	40.0	100	5.33	50.0
1.002	J3	J4	16.956	0.032	92.705	92.671	0.034	498.7	6000	6.10	50.0
3.001	PLAT02	J4	23.763	0.600	93.000	92.703	0.297	80.0	150	5.57	50.0
1.003	J4	J5	16.956	0.032	92.671	92.637	0.034	498.7	6000	6.46	50.0
4.001	PLAT03	J5	23.685	0.600	93.000	92.704	0.296	80.0	150	5.57	50.0
1.004	J5	J6	16.956	0.032	92.637	92.603	0.034	498.7	6000	6.83	50.0
5.001	PLAT04	J6	23.607	0.600	93.000	92.764	0.236	100.0	150	5.61	50.0
1.005	J6	J7	16.956	0.032	92.603	92.569	0.034	498.7	6000	7.20	50.0
6.001	PLAT05	J7	23.754	0.600	92.800	92.642	0.158	150.0	150	5.70	50.0
1.006	J7	J8	14.750	0.032	92.569	92.539	0.030	491.7	7000	7.51	50.0
7.001	PLAT06	J8	23.463	0.600	92.800	92.644	0.156	150.0	150	5.67	50.0
1.007	J8	J9	14.500	0.032	92.539	92.510	0.029	500.0	7000	7.82	50.0
1.008	J9	SW01	2.331	0.032	92.510	92.487	0.023	100.0	300	7.89	50.0
1.009	SW01	SW02	25.481	0.032	92.487	92.232	0.255	100.0	150	9.10	50.0
1.010	SW02	SW03	37.965	0.032	92.232	90.334	1.898	20.0	150	9.91	50.0
1.011	SW03	HW01	34.121	0.032	90.334	89.993	0.341	100.0	150	11.53	50.0
3.000	PLAT01	PLAT02	16.956	0.600	93.950	93.660	0.290	58.5	150	5.21	50.0
4.000	PLAT02	PLAT03	16.956	0.600	93.045	92.760	0.285	59.5	150	5.22	50.0
5.000	PLAT03	PLAT04	16.957	0.600	92.915	92.630	0.285	59.5	150	5.22	50.0
6.000	PLAT04	PLAT05	16.907	0.600	92.805	92.520	0.285	59.3	150	5.22	50.0
7.000	PLAT05	PLAT06	14.801	0.600	92.665	92.416	0.249	59.4	150	5.19	50.0

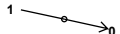
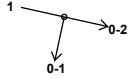
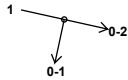
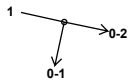
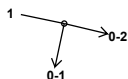
Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	0.739	2033.1	21.7	1.140	0.961	0.120	0.0	36	0.149
1.001	0.739	2032.8	27.6	0.961	0.745	0.153	0.0	42	0.164
2.000	1.223	9.6	8.7	0.990	0.946	0.048	0.0	75	1.383
1.002	0.771	2892.8	42.1	0.745	0.629	0.233	0.0	42	0.165
3.001	1.125	19.9	10.7	1.245	0.947	0.059	0.0	78	1.144
1.003	0.771	2892.8	58.5	0.629	0.583	0.324	0.0	50	0.187
4.001	1.125	19.9	11.2	1.115	0.866	0.062	0.0	81	1.157
1.004	0.771	2892.8	75.5	0.583	0.547	0.418	0.0	59	0.208
5.001	1.005	17.8	11.7	1.005	0.736	0.065	0.0	89	1.073
1.005	0.771	2892.8	93.1	0.547	0.481	0.515	0.0	67	0.225
6.001	0.818	14.5	12.6	1.065	0.758	0.070	0.0	109	0.920
1.006	0.788	3349.7	111.5	0.481	0.456	0.617	0.0	68	0.230
7.001	0.818	14.5	36.7	0.990	0.701	0.203	0.0	150	0.833
1.007	0.782	3321.6	158.3	0.456	0.400	0.876	0.0	83	0.260
1.008	0.556	39.3	158.3	0.600	0.623	0.876	0.0	300	0.563
1.009	0.350	6.2	158.3	0.773	0.718	0.876	0.0	150	0.357
1.010	0.783	13.8	158.3	0.718	1.116	0.876	0.0	150	0.798
1.011	0.350	6.2	158.3	1.116	1.177	0.876	0.0	150	0.357
3.000	1.318	23.3	0.0	0.490	0.585	0.000	0.0	0	0.000
4.000	1.306	23.1	0.0	1.200	1.355	0.000	0.0	0	0.000
5.000	1.306	23.1	0.0	1.200	1.375	0.000	0.0	0	0.000
6.000	1.308	23.1	0.0	1.200	1.345	0.000	0.0	0	0.000
7.000	1.307	23.1	0.0	1.200	1.374	0.000	0.0	0	0.000

Pipeline Schedule

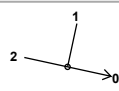
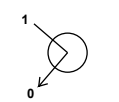
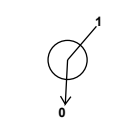
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	15.456	498.6	4000	1:3 Swale	94.410	92.770	1.140	94.200	92.739	0.961
1.001	16.957	498.7	4000	1:3 Swale	94.200	92.739	0.961	93.950	92.705	0.745
2.000	23.841	40.0	100	Circular	94.590	93.500	0.990	93.950	92.904	0.946
1.002	16.956	498.7	6000	1:3 Swale	93.950	92.705	0.745	93.800	92.671	0.629
3.001	23.763	80.0	150	Circular	94.395	93.000	1.245	93.800	92.703	0.947
1.003	16.956	498.7	6000	1:3 Swale	93.800	92.671	0.629	93.720	92.637	0.583
4.001	23.685	80.0	150	Circular	94.265	93.000	1.115	93.720	92.704	0.866
1.004	16.956	498.7	6000	1:3 Swale	93.720	92.637	0.583	93.650	92.603	0.547
5.001	23.607	100.0	150	Circular	94.155	93.000	1.005	93.650	92.764	0.736
1.005	16.956	498.7	6000	1:3 Swale	93.650	92.603	0.547	93.550	92.569	0.481
6.001	23.754	150.0	150	Circular	94.015	92.800	1.065	93.550	92.642	0.758
1.006	14.750	491.7	7000	1:3 Swale	93.550	92.569	0.481	93.495	92.539	0.456
7.001	23.463	150.0	150	Circular	93.940	92.800	0.990	93.495	92.644	0.701
1.007	14.500	500.0	7000	1:3 Swale	93.495	92.539	0.456	93.410	92.510	0.400
1.008	2.331	100.0	300	Circular	93.410	92.510	0.600	93.410	92.487	0.623
1.009	25.481	100.0	150	Circular	93.410	92.487	0.773	93.100	92.232	0.718
1.010	37.965	20.0	150	Circular	93.100	92.232	0.718	91.600	90.334	1.116
1.011	34.121	100.0	150	Circular	91.600	90.334	1.116	91.320	89.993	1.177
3.000	16.956	58.5	150	Circular	94.590	93.950	0.490	94.395	93.660	0.585
4.000	16.956	59.5	150	Circular	94.395	93.045	1.200	94.265	92.760	1.355
5.000	16.957	59.5	150	Circular	94.265	92.915	1.200	94.155	92.630	1.375
6.000	16.907	59.3	150	Circular	94.155	92.805	1.200	94.015	92.520	1.345
7.000	14.801	59.4	150	Circular	94.015	92.665	1.200	93.940	92.416	1.374

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	J1		Junction		J2		Junction	
1.001	J2		Junction		J3		Junction	
2.000	PLAT01		Junction		J3		Junction	
1.002	J3		Junction		J4		Junction	
3.001	PLAT02		Junction		J4		Junction	
1.003	J4		Junction		J5		Junction	
4.001	PLAT03		Junction		J5		Junction	
1.004	J5		Junction		J6		Junction	
5.001	PLAT04		Junction		J6		Junction	
1.005	J6		Junction		J7		Junction	
6.001	PLAT05		Junction		J7		Junction	
1.006	J7		Junction		J8		Junction	
7.001	PLAT06		Junction		J8		Junction	
1.007	J8		Junction		J9		Junction	
1.008	J9		Junction		SW01	1200	Manhole	Adoptable
1.009	SW01	1200	Manhole	Adoptable	SW02	1200	Manhole	Adoptable
1.010	SW02	1200	Manhole	Adoptable	SW03	1200	Manhole	Adoptable
1.011	SW03	1200	Manhole	Adoptable	HW01		Junction	
3.000	PLAT01		Junction		PLAT02		Junction	
4.000	PLAT02		Junction		PLAT03		Junction	
5.000	PLAT03		Junction		PLAT04		Junction	
6.000	PLAT04		Junction		PLAT05		Junction	
7.000	PLAT05		Junction		PLAT06		Junction	

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
J1	521483.086	226708.811	94.410	1.640					
						0	1.000	92.770	4000
J2	521498.137	226705.590	94.200	1.461					
						1	1.000	92.739	4000
						0	1.001	92.739	4000
PLAT01	521519.775	226725.251	94.590	1.090					
						0-1	2.000	93.500	100
						0-2	3.000	93.950	150
J3	521514.763	226701.943	93.950	1.245					
						1	2.000	92.904	100
						2	1.001	92.705	4000
						0	1.002	92.705	6000
PLAT02	521536.329	226721.582	94.395	1.395					
						1	3.000	93.660	150
						0-1	3.001	93.000	150
						0-2	4.000	93.045	150
J4	521531.334	226698.350	93.800	1.129					
						1	3.001	92.703	150
						2	1.002	92.671	6000
						0	1.003	92.671	6000
PLAT03	521552.883	226717.913	94.265	1.505					
						1	4.000	92.760	150
						0-1	4.001	93.000	150
						0-2	5.000	92.915	150
J5	521547.905	226694.757	93.720	1.083					
						1	4.001	92.704	150
						2	1.003	92.637	6000
						0	1.004	92.637	6000
PLAT04	521569.438	226714.244	94.155	1.525					
						1	5.000	92.630	150
						0-1	5.001	93.000	150
						0-2	6.000	92.805	150
J6	521564.476	226691.164	93.650	1.047					
						1	5.001	92.764	150
						2	1.004	92.603	6000
						0	1.005	92.603	6000
PLAT05	521585.992	226710.805	94.015	1.495					
						1	6.000	92.520	150
						0-1	6.001	92.800	150
						0-2	7.000	92.665	150
J7	521581.047	226687.571	93.550	0.981					
						1	6.001	92.642	150
						2	1.005	92.569	6000
						0	1.006	92.569	7000
PLAT06	521600.392	226707.384	93.940	1.524					
						1	7.000	92.416	150
						0	7.001	92.800	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
J8	521595.462	226684.445	93.495	0.956			1	7.001	92.644	150
							2	1.006	92.539	7000
							0	1.007	92.539	7000
J9	521609.633	226681.372	93.410	0.900			1	1.007	92.510	7000
							0	1.008	92.510	300
SW01	521611.911	226680.878	93.410	0.923	1200		1	1.008	92.487	300
							0	1.009	92.487	150
SW02	521631.246	226664.282	93.100	0.868	1200		1	1.009	92.232	150
							0	1.010	92.232	150
SW03	521606.519	226635.474	91.600	1.266	1200		1	1.010	90.334	150
							0	1.011	90.334	150
HW01	521604.742	226601.399	91.320	1.327			1	1.011	89.993	150

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	240	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	0.0		

Storm Durations

15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
2	0	0	0
30	0	0	0
30	35	0	0
100	0	0	0
100	40	0	0

Node SW01 Online Depth/Flow Control

Flap Valve	x	Invert Level (m)	92.487	Design Flow (l/s)	1.0
Replaces Downstream Link	✓	Design Depth (m)	0.850		

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.001	0.000	2.000	0.000

Node PLAT01 Online Orifice Control

Flap Valve	x	Invert Level (m)	93.500	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.030		

Node PLAT02 Online Orifice Control

Flap Valve	x	Invert Level (m)	93.000	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.030		

Node PLAT03 Online Orifice Control

Flap Valve	x	Invert Level (m)	93.000	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.030		

Node PLAT04 Online Orifice Control

Flap Valve	x	Invert Level (m)	93.000	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.030		

Node PLAT05 Online Orifice Control

Flap Valve	x	Invert Level (m)	92.800	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.030		

Node PLAT01 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	94.200	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	5	Depth (m)	0.300
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	13.400		

Node PLAT02 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	94.000	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	21	Depth (m)	0.300
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	13.500		

Node PLAT03 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	93.900	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	25	Depth (m)	0.300
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	17.100		

Node PLAT04 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	93.800	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	25	Depth (m)	0.300
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	20.900		

Node PLAT05 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	93.600	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	52	Depth (m)	0.300
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	23.700		

Node PLAT06 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	93.500	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	64	Depth (m)	0.300
Safety Factor	2.0	Width (m)	20.000	Inf Depth (m)	0.300
Porosity	0.30	Length (m)	32.750		

Node PLAT02 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Link	3.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	93.660	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	33	Diameter (mm)	1000

Node PLAT03 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Link	4.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	92.760	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	73	Diameter (mm)	1000

Node PLAT04 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Link	5.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	92.630	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	70	Diameter (mm)	1000

Node PLAT05 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Link	6.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	92.520	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	98	Diameter (mm)	1000

Node PLAT06 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Link	7.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	92.416	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)		Diameter (mm)	1000

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	63.612	18.000
1 year 15 minute winter	44.640	18.000
1 year 30 minute summer	40.288	11.400
1 year 30 minute winter	28.272	11.400
1 year 60 minute summer	26.488	7.000
1 year 60 minute winter	17.598	7.000
1 year 120 minute summer	21.377	5.649
1 year 120 minute winter	14.203	5.649

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 180 minute summer	18.080	4.653
1 year 180 minute winter	11.752	4.653
1 year 240 minute summer	14.934	3.947
1 year 240 minute winter	9.922	3.947
1 year 360 minute summer	11.722	3.016
1 year 360 minute winter	7.620	3.016
1 year 480 minute summer	9.286	2.454
1 year 480 minute winter	6.170	2.454
1 year 600 minute summer	7.598	2.078
1 year 600 minute winter	5.191	2.078
1 year 720 minute summer	6.746	1.808
1 year 720 minute winter	4.534	1.808
1 year 960 minute summer	5.486	1.445
1 year 960 minute winter	3.634	1.445
1 year 1440 minute summer	3.917	1.050
1 year 1440 minute winter	2.633	1.050
1 year 2160 minute summer	2.791	0.771
1 year 2160 minute winter	1.923	0.771
1 year 2880 minute summer	2.336	0.626
1 year 2880 minute winter	1.570	0.626
1 year 4320 minute summer	1.822	0.476
1 year 4320 minute winter	1.200	0.476
1 year 5760 minute summer	1.559	0.399
1 year 5760 minute winter	1.009	0.399
1 year 7200 minute summer	1.382	0.353
1 year 7200 minute winter	0.892	0.353
1 year 8640 minute summer	1.259	0.321
1 year 8640 minute winter	0.813	0.321
1 year 10080 minute summer	1.171	0.299
1 year 10080 minute winter	0.756	0.299
2 year 15 minute summer	104.292	29.511
2 year 15 minute winter	73.187	29.511
2 year 30 minute summer	66.282	18.756
2 year 30 minute winter	46.514	18.756
2 year 60 minute summer	43.138	11.400
2 year 60 minute winter	28.660	11.400
2 year 120 minute summer	31.620	8.356
2 year 120 minute winter	21.008	8.356
2 year 180 minute summer	25.798	6.639
2 year 180 minute winter	16.769	6.639
2 year 240 minute summer	20.893	5.522
2 year 240 minute winter	13.881	5.522
2 year 360 minute summer	16.061	4.133
2 year 360 minute winter	10.440	4.133
2 year 480 minute summer	12.563	3.320
2 year 480 minute winter	8.347	3.320
2 year 600 minute summer	10.189	2.787
2 year 600 minute winter	6.962	2.787
2 year 720 minute summer	8.990	2.409
2 year 720 minute winter	6.042	2.409
2 year 960 minute summer	7.245	1.908
2 year 960 minute winter	4.799	1.908

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
2 year 1440 minute summer	5.130	1.375
2 year 1440 minute winter	3.448	1.375
2 year 2160 minute summer	3.609	0.997
2 year 2160 minute winter	2.487	0.997
2 year 2880 minute summer	2.988	0.801
2 year 2880 minute winter	2.008	0.801
2 year 4320 minute summer	2.295	0.600
2 year 4320 minute winter	1.511	0.600
2 year 5760 minute summer	1.941	0.497
2 year 5760 minute winter	1.256	0.497
2 year 7200 minute summer	1.703	0.434
2 year 7200 minute winter	1.099	0.434
2 year 8640 minute summer	1.538	0.392
2 year 8640 minute winter	0.993	0.392
2 year 10080 minute summer	1.420	0.362
2 year 10080 minute winter	0.916	0.362
30 year 15 minute summer	279.208	79.006
30 year 15 minute winter	195.935	79.006
30 year 30 minute summer	179.649	50.834
30 year 30 minute winter	126.069	50.834
30 year 60 minute summer	118.405	31.291
30 year 60 minute winter	78.665	31.291
30 year 120 minute summer	74.786	19.764
30 year 120 minute winter	49.686	19.764
30 year 180 minute summer	57.246	14.731
30 year 180 minute winter	37.211	14.731
30 year 240 minute summer	44.780	11.834
30 year 240 minute winter	29.751	11.834
30 year 360 minute summer	33.285	8.565
30 year 360 minute winter	21.636	8.565
30 year 480 minute summer	25.513	6.742
30 year 480 minute winter	16.950	6.742
30 year 600 minute summer	20.401	5.580
30 year 600 minute winter	13.939	5.580
30 year 720 minute summer	17.807	4.772
30 year 720 minute winter	11.967	4.772
30 year 960 minute summer	14.131	3.721
30 year 960 minute winter	9.361	3.721
30 year 1440 minute summer	9.758	2.615
30 year 1440 minute winter	6.558	2.615
30 year 2160 minute summer	6.691	1.849
30 year 2160 minute winter	4.610	1.849
30 year 2880 minute summer	5.430	1.455
30 year 2880 minute winter	3.649	1.455
30 year 4320 minute summer	4.031	1.054
30 year 4320 minute winter	2.654	1.054
30 year 5760 minute summer	3.315	0.849
30 year 5760 minute winter	2.145	0.849
30 year 7200 minute summer	2.839	0.724
30 year 7200 minute winter	1.832	0.724
30 year 8640 minute summer	2.511	0.641
30 year 8640 minute winter	1.621	0.641

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year 10080 minute summer	2.275	0.580
30 year 10080 minute winter	1.469	0.580
30 year +35% CC 15 minute summer	376.930	106.658
30 year +35% CC 15 minute winter	264.513	106.658
30 year +35% CC 30 minute summer	242.526	68.626
30 year +35% CC 30 minute winter	170.193	68.626
30 year +35% CC 60 minute summer	159.846	42.243
30 year +35% CC 60 minute winter	106.198	42.243
30 year +35% CC 120 minute summer	100.960	26.681
30 year +35% CC 120 minute winter	67.076	26.681
30 year +35% CC 180 minute summer	77.282	19.887
30 year +35% CC 180 minute winter	50.235	19.887
30 year +35% CC 240 minute summer	60.453	15.976
30 year +35% CC 240 minute winter	40.164	15.976
30 year +35% CC 360 minute summer	44.934	11.563
30 year +35% CC 360 minute winter	29.209	11.563
30 year +35% CC 480 minute summer	34.443	9.102
30 year +35% CC 480 minute winter	22.883	9.102
30 year +35% CC 600 minute summer	27.541	7.533
30 year +35% CC 600 minute winter	18.818	7.533
30 year +35% CC 720 minute summer	24.039	6.443
30 year +35% CC 720 minute winter	16.156	6.443
30 year +35% CC 960 minute summer	19.077	5.023
30 year +35% CC 960 minute winter	12.637	5.023
30 year +35% CC 1440 minute summer	13.173	3.531
30 year +35% CC 1440 minute winter	8.853	3.531
30 year +35% CC 2160 minute summer	9.032	2.496
30 year +35% CC 2160 minute winter	6.224	2.496
30 year +35% CC 2880 minute summer	7.331	1.965
30 year +35% CC 2880 minute winter	4.927	1.965
30 year +35% CC 4320 minute summer	5.442	1.423
30 year +35% CC 4320 minute winter	3.583	1.423
30 year +35% CC 5760 minute summer	4.475	1.145
30 year +35% CC 5760 minute winter	2.896	1.145
30 year +35% CC 7200 minute summer	3.833	0.978
30 year +35% CC 7200 minute winter	2.474	0.978
30 year +35% CC 8640 minute summer	3.390	0.865
30 year +35% CC 8640 minute winter	2.188	0.865
30 year +35% CC 10080 minute summer	3.072	0.784
30 year +35% CC 10080 minute winter	1.983	0.784
100 year 15 minute summer	352.788	99.827
100 year 15 minute winter	247.571	99.827
100 year 30 minute summer	228.855	64.758
100 year 30 minute winter	160.600	64.758
100 year 60 minute summer	151.449	40.023
100 year 60 minute winter	100.619	40.023
100 year 120 minute summer	93.485	24.705
100 year 120 minute winter	62.109	24.705
100 year 180 minute summer	71.014	18.274
100 year 180 minute winter	46.161	18.274
100 year 240 minute summer	55.350	14.627
100 year 240 minute winter	36.773	14.627

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year 360 minute summer	41.012	10.554
100 year 360 minute winter	26.659	10.554
100 year 480 minute summer	31.411	8.301
100 year 480 minute winter	20.869	8.301
100 year 600 minute summer	25.100	6.865
100 year 600 minute winter	17.150	6.865
100 year 720 minute summer	21.892	5.867
100 year 720 minute winter	14.713	5.867
100 year 960 minute summer	17.336	4.565
100 year 960 minute winter	11.484	4.565
100 year 1440 minute summer	11.924	3.196
100 year 1440 minute winter	8.013	3.196
100 year 2160 minute summer	8.113	2.242
100 year 2160 minute winter	5.590	2.242
100 year 2880 minute summer	6.535	1.752
100 year 2880 minute winter	4.392	1.752
100 year 4320 minute summer	4.785	1.251
100 year 4320 minute winter	3.151	1.251
100 year 5760 minute summer	3.890	0.996
100 year 5760 minute winter	2.518	0.996
100 year 7200 minute summer	3.300	0.842
100 year 7200 minute winter	2.130	0.842
100 year 8640 minute summer	2.895	0.739
100 year 8640 minute winter	1.868	0.739
100 year 10080 minute summer	2.605	0.665
100 year 10080 minute winter	1.681	0.665
100 year +40% CC 15 minute summer	493.904	139.758
100 year +40% CC 15 minute winter	346.599	139.758
100 year +40% CC 30 minute summer	320.396	90.661
100 year +40% CC 30 minute winter	224.840	90.661
100 year +40% CC 60 minute summer	212.028	56.033
100 year +40% CC 60 minute winter	140.867	56.033
100 year +40% CC 120 minute summer	130.879	34.588
100 year +40% CC 120 minute winter	86.953	34.588
100 year +40% CC 180 minute summer	99.419	25.584
100 year +40% CC 180 minute winter	64.625	25.584
100 year +40% CC 240 minute summer	77.490	20.478
100 year +40% CC 240 minute winter	51.483	20.478
100 year +40% CC 360 minute summer	57.416	14.775
100 year +40% CC 360 minute winter	37.322	14.775
100 year +40% CC 480 minute summer	43.975	11.621
100 year +40% CC 480 minute winter	29.216	11.621
100 year +40% CC 600 minute summer	35.140	9.612
100 year +40% CC 600 minute winter	24.010	9.612
100 year +40% CC 720 minute summer	30.649	8.214
100 year +40% CC 720 minute winter	20.598	8.214
100 year +40% CC 960 minute summer	24.271	6.391
100 year +40% CC 960 minute winter	16.077	6.391
100 year +40% CC 1440 minute summer	16.693	4.474
100 year +40% CC 1440 minute winter	11.219	4.474
100 year +40% CC 2160 minute summer	11.358	3.139
100 year +40% CC 2160 minute winter	7.826	3.139

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +40% CC 2880 minute summer	9.149	2.452
100 year +40% CC 2880 minute winter	6.149	2.452
100 year +40% CC 4320 minute summer	6.700	1.752
100 year +40% CC 4320 minute winter	4.412	1.752
100 year +40% CC 5760 minute summer	5.445	1.394
100 year +40% CC 5760 minute winter	3.525	1.394
100 year +40% CC 7200 minute summer	4.620	1.178
100 year +40% CC 7200 minute winter	2.982	1.178
100 year +40% CC 8640 minute summer	4.053	1.034
100 year +40% CC 8640 minute winter	2.616	1.034
100 year +40% CC 10080 minute summer	3.647	0.930
100 year +40% CC 10080 minute winter	2.354	0.930

Results for 1 year Critical Storm Duration. Lowest mass balance: 98.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute winter	J1	10320	93.009	0.239	0.3	0.0000	0.0000	OK
10080 minute winter	J2	10320	93.009	0.270	0.7	0.0000	0.0000	OK
15 minute summer	PLAT01	10	93.990	0.490	5.0	0.0000	0.0000	SURCHARGED
10080 minute winter	J3	10320	93.009	0.304	1.5	0.0000	0.0000	OK
15 minute summer	PLAT02	10	93.110	0.110	9.7	0.0000	0.0000	OK
10080 minute winter	J4	10320	93.009	0.338	1.7	0.0000	0.0000	OK
120 minute summer	PLAT03	70	93.033	0.273	7.7	2.0785	0.0000	OK
10080 minute winter	J5	10140	93.009	0.372	1.9	0.0000	0.0000	OK
120 minute summer	PLAT04	70	93.025	0.395	9.4	4.0185	0.0000	OK
10080 minute winter	J6	10200	93.009	0.406	1.8	0.0000	0.0000	OK
10080 minute winter	PLAT05	10080	93.009	0.489	0.3	5.5551	0.0000	SURCHARGED
10080 minute winter	J7	10200	93.009	0.440	1.2	0.0000	0.0000	OK
10080 minute winter	PLAT06	9960	93.009	0.593	0.6	6.6685	0.0000	SURCHARGED
10080 minute winter	J8	10200	93.009	0.470	0.7	0.0000	0.0000	OK
10080 minute winter	J9	10200	93.009	0.499	0.2	0.0000	0.0000	SURCHARGED
10080 minute winter	SW01	10020	93.009	0.522	0.0	0.5902	0.0000	SURCHARGED
15 minute summer	SW02	1	92.232	0.000	0.0	0.0000	0.0000	OK
15 minute summer	SW03	1	90.334	0.000	0.0	0.0000	0.0000	OK
15 minute summer	HW01	1	89.993	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)
10080 minute winter	J1	1.000	J2	0.7	0.011	0.000	18.7258	
10080 minute winter	J2	1.001	J3	1.5	0.014	0.001	23.6458	
15 minute summer	PLAT01	2.000	J3	1.3	0.851	0.133	0.0359	
15 minute summer	PLAT01	3.000	PLAT02	3.6	0.962	0.156	0.0641	
10080 minute winter	J3	1.002	J4	1.7	0.009	0.001	37.8783	
15 minute summer	PLAT02	3.001	J4	0.6	0.497	0.028	0.0270	
15 minute summer	PLAT02	4.000	PLAT03	9.1	0.625	0.393	0.2117	
10080 minute winter	J4	1.003	J5	1.1	0.008	0.000	42.5058	
120 minute summer	PLAT03	4.001	J5	0.2	0.386	0.012	0.0360	
120 minute summer	PLAT03	5.000	PLAT04	6.0	0.439	0.260	0.2756	
10080 minute winter	J5	1.004	J6	-1.9	0.006	-0.001	47.2512	
120 minute summer	PLAT04	5.001	J6	0.1	0.306	0.008	0.0114	
120 minute summer	PLAT04	6.000	PLAT05	6.9	0.393	0.299	0.2976	
10080 minute winter	J6	1.005	J7	-1.8	0.005	-0.001	52.1144	
10080 minute winter	PLAT05	6.001	J7	0.1	0.234	0.008	0.4182	
10080 minute winter	PLAT05	7.000	PLAT06	0.2	0.014	0.011	0.2606	
10080 minute winter	J7	1.006	J8	-1.2	0.003	0.000	56.1143	
10080 minute winter	PLAT06	7.001	J8	0.6	0.363	0.042	0.4131	
10080 minute winter	J8	1.007	J9	-0.4	0.002	0.000	59.3615	
10080 minute winter	J9	1.008	SW01	0.0	0.036	0.001	0.1641	
10080 minute winter	SW01	Depth/Flow	SW02	0.0				
15 minute summer	SW02	1.010	SW03	0.0	0.000	0.000	0.0000	
15 minute summer	SW03	1.011	HW01	0.0	0.000	0.000	0.0000	0.0

Results for 2 year Critical Storm Duration. Lowest mass balance: 98.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
10080 minute winter	J1	10080	93.102	0.332	0.6	0.0000	0.0000	OK
10080 minute winter	J2	10080	93.102	0.363	1.3	0.0000	0.0000	OK
15 minute summer	PLAT01	10	94.006	0.506	8.2	0.0000	0.0000	SURCHARGED
10080 minute winter	J3	10080	93.102	0.397	1.0	0.0000	0.0000	OK
15 minute summer	PLAT02	12	93.221	0.221	16.8	0.0000	0.0000	SURCHARGED
10080 minute winter	J4	10020	93.102	0.431	0.5	0.0000	0.0000	OK
30 minute summer	PLAT03	22	93.185	0.425	22.5	4.5009	0.0000	SURCHARGED
10080 minute winter	J5	10200	93.102	0.465	0.4	0.0000	0.0000	OK
30 minute summer	PLAT04	23	93.167	0.537	22.3	6.3825	0.0000	SURCHARGED
10080 minute winter	J6	9960	93.102	0.499	0.8	0.0000	0.0000	OK
30 minute summer	PLAT05	23	93.135	0.615	19.2	7.6899	0.0000	SURCHARGED
10080 minute winter	J7	9960	93.102	0.533	1.1	0.0000	0.0000	SURCHARGED
10080 minute winter	PLAT06	10320	93.102	0.686	1.0	8.0544	0.0000	SURCHARGED
10080 minute winter	J8	9960	93.102	0.563	1.2	0.0000	0.0000	SURCHARGED
10080 minute winter	J9	9900	93.102	0.592	0.5	0.0000	0.0000	SURCHARGED
10080 minute winter	SW01	9900	93.102	0.615	0.0	0.6961	0.0000	SURCHARGED
15 minute summer	SW02	1	92.232	0.000	0.0	0.0000	0.0000	OK
15 minute summer	SW03	1	90.334	0.000	0.0	0.0000	0.0000	OK
15 minute summer	HW01	1	89.993	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 (m ³)	Discharge Vol (m ³)
10080 minute winter	J1	1.000	J2	-0.4	0.013	0.000	27.1263	
10080 minute winter	J2	1.001	J3	-1.2	0.018	-0.001	33.1716	
15 minute summer	PLAT01	2.000	J3	1.3	0.855	0.136	0.0363	
15 minute summer	PLAT01	3.000	PLAT02	6.8	1.148	0.292	0.1004	
10080 minute winter	J3	1.002	J4	-0.8	0.011	0.000	50.9017	
15 minute summer	PLAT02	3.001	J4	0.8	0.554	0.041	0.0345	
15 minute summer	PLAT02	4.000	PLAT03	15.5	0.922	0.670	0.2985	
10080 minute winter	J4	1.003	J5	0.3	0.006	0.000	55.8530	
30 minute summer	PLAT03	4.001	J5	0.8	0.545	0.038	0.0331	
30 minute summer	PLAT03	5.000	PLAT04	13.6	0.841	0.587	0.2985	
10080 minute winter	J5	1.004	J6	0.7	0.005	0.000	60.9221	
30 minute summer	PLAT04	5.001	J6	0.7	0.494	0.040	0.0341	
30 minute summer	PLAT04	6.000	PLAT05	9.8	0.644	0.425	0.2976	
10080 minute winter	J6	1.005	J7	0.9	0.005	0.000	66.1090	
30 minute summer	PLAT05	6.001	J7	1.0	0.479	0.072	0.1083	
30 minute summer	PLAT05	7.000	PLAT06	11.8	0.671	0.511	0.2606	
10080 minute winter	J7	1.006	J8	-0.7	0.003	0.000	69.9339	
10080 minute winter	PLAT06	7.001	J8	0.9	0.363	0.065	0.4131	
10080 minute winter	J8	1.007	J9	0.5	0.003	0.000	73.1870	
10080 minute winter	J9	1.008	SW01	0.0	0.005	0.001	0.1641	
10080 minute winter	SW01	Depth/Flow	SW02	0.0				
15 minute summer	SW02	1.010	SW03	0.0	0.000	0.000	0.0000	
15 minute summer	SW03	1.011	HW01	0.0	0.000	0.000	0.0000	0.0

Results for 30 year Critical Storm Duration. Lowest mass balance: 98.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute winter	J1	10080	93.336	0.566	0.5	0.0000	0.0000	SURCHARGED
10080 minute winter	J2	10080	93.336	0.597	0.5	0.0000	0.0000	SURCHARGED
15 minute summer	PLAT01	12	94.134	0.634	21.9	0.0000	0.0000	SURCHARGED
10080 minute winter	J3	10080	93.336	0.631	0.5	0.0000	0.0000	SURCHARGED
30 minute summer	PLAT02	22	94.020	1.020	41.4	3.7484	0.0000	SURCHARGED
10080 minute winter	J4	10080	93.336	0.665	0.5	0.0000	0.0000	SURCHARGED
30 minute summer	PLAT03	25	93.925	1.165	50.9	17.4933	0.0000	SURCHARGED
10080 minute winter	J5	10260	93.336	0.699	0.5	0.0000	0.0000	SURCHARGED
60 minute summer	PLAT04	43	93.825	1.195	30.4	18.0240	0.0000	SURCHARGED
10080 minute winter	J6	10260	93.336	0.733	0.8	0.0000	0.0000	SURCHARGED
60 minute summer	PLAT05	49	93.693	1.173	28.8	22.0944	0.0000	SURCHARGED
10080 minute winter	J7	10140	93.336	0.767	1.1	0.0000	0.0000	FLOOD RISK
30 minute summer	PLAT06	24	93.580	1.164	81.9	24.5034	0.0000	SURCHARGED
10080 minute winter	J8	10140	93.336	0.797	1.6	0.0000	0.0000	FLOOD RISK
10080 minute winter	J9	10020	93.336	0.826	0.2	0.0000	0.0000	FLOOD RISK
10080 minute winter	SW01	10020	93.336	0.849	0.0	0.9606	0.0000	FLOOD RISK
15 minute summer	SW02	1	92.232	0.000	0.0	0.0000	0.0000	OK
15 minute summer	SW03	1	90.334	0.000	0.0	0.0000	0.0000	OK
15 minute summer	HW01	1	89.993	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)
10080 minute winter	J1	1.000	J2	0.4	0.011	0.000	51.6907	
10080 minute winter	J2	1.001	J3	0.3	0.013	0.000	60.8957	
15 minute summer	PLAT01	2.000	J3	1.5	0.884	0.152	0.0393	
15 minute summer	PLAT01	3.000	PLAT02	19.9	1.375	0.853	0.2985	
10080 minute winter	J3	1.002	J4	0.3	0.008	0.000	87.3728	
30 minute summer	PLAT02	3.001	J4	1.9	0.707	0.094	0.2285	
30 minute summer	PLAT02	4.000	PLAT03	27.3	1.549	1.181	0.2985	
10080 minute winter	J4	1.003	J5	0.3	0.010	0.000	93.1340	
30 minute summer	PLAT03	4.001	J5	1.8	0.689	0.089	0.2274	
30 minute summer	PLAT03	5.000	PLAT04	13.8	0.785	0.599	0.2985	
10080 minute winter	J5	1.004	J6	-0.4	0.004	0.000	99.0129	
60 minute summer	PLAT04	5.001	J6	1.7	0.636	0.094	0.2248	
60 minute summer	PLAT04	6.000	PLAT05	16.1	0.912	0.695	0.2976	
10080 minute winter	J6	1.005	J7	-0.6	0.005	0.000	105.0093	
60 minute summer	PLAT05	6.001	J7	1.7	0.483	0.120	0.3967	
60 minute summer	PLAT05	7.000	PLAT06	16.7	0.946	0.721	0.2606	
10080 minute winter	J7	1.006	J8	-0.9	0.003	0.000	107.8891	
30 minute summer	PLAT06	7.001	J8	32.4	1.840	2.240	0.4131	
10080 minute winter	J8	1.007	J9	0.2	0.003	0.000	111.1008	
10080 minute winter	J9	1.008	SW01	0.0	0.005	-0.001	0.1641	
10080 minute winter	SW01	Depth/Flow	SW02	0.0				
15 minute summer	SW02	1.010	SW03	0.0	0.000	0.000	0.0000	
15 minute summer	SW03	1.011	HW01	0.0	0.000	0.000	0.0000	0.0

Results for 30 year +35% CC Critical Storm Duration. Lowest mass balance: 98.69%

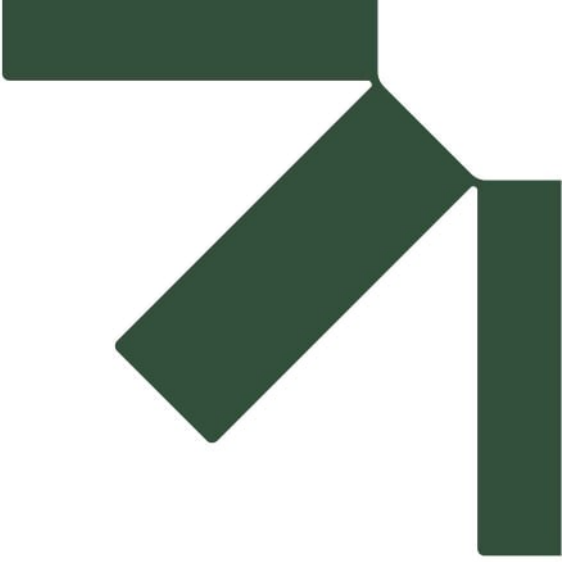
Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute winter	J1	6540	93.410	0.640	0.7	0.0000	0.0000	SURCHARGED
10080 minute winter	J2	6540	93.410	0.671	0.7	0.0000	0.0000	SURCHARGED
15 minute summer	PLAT01	13	94.243	0.743	29.5	1.1775	0.0000	SURCHARGED
10080 minute winter	J3	6540	93.410	0.705	1.4	0.0000	0.0000	SURCHARGED
30 minute summer	PLAT02	24	94.127	1.127	52.4	9.7829	0.0000	FLOOD RISK
10080 minute winter	J4	6540	93.410	0.739	2.0	0.0000	0.0000	SURCHARGED
60 minute summer	PLAT03	45	94.015	1.255	43.3	23.5776	0.0000	FLOOD RISK
10080 minute winter	J5	6540	93.410	0.773	2.5	0.0000	0.0000	SURCHARGED
60 minute summer	PLAT04	51	93.905	1.275	38.4	24.1403	0.0000	FLOOD RISK
10080 minute winter	J6	6540	93.410	0.807	2.9	0.0000	0.0000	FLOOD RISK
120 minute summer	PLAT05	88	93.782	1.262	34.9	29.8474	0.0000	FLOOD RISK
10080 minute winter	J7	6540	93.410	0.841	3.2	0.0000	0.0000	FLOOD RISK
60 minute summer	PLAT06	44	93.654	1.238	92.8	40.0343	0.0000	FLOOD RISK
10080 minute winter	J8	6540	93.410	0.871	4.7	0.0000	0.0000	FLOOD RISK
10080 minute winter	J9	6300	93.410	0.900	4.7	0.0000	285.6705	FLOOD
8640 minute winter	SW01	5640	93.410	0.923	0.1	1.0439	0.9531	FLOOD
15 minute summer	SW02	1	92.232	0.000	0.0	0.0000	0.0000	OK
15 minute summer	SW03	1	90.334	0.000	0.0	0.0000	0.0000	OK
15 minute summer	HW01	1	89.993	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)
10080 minute winter	J1	1.000	J2	0.6	0.014	0.000	60.4704	
10080 minute winter	J2	1.001	J3	1.1	0.008	0.001	70.7714	
15 minute summer	PLAT01	2.000	J3	1.6	0.906	0.166	0.0418	
15 minute summer	PLAT01	3.000	PLAT02	21.5	1.464	0.923	0.2985	
10080 minute winter	J3	1.002	J4	1.8	0.004	0.001	100.0001	
30 minute summer	PLAT02	3.001	J4	2.0	0.699	0.099	0.2399	
30 minute summer	PLAT02	4.000	PLAT03	26.9	1.530	1.167	0.2985	
10080 minute winter	J4	1.003	J5	2.3	0.008	0.001	106.0154	
60 minute summer	PLAT03	4.001	J5	1.9	0.654	0.094	0.2395	
60 minute summer	PLAT03	5.000	PLAT04	14.3	0.813	0.620	0.2985	
10080 minute winter	J5	1.004	J6	2.7	0.010	0.001	112.1482	
60 minute summer	PLAT04	5.001	J6	1.8	0.637	0.099	0.2398	
60 minute summer	PLAT04	6.000	PLAT05	16.5	0.935	0.712	0.2976	
10080 minute winter	J6	1.005	J7	3.0	0.007	0.001	118.3985	
120 minute summer	PLAT05	6.001	J7	1.7	0.427	0.118	0.4182	
120 minute summer	PLAT05	7.000	PLAT06	16.5	0.938	0.715	0.2606	
10080 minute winter	J7	1.006	J8	3.3	0.007	0.001	120.8301	
60 minute summer	PLAT06	7.001	J8	32.9	1.866	2.273	0.4131	
10080 minute winter	J8	1.007	J9	4.7	0.003	0.001	124.0104	
10080 minute winter	J9	1.008	SW01	0.0	0.005	0.001	0.1641	
8640 minute winter	SW01	Depth/Flow	SW02	0.0				
15 minute summer	SW02	1.010	SW03	0.0	0.000	0.000	0.0000	
15 minute summer	SW03	1.011	HW01	0.0	0.000	0.000	0.0000	0.0

Results for 100 year Critical Storm Duration. Lowest mass balance: 98.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
8640 minute winter	J1	7380	93.410	0.640	0.6	0.0000	0.0000	SURCHARGED
8640 minute winter	J2	7380	93.410	0.671	0.6	0.0000	0.0000	SURCHARGED
15 minute summer	PLAT01	12	94.232	0.732	27.7	0.7574	0.0000	SURCHARGED
8640 minute winter	J3	7380	93.410	0.705	0.7	0.0000	0.0000	SURCHARGED
30 minute summer	PLAT02	23	94.106	1.106	49.6	8.5296	0.0000	FLOOD RISK
8640 minute winter	J4	7380	93.410	0.739	0.7	0.0000	0.0000	SURCHARGED
60 minute summer	PLAT03	44	93.997	1.237	42.6	22.3297	0.0000	FLOOD RISK
8640 minute winter	J5	7380	93.410	0.773	0.8	0.0000	0.0000	SURCHARGED
60 minute summer	PLAT04	50	93.888	1.258	36.5	22.8020	0.0000	FLOOD RISK
8640 minute winter	J6	7380	93.410	0.807	1.1	0.0000	0.0000	FLOOD RISK
60 minute summer	PLAT05	53	93.761	1.241	41.2	28.0090	0.0000	FLOOD RISK
8640 minute winter	J7	7380	93.410	0.841	1.4	0.0000	0.0000	FLOOD RISK
60 minute summer	PLAT06	44	93.638	1.222	88.4	36.7484	0.0000	SURCHARGED
8640 minute winter	J8	7380	93.410	0.871	2.0	0.0000	0.0000	FLOOD RISK
10080 minute winter	J9	8220	93.410	0.900	0.6	0.0000	45.7443	FLOOD
8640 minute winter	SW01	7380	93.410	0.923	0.1	1.0439	0.9129	FLOOD
15 minute summer	SW02	1	92.232	0.000	0.0	0.0000	0.0000	OK
15 minute summer	SW03	1	90.334	0.000	0.0	0.0000	0.0000	OK
15 minute summer	HW01	1	89.993	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)
8640 minute winter	J1	1.000	J2	0.4	0.008	0.000	60.4687	
8640 minute winter	J2	1.001	J3	0.3	0.006	0.000	70.7695	
15 minute summer	PLAT01	2.000	J3	1.6	0.904	0.164	0.0416	
15 minute summer	PLAT01	3.000	PLAT02	21.3	1.452	0.914	0.2985	
8640 minute winter	J3	1.002	J4	0.3	0.004	0.000	99.9979	
30 minute summer	PLAT02	3.001	J4	1.9	0.696	0.098	0.2389	
30 minute summer	PLAT02	4.000	PLAT03	27.2	1.542	1.176	0.2985	
8640 minute winter	J4	1.003	J5	-0.3	0.006	0.000	106.0135	
60 minute summer	PLAT03	4.001	J5	1.8	0.647	0.093	0.2393	
60 minute summer	PLAT03	5.000	PLAT04	14.1	0.803	0.612	0.2985	
8640 minute winter	J5	1.004	J6	-0.5	0.007	0.000	112.1466	
60 minute summer	PLAT04	5.001	J6	1.7	0.637	0.098	0.2394	
60 minute summer	PLAT04	6.000	PLAT05	16.4	0.934	0.711	0.2976	
8640 minute winter	J6	1.005	J7	-0.8	0.005	0.000	118.3974	
60 minute summer	PLAT05	6.001	J7	1.8	0.481	0.123	0.4182	
60 minute summer	PLAT05	7.000	PLAT06	16.8	0.953	0.726	0.2606	
8640 minute winter	J7	1.006	J8	-1.1	0.006	0.000	120.8295	
60 minute summer	PLAT06	7.001	J8	32.7	1.858	2.262	0.4131	
8640 minute winter	J8	1.007	J9	0.8	0.003	0.000	124.0102	
10080 minute winter	J9	1.008	SW01	0.1	0.005	0.001	0.1641	
8640 minute winter	SW01	Depth/Flow	SW02	0.0				
15 minute summer	SW02	1.010	SW03	0.0	0.000	0.000	0.0000	
15 minute summer	SW03	1.011	HW01	0.0	0.000	0.000	0.0000	0.0

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 98.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	J1	915	93.410	0.640	5.4	0.0000	0.0000	SURCHARGED
960 minute winter	J2	915	93.410	0.671	5.4	0.0000	0.0000	SURCHARGED
15 minute summer	PLAT01	13	94.309	0.809	38.7	3.8347	0.0000	FLOOD RISK
960 minute winter	J3	915	93.410	0.705	4.8	0.0000	0.0000	SURCHARGED
60 minute summer	PLAT02	43	94.225	1.225	48.0	15.4136	0.0000	FLOOD RISK
960 minute winter	J4	915	93.410	0.739	4.8	0.0000	0.0000	SURCHARGED
60 minute summer	PLAT03	49	94.128	1.368	47.6	31.2796	0.0000	FLOOD RISK
5760 minute winter	J5	3540	93.410	0.773	1.4	0.0000	0.0000	SURCHARGED
60 minute winter	PLAT04	58	94.016	1.386	38.5	33.0218	0.0000	FLOOD RISK
5760 minute winter	J6	3540	93.410	0.807	2.0	0.0000	0.0000	FLOOD RISK
120 minute summer	PLAT05	92	93.889	1.369	40.6	39.3234	0.0000	FLOOD RISK
5760 minute winter	J7	3540	93.410	0.841	2.6	0.0000	0.0000	FLOOD RISK
120 minute summer	PLAT06	84	93.755	1.339	83.9	61.3455	0.0000	FLOOD RISK
5760 minute winter	J8	3540	93.410	0.871	4.2	0.0000	0.0000	FLOOD RISK
10080 minute winter	J9	5700	93.410	0.900	6.8	0.0000	457.1454	FLOOD
10080 minute winter	SW01	5700	93.410	0.923	0.0	1.0439	0.8368	FLOOD
15 minute summer	SW02	1	92.232	0.000	0.0	0.0000	0.0000	OK
15 minute summer	SW03	1	90.334	0.000	0.0	0.0000	0.0000	OK
15 minute summer	HW01	1	89.993	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)
960 minute winter	J1	1.000	J2	3.9	0.050	0.002	60.4857	
960 minute winter	J2	1.001	J3	2.2	0.050	0.001	70.7875	
15 minute summer	PLAT01	2.000	J3	1.7	0.917	0.173	0.0488	
15 minute summer	PLAT01	3.000	PLAT02	22.1	1.405	0.951	0.2985	
960 minute winter	J3	1.002	J4	3.5	0.045	0.001	100.0182	
60 minute summer	PLAT02	3.001	J4	2.1	0.679	0.103	0.3873	
60 minute summer	PLAT02	4.000	PLAT03	21.3	1.211	0.924	0.2985	
960 minute winter	J4	1.003	J5	4.6	0.054	0.002	106.0310	
60 minute summer	PLAT03	4.001	J5	2.0	0.651	0.099	0.3860	
60 minute summer	PLAT03	5.000	PLAT04	15.0	0.850	0.648	0.2985	
5760 minute winter	J5	1.004	J6	1.3	0.033	0.000	112.1608	
60 minute winter	PLAT04	5.001	J6	1.9	0.637	0.105	0.3850	
60 minute winter	PLAT04	6.000	PLAT05	16.5	0.936	0.713	0.2976	
5760 minute winter	J6	1.005	J7	1.5	0.014	0.001	118.4074	
120 minute summer	PLAT05	6.001	J7	1.7	0.433	0.117	0.4182	
120 minute summer	PLAT05	7.000	PLAT06	16.8	0.955	0.728	0.2606	
5760 minute winter	J7	1.006	J8	-2.2	0.008	-0.001	120.8350	
120 minute summer	PLAT06	7.001	J8	31.3	1.775	2.162	0.4131	
5760 minute winter	J8	1.007	J9	4.1	0.004	0.001	124.0120	
10080 minute winter	J9	1.008	SW01	0.0	0.002	0.001	0.1641	
10080 minute winter	SW01	Depth/Flow	SW02	0.0				
15 minute summer	SW02	1.010	SW03	0.0	0.000	0.000	0.0000	
15 minute summer	SW03	1.011	HW01	0.0	0.000	0.000	0.0000	0.0



Appendix K Drainage Model Outputs: Residual Risk (Firewater)

Flood Risk Assessment and Surface Water Drainage Strategy

Wymondley Battery Energy Storage System

Pivoted Power LLP (part of EDF Energy Renewables Ltd)

SLR Project No.: 402.065238.00001

10 April 2025

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	50.0		

Adoptable Manhole Type

Max Width (mm)	Diameter (mm)	Max Width (mm)	Diameter (mm)
374	1200	749	1500
499	1350	900	1800

>900 Link+900 mm

Max Depth (m)	Diameter (mm)	Max Depth (m)	Diameter (mm)
1.500	1050	99.999	1200

1:3 Swale Link Type

Shape	Trapezoidal	Auto Increment (mm)	50	Velocity	Manning
Barrels	1	Preferred Cover (m)	0.010	ks (mm) / n	0.032
Height (mm)	500	Steep Slope (1:X)	350		
Side Slope (1:X)	3.0	Follow Ground	✓		

Available Diameters (mm)

500

Circular Link Type

Shape	Circular	Auto Increment (mm)	75
Barrels	1	Follow Ground	x

Available Diameters (mm)

100 | 150

(Trench) Link Type

Shape	Rectangular	Height (mm)	735	Follow Ground	x
Barrels	1	Auto Increment (mm)	75		

Available Diameters (mm)

100

(Trench) Link Type

Shape	Rectangular	Height (mm)	1505	Follow Ground	x
Barrels	1	Auto Increment (mm)	75		

Available Diameters (mm)

100

(Trench) Link Type

Shape	Rectangular	Height (mm)	1525	Follow Ground	x
Barrels	1	Auto Increment (mm)	75		

Available Diameters (mm)

100

(Trench) Link Type

Shape	Rectangular	Height (mm)	1495	Follow Ground	x
Barrels	1	Auto Increment (mm)	75		

Available Diameters (mm)

100

(Trench) Link Type

Shape	Rectangular	Height (mm)	1524	Follow Ground	x
Barrels	1	Auto Increment (mm)	75		

Available Diameters (mm)

100

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
J1	0.120	5.00	94.410		521483.086	226708.811	1.640
J2	0.033	5.00	94.200		521498.137	226705.590	1.461
PLAT01	0.048	5.00	94.590		521519.775	226725.251	1.090
J3	0.032	5.00	93.950		521514.763	226701.943	1.245
PLAT02	0.059	5.00	94.395		521536.329	226721.582	1.395
J4	0.032	5.00	93.800		521531.334	226698.350	1.129
PLAT03	0.062	5.00	94.265		521552.883	226717.913	1.505
J5	0.032	5.00	93.720		521547.905	226694.757	1.083
PLAT04	0.065	5.00	94.155		521569.438	226714.244	1.525
J6	0.032	5.00	93.650		521564.476	226691.164	1.047
PLAT05	0.070	5.00	94.015		521585.992	226710.805	1.495
J7	0.032	5.00	93.550		521581.047	226687.571	0.981
PLAT06	0.203	5.00	93.940		521600.392	226707.384	1.524
J8	0.056	5.00	93.495		521595.462	226684.445	0.956
J9			93.410		521609.633	226681.372	0.900
SW01			93.410	1200	521611.911	226680.878	0.923
SW02			93.100	1200	521631.246	226664.282	0.868
SW03			91.600	1200	521606.519	226635.474	1.266
HW01			91.320		521604.742	226601.399	1.327

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	J1	J2	15.456	0.032	92.770	92.739	0.031	498.6	4000	5.35	50.0
1.001	J2	J3	16.957	0.032	92.739	92.705	0.034	498.7	4000	5.73	50.0
2.000	PLAT01	J3	23.841	0.600	93.500	92.904	0.596	40.0	100	5.33	50.0
1.002	J3	J4	16.956	0.032	92.705	92.671	0.034	498.7	6000	6.10	50.0
3.001	PLAT02	J4	23.763	0.600	93.000	92.703	0.297	80.0	150	5.57	50.0
1.003	J4	J5	16.956	0.032	92.671	92.637	0.034	498.7	6000	6.46	50.0
4.001	PLAT03	J5	23.685	0.600	93.000	92.704	0.296	80.0	150	5.57	50.0
1.004	J5	J6	16.956	0.032	92.637	92.603	0.034	498.7	6000	6.83	50.0
5.001	PLAT04	J6	23.607	0.600	93.000	92.764	0.236	100.0	150	5.61	50.0
1.005	J6	J7	16.956	0.032	92.603	92.569	0.034	498.7	6000	7.20	50.0
6.001	PLAT05	J7	23.754	0.600	92.800	92.642	0.158	150.0	150	5.70	50.0
1.006	J7	J8	14.750	0.032	92.569	92.539	0.030	491.7	7000	7.51	50.0
7.001	PLAT06	J8	23.463	0.600	92.800	92.644	0.156	150.0	150	5.67	50.0
1.007	J8	J9	14.500	0.032	92.539	92.510	0.029	500.0	7000	7.82	50.0
1.008	J9	SW01	2.331	0.032	92.510	92.487	0.023	100.0	300	7.89	50.0
1.009	SW01	SW02	25.481	0.032	92.487	92.232	0.255	100.0	150	9.10	50.0
1.010	SW02	SW03	37.965	0.032	92.232	90.334	1.898	20.0	150	9.91	50.0
1.011	SW03	HW01	34.121	0.032	90.334	89.993	0.341	100.0	150	11.53	50.0
3.000	PLAT01	PLAT02	16.956	0.600	93.950	93.660	0.290	58.5	150	5.21	50.0
4.000	PLAT02	PLAT03	16.956	0.600	93.045	92.760	0.285	59.5	150	5.22	50.0
5.000	PLAT03	PLAT04	16.957	0.600	92.915	92.630	0.285	59.5	150	5.22	50.0
6.000	PLAT04	PLAT05	16.907	0.600	92.805	92.520	0.285	59.3	150	5.22	50.0
7.000	PLAT05	PLAT06	14.801	0.600	92.665	92.416	0.249	59.4	150	5.19	50.0

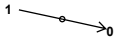
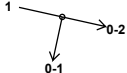
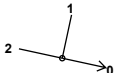
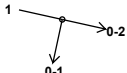
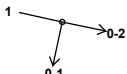
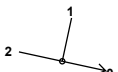
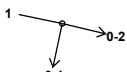
Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	0.739	2033.1	21.7	1.140	0.961	0.120	0.0	36	0.149
1.001	0.739	2032.8	27.6	0.961	0.745	0.153	0.0	42	0.164
2.000	1.223	9.6	8.7	0.990	0.946	0.048	0.0	75	1.383
1.002	0.771	2892.8	42.1	0.745	0.629	0.233	0.0	42	0.165
3.001	1.125	19.9	10.7	1.245	0.947	0.059	0.0	78	1.144
1.003	0.771	2892.8	58.5	0.629	0.583	0.324	0.0	50	0.187
4.001	1.125	19.9	11.2	1.115	0.866	0.062	0.0	81	1.157
1.004	0.771	2892.8	75.5	0.583	0.547	0.418	0.0	59	0.208
5.001	1.005	17.8	11.7	1.005	0.736	0.065	0.0	89	1.073
1.005	0.771	2892.8	93.1	0.547	0.481	0.515	0.0	67	0.225
6.001	0.818	14.5	12.6	1.065	0.758	0.070	0.0	109	0.920
1.006	0.788	3349.7	111.5	0.481	0.456	0.617	0.0	68	0.230
7.001	0.818	14.5	36.7	0.990	0.701	0.203	0.0	150	0.833
1.007	0.782	3321.6	158.3	0.456	0.400	0.876	0.0	83	0.260
1.008	0.556	39.3	158.3	0.600	0.623	0.876	0.0	300	0.563
1.009	0.350	6.2	158.3	0.773	0.718	0.876	0.0	150	0.357
1.010	0.783	13.8	158.3	0.718	1.116	0.876	0.0	150	0.798
1.011	0.350	6.2	158.3	1.116	1.177	0.876	0.0	150	0.357
3.000	1.318	23.3	0.0	0.490	0.585	0.000	0.0	0	0.000
4.000	1.306	23.1	0.0	1.200	1.355	0.000	0.0	0	0.000
5.000	1.306	23.1	0.0	1.200	1.375	0.000	0.0	0	0.000
6.000	1.308	23.1	0.0	1.200	1.345	0.000	0.0	0	0.000
7.000	1.307	23.1	0.0	1.200	1.374	0.000	0.0	0	0.000

Pipeline Schedule

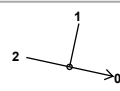
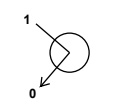
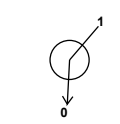
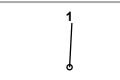
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	15.456	498.6	4000	1:3 Swale	94.410	92.770	1.140	94.200	92.739	0.961
1.001	16.957	498.7	4000	1:3 Swale	94.200	92.739	0.961	93.950	92.705	0.745
2.000	23.841	40.0	100	Circular	94.590	93.500	0.990	93.950	92.904	0.946
1.002	16.956	498.7	6000	1:3 Swale	93.950	92.705	0.745	93.800	92.671	0.629
3.001	23.763	80.0	150	Circular	94.395	93.000	1.245	93.800	92.703	0.947
1.003	16.956	498.7	6000	1:3 Swale	93.800	92.671	0.629	93.720	92.637	0.583
4.001	23.685	80.0	150	Circular	94.265	93.000	1.115	93.720	92.704	0.866
1.004	16.956	498.7	6000	1:3 Swale	93.720	92.637	0.583	93.650	92.603	0.547
5.001	23.607	100.0	150	Circular	94.155	93.000	1.005	93.650	92.764	0.736
1.005	16.956	498.7	6000	1:3 Swale	93.650	92.603	0.547	93.550	92.569	0.481
6.001	23.754	150.0	150	Circular	94.015	92.800	1.065	93.550	92.642	0.758
1.006	14.750	491.7	7000	1:3 Swale	93.550	92.569	0.481	93.495	92.539	0.456
7.001	23.463	150.0	150	Circular	93.940	92.800	0.990	93.495	92.644	0.701
1.007	14.500	500.0	7000	1:3 Swale	93.495	92.539	0.456	93.410	92.510	0.400
1.008	2.331	100.0	300	Circular	93.410	92.510	0.600	93.410	92.487	0.623
1.009	25.481	100.0	150	Circular	93.410	92.487	0.773	93.100	92.232	0.718
1.010	37.965	20.0	150	Circular	93.100	92.232	0.718	91.600	90.334	1.116
1.011	34.121	100.0	150	Circular	91.600	90.334	1.116	91.320	89.993	1.177
3.000	16.956	58.5	150	Circular	94.590	93.950	0.490	94.395	93.660	0.585
4.000	16.956	59.5	150	Circular	94.395	93.045	1.200	94.265	92.760	1.355
5.000	16.957	59.5	150	Circular	94.265	92.915	1.200	94.155	92.630	1.375
6.000	16.907	59.3	150	Circular	94.155	92.805	1.200	94.015	92.520	1.345
7.000	14.801	59.4	150	Circular	94.015	92.665	1.200	93.940	92.416	1.374

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	J1		Junction		J2		Junction	
1.001	J2		Junction		J3		Junction	
2.000	PLAT01		Junction		J3		Junction	
1.002	J3		Junction		J4		Junction	
3.001	PLAT02		Junction		J4		Junction	
1.003	J4		Junction		J5		Junction	
4.001	PLAT03		Junction		J5		Junction	
1.004	J5		Junction		J6		Junction	
5.001	PLAT04		Junction		J6		Junction	
1.005	J6		Junction		J7		Junction	
6.001	PLAT05		Junction		J7		Junction	
1.006	J7		Junction		J8		Junction	
7.001	PLAT06		Junction		J8		Junction	
1.007	J8		Junction		J9		Junction	
1.008	J9		Junction		SW01	1200	Manhole	Adoptable
1.009	SW01	1200	Manhole	Adoptable	SW02	1200	Manhole	Adoptable
1.010	SW02	1200	Manhole	Adoptable	SW03	1200	Manhole	Adoptable
1.011	SW03	1200	Manhole	Adoptable	HW01		Junction	
3.000	PLAT01		Junction		PLAT02		Junction	
4.000	PLAT02		Junction		PLAT03		Junction	
5.000	PLAT03		Junction		PLAT04		Junction	
6.000	PLAT04		Junction		PLAT05		Junction	
7.000	PLAT05		Junction		PLAT06		Junction	

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
J1	521483.086	226708.811	94.410	1.640					
						0	1.000	92.770	4000
J2	521498.137	226705.590	94.200	1.461					
						1	1.000	92.739	4000
						0	1.001	92.739	4000
PLAT01	521519.775	226725.251	94.590	1.090					
						0-1	2.000	93.500	100
						0-2	3.000	93.950	150
J3	521514.763	226701.943	93.950	1.245					
						1	2.000	92.904	100
						2	1.001	92.705	4000
						0	1.002	92.705	6000
PLAT02	521536.329	226721.582	94.395	1.395					
						1	3.000	93.660	150
						0-1	3.001	93.000	150
						0-2	4.000	93.045	150
J4	521531.334	226698.350	93.800	1.129					
						1	3.001	92.703	150
						2	1.002	92.671	6000
						0	1.003	92.671	6000
PLAT03	521552.883	226717.913	94.265	1.505					
						1	4.000	92.760	150
						0-1	4.001	93.000	150
						0-2	5.000	92.915	150
J5	521547.905	226694.757	93.720	1.083					
						1	4.001	92.704	150
						2	1.003	92.637	6000
						0	1.004	92.637	6000
PLAT04	521569.438	226714.244	94.155	1.525					
						1	5.000	92.630	150
						0-1	5.001	93.000	150
						0-2	6.000	92.805	150
J6	521564.476	226691.164	93.650	1.047					
						1	5.001	92.764	150
						2	1.004	92.603	6000
						0	1.005	92.603	6000
PLAT05	521585.992	226710.805	94.015	1.495					
						1	6.000	92.520	150
						0-1	6.001	92.800	150
						0-2	7.000	92.665	150
J7	521581.047	226687.571	93.550	0.981					
						1	6.001	92.642	150
						2	1.005	92.569	6000
						0	1.006	92.569	7000
PLAT06	521600.392	226707.384	93.940	1.524					
						1	7.000	92.416	150
						0	7.001	92.800	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
J8	521595.462	226684.445	93.495	0.956			1	7.001	92.644	150
							2	1.006	92.539	7000
							0	1.007	92.539	7000
J9	521609.633	226681.372	93.410	0.900			1	1.007	92.510	7000
							0	1.008	92.510	300
SW01	521611.911	226680.878	93.410	0.923	1200		1	1.008	92.487	300
SW02	521631.246	226664.282	93.100	0.868	1200		0	1.009	92.487	150
								1	1.009	92.232
SW03	521606.519	226635.474	91.600	1.266	1200		1	1.010	90.334	150
HW01	521604.742	226601.399	91.320	1.327			0	1.011	90.334	150
								1	1.011	89.993

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	240	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	0.0		

Storm Durations

10080

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
10	0	0	0

Node SW01 Online Depth/Flow Control

Flap Valve	x	Invert Level (m)	92.487	Design Flow (l/s)	1.0
Replaces Downstream Link	✓	Design Depth (m)	0.850		

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.001	0.000	2.000	0.000

Node PLAT01 Online Orifice Control

Flap Valve	x	Invert Level (m)	93.500	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.030		

Node PLAT02 Online Orifice Control

Flap Valve	x	Invert Level (m)	93.000	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.030		

Node PLAT03 Online Orifice Control

Flap Valve	x	Invert Level (m)	93.000	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.030		

Node PLAT04 Online Orifice Control

Flap Valve	x	Invert Level (m)	93.000	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.030		

Node PLAT05 Online Orifice Control

Flap Valve	x	Invert Level (m)	92.800	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.030		

Node PLAT01 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	94.200	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.300
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	13.400		

Node PLAT02 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	94.000	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.300
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	13.500		

Node PLAT03 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	93.900	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.300
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	17.100		

Node PLAT04 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	93.800	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.300
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	20.900		

Node PLAT05 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	93.600	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.300
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	23.700		

Node PLAT06 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	93.500	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.300
Safety Factor	2.0	Width (m)	20.000	Inf Depth (m)	0.300
Porosity	0.30	Length (m)	32.750		

Node PLAT02 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Link	3.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	93.660	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)		Diameter (mm)	1000

Node PLAT03 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Link	4.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	92.760	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)		Diameter (mm)	1000

Node PLAT04 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Link	5.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	92.630	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)		Diameter (mm)	1000

Node PLAT05 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Link	6.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	92.520	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)		Diameter (mm)	1000

Node PLAT06 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Link	7.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	92.416	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)		Diameter (mm)	1000

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
10 year 10080 minute summer	1.971	0.503	10 year 10080 minute winter	1.272	0.503

Results for 10 year Critical Storm Duration. Lowest mass balance: 98.72%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute winter	J1	10140	93.254	0.484	0.4	0.0000	0.0000	OK
10080 minute winter	J2	10140	93.254	0.515	0.4	0.0000	0.0000	SURCHARGED
10080 minute summer	PLAT01	5040	93.540	0.040	0.3	0.0000	0.0000	OK
10080 minute winter	J3	10080	93.254	0.549	0.5	0.0000	0.0000	SURCHARGED
10080 minute winter	PLAT02	10260	93.254	0.254	0.2	0.0000	0.0000	SURCHARGED
10080 minute winter	J4	10080	93.254	0.583	0.5	0.0000	0.0000	SURCHARGED
10080 minute winter	PLAT03	10140	93.254	0.494	0.3	5.6592	0.0000	SURCHARGED
10080 minute winter	J5	10080	93.254	0.617	0.5	0.0000	0.0000	SURCHARGED
10080 minute winter	PLAT04	10260	93.254	0.624	0.4	7.8636	0.0000	SURCHARGED
10080 minute winter	J6	10200	93.254	0.651	0.7	0.0000	0.0000	SURCHARGED
10080 minute winter	PLAT05	10260	93.254	0.734	0.6	9.7007	0.0000	SURCHARGED
10080 minute winter	J7	10200	93.254	0.685	0.9	0.0000	0.0000	FLOOD RISK
10080 minute winter	PLAT06	10320	93.254	0.838	1.2	10.2976	0.0000	SURCHARGED
10080 minute winter	J8	10200	93.254	0.715	1.3	0.0000	0.0000	FLOOD RISK
10080 minute winter	J9	10200	93.254	0.744	0.2	0.0000	0.0000	FLOOD RISK
10080 minute winter	SW01	10200	93.254	0.767	0.0	0.8673	0.0000	FLOOD RISK
10080 minute summer	SW02	60	92.232	0.000	0.0	0.0000	0.0000	OK
10080 minute summer	SW03	60	90.334	0.000	0.0	0.0000	0.0000	OK
10080 minute summer	HW01	60	89.993	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)
10080 minute winter	J1	1.000	J2	0.3	0.013	0.000	42.4555	
10080 minute winter	J2	1.001	J3	0.3	0.018	0.000	50.4908	
10080 minute summer	PLAT01	2.000	J3	0.3	0.490	0.031	0.0982	
10080 minute summer	PLAT01	3.000	PLAT02	0.0	0.000	0.000	0.0000	
10080 minute winter	J3	1.002	J4	0.4	0.011	0.000	73.8859	
10080 minute winter	PLAT02	3.001	J4	0.2	0.293	0.010	0.4183	
10080 minute winter	PLAT02	4.000	PLAT03	0.1	0.013	0.006	0.2985	
10080 minute winter	J4	1.003	J5	0.3	0.006	0.000	79.3619	
10080 minute winter	PLAT03	4.001	J5	0.1	0.005	0.003	0.4170	
10080 minute winter	PLAT03	5.000	PLAT04	0.2	0.019	0.011	0.2985	
10080 minute winter	J5	1.004	J6	-0.3	0.004	0.000	84.9554	
10080 minute winter	PLAT04	5.001	J6	0.1	0.005	0.003	0.4156	
10080 minute winter	PLAT04	6.000	PLAT05	0.4	0.035	0.017	0.2976	
10080 minute winter	J6	1.005	J7	-0.5	0.005	0.000	90.6667	
10080 minute winter	PLAT05	6.001	J7	0.2	0.234	0.011	0.4182	
10080 minute winter	PLAT05	7.000	PLAT06	0.5	0.028	0.021	0.2606	
10080 minute winter	J7	1.006	J8	-0.7	0.003	0.000	93.9622	
10080 minute winter	PLAT06	7.001	J8	1.1	0.363	0.076	0.4131	
10080 minute winter	J8	1.007	J9	0.2	0.003	0.000	97.1981	
10080 minute winter	J9	1.008	SW01	0.0	0.005	-0.001	0.1641	
10080 minute winter	SW01	Depth/Flow	SW02	0.0				
10080 minute summer	SW02	1.010	SW03	0.0	0.000	0.000	0.0000	
10080 minute summer	SW03	1.011	HW01	0.0	0.000	0.000	0.0000	0.0



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