

Proposed Residential
Development
Hurst Farm, off
Hurstwood Lane,
Haywards Heath

Drainage Technical Note

Prepared on behalf of Barratt
Redrow Southern Counties

November 2025

Hurst Farm, off Hurstwood Lane Residential Development

Project No:

MTP Ref: 25-058

Document Reference No:

25-058_Hurst Farm_DTN_P02

Document Title:

Drainage Technical Note

Date:

November 2025

Client Name:

Barratt Redrow Homes Southern Counties

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Document history and status

Revision	Date	Description	Prepared By	Checked By	Authorised By
P01	28/11/2025	First Issue	LP	BM	LP
P02	19/12/2025	Appendices Added	LP	BM	LP
P03	06/02/2026	Drawings updated	AM	BM	LP

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1. Introduction

Preamble

- 1.1. Milestone Transport Planning (MTP) have been commissioned by Barratt Redrow Southern Counties (BRSC) to prepare a Drainage Technical Note with regards to the site at Hurst Farm, off Hurstwood Lane to accompany to Reserved Matters Application (RMA).
- 1.2. The surface water drainage has designed to utilise a gravity fed system with SuDS and attenuation features proposed to treat, control, and attenuation surface water runoff, prior to discharging to the existing watercourses. The foul water system has been designed to utilise a gravity fed system, ultimately discharging to the existing public sewer network:
 - Phases 1, 2, and 3 surface water drainage would discharge to the existing manhole located to the south east of Phase 3, which ultimately connects to the existing watercourse on the western side of Hurstwood Lane.
 - Phases 1, 2, and 3 foul water drainage would discharge to the existing public foul network located within Hurstwood Lane.
 - Phase 4 surface water drainage would discharge to the existing watercourse located east of Phase 4.
 - Phase 4 foul water drainage would discharge to the existing public foul water network within Hurstwood Lane.
- 1.3. This report aims to illustrate how the proposed RMA design accords with the Drainage Strategy and Flood Risk Assessment (FRA) prepared by WSP for the Outline Planning Submission, with regards to the 375 residential unit proposals only.

Site Description

- 1.4. The site is located along Hurstwood Lane, to the south of Haywards Heath. The local planning authority is Mid-Sussex, with West Sussex acting as the Lead Local Flood Authority (LLFA). The site is bounded by Rocky Lane (A272) to the north, Hurst Wood to the east, Hurstwood Lane to the south, and Fox Hill to the west.
- 1.5. The site is approximately 33.31 hectares of grazing land, with the current proposals for development consisting of 375 residential units, school provision, burial ground, open space, and all associated infrastructure.
- 1.6. Levels across the site vary greatly, with a high point of approximately 78m AOD to the northeast, and a low point of approximately 38m to the south.
- 1.7. The site is bisected by a series of existing ponds and watercourses, with the proposed residential development split into four phases. Phase 4 being located to the east of Hurstwood Lane, Phases 1 and 2 being located west of Hurstwood Lane and north of the existing pods, and Phase 3 located to the south.

- 1.8. As identified within the approved WSP Flood Risk Assessment (FRA) ref: 70081355-RP-001, the site is classed as a 'More Vulnerable' development, with the site being located within Flood Zone 1.
- 1.9. The site is predominantly underlain by Upper Tunbridge Wells Sand formation - an impermeable strata, accompanied by levels of relatively high groundwater levels, peaking at circa. 1m below ground level (BGL).

2. Drainage Strategy

Existing Drainage

- 2.1. The existing surface water regime is understood to utilise the existing watercourse which bound the site, as well as the existing pond network which bisects the western parcel of land. These existing ponds are linked via a pipe network, where they ultimately discharge to a gravity network within the southeast corner of Phase 3 of the proposed residential development. It is not proposed to alter the existing regime of ponds, with proposed discharge points instead located downstream.
- 2.2. The gravity network downstream of the existing ponds is understood to ultimately discharge to the existing watercourse network which runs along the western boundary of Hurstwood Lane, before connecting to the Pellingford Brook.
- 2.3. Existing public foul water sewers are present within Hurstwood Lane, understood to be owned and maintained by Southern Water.
- 2.4. There is an existing foul water rising main present within Phase 4 of the proposed residential development which is to remain in-situ, with appropriate easements allowed for within the site layout.
- 2.5. An existing pump station is present to the southeast of Phase 3, however it is understood that this is now abandoned and the incoming service connections are to be treated as no longer in use.
- 2.6. There is also an existing foul water sewer heading from the northwest of the site, towards Hurstwood Lane. It is proposed that this sewer be diverted through the development as part of the construction works.
- 2.7. The existing greenfield run-off rates of 5.85 l/s/hectare have been calculated by WSP as part of the approved FRA, and these rates have been used to inform the proposed surface water drainage strategy.

Proposed Drainage

- 2.8. The principles set out within the approved FRA provided by WSP have been carried forward into the reserved matters design. The two surface water discharge locations identified have been utilised, as well as maintaining discharge rates of 5.85 l/s/hectare, based on the proposed impermeable area.
- 2.9. The foul water is proposed to discharge to the existing public foul water sewer within Hurstwood Lane, in accordance with the strategy agreed at the Outline planning stage.
- 2.10. The proposed drainage strategy is shown on the Drainage Strategy Plans appended in **Appendix 1** of this report.

Surface Water

- 2.11. Development Phases 1-3 are proposed to discharge via a gravity fed piped network, utilising a mixture of permeable paving, cellular crates, and vegetated basins as attenuation features to provide storage and treatment, and enable a restricted discharge to the existing surface water network.
- 2.12. Development Phase 4 is proposed to discharge to the existing watercourse to the east, via a series of piped network, permeable paving, and vegetated basin providing storage and treatment. The access road from Hurstwood Lane to Phase 4 is proposed to discharge to a roadside swale, utilising a series of cellular crates to provide the required storage volume prior to discharging to the existing gravity sewer within Phase 3.
- 2.13. The maximum allowable discharge rates have been calculated utilising the agreed rate of 5.85 l/s/hectare, however the exact rates differ slightly from the WSP FRA, due to more detailed impermeable areas being calculated. Tables detailing the cumulative impermeable areas and the calculated discharge rates are provided below:

Table 2.1 – Proposed Impermeable Areas and Discharge Rate (Phases 1-3)

Phase	Impermeable Area (ha)	Maximum Allowable Discharge Rate (l/s)
Phase 1	1.01	
Phase 2	1.65	
Phase 3	2.35	
Total	5.01	29.3

Table 2.2– Proposed Impermeable Areas and Discharge Rates (Phase 4)

Phase	Impermeable Area (ha)	Maximum Allowable Discharge Rate (l/s)
Phase 4	1.48	8.7
Phase 4 Access Road	0.44	2.6

- 2.14. These rates are therefore in accordance with the rates set out within the previously approved FRA, and provide a betterment to the existing greenfield run-off.
- 2.15. The surface water drainage modelling has been undertaken using the following criteria:
- FEH-22 Rainfall Data
 - Summer and Winter CV of 1
 - Climate Change allowance of 40% for the 1 in 10 and 1 in 30 year storm events

- Climate Change allowance of 45% for the 1 in 100 year storm event
 - Additional 10% area allowance for areas susceptible to urban creep (Plot roofs and private driveways)
 - No flooding for all events up to and including the 1 in 30 year plus climate change event
 - Minor flooding in limited areas during the 1 in 100 year plus climate change events, with overland flow routes provided to allow potential floodwaters to discharge to areas away from residential properties
- 2.16. The attenuation features have been sized to accommodate the above criteria and rainfall events, storage of a similar quantum to that identified within the approved FRA has been utilised within the RM design, in similar locations, subject to the detailed design constraints.
- 2.17. The attenuation basins have been designed with a maximum side slope of 1:3, and have a minimum freeboard of 0.3m as recommended within the CIRIA SuDS Manual. Additional free board and more relaxed side slopes have been provided for the basin within Phase 4, such that it can be used as an amenity feature by residents.
- 2.18. Due to the high groundwater encountered, it is likely that some of the basins may require anti-flotation measures such as under-dig or drainage mats. These would be designed by a specialist during the detailed design stage.
- 2.19. Due to the layout constraints and steepness of the site, it has not been possible to provide a basin of suitable size within Phase 3 as illustrated on the WSP plans within the approved FRA, and this has been replaced with cellular attenuation.
- 2.20. The roadside swale illustrated adjacent the Phase 4 access road, proposed by WSP has been accommodated, however due to the circa. 10m level difference between the start and finish it is not possible to provide sufficient storage within this. Therefore additional cellular attenuation has been proposed to suit.
- 2.21. An Ordinary Watercourse Consent application would be undertaken during the detailed design stage for the connection to the existing watercourse east of Phase 4.
- 2.22. Causeway Flow calculations are provided within **Appendix 2** of this report

CIRIA Pollution Mitigation Indices

- 2.23. The site is categorised as a 'Low' risk development and it is therefore proposed that the required pollution mitigation would be provided through both permeable paving and vegetated attenuation basins. The table below sets out the mitigation performance of each component in relation to the required indices for the development.

Pollution Hazard Level	Total Suspended Solids (TSS)	Metals	Hydrocarbons
Low (Residential parking and general access roads)	0.5	0.4	0.4

Pollution Mitigation Measure	Total Suspended Solids (TSS)	Metals	Hydrocarbons
Permeable Pavement	0.6	0.7	0.6
Detention Basin	0.5	0.5	0.6

Overland Flow and Exceedance Routes

- 2.24. As illustrated within the Overland Flow Plan appended within **Appendix 3** of this report, there are a limited number of instances where flooding may occur during the most extreme storm event. It is proposed that these flows would be routed away from residential properties either within the carriageway, or through areas of open space.

Levels have been designed such that properties would sit above the proposed highway wherever possible, in order to minimise the risk of flooding.

Foul Water

- 2.25. The proposed residential parcels have been designed to complement the existing steep topography of the site, and as such gravity connections to the existing public sewers are possible as illustrated within the previously approved FRA.
- 2.26. It is proposed that the foul water flows would be conveyed via a gravity fed network to the existing Southern Water manholes ref: 9203 & 9102
- 2.27. A Section 106 application would be prepared and submitted to Southern Water during the detailed design stage.

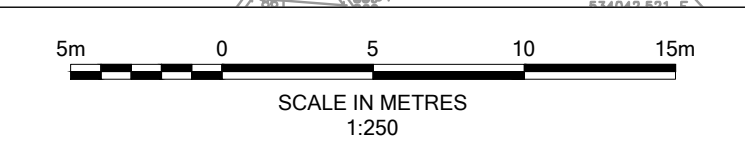
3. Conclusion

- 3.1. This report has illustrated how the proposed RMA drainage design accords with the principles set out within the previously approved FRA produced by WSP.
- 3.2. Surface water run-off is proposed to be conveyed and attenuated through various SuDS features, before discharging to the two agreed outfall locations at rates in-line with the existing greenfield run-off rate of 5.85 l/s/hectare.
- 3.3. Additional allowances have been made for climate change and urban creep, in line with national guidance.
- 3.4. Pollution mitigation would be provided in accordance with the requirements set out within the CIRIA SuDS manual, appropriate for the nature of the development.
- 3.5. Foul water flows from the site would be conveyed to the public foul water sewer located within Hurstwood Lane.
- 3.6. The relevant discharge approvals would be sought from the approving bodies during the detailed design stage.

Appendix 1



INDICATIVE



See Sheet 2

1. Do not scale from this drawing. All dimensions shown are in metres unless noted otherwise.
2. This drawing has been based upon topographical survey information produced by WSP and Milestone Transport Planning cannot be held responsible for any discrepancies which may arise because of it.

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	Adoptable Surface Water Sewer
	Adoptable Surface Water Manhole
	Adoptable Hydrobrake manhole to manufacturer's details
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	Attenuation Basin
	Permeable Paving, 1m Deep with 0.75m Granular Storage
	Highway Swale 0.5m Deep with 0.5m Granular Trench Below Base
	Swale Check Dam
	Proposed Diversion of Existing Foul Water Sewer
	Root Protection Area
	Abandoned Foul Water as Part of Diversion

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Drawing Revisions

Rev:	Drn:	Date:	Details:	Chk:	App:
P01	AM	28/11/2025	First issue	BM	LP
P02	MB	15/12/2025	New Site Layout	BM	LP
P03	MB	05/02/2026	New Site Layout	BM	LP

Barratt Redrow Southern
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Hurst Farm, Hurstwood Lane

Phase 1
Drainage Plan
Sheet 1 of 2

7 Ancells Court, Rye Close, Fleet, Hampshire, GU51 2UY
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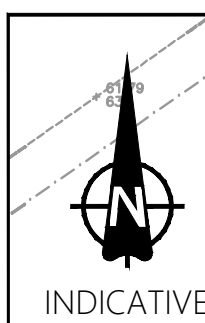
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INDICATIVE

See Sheet 1

Notes

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Key

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| | Swale Check Dam |
| | Proposed Division of Existing Foul Water Sewer |
| | Root Protection Area |
| | Abandoned Foul Water as Part of Diversion |

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Ordnance Survey Licence number: 100057360

Drawing Revisions

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Client	
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Barratt Redrow Southern
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Project

Hurst Farm, Hurstwood Lane

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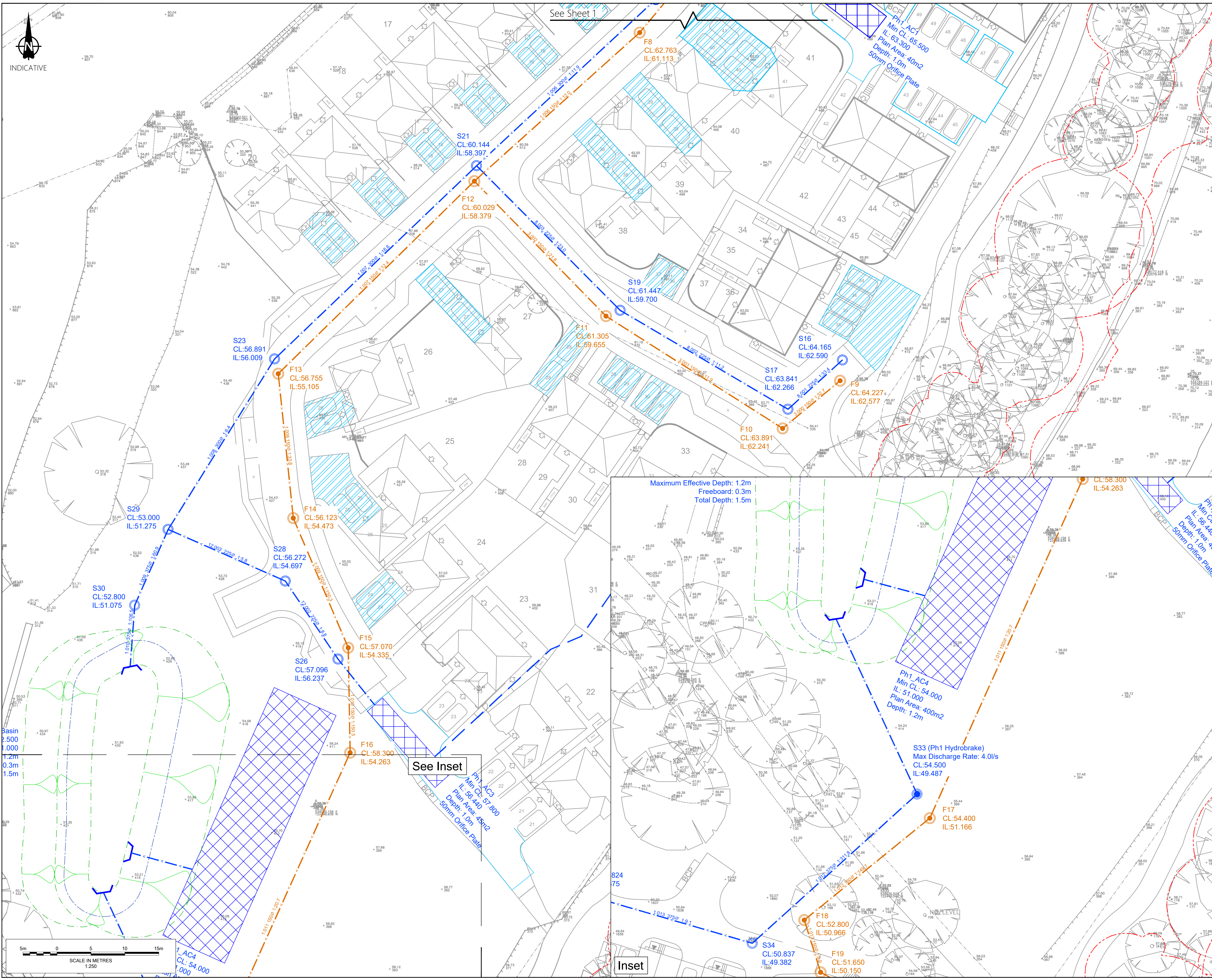
Phase 1
Drainage Plan
Sheet 2 of 2

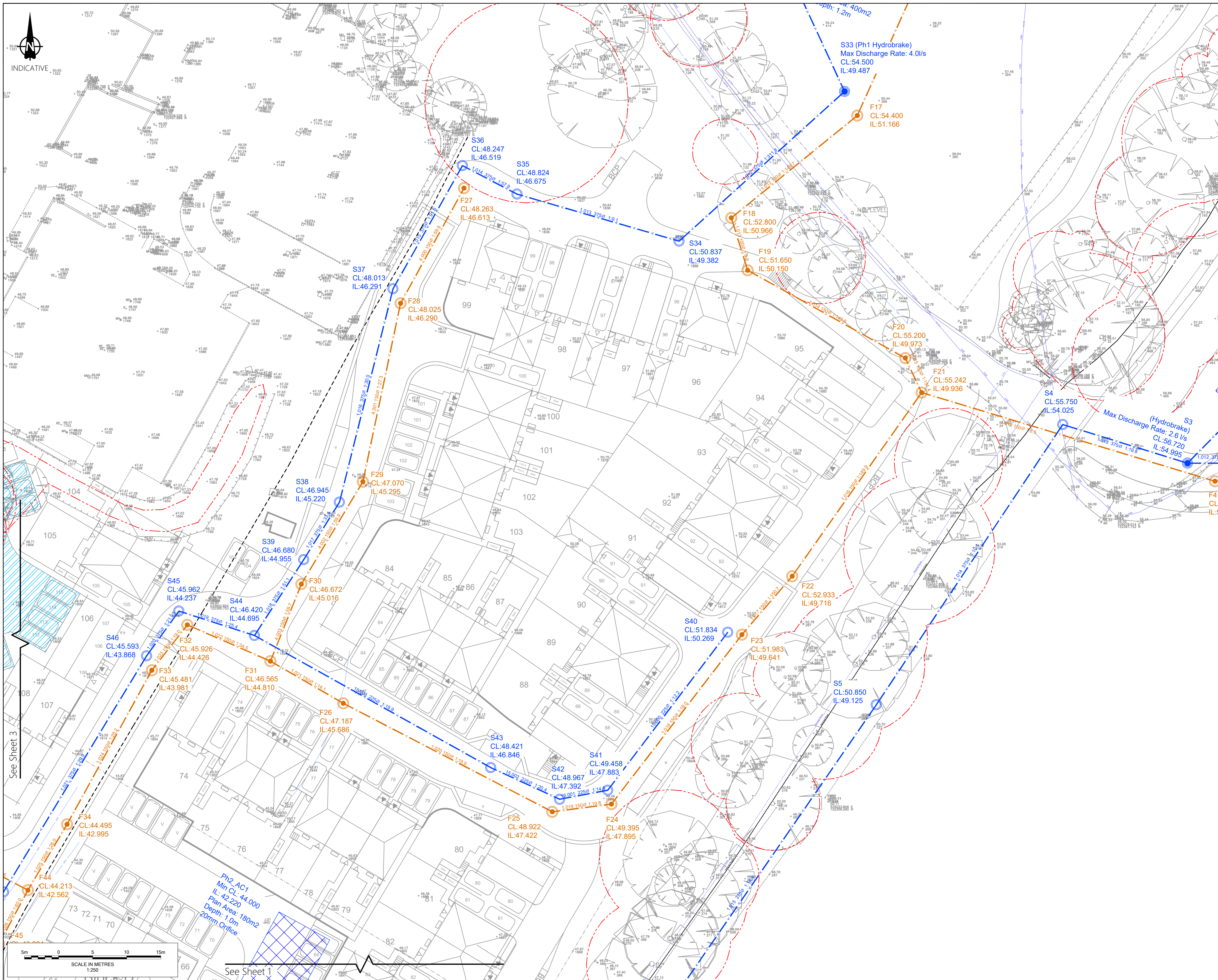
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	Root Protection Area
	Abandoned Foul Water as Part of Diversion

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Barratt Redrow Southern
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Hurst Farm, Hurstwood Lane

Title

Phase 2
Drainage Plan
Sheet 2 of 3

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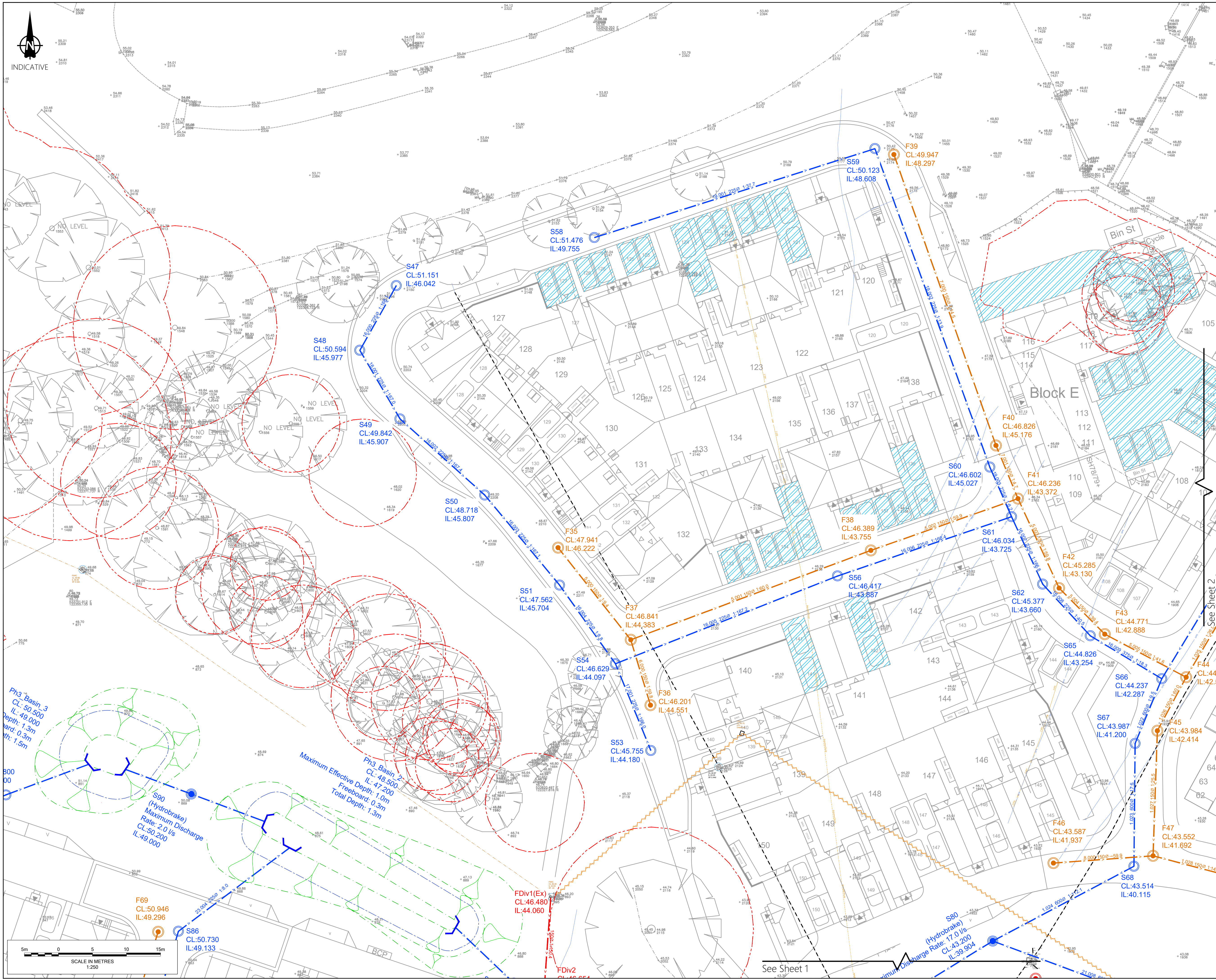
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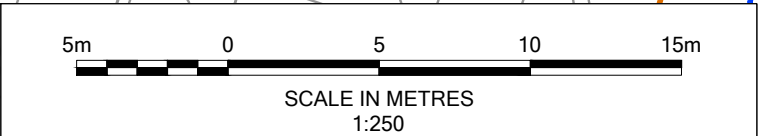
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INDICATIVE



SCALE IN METRES
1:250

PH3 Basin 3
CL: 50.500
Depth: 1.3m
Width: 0.3m
Length: 1.5m

PH3 Basin 2
CL: 48.500
Freeboard: 0.3m
Total Depth: 1.3m

S90 (Hydrobrake)
Maximum Discharge Rate: 2.0 l/s
CL: 50.200
IL: 49.000

F69
CL: 50.946
IL: 49.296

S86
CL: 50.730
IL: 49.133

FDiv1(Ex)
CL: 46.480
IL: 44.060

FDiv2
CL: 46.554
IL: 44.060

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Rev:	Dm:	Date:	Details:	Chk:	App:
P01	AM	28/11/2025	First issue	BM	LP
P02	MB	15/12/2025	Site layout updated	BM	LP
P03	MB	05/02/2026	Site layout updated	BM	LP

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Hurst Farm, Hurstwood Lane

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Phase 2
Drainage Plan
Sheet 3 of 3

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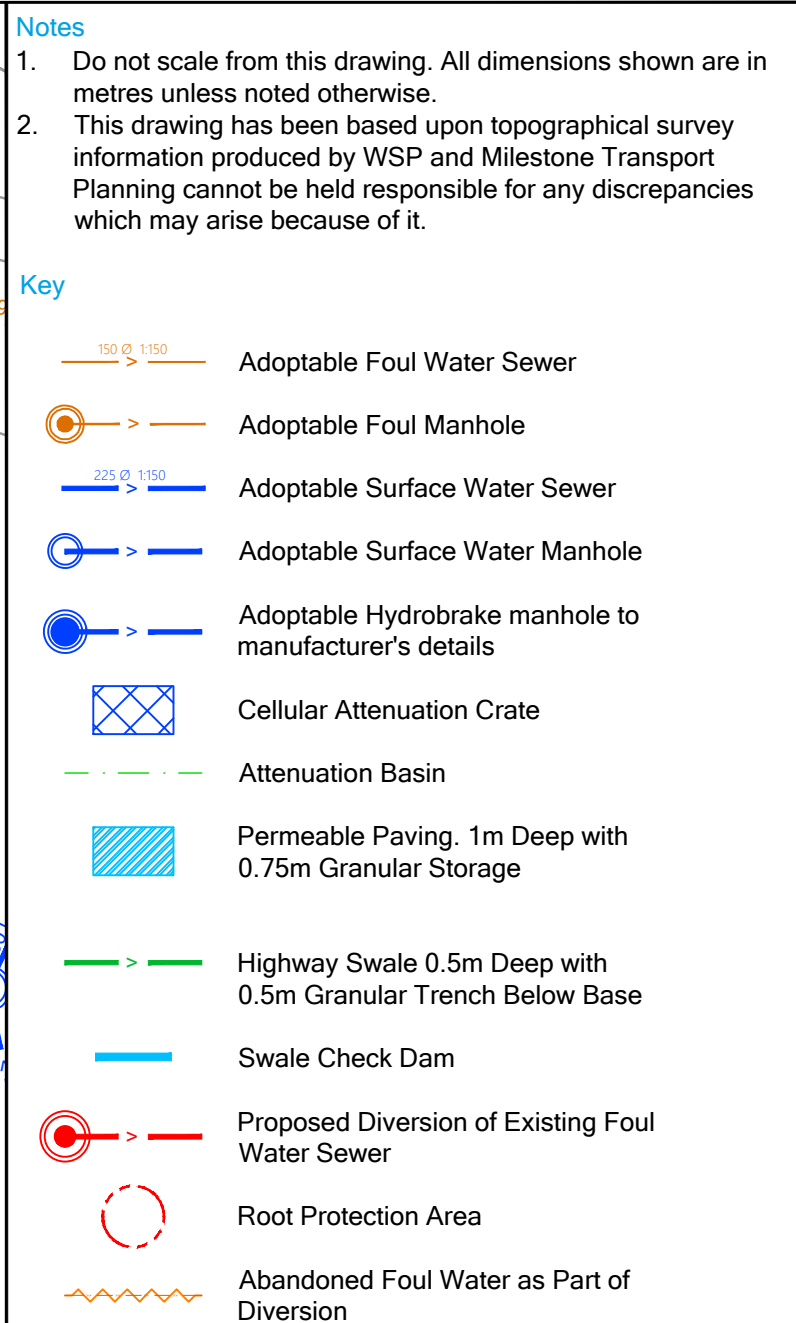
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25-058-02-0503



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Phase 3
Drainage Plan
Sheet 1 of 3

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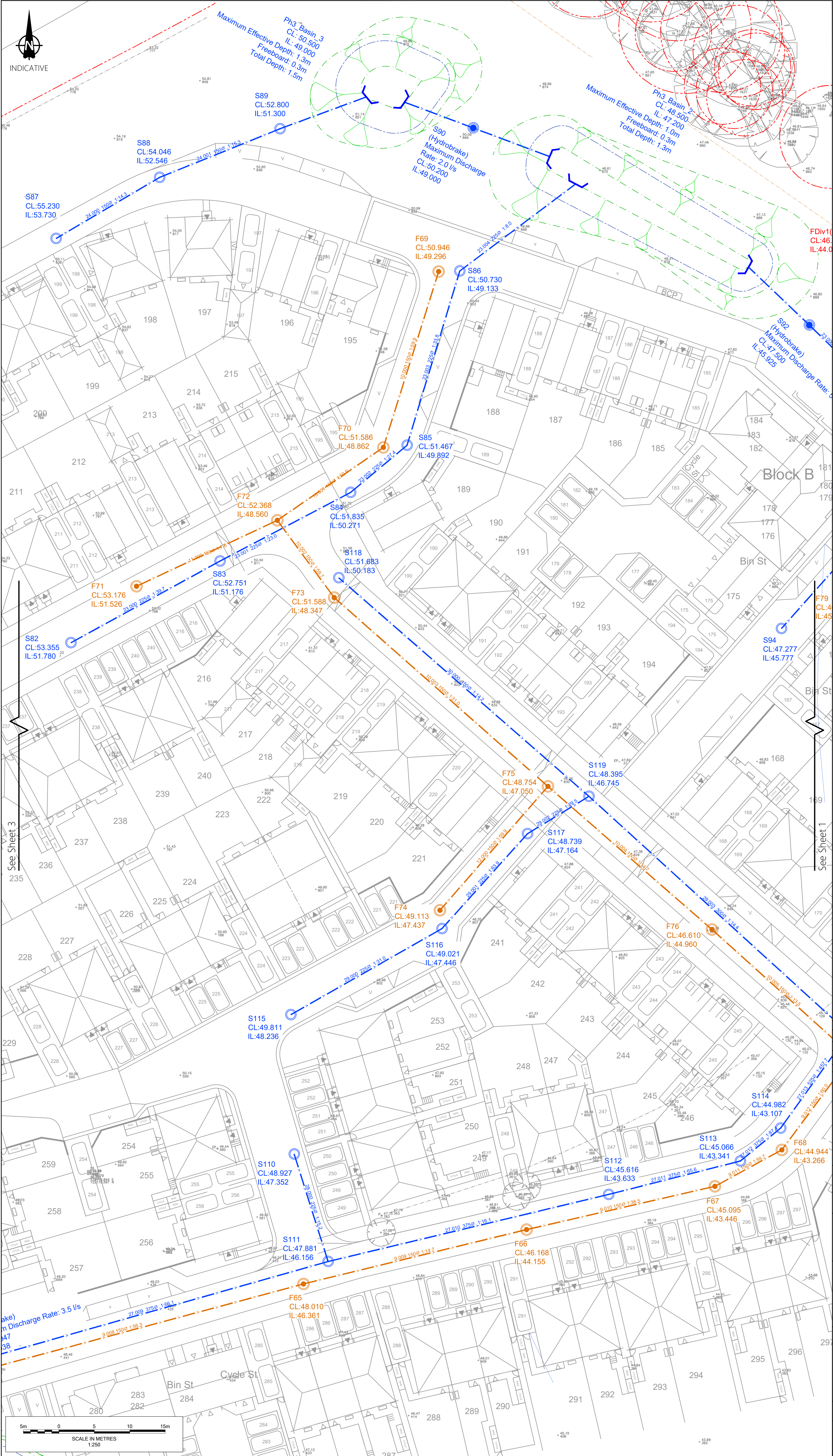
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Hurst Farm, Hurstwood Lane

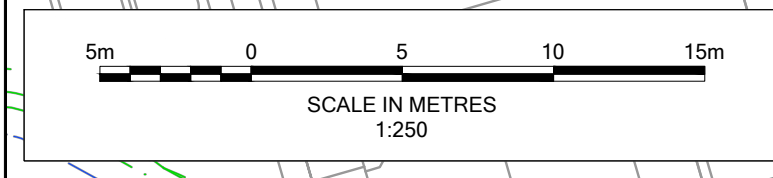
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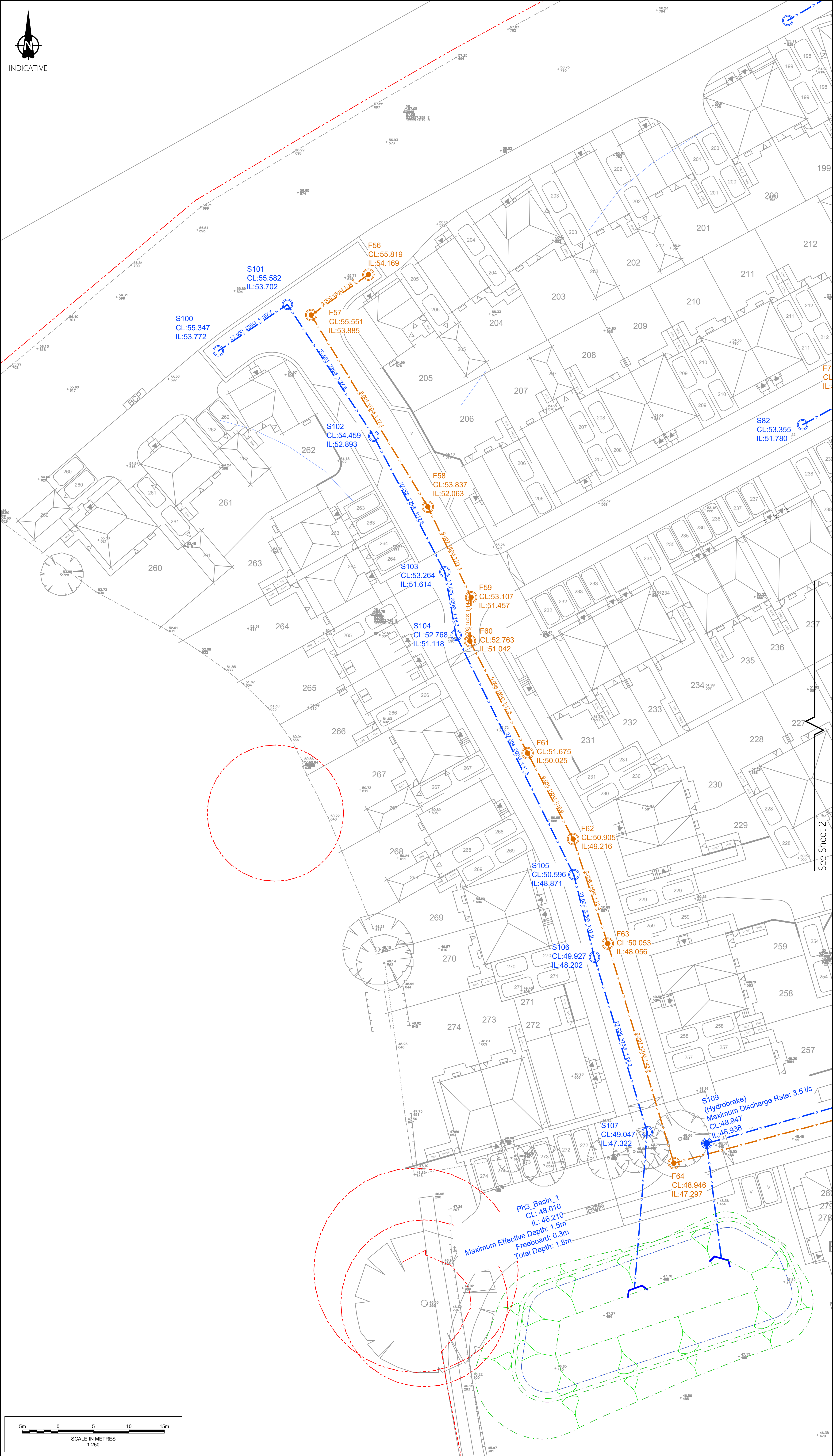
**Phase 3
Drainage Plan
Sheet 2 of 3**

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Hurst Farm, Hurstwood Lane

Title

Phase 3
Drainage Plan
Sheet 3 of 3

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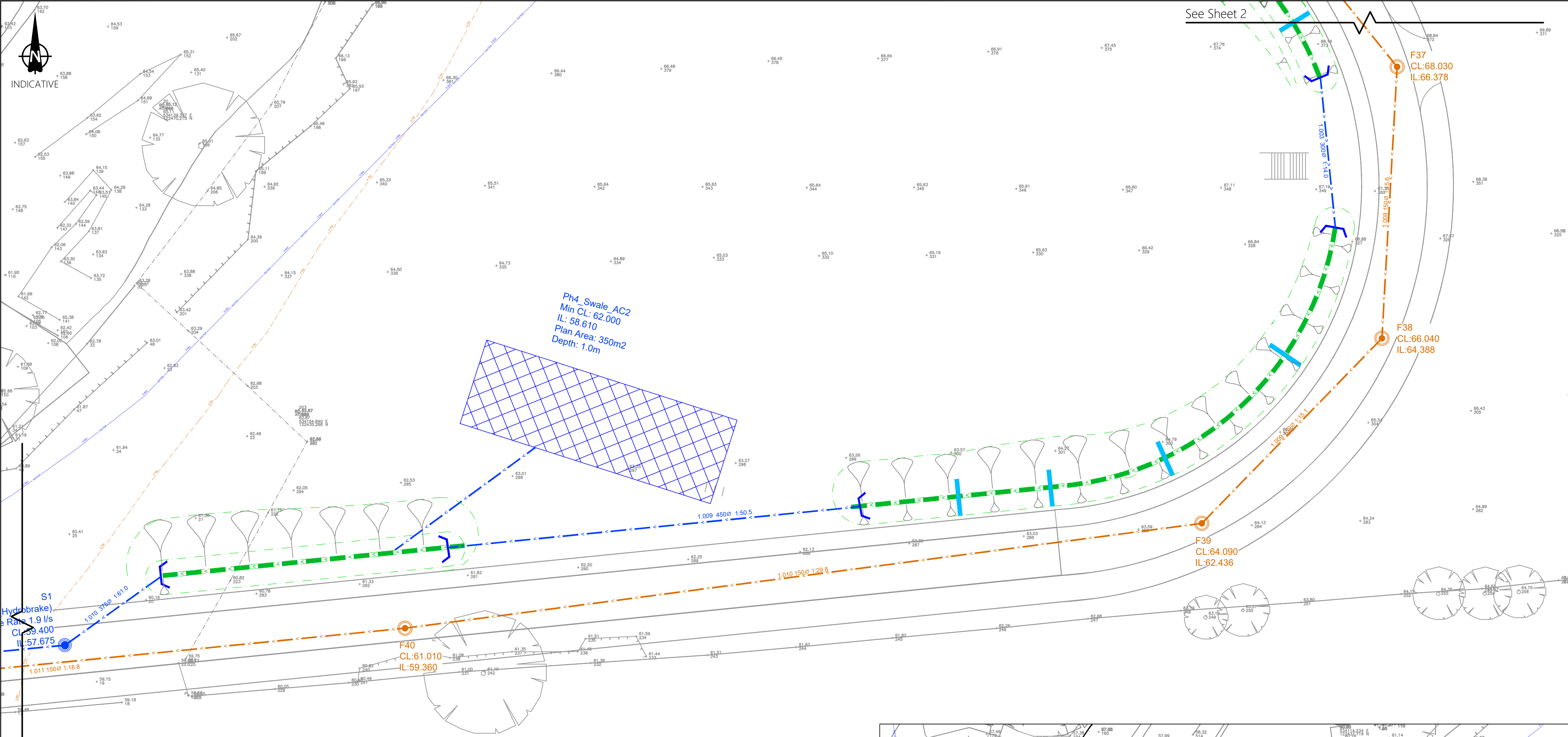
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Revision

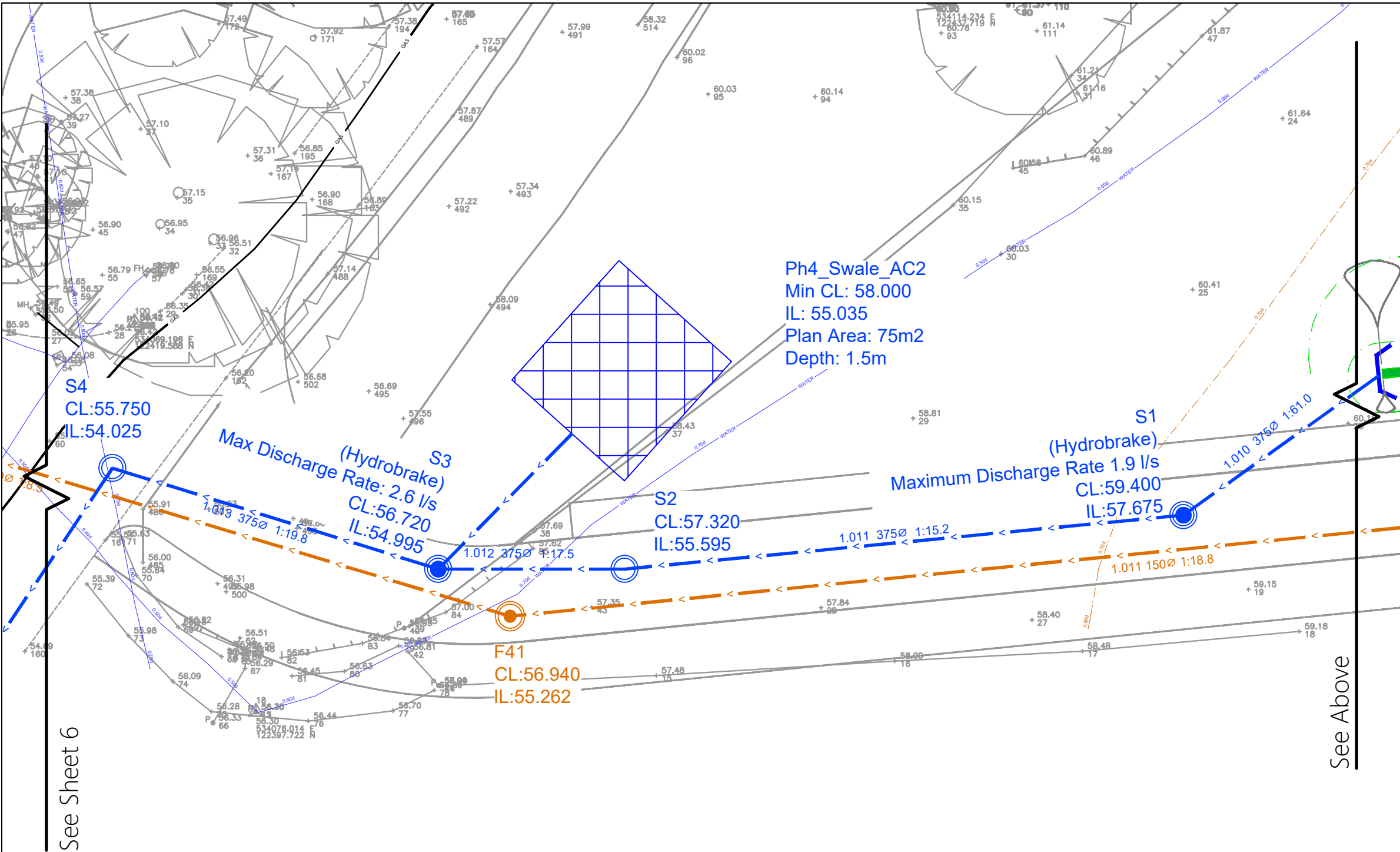
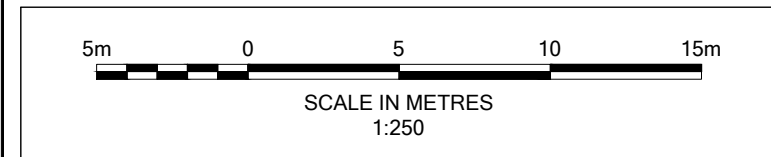
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See Inset



See Sheet 6

Inset

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 - Attenuation Basin
 - Permeable Paving, 1m Deep with 0.75m Granular Storage
 - Highway Swale 0.5m Deep with 0.5m Granular Trench Below Base
 - Swale Check Dam
 - Proposed Diversion of Existing Foul Water Sewer
 - Root Protection Area
 - Abandoned Foul Water as Part of Diversion

FOR APPROVAL

Ordnance Survey Licence number: 100057360

Drawing Revisions					
Rev:	Dm:	Date:	Details:	Chk:	App:
P01	AM	28/11/2025	First issue	BM	LP
P02	MB	15/12/2025	Site layout updated	BM	LP
P03	MB	05/02/2026	Site layout updated	BM	LP

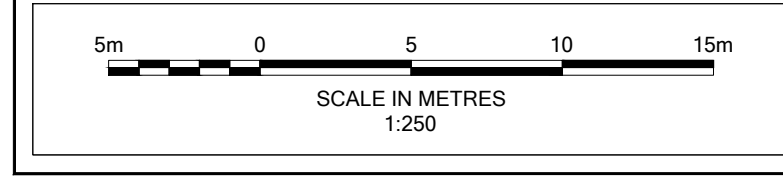
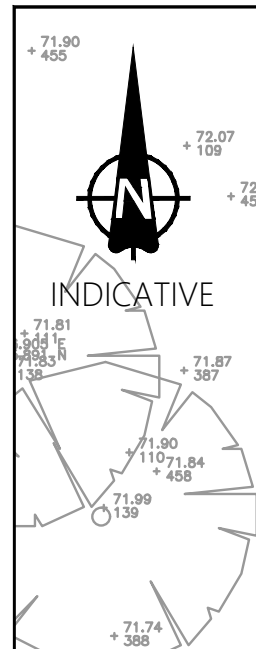
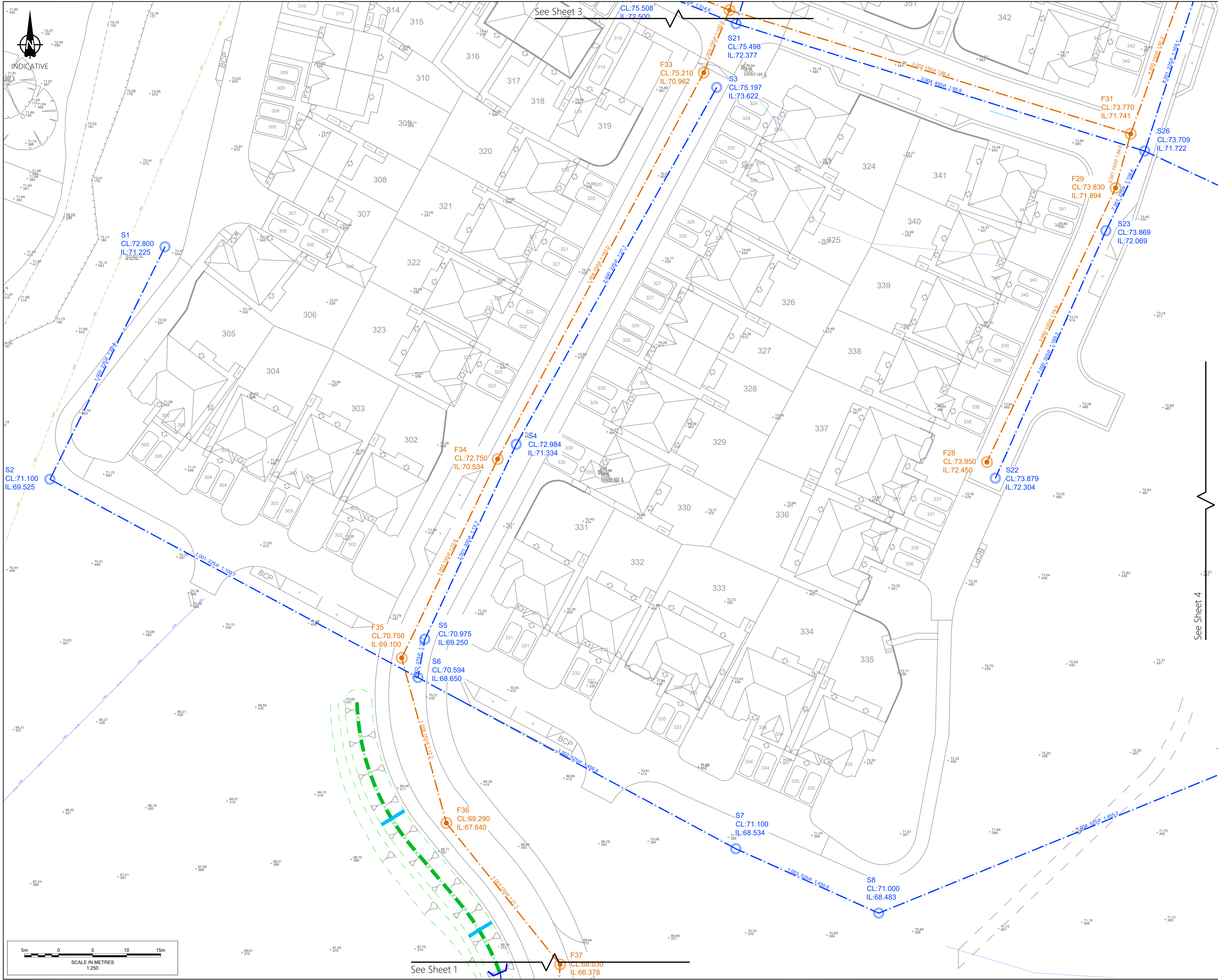
Client
Barratt Redrow Southern Counties

Project
Hurst Farm, Hurstwood Lane

Title
**Phase 4
Drainage Plan
Sheet 1 of 6**

MILESTONE
TRANSPORT PLANNING
7 Ancells Court, Rye Close, Fleet, Hampshire, GU51 2UY
Tel: 01483 397888
Gateshead IBC, Mulgrave Terrace, Gateshead, NE8 1AN
Tel: 0191 338 7220
3 Wharfside Street, Spaces The Mailbox Level 1, Birmingham, B1 1RD
Tel: 0121 661 9881
web: www.milestonetp.co.uk

Scale 1:250 @ A1	Revision P03
Drawing Number 25-058-04-0501	



Notes

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- This drawing has been based upon topographical survey information produced by WSP and Milestone Transport. Planning cannot be held responsible for any discrepancies which may arise because of it.

Key

- Adoptable Foul Water Sewer
- Adoptable Foul Manhole
- Adoptable Surface Water Sewer
- Adoptable Surface Water Manhole
- Adoptable Hydrobrake manhole to manufacturer's details
- Cellular Attenuation Crate
- Attenuation Basin
- Permeable Paving, 1m Deep with 0.75m Granular Storage
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FOR APPROVAL

Ordnance Survey Licence number: 100057360

Drawing Revisions					
Rev:	Dm:	Date:	Details:	Chk:	App:
P01	AM	28/11/2025	First issue	BM	LP
P02	MB	15/12/2025	Site layout updated	BM	LP
P03	MB	05/02/2026	Site layout updated	BM	LP

Client

Barratt Redrow Southern Counties

Project

Hurst Farm, Hurstwood Lane

Title

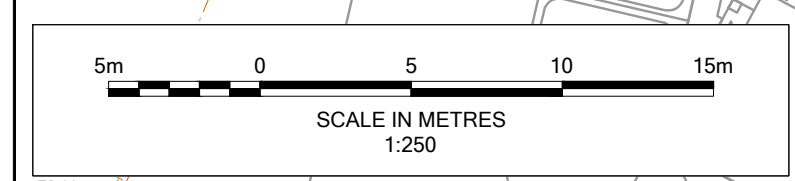
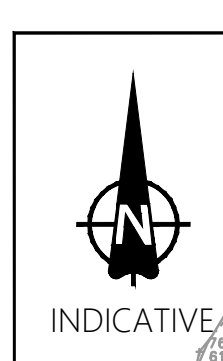
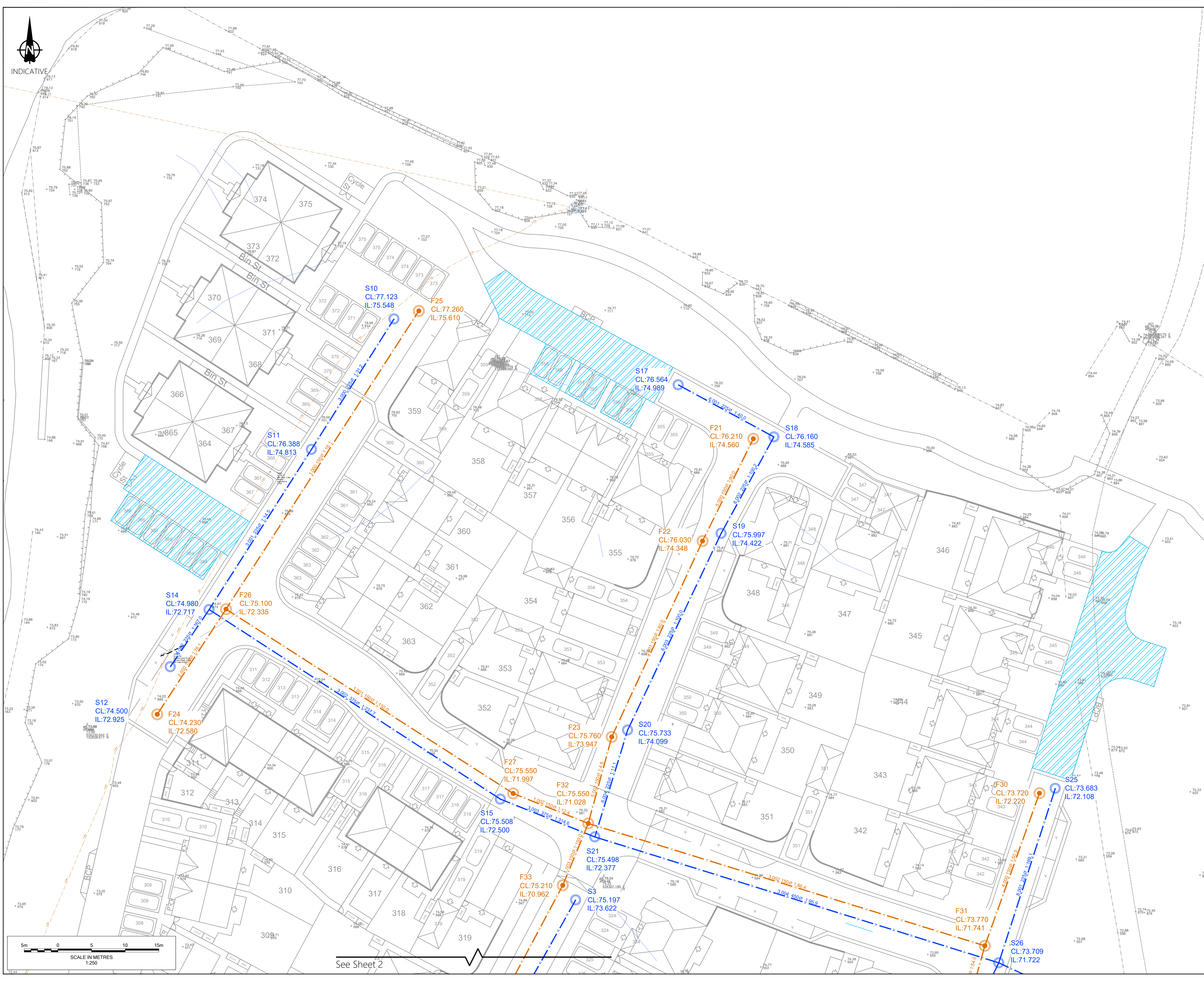
**Phase 4
Drainage Plan
Sheet 2 of 6**

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TRANSPORT PLANNING
7 Ancells Court, Rye Close, Fleet, Hampshire, GU51 2UY
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Drawing Number

25-058-04-0502



See Sheet 2

Notes

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- This drawing has been based upon topographical survey information produced by WSP and Milestone Transport Planning cannot be held responsible for any discrepancies which may arise because of it.

Key

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FOR APPROVAL

Ordnance Survey Licence number: 100057360

Drawing Revisions					
Rev:	Dm:	Date:	Details:	Chk:	App:
P01	AM	28/11/2025	First issue	BM	LP
P02	MB	15/12/2025	Site layout updated	BM	LP
P03	MB	05/02/2026	Site layout updated	BM	LP

Client

Barratt Redrow Southern Counties

Project

Hurst Farm, Hurstwood Lane

Title

**Phase 4
Drainage Plan
Sheet 3 of 6**

MILESTONE
TRANSPORT PLANNING

7 Ancells Court, Rye Close, Fleet, Hampshire, GU51 2UY
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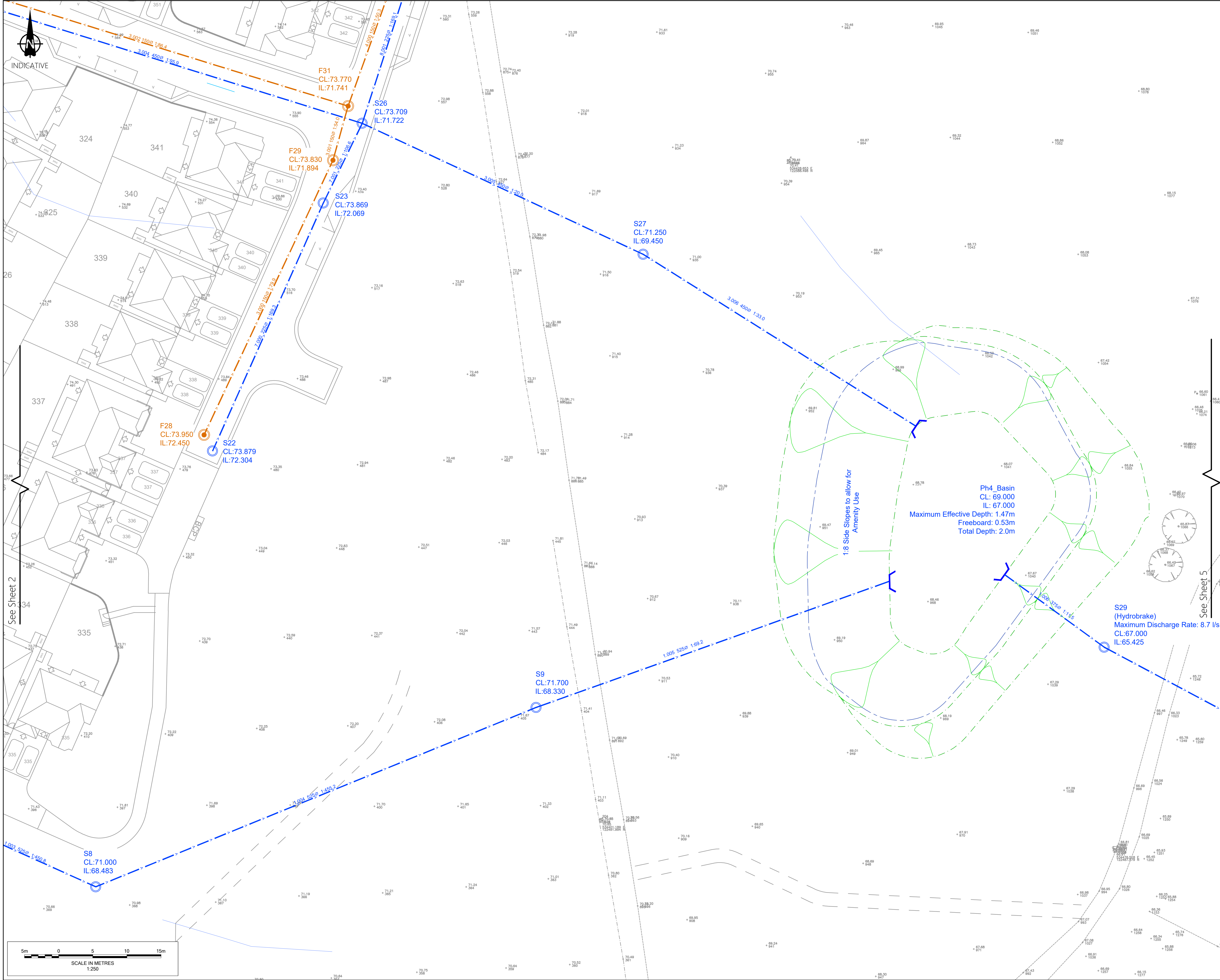
Gateshead IBC, Mulgrave Terrace, Gateshead, NE8 1AN
Tel: 0191 338 7220

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Drawing Number

25-058-04-0503



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Key

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- Adoptable Foul Manhole
- Adoptable Surface Water Sewer
- Adoptable Surface Water Manhole
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FOR APPROVAL

Ordnance Survey Licence number: 100057360

Rev:	Dm:	Date:	Details:	Chk:	App:
P01	MB	28/11/2025	First issue	BM	LP
P02	MB	15/12/2025	Site layout updated	BM	LP
P03	MB	05/02/2026	Site layout updated	BM	LP

Client

Barratt Redrow Southern Counties

Project

Hurst Farm, Hurstwood Lane

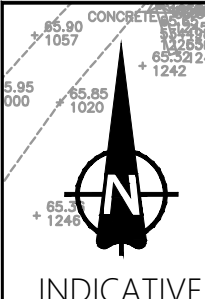
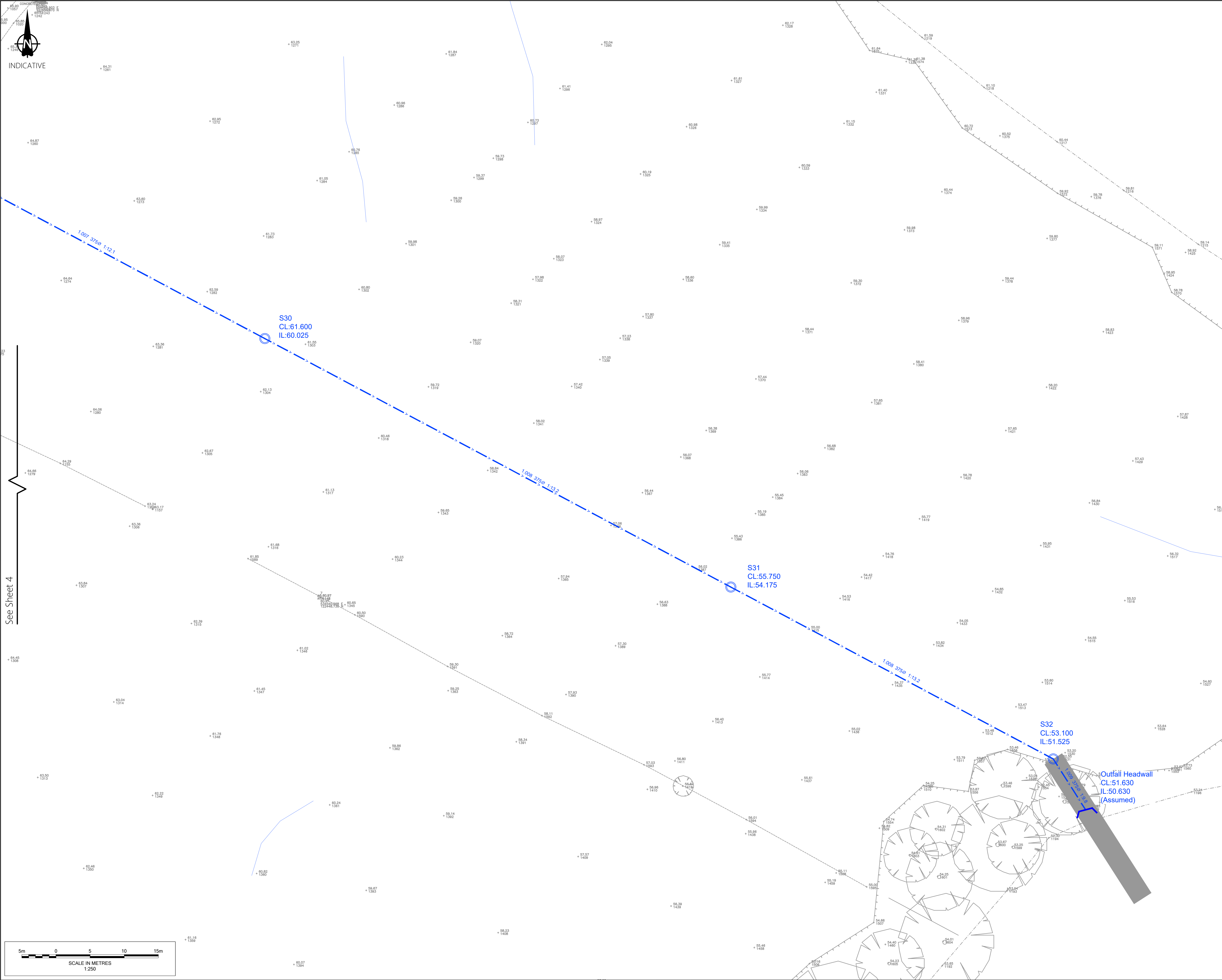
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**Phase 4
Drainage Plan
Sheet 4 of 6**

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Drawing Number: **25-058-04-0504**



See Sheet 4

- Notes**
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 - This drawing has been based upon topographical survey information produced by WSP and Milestone Transport. Planning cannot be held responsible for any discrepancies which may arise because of it.
- Key**
- Adoptable Foul Water Sewer
 - Adoptable Foul Manhole
 - Adoptable Surface Water Sewer
 - Adoptable Surface Water Manhole
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FOR APPROVAL

Ordnance Survey Licence number: 100057360

Drawing Revisions					
Rev:	Dm:	Date:	Details:	Chk:	App:
P01	MB	28/11/2025	First issue	BM	LP
P02	MB	15/12/2025	Site layout updated	BM	LP
P03	MB	05/02/2026	Site layout updated	BM	LP

Client

Barratt Redrow Southern Counties

Project

Hurst Farm, Hurstwood Lane

Title

Phase 4
Drainage Plan
Sheet 5 of 6

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Scale

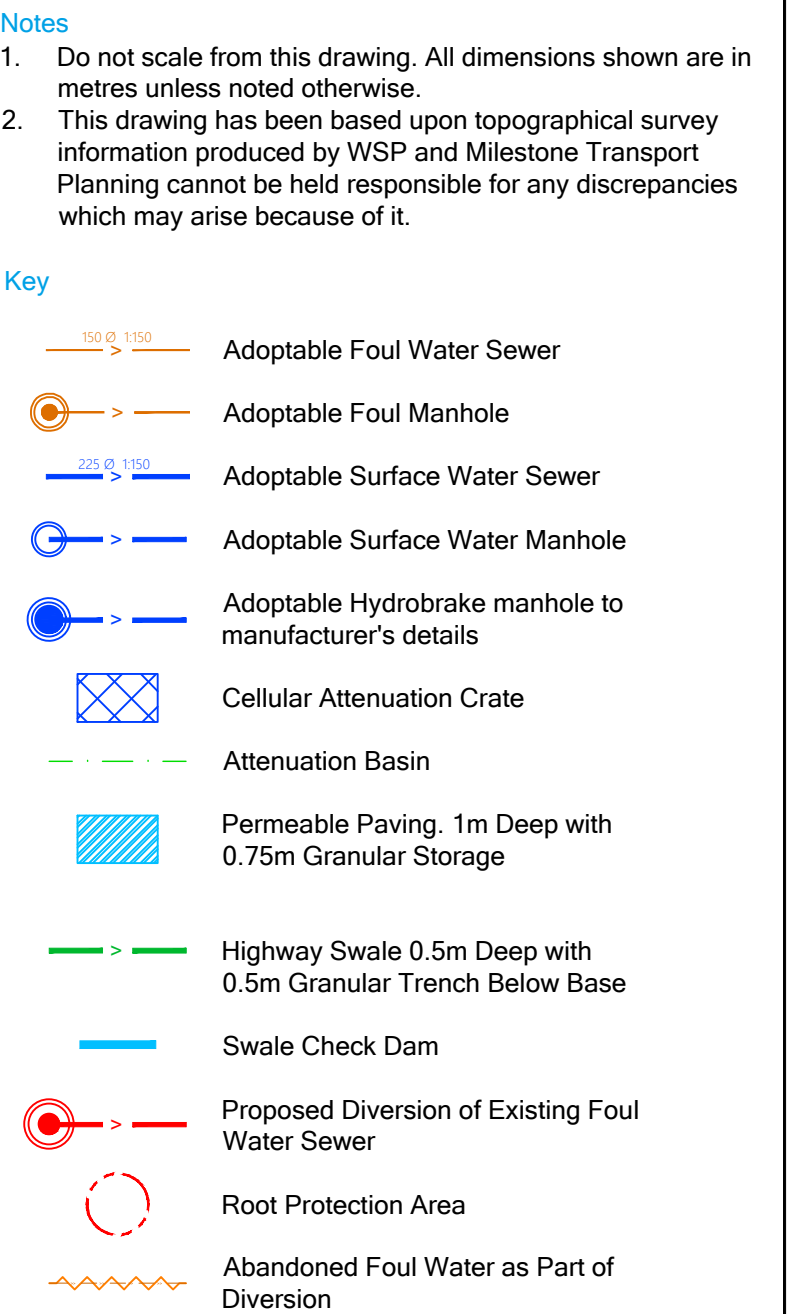
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Revision

P03

Drawing Number

25-058-04-0505

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Client

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Counties

Project

Hurst Farm, Hurstwood Lane

Title

Phase 4
Drainage Plan
Sheet 6 of 6

MILESTONE
TRANSFORD PLANNING

7 Ancoats Court, Rye Close, Fleet, Hampshire, GU51 2UY
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Scale	1:250 @ A1	Revision	P03
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25-058-04-0506

Appendix 2

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)	1.350
Time of Entry (mins)	5.00	Include Intermediate Ground	x
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.010	5.00	70.961	1200	534171.671	122665.066	1.575
2			69.970	1200	534161.936	122678.697	1.575
3 (Ph1_PP_1-6)	0.050	5.00	70.431		534151.963	122701.317	1.651
4	0.082	5.00	69.290	1200	534150.149	122677.955	1.650
5 (Ph1_PP_7-9)	0.046	5.00	68.515		534133.444	122676.061	1.000
6	0.017	5.00	68.180	1200	534140.634	122666.072	1.650
7 (Ph1_PP_10-11)	0.040	5.00	66.775		534120.669	122656.760	1.000
8	0.017	5.00	66.207	1200	534127.878	122646.332	1.650
9 (Ph1_AC_1)	0.074	5.00	65.500		534140.751	122616.668	2.200
10			65.222	1200	534127.504	122623.507	2.011
11 (Ph1_PP_12-13)	0.032	5.00	65.600		534110.254	122639.403	1.000
12	0.016	5.00	64.488	1200	534115.442	122629.892	2.011
13 (Ph1_PP_14-15)	0.050	5.00	62.675		534093.124	122629.604	0.355
14	0.045	5.00	63.138	1200	534105.086	122617.647	1.631
15 (Ph1_PP_34-37)	0.021	5.00	64.200		534141.934	122576.051	1.000
16			64.165	1200	534132.848	122564.534	1.575
17	0.035	5.00	63.841	1200	534124.823	122557.285	1.575
18 (Ph1_PP_28-30)	0.020	5.00	61.750		534096.060	122559.537	1.000
19	0.046	5.00	61.447	1200	534100.107	122571.842	1.747
20 (Ph1_PP_16-18)	0.060	5.00	59.825		534066.130	122607.924	1.000
21	0.049	5.00	60.144	1200	534078.948	122593.146	1.747
22 (Ph1_PP_19-20)	0.055	5.00	58.155		534039.211	122579.752	1.000
23	0.045	5.00	57.659	1200	534049.196	122564.697	1.650
24 (Ph1_AC_2)	0.059	5.00	62.500		534118.902	122515.778	2.200
25 (Ph1_AC_3)	0.066	5.00	57.800		534080.131	122503.918	1.400
26			57.850	1200	534058.538	122520.475	1.613
27 (Ph1_PP_24-26)	0.049	5.00	56.230		534059.825	122539.366	1.000
28	0.024	5.00	56.272	1200	534050.773	122531.975	1.575
29			53.000	1350	534033.514	122539.585	1.725
30			52.800	1350	534028.634	122528.419	1.725
31 (Ph1_AC_4)		5.00	54.000		534030.462	122520.960	3.000
32 (Ph1_Basin_1)			52.200		534027.733	122520.485	1.200
33 (Ph1 Hydrobrake)			54.500	1350	534035.926	122460.293	5.013
34			51.200	1350	534011.647	122438.329	1.818
35			48.400	1500	533987.861	122445.230	1.725
36			48.244	1350	533979.856	122449.410	1.725
37	0.098	5.00	48.016	1350	533969.566	122431.237	1.725
38	0.063	5.00	46.945	1350	533961.802	122400.027	1.725
39			46.680	1350	533956.564	122391.606	1.725
40	0.081	5.00	51.844	1200	534018.674	122380.956	1.575
41	0.041	5.00	49.458	1200	534001.177	122357.771	1.575
42	0.016	5.00	48.967	1200	533994.115	122356.447	1.575

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
43	0.034	5.00	48.421	1200	533984.011	122361.085	1.575
44	0.072	5.00	46.420	1350	533949.337	122380.468	1.725
45			45.962	1350	533938.249	122384.054	1.725
46	0.128	5.00	45.593	1350	533933.509	122377.492	1.725
47	0.014	5.00	47.617	1200	533799.992	122400.682	1.575
48			47.617	1200	533794.626	122391.162	1.640
49	0.021	5.00	47.617	1200	533800.536	122381.074	1.710
50	0.033	5.00	47.617	1200	533812.983	122369.880	1.810
51	0.040	5.00	47.617	1200	533823.985	122356.639	1.913
52 (Ph2_AC_3)		5.00	46.000		533829.419	122330.597	1.780
53	0.037	5.00	45.755	1200	533837.401	122332.327	1.575
54	0.018	5.00	46.629	1200	533832.196	122345.087	2.532
55 (Ph2_PP_133-137)	0.057	5.00	46.400		533859.130	122365.501	1.000
56	0.036	5.00	46.417	1200	533864.856	122357.987	2.530
57 (Ph2_PP_120-126)	0.062	5.00	50.850		533832.531	122398.295	1.000
58	0.029	5.00	51.330	1200	533829.106	122407.740	1.575
59	0.022	5.00	50.183	1200	533870.338	122420.813	1.575
60	0.034	5.00	46.602	1200	533887.069	122373.989	1.575
61			46.041	1200	533890.405	122366.606	2.316
62	0.042	5.00	45.381	1200	533895.002	122356.784	1.721
63 (Ph2_PP_109-119)	0.081	5.00	46.000		533908.632	122367.590	1.000
64			46.000	1200	533908.517	122356.064	1.100
65	0.026	5.00	44.829	1200	533902.051	122349.194	1.575
66	0.012	5.00	44.237	1350	533912.505	122342.872	1.950
67	0.030	5.00	43.987	1350	533908.582	122333.360	2.787
68	0.115	5.00	43.513	1350	533908.410	122315.655	3.398
69 (Ph2_AC_1)	0.162	5.00	44.000	1200	533940.466	122311.573	1.781
70	0.008	5.00	43.721	1200	533939.395	122302.526	1.781
71	0.027	5.00	43.546	1200	533950.622	122296.063	1.683
72			43.206	1200	533953.673	122286.700	1.575
73	0.037	5.00	42.877	1200	533953.207	122280.148	1.575
74	0.018	5.00	42.220	1200	533940.897	122255.767	1.650
75			42.200	1200	533928.124	122254.957	1.684
77 (Ph2_AC_2)		5.00	43.000		533933.289	122293.366	2.768
78	0.149	5.00	43.000	1350	533923.074	122298.336	2.797
79			43.200	1200	533920.162	122292.254	3.150
80			43.200	2400	533887.661	122304.312	3.296
81			45.200	1800	533848.637	122280.315	5.378
82	0.074	5.00	53.355	1200	533713.114	122253.351	1.575
83	0.059	5.00	52.751	1200	533734.139	122264.861	1.575
84	0.047	5.00	51.846	1200	533752.565	122274.537	1.575
85	0.030	5.00	51.467	1200	533760.529	122281.189	1.575
86	0.041	5.00	50.708	1200	533767.966	122305.757	1.575
87	0.052	5.00	55.230	1200	533711.021	122310.344	1.500
88	0.030	5.00	54.046	1200	533725.615	122318.947	1.500
89	0.059	5.00	52.800	1200	533742.604	122325.803	1.500
90 (Ph3_Basin_3)			50.200		533755.164	122328.914	1.200
91 (Ph3_Basin_2)			48.200		533779.182	122318.431	1.000
92	0.068	5.00	47.500	1200	533817.273	122298.130	1.575
93			47.000	1350	533825.091	122290.543	1.725
94	0.056	5.00	47.277	1200	533813.338	122255.351	1.500

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
95	0.037	5.00	46.567	1350	533835.524	122280.284	2.085
96 (Ph3_AC_2)		5.00	42.700		533858.845	122273.028	2.871
97	0.088	5.00	46.000	1800	533845.348	122271.104	6.196
98	0.099	5.00	43.600	1800	533878.156	122236.205	3.882
99	0.012	5.00	41.800	1800	533889.082	122229.328	2.105
100	0.046	5.00	55.347	1200	533630.800	122263.772	1.575
101	0.051	5.00	55.582	1200	533640.545	122270.315	1.880
102	0.026	5.00	54.468	1200	533652.699	122251.585	1.575
103	0.063	5.00	53.264	1200	533662.716	122232.601	1.650
104	0.088	5.00	52.768	1200	533664.305	122223.676	1.650
105	0.098	5.00	50.596	1200	533680.894	122189.936	1.725
106	0.031	5.00	49.927	1200	533683.796	122178.293	1.725
107	0.086	5.00	49.047	1200	533691.232	122153.660	1.725
108 (Ph3_Basin_1)			47.710	1200	533693.764	122130.266	1.500
109	0.049	5.00	48.947	1350	533699.628	122152.056	2.809
110	0.085	5.00	48.927	1200	533744.601	122181.269	1.575
111	0.161	5.00	47.881	1350	533749.387	122166.117	1.908
112	0.096	5.00	45.616	1350	533788.965	122175.574	1.983
113	0.071	5.00	45.066	1350	533807.533	122180.284	1.725
114	0.006	5.00	44.982	1500	533813.223	122184.923	1.875
115	0.026	5.00	49.811	1200	533744.137	122200.916	1.575
116	0.041	5.00	49.021	1200	533765.448	122213.043	1.575
117	0.049	5.00	48.739	1200	533777.522	122226.431	1.575
118	0.014	5.00	51.683	1200	533750.899	122262.510	1.500
119	0.135	5.00	48.395	1200	533786.185	122231.700	1.650
120	0.130	5.00	45.021	1500	533822.848	122198.296	1.950
121	0.077	5.00	43.897	1500	533837.463	122190.381	1.875
122	0.038	5.00	43.082	1500	533850.889	122185.864	1.875
123	0.051	5.00	41.660	1500	533875.702	122180.079	1.875
124 (Ph3_PP_151-155)	0.080	5.00	42.500		533880.606	122205.947	1.000
125 (Ph3_AC_1)	0.000	5.00	41.200	1800	533897.743	122202.687	1.950
126 (Ph3 Hydrobrake)			41.200	2100	533891.055	122184.053	1.986
126_OUT (Connection to Existing)			40.330	1800	533911.755	122185.857	1.730
PH1_AC1_Inlet			65.500		534147.928	122617.086	2.200
Ph1_AC2_Inlet			62.500		534133.674	122523.899	2.200
Ph1_AC3_Inlet			57.800		534084.473	122489.228	1.400
5.001							

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	1	2	16.750	0.600	69.386	68.395	0.991	16.9	225	5.09	50.0
1.001	2	4	11.810	0.600	68.395	67.715	0.680	17.4	225	5.15	50.0
2.000	3 (Ph1_PP_1-6)	4	23.432	0.600	68.780	67.715	1.065	22.0	225	5.14	50.0
1.002	4	6	15.223	0.600	67.640	66.530	1.110	13.7	300	5.21	50.0
3.000	5 (Ph1_PP_7-9)	6	12.308	0.600	67.515	66.680	0.835	14.7	150	5.08	50.0
1.003	6	8	23.503	0.600	66.530	64.557	1.973	11.9	300	5.29	50.0
4.000	7 (Ph1_PP_10-11)	8	12.677	0.600	65.775	64.707	1.068	11.9	150	5.07	50.0
1.004	8	12	20.614	0.600	64.557	62.477	2.080	9.9	300	5.36	50.0
5.000	9 (Ph1_AC_1)	10	14.908	0.600	63.300	63.211	0.089	167.5	225	5.25	50.0
5.001	10	12	13.648	0.600	63.211	62.552	0.659	20.7	225	5.33	50.0
6.000	11 (Ph1_PP_12-13)	12	10.834	0.600	64.600	62.627	1.973	5.5	150	5.04	50.0
1.005	12	14	16.037	0.600	62.477	61.582	0.895	17.9	300	5.43	50.0
7.000	13 (Ph1_PP_14-15)	14	16.913	0.600	62.320	61.657	0.663	25.5	150	5.14	50.0
1.006	14	21	35.826	0.600	61.507	58.494	3.013	11.9	300	5.57	50.0
8.000	15 (Ph1_PP_34-37)	16	14.670	0.600	63.200	62.590	0.610	24.0	225	5.09	50.0
8.001	16	17	10.814	0.600	62.590	62.266	0.324	33.4	225	5.17	50.0
8.002	17	19	28.684	0.600	62.266	59.700	2.566	11.2	225	5.29	50.0
9.000	18 (Ph1_PP_28-30)	19	12.953	0.600	60.750	59.700	1.050	12.3	150	5.07	50.0
8.003	19	21	30.026	0.600	59.700	58.397	1.303	23.0	225	5.47	50.0
10.000	20 (Ph1_PP_16-18)	21	19.562	0.600	58.825	58.644	0.181	108.1	150	5.34	50.0
1.007	21	23	41.165	0.600	58.494	56.009	2.485	16.6	300	5.74	50.0
11.000	22 (Ph1_PP_19-20)	23	18.065	0.600	57.155	56.009	1.146	15.8	150	5.12	50.0
1.008	23	29	29.606	0.600	56.009	51.350	4.659	6.4	300	5.82	50.0
12.000	24 (Ph1_AC_2)	25 (Ph1_AC_3)	40.544	0.600	60.300	56.400	3.900	10.4	225	5.17	50.0

Name	US Node	DS Node	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.000	1	2	3.198	127.1	1.8	1.350	1.350	0.010	0.0
1.001	2	4	3.155	125.4	1.8	1.350	1.350	0.010	0.0
2.000	3 (Ph1_PP_1-6)	4	2.801	111.4	9.0	1.426	1.350	0.050	0.0
1.002	4	6	4.267	301.6	25.7	1.350	1.350	0.142	0.0
3.000	5 (Ph1_PP_7-9)	6	2.637	46.6	8.3	0.850	1.350	0.046	0.0
1.003	6	8	4.579	323.7	37.0	1.350	1.350	0.205	0.0
4.000	7 (Ph1_PP_10-11)	8	2.940	52.0	7.2	0.850	1.350	0.040	0.0
1.004	8	12	5.022	355.0	47.3	1.350	1.711	0.262	0.0
5.000	9 (Ph1_AC_1)	10	1.007	40.0	13.4	1.975	1.786	0.074	0.0
5.001	10	12	2.888	114.8	13.4	1.786	1.711	0.074	0.0
6.000	11 (Ph1_PP_12-13)	12	4.329	76.5	5.8	0.850	1.711	0.032	0.0
1.005	12	14	3.731	263.7	69.4	1.711	1.256	0.384	0.0
7.000	13 (Ph1_PP_14-15)	14	2.001	35.4	9.0	0.205	1.331	0.050	0.0
1.006	14	21	4.583	324.0	86.6	1.331	1.350	0.479	0.0
8.000	15 (Ph1_PP_34-37)	16	2.679	106.5	3.8	0.775	1.350	0.021	0.0
8.001	16	17	2.272	90.3	3.8	1.350	1.350	0.021	0.0
8.002	17	19	3.935	156.5	10.1	1.350	1.522	0.056	0.0
9.000	18 (Ph1_PP_28-30)	19	2.884	51.0	3.6	0.850	1.597	0.020	0.0
8.003	19	21	2.737	108.8	22.0	1.522	1.522	0.122	0.0
10.000	20 (Ph1_PP_16-18)	21	0.966	17.1	10.8	0.850	1.350	0.060	0.0
1.007	21	23	3.881	274.3	128.3	1.350	1.350	0.710	0.0
11.000	22 (Ph1_PP_19-20)	23	2.550	45.1	9.9	0.850	1.500	0.055	0.0
1.008	23	29	6.274	443.5	146.4	1.350	1.350	0.810	0.0
12.000	24 (Ph1_AC_2)	25 (Ph1_AC_3)	4.081	162.3	10.7	1.975	1.175	0.059	0.0

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)
12.001	25 (Ph1_AC_3)	26	27.210	0.600	56.400	56.237	0.163	166.9	225	5.62	50.0
12.002	26	28	13.876	0.600	56.273	54.697	1.576	8.8	225	5.67	50.0
13.000	27 (Ph1_PP_24-26)	28	11.686	0.600	55.230	54.722	0.508	23.0	150	5.09	50.0
12.003	28	29	18.862	0.600	54.697	51.425	3.272	5.8	225	5.72	50.0
1.009	29	30	12.186	0.600	51.275	51.075	0.200	60.9	375	5.91	50.0
1.010	30	32 (Ph1_Basin_1)	7.985	0.600	51.075	51.000	0.075	106.5	375	5.98	50.0
14.000	31 (Ph1_AC_4)	32 (Ph1_Basin_1)	2.770	0.600	51.000	51.000	0.000	0.0	375	5.05	50.0
1.011	32 (Ph1_Basin_1)	33 (Ph1 Hydrobrake)	60.747	0.600	51.000	49.487	1.513	40.2	375	6.34	50.0
1.012	33 (Ph1 Hydrobrake)	34	32.740	0.600	49.487	49.382	0.105	311.8	375	6.87	50.0
1.013	34	35	24.767	0.600	49.382	46.675	2.707	9.1	375	6.94	50.0
1.014	35	36	9.031	0.600	46.675	46.519	0.156	57.9	375	7.00	50.0
1.015	36	37	20.884	0.600	46.519	46.291	0.228	91.6	375	7.19	50.0
1.016	37	38	32.161	0.600	46.291	45.220	1.071	30.0	375	7.35	50.0
1.017	38	39	9.917	0.600	45.220	44.955	0.265	37.4	375	7.40	50.0
1.018	39	44	13.277	0.600	44.955	44.695	0.260	51.1	375	7.49	50.0
15.000	40	41	29.046	0.600	50.269	47.883	2.386	12.2	225	5.13	50.0
15.001	41	42	7.185	0.600	47.883	47.392	0.491	14.6	225	5.16	50.0
15.002	42	43	11.118	0.600	47.392	46.846	0.546	20.4	225	5.23	50.0
15.003	43	44	39.724	0.600	46.846	44.845	2.001	19.9	225	5.45	50.0
1.019	44	45	11.653	0.600	44.695	44.237	0.458	25.4	375	7.55	50.0
1.020	45	46	8.095	0.600	44.237	43.868	0.369	21.9	375	7.58	50.0
1.021	46	66	40.493	0.600	43.868	42.512	1.356	29.9	375	7.78	50.0
16.000	47	48	10.928	0.600	46.042	45.977	0.065	168.1	225	5.18	50.0
16.001	48	49	11.692	0.600	45.977	45.907	0.070	167.0	225	5.37	50.0

Name	US Node	DS Node	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
12.001	25 (Ph1_AC_3)	26	1.009	40.1	22.6	1.175	1.388	0.125	0.0
12.002	26	28	4.436	176.4	22.6	1.352	1.350	0.125	0.0
13.000	27 (Ph1_PP_24-26)	28	2.108	37.3	8.9	0.850	1.400	0.049	0.0
12.003	28	29	5.485	218.1	35.8	1.350	1.350	0.198	0.0
1.009	29	30	2.324	256.7	182.1	1.350	1.350	1.008	0.0
1.010	30	32 (Ph1_Basin_1)	1.755	193.9	182.1	1.350	0.825	1.008	0.0
14.000	31 (Ph1_AC_4)	32 (Ph1_Basin_1)	1.000	110.4	0.0	2.625	0.825	0.000	0.0
1.011	32 (Ph1_Basin_1)	33 (Ph1 Hydrobrake)	2.866	316.6	182.1	0.825	4.638	1.008	0.0
1.012	33 (Ph1 Hydrobrake)	34	1.020	112.7	182.1	4.638	1.443	1.008	0.0
1.013	34	35	6.019	664.8	182.1	1.443	1.350	1.008	0.0
1.014	35	36	2.385	263.4	182.1	1.350	1.350	1.008	0.0
1.015	36	37	1.893	209.1	182.1	1.350	1.350	1.008	0.0
1.016	37	38	3.316	366.3	199.9	1.350	1.350	1.106	0.0
1.017	38	39	2.969	328.0	211.2	1.350	1.350	1.169	0.0
1.018	39	44	2.540	280.6	211.2	1.350	1.350	1.169	0.0
15.000	40	41	3.770	149.9	14.6	1.350	1.350	0.081	0.0
15.001	41	42	3.438	136.7	22.0	1.350	1.350	0.122	0.0
15.002	42	43	2.912	115.8	24.9	1.350	1.350	0.138	0.0
15.003	43	44	2.950	117.3	31.1	1.350	1.350	0.172	0.0
1.019	44	45	3.604	398.1	255.3	1.350	1.350	1.413	0.0
1.020	45	46	3.882	428.8	255.3	1.350	1.350	1.413	0.0
1.021	46	66	3.326	367.3	278.5	1.350	1.350	1.541	0.0
16.000	47	48	1.005	40.0	2.5	1.350	1.415	0.014	0.0
16.001	48	49	1.009	40.1	2.5	1.415	1.485	0.014	0.0

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)
16.002	49	50	16.740	0.600	45.907	45.807	0.100	167.4	225	5.65	50.0
16.003	50	51	17.215	0.600	45.807	45.704	0.103	167.1	225	5.94	50.0
16.004	51	54	14.173	0.600	45.704	44.097	1.607	8.8	225	5.99	50.0
17.000	52 (Ph2_AC_3)	53	8.167	0.600	44.220	44.180	0.040	204.2	225	5.15	50.0
17.001	53	54	13.781	0.600	44.180	44.097	0.083	166.0	225	5.38	50.0
16.005	54	56	35.115	0.600	44.097	43.887	0.210	167.2	225	6.57	50.0
18.000	55 (Ph2_PP_133-137)	56	9.447	0.600	45.400	44.012	1.388	6.8	100	5.05	50.0
16.006	56	61	26.964	0.600	43.887	43.725	0.162	166.4	225	7.01	50.0
19.000	57 (Ph2_PP_120-126)	58	10.047	0.600	49.850	49.830	0.020	502.3	225	5.29	50.0
19.001	58	59	43.255	0.600	49.755	48.608	1.147	37.7	225	5.63	50.0
19.002	59	60	49.723	0.600	48.608	45.027	3.581	13.9	225	5.86	50.0
19.003	60	61	8.102	0.600	45.027	43.725	1.302	6.2	225	5.89	50.0
16.007	61	62	10.845	0.600	43.725	43.660	0.065	166.8	225	7.19	50.0
16.008	62	65	10.358	0.600	43.660	43.404	0.256	40.5	225	7.28	50.0
20.000	63 (Ph2_PP_109-119)	64	11.527	0.600	45.000	44.900	0.100	115.3	150	5.21	50.0
20.001	64	65	9.434	0.600	44.900	43.329	1.571	6.0	150	5.24	50.0
16.009	65	66	12.217	0.600	43.254	42.587	0.667	18.3	375	7.33	50.0
1.022	66	67	10.289	0.600	42.287	41.200	1.087	9.5	600	7.80	50.0
1.023	67	68	17.706	0.600	41.200	40.190	1.010	17.5	600	7.86	50.0
1.024	68	80	23.647	0.600	40.115	39.904	0.211	112.1	600	8.03	50.0
21.000	69 (Ph2_AC_1)	70	9.110	0.600	42.219	42.015	0.204	44.7	150	5.10	50.0
21.001	70	71	12.954	0.600	41.940	41.863	0.077	168.2	225	5.32	50.0
21.002	71	72	9.848	0.600	41.863	41.631	0.232	42.4	225	5.40	50.0
21.003	72	73	6.569	0.600	41.631	41.302	0.329	20.0	225	5.43	50.0

Name	US Node	DS Node	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
16.002	49	50	1.007	40.1	6.3	1.485	1.585	0.035	0.0
16.003	50	51	1.008	40.1	12.3	1.585	1.688	0.068	0.0
16.004	51	54	4.432	176.2	19.5	1.688	2.307	0.108	0.0
17.000	52 (Ph2_AC_3)	53	0.911	36.2	0.0	1.555	1.350	0.000	0.0
17.001	53	54	1.012	40.2	6.7	1.350	2.307	0.037	0.0
16.005	54	56	1.008	40.1	29.5	2.307	2.305	0.163	0.0
18.000	55 (Ph2_PP_133-137)	56	2.982	23.4	10.3	0.900	2.305	0.057	0.0
16.006	56	61	1.010	40.2	46.3	2.305	2.091	0.256	0.0
19.000	57 (Ph2_PP_120-126)	58	0.577	22.9	11.2	0.775	1.275	0.062	0.0
19.001	58	59	2.137	85.0	16.4	1.350	1.350	0.091	0.0
19.002	59	60	3.530	140.3	20.4	1.350	1.350	0.113	0.0
19.003	60	61	5.279	209.9	26.6	1.350	2.091	0.147	0.0
16.007	61	62	1.009	40.1	72.8	2.091	1.496	0.403	0.0
16.008	62	65	2.062	82.0	80.4	1.496	1.200	0.445	0.0
20.000	63 (Ph2_PP_109-119)	64	0.935	16.5	14.6	0.850	0.950	0.081	0.0
20.001	64	65	4.139	73.1	14.6	0.950	1.350	0.081	0.0
16.009	65	66	4.250	469.4	99.7	1.200	1.275	0.552	0.0
1.022	66	67	7.944	2246.0	380.4	1.350	2.187	2.105	0.0
1.023	67	68	5.834	1649.4	385.8	2.187	2.723	2.135	0.0
1.024	68	80	2.299	650.1	406.6	2.798	2.696	2.250	0.0
21.000	69 (Ph2_AC_1)	70	1.510	26.7	29.3	1.631	1.556	0.162	0.0
21.001	70	71	1.005	40.0	30.7	1.556	1.458	0.170	0.0
21.002	71	72	2.013	80.0	35.6	1.458	1.350	0.197	0.0
21.003	72	73	2.941	116.9	35.6	1.350	1.350	0.197	0.0

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)
21.004	73	74	27.312	0.600	41.302	40.645	0.657	41.6	225	5.66	50.0
21.005	74	75	12.799	0.600	40.570	40.516	0.054	237.0	300	5.87	50.0
21.006	75	79	38.137	0.600	40.516	40.350	0.166	229.7	300	6.48	50.0
22.000	77 (Ph2_AC_2)	78	11.360	0.600	40.232	40.203	0.029	391.7	600	5.15	50.0
22.001	78	79	6.743	0.600	40.203	40.050	0.153	44.1	600	5.19	50.0
21.007	79	80	34.666	0.600	40.050	39.904	0.146	237.4	600	6.85	50.0
1.025	80	81	45.812	0.600	39.904	39.822	0.082	558.7	600	8.77	50.0
1.026	81	97	9.781	0.600	39.822	39.804	0.018	543.4	600	8.93	50.0
23.000	82	83	23.969	0.600	51.780	51.176	0.604	39.7	225	5.19	50.0
23.001	83	84	20.812	0.600	51.176	50.271	0.905	23.0	225	5.32	50.0
23.002	84	85	10.377	0.600	50.271	49.892	0.379	27.4	225	5.39	50.0
23.003	85	86	25.669	0.600	49.892	49.133	0.759	33.8	225	5.58	50.0
23.004	86	91 (Ph3_Basin_2)	16.924	0.600	49.133	47.200	1.933	8.8	225	5.64	50.0
24.000	87	88	16.941	0.600	53.730	52.546	1.184	14.3	150	5.11	50.0
24.001	88	89	18.320	0.600	52.546	51.350	1.196	15.3	150	5.22	50.0
24.002	89	90 (Ph3_Basin_3)	12.940	0.600	51.300	49.000	2.300	5.6	150	5.27	50.0
24.003	90 (Ph3_Basin_3)	91 (Ph3_Basin_2)	26.206	0.600	49.000	47.200	1.800	14.6	225	5.40	50.0
23.005	91 (Ph3_Basin_2)	92	43.163	0.600	47.200	45.925	1.275	33.9	225	5.96	50.0
23.006	92	93	10.894	0.600	45.925	45.425	0.500	21.8	225	6.02	50.0
23.007	93	95	14.632	0.600	45.275	44.842	0.433	33.8	375	6.10	50.0
25.000	94	95	33.375	0.600	45.777	45.067	0.710	47.0	150	5.38	50.0
23.008	95	97	13.446	0.600	44.482	40.029	4.453	3.0	375	6.12	50.0
26.000	96 (Ph3_AC_2)	97	13.633	0.600	39.829	39.804	0.025	556.0	600	5.22	50.0

Name	US Node	DS Node	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
21.004	73	74	2.034	80.9	42.3	1.350	1.350	0.234	0.0
21.005	74	75	1.017	71.9	45.5	1.350	1.384	0.252	0.0
21.006	75	79	1.033	73.0	45.5	1.384	2.550	0.252	0.0
22.000	77 (Ph2_AC_2)	78	1.224	346.1	0.0	2.168	2.197	0.000	0.0
22.001	78	79	3.674	1038.9	26.9	2.197	2.550	0.149	0.0
21.007	79	80	1.576	445.5	72.5	2.550	2.696	0.401	0.0
1.025	80	81	1.023	289.2	479.0	2.696	4.778	2.651	0.0
1.026	81	97	1.037	293.3	479.0	4.778	5.596	2.651	0.0
23.000	82	83	2.082	82.8	13.4	1.350	1.350	0.074	0.0
23.001	83	84	2.740	108.9	24.0	1.350	1.350	0.133	0.0
23.002	84	85	2.510	99.8	32.5	1.350	1.350	0.180	0.0
23.003	85	86	2.257	89.7	37.9	1.350	1.350	0.210	0.0
23.004	86	91 (Ph3_Basin_2)	4.448	176.9	45.4	1.350	0.775	0.251	0.0
24.000	87	88	2.677	47.3	9.4	1.350	1.350	0.052	0.0
24.001	88	89	2.587	45.7	14.8	1.350	1.300	0.082	0.0
24.002	89	90 (Ph3_Basin_3)	4.277	75.6	25.5	1.350	1.050	0.141	0.0
24.003	90 (Ph3_Basin_3)	91 (Ph3_Basin_2)	3.447	137.0	25.5	0.975	0.775	0.141	0.0
23.005	91 (Ph3_Basin_2)	92	2.256	89.7	70.8	0.775	1.350	0.392	0.0
23.006	92	93	2.815	111.9	83.1	1.350	1.350	0.460	0.0
23.007	93	95	3.126	345.2	83.1	1.350	1.350	0.460	0.0
25.000	94	95	1.471	26.0	10.1	1.350	1.350	0.056	0.0
23.008	95	97	10.487	1158.3	99.9	1.710	5.596	0.553	0.0
26.000	96 (Ph3_AC_2)	97	1.025	289.9	0.0	2.271	5.596	0.000	0.0

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)
1.027	97	98	47.899	0.600	39.804	39.718	0.086	556.0	600	9.71	50.0
1.028	98	99	12.910	0.600	39.718	39.695	0.023	556.0	600	9.92	50.0
1.029	99	126 (Ph3 Hydrobrake)	45.318	0.600	39.695	39.214	0.481	94.2	600	10.22	50.0
27.000	100	101	11.738	0.600	53.772	53.702	0.070	167.0	225	5.19	50.0
27.001	101	102	22.328	0.600	53.702	52.893	0.809	27.6	225	5.34	50.0
27.002	102	103	21.465	0.600	52.893	51.689	1.204	17.8	225	5.46	50.0
27.003	103	104	9.065	0.600	51.614	51.118	0.496	18.3	300	5.50	50.0
27.004	104	105	37.598	0.600	51.118	48.946	2.172	17.3	300	5.66	50.0
27.005	105	106	11.999	0.600	48.871	48.202	0.669	17.9	375	5.71	50.0
27.006	106	107	25.731	0.600	48.202	47.322	0.880	29.2	375	5.84	50.0
27.007	107	108 (Ph3_Basin_1)	23.531	0.600	47.322	46.210	1.112	21.2	375	5.94	50.0
27.008	108 (Ph3_Basin_1)	109	22.565	0.600	46.210	46.138	0.072	313.0	375	6.31	50.0
27.009	109	111	51.708	0.600	46.138	45.973	0.165	313.0	375	7.15	50.0
28.000	110	111	15.890	0.600	47.352	46.123	1.229	12.9	225	5.07	50.0
27.010	111	112	40.692	0.600	45.973	43.633	2.340	17.4	375	7.31	50.0
27.011	112	113	19.156	0.600	43.633	43.341	0.292	65.6	375	7.45	50.0
27.012	113	114	7.341	0.600	43.341	43.257	0.084	87.4	375	7.51	50.0
27.013	114	120	16.477	0.600	43.107	43.071	0.036	455.0	525	7.78	50.0
29.000	115	116	24.520	0.600	48.236	47.446	0.790	31.0	225	5.17	50.0
29.001	116	117	18.028	0.600	47.446	47.164	0.282	63.9	225	5.36	50.0
29.002	117	119	10.140	0.600	47.164	46.820	0.344	29.5	225	5.43	50.0
30.000	118	119	46.844	0.600	50.183	46.895	3.288	14.2	150	5.29	50.0
29.003	119	120	49.598	0.600	46.745	43.298	3.447	14.4	300	5.63	50.0
27.014	120	121	16.621	0.600	43.073	42.022	1.051	15.8	525	7.83	50.0

Name	US Node	DS Node	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.027	97	98	1.025	289.9	594.9	5.596	3.282	3.292	0.0
1.028	98	99	1.025	289.9	612.8	3.282	1.505	3.391	0.0
1.029	99	126 (Ph3 Hydrobrake)	2.509	709.4	614.9	1.505	1.386	3.403	0.0
27.000	100	101	1.009	40.1	8.3	1.350	1.655	0.046	0.0
27.001	101	102	2.500	99.4	17.5	1.655	1.350	0.097	0.0
27.002	102	103	3.113	123.8	22.2	1.350	1.350	0.123	0.0
27.003	103	104	3.694	261.1	33.6	1.350	1.350	0.186	0.0
27.004	104	105	3.796	268.3	49.5	1.350	1.350	0.274	0.0
27.005	105	106	4.295	474.4	67.2	1.350	1.350	0.372	0.0
27.006	106	107	3.361	371.2	72.8	1.350	1.350	0.403	0.0
27.007	107	108 (Ph3_Basin_1)	3.953	436.6	88.4	1.350	1.125	0.489	0.0
27.008	108 (Ph3_Basin_1)	109	1.019	112.5	88.4	1.125	2.434	0.489	0.0
27.009	109	111	1.019	112.5	97.2	2.434	1.533	0.538	0.0
28.000	110	111	3.658	145.5	15.4	1.350	1.533	0.085	0.0
27.010	111	112	4.362	481.8	141.7	1.533	1.608	0.784	0.0
27.011	112	113	2.240	247.4	159.0	1.608	1.350	0.880	0.0
27.012	113	114	1.939	214.1	171.8	1.350	1.350	0.951	0.0
27.013	114	120	1.043	225.8	172.9	1.350	1.425	0.957	0.0
29.000	115	116	2.356	93.7	4.7	1.350	1.350	0.026	0.0
29.001	116	117	1.638	65.1	12.1	1.350	1.350	0.067	0.0
29.002	117	119	2.418	96.2	21.0	1.350	1.350	0.116	0.0
30.000	118	119	2.682	47.4	2.5	1.350	1.350	0.014	0.0
29.003	119	120	4.165	294.4	47.9	1.350	1.423	0.265	0.0
27.014	120	121	5.652	1223.4	244.3	1.423	1.350	1.352	0.0

Links

	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)	Ra (mm)
15	121	122	14.165	0.600	42.022	41.207	0.815	17.4	525	7.87	
16	122	123	25.478	0.600	41.207	39.785	1.422	17.9	525	7.95	
17	123	126 (Ph3 Hydrobrake)	15.859	0.600	39.785	39.325	0.460	34.5	525	8.02	
00	124 (Ph3_PP_151-155)	125 (Ph3_AC_1)	17.444	0.600	41.500	40.250	1.250	14.0	150	5.11	
01	125 (Ph3_AC_1)	126 (Ph3 Hydrobrake)	19.798	0.600	39.250	39.214	0.036	556.0	600	5.43	
0	126 (Ph3 Hydrobrake)	126_OUT (Connection to Existing)	20.778	0.600	39.214	38.600	0.614	33.8	600	10.30	

Name	US Node	DS Node	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
27.015	121	122	5.390	1166.8	258.2	1.350	1.350	1.429	0.0
27.016	122	123	5.309	1149.2	265.1	1.350	1.350	1.467	0.0
27.017	123	126 (Ph3 Hydrobrake)	3.823	827.7	274.3	1.350	1.350	1.518	0.0
31.000	124 (Ph3_PP_151-155)	125 (Ph3_AC_1)	2.710	47.9	14.5	0.850	0.800	0.080	0.0
31.001	125 (Ph3_AC_1)	126 (Ph3 Hydrobrake)	1.025	289.9	14.5	1.350	1.386	0.080	0.0
1.030	126 (Ph3 Hydrobrake)	126_OUT (Connection to Existing)	4.195	1186.1	903.7	1.386	1.130	5.001	0.0

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	16.750	16.9	225	Circular	70.961	69.386	1.350	69.970	68.395	1.350
1.001	11.810	17.4	225	Circular	69.970	68.395	1.350	69.290	67.715	1.350
2.000	23.432	22.0	225	Circular	70.431	68.780	1.426	69.290	67.715	1.350
1.002	15.223	13.7	300	Circular	69.290	67.640	1.350	68.180	66.530	1.350
3.000	12.308	14.7	150	Circular	68.515	67.515	0.850	68.180	66.680	1.350
1.003	23.503	11.9	300	Circular	68.180	66.530	1.350	66.207	64.557	1.350
4.000	12.677	11.9	150	Circular	66.775	65.775	0.850	66.207	64.707	1.350
1.004	20.614	9.9	300	Circular	66.207	64.557	1.350	64.488	62.477	1.711
5.000	14.908	167.5	225	Circular	65.500	63.300	1.975	65.222	63.211	1.786
5.001	13.648	20.7	225	Circular	65.222	63.211	1.786	64.488	62.552	1.711
6.000	10.834	5.5	150	Circular	65.600	64.600	0.850	64.488	62.627	1.711
1.005	16.037	17.9	300	Circular	64.488	62.477	1.711	63.138	61.582	1.256
7.000	16.913	25.5	150	Circular	62.675	62.320	0.205	63.138	61.657	1.331
1.006	35.826	11.9	300	Circular	63.138	61.507	1.331	60.144	58.494	1.350

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	1	1200	Manhole	Adoptable	2	1200	Manhole	Adoptable
1.001	2	1200	Manhole	Adoptable	4	1200	Manhole	Adoptable
2.000	3 (Ph1_PP_1-6)		Junction		4	1200	Manhole	Adoptable
1.002	4	1200	Manhole	Adoptable	6	1200	Manhole	Adoptable
3.000	5 (Ph1_PP_7-9)		Junction		6	1200	Manhole	Adoptable
1.003	6	1200	Manhole	Adoptable	8	1200	Manhole	Adoptable
4.000	7 (Ph1_PP_10-11)		Junction		8	1200	Manhole	Adoptable
1.004	8	1200	Manhole	Adoptable	12	1200	Manhole	Adoptable
5.000	9 (Ph1_AC_1)		Junction		10	1200	Manhole	Adoptable
5.001	10	1200	Manhole	Adoptable	12	1200	Manhole	Adoptable
6.000	11 (Ph1_PP_12-13)		Junction		12	1200	Manhole	Adoptable
1.005	12	1200	Manhole	Adoptable	14	1200	Manhole	Adoptable
7.000	13 (Ph1_PP_14-15)		Junction		14	1200	Manhole	Adoptable
1.006	14	1200	Manhole	Adoptable	21	1200	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
8.000	14.670	24.0	225	Circular	64.200	63.200	0.775	64.165	62.590	1.350
8.001	10.814	33.4	225	Circular	64.165	62.590	1.350	63.841	62.266	1.350
8.002	28.684	11.2	225	Circular	63.841	62.266	1.350	61.447	59.700	1.522
9.000	12.953	12.3	150	Circular	61.750	60.750	0.850	61.447	59.700	1.597
8.003	30.026	23.0	225	Circular	61.447	59.700	1.522	60.144	58.397	1.522
10.000	19.562	108.1	150	Circular	59.825	58.825	0.850	60.144	58.644	1.350
1.007	41.165	16.6	300	Circular	60.144	58.494	1.350	57.659	56.009	1.350
11.000	18.065	15.8	150	Circular	58.155	57.155	0.850	57.659	56.009	1.500
1.008	29.606	6.4	300	Circular	57.659	56.009	1.350	53.000	51.350	1.350
12.000	40.544	10.4	225	Circular	62.500	60.300	1.975	57.800	56.400	1.175
12.001	27.210	166.9	225	Circular	57.800	56.400	1.175	57.850	56.237	1.388
12.002	13.876	8.8	225	Circular	57.850	56.273	1.352	56.272	54.697	1.350
13.000	11.686	23.0	150	Circular	56.230	55.230	0.850	56.272	54.722	1.400
12.003	18.862	5.8	225	Circular	56.272	54.697	1.350	53.000	51.425	1.350
1.009	12.186	60.9	375	Circular	53.000	51.275	1.350	52.800	51.075	1.350
1.010	7.985	106.5	375	Circular	52.800	51.075	1.350	52.200	51.000	0.825
14.000	2.770	0.0	375	Circular	54.000	51.000	2.625	52.200	51.000	0.825
1.011	60.747	40.2	375	Circular	52.200	51.000	0.825	54.500	49.487	4.638
1.012	32.740	311.8	375	Circular	54.500	49.487	4.638	51.200	49.382	1.443
1.013	24.767	9.1	375	Circular	51.200	49.382	1.443	48.400	46.675	1.350
1.014	9.031	57.9	375	Circular	48.400	46.675	1.350	48.244	46.519	1.350
1.015	20.884	91.6	375	Circular	48.244	46.519	1.350	48.016	46.291	1.350
1.016	32.161	30.0	375	Circular	48.016	46.291	1.350	46.945	45.220	1.350
1.017	9.917	37.4	375	Circular	46.945	45.220	1.350	46.680	44.955	1.350
1.018	13.277	51.1	375	Circular	46.680	44.955	1.350	46.420	44.695	1.350

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
8.000	15 (Ph1_PP_34-37)		Junction		16	1200	Manhole	Adoptable
8.001	16	1200	Manhole	Adoptable	17	1200	Manhole	Adoptable
8.002	17	1200	Manhole	Adoptable	19	1200	Manhole	Adoptable
9.000	18 (Ph1_PP_28-30)		Junction		19	1200	Manhole	Adoptable
8.003	19	1200	Manhole	Adoptable	21	1200	Manhole	Adoptable
10.000	20 (Ph1_PP_16-18)		Junction		21	1200	Manhole	Adoptable
1.007	21	1200	Manhole	Adoptable	23	1200	Manhole	Adoptable
11.000	22 (Ph1_PP_19-20)		Junction		23	1200	Manhole	Adoptable
1.008	23	1200	Manhole	Adoptable	29	1350	Manhole	Adoptable
12.000	24 (Ph1_AC_2)		Junction		25 (Ph1_AC_3)		Junction	
12.001	25 (Ph1_AC_3)		Junction		26	1200	Manhole	Adoptable
12.002	26	1200	Manhole	Adoptable	28	1200	Manhole	Adoptable
13.000	27 (Ph1_PP_24-26)		Junction		28	1200	Manhole	Adoptable
12.003	28	1200	Manhole	Adoptable	29	1350	Manhole	Adoptable
1.009	29	1350	Manhole	Adoptable	30	1350	Manhole	Adoptable
1.010	30	1350	Manhole	Adoptable	32 (Ph1_Basin_1)		Junction	
14.000	31 (Ph1_AC_4)		Junction		32 (Ph1_Basin_1)		Junction	
1.011	32 (Ph1_Basin_1)		Junction		33 (Ph1_Hydrobrake)	1350	Manhole	Adoptable
1.012	33 (Ph1_Hydrobrake)	1350	Manhole	Adoptable	34	1350	Manhole	Adoptable
1.013	34	1350	Manhole	Adoptable	35	1500	Manhole	Adoptable
1.014	35	1500	Manhole	Adoptable	36	1350	Manhole	Adoptable
1.015	36	1350	Manhole	Adoptable	37	1350	Manhole	Adoptable
1.016	37	1350	Manhole	Adoptable	38	1350	Manhole	Adoptable
1.017	38	1350	Manhole	Adoptable	39	1350	Manhole	Adoptable
1.018	39	1350	Manhole	Adoptable	44	1350	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
15.000	29.046	12.2	225	Circular	51.844	50.269	1.350	49.458	47.883	1.350
15.001	7.185	14.6	225	Circular	49.458	47.883	1.350	48.967	47.392	1.350
15.002	11.118	20.4	225	Circular	48.967	47.392	1.350	48.421	46.846	1.350
15.003	39.724	19.9	225	Circular	48.421	46.846	1.350	46.420	44.845	1.350
1.019	11.653	25.4	375	Circular	46.420	44.695	1.350	45.962	44.237	1.350
1.020	8.095	21.9	375	Circular	45.962	44.237	1.350	45.593	43.868	1.350
1.021	40.493	29.9	375	Circular	45.593	43.868	1.350	44.237	42.512	1.350
16.000	10.928	168.1	225	Circular	47.617	46.042	1.350	47.617	45.977	1.415
16.001	11.692	167.0	225	Circular	47.617	45.977	1.415	47.617	45.907	1.485
16.002	16.740	167.4	225	Circular	47.617	45.907	1.485	47.617	45.807	1.585
16.003	17.215	167.1	225	Circular	47.617	45.807	1.585	47.617	45.704	1.688
16.004	14.173	8.8	225	Circular	47.617	45.704	1.688	46.629	44.097	2.307
17.000	8.167	204.2	225	Circular	46.000	44.220	1.555	45.755	44.180	1.350
17.001	13.781	166.0	225	Circular	45.755	44.180	1.350	46.629	44.097	2.307
16.005	35.115	167.2	225	Circular	46.629	44.097	2.307	46.417	43.887	2.305
18.000	9.447	6.8	100	Circular	46.400	45.400	0.900	46.417	44.012	2.305
16.006	26.964	166.4	225	Circular	46.417	43.887	2.305	46.041	43.725	2.091
19.000	10.047	502.3	225	Circular	50.850	49.850	0.775	51.330	49.830	1.275
19.001	43.255	37.7	225	Circular	51.330	49.755	1.350	50.183	48.608	1.350
19.002	49.723	13.9	225	Circular	50.183	48.608	1.350	46.602	45.027	1.350
19.003	8.102	6.2	225	Circular	46.602	45.027	1.350	46.041	43.725	2.091
16.007	10.845	166.8	225	Circular	46.041	43.725	2.091	45.381	43.660	1.496
16.008	10.358	40.5	225	Circular	45.381	43.660	1.496	44.829	43.404	1.200
20.000	11.527	115.3	150	Circular	46.000	45.000	0.850	46.000	44.900	0.950
20.001	9.434	6.0	150	Circular	46.000	44.900	0.950	44.829	43.329	1.350

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
15.000	40	1200	Manhole	Adoptable	41	1200	Manhole	Adoptable
15.001	41	1200	Manhole	Adoptable	42	1200	Manhole	Adoptable
15.002	42	1200	Manhole	Adoptable	43	1200	Manhole	Adoptable
15.003	43	1200	Manhole	Adoptable	44	1350	Manhole	Adoptable
1.019	44	1350	Manhole	Adoptable	45	1350	Manhole	Adoptable
1.020	45	1350	Manhole	Adoptable	46	1350	Manhole	Adoptable
1.021	46	1350	Manhole	Adoptable	66	1350	Manhole	Adoptable
16.000	47	1200	Manhole	Adoptable	48	1200	Manhole	Adoptable
16.001	48	1200	Manhole	Adoptable	49	1200	Manhole	Adoptable
16.002	49	1200	Manhole	Adoptable	50	1200	Manhole	Adoptable
16.003	50	1200	Manhole	Adoptable	51	1200	Manhole	Adoptable
16.004	51	1200	Manhole	Adoptable	54	1200	Manhole	Adoptable
17.000	52 (Ph2_AC_3)		Junction		53	1200	Manhole	Adoptable
17.001	53	1200	Manhole	Adoptable	54	1200	Manhole	Adoptable
16.005	54	1200	Manhole	Adoptable	56	1200	Manhole	Adoptable
18.000	55 (Ph2_PP_133-137)		Junction		56	1200	Manhole	Adoptable
16.006	56	1200	Manhole	Adoptable	61	1200	Manhole	Adoptable
19.000	57 (Ph2_PP_120-126)		Junction		58	1200	Manhole	Adoptable
19.001	58	1200	Manhole	Adoptable	59	1200	Manhole	Adoptable
19.002	59	1200	Manhole	Adoptable	60	1200	Manhole	Adoptable
19.003	60	1200	Manhole	Adoptable	61	1200	Manhole	Adoptable
16.007	61	1200	Manhole	Adoptable	62	1200	Manhole	Adoptable
16.008	62	1200	Manhole	Adoptable	65	1200	Manhole	Adoptable
20.000	63 (Ph2_PP_109-119)		Junction		64	1200	Manhole	Adoptable
20.001	64	1200	Manhole	Adoptable	65	1200	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
16.009	12.217	18.3	375	Circular	44.829	43.254	1.200	44.237	42.587	1.275
1.022	10.289	9.5	600	Circular	44.237	42.287	1.350	43.987	41.200	2.187
1.023	17.706	17.5	600	Circular	43.987	41.200	2.187	43.513	40.190	2.723
1.024	23.647	112.1	600	Circular	43.513	40.115	2.798	43.200	39.904	2.696
21.000	9.110	44.7	150	Circular	44.000	42.219	1.631	43.721	42.015	1.556
21.001	12.954	168.2	225	Circular	43.721	41.940	1.556	43.546	41.863	1.458
21.002	9.848	42.4	225	Circular	43.546	41.863	1.458	43.206	41.631	1.350
21.003	6.569	20.0	225	Circular	43.206	41.631	1.350	42.877	41.302	1.350
21.004	27.312	41.6	225	Circular	42.877	41.302	1.350	42.220	40.645	1.350
21.005	12.799	237.0	300	Circular	42.220	40.570	1.350	42.200	40.516	1.384
21.006	38.137	229.7	300	Circular	42.200	40.516	1.384	43.200	40.350	2.550
22.000	11.360	391.7	600	Circular	43.000	40.232	2.168	43.000	40.203	2.197
22.001	6.743	44.1	600	Circular	43.000	40.203	2.197	43.200	40.050	2.550
21.007	34.666	237.4	600	Circular	43.200	40.050	2.550	43.200	39.904	2.696
1.025	45.812	558.7	600	Circular	43.200	39.904	2.696	45.200	39.822	4.778
1.026	9.781	543.4	600	Circular	45.200	39.822	4.778	46.000	39.804	5.596
23.000	23.969	39.7	225	Circular	53.355	51.780	1.350	52.751	51.176	1.350
23.001	20.812	23.0	225	Circular	52.751	51.176	1.350	51.846	50.271	1.350
23.002	10.377	27.4	225	Circular	51.846	50.271	1.350	51.467	49.892	1.350
23.003	25.669	33.8	225	Circular	51.467	49.892	1.350	50.708	49.133	1.350
23.004	16.924	8.8	225	Circular	50.708	49.133	1.350	48.200	47.200	0.775
24.000	16.941	14.3	150	Circular	55.230	53.730	1.350	54.046	52.546	1.350
24.001	18.320	15.3	150	Circular	54.046	52.546	1.350	52.800	51.350	1.300
24.002	12.940	5.6	150	Circular	52.800	51.300	1.350	50.200	49.000	1.050

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
16.009	65	1200	Manhole	Adoptable	66	1350	Manhole	Adoptable
1.022	66	1350	Manhole	Adoptable	67	1350	Manhole	Adoptable
1.023	67	1350	Manhole	Adoptable	68	1350	Manhole	Adoptable
1.024	68	1350	Manhole	Adoptable	80	2400	Manhole	Adoptable
21.000	69 (Ph2_AC_1)	1200	Manhole	Adoptable	70	1200	Manhole	Adoptable
21.001	70	1200	Manhole	Adoptable	71	1200	Manhole	Adoptable
21.002	71	1200	Manhole	Adoptable	72	1200	Manhole	Adoptable
21.003	72	1200	Manhole	Adoptable	73	1200	Manhole	Adoptable
21.004	73	1200	Manhole	Adoptable	74	1200	Manhole	Adoptable
21.005	74	1200	Manhole	Adoptable	75	1200	Manhole	Adoptable
21.006	75	1200	Manhole	Adoptable	79	1200	Manhole	Adoptable
22.000	77 (Ph2_AC_2)		Junction		78	1350	Manhole	Adoptable
22.001	78	1350	Manhole	Adoptable	79	1200	Manhole	Adoptable
21.007	79	1200	Manhole	Adoptable	80	2400	Manhole	Adoptable
1.025	80	2400	Manhole	Adoptable	81	1800	Manhole	Adoptable
1.026	81	1800	Manhole	Adoptable	97	1800	Manhole	Adoptable
23.000	82	1200	Manhole	Adoptable	83	1200	Manhole	Adoptable
23.001	83	1200	Manhole	Adoptable	84	1200	Manhole	Adoptable
23.002	84	1200	Manhole	Adoptable	85	1200	Manhole	Adoptable
23.003	85	1200	Manhole	Adoptable	86	1200	Manhole	Adoptable
23.004	86	1200	Manhole	Adoptable	91 (Ph3_Basin_2)		Junction	
24.000	87	1200	Manhole	Adoptable	88	1200	Manhole	Adoptable
24.001	88	1200	Manhole	Adoptable	89	1200	Manhole	Adoptable
24.002	89	1200	Manhole	Adoptable	90 (Ph3_Basin_3)		Junction	

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)
24.003	26.206	14.6	225	Circular	50.200	49.000	0.975	48.200	47.200	0.775
23.005	43.163	33.9	225	Circular	48.200	47.200	0.775	47.500	45.925	1.350
23.006	10.894	21.8	225	Circular	47.500	45.925	1.350	47.000	45.425	1.350
23.007	14.632	33.8	375	Circular	47.000	45.275	1.350	46.567	44.842	1.350
25.000	33.375	47.0	150	Circular	47.277	45.777	1.350	46.567	45.067	1.350
23.008	13.446	3.0	375	Circular	46.567	44.482	1.710	46.000	40.029	5.596
26.000	13.633	556.0	600	Circular	42.700	39.829	2.271	46.000	39.804	5.596
1.027	47.899	556.0	600	Circular	46.000	39.804	5.596	43.600	39.718	3.282
1.028	12.910	556.0	600	Circular	43.600	39.718	3.282	41.800	39.695	1.505
1.029	45.318	94.2	600	Circular	41.800	39.695	1.505	41.200	39.214	1.386
27.000	11.738	167.0	225	Circular	55.347	53.772	1.350	55.582	53.702	1.655
27.001	22.328	27.6	225	Circular	55.582	53.702	1.655	54.468	52.893	1.350
27.002	21.465	17.8	225	Circular	54.468	52.893	1.350	53.264	51.689	1.350
27.003	9.065	18.3	300	Circular	53.264	51.614	1.350	52.768	51.118	1.350
27.004	37.598	17.3	300	Circular	52.768	51.118	1.350	50.596	48.946	1.350
27.005	11.999	17.9	375	Circular	50.596	48.871	1.350	49.927	48.202	1.350
27.006	25.731	29.2	375	Circular	49.927	48.202	1.350	49.047	47.322	1.350
27.007	23.531	21.2	375	Circular	49.047	47.322	1.350	47.710	46.210	1.125
27.008	22.565	313.0	375	Circular	47.710	46.210	1.125	48.947	46.138	2.434
27.009	51.708	313.0	375	Circular	48.947	46.138	2.434	47.881	45.973	1.533
28.000	15.890	12.9	225	Circular	48.927	47.352	1.350	47.881	46.123	1.533
27.010	40.692	17.4	375	Circular	47.881	45.973	1.533	45.616	43.633	1.608
27.011	19.156	65.6	375	Circular	45.616	43.633	1.608	45.066	43.341	1.350
27.012	7.341	87.4	375	Circular	45.066	43.341	1.350	44.982	43.257	1.350
27.013	16.477	455.0	525	Circular	44.982	43.107	1.350	45.021	43.071	1.425

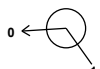
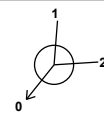
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
24.003	90 (Ph3_Basin_3)		Junction		91 (Ph3_Basin_2)		Junction	
23.005	91 (Ph3_Basin_2)		Junction		92	1200	Manhole	Adoptable
23.006	92	1200	Manhole	Adoptable	93	1350	Manhole	Adoptable
23.007	93	1350	Manhole	Adoptable	95	1350	Manhole	Adoptable
25.000	94	1200	Manhole	Adoptable	95	1350	Manhole	Adoptable
23.008	95	1350	Manhole	Adoptable	97	1800	Manhole	Adoptable
26.000	96 (Ph3_AC_2)		Junction		97	1800	Manhole	Adoptable
1.027	97	1800	Manhole	Adoptable	98	1800	Manhole	Adoptable
1.028	98	1800	Manhole	Adoptable	99	1800	Manhole	Adoptable
1.029	99	1800	Manhole	Adoptable	126 (Ph3_Hydrobrake)	2100	Manhole	Adoptable
27.000	100	1200	Manhole	Adoptable	101	1200	Manhole	Adoptable
27.001	101	1200	Manhole	Adoptable	102	1200	Manhole	Adoptable
27.002	102	1200	Manhole	Adoptable	103	1200	Manhole	Adoptable
27.003	103	1200	Manhole	Adoptable	104	1200	Manhole	Adoptable
27.004	104	1200	Manhole	Adoptable	105	1200	Manhole	Adoptable
27.005	105	1200	Manhole	Adoptable	106	1200	Manhole	Adoptable
27.006	106	1200	Manhole	Adoptable	107	1200	Manhole	Adoptable
27.007	107	1200	Manhole	Adoptable	108 (Ph3_Basin_1)	1200	Junction	
27.008	108 (Ph3_Basin_1)	1200	Junction		109	1350	Manhole	Adoptable
27.009	109	1350	Manhole	Adoptable	111	1350	Manhole	Adoptable
28.000	110	1200	Manhole	Adoptable	111	1350	Manhole	Adoptable
27.010	111	1350	Manhole	Adoptable	112	1350	Manhole	Adoptable
27.011	112	1350	Manhole	Adoptable	113	1350	Manhole	Adoptable
27.012	113	1350	Manhole	Adoptable	114	1500	Manhole	Adoptable
27.013	114	1500	Manhole	Adoptable	120	1500	Manhole	Adoptable

Pipeline Schedule

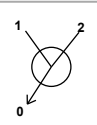
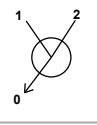
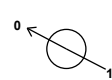
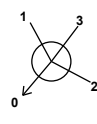
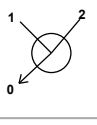
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
29.000	24.520	31.0	225	Circular	49.811	48.236	1.350	49.021	47.446	1.350
29.001	18.028	63.9	225	Circular	49.021	47.446	1.350	48.739	47.164	1.350
29.002	10.140	29.5	225	Circular	48.739	47.164	1.350	48.395	46.820	1.350
30.000	46.844	14.2	150	Circular	51.683	50.183	1.350	48.395	46.895	1.350
29.003	49.598	14.4	300	Circular	48.395	46.745	1.350	45.021	43.298	1.423
27.014	16.621	15.8	525	Circular	45.021	43.073	1.423	43.897	42.022	1.350
27.015	14.165	17.4	525	Circular	43.897	42.022	1.350	43.082	41.207	1.350
27.016	25.478	17.9	525	Circular	43.082	41.207	1.350	41.660	39.785	1.350
27.017	15.859	34.5	525	Circular	41.660	39.785	1.350	41.200	39.325	1.350
31.000	17.444	14.0	150	Circular	42.500	41.500	0.850	41.200	40.250	0.800
31.001	19.798	556.0	600	Circular	41.200	39.250	1.350	41.200	39.214	1.386
1.030	20.778	33.8	600	Circular	41.200	39.214	1.386	40.330	38.600	1.130

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
29.000	115	1200	Manhole	Adoptable	116	1200	Manhole	Adoptable
29.001	116	1200	Manhole	Adoptable	117	1200	Manhole	Adoptable
29.002	117	1200	Manhole	Adoptable	119	1200	Manhole	Adoptable
30.000	118	1200	Manhole	Adoptable	119	1200	Manhole	Adoptable
29.003	119	1200	Manhole	Adoptable	120	1500	Manhole	Adoptable
27.014	120	1500	Manhole	Adoptable	121	1500	Manhole	Adoptable
27.015	121	1500	Manhole	Adoptable	122	1500	Manhole	Adoptable
27.016	122	1500	Manhole	Adoptable	123	1500	Manhole	Adoptable
27.017	123	1500	Manhole	Adoptable	126 (Ph3 Hydrobrake)	2100	Manhole	Adoptable
31.000	124 (Ph3_PP_151-155)		Junction		125 (Ph3_AC_1)	1800	Junction	
31.001	125 (Ph3_AC_1)	1800	Junction		126 (Ph3 Hydrobrake)	2100	Manhole	Adoptable
1.030	126 (Ph3 Hydrobrake)	2100	Manhole	Adoptable	126_OUT (Connection to Existing)	1800	Manhole	Adoptable

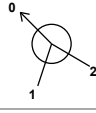
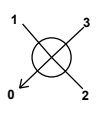
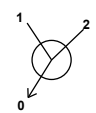
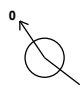
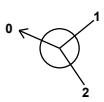
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
1	534171.671	122665.066	70.961	1.575	1200		0	1.000	69.386	225
2	534161.936	122678.697	69.970	1.575	1200		1	1.000	68.395	225
						0	1.001	68.395	225	
3 (Ph1_PP_1-6)	534151.963	122701.317	70.431	1.651			0	2.000	68.780	225
4	534150.149	122677.955	69.290	1.650	1200		1	2.000	67.715	225
						2	1.001	67.715	225	
						0	1.002	67.640	300	
5 (Ph1_PP_7-9)	534133.444	122676.061	68.515	1.000			0	3.000	67.515	150

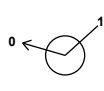
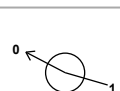
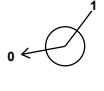
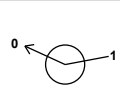
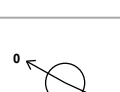
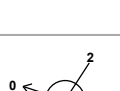
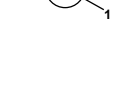
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
6	534140.634	122666.072	68.180	1.650	1200		1 2	3.000 1.002	66.680 66.530	150 300
						0	1.003	66.530	300	
7 (Ph1_PP_10-11)	534120.669	122656.760	66.775	1.000			0	4.000	65.775	150
8	534127.878	122646.332	66.207	1.650	1200		1 2	4.000 1.003	64.707 64.557	150 300
						0	1.004	64.557	300	
9 (Ph1_AC_1)	534140.751	122616.668	65.500	2.200			0	5.000	63.300	225
10	534127.504	122623.507	65.222	2.011	1200		1	5.000	63.211	225
						0	5.001	63.211	225	
11 (Ph1_PP_12-13)	534110.254	122639.403	65.600	1.000			0	6.000	64.600	150
12	534115.442	122629.892	64.488	2.011	1200		1 2 3	6.000 5.001 1.004	62.627 62.552 62.477	150 225 300
						0	1.005	62.477	300	
13 (Ph1_PP_14-15)	534093.124	122629.604	62.675	0.355			0	7.000	62.320	150
14	534105.086	122617.647	63.138	1.631	1200		1 2	7.000 1.005	61.657 61.582	150 300
						0	1.006	61.507	300	
15 (Ph1_PP_34-37)	534141.934	122576.051	64.200	1.000			0	8.000	63.200	225
16	534132.848	122564.534	64.165	1.575	1200		1	8.000	62.590	225
						0	8.001	62.590	225	
17	534124.823	122557.285	63.841	1.575	1200		1	8.001	62.266	225
						0	8.002	62.266	225	
18 (Ph1_PP_28-30)	534096.060	122559.537	61.750	1.000			0	9.000	60.750	150

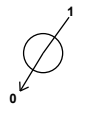
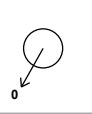
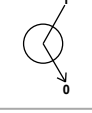
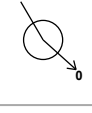
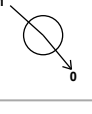
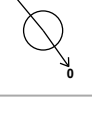
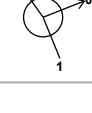
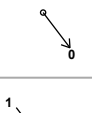
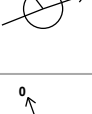
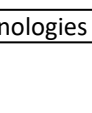
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
19	534100.107	122571.842	61.447	1.747	1200		1 2 0	9.000 8.002 8.003	59.700 59.700 59.700	150 225 225
20 (Ph1_PP_16-18)	534066.130	122607.924	59.825	1.000			0	10.000	58.825	150
21	534078.948	122593.146	60.144	1.747	1200		1 2 3 0	10.000 8.003 1.006 1.007	58.644 58.397 58.494 58.494	150 225 300 300
22 (Ph1_PP_19-20)	534039.211	122579.752	58.155	1.000			0	11.000	57.155	150
23	534049.196	122564.697	57.659	1.650	1200		1 2 0	11.000 1.007 1.008	56.009 56.009 56.009	150 225 300
24 (Ph1_AC_2)	534118.902	122515.778	62.500	2.200			0	12.000	60.300	225
25 (Ph1_AC_3)	534080.131	122503.918	57.800	1.400			1 0	12.000 12.001	56.400 56.400	225 225
26	534058.538	122520.475	57.850	1.613	1200		1 0	12.001 12.002	56.237 56.273	225 225
27 (Ph1_PP_24-26)	534059.825	122539.366	56.230	1.000			0	13.000	55.230	150
28	534050.773	122531.975	56.272	1.575	1200		1 2 0	13.000 12.002 12.003	54.722 54.697 54.697	150 225 225
29	534033.514	122539.585	53.000	1.725	1350		1 2 0	12.003 1.008 1.009	51.425 51.350 51.275	225 300 375
30	534028.634	122528.419	52.800	1.725	1350		1 0	1.009 1.010	51.075 51.075	375 375
31 (Ph1_AC_4)	534030.462	122520.960	54.000	3.000			0	14.000	51.000	375

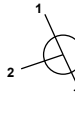
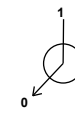
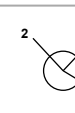
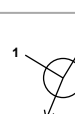
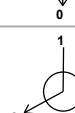
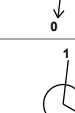
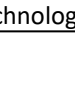
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
32 (Ph1_Basin_1)	534027.733	122520.485	52.200	1.200			1	14.000	375
							2	1.010	375
							0	1.011	375
33 (Ph1 Hydrobrake)	534035.926	122460.293	54.500	5.013	1350		1	1.011	375
							0	1.012	375
34	534011.647	122438.329	51.200	1.818	1350		1	1.012	375
35	533987.861	122445.230	48.400	1.725	1500		0	1.013	375
							1	1.013	375
36	533979.856	122449.410	48.244	1.725	1350		0	1.014	375
							1	1.014	375
37	533969.566	122431.237	48.016	1.725	1350		0	1.015	375
							1	1.015	375
38	533961.802	122400.027	46.945	1.725	1350		0	1.016	375
							1	1.016	375
39	533956.564	122391.606	46.680	1.725	1350		0	1.017	375
							1	1.017	375
40	534018.674	122380.956	51.844	1.575	1200		0	1.018	375
							1	1.018	375
41	534001.177	122357.771	49.458	1.575	1200		0	15.000	225
							1	15.000	225
42	533994.115	122356.447	48.967	1.575	1200		0	15.001	225
							1	15.001	225
43	533984.011	122361.085	48.421	1.575	1200		0	15.002	225
							1	15.002	225
44	533949.337	122380.468	46.420	1.725	1350		0	15.003	225
							1	15.003	225
							2	1.018	375
							0	1.019	375

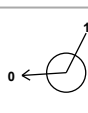
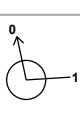
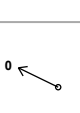
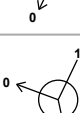
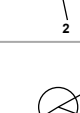
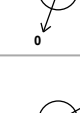
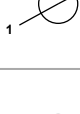
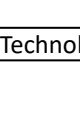
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
45	533938.249	122384.054	45.962	1.725	1350	 1	1.019	44.237	375
46	533933.509	122377.492	45.593	1.725	1350	 1	1.020	44.237	375
47	533799.992	122400.682	47.617	1.575	1200	 1	1.021	43.868	375
48	533794.626	122391.162	47.617	1.640	1200	 1	16.000	46.042	225
49	533800.536	122381.074	47.617	1.710	1200	 1	16.000	45.977	225
50	533812.983	122369.880	47.617	1.810	1200	 1	16.001	45.977	225
51	533823.985	122356.639	47.617	1.913	1200	 1	16.001	45.907	225
52 (Ph2_AC_3)	533829.419	122330.597	46.000	1.780		 1	16.002	45.907	225
53	533837.401	122332.327	45.755	1.575	1200	 1	16.002	45.807	225
54	533832.196	122345.087	46.629	2.532	1200	 1	16.003	45.807	225
55 (Ph2_PP_133-137)	533859.130	122365.501	46.400	1.000		 1	16.003	45.704	225
56	533864.856	122357.987	46.417	2.530	1200	 1	16.004	45.704	225
57 (Ph2_PP_120-126)	533832.531	122398.295	50.850	1.000		 1	17.000	44.220	225
						 1	17.000	44.180	225
						1	17.001	44.180	225
						1	17.001	44.097	225
						1	16.004	44.097	225
						1	16.005	44.097	225
						1	18.000	45.400	100
						1	18.000	44.012	100
						1	16.005	43.887	225
						1	16.006	43.887	225
						1	19.000	49.850	225

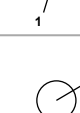
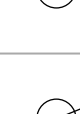
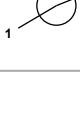
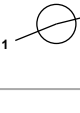
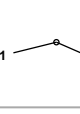
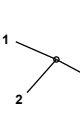
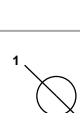
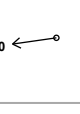
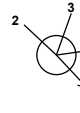
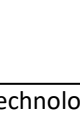
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
58	533829.106	122407.740	51.330	1.575	1200	 1	19.000	49.830	225
59	533870.338	122420.813	50.183	1.575	1200	 1	19.001	49.755	225
60	533887.069	122373.989	46.602	1.575	1200	 1	19.001	48.608	225
61	533890.405	122366.606	46.041	2.316	1200	 1	19.002	45.027	225
62	533895.002	122356.784	45.381	1.721	1200	 1	19.003	45.027	225
63 (Ph2_PP_109-119)	533908.632	122367.590	46.000	1.000		 1	19.003	43.725	225
64	533908.517	122356.064	46.000	1.100	1200	 1	16.006	43.725	225
65	533902.051	122349.194	44.829	1.575	1200	 2	16.007	43.725	225
66	533912.505	122342.872	44.237	1.950	1350	 1	16.007	43.660	225
67	533908.582	122333.360	43.987	2.787	1350	 1	16.008	43.660	225
68	533908.410	122315.655	43.513	3.398	1350	 1	20.000	45.000	150
69 (Ph2_AC_1)	533940.466	122311.573	44.000	1.781	1200	 1	20.001	44.900	150
70	533939.395	122302.526	43.721	1.781	1200	 1	20.001	43.329	150
						 1	16.008	43.404	225
						 1	16.009	43.254	375
						1	16.009	42.587	375
						1	1.021	42.512	375
						1	1.022	42.287	600
						1	1.022	41.200	600
						1	1.023	41.200	600
						1	1.023	40.190	600
						1	1.024	40.115	600
						1	21.000	42.219	150
						1	21.000	42.015	150
						1	21.001	41.940	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
71	533950.622	122296.063	43.546	1.683	1200	 1	21.001	41.863	225
72	533953.673	122286.700	43.206	1.575	1200	 1	21.002	41.863	225
73	533953.207	122280.148	42.877	1.575	1200	 1	21.003	41.631	225
74	533940.897	122255.767	42.220	1.650	1200	 1	21.004	41.631	225
75	533928.124	122254.957	42.200	1.684	1200	 1	21.005	41.302	225
77 (Ph2_AC_2)	533933.289	122293.366	43.000	2.768		 1	21.006	40.570	300
78	533923.074	122298.336	43.000	2.797	1350	 1	21.005	40.516	300
79	533920.162	122292.254	43.200	3.150	1200	 1	22.000	40.516	300
80	533887.661	122304.312	43.200	3.296	2400	 1	22.000	40.232	600
81	533848.637	122280.315	45.200	5.378	1800	 1	22.001	40.203	600
82	533713.114	122253.351	53.355	1.575	1200	 1	22.001	40.203	600
83	533734.139	122264.861	52.751	1.575	1200	 1	22.001	40.050	600
84	533752.565	122274.537	51.846	1.575	1200	 1	21.007	40.050	600
						 1	1.024	39.904	600
						 1	1.025	39.904	600
						 1	1.025	39.822	600
						1	1.026	39.822	600
						1	23.000	51.780	225
						1	23.000	51.176	225
						1	23.001	51.176	225
						1	23.001	50.271	225
						1	23.002	50.271	225

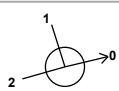
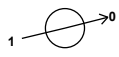
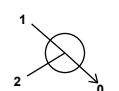
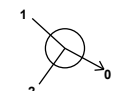
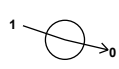
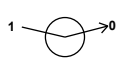
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
85	533760.529	122281.189	51.467	1.575	1200	 1	23.002	49.892	225
						 0	23.003	49.892	225
86	533767.966	122305.757	50.708	1.575	1200	 1	23.003	49.133	225
						 0	23.004	49.133	225
87	533711.021	122310.344	55.230	1.500	1200	 0	24.000	53.730	150
88	533725.615	122318.947	54.046	1.500	1200	 1	24.000	52.546	150
						 0	24.001	52.546	150
89	533742.604	122325.803	52.800	1.500	1200	 1	24.001	51.350	150
						 0	24.002	51.300	150
90 (Ph3_Basin_3)	533755.164	122328.914	50.200	1.200		 1	24.002	49.000	150
						 0	24.003	49.000	225
91 (Ph3_Basin_2)	533779.182	122318.431	48.200	1.000		 1	24.003	47.200	225
						 2	23.004	47.200	225
						 0	23.005	47.200	225
92	533817.273	122298.130	47.500	1.575	1200	 1	23.005	45.925	225
						 0	23.006	45.925	225
93	533825.091	122290.543	47.000	1.725	1350	 1	23.006	45.425	225
						0	23.007	45.275	375
94	533813.338	122255.351	47.277	1.500	1200	0	25.000	45.777	150
95	533835.524	122280.284	46.567	2.085	1350	2	25.000	45.067	150
						1	23.007	44.842	375
						0	23.008	44.482	375
96 (Ph3_AC_2)	533858.845	122273.028	42.700	2.871		0	26.000	39.829	600
97	533845.348	122271.104	46.000	6.196	1800	2	26.000	39.804	600
						3	1.026	39.804	600
						0	1.027	39.804	600

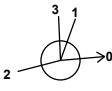
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
98	533878.156	122236.205	43.600	3.882	1800	 1	1.027	39.718	600
						0	1.028	39.718	600
99	533889.082	122229.328	41.800	2.105	1800	 1	1.028	39.695	600
						0	1.029	39.695	600
100	533630.800	122263.772	55.347	1.575	1200	 0	27.000	53.772	225
101	533640.545	122270.315	55.582	1.880	1200	 1	27.000	53.702	225
						0	27.001	53.702	225
102	533652.699	122251.585	54.468	1.575	1200	 1	27.001	52.893	225
						0	27.002	52.893	225
103	533662.716	122232.601	53.264	1.650	1200	 1	27.002	51.689	225
						0	27.003	51.614	300
104	533664.305	122223.676	52.768	1.650	1200	 1	27.003	51.118	300
						0	27.004	51.118	300
105	533680.894	122189.936	50.596	1.725	1200	 1	27.004	48.946	300
						0	27.005	48.871	375
106	533683.796	122178.293	49.927	1.725	1200	 1	27.005	48.202	375
						0	27.006	48.202	375
107	533691.232	122153.660	49.047	1.725	1200	 1	27.006	47.322	375
						0	27.007	47.322	375
108 (Ph3_Basin_1)	533693.764	122130.266	47.710	1.500	1200	 1	27.007	46.210	375
						0	27.008	46.210	375
109	533699.628	122152.056	48.947	2.809	1350	 1	27.008	46.138	375
						0	27.009	46.138	375
110	533744.601	122181.269	48.927	1.575	1200	 0	28.000	47.352	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
111	533749.387	122166.117	47.881	1.908	1350		1	28.000	46.123	225
							2	27.009	45.973	375
							0	27.010	45.973	375
112	533788.965	122175.574	45.616	1.983	1350		1	27.010	43.633	375
							0	27.011	43.633	375
113	533807.533	122180.284	45.066	1.725	1350		1	27.011	43.341	375
							0	27.012	43.341	375
114	533813.223	122184.923	44.982	1.875	1500		1	27.012	43.257	375
							0	27.013	43.107	525
115	533744.137	122200.916	49.811	1.575	1200		0	29.000	48.236	225
							1	29.000	47.446	225
116	533765.448	122213.043	49.021	1.575	1200		0	29.001	47.446	225
							1	29.001	47.164	225
117	533777.522	122226.431	48.739	1.575	1200		0	29.002	47.164	225
							1	30.000	50.183	150
118	533750.899	122262.510	51.683	1.500	1200		0	30.000	50.183	150
							1	30.000	46.895	150
							2	29.002	46.820	225
119	533786.185	122231.700	48.395	1.650	1200		0	29.003	46.745	300
							1	29.003	43.298	300
							2	27.013	43.071	525
120	533822.848	122198.296	45.021	1.950	1500		0	27.014	43.073	525
							1	27.014	42.022	525
							0	27.015	42.022	525
121	533837.463	122190.381	43.897	1.875	1500		1	27.015	41.207	525
							0	27.016	41.207	525
122	533850.889	122185.864	43.082	1.875	1500		1	27.016	39.785	525
							0	27.017	39.785	525
123	533875.702	122180.079	41.660	1.875	1500		1	27.016	39.785	525
							0	27.017	39.785	525

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
124 (Ph3_PP_151-155)	533880.606	122205.947	42.500	1.000			0	31.000	41.500
125 (Ph3_AC_1)	533897.743	122202.687	41.200	1.950	1800		1	31.000	40.250
126 (Ph3 Hydrobrake)	533891.055	122184.053	41.200	1.986	2100		1	31.001	39.214
							2	27.017	39.325
							3	1.029	39.214
							0	1.030	39.214
126_OUT (Connection to Existing)	533911.755	122185.857	40.330	1.730	1800		1	1.030	38.600
PH1_AC1_Inlet	534147.928	122617.086	65.500	2.200					
Ph1_AC2_Inlet	534133.674	122523.899	62.500	2.200					
Ph1_AC3_Inlet	534084.473	122489.228	57.800	1.400					

Simulation Settings

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

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440 | 2160

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
10	40	0	0
30	40	0	0
100	45	0	0

Node 32 (Ph1_Basin_1) Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	1.011	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0088-4000-1500-4000
Invert Level (m)	51.000	Min Outlet Diameter (m)	0.100
Design Depth (m)	1.500	Min Node Diameter (mm)	1200
Design Flow (l/s)	4.0		

Node 3 (Ph1_PP_1-6) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.050
Downstream Link	2.000	Invert Level (m)	68.780	Discharge Coefficient	0.600

Node 9 (Ph1_AC_1) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.050
Downstream Link	5.000	Invert Level (m)	63.300	Discharge Coefficient	0.600

Node 15 (Ph1_PP_34-37) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.050
Downstream Link	8.000	Invert Level (m)	63.200	Discharge Coefficient	0.600

Node 24 (Ph1_AC_2) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.050
Downstream Link	12.000	Invert Level (m)	60.300	Discharge Coefficient	0.600

Node 25 (Ph1_AC_3) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.050
Downstream Link	12.001	Invert Level (m)	56.400	Discharge Coefficient	0.600

Node 18 (Ph1_PP_28-30) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.100
Downstream Link	9.000	Invert Level (m)	60.750	Discharge Coefficient	0.600

Node 5 (Ph1_PP_7-9) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.100
Downstream Link	3.000	Invert Level (m)	67.515	Discharge Coefficient	0.600

Node 7 (Ph1_PP_10-11) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.100
Downstream Link	4.000	Invert Level (m)	65.775	Discharge Coefficient	0.600

Node 80 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	1.025	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0152-1700-3296-1700
Invert Level (m)	39.904	Min Outlet Diameter (m)	0.225
Design Depth (m)	3.296	Min Node Diameter (mm)	1800
Design Flow (l/s)	17.0		

Node 57 (Ph2_PP_120-126) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.050
Downstream Link	19.000	Invert Level (m)	49.850	Discharge Coefficient	0.600

Node 64 Online Orifice Control

Flap Valve	x	Invert Level (m)	44.900	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.150		

Node 22 (Ph1_PP_19-20) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.100
Downstream Link	11.000	Invert Level (m)	57.155	Discharge Coefficient	0.600

Node 27 (Ph1_PP_24-26) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.100
Downstream Link	13.000	Invert Level (m)	55.230	Discharge Coefficient	0.600

Node 55 (Ph2_PP_133-137) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.060
Downstream Link	18.000	Invert Level (m)	45.400	Discharge Coefficient	0.600

Node 69 (Ph2_AC_1) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.020
Downstream Link	21.000	Invert Level (m)	42.219	Discharge Coefficient	0.600

Node 126 (Ph3 Hydrobrake) Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	1.030	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0213-2930-2500-2930
Invert Level (m)	39.214	Min Outlet Diameter (m)	0.225
Design Depth (m)	2.500	Min Node Diameter (mm)	2100
Design Flow (l/s)	29.3		

Node 108 (Ph3_Basin_1) Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	27.008	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0082-3500-1500-3500
Invert Level (m)	46.210	Min Outlet Diameter (m)	0.100
Design Depth (m)	1.500	Min Node Diameter (mm)	1200
Design Flow (l/s)	3.5		

Node 91 (Ph3_Basin_2) Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	23.005	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0106-5000-1000-5000
Invert Level (m)	47.200	Min Outlet Diameter (m)	0.150
Design Depth (m)	1.000	Min Node Diameter (mm)	1200
Design Flow (l/s)	5.0		

Node 90 (Ph3 Basin 3) Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	24.003	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0064-2000-1200-2000
Invert Level (m)	49.000	Min Outlet Diameter (m)	0.100
Design Depth (m)	1.200	Min Node Diameter (mm)	1200
Design Flow (l/s)	2.0		

Node 124 (Ph3 PP 151-155) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.025
Downstream Link	31.000	Invert Level (m)	41.500	Discharge Coefficient	0.600

Node 3 (Ph1 PP 1-6) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	68.780	Slope (1:X)	40.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	0.750
Safety Factor	2.0	Width (m)	8.600	Inf Depth (m)	0.750
Porosity	0.30	Length (m)	36.000		

Node 32 (Ph1 Basin 1) Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	51.000
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	539.0	539.0	1.200	805.0	826.7

Node 9 (Ph1 AC 1) Tank Storage Structure

Invert Level (m)	63.300	Time to half empty (mins)	92	Analyse flow through structure	x
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Inlets

PH1_AC1_Inlet

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	40.0	1.000	40.0

Node 15 (Ph1 PP 34-37) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	63.200	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	1.000
Safety Factor	2.0	Width (m)	11.000	Inf Depth (m)	
Porosity	0.30	Length (m)	11.000		

Node 25 (Ph1 AC 3) Tank Storage Structure

Invert Level (m)	56.400	Time to half empty (mins)	168	Analyse flow through structure	x
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Inlets

Ph1_AC3_Inlet

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	45.0	1.000	45.0

Node 24 (Ph1_AC_2) Tank Storage Structure

Invert Level (m) 60.300 | Time to half empty (mins) 54 | Analyse flow through structure x

Inlets

Ph1_AC2_Inlet

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	45.0	1.000	45.0

Node 18 (Ph1_PP_28-30) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	60.750	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	0.750
Safety Factor	2.0	Width (m)	5.500	Inf Depth (m)	
Porosity	0.30	Length (m)	11.000		

Node 5 (Ph1_PP_7-9) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	67.515	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	9	Depth (m)	0.750
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	25.000		

Node 7 (Ph1_PP_10-11) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	65.775	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	7	Depth (m)	0.750
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	21.500		

Node 11 (Ph1_PP_12-13) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	64.600	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	0.750
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	15.000		

Node 13 (Ph1_PP_14-15) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	62.320	Slope (1:X)	40.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	6	Depth (m)	0.750
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	38.000		

Node 20 (Ph1_PP_16-18) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	58.825	Slope (1:X)	40.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	10	Depth (m)	0.750
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	44.000		

Node 22 (Ph1 PP 19-20) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	57.155	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	12	Depth (m)	0.750
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	21.000		

Node 27 (Ph1 PP 24-26) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	55.230	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	11	Depth (m)	0.750
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	27.000		

Node 31 (Ph1 AC 4) Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	51.000
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	400.0	400.0	1.200	400.0	485.1	1.201	0.0	485.1

Node 63 (Ph2 PP 109-119) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	45.000	Slope (1:X)	50.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	4	Depth (m)	0.750
Safety Factor	2.0	Width (m)	9.400	Inf Depth (m)	
Porosity	0.30	Length (m)	50.000		

Node 77 (Ph2 AC 2) Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	40.232
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	700.0	700.0	2.000	700.0	887.6	2.001	0.0	887.6

Node 69 (Ph2 AC 1) Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	42.220
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	180.0	180.0	1.000	180.0	227.6	1.001	0.0	227.6

Node 52 (Ph2 AC 3) Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	44.220
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	9

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	70.0	70.0	1.000	70.0	99.7	1.001	0.0	99.7

Node 57 (Ph2 PP 120-126) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	49.850	Slope (1:X)	50.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	67	Depth (m)	0.750
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	19.000		

Node 55 (Ph2 PP 133-137) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	45.400	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	51	Depth (m)	0.750
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	24.000		

Node 125 (Ph3 AC 1) Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	39.250
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	750.0	750.0	1.500	750.0	895.6	1.501	0.0	895.6

Node 108 (Ph3 Basin 1) Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	1.0	Invert Level (m)	46.210
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	143.4	143.4	1.500	515.0	526.3

Node 91 (Ph3 Basin 2) Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	1.0	Invert Level (m)	47.200
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	87.8	87.8	1.000	320.0	337.8

Node 90 (Ph3 Basin 3) Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	1.0	Invert Level (m)	49.000
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	33.8	33.8	1.200	155.0	161.1

Node 124 (Ph3 PP 151-155) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	41.500	Slope (1:X)	250.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	42.000		

Node 96 (Ph3 AC 2) Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	39.829
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	274.0	274.0	1.000	274.0	332.7	1.001	0.0	332.7

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.84%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	69.402	0.016	1.2	0.0196	0.0000	OK
15 minute summer	2	11	68.411	0.016	1.2	0.0176	0.0000	OK
30 minute summer	3 (Ph1_PP_1-6)	22	68.959	0.179	5.4	1.5064	0.0000	OK
15 minute summer	4	10	67.682	0.042	12.6	0.0882	0.0000	OK
15 minute summer	5 (Ph1_PP_7-9)	11	67.629	0.114	5.5	0.2328	0.0000	OK
15 minute summer	6	11	66.580	0.050	19.6	0.0670	0.0000	OK
15 minute summer	7 (Ph1_PP_10-11)	10	65.876	0.101	4.8	0.1960	0.0000	OK
15 minute summer	8	11	64.612	0.055	26.2	0.0734	0.0000	OK
180 minute summer	9 (Ph1_AC_1)	112	63.438	0.138	4.0	5.4194	0.0000	OK
180 minute summer	10	112	63.230	0.019	1.7	0.0219	0.0000	OK
15 minute summer	11 (Ph1_PP_12-13)	10	64.623	0.023	3.8	0.0171	0.0000	OK
15 minute summer	12	11	62.552	0.075	32.7	0.0966	0.0000	OK
15 minute summer	13 (Ph1_PP_14-15)	10	62.362	0.042	6.0	0.1634	0.0000	OK
15 minute summer	14	11	61.581	0.074	43.7	0.1245	0.0000	OK
15 minute summer	15 (Ph1_PP_34-37)	13	63.303	0.103	2.5	0.4034	0.0000	OK
15 minute summer	16	13	62.610	0.020	1.5	0.0226	0.0000	OK
15 minute summer	17	11	62.294	0.028	5.4	0.0449	0.0000	OK
15 minute summer	18 (Ph1_PP_28-30)	11	60.816	0.066	2.4	0.1046	0.0000	OK
15 minute summer	19	11	59.752	0.052	13.1	0.0869	0.0000	OK
15 minute summer	20 (Ph1_PP_16-18)	11	58.893	0.068	7.2	0.1825	0.0000	OK
15 minute summer	21	11	58.603	0.206	69.4	0.3491	0.0000	OK
15 minute summer	22 (Ph1_PP_19-20)	11	57.289	0.134	6.6	0.3536	0.0000	OK
15 minute summer	23	11	56.096	0.087	80.8	0.1456	0.0000	OK
180 minute summer	24 (Ph1_AC_2)	112	60.398	0.098	3.2	4.3127	0.0000	OK
360 minute summer	25 (Ph1_AC_3)	232	56.571	0.171	3.7	7.7377	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	1.2	0.999	0.009	0.0198	
15 minute summer	2	1.001	4	1.2	0.982	0.009	0.0139	
30 minute summer	3 (Ph1_PP_1-6)	2.000	4	2.0	1.086	0.018	0.0442	
15 minute summer	4	1.002	6	12.5	1.855	0.042	0.1033	
15 minute summer	5 (Ph1_PP_7-9)	3.000	6	5.3	1.736	0.113	0.0374	
15 minute summer	6	1.003	8	19.6	2.382	0.061	0.1942	
15 minute summer	7 (Ph1_PP_10-11)	4.000	8	4.7	1.815	0.090	0.0328	
15 minute summer	8	1.004	12	26.3	2.358	0.074	0.2321	
180 minute summer	9 (Ph1_AC_1)	5.000	10	1.7	0.652	0.042	0.0394	
180 minute summer	10	5.001	12	1.7	1.040	0.015	0.0221	
15 minute summer	11 (Ph1_PP_12-13)	6.000	12	3.8	2.242	0.050	0.0183	
15 minute summer	12	1.005	14	32.7	2.480	0.124	0.2116	
15 minute summer	13 (Ph1_PP_14-15)	7.000	14	5.8	1.470	0.165	0.0671	
15 minute summer	14	1.006	21	43.8	2.405	0.135	0.6569	
15 minute summer	15 (Ph1_PP_34-37)	8.000	16	1.5	0.900	0.014	0.0238	
15 minute summer	16	8.001	17	1.5	0.834	0.016	0.0244	
15 minute summer	17	8.002	19	5.4	1.115	0.034	0.1420	
15 minute summer	18 (Ph1_PP_28-30)	9.000	19	2.3	0.683	0.045	0.0457	
15 minute summer	19	8.003	21	13.0	0.552	0.120	0.6779	
15 minute summer	20 (Ph1_PP_16-18)	10.000	21	7.0	0.916	0.411	0.1499	
15 minute summer	21	1.007	23	69.6	3.478	0.254	0.8253	
15 minute summer	22 (Ph1_PP_19-20)	11.000	23	6.1	0.981	0.134	0.1262	
15 minute summer	23	1.008	29	80.9	4.395	0.182	0.5501	
180 minute summer	24 (Ph1_AC_2)	12.000	25 (Ph1_AC_3)	1.4	0.169	0.009	0.6404	
360 minute summer	25 (Ph1_AC_3)	12.001	26	1.9	0.366	0.048	0.1459	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.84%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	26	240	56.290	0.053	1.9	0.0596	0.0000	OK
15 minute summer	27 (Ph1_PP_24-26)	11	55.352	0.122	5.9	0.2540	0.0000	OK
30 minute summer	28	19	54.728	0.031	8.3	0.0438	0.0000	OK
15 minute summer	29	11	51.449	0.174	89.2	0.2491	0.0000	OK
15 minute summer	30	11	51.251	0.176	89.2	0.2513	0.0000	OK
2160 minute summer	31 (Ph1_AC_4)	1440	51.212	0.212	3.1	84.7279	0.0000	OK
2160 minute summer	32 (Ph1_Basin_1)	1440	51.212	0.212	16.1	119.1148	0.0000	OK
2160 minute summer	33 (Ph1 Hydrobrake)	1440	49.535	0.048	3.4	0.0688	0.0000	OK
2160 minute summer	34	1440	49.401	0.019	3.4	0.0276	0.0000	OK
2160 minute summer	35	1380	46.705	0.030	3.4	0.0528	0.0000	OK
2160 minute summer	36	1440	46.554	0.035	3.4	0.0496	0.0000	OK
15 minute summer	37	10	46.336	0.045	11.8	0.1167	0.0000	OK
15 minute summer	38	10	45.284	0.064	19.2	0.1389	0.0000	OK
15 minute summer	39	10	45.021	0.066	19.0	0.0943	0.0000	OK
15 minute summer	40	10	50.308	0.039	9.7	0.0833	0.0000	OK
15 minute summer	41	10	47.934	0.051	14.5	0.0847	0.0000	OK
15 minute summer	42	10	47.451	0.059	16.3	0.0785	0.0000	OK
15 minute summer	43	11	46.910	0.064	20.4	0.1002	0.0000	OK
15 minute summer	44	11	44.789	0.094	47.4	0.2131	0.0000	OK
15 minute summer	45	11	44.328	0.091	47.5	0.1303	0.0000	OK
15 minute summer	46	11	43.975	0.107	62.4	0.3131	0.0000	OK
15 minute summer	47	10	46.074	0.032	1.7	0.0420	0.0000	OK
15 minute summer	48	11	46.008	0.031	1.7	0.0351	0.0000	OK
15 minute summer	49	11	45.955	0.048	4.1	0.0662	0.0000	OK
15 minute summer	50	11	45.879	0.072	7.9	0.1075	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	26	12.002	28	1.9	1.433	0.011	0.0217	
15 minute summer	27 (Ph1_PP_24-26)	13.000	28	5.6	1.502	0.150	0.0434	
30 minute summer	28	12.003	29	8.3	2.630	0.038	0.0597	
15 minute summer	29	1.009	30	89.2	1.772	0.347	0.6134	
15 minute summer	30	1.010	32 (Ph1_Basin_1)	89.1	3.785	0.460	0.2223	
180 minute summer	31 (Ph1_AC_4)	14.000	32 (Ph1_Basin_1)	-30.5	-1.713	-0.276	0.1041	
2160 minute summer	32 (Ph1_Basin_1)	1.011	33 (Ph1 Hydrobrake)	3.4	0.589	0.011	0.3573	
2160 minute summer	33 (Ph1 Hydrobrake)	1.012	34	3.4	0.697	0.030	0.1691	
2160 minute summer	34	1.013	35	3.4	1.120	0.005	0.0766	
2160 minute summer	35	1.014	36	3.4	0.744	0.013	0.0413	
2160 minute summer	36	1.015	37	3.4	0.806	0.016	0.0892	
15 minute summer	37	1.016	38	11.6	1.167	0.032	0.3230	
15 minute summer	38	1.017	39	19.0	1.486	0.058	0.1265	
15 minute summer	39	1.018	44	18.9	1.104	0.067	0.2295	
15 minute summer	40	15.000	41	9.6	1.714	0.064	0.1641	
15 minute summer	41	15.001	42	14.4	1.922	0.106	0.0540	
15 minute summer	42	15.002	43	16.3	1.856	0.140	0.0975	
15 minute summer	43	15.003	44	20.2	2.198	0.172	0.3646	
15 minute summer	44	1.019	45	47.5	2.252	0.119	0.2460	
15 minute summer	45	1.020	46	47.7	2.048	0.111	0.1887	
15 minute summer	46	1.021	66	62.8	2.473	0.171	1.0281	
15 minute summer	47	16.000	48	1.7	0.501	0.042	0.0364	
15 minute summer	48	16.001	49	1.7	0.354	0.041	0.0555	
15 minute summer	49	16.002	50	4.1	0.481	0.102	0.1432	
15 minute summer	50	16.003	51	7.9	1.025	0.198	0.1356	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.84%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	51	11	45.745	0.041	12.5	0.0628	0.0000	OK
15 minute summer	52 (Ph2_AC_3)	13	44.221	0.001	0.3	0.0582	0.0000	OK
15 minute summer	53	10	44.228	0.048	4.4	0.0768	0.0000	OK
15 minute summer	54	11	44.205	0.108	18.7	0.1377	0.0000	OK
15 minute summer	55 (Ph2_PP_133-137)	13	45.628	0.228	6.8	1.2598	0.0000	SURCHARGED
15 minute summer	56	11	44.021	0.134	26.0	0.1893	0.0000	OK
120 minute summer	57 (Ph2_PP_120-126)	74	50.027	0.177	4.1	2.5827	0.0000	OK
15 minute summer	58	11	49.792	0.037	4.9	0.0557	0.0000	OK
15 minute summer	59	11	48.643	0.035	7.4	0.0498	0.0000	OK
15 minute summer	60	11	45.062	0.035	11.3	0.0553	0.0000	OK
15 minute summer	61	11	43.896	0.171	36.9	0.1935	0.0000	OK
15 minute summer	62	11	43.786	0.126	41.2	0.2047	0.0000	OK
15 minute summer	63 (Ph2_PP_109-119)	11	45.080	0.080	9.7	0.4765	0.0000	OK
15 minute summer	64	11	45.026	0.126	9.3	0.1423	0.0000	OK
15 minute summer	65	11	43.346	0.092	53.0	0.1342	0.0000	OK
15 minute summer	66	11	42.386	0.099	116.9	0.1546	0.0000	OK
15 minute summer	67	11	41.308	0.108	120.3	0.1773	0.0000	OK
15 minute summer	68	12	40.543	0.427	133.3	0.9012	0.0000	OK
2160 minute summer	69 (Ph2_AC_1)	1500	42.421	0.202	1.7	36.9446	0.0000	SURCHARGED
15 minute summer	70	11	41.965	0.025	1.1	0.0303	0.0000	OK
15 minute summer	71	10	41.900	0.037	4.2	0.0538	0.0000	OK
15 minute summer	72	11	41.660	0.029	4.2	0.0329	0.0000	OK
15 minute summer	73	11	41.352	0.050	8.5	0.0799	0.0000	OK
15 minute summer	74	11	40.651	0.081	10.6	0.1092	0.0000	OK
15 minute summer	75	11	40.592	0.076	10.6	0.0858	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	51	16.004	54	12.6	1.100	0.071	0.1681	
15 minute summer	52 (Ph2_AC_3)	17.000	53	-0.3	-0.117	-0.007	0.0252	
15 minute summer	53	17.001	54	4.1	0.359	0.101	0.1721	
15 minute summer	54	16.005	56	18.8	0.866	0.469	0.7628	
15 minute summer	55 (Ph2_PP_133-137)	18.000	56	3.3	2.094	0.143	0.0151	
15 minute summer	56	16.006	61	25.6	0.895	0.637	0.7681	
120 minute summer	57 (Ph2_PP_120-126)	19.000	58	1.9	0.410	0.083	0.0469	
15 minute summer	58	19.001	59	4.9	1.189	0.058	0.1784	
15 minute summer	59	19.002	60	7.4	1.867	0.053	0.1977	
15 minute summer	60	19.003	61	11.4	1.036	0.054	0.1474	
15 minute summer	61	16.007	62	36.5	1.316	0.909	0.3002	
15 minute summer	62	16.008	65	40.9	1.924	0.499	0.2204	
15 minute summer	63 (Ph2_PP_109-119)	20.000	64	9.3	0.721	0.562	0.1460	
15 minute summer	64	20.001	65	9.2	2.760	0.126	0.0315	
15 minute summer	65	16.009	66	52.8	2.692	0.112	0.2397	
15 minute summer	66	1.022	67	116.9	3.612	0.052	0.3332	
15 minute summer	67	1.023	68	120.1	2.669	0.073	1.8178	
15 minute winter	68	1.024	80	128.6	0.742	0.198	5.7883	
2160 minute summer	69 (Ph2_AC_1)	21.000	70	0.4	0.530	0.014	0.0063	
15 minute summer	70	21.001	71	1.0	0.318	0.026	0.0429	
15 minute summer	71	21.002	72	4.2	1.154	0.052	0.0357	
15 minute summer	72	21.003	73	4.2	0.896	0.036	0.0313	
15 minute summer	73	21.004	74	8.5	1.313	0.105	0.1758	
15 minute summer	74	21.005	75	10.6	0.747	0.147	0.1873	
15 minute summer	75	21.006	79	10.4	0.626	0.143	1.0745	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.84%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	77 (Ph2_AC_2)	256	40.422	0.190	41.8	126.1518	0.0000	OK
15 minute summer	78	12	40.484	0.281	133.3	0.7017	0.0000	OK
15 minute summer	79	12	40.525	0.475	124.2	0.5372	0.0000	OK
15 minute summer	80	12	40.556	0.652	126.5	2.9476	0.0000	SURCHARGED
15 minute summer	81	11	39.936	0.114	14.1	0.2909	0.0000	OK
15 minute summer	82	10	51.829	0.049	8.9	0.1023	0.0000	OK
15 minute summer	83	10	51.234	0.058	15.9	0.1084	0.0000	OK
15 minute summer	84	10	50.344	0.073	21.4	0.1270	0.0000	OK
15 minute summer	85	11	49.979	0.087	24.8	0.1315	0.0000	OK
15 minute summer	86	10	49.198	0.065	29.4	0.1081	0.0000	OK
15 minute summer	87	10	53.767	0.037	6.2	0.0669	0.0000	OK
15 minute summer	88	10	52.594	0.048	9.8	0.0739	0.0000	OK
15 minute summer	89	10	51.348	0.048	16.8	0.0918	0.0000	OK
240 minute summer	90 (Ph3_Basin_3)	160	49.269	0.269	6.7	12.7229	0.0000	SURCHARGED
360 minute summer	91 (Ph3_Basin_2)	232	47.437	0.237	11.4	27.3704	0.0000	SURCHARGED
15 minute summer	92	11	45.970	0.045	8.9	0.0888	0.0000	OK
15 minute summer	93	11	45.317	0.042	8.9	0.0606	0.0000	OK
15 minute summer	94	10	45.829	0.052	6.7	0.0979	0.0000	OK
15 minute summer	95	11	44.517	0.035	19.6	0.0621	0.0000	OK
360 minute summer	96 (Ph3_AC_2)	200	39.926	0.097	4.3	25.2463	0.0000	OK
15 minute summer	97	11	39.930	0.126	43.2	0.3563	0.0000	OK
15 minute summer	98	11	39.852	0.134	39.1	0.4084	0.0000	OK
15 minute summer	99	12	39.789	0.094	39.8	0.2507	0.0000	OK
15 minute summer	100	10	53.830	0.058	5.5	0.0998	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	77 (Ph2_AC_2)	22.000	78	-133.5	-2.402	-0.386	0.7528	
15 minute summer	78	22.001	79	-119.2	0.795	-0.115	1.2435	
15 minute summer	79	21.007	80	-114.0	-0.415	-0.256	9.0302	
15 minute summer	80	1.025	81	14.1	0.510	0.049	1.4369	
15 minute summer	81	1.026	97	15.5	0.520	0.053	0.3922	
15 minute summer	82	23.000	83	8.8	1.222	0.106	0.1731	
15 minute summer	83	23.001	84	15.8	1.643	0.145	0.2004	
15 minute summer	84	23.002	85	21.2	1.682	0.213	0.1311	
15 minute summer	85	23.003	86	24.6	2.141	0.274	0.3027	
15 minute summer	86	23.004	91 (Ph3_Basin_2)	29.7	3.951	0.168	0.1946	
15 minute summer	87	24.000	88	6.2	1.507	0.130	0.0696	
15 minute summer	88	24.001	89	9.7	2.016	0.211	0.0878	
15 minute summer	89	24.002	90 (Ph3_Basin_3)	16.7	3.123	0.221	0.1278	
240 minute summer	90 (Ph3_Basin_3)	24.003	91 (Ph3_Basin_2)	1.8	0.193	0.013	0.5404	
360 minute summer	91 (Ph3_Basin_2)	23.005	92	4.9	1.237	0.054	0.1847	
15 minute summer	92	23.006	93	8.9	1.645	0.079	0.0587	
15 minute summer	93	23.007	95	8.8	1.328	0.026	0.0974	
15 minute summer	94	25.000	95	6.5	1.216	0.251	0.1791	
15 minute summer	95	23.008	97	19.6	3.968	0.017	0.0663	
30 minute summer	96 (Ph3_AC_2)	26.000	97	-15.1	-0.835	-0.052	0.3135	
15 minute summer	97	1.027	98	27.8	0.622	0.096	2.1449	
15 minute summer	98	1.028	99	38.4	1.038	0.132	0.4815	
15 minute summer	99	1.029	126 (Ph3 Hydrobrake)	39.5	0.483	0.056	4.0134	
15 minute summer	100	27.000	101	5.4	0.721	0.136	0.0889	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.84%

Node Event		US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	101		10	53.754	0.052	11.5	0.0878	0.0000	OK
15 minute summer	102		10	52.946	0.053	14.5	0.0776	0.0000	OK
15 minute summer	103		10	51.675	0.061	22.0	0.1149	0.0000	OK
15 minute summer	104		10	51.189	0.071	32.5	0.1566	0.0000	OK
15 minute summer	105		10	48.951	0.080	43.7	0.1804	0.0000	OK
15 minute summer	106		11	48.294	0.092	47.3	0.1373	0.0000	OK
15 minute summer	107		10	47.421	0.099	57.0	0.2100	0.0000	OK
480 minute summer	108 (Ph3_Basin_1)		328	46.567	0.357	15.3	66.9744	0.0000	OK
30 minute summer	109		19	46.198	0.060	6.7	0.1070	0.0000	OK
15 minute summer	110		10	47.393	0.041	10.2	0.0911	0.0000	OK
15 minute summer	111		11	46.040	0.067	34.9	0.2102	0.0000	OK
15 minute summer	112		11	43.746	0.113	45.7	0.2718	0.0000	OK
15 minute summer	113		11	43.488	0.147	54.0	0.3322	0.0000	OK
15 minute summer	114		11	43.270	0.163	54.9	0.2985	0.0000	OK
15 minute summer	115		10	48.264	0.028	3.1	0.0408	0.0000	OK
15 minute summer	116		10	47.499	0.053	8.0	0.0878	0.0000	OK
15 minute summer	117		10	47.225	0.061	13.7	0.1063	0.0000	OK
15 minute summer	118		11	50.202	0.019	1.7	0.0253	0.0000	OK
15 minute summer	119		11	46.811	0.066	31.4	0.1837	0.0000	OK
15 minute summer	120		11	43.179	0.108	100.9	0.3337	0.0000	OK
15 minute summer	121		11	42.140	0.118	109.9	0.3053	0.0000	OK
15 minute summer	122		11	41.318	0.111	114.4	0.2414	0.0000	OK
15 minute summer	123		11	39.928	0.143	120.3	0.3297	0.0000	OK
480 minute summer	124 (Ph3_PP_151-155)		328	41.665	0.165	2.5	10.5162	0.0000	SURCHARGED
960 minute summer	125 (Ph3_AC_1)		645	39.654	0.404	21.6	287.5043	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	101	27.001	102	11.4	1.618	0.115	0.1580	
15 minute summer	102	27.002	103	14.4	2.059	0.116	0.1501	
15 minute summer	103	27.003	104	21.9	1.912	0.084	0.1039	
15 minute summer	104	27.004	105	32.1	2.553	0.120	0.4724	
15 minute summer	105	27.005	106	43.6	2.308	0.092	0.2270	
15 minute summer	106	27.006	107	47.0	2.194	0.127	0.5644	
15 minute summer	107	27.007	108 (Ph3_Basin_1)	57.8	3.573	0.132	0.5267	
480 minute summer	108 (Ph3_Basin_1)	27.008	109	3.1	0.425	0.028	0.1792	
30 minute summer	109	27.009	111	6.4	0.607	0.057	0.6170	
15 minute summer	110	28.000	111	10.1	2.076	0.069	0.0774	
15 minute summer	111	27.010	112	34.6	1.698	0.072	0.8425	
15 minute summer	112	27.011	113	45.9	1.352	0.186	0.6527	
15 minute summer	113	27.012	114	54.2	1.488	0.253	0.2677	
15 minute summer	114	27.013	120	55.0	1.253	0.244	0.7317	
15 minute summer	115	29.000	116	3.1	0.634	0.033	0.1220	
15 minute summer	116	29.001	117	7.9	1.001	0.121	0.1419	
15 minute summer	117	29.002	119	13.6	1.651	0.141	0.0835	
15 minute summer	118	30.000	119	1.6	1.250	0.035	0.0613	
15 minute summer	119	29.003	120	31.0	2.714	0.105	0.5663	
15 minute summer	120	27.014	121	101.1	3.015	0.083	0.5577	
15 minute summer	121	27.015	122	110.0	3.171	0.094	0.4918	
15 minute summer	122	27.016	123	114.5	2.854	0.100	1.0269	
15 minute summer	123	27.017	126 (Ph3 Hydrobrake)	120.4	2.107	0.145	0.9859	
480 minute summer	124 (Ph3_PP_151-155)	31.000	125 (Ph3_AC_1)	0.5	0.884	0.011	0.0101	
15 minute summer	125 (Ph3_AC_1)	31.001	126 (Ph3 Hydrobrake)	-134.7	-2.040	-0.465	1.5180	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.84%

Node Event		US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	126 (Ph3 Hydrobrake)		645	39.654	0.440	46.9	1.5224	0.0000	OK
960 minute summer	126_OUT (Connection to Existing)		645	38.662	0.062	27.3	0.0000	0.0000	OK
180 minute summer	PH1_AC1_Inlet		116	63.437	0.137	1.3	0.0000	0.0000	OK
180 minute summer	Ph1_AC2_Inlet		116	60.397	0.097	1.0	0.0000	0.0000	OK
360 minute summer	Ph1_AC3_Inlet		232	56.571	0.171	1.0	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute summer	126 (Ph3 Hydrobrake)	1.030	126_OUT (Connection to Existing)	27.3	1.739	0.023	0.3258	1183.1

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 99.87%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	69.417	0.031	5.0	0.0387	0.0000	OK
15 minute summer	2	10	68.426	0.031	5.0	0.0353	0.0000	OK
60 minute summer	3 (Ph1_PP_1-6)	44	69.260	0.480	17.1	10.2357	0.0000	SURCHARGED
15 minute summer	4	10	67.724	0.083	48.8	0.1774	0.0000	OK
15 minute summer	5 (Ph1_PP_7-9)	13	68.037	0.522	23.0	2.9691	0.0000	SURCHARGED
15 minute summer	6	10	66.627	0.097	69.6	0.1300	0.0000	OK
15 minute summer	7 (Ph1_PP_10-11)	12	66.212	0.437	20.0	2.3876	0.0000	SURCHARGED
15 minute summer	8	11	64.659	0.102	89.5	0.1363	0.0000	OK
120 minute summer	9 (Ph1_AC_1)	84	63.823	0.523	17.0	20.6479	0.0000	SURCHARGED
120 minute summer	10	84	63.239	0.028	3.6	0.0315	0.0000	OK
15 minute summer	11 (Ph1_PP_12-13)	10	64.648	0.048	16.0	0.0354	0.0000	OK
15 minute summer	12	11	62.632	0.155	114.9	0.1996	0.0000	OK
15 minute summer	13 (Ph1_PP_14-15)	10	62.415	0.095	25.0	0.4914	0.0000	OK
15 minute summer	14	11	61.655	0.148	161.0	0.2493	0.0000	OK
30 minute summer	15 (Ph1_PP_34-37)	23	63.500	0.300	9.5	3.1208	0.0000	SURCHARGED
15 minute winter	16	20	62.618	0.028	2.7	0.0312	0.0000	OK
15 minute summer	17	10	62.320	0.054	19.7	0.0844	0.0000	OK
15 minute summer	18 (Ph1_PP_28-30)	12	60.951	0.201	10.0	0.7663	0.0000	SURCHARGED
15 minute summer	19	10	59.806	0.106	50.0	0.1755	0.0000	OK
15 minute summer	20 (Ph1_PP_16-18)	12	59.129	0.304	30.1	2.2806	0.0000	SURCHARGED
15 minute summer	21	12	58.826	0.429	255.2	0.7258	0.0000	SURCHARGED
15 minute summer	22 (Ph1_PP_19-20)	13	57.734	0.579	27.6	4.2648	0.0000	SURCHARGED
15 minute summer	23	10	56.182	0.173	286.4	0.2896	0.0000	OK
120 minute summer	24 (Ph1_AC_2)	82	60.666	0.366	13.5	16.1734	0.0000	SURCHARGED
240 minute summer	25 (Ph1_AC_3)	188	56.995	0.595	12.1	26.9462	0.0000	SURCHARGED

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	5.0	1.515	0.039	0.0550	
15 minute summer	2	1.001	4	4.9	1.513	0.039	0.0385	
60 minute summer	3 (Ph1_PP_1-6)	2.000	4	3.5	1.276	0.032	0.0645	
15 minute summer	4	1.002	6	48.6	2.724	0.161	0.2721	
15 minute summer	5 (Ph1_PP_7-9)	3.000	6	14.2	2.281	0.305	0.0768	
15 minute summer	6	1.003	8	69.3	3.404	0.214	0.4786	
15 minute summer	7 (Ph1_PP_10-11)	4.000	8	13.0	2.410	0.249	0.0682	
15 minute summer	8	1.004	12	89.6	3.117	0.252	0.5949	
120 minute summer	9 (Ph1_AC_1)	5.000	10	3.6	0.819	0.090	0.0668	
120 minute summer	10	5.001	12	3.6	1.300	0.031	0.0409	
15 minute summer	11 (Ph1_PP_12-13)	6.000	12	15.9	3.372	0.208	0.0512	
15 minute summer	12	1.005	14	115.1	3.383	0.437	0.5459	
15 minute summer	13 (Ph1_PP_14-15)	7.000	14	24.4	2.121	0.690	0.1949	
15 minute summer	14	1.006	21	161.2	3.080	0.498	1.8816	
30 minute summer	15 (Ph1_PP_34-37)	8.000	16	2.7	1.086	0.026	0.0370	
30 minute summer	16	8.001	17	2.7	1.117	0.030	0.0503	
15 minute summer	17	8.002	19	19.6	1.557	0.125	0.3666	
15 minute summer	18 (Ph1_PP_28-30)	9.000	19	8.1	1.182	0.159	0.1104	
15 minute summer	19	8.003	21	49.4	1.476	0.454	0.8724	
15 minute summer	20 (Ph1_PP_16-18)	10.000	21	22.8	1.294	1.334	0.3444	
15 minute summer	21	1.007	23	250.8	4.501	0.914	2.3121	
15 minute summer	22 (Ph1_PP_19-20)	11.000	23	15.0	1.609	0.334	0.2178	
15 minute summer	23	1.008	29	285.2	4.524	0.643	1.6642	
120 minute summer	24 (Ph1_AC_2)	12.000	25 (Ph1_AC_3)	3.0	0.186	0.019	0.8449	
240 minute summer	25 (Ph1_AC_3)	12.001	26	3.9	0.544	0.096	0.1945	

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 99.87%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	26	188	56.297	0.060	3.8	0.0674	0.0000	OK
15 minute summer	27 (Ph1_PP_24-26)	13	55.798	0.568	24.5	3.2886	0.0000	SURCHARGED
15 minute summer	28	11	54.751	0.054	27.4	0.0769	0.0000	OK
15 minute summer	29	11	51.997	0.722	312.4	1.0332	0.0000	SURCHARGED
1440 minute winter	30	1380	51.627	0.552	49.1	0.7905	0.0000	SURCHARGED
1440 minute winter	31 (Ph1_AC_4)	1380	51.627	0.627	7.9	250.9487	0.0000	SURCHARGED
1440 minute winter	32 (Ph1_Basin_1)	1380	51.627	0.627	76.6	381.7763	0.0000	SURCHARGED
180 minute winter	33 (Ph1 Hydrobrake)	164	49.537	0.050	3.7	0.0717	0.0000	OK
180 minute summer	34	164	49.402	0.020	3.7	0.0288	0.0000	OK
360 minute winter	35	232	46.706	0.031	3.7	0.0555	0.0000	OK
120 minute winter	36	244	46.555	0.036	3.7	0.0521	0.0000	OK
15 minute summer	37	10	46.382	0.091	49.1	0.2346	0.0000	OK
15 minute summer	38	10	45.363	0.143	80.3	0.3088	0.0000	OK
15 minute summer	39	10	45.110	0.155	79.6	0.2215	0.0000	OK
15 minute summer	40	10	50.348	0.079	40.6	0.1716	0.0000	OK
15 minute summer	41	10	48.002	0.119	60.9	0.1970	0.0000	OK
15 minute summer	42	10	47.531	0.139	68.5	0.1856	0.0000	OK
15 minute summer	43	10	46.994	0.148	85.2	0.2318	0.0000	OK
15 minute summer	44	10	44.919	0.224	199.4	0.5079	0.0000	OK
15 minute summer	45	10	44.465	0.228	198.5	0.3258	0.0000	OK
15 minute summer	46	11	44.121	0.253	261.9	0.7372	0.0000	OK
15 minute summer	47	10	46.108	0.066	7.0	0.0869	0.0000	OK
15 minute summer	48	10	46.039	0.062	6.9	0.0706	0.0000	OK
15 minute summer	49	10	46.012	0.105	17.3	0.1447	0.0000	OK
15 minute summer	50	10	45.966	0.159	33.5	0.2385	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	26	12.002	28	3.9	1.871	0.022	0.0425	
15 minute summer	27 (Ph1_PP_24-26)	13.000	28	14.8	1.950	0.397	0.0886	
15 minute summer	28	12.003	29	27.4	3.095	0.126	0.4432	
15 minute summer	29	1.009	30	313.0	2.838	1.219	1.3441	
15 minute summer	30	1.010	32 (Ph1_Basin_1)	312.6	4.346	1.612	0.6435	
30 minute summer	31 (Ph1_AC_4)	14.000	32 (Ph1_Basin_1)	-166.8	-3.800	-1.511	0.2171	
180 minute summer	32 (Ph1_Basin_1)	1.011	33 (Ph1 Hydrobrake)	3.7	0.607	0.012	0.3790	
180 minute winter	33 (Ph1 Hydrobrake)	1.012	34	3.7	0.716	0.033	0.1794	
180 minute winter	34	1.013	35	3.7	1.147	0.006	0.0820	
360 minute summer	35	1.014	36	3.7	0.789	0.014	0.0438	
180 minute winter	36	1.015	37	3.7	0.841	0.018	0.1432	
15 minute summer	37	1.016	38	48.7	1.659	0.133	0.9523	
15 minute summer	38	1.017	39	79.6	1.955	0.243	0.4037	
15 minute summer	39	1.018	44	79.1	1.424	0.282	0.7408	
15 minute summer	40	15.000	41	40.4	2.393	0.269	0.4917	
15 minute summer	41	15.001	42	60.5	2.568	0.443	0.1693	
15 minute summer	42	15.002	43	68.3	2.550	0.589	0.2976	
15 minute summer	43	15.003	44	84.3	3.141	0.719	1.0678	
15 minute summer	44	1.019	45	198.5	2.868	0.499	0.8081	
15 minute summer	45	1.020	46	198.5	2.664	0.463	0.6027	
15 minute summer	46	1.021	66	262.3	3.495	0.714	3.0375	
15 minute summer	47	16.000	48	6.9	0.741	0.173	0.1023	
15 minute summer	48	16.001	49	6.8	0.509	0.171	0.1586	
15 minute summer	49	16.002	50	17.1	0.704	0.426	0.4038	
15 minute summer	50	16.003	51	33.2	1.518	0.828	0.3749	

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 99.87%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	51	10	45.788	0.084	52.9	0.1299	0.0000	OK
30 minute summer	52 (Ph2_AC_3)	22	44.476	0.256	58.2	17.0076	0.0000	SURCHARGED
15 minute summer	53	12	44.528	0.348	66.1	0.5574	0.0000	SURCHARGED
15 minute summer	54	11	44.673	0.576	61.7	0.7337	0.0000	SURCHARGED
30 minute summer	55 (Ph2_PP_133-137)	24	46.077	0.677	25.9	9.4212	0.0000	SURCHARGED
15 minute summer	56	11	44.651	0.764	42.9	1.0821	0.0000	SURCHARGED
120 minute summer	57 (Ph2_PP_120-126)	84	50.291	0.441	14.2	14.9010	0.0000	SURCHARGED
15 minute summer	58	10	49.824	0.069	16.9	0.1031	0.0000	OK
15 minute summer	59	10	48.675	0.067	27.7	0.0950	0.0000	OK
15 minute summer	60	11	45.102	0.075	44.6	0.1176	0.0000	OK
15 minute summer	61	11	44.506	0.781	78.3	0.8836	0.0000	SURCHARGED
15 minute summer	62	11	44.151	0.491	98.3	0.7944	0.0000	SURCHARGED
15 minute summer	63 (Ph2_PP_109-119)	13	45.335	0.335	40.6	6.5189	0.0000	SURCHARGED
15 minute summer	64	13	45.159	0.259	20.2	0.2928	0.0000	SURCHARGED
15 minute summer	65	11	43.408	0.154	129.5	0.2249	0.0000	OK
15 minute summer	66	11	42.483	0.196	397.3	0.3041	0.0000	OK
15 minute summer	67	11	41.455	0.255	411.9	0.4195	0.0000	OK
15 minute summer	68	11	41.250	1.135	467.6	2.3931	0.0000	SURCHARGED
2160 minute summer	69 (Ph2_AC_1)	1680	42.800	0.581	4.3	106.2161	0.0000	SURCHARGED
15 minute summer	70	10	41.989	0.049	4.2	0.0595	0.0000	OK
15 minute summer	71	10	41.942	0.079	17.7	0.1147	0.0000	OK
15 minute summer	72	10	41.690	0.059	17.5	0.0670	0.0000	OK
15 minute summer	73	10	41.406	0.104	35.9	0.1665	0.0000	OK
360 minute winter	74	360	41.224	0.654	7.1	0.8825	0.0000	SURCHARGED
360 minute winter	75	360	41.224	0.708	6.6	0.8010	0.0000	SURCHARGED

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	51	16.004	54	52.7	1.678	0.299	0.3773	
15 minute summer	52 (Ph2_AC_3)	17.000	53	-65.5	-2.011	-1.809	0.3248	
15 minute summer	53	17.001	54	-48.4	-1.216	-1.202	0.5481	
15 minute summer	54	16.005	56	35.3	0.941	0.880	1.3966	
30 minute summer	55 (Ph2_PP_133-137)	18.000	56	6.0	2.431	0.257	0.0483	
30 minute summer	56	16.006	61	43.9	1.104	1.093	1.0724	
120 minute summer	57 (Ph2_PP_120-126)	19.000	58	3.2	0.480	0.141	0.0680	
15 minute summer	58	19.001	59	16.7	1.654	0.197	0.4373	
15 minute summer	59	19.002	60	27.6	2.603	0.196	0.5349	
15 minute summer	60	19.003	61	43.7	1.521	0.208	0.2082	
15 minute summer	61	16.007	62	78.2	1.966	1.948	0.4313	
15 minute summer	62	16.008	65	98.2	2.469	1.197	0.4119	
15 minute summer	63 (Ph2_PP_109-119)	20.000	64	20.2	1.146	1.221	0.2029	
15 minute summer	64	20.001	65	20.1	3.372	0.275	0.0698	
15 minute summer	65	16.009	66	129.4	3.342	0.276	0.4733	
15 minute summer	66	1.022	67	397.5	4.607	0.177	0.9960	
15 minute summer	67	1.023	68	412.6	2.869	0.250	3.5019	
15 minute summer	68	1.024	80	468.2	1.662	0.720	6.6608	
2160 minute summer	69 (Ph2_AC_1)	21.000	70	0.6	0.623	0.024	0.0092	
15 minute summer	70	21.001	71	4.2	0.452	0.104	0.1213	
15 minute summer	71	21.002	72	17.5	1.697	0.219	0.1021	
15 minute summer	72	21.003	73	17.4	1.343	0.149	0.0862	
15 minute summer	73	21.004	74	35.7	1.706	0.441	0.7879	
15 minute summer	74	21.005	75	45.8	0.967	0.637	0.9013	
15 minute summer	75	21.006	79	45.6	0.662	0.624	2.6856	

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 99.87%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	77 (Ph2_AC_2)	360	41.224	0.992	90.2	659.8968	0.0000	SURCHARGED
360 minute winter	78	360	41.224	1.021	91.1	2.5501	0.0000	SURCHARGED
360 minute winter	79	360	41.224	1.174	80.8	1.3281	0.0000	SURCHARGED
360 minute winter	80	360	41.224	1.320	90.1	5.9720	0.0000	SURCHARGED
960 minute winter	81	915	40.249	0.427	14.3	1.0869	0.0000	OK
15 minute summer	82	10	51.887	0.107	37.1	0.2218	0.0000	OK
15 minute summer	83	11	51.320	0.144	66.6	0.2715	0.0000	OK
15 minute summer	84	11	50.808	0.537	87.7	0.9271	0.0000	SURCHARGED
15 minute summer	85	12	50.438	0.546	96.7	0.8257	0.0000	SURCHARGED
15 minute summer	86	11	49.263	0.130	113.0	0.2141	0.0000	OK
15 minute summer	87	10	53.809	0.079	26.1	0.1447	0.0000	OK
15 minute summer	88	10	52.667	0.121	41.0	0.1853	0.0000	OK
15 minute summer	89	10	51.417	0.117	70.0	0.2253	0.0000	OK
240 minute winter	90 (Ph3_Basin_3)	236	49.790	0.790	13.8	58.1822	0.0000	SURCHARGED
240 minute summer	91 (Ph3_Basin_2)	244	47.853	0.653	38.2	106.8217	0.0000	SURCHARGED
15 minute summer	92	10	46.025	0.100	38.6	0.1989	0.0000	OK
15 minute summer	93	10	45.364	0.089	38.1	0.1277	0.0000	OK
15 minute summer	94	11	45.945	0.168	28.1	0.3158	0.0000	SURCHARGED
15 minute summer	95	10	44.554	0.072	83.1	0.1285	0.0000	OK
960 minute winter	96 (Ph3_AC_2)	915	40.249	0.420	10.0	109.3080	0.0000	OK
960 minute winter	97	915	40.249	0.445	27.8	1.2587	0.0000	OK
960 minute winter	98	915	40.248	0.530	31.3	1.6207	0.0000	OK
960 minute winter	99	915	40.248	0.553	31.0	1.4712	0.0000	OK
15 minute summer	100	10	53.902	0.130	23.0	0.2232	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	77 (Ph2_AC_2)	22.000	78	-570.7	-3.866	-1.649	2.2274	
15 minute summer	78	22.001	79	-498.7	-1.787	-0.480	1.7994	
15 minute summer	79	21.007	80	-455.0	-1.615	-1.021	9.7646	
15 minute summer	80	1.025	81	16.1	0.504	0.056	2.7706	
15 minute summer	81	1.026	97	23.6	0.456	0.081	0.8176	
15 minute summer	82	23.000	83	37.0	1.738	0.447	0.5337	
15 minute summer	83	23.001	84	64.2	2.082	0.589	0.6940	
15 minute summer	84	23.002	85	82.4	2.071	0.825	0.4127	
15 minute summer	85	23.003	86	94.0	2.652	1.048	0.8142	
15 minute summer	86	23.004	91 (Ph3_Basin_2)	112.8	4.410	0.638	0.5368	
15 minute summer	87	24.000	88	26.0	2.089	0.549	0.2090	
15 minute summer	88	24.001	89	40.4	2.785	0.885	0.2660	
15 minute summer	89	24.002	90 (Ph3_Basin_3)	69.6	4.047	0.921	0.2097	
15 minute summer	90 (Ph3_Basin_3)	24.003	91 (Ph3_Basin_2)	1.8	0.305	0.013	0.5404	
15 minute winter	91 (Ph3_Basin_2)	23.005	92	5.0	1.274	0.055	0.4334	
15 minute summer	92	23.006	93	38.1	2.398	0.341	0.1733	
15 minute summer	93	23.007	95	37.8	1.993	0.110	0.2786	
15 minute summer	94	25.000	95	26.7	1.622	1.028	0.5783	
15 minute summer	95	23.008	97	82.9	5.952	0.072	0.1873	
15 minute summer	96 (Ph3_AC_2)	26.000	97	-69.0	-1.549	-0.238	0.6804	
15 minute summer	97	1.027	98	70.4	0.748	0.243	4.5109	
15 minute summer	98	1.028	99	118.3	1.451	0.408	1.0580	
15 minute summer	99	1.029	126 (Ph3 Hydrobrake)	124.3	0.688	0.175	7.7023	
15 minute summer	100	27.000	101	22.8	1.028	0.568	0.2603	

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 99.87%

Node Event		US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	101		10	53.818	0.116	48.4	0.1937	0.0000	OK
15 minute summer	102		10	53.012	0.119	61.1	0.1734	0.0000	OK
15 minute summer	103		10	51.754	0.140	92.2	0.2644	0.0000	OK
15 minute summer	104		10	51.277	0.159	136.0	0.3488	0.0000	OK
15 minute summer	105		10	49.056	0.185	184.0	0.4184	0.0000	OK
15 minute summer	106		10	48.416	0.214	199.0	0.3183	0.0000	OK
15 minute summer	107		10	47.526	0.204	241.0	0.4339	0.0000	OK
720 minute winter	108 (Ph3_Basin_1)		690	47.179	0.969	20.9	255.2054	0.0000	SURCHARGED
15 minute summer	109		11	46.261	0.123	26.8	0.2197	0.0000	OK
15 minute summer	110		10	47.441	0.089	42.6	0.1957	0.0000	OK
15 minute summer	111		10	46.113	0.140	148.5	0.4378	0.0000	OK
15 minute summer	112		11	44.062	0.428	195.1	1.0284	0.0000	SURCHARGED
15 minute summer	113		11	43.808	0.467	224.0	1.0524	0.0000	SURCHARGED
15 minute summer	114		11	43.454	0.347	226.5	0.6357	0.0000	OK
15 minute summer	115		10	48.292	0.056	13.0	0.0821	0.0000	OK
15 minute summer	116		10	47.566	0.120	33.4	0.1984	0.0000	OK
15 minute summer	117		10	47.308	0.144	57.5	0.2524	0.0000	OK
15 minute summer	118		10	50.222	0.039	7.0	0.0515	0.0000	OK
15 minute summer	119		10	46.890	0.145	131.5	0.4005	0.0000	OK
15 minute summer	120		11	43.312	0.241	417.5	0.7485	0.0000	OK
15 minute summer	121		11	42.299	0.277	454.6	0.7157	0.0000	OK
15 minute summer	122		11	41.453	0.246	472.4	0.5340	0.0000	OK
960 minute winter	123		915	40.248	0.463	38.1	1.0696	0.0000	OK
360 minute winter	124 (Ph3_PP_151-155)		344	41.879	0.379	5.8	37.8423	0.0000	SURCHARGED
960 minute winter	125 (Ph3_AC_1)		915	40.248	0.998	38.3	710.9241	0.0000	SURCHARGED
Link Event (Outflow)		US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	101		27.001	102	48.1	2.302	0.484	0.4665	
15 minute summer	102		27.002	103	60.6	2.985	0.490	0.4359	
15 minute summer	103		27.003	104	92.0	2.632	0.352	0.3168	
15 minute summer	104		27.004	105	134.9	3.709	0.503	1.3677	
15 minute summer	105		27.005	106	183.5	3.090	0.387	0.7126	
15 minute summer	106		27.006	107	197.9	3.194	0.533	1.6211	
15 minute summer	107		27.007	108 (Ph3_Basin_1)	240.7	4.041	0.551	1.9127	
15 minute summer	108 (Ph3_Basin_1)		27.008	109	3.5	0.427	0.031	0.4591	
15 minute summer	109		27.009	111	26.6	0.780	0.236	1.7788	
15 minute summer	110		28.000	111	42.3	3.056	0.291	0.2202	
15 minute summer	111		27.010	112	147.1	2.141	0.305	3.0021	
15 minute summer	112		27.011	113	190.0	1.723	0.768	2.1129	
15 minute summer	113		27.012	114	223.6	2.029	1.044	0.7882	
15 minute summer	114		27.013	120	226.6	1.842	1.003	2.0465	
15 minute summer	115		29.000	116	12.9	0.896	0.138	0.3590	
15 minute summer	116		29.001	117	33.0	1.366	0.507	0.4360	
15 minute summer	117		29.002	119	57.0	2.316	0.593	0.2495	
15 minute summer	118		30.000	119	6.9	1.902	0.145	0.1692	
15 minute summer	119		29.003	120	130.2	3.983	0.442	1.6216	
15 minute summer	120		27.014	121	417.8	3.959	0.342	1.7546	
15 minute summer	121		27.015	122	454.2	4.236	0.389	1.5189	
15 minute summer	122		27.016	123	470.2	3.506	0.409	3.3978	
15 minute summer	123		27.017	126 (Ph3 Hydrobrake)	492.6	2.669	0.595	2.9275	
360 minute winter	124 (Ph3_PP_151-155)		31.000	125 (Ph3_AC_1)	0.8	1.014	0.016	0.0136	
15 minute summer	125 (Ph3_AC_1)		31.001	126 (Ph3 Hydrobrake)	-589.5	-3.451	-2.033	3.6303	

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 99.87%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	126 (Ph3 Hydrobrake)	915	40.248	1.034	67.5	3.5810	0.0000	SURCHARGED
120 minute summer	126_OUT (Connection to Existing)	136	38.664	0.064	29.2	0.0000	0.0000	OK
120 minute summer	PH1_AC1_Inlet	86	63.821	0.521	6.9	0.0000	0.0000	OK
120 minute summer	Ph1_AC2_Inlet	86	60.664	0.364	5.4	0.0000	0.0000	OK
240 minute summer	Ph1_AC3_Inlet	196	56.995	0.595	4.3	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	126 (Ph3 Hydrobrake)	1.030	126_OUT (Connection to Existing)	29.2	1.776	0.025	0.3425	574.6

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	69.421	0.035	6.6	0.0443	0.0000	OK
15 minute summer	2	10	68.431	0.036	6.6	0.0406	0.0000	OK
60 minute summer	3 (Ph1_PP_1-6)	46	69.358	0.578	22.6	14.7344	0.0000	SURCHARGED
15 minute summer	4	10	67.737	0.097	63.3	0.2053	0.0000	OK
15 minute summer	5 (Ph1_PP_7-9)	13	68.184	0.669	30.2	4.6942	0.0000	SURCHARGED
15 minute summer	6	10	66.641	0.111	88.4	0.1488	0.0000	OK
15 minute summer	7 (Ph1_PP_10-11)	13	66.339	0.564	26.2	3.8232	0.0000	SURCHARGED
15 minute summer	8	11	64.672	0.115	112.3	0.1535	0.0000	OK
120 minute summer	9 (Ph1_AC_1)	86	63.991	0.691	21.8	27.3149	0.0000	SURCHARGED
120 minute summer	10	86	63.241	0.030	4.2	0.0339	0.0000	OK
15 minute summer	11 (Ph1_PP_12-13)	10	64.655	0.055	21.0	0.0410	0.0000	OK
15 minute summer	12	11	62.658	0.181	145.5	0.2335	0.0000	OK
15 minute summer	13 (Ph1_PP_14-15)	11	62.437	0.117	32.8	0.6665	0.0000	OK
15 minute summer	14	11	61.687	0.180	205.4	0.3035	0.0000	OK
30 minute summer	15 (Ph1_PP_34-37)	24	63.562	0.362	12.6	4.5051	0.0000	SURCHARGED
30 minute winter	16	35	62.619	0.029	3.0	0.0330	0.0000	OK
15 minute summer	17	10	62.327	0.061	25.4	0.0959	0.0000	OK
15 minute summer	18 (Ph1_PP_28-30)	12	61.013	0.263	13.1	1.2687	0.0000	SURCHARGED
15 minute summer	19	11	59.873	0.173	64.1	0.2874	0.0000	OK
15 minute summer	20 (Ph1_PP_16-18)	13	59.503	0.677	49.8	10.2485	0.0000	SURCHARGED
15 minute summer	21	12	59.473	1.076	296.4	1.8212	0.0000	SURCHARGED
30 minute summer	22 (Ph1_PP_19-20)	21	57.882	0.727	32.9	6.5082	0.0000	FLOOD RISK
15 minute summer	23	11	56.200	0.191	315.5	0.3203	0.0000	OK
120 minute summer	24 (Ph1_AC_2)	84	60.783	0.483	17.3	21.3493	0.0000	SURCHARGED
180 minute winter	25 (Ph1_AC_3)	172	57.169	0.769	12.7	34.7888	0.0000	SURCHARGED

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	6.6	1.638	0.052	0.0671	
15 minute summer	2	1.001	4	6.5	1.639	0.052	0.0469	
60 minute summer	3 (Ph1_PP_1-6)	2.000	4	3.9	1.314	0.035	0.0690	
15 minute summer	4	1.002	6	63.1	2.914	0.209	0.3299	
15 minute summer	5 (Ph1_PP_7-9)	3.000	6	16.3	2.361	0.349	0.0848	
15 minute summer	6	1.003	8	88.0	3.631	0.272	0.5700	
15 minute summer	7 (Ph1_PP_10-11)	4.000	8	14.9	2.501	0.286	0.0754	
15 minute summer	8	1.004	12	112.1	3.241	0.316	0.7133	
120 minute summer	9 (Ph1_AC_1)	5.000	10	4.2	0.857	0.104	0.0741	
120 minute summer	10	5.001	12	4.2	1.359	0.036	0.0601	
15 minute summer	11 (Ph1_PP_12-13)	6.000	12	20.9	3.628	0.274	0.0625	
15 minute summer	12	1.005	14	145.3	3.549	0.551	0.6563	
15 minute summer	13 (Ph1_PP_14-15)	7.000	14	31.9	2.215	0.902	0.2435	
15 minute summer	14	1.006	21	205.3	3.221	0.634	2.0538	
30 minute summer	15 (Ph1_PP_34-37)	8.000	16	3.0	1.120	0.028	0.0398	
30 minute summer	16	8.001	17	3.0	1.170	0.033	0.0587	
15 minute summer	17	8.002	19	25.3	1.647	0.161	0.5928	
15 minute summer	18 (Ph1_PP_28-30)	9.000	19	9.6	1.309	0.189	0.1421	
15 minute summer	19	8.003	21	60.4	1.659	0.555	1.0899	
15 minute summer	20 (Ph1_PP_16-18)	10.000	21	31.2	1.771	1.827	0.3444	
15 minute summer	21	1.007	23	272.6	4.456	0.994	2.4241	
30 minute summer	22 (Ph1_PP_19-20)	11.000	23	17.0	1.532	0.377	0.2236	
15 minute summer	23	1.008	29	314.4	4.840	0.709	1.7435	
120 minute summer	24 (Ph1_AC_2)	12.000	25 (Ph1_AC_3)	3.5	0.193	0.022	0.8491	
180 minute winter	25 (Ph1_AC_3)	12.001	26	4.4	0.584	0.110	0.2078	

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	26	188	56.298	0.061	4.4	0.0694	0.0000	OK
15 minute summer	27 (Ph1_PP_24-26)	13	55.957	0.727	32.2	5.1738	0.0000	FLOOD RISK
15 minute summer	28	11	54.756	0.059	33.1	0.0845	0.0000	OK
15 minute summer	29	12	52.212	0.937	347.5	1.3407	0.0000	SURCHARGED
2160 minute summer	30	2160	51.825	0.750	32.6	1.0733	0.0000	SURCHARGED
2160 minute summer	31 (Ph1_AC_4)	2160	51.825	0.825	10.5	330.0159	0.0000	SURCHARGED
2160 minute summer	32 (Ph1_Basin_1)	2160	51.825	0.825	35.3	520.1395	0.0000	SURCHARGED
60 minute summer	33 (Ph1 Hydrobrake)	125	49.537	0.050	3.7	0.0717	0.0000	OK
60 minute summer	34	123	49.402	0.020	3.7	0.0288	0.0000	OK
120 minute winter	35	94	46.706	0.031	3.7	0.0555	0.0000	OK
60 minute summer	36	124	46.555	0.036	3.7	0.0521	0.0000	OK
15 minute summer	37	10	46.396	0.105	64.3	0.2689	0.0000	OK
15 minute summer	38	10	45.390	0.170	105.1	0.3671	0.0000	OK
15 minute summer	39	10	45.145	0.190	104.2	0.2721	0.0000	OK
15 minute summer	40	10	50.361	0.092	53.1	0.1983	0.0000	OK
15 minute summer	41	10	48.028	0.145	79.7	0.2396	0.0000	OK
15 minute summer	42	10	47.565	0.173	89.8	0.2311	0.0000	OK
15 minute summer	43	10	47.033	0.187	111.7	0.2925	0.0000	OK
15 minute summer	44	10	44.973	0.278	260.7	0.6290	0.0000	OK
15 minute summer	45	11	44.527	0.290	259.5	0.4144	0.0000	OK
15 minute summer	46	11	44.194	0.326	342.1	0.9507	0.0000	OK
15 minute summer	47	10	46.119	0.077	9.2	0.1009	0.0000	OK
15 minute summer	48	11	46.051	0.074	9.1	0.0833	0.0000	OK
15 minute summer	49	11	46.040	0.133	22.7	0.1826	0.0000	OK
15 minute summer	50	11	46.002	0.195	43.8	0.2914	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	26	12.002	28	4.4	1.967	0.025	0.0452	
15 minute summer	27 (Ph1_PP_24-26)	13.000	28	16.9	2.015	0.453	0.0979	
15 minute summer	28	12.003	29	33.1	3.074	0.152	0.4529	
15 minute summer	29	1.009	30	345.7	3.134	1.346	1.3441	
15 minute summer	30	1.010	32 (Ph1_Basin_1)	345.5	4.224	1.782	0.7129	
30 minute summer	31 (Ph1_AC_4)	14.000	32 (Ph1_Basin_1)	-231.5	-4.146	-2.096	0.2860	
60 minute summer	32 (Ph1_Basin_1)	1.011	33 (Ph1 Hydrobrake)	3.7	0.607	0.012	0.3790	
60 minute summer	33 (Ph1 Hydrobrake)	1.012	34	3.7	0.716	0.033	0.1794	
60 minute summer	34	1.013	35	3.7	1.147	0.006	0.0820	
60 minute summer	35	1.014	36	3.7	0.789	0.014	0.0441	
2160 minute winter	36	1.015	37	3.7	0.793	0.018	0.1032	
15 minute summer	37	1.016	38	63.8	1.749	0.174	1.1827	
15 minute summer	38	1.017	39	104.2	1.994	0.318	0.5182	
15 minute summer	39	1.018	44	103.5	1.448	0.369	0.9528	
15 minute summer	40	15.000	41	52.9	2.498	0.353	0.6138	
15 minute summer	41	15.001	42	79.3	2.642	0.580	0.2151	
15 minute summer	42	15.002	43	89.4	2.624	0.772	0.3787	
15 minute summer	43	15.003	44	110.4	3.255	0.941	1.3456	
15 minute summer	44	1.019	45	259.5	2.911	0.652	1.0395	
15 minute summer	45	1.020	46	260.5	2.701	0.607	0.7817	
15 minute summer	46	1.021	66	343.6	3.613	0.935	3.8545	
15 minute summer	47	16.000	48	9.1	0.790	0.228	0.1260	
15 minute summer	48	16.001	49	9.0	0.518	0.224	0.2082	
15 minute summer	49	16.002	50	22.4	0.730	0.559	0.5095	
15 minute summer	50	16.003	51	43.4	1.530	1.083	0.4837	

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	51	11	45.816	0.112	69.2	0.1730	0.0000	OK
30 minute summer	52 (Ph2_AC_3)	23	44.645	0.425	78.3	28.2943	0.0000	SURCHARGED
15 minute summer	53	12	44.766	0.586	89.8	0.9386	0.0000	SURCHARGED
15 minute summer	54	12	45.030	0.933	79.9	1.1878	0.0000	SURCHARGED
60 minute summer	55 (Ph2_PP_133-137)	42	46.222	0.822	25.8	13.6475	0.0000	FLOOD RISK
15 minute summer	56	12	45.010	1.123	50.5	1.5907	0.0000	SURCHARGED
60 minute winter	57 (Ph2_PP_120-126)	56	50.391	0.541	20.3	20.6828	0.0000	SURCHARGED
15 minute summer	58	10	49.833	0.078	21.6	0.1176	0.0000	OK
15 minute summer	59	10	48.685	0.077	35.8	0.1082	0.0000	OK
15 minute summer	60	11	45.149	0.122	57.7	0.1910	0.0000	OK
15 minute summer	61	11	44.850	1.125	91.9	1.2718	0.0000	SURCHARGED
15 minute summer	62	11	44.369	0.709	117.1	1.1474	0.0000	SURCHARGED
30 minute summer	63 (Ph2_PP_109-119)	22	45.421	0.421	48.5	10.0854	0.0000	SURCHARGED
30 minute summer	64	22	45.203	0.303	22.5	0.3428	0.0000	SURCHARGED
15 minute summer	65	11	43.425	0.171	153.6	0.2502	0.0000	OK
15 minute summer	66	11	42.511	0.224	504.5	0.3485	0.0000	OK
15 minute summer	67	11	41.751	0.551	523.1	0.9071	0.0000	OK
15 minute summer	68	11	41.586	1.471	585.5	3.1010	0.0000	SURCHARGED
1440 minute winter	69 (Ph2_AC_1)	1380	42.953	0.734	5.0	134.2170	0.0000	SURCHARGED
15 minute summer	70	10	41.996	0.056	5.5	0.0678	0.0000	OK
15 minute summer	71	10	41.955	0.092	23.1	0.1334	0.0000	OK
15 minute summer	72	10	41.700	0.069	22.9	0.0784	0.0000	OK
480 minute winter	73	472	41.568	0.266	5.7	0.4257	0.0000	SURCHARGED
480 minute winter	74	472	41.568	0.998	7.0	1.3460	0.0000	SURCHARGED
480 minute winter	75	472	41.568	1.052	6.6	1.1895	0.0000	SURCHARGED

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	51	16.004	54	68.3	2.030	0.387	0.4211	
15 minute summer	52 (Ph2_AC_3)	17.000	53	-86.4	-2.412	-2.386	0.3248	
15 minute summer	53	17.001	54	-66.6	-1.675	-1.656	0.5481	
30 minute summer	54	16.005	56	37.5	0.942	0.935	1.3966	
60 minute summer	55 (Ph2_PP_133-137)	18.000	56	6.7	2.492	0.284	0.0492	
30 minute summer	56	16.006	61	49.0	1.232	1.220	1.0724	
60 minute winter	57 (Ph2_PP_120-126)	19.000	58	3.6	0.495	0.158	0.0737	
15 minute summer	58	19.001	59	21.4	1.766	0.252	0.5243	
15 minute summer	59	19.002	60	35.4	2.563	0.252	0.8430	
15 minute summer	60	19.003	61	55.8	1.627	0.266	0.2503	
15 minute summer	61	16.007	62	91.8	2.308	2.288	0.4313	
15 minute summer	62	16.008	65	116.5	2.929	1.421	0.4119	
30 minute summer	63 (Ph2_PP_109-119)	20.000	64	22.5	1.276	1.359	0.2029	
30 minute summer	64	20.001	65	22.4	3.462	0.306	0.0811	
15 minute summer	65	16.009	66	153.4	3.469	0.327	0.5406	
15 minute summer	66	1.022	67	504.3	4.523	0.225	1.8872	
15 minute summer	67	1.023	68	513.4	3.116	0.311	4.8914	
15 minute summer	68	1.024	80	584.5	2.075	0.899	6.6608	
1440 minute winter	69 (Ph2_AC_1)	21.000	70	0.7	0.645	0.027	0.0100	
15 minute summer	70	21.001	71	5.4	0.482	0.135	0.1478	
15 minute summer	71	21.002	72	22.9	1.798	0.287	0.1260	
15 minute summer	72	21.003	73	22.9	1.388	0.195	0.1156	
15 minute summer	73	21.004	74	46.0	1.809	0.568	0.8855	
15 minute summer	74	21.005	75	57.0	0.928	0.793	0.9013	
15 minute summer	75	21.006	79	56.9	0.808	0.780	2.6856	

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	77 (Ph2_AC_2)	472	41.568	1.336	92.7	888.3113	0.0000	SURCHARGED
480 minute winter	78	472	41.568	1.365	93.1	3.4078	0.0000	SURCHARGED
480 minute winter	79	472	41.568	1.518	82.5	1.7166	0.0000	SURCHARGED
480 minute winter	80	472	41.568	1.664	90.7	7.5264	0.0000	SURCHARGED
1440 minute winter	81	1410	40.512	0.690	14.2	1.7549	0.0000	SURCHARGED
15 minute summer	82	12	52.051	0.271	48.6	0.5619	0.0000	SURCHARGED
15 minute summer	83	12	51.881	0.705	84.7	1.3263	0.0000	SURCHARGED
15 minute summer	84	12	51.393	1.122	103.1	1.9392	0.0000	SURCHARGED
15 minute summer	85	12	50.875	0.983	115.3	1.4857	0.0000	SURCHARGED
15 minute summer	86	11	49.279	0.146	135.7	0.2417	0.0000	OK
15 minute summer	87	12	53.922	0.192	34.1	0.3498	0.0000	SURCHARGED
15 minute summer	88	12	53.428	0.882	52.5	1.3504	0.0000	SURCHARGED
15 minute summer	89	12	52.114	0.814	80.4	1.5621	0.0000	SURCHARGED
240 minute winter	90 (Ph3_Basin_3)	236	49.942	0.942	17.3	76.6774	0.0000	FLOOD RISK
360 minute winter	91 (Ph3_Basin_2)	352	47.994	0.794	24.1	142.8877	0.0000	FLOOD RISK
15 minute summer	92	10	46.041	0.116	49.3	0.2321	0.0000	OK
15 minute summer	93	10	45.377	0.102	48.8	0.1460	0.0000	OK
15 minute summer	94	11	46.423	0.646	36.7	1.2138	0.0000	SURCHARGED
15 minute summer	95	11	44.563	0.081	103.8	0.1447	0.0000	OK
1440 minute winter	96 (Ph3_AC_2)	1410	40.511	0.682	8.7	177.6366	0.0000	SURCHARGED
1440 minute winter	97	1410	40.511	0.707	26.2	2.0013	0.0000	SURCHARGED
1440 minute winter	98	1410	40.511	0.793	28.9	2.4223	0.0000	SURCHARGED
1440 minute winter	99	1410	40.511	0.816	28.6	2.1689	0.0000	SURCHARGED
15 minute summer	100	10	53.929	0.157	30.2	0.2691	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	77 (Ph2_AC_2)	22.000	78	-721.5	-4.034	-2.085	2.9695	
15 minute summer	78	22.001	79	-628.2	-2.231	-0.605	1.8788	
15 minute summer	79	21.007	80	-571.4	-2.029	-1.283	9.7646	
15 minute summer	80	1.025	81	17.3	0.500	0.060	3.2683	
15 minute summer	81	1.026	97	23.4	0.440	0.080	0.9468	
15 minute summer	82	23.000	83	46.0	1.737	0.555	0.9533	
15 minute summer	83	23.001	84	73.7	2.114	0.677	0.8277	
15 minute summer	84	23.002	85	96.5	2.426	0.967	0.4127	
15 minute summer	85	23.003	86	111.9	3.043	1.247	0.8612	
15 minute summer	86	23.004	91 (Ph3_Basin_2)	135.4	4.598	0.766	0.5678	
15 minute summer	87	24.000	88	32.9	2.141	0.695	0.2982	
15 minute winter	88	24.001	89	45.1	2.739	0.986	0.3225	
15 minute summer	89	24.002	90 (Ph3_Basin_3)	74.4	4.229	0.985	0.2278	
240 minute winter	90 (Ph3_Basin_3)	24.003	91 (Ph3_Basin_2)	1.8	0.250	0.013	0.5405	
15 minute summer	91 (Ph3_Basin_2)	23.005	92	5.0	1.274	0.055	0.5322	
15 minute summer	92	23.006	93	48.8	2.536	0.436	0.2097	
15 minute summer	93	23.007	95	48.5	2.123	0.141	0.3349	
15 minute summer	94	25.000	95	32.3	1.837	1.244	0.5816	
15 minute summer	95	23.008	97	103.8	6.326	0.090	0.2207	
15 minute summer	96 (Ph3_AC_2)	26.000	97	-93.3	-1.680	-0.322	0.8202	
15 minute summer	97	1.027	98	83.7	0.767	0.289	5.2326	
15 minute summer	98	1.028	99	144.1	1.532	0.497	1.2648	
15 minute summer	99	1.029	126 (Ph3 Hydrobrake)	151.2	0.718	0.213	8.1740	
15 minute summer	100	27.000	101	29.9	1.088	0.746	0.3232	

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.81%

Node Event		US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	
15 minute summer	101		10	53.840	0.138	63.4	0.2310	0.0000	OK	
15 minute summer	102		10	53.035	0.142	80.1	0.2079	0.0000	OK	
15 minute summer	103		10	51.782	0.168	120.7	0.3177	0.0000	OK	
15 minute summer	104		10	51.308	0.190	178.1	0.4177	0.0000	OK	
15 minute summer	105		10	49.094	0.223	240.8	0.5057	0.0000	OK	
15 minute summer	106		10	48.461	0.259	260.6	0.3863	0.0000	OK	
15 minute summer	107		10	47.567	0.245	315.5	0.5218	0.0000	OK	
600 minute winter	108 (Ph3_Basin_1)		585	47.365	1.155	29.6	330.9017	0.0000	SURCHARGED	
15 minute summer	109		11	46.279	0.141	35.4	0.2507	0.0000	OK	
15 minute summer	110		10	47.456	0.104	55.8	0.2296	0.0000	OK	
15 minute summer	111		10	46.136	0.163	194.0	0.5068	0.0000	OK	
15 minute summer	112		11	44.412	0.779	255.2	1.8706	0.0000	SURCHARGED	
15 minute summer	113		11	43.969	0.628	296.6	1.4158	0.0000	SURCHARGED	
15 minute summer	114		11	43.522	0.415	300.8	0.7603	0.0000	OK	
15 minute summer	115		10	48.301	0.065	17.1	0.0944	0.0000	OK	
15 minute summer	116		10	47.592	0.146	43.9	0.2415	0.0000	OK	
15 minute summer	117		10	47.343	0.179	75.5	0.3141	0.0000	OK	
15 minute summer	118		10	50.228	0.045	9.2	0.0593	0.0000	OK	
15 minute summer	119		10	46.917	0.172	172.4	0.4746	0.0000	OK	
15 minute summer	120		11	43.362	0.291	551.9	0.9028	0.0000	OK	
15 minute summer	121		11	42.358	0.336	601.1	0.8694	0.0000	OK	
15 minute summer	122		11	41.515	0.308	626.0	0.6681	0.0000	OK	
1440 minute winter	123		1410	40.510	0.725	34.7	1.6759	0.0000	SURCHARGED	
480 minute winter	124 (Ph3_PP_151-155)		456	41.964	0.464	5.8	48.6253	0.0000	SURCHARGED	
1440 minute winter	125 (Ph3_AC_1)		1410	40.510	1.260	30.2	897.8618	0.0000	SURCHARGED	
Link Event (Outflow)	US Node	Link		DS Node		Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	101	27.001	102			63.0	2.424	0.634	0.5803	
15 minute summer	102	27.002	103			79.4	3.160	0.642	0.5395	
15 minute summer	103	27.003	104			120.4	2.750	0.461	0.3967	
15 minute summer	104	27.004	105			176.6	3.931	0.658	1.6904	
15 minute summer	105	27.005	106			240.3	3.209	0.506	0.8976	
15 minute summer	106	27.006	107			259.1	3.321	0.698	2.0279	
15 minute summer	107	27.007	108 (Ph3_Basin_1)			314.5	4.100	0.720	2.1755	
15 minute summer	108 (Ph3_Basin_1)	27.008	109			4.1	0.427	0.037	0.5942	
15 minute summer	109	27.009	111			34.0	0.829	0.302	2.1479	
15 minute summer	110	28.000	111			55.5	3.262	0.381	0.2703	
15 minute summer	111	27.010	112			192.2	2.184	0.399	3.1748	
15 minute summer	112	27.011	113			252.2	2.287	1.020	2.1129	
15 minute summer	113	27.012	114			297.0	2.693	1.387	0.8015	
15 minute summer	114	27.013	120			301.4	1.966	1.335	2.5221	
15 minute summer	115	29.000	116			17.0	0.932	0.181	0.4499	
15 minute summer	116	29.001	117			43.3	1.413	0.665	0.5517	
15 minute summer	117	29.002	119			74.8	2.423	0.778	0.3123	
15 minute summer	118	30.000	119			9.0	2.056	0.191	0.2061	
15 minute summer	119	29.003	120			170.8	4.241	0.580	1.9975	
15 minute summer	120	27.014	121			552.9	4.126	0.452	2.2254	
15 minute summer	121	27.015	122			602.2	4.394	0.516	1.9641	
15 minute summer	122	27.016	123			627.4	3.500	0.546	4.4263	
15 minute summer	123	27.017	126 (Ph3 Hydrobrake)			660.6	3.058	0.798	3.4261	
480 minute winter	124 (Ph3_PP_151-155)	31.000	125 (Ph3_AC_1)			0.9	1.030	0.018	0.1609	
15 minute summer	125 (Ph3 AC 1)	31.001	126 (Ph3 Hydrobrake)			-778.2	-3.682	-2.684	4.8794	

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	126 (Ph3 Hydrobrake)	1410	40.510	1.296	59.3	4.4899	0.0000	SURCHARGED
480 minute winter	126_OUT (Connection to Existing)	248	38.664	0.064	29.3	0.0000	0.0000	OK
120 minute summer	PH1_AC1_Inlet	88	63.989	0.689	9.0	0.0000	0.0000	OK
120 minute summer	Ph1_AC2_Inlet	88	60.781	0.481	7.1	0.0000	0.0000	OK
180 minute winter	Ph1_AC3_Inlet	176	57.168	0.768	4.4	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	126 (Ph3 Hydrobrake)	1.030	126_OUT (Connection to Existing)	29.3	1.776	0.025	0.3425	1053.9

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 95.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	69.426	0.040	8.5	0.0503	0.0000	OK
15 minute summer	2	10	68.436	0.041	8.5	0.0461	0.0000	OK
60 minute summer	3 (Ph1_PP_1-6)	50	69.471	0.691	30.0	21.0210	0.0000	SURCHARGED
15 minute summer	4	10	67.752	0.112	81.6	0.2376	0.0000	OK
30 minute summer	5 (Ph1_PP_7-9)	21	68.356	0.841	36.1	7.1980	0.0000	FLOOD RISK
15 minute summer	6	10	66.658	0.128	111.6	0.1706	0.0000	OK
30 minute summer	7 (Ph1_PP_10-11)	21	66.485	0.710	31.4	5.8949	0.0000	FLOOD RISK
15 minute summer	8	10	64.687	0.130	140.2	0.1732	0.0000	OK
120 minute summer	9 (Ph1_AC_1)	88	64.228	0.928	28.2	36.6900	0.0000	SURCHARGED
120 minute summer	10	88	63.243	0.032	4.9	0.0365	0.0000	OK
15 minute summer	11 (Ph1_PP_12-13)	10	64.664	0.064	27.3	0.0470	0.0000	OK
15 minute summer	12	10	62.692	0.215	183.4	0.2772	0.0000	OK
15 minute summer	13 (Ph1_PP_14-15)	12	62.573	0.253	42.7	2.2547	0.0000	FLOOD RISK
15 minute summer	14	12	62.054	0.547	253.2	0.9204	0.0000	SURCHARGED
60 minute summer	15 (Ph1_PP_34-37)	42	63.638	0.438	12.6	6.5435	0.0000	SURCHARGED
30 minute winter	16	35	62.621	0.031	3.3	0.0350	0.0000	OK
15 minute summer	17	10	62.335	0.069	32.5	0.1089	0.0000	OK
15 minute summer	18 (Ph1_PP_28-30)	12	61.086	0.336	17.1	2.0244	0.0000	SURCHARGED
15 minute summer	19	12	60.748	1.048	81.5	1.7380	0.0000	SURCHARGED
15 minute summer	20 (Ph1_PP_16-18)	14	59.815	0.990	75.5	21.2839	0.0000	FLOOD RISK
15 minute summer	21	12	60.144	1.747	343.7	2.9559	0.0351	FLOOD
30 minute summer	22 (Ph1_PP_19-20)	22	58.067	0.912	43.2	9.9683	0.0000	FLOOD RISK
15 minute summer	23	12	56.239	0.230	357.1	0.3856	0.0000	OK
120 minute summer	24 (Ph1_AC_2)	86	60.950	0.650	22.5	28.7306	0.0000	SURCHARGED
180 minute winter	25 (Ph1_AC_3)	176	57.528	1.128	16.1	45.6473	0.0000	FLOOD RISK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	8.5	1.755	0.066	0.0807	
15 minute summer	2	1.001	4	8.4	1.760	0.067	0.0562	
60 minute summer	3 (Ph1_PP_1-6)	2.000	4	4.2	1.352	0.038	0.0736	
15 minute summer	4	1.002	6	81.3	3.104	0.270	0.3991	
30 minute summer	5 (Ph1_PP_7-9)	3.000	6	18.4	2.435	0.394	0.0928	
15 minute summer	6	1.003	8	111.2	3.857	0.343	0.6775	
30 minute summer	7 (Ph1_PP_10-11)	4.000	8	16.8	2.583	0.324	0.0826	
15 minute summer	8	1.004	12	139.7	3.349	0.394	0.8569	
120 minute summer	9 (Ph1_AC_1)	5.000	10	4.9	0.897	0.122	0.0826	
120 minute summer	10	5.001	12	4.9	1.421	0.042	0.0864	
15 minute summer	11 (Ph1_PP_12-13)	6.000	12	27.3	3.822	0.357	0.0780	
15 minute summer	12	1.005	14	181.4	3.680	0.688	0.9959	
15 minute winter	13 (Ph1_PP_14-15)	7.000	14	36.4	2.208	1.028	0.2950	
15 minute summer	14	1.006	21	248.8	3.577	0.768	2.5228	
60 minute summer	15 (Ph1_PP_34-37)	8.000	16	3.3	1.155	0.031	0.0426	
60 minute summer	16	8.001	17	3.3	1.187	0.037	0.0601	
15 minute summer	17	8.002	19	32.4	1.687	0.207	0.7187	
15 minute summer	18 (Ph1_PP_28-30)	9.000	19	11.5	1.449	0.226	0.1579	
15 minute summer	19	8.003	21	67.8	1.706	0.623	1.1942	
30 minute summer	20 (Ph1_PP_16-18)	10.000	21	38.1	2.165	2.233	0.3444	
15 minute summer	21	1.007	23	306.8	4.484	1.118	2.6427	
30 minute summer	22 (Ph1_PP_19-20)	11.000	23	19.2	1.639	0.426	0.2296	
15 minute summer	23	1.008	29	356.2	5.207	0.803	1.9006	
120 minute summer	24 (Ph1_AC_2)	12.000	25 (Ph1_AC_3)	4.1	0.199	0.025	0.8540	
180 minute winter	25 (Ph1_AC_3)	12.001	26	5.4	0.648	0.135	0.2275	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 95.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	26	180	56.300	0.063	5.4	0.0718	0.0000	OK
30 minute summer	27 (Ph1_PP_24-26)	21	56.143	0.913	38.5	7.9097	0.0000	FLOOD RISK
15 minute summer	28	11	54.762	0.065	39.8	0.0929	0.0000	OK
15 minute summer	29	12	52.535	1.260	395.3	1.8034	0.0000	SURCHARGED
2160 minute winter	30	2100	52.140	1.065	46.8	1.5237	0.0000	SURCHARGED
2160 minute winter	31 (Ph1_AC_4)	2100	52.140	1.140	9.7	455.9046	0.0000	SURCHARGED
2160 minute winter	32 (Ph1_Basin_1)	2100	52.140	1.140	38.4	758.3100	0.0000	FLOOD RISK
30 minute summer	33 (Ph1 Hydrobrake)	81	49.537	0.050	3.7	0.0717	0.0000	OK
30 minute summer	34	80	49.402	0.020	3.7	0.0288	0.0000	OK
960 minute winter	35	450	46.706	0.031	3.7	0.0555	0.0000	OK
30 minute summer	36	80	46.555	0.036	3.7	0.0521	0.0000	OK
15 minute summer	37	10	46.411	0.120	83.5	0.3080	0.0000	OK
15 minute summer	38	12	45.549	0.329	136.7	0.7109	0.0000	OK
15 minute summer	39	12	45.495	0.540	128.4	0.7726	0.0000	SURCHARGED
15 minute summer	40	10	50.375	0.106	69.1	0.2299	0.0000	OK
15 minute summer	41	12	48.682	0.799	103.8	1.3195	0.0000	SURCHARGED
15 minute summer	42	12	48.367	0.975	107.4	1.3003	0.0000	SURCHARGED
15 minute summer	43	12	47.823	0.977	123.2	1.5266	0.0000	SURCHARGED
15 minute summer	44	12	45.413	0.718	289.7	1.6278	0.0000	SURCHARGED
15 minute summer	45	11	45.000	0.763	292.1	1.0914	0.0000	SURCHARGED
15 minute summer	46	11	44.669	0.801	393.9	2.3339	0.0000	SURCHARGED
15 minute summer	47	11	46.167	0.125	11.9	0.1638	0.0000	OK
15 minute summer	48	11	46.160	0.183	11.9	0.2070	0.0000	OK
15 minute summer	49	11	46.152	0.245	26.8	0.3375	0.0000	SURCHARGED
15 minute summer	50	11	46.102	0.295	51.8	0.4420	0.0000	SURCHARGED
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	26	12.002	28	5.4	2.057	0.031	0.0521	
30 minute summer	27 (Ph1_PP_24-26)	13.000	28	19.1	2.074	0.512	0.1074	
15 minute summer	28	12.003	29	39.8	3.164	0.182	0.4639	
15 minute summer	29	1.009	30	394.3	3.575	1.536	1.3441	
15 minute summer	30	1.010	32 (Ph1_Basin_1)	394.0	4.412	2.033	0.7765	
30 minute summer	31 (Ph1_AC_4)	14.000	32 (Ph1_Basin_1)	-273.3	-4.324	-2.474	0.3055	
30 minute summer	32 (Ph1_Basin_1)	1.011	33 (Ph1 Hydrobrake)	3.7	0.645	0.012	0.3790	
30 minute summer	33 (Ph1 Hydrobrake)	1.012	34	3.7	0.716	0.033	0.1794	
30 minute summer	34	1.013	35	3.7	1.147	0.006	0.0819	
30 minute summer	35	1.014	36	3.7	0.788	0.014	0.0441	
2160 minute summer	36	1.015	37	3.7	0.823	0.018	0.1125	
15 minute summer	37	1.016	38	83.0	1.813	0.227	2.0726	
15 minute summer	38	1.017	39	128.4	2.043	0.392	1.0550	
15 minute winter	39	1.018	44	130.5	1.433	0.465	1.4635	
15 minute summer	40	15.000	41	68.8	2.549	0.459	0.8460	
15 minute summer	41	15.001	42	94.4	2.613	0.691	0.2858	
15 minute winter	42	15.002	43	98.6	2.639	0.851	0.4422	
15 minute winter	43	15.003	44	119.5	3.427	1.019	1.5799	
15 minute summer	44	1.019	45	292.1	2.870	0.734	1.2853	
15 minute summer	45	1.020	46	295.4	2.678	0.689	0.8929	
15 minute summer	46	1.021	66	384.2	3.664	1.046	4.4661	
15 minute summer	47	16.000	48	11.9	0.808	0.298	0.3129	
15 minute summer	48	16.001	49	13.5	0.515	0.336	0.4348	
15 minute summer	49	16.002	50	27.9	0.743	0.697	0.6658	
15 minute summer	50	16.003	51	51.6	1.513	1.287	0.6496	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 95.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	51	11	45.893	0.189	84.2	0.2935	0.0000	OK
30 minute summer	52 (Ph2_AC_3)	24	44.875	0.655	102.3	43.5537	0.0000	SURCHARGED
15 minute summer	53	12	45.054	0.874	113.2	1.3985	0.0000	SURCHARGED
15 minute summer	54	12	45.508	1.411	97.1	1.7960	0.0000	SURCHARGED
60 minute summer	55 (Ph2_PP_133-137)	44	46.400	1.000	34.2	19.9477	0.0000	FLOOD RISK
15 minute summer	56	12	45.492	1.605	50.8	2.2731	0.0000	SURCHARGED
60 minute winter	57 (Ph2_PP_120-126)	58	50.535	0.685	26.9	29.1120	0.0000	SURCHARGED
15 minute summer	58	10	49.845	0.090	27.5	0.1342	0.0000	OK
15 minute summer	59	10	48.696	0.088	46.1	0.1238	0.0000	OK
15 minute summer	60	12	45.490	0.463	74.6	0.7236	0.0000	SURCHARGED
15 minute summer	61	12	45.291	1.566	105.7	1.7708	0.0000	SURCHARGED
15 minute summer	62	12	44.633	0.973	136.9	1.5750	0.0000	SURCHARGED
30 minute summer	63 (Ph2_PP_109-119)	22	45.527	0.527	63.6	15.6029	0.0000	SURCHARGED
30 minute summer	64	22	45.257	0.357	25.0	0.4038	0.0000	SURCHARGED
15 minute summer	65	11	43.443	0.189	178.9	0.2762	0.0000	OK
15 minute summer	66	11	42.602	0.315	572.6	0.4897	0.0000	OK
15 minute summer	67	11	42.184	0.984	595.2	1.6198	0.0000	SURCHARGED
960 minute winter	68	945	42.174	2.059	71.7	4.3414	0.0000	SURCHARGED
2160 minute winter	69 (Ph2_AC_1)	1740	43.746	1.527	4.9	184.6848	0.0000	FLOOD RISK
960 minute winter	70	945	42.175	0.235	1.1	0.2866	0.0000	SURCHARGED
960 minute winter	71	945	42.175	0.312	2.5	0.4526	0.0000	SURCHARGED
960 minute winter	72	945	42.175	0.544	2.5	0.6149	0.0000	SURCHARGED
960 minute winter	73	945	42.175	0.873	4.5	1.3971	0.0000	SURCHARGED
960 minute winter	74	945	42.175	1.605	5.5	2.1646	0.0000	FLOOD RISK
960 minute winter	75	945	42.174	1.658	5.2	1.8757	0.0000	FLOOD RISK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	51	16.004	54	82.5	2.189	0.468	0.5348	
15 minute summer	52 (Ph2_AC_3)	17.000	53	-109.7	-2.759	-3.029	0.3248	
15 minute summer	53	17.001	54	-82.6	-2.077	-2.053	0.5481	
15 minute winter	54	16.005	56	41.9	1.053	1.044	1.3966	
15 minute summer	55 (Ph2_PP_133-137)	18.000	56	8.2	2.479	0.350	0.0739	
30 minute summer	56	16.006	61	53.6	1.349	1.335	1.0724	
60 minute winter	57 (Ph2_PP_120-126)	19.000	58	4.1	0.515	0.180	0.0805	
15 minute summer	58	19.001	59	27.3	1.878	0.321	0.6282	
15 minute summer	59	19.002	60	45.6	2.651	0.325	1.3422	
15 minute summer	60	19.003	61	64.8	1.697	0.309	0.3222	
15 minute summer	61	16.007	62	106.3	2.673	2.649	0.4313	
15 minute summer	62	16.008	65	135.6	3.410	1.654	0.4078	
30 minute summer	63 (Ph2_PP_109-119)	20.000	64	25.0	1.418	1.511	0.2029	
30 minute summer	64	20.001	65	24.9	3.537	0.341	0.0958	
15 minute summer	65	16.009	66	178.6	3.580	0.380	0.6097	
15 minute summer	66	1.022	67	570.8	4.422	0.254	2.2202	
15 minute summer	67	1.023	68	593.0	2.944	0.360	4.9874	
15 minute summer	68	1.024	80	682.5	2.423	1.050	6.6608	
2160 minute winter	69 (Ph2_AC_1)	21.000	70	1.0	0.721	0.038	0.0130	
15 minute summer	70	21.001	71	7.0	0.523	0.176	0.1808	
15 minute summer	71	21.002	72	29.8	1.943	0.372	0.1860	
15 minute summer	72	21.003	73	29.6	1.370	0.253	0.1969	
15 minute summer	73	21.004	74	56.4	1.733	0.697	1.0862	
15 minute summer	74	21.005	75	70.2	0.998	0.978	0.9013	
15 minute summer	75	21.006	79	69.6	0.988	0.953	2.6856	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 95.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	77 (Ph2_AC_2)	945	42.174	1.942	70.0	1291.7470	0.0000	SURCHARGED
960 minute winter	78	945	42.175	1.972	70.2	4.9229	0.0000	SURCHARGED
960 minute winter	79	945	42.175	2.125	62.1	2.4028	0.0000	SURCHARGED
960 minute winter	80	945	42.174	2.270	71.2	10.2714	0.0000	SURCHARGED
1440 minute winter	81	960	40.824	1.002	50.7	2.5508	0.0000	SURCHARGED
15 minute summer	82	12	53.012	1.232	63.1	2.5520	0.0000	SURCHARGED
15 minute summer	83	12	52.709	1.533	98.8	2.8823	0.0000	FLOOD RISK
15 minute summer	84	11	51.846	1.575	128.6	2.7216	2.7730	FLOOD
15 minute summer	85	11	51.242	1.350	130.8	2.0414	0.0000	FLOOD RISK
30 minute summer	86	19	49.308	0.175	155.8	0.2898	0.0000	OK
15 minute summer	87	12	54.883	1.153	44.4	2.1022	0.0000	SURCHARGED
15 minute summer	88	11	54.046	1.500	56.9	2.2965	1.6761	FLOOD
15 minute summer	89	12	52.796	1.496	93.3	2.8701	0.0000	FLOOD RISK
360 minute winter	90 (Ph3_Basin_3)	352	50.147	1.147	16.3	105.2803	0.0000	FLOOD RISK
480 minute winter	91 (Ph3_Basin_2)	464	48.173	0.973	25.0	195.2045	0.0000	FLOOD RISK
15 minute summer	92	10	46.062	0.137	62.9	0.2732	0.0000	OK
15 minute summer	93	10	45.392	0.117	62.2	0.1672	0.0000	OK
15 minute summer	94	12	47.091	1.314	47.8	2.4679	0.0000	FLOOD RISK
15 minute summer	95	11	44.574	0.092	131.2	0.1644	0.0000	OK
1440 minute summer	96 (Ph3_AC_2)	930	40.818	0.989	53.5	257.5555	0.0000	SURCHARGED
1440 minute summer	97	930	40.870	1.066	84.5	3.0156	0.0000	SURCHARGED
1440 minute winter	98	960	40.881	1.163	42.7	3.5536	0.0000	SURCHARGED
1440 minute winter	99	960	40.885	1.190	41.8	3.1636	0.0000	SURCHARGED
15 minute summer	100	10	53.971	0.199	39.2	0.3408	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	77 (Ph2_AC_2)	22.000	78	-855.1	-4.220	-2.471	3.1999	
15 minute summer	78	22.001	79	-735.2	-2.610	-0.708	1.8993	
15 minute summer	79	21.007	80	-666.3	-2.366	-1.496	9.7646	
480 minute winter	80	1.025	81	59.9	0.508	0.207	12.9042	
960 minute winter	81	1.026	97	76.6	0.499	0.261	2.7551	
15 minute summer	82	23.000	83	52.8	1.781	0.638	0.9533	
15 minute summer	83	23.001	84	94.6	2.379	0.868	0.8277	
15 minute winter	84	23.002	85	108.5	2.728	1.087	0.4127	
15 minute summer	85	23.003	86	126.9	3.281	1.414	0.9340	
15 minute summer	86	23.004	91 (Ph3_Basin_2)	160.0	4.773	0.905	0.6158	
15 minute winter	87	24.000	88	36.0	2.095	0.760	0.2982	
15 minute summer	88	24.001	89	46.5	2.647	1.018	0.3225	
15 minute summer	89	24.002	90 (Ph3_Basin_3)	83.1	4.724	1.100	0.2278	
360 minute winter	90 (Ph3_Basin_3)	24.003	91 (Ph3_Basin_2)	1.9	0.244	0.014	0.5417	
15 minute winter	91 (Ph3_Basin_2)	23.005	92	5.0	1.274	0.055	0.6061	
15 minute summer	92	23.006	93	62.2	2.666	0.555	0.2539	
15 minute summer	93	23.007	95	61.8	2.256	0.179	0.4013	
15 minute summer	94	25.000	95	40.4	2.292	1.552	0.5816	
15 minute summer	95	23.008	97	131.2	6.721	0.113	0.2627	
15 minute summer	96 (Ph3_AC_2)	26.000	97	-153.1	-1.921	-0.528	1.2136	
15 minute summer	97	1.027	98	94.0	0.876	0.324	7.5933	
15 minute summer	98	1.028	99	156.5	1.541	0.540	2.4297	
15 minute winter	99	1.029	126 (Ph3 Hydrobrake)	153.4	0.723	0.216	10.1586	
15 minute summer	100	27.000	101	38.7	1.123	0.966	0.4049	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 95.45%

Node Event			US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	
15 minute summer	101			10	53.870	0.168	82.2	0.2816	0.0000	OK	
15 minute summer	102			10	53.068	0.175	103.9	0.2559	0.0000	OK	
15 minute summer	103			10	51.819	0.205	156.5	0.3880	0.0000	OK	
15 minute summer	104			10	51.352	0.234	231.2	0.5148	0.0000	OK	
15 minute summer	105			10	49.148	0.277	312.3	0.6283	0.0000	OK	
15 minute summer	106			10	48.536	0.334	337.8	0.4974	0.0000	OK	
15 minute summer	107			11	47.652	0.330	408.5	0.7012	0.0000	OK	
960 minute winter	108 (Ph3_Basin_1)			930	47.636	1.426	27.0	456.3486	0.0000	FLOOD RISK	
15 minute summer	109			11	46.298	0.160	43.8	0.2846	0.0000	OK	
15 minute summer	110			10	47.475	0.123	72.5	0.2709	0.0000	OK	
15 minute summer	111			11	46.189	0.216	252.7	0.6741	0.0000	OK	
15 minute summer	112			11	44.946	1.313	326.9	3.1500	0.0000	SURCHARGED	
15 minute summer	113			11	44.223	0.882	379.1	1.9895	0.0000	SURCHARGED	
15 minute summer	114			11	43.657	0.550	383.5	1.0079	0.0000	SURCHARGED	
15 minute summer	115			10	48.310	0.074	22.2	0.1081	0.0000	OK	
15 minute summer	116			11	47.750	0.304	57.0	0.5026	0.0000	SURCHARGED	
15 minute summer	117			11	47.501	0.337	93.7	0.5900	0.0000	SURCHARGED	
15 minute summer	118			10	50.235	0.052	11.9	0.0681	0.0000	OK	
15 minute summer	119			10	46.947	0.202	217.5	0.5584	0.0000	OK	
15 minute summer	120			11	43.421	0.350	704.7	1.0845	0.0000	OK	
15 minute summer	121			11	42.485	0.463	767.6	1.1990	0.0000	OK	
15 minute summer	122			11	41.908	0.701	791.5	1.5227	0.0000	SURCHARGED	
1440 minute winter	123			960	40.905	1.120	44.9	2.5886	0.0000	SURCHARGED	
600 minute winter	124 (Ph3_PP_151-155)			570	42.098	0.598	6.3	65.7560	0.0000	SURCHARGED	
1440 minute winter	125 (Ph3_AC_1)			960	41.026	1.776	35.0	1069.1060	0.0000	FLOOD RISK	
Link Event (Outflow)		US Node	Link		DS Node		Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	101		27.001	102			81.7	2.512	0.822	0.7259	
15 minute summer	102		27.002	103			102.9	3.299	0.831	0.6698	
15 minute summer	103		27.003	104			156.1	2.827	0.598	0.4997	
15 minute summer	104		27.004	105			228.8	4.101	0.853	2.1012	
15 minute summer	105		27.005	106			311.4	3.278	0.656	1.1458	
15 minute summer	106		27.006	107			336.0	3.318	0.905	2.6440	
15 minute summer	107		27.007	108 (Ph3_Basin_1)			405.7	4.216	0.929	2.5053	
15 minute summer	108 (Ph3_Basin_1)		27.008	109			4.1	0.420	0.037	0.7222	
15 minute summer	109		27.009	111			44.0	0.855	0.391	2.8573	
15 minute summer	110		28.000	111			72.1	3.461	0.496	0.3310	
15 minute summer	111		27.010	112			245.3	2.506	0.509	3.5818	
15 minute summer	112		27.011	113			321.2	2.913	1.299	2.1129	
15 minute summer	113		27.012	114			378.6	3.433	1.768	0.8097	
15 minute summer	114		27.013	120			383.3	2.118	1.697	3.0389	
15 minute summer	115		29.000	116			22.1	0.949	0.236	0.6258	
15 minute summer	116		29.001	117			53.8	1.411	0.826	0.7170	
15 minute summer	117		29.002	119			93.3	2.442	0.970	0.3711	
15 minute summer	118		30.000	119			11.8	2.195	0.249	0.2520	
15 minute summer	119		29.003	120			215.8	4.452	0.733	2.4068	
15 minute summer	120		27.014	121			704.8	4.190	0.576	2.9386	
15 minute summer	121		27.015	122			760.6	4.283	0.652	2.9590	
15 minute summer	122		27.016	123			785.4	3.636	0.683	5.5041	
15 minute summer	123		27.017	126 (Ph3 Hydrobrake)			822.2	3.806	0.993	3.4261	
600 minute winter	124 (Ph3_PP_151-155)		31.000	125 (Ph3_AC_1)			1.0	1.032	0.021	0.1615	
15 minute summer	125 (Ph3 AC 1)		31.001	126 (Ph3 Hydrobrake)			-933.1	-3.987	-3.218	5.5766	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 95.45%

Node Event		US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	126 (Ph3 Hydrobrake)		960	40.954	1.740	89.6	6.0260	0.0000	FLOOD RISK
15 minute summer	126_OUT (Connection to Existing)		13	38.664	0.064	29.3	0.0000	0.0000	OK
120 minute summer	PH1_AC1_Inlet		90	64.226	0.926	11.9	0.0000	0.0000	OK
120 minute summer	Ph1_AC2_Inlet		90	60.948	0.648	9.4	0.0000	0.0000	OK
180 minute winter	Ph1_AC3_Inlet		176	57.528	1.128	5.7	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	126 (Ph3 Hydrobrake)	1.030	126_OUT (Connection to Existing)	29.3	1.776	0.025	0.3425	434.6

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	45	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.350
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.085	5.00	72.800	1200	534222.232	122580.115	1.575
2			71.100	1200	534205.349	122545.998	1.575
3	0.092	5.00	75.197	1200	534303.199	122603.494	1.575
4	0.143	5.00	72.984	1200	534273.777	122551.124	1.650
5	0.114	5.00	70.975	1200	534260.364	122522.526	1.725
6			70.594	1350	534259.356	122516.906	1.944
7	0.115	5.00	71.100	1350	534306.008	122491.775	2.566
8			71.000	1350	534326.968	122482.326	2.517
9			71.700	1350	534391.478	122508.592	3.370
10	0.050	5.00	77.123	1200	534276.234	122689.726	1.575
11	0.086	5.00	76.388	1200	534263.977	122670.368	1.575
12	0.026	5.00	74.500	1200	534243.445	122638.516	1.575
13 (Ph4_PP_364-367)	0.046	5.00	75.450		534243.703	122654.453	1.000
14	0.070	5.00	74.980	1200	534248.792	122646.589	2.263
15	0.095	5.00	75.508	1350	534292.027	122618.457	3.008
16 (Ph4_PP_355-359)	0.076	5.00	76.580		534310.878	122685.013	1.000
17	0.000	5.00	76.564	1200	534318.430	122679.950	1.575
18	0.034	5.00	76.160		534332.627	122672.215	1.575
19	0.042	5.00	75.997		534324.790	122657.893	1.575
20	0.077	5.00	75.733		534310.917	122628.707	1.634
21	0.034	5.00	75.498		534306.046	122612.846	3.121
22	0.080	5.00	73.879	1200	534344.086	122546.158	1.575
23	0.057	5.00	73.869	1200	534360.308	122582.475	1.800
24 (Ph4_PP_344-346)	0.072	5.00	73.660		534380.772	122639.139	1.000
25	0.031	5.00	73.683	1200	534374.400	122620.059	1.575
26	0.050	5.00	73.709		534366.012	122594.159	1.987
27			71.250		534407.175	122574.974	1.800
28 (Ph4_Basin_1)			68.700		534428.230	122522.979	1.700
28_OUT			67.500		534444.519	122514.623	2.725

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	1	2	38.066	0.600	71.225	69.525	1.700	22.4	225	5.23	50.0
1.001	2	6	61.344	0.600	69.525	68.950	0.575	106.7	225	6.04	50.0
2.000	3	4	60.069	0.600	73.622	71.409	2.213	27.1	225	5.40	50.0
2.001	4	5	31.587	0.600	71.334	69.325	2.009	15.7	300	5.53	50.0
2.002	5	6	5.710	0.600	69.250	68.800	0.450	12.7	375	5.55	50.0
1.002	6	7	52.990	0.600	68.650	68.534	0.116	456.8	525	6.88	50.0
1.003	7	8	22.991	0.600	68.534	68.483	0.051	450.8	525	7.25	50.0
1.004	8	9	69.652	0.600	68.483	68.330	0.153	455.2	525	8.36	50.0
1.005	9	28 (Ph4_Basin_1)	39.468	0.600	68.330	67.760	0.570	69.2	525	8.61	50.0
3.000	10	11	22.912	0.600	75.548	74.813	0.735	31.2	225	5.16	50.0
3.001	11	14	28.214	0.600	74.813	72.867	1.946	14.5	225	5.30	50.0
4.000	12	14	9.683	0.600	72.925	72.867	0.058	167.0	225	5.16	50.0
5.000	13 (Ph4_PP_364-367)	14	9.367	0.600	74.450	72.942	1.508	6.2	150	5.04	50.0
3.002	14	15	51.582	0.600	72.717	72.500	0.217	238.0	375	6.03	50.0
3.003	15	21	15.100	0.600	72.500	72.452	0.048	313.0	375	6.28	50.0
6.000	16 (Ph4_PP_355-359)	17	9.092	0.600	75.580	75.064	0.516	17.6	150	5.06	50.0
6.001	17	18	16.167	0.600	74.989	74.585	0.404	40.0	225	5.19	50.0
6.002	18	19	16.326	0.600	74.585	74.422	0.163	100.2	225	5.40	50.0
6.003	19	20	32.315	0.600	74.422	74.099	0.323	100.0	225	5.81	50.0
6.004	20	21	16.592	0.600	74.099	72.602	1.497	11.1	225	5.88	50.0
3.004	21	26	62.810	0.600	72.377	71.722	0.655	95.9	450	6.78	50.0
7.000	22	23	39.775	0.600	72.304	72.069	0.235	169.3	225	5.66	50.0
7.001	23	26	13.002	0.600	72.069	71.947	0.122	106.6	225	5.83	50.0
8.000	24 (Ph4_PP_344-346)	25	20.116	0.600	72.660	72.183	0.477	42.2	150	5.22	50.0

Name	US Node	DS Node	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.000	1	2	2.777	110.4	22.3	1.350	1.350	0.085	0.0
1.001	2	6	1.265	50.3	22.3	1.350	1.419	0.085	0.0
2.000	3	4	2.521	100.2	24.1	1.350	1.350	0.092	0.0
2.001	4	5	3.984	281.6	61.6	1.350	1.350	0.235	0.0
2.002	5	6	5.109	564.3	91.4	1.350	1.419	0.349	0.0
1.002	6	7	1.041	225.4	113.7	1.419	2.041	0.434	0.0
1.003	7	8	1.048	226.9	143.8	2.041	1.992	0.549	0.0
1.004	8	9	1.043	225.8	143.8	1.992	2.845	0.549	0.0
1.005	9	28 (Ph4_Basin_1)	2.694	583.2	143.8	2.845	0.415	0.549	0.0
3.000	10	11	2.351	93.5	13.1	1.350	1.350	0.050	0.0
3.001	11	14	3.454	137.3	35.6	1.350	1.888	0.136	0.0
4.000	12	14	1.009	40.1	6.8	1.350	1.888	0.026	0.0
5.000	13 (Ph4_PP_364-367)	14	4.069	71.9	12.1	0.850	1.888	0.046	0.0
3.002	14	15	1.170	129.2	72.8	1.888	2.633	0.278	0.0
3.003	15	21	1.019	112.5	97.7	2.633	2.671	0.373	0.0
6.000	16 (Ph4_PP_355-359)	17	2.411	42.6	19.9	0.850	1.350	0.076	0.0
6.001	17	18	2.074	82.5	19.9	1.350	1.350	0.076	0.0
6.002	18	19	1.306	51.9	28.8	1.350	1.350	0.110	0.0
6.003	19	20	1.307	52.0	39.8	1.350	1.409	0.152	0.0
6.004	20	21	3.952	157.1	60.0	1.409	2.671	0.229	0.0
3.004	21	26	2.076	330.2	166.6	2.671	1.537	0.636	0.0
7.000	22	23	1.002	39.8	21.0	1.350	1.575	0.080	0.0
7.001	23	26	1.266	50.3	35.9	1.575	1.537	0.137	0.0
8.000	24 (Ph4_PP_344-346)	25	1.554	27.5	18.9	0.850	1.350	0.072	0.0

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)
8.001	25	26	27.224	0.600	72.108	71.947	0.161	169.1	225	5.67	50.0
3.005	26	27	45.414	0.600	71.722	69.450	2.272	20.0	450	6.95	50.0
3.006	27	28 (Ph4_Basin_1)	56.096	0.600	69.450	67.750	1.700	33.0	450	7.21	50.0
1.006	28 (Ph4_Basin_1)	28_OUT	18.307	0.600	67.000	64.775	2.225	8.2	375	8.66	50.0

Name	US Node	DS Node	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
8.001	25	26	1.002	39.9	27.0	1.350	1.537	0.103	0.0
3.005	26	27	4.563	725.7	242.6	1.537	1.350	0.926	0.0
3.006	27	28 (Ph4_Basin_1)	3.548	564.3	242.6	1.350	0.500	0.926	0.0
1.006	28 (Ph4_Basin_1)	28_OUT	6.348	701.1	386.5	1.325	2.350	1.475	0.0

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	38.066	22.4	225	Circular	72.800	71.225	1.350	71.100	69.525	1.350
1.001	61.344	106.7	225	Circular	71.100	69.525	1.350	70.594	68.950	1.419
2.000	60.069	27.1	225	Circular	75.197	73.622	1.350	72.984	71.409	1.350
2.001	31.587	15.7	300	Circular	72.984	71.334	1.350	70.975	69.325	1.350
2.002	5.710	12.7	375	Circular	70.975	69.250	1.350	70.594	68.800	1.419
1.002	52.990	456.8	525	Circular	70.594	68.650	1.419	71.100	68.534	2.041
1.003	22.991	450.8	525	Circular	71.100	68.534	2.041	71.000	68.483	1.992
1.004	69.652	455.2	525	Circular	71.000	68.483	1.992	71.700	68.330	2.845
1.005	39.468	69.2	525	Circular	71.700	68.330	2.845	68.700	67.760	0.415
3.000	22.912	31.2	225	Circular	77.123	75.548	1.350	76.388	74.813	1.350
3.001	28.214	14.5	225	Circular	76.388	74.813	1.350	74.980	72.867	1.888
4.000	9.683	167.0	225	Circular	74.500	72.925	1.350	74.980	72.867	1.888
5.000	9.367	6.2	150	Circular	75.450	74.450	0.850	74.980	72.942	1.888
3.002	51.582	238.0	375	Circular	74.980	72.717	1.888	75.508	72.500	2.633
3.003	15.100	313.0	375	Circular	75.508	72.500	2.633	75.498	72.452	2.671
6.000	9.092	17.6	150	Circular	76.580	75.580	0.850	76.564	75.064	1.350

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	1	1200	Manhole	Adoptable	2	1200	Manhole	Adoptable
1.001	2	1200	Manhole	Adoptable	6	1350	Manhole	Adoptable
2.000	3	1200	Manhole	Adoptable	4	1200	Manhole	Adoptable
2.001	4	1200	Manhole	Adoptable	5	1200	Manhole	Adoptable
2.002	5	1200	Manhole	Adoptable	6	1350	Manhole	Adoptable
1.002	6	1350	Manhole	Adoptable	7	1350	Manhole	Adoptable
1.003	7	1350	Manhole	Adoptable	8	1350	Manhole	Adoptable
1.004	8	1350	Manhole	Adoptable	9	1350	Manhole	Adoptable
1.005	9	1350	Manhole	Adoptable	28 (Ph4_Basin_1)		Junction	
3.000	10	1200	Manhole	Adoptable	11	1200	Manhole	Adoptable
3.001	11	1200	Manhole	Adoptable	14	1200	Manhole	Adoptable
4.000	12	1200	Manhole	Adoptable	14	1200	Manhole	Adoptable
5.000	13 (Ph4_PP_364-367)		Junction		14	1200	Manhole	Adoptable
3.002	14	1200	Manhole	Adoptable	15	1350	Manhole	Adoptable
3.003	15	1350	Manhole	Adoptable	21		Manhole	Adoptable
6.000	16 (Ph4_PP_355-359)		Junction		17	1200	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
6.001	16.167	40.0	225	Circular	76.564	74.989	1.350	76.160	74.585	1.350
6.002	16.326	100.2	225	Circular	76.160	74.585	1.350	75.997	74.422	1.350
6.003	32.315	100.0	225	Circular	75.997	74.422	1.350	75.733	74.099	1.409
6.004	16.592	11.1	225	Circular	75.733	74.099	1.409	75.498	72.602	2.671
3.004	62.810	95.9	450	Circular	75.498	72.377	2.671	73.709	71.722	1.537
7.000	39.775	169.3	225	Circular	73.879	72.304	1.350	73.869	72.069	1.575
7.001	13.002	106.6	225	Circular	73.869	72.069	1.575	73.709	71.947	1.537
8.000	20.116	42.2	150	Circular	73.660	72.660	0.850	73.683	72.183	1.350
8.001	27.224	169.1	225	Circular	73.683	72.108	1.350	73.709	71.947	1.537
3.005	45.414	20.0	450	Circular	73.709	71.722	1.537	71.250	69.450	1.350
3.006	56.096	33.0	450	Circular	71.250	69.450	1.350	68.700	67.750	0.500
1.006	18.307	8.2	375	Circular	68.700	67.000	1.325	67.500	64.775	2.350

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
6.001	17	1200	Manhole	Adoptable	18	1200	Manhole	Adoptable
6.002	18	1200	Manhole	Adoptable	19	1200	Manhole	Adoptable
6.003	19	1200	Manhole	Adoptable	20	1200	Manhole	Adoptable
6.004	20	1200	Manhole	Adoptable	21	1200	Manhole	Adoptable
3.004	21	1200	Manhole	Adoptable	26	1200	Manhole	Adoptable
7.000	22	1200	Manhole	Adoptable	23	1200	Manhole	Adoptable
7.001	23	1200	Manhole	Adoptable	26	1200	Manhole	Adoptable
8.000	24 (Ph4_PP_344-346)	1200	Junction	Adoptable	25	1200	Manhole	Adoptable
8.001	25	1200	Manhole	Adoptable	26	1200	Manhole	Adoptable
3.005	26	1200	Manhole	Adoptable	27	1200	Manhole	Adoptable
3.006	27	1200	Manhole	Adoptable	28 (Ph4_Basin_1)	1200	Junction	Adoptable
1.006	28 (Ph4_Basin_1)	1200	Junction	Adoptable	28_OUT	1200	Manhole	Adoptable

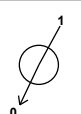
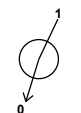
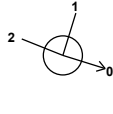
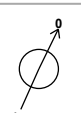
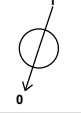
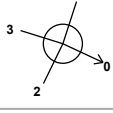
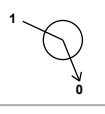
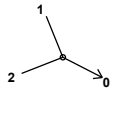
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
1	534222.232	122580.115	72.800	1.575	1200					
2	534205.349	122545.998	71.100	1.575	1200	 	0 1	1.000 1.000	71.225 69.525	225 225
3	534303.199	122603.494	75.197	1.575	1200					
4	534273.777	122551.124	72.984	1.650	1200	 	0 1	2.000 2.000	73.622 71.409	225 225
5	534260.364	122522.526	70.975	1.725	1200	 	0 1	2.001 2.001	71.334 69.325	300 300
							0	2.002	69.250	375

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
6	534259.356	122516.906	70.594	1.944	1350		1	2.002	68.800	375
							2	1.001	68.950	225
							0	1.002	68.650	525
7	534306.008	122491.775	71.100	2.566	1350		1	1.002	68.534	525
							0	1.003	68.534	525
8	534326.968	122482.326	71.000	2.517	1350		1	1.003	68.483	525
							0	1.004	68.483	525
9	534391.478	122508.592	71.700	3.370	1350		1	1.004	68.330	525
							0	1.005	68.330	525
10	534276.234	122689.726	77.123	1.575	1200		0	3.000	75.548	225
11	534263.977	122670.368	76.388	1.575	1200		1	3.000	74.813	225
							0	3.001	74.813	225
12	534243.445	122638.516	74.500	1.575	1200		0	4.000	72.925	225
							0	4.000	72.925	225
13 (Ph4_PP_364-367)	534243.703	122654.453	75.450	1.000			0	5.000	74.450	150
14	534248.792	122646.589	74.980	2.263	1200		1	5.000	72.942	150
							2	4.000	72.867	225
							3	3.001	72.867	225
							0	3.002	72.717	375
15	534292.027	122618.457	75.508	3.008	1350		1	3.002	72.500	375
							0	3.003	72.500	375
16 (Ph4_PP_355-359)	534310.878	122685.013	76.580	1.000			0	6.000	75.580	150
17	534318.430	122679.950	76.564	1.575	1200		1	6.000	75.064	150
							0	6.001	74.989	225
18	534332.627	122672.215	76.160	1.575			1	6.001	74.585	225
							0	6.002	74.585	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
19	534324.790	122657.893	75.997	1.575			1 6.002	74.422	225
20	534310.917	122628.707	75.733	1.634			1 6.003	74.099	225
21	534306.046	122612.846	75.498	3.121			1 6.004 2 3.003	72.602 72.452	225 375
22	534344.086	122546.158	73.879	1.575	1200		0 7.000	72.304	225
23	534360.308	122582.475	73.869	1.800	1200		1 7.000	72.069	225
24 (Ph4_PP_344-346)	534380.772	122639.139	73.660	1.000			0 8.000	72.660	150
25	534374.400	122620.059	73.683	1.575	1200		1 8.000	72.183	150
26	534366.012	122594.159	73.709	1.987			1 8.001 2 7.001 3 3.004	71.947 71.947 71.722	225 225 450
27	534407.175	122574.974	71.250	1.800			1 3.005	69.450	450
28 (Ph4_Basin_1)	534428.230	122522.979	68.700	1.700			1 3.006 2 1.005	67.750 67.760	450 525
28_OUT	534444.519	122514.623	67.500	2.725			1 1.006	64.775	375

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)	20.0		

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440 | 2160

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
10	40	0	0
30	40	0	0
100	45	0	0

Node 28 (Ph4_Basin_1) Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	1.006	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0094-4900-1700-4900
Invert Level (m)	67.000	Min Outlet Diameter (m)	0.150
Design Depth (m)	1.700	Min Node Diameter (mm)	1200
Design Flow (l/s)	4.9		

Node 24 (Ph4_PP_344-346) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.040
Downstream Link	8.000	Invert Level (m)	72.660	Discharge Coefficient	0.600

Node 13 (Ph4_PP_364-367) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.250
Downstream Link	5.000	Invert Level (m)	74.450	Discharge Coefficient	0.600

Node 16 (Ph4_PP_355-359) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.250
Downstream Link	6.000	Invert Level (m)	75.580	Discharge Coefficient	0.600

Node 28 (Ph4_Basin_1) Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	1.0	Invert Level (m)	67.000
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	588.3	588.3	1.700	1555.0	1573.9

Node 24 (Ph4_PP_344-346) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	72.660	Slope (1:X)	150.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	150	Depth (m)	0.750
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	46.000		

Node 13 (Ph4_PP_364-367) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	74.450	Slope (1:X)	50.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	0.750
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	18.500		

Node 16 (Ph4 PP 355-359) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	75.580	Slope (1:X)	60.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	0.750
Safety Factor	2.0	Width (m)	6.000	Inf Depth (m)	
Porosity	0.30	Length (m)	37.000		

Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event		US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1		10	71.271	0.046	10.2	0.1012	0.0000	OK
15 minute summer	2		11	69.592	0.067	10.1	0.0755	0.0000	OK
15 minute summer	3		11	73.672	0.050	11.0	0.1147	0.0000	OK
15 minute summer	4		10	71.399	0.065	27.8	0.1848	0.0000	OK
15 minute summer	5		10	69.328	0.078	41.1	0.1905	0.0000	OK
15 minute summer	6		11	68.819	0.169	50.0	0.2423	0.0000	OK
15 minute summer	7		11	68.731	0.197	63.6	0.4592	0.0000	OK
15 minute summer	8		12	68.670	0.187	61.4	0.2674	0.0000	OK
15 minute summer	9		13	68.445	0.115	62.1	0.1640	0.0000	OK
15 minute summer	10		10	75.586	0.038	6.0	0.0677	0.0000	OK
15 minute summer	11		10	74.866	0.053	16.2	0.1175	0.0000	OK
15 minute summer	12		10	72.968	0.043	3.1	0.0634	0.0000	OK
15 minute summer	13 (Ph4_PP_364-367)		11	74.513	0.063	5.5	0.3577	0.0000	OK
15 minute summer	14		11	72.842	0.125	32.1	0.2192	0.0000	OK
15 minute summer	15		11	72.669	0.169	43.0	0.3477	0.0000	OK
15 minute summer	16 (Ph4_PP_355-359)		11	75.670	0.090	9.1	0.5868	0.0000	OK
15 minute summer	17		11	75.037	0.048	8.4	0.0545	0.0000	OK
15 minute summer	18		11	74.662	0.077	12.2	0.0331	0.0000	OK
15 minute summer	19		11	74.516	0.094	17.0	0.0503	0.0000	OK
15 minute summer	20		11	74.163	0.064	25.7	0.0604	0.0000	OK
15 minute summer	21		11	72.527	0.150	72.1	0.0327	0.0000	OK
15 minute summer	22		10	72.378	0.074	9.6	0.1582	0.0000	OK
15 minute summer	23		11	72.162	0.093	16.2	0.1634	0.0000	OK
180 minute summer	24 (Ph4_PP_344-346)		116	72.855	0.195	3.9	4.5601	0.0000	SURCHARGED
15 minute summer	25		11	72.160	0.052	4.7	0.0797	0.0000	OK

Link Event (Outflow)		US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1		1.000	2	10.1	1.428	0.091	0.2953	
15 minute summer	2		1.001	6	9.5	0.974	0.189	0.5976	
15 minute summer	3		2.000	4	10.7	1.649	0.107	0.3896	
15 minute summer	4		2.001	5	27.4	2.520	0.097	0.3440	
15 minute summer	5		2.002	6	40.9	2.738	0.073	0.0855	
15 minute summer	6		1.002	7	50.4	0.753	0.224	3.5557	
15 minute summer	7		1.003	8	61.4	0.872	0.271	1.6381	
15 minute summer	8		1.004	9	62.1	1.216	0.275	3.5996	
15 minute summer	9		1.005	28 (Ph4_Basin_1)	61.0	1.778	0.105	1.3535	
15 minute summer	10		3.000	11	5.9	1.033	0.063	0.1325	
15 minute summer	11		3.001	14	16.0	2.292	0.116	0.1968	
15 minute summer	12		4.000	14	3.1	0.587	0.076	0.0504	
15 minute summer	13 (Ph4_PP_364-367)		5.000	14	5.1	2.328	0.070	0.0204	
15 minute summer	14		3.002	15	32.1	0.810	0.248	2.0681	
15 minute summer	15		3.003	21	42.5	0.959	0.378	0.6696	
15 minute summer	16 (Ph4_PP_355-359)		6.000	17	8.4	1.843	0.197	0.0414	
15 minute summer	17		6.001	18	8.3	0.946	0.101	0.1465	
15 minute summer	18		6.002	19	12.2	0.883	0.235	0.2259	
15 minute summer	19		6.003	20	16.9	1.360	0.325	0.4051	
15 minute summer	20		6.004	21	25.7	2.849	0.164	0.1497	
15 minute summer	21		3.004	26	71.7	1.889	0.217	2.4033	
15 minute summer	22		7.000	23	9.4	0.710	0.235	0.5299	
15 minute summer	23		7.001	26	16.0	1.088	0.318	0.1914	
180 minute summer	24 (Ph4_PP_344-346)		8.000	25	1.4	0.813	0.050	0.0343	
15 minute summer	25		8.001	26	4.6	0.669	0.115	0.1872	

Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	26	11	71.833	0.111	98.0	0.0558	0.0000	OK
15 minute summer	27	12	69.577	0.127	97.5	0.0000	0.0000	OK
960 minute summer	28 (Ph4_Basin_1)	705	67.401	0.401	28.3	281.7341	0.0000	SURCHARGED
960 minute summer	28_OUT	705	64.796	0.021	4.4	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	26	3.005	27	97.5	2.939	0.134	1.5077	
15 minute summer	27	3.006	28 (Ph4_Basin_1)	97.4	2.697	0.173	2.0252	
960 minute summer	28 (Ph4_Basin_1)	1.006	28_OUT	4.4	1.788	0.006	0.0455	232.1

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 99.94%

Node Event		US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1		10	71.321	0.096	42.6	0.2124	0.0000	OK
15 minute summer	2		11	69.683	0.158	42.3	0.1790	0.0000	OK
15 minute summer	3		10	73.730	0.108	46.1	0.2487	0.0000	OK
15 minute summer	4		10	71.476	0.142	116.7	0.4058	0.0000	OK
15 minute summer	5		10	69.433	0.183	172.9	0.4483	0.0000	OK
15 minute summer	6		11	69.125	0.475	211.0	0.6798	0.0000	OK
15 minute summer	7		11	69.023	0.489	264.0	1.1385	0.0000	OK
15 minute summer	8		11	68.902	0.419	261.9	0.5999	0.0000	OK
15 minute summer	9		12	68.583	0.253	260.1	0.3617	0.0000	OK
15 minute summer	10		10	75.627	0.079	25.0	0.1392	0.0000	OK
15 minute summer	11		10	74.924	0.111	67.9	0.2463	0.0000	OK
15 minute summer	12		11	73.236	0.311	13.0	0.4538	0.0000	SURCHARGED
15 minute summer	13 (Ph4_PP_364-367)		12	74.602	0.152	23.0	1.8764	0.0000	SURCHARGED
15 minute summer	14		11	73.226	0.509	131.3	0.8911	0.0000	SURCHARGED
15 minute summer	15		11	72.960	0.460	177.2	0.9486	0.0000	SURCHARGED
15 minute summer	16 (Ph4_PP_355-359)		11	75.802	0.222	38.1	3.0119	0.0000	SURCHARGED
15 minute summer	17		12	75.135	0.146	33.0	0.1652	0.0000	OK
15 minute summer	18		12	75.071	0.486	46.8	0.2099	0.0000	SURCHARGED
15 minute summer	19		12	74.893	0.471	65.6	0.2511	0.0000	SURCHARGED
15 minute summer	20		11	74.244	0.145	100.9	0.1366	0.0000	OK
15 minute summer	21		11	72.737	0.360	294.4	0.0784	0.0000	OK
15 minute summer	22		11	72.672	0.368	40.1	0.7911	0.0000	SURCHARGED
15 minute summer	23		11	72.426	0.357	65.1	0.6304	0.0000	SURCHARGED
180 minute summer	24 (Ph4_PP_344-346)		132	73.124	0.464	12.5	22.1311	0.0000	SURCHARGED
15 minute summer	25		10	72.213	0.105	17.0	0.1599	0.0000	OK

Link Event (Outflow)		US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1		1.000	2	42.3	1.985	0.383	0.8683	
15 minute summer	2		1.001	6	41.8	1.385	0.832	1.9325	
15 minute summer	3		2.000	4	45.2	2.438	0.451	1.1141	
15 minute summer	4		2.001	5	115.9	3.689	0.411	0.9922	
15 minute summer	5		2.002	6	172.3	3.119	0.305	0.4415	
15 minute summer	6		1.002	7	209.0	1.010	0.927	10.9988	
15 minute summer	7		1.003	8	261.9	1.320	1.154	4.5344	
15 minute summer	8		1.004	9	260.1	1.797	1.152	9.9498	
15 minute summer	9		1.005	28 (Ph4_Basin_1)	262.1	2.626	0.449	3.9392	
15 minute summer	10		3.000	11	24.9	1.565	0.266	0.3648	
15 minute summer	11		3.001	14	67.5	3.053	0.492	0.8355	
15 minute summer	12		4.000	14	13.5	0.730	0.337	0.3851	
15 minute summer	13 (Ph4_PP_364-367)		5.000	14	19.9	3.119	0.277	0.1091	
15 minute summer	14		3.002	15	131.8	1.195	1.020	5.6893	
15 minute summer	15		3.003	21	177.2	1.627	1.575	1.5649	
15 minute summer	16 (Ph4_PP_355-359)		6.000	17	33.0	2.561	0.776	0.1173	
15 minute summer	17		6.001	18	33.5	1.192	0.406	0.5419	
15 minute summer	18		6.002	19	47.3	1.188	0.910	0.6493	
15 minute summer	19		6.003	20	64.6	1.773	1.243	1.0796	
15 minute summer	20		6.004	21	101.0	3.920	0.643	0.4302	
15 minute summer	21		3.004	26	293.2	2.618	0.888	7.0499	
15 minute summer	22		7.000	23	37.9	0.953	0.951	1.5819	
15 minute summer	23		7.001	26	65.0	1.635	1.291	0.5055	
180 minute summer	24 (Ph4_PP_344-346)		8.000	25	2.2	0.931	0.080	0.0476	
15 minute summer	25		8.001	26	16.7	0.949	0.420	0.4807	

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 99.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	26	11	71.968	0.246	398.8	0.1237	0.0000	OK
15 minute summer	27	12	69.732	0.282	395.6	0.0000	0.0000	OK
2160 minute winter	28 (Ph4_Basin_1)	2040	68.083	1.083	26.9	970.4826	0.0000	SURCHARGED
60 minute summer	28_OUT	37	64.796	0.021	4.5	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	26	3.005	27	395.6	4.104	0.545	4.3760	
15 minute summer	27	3.006	28 (Ph4_Basin_1)	394.6	3.859	0.699	5.7360	
60 minute summer	28 (Ph4_Basin_1)	1.006	28_OUT	4.5	1.789	0.006	0.0456	72.1

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.92%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	71.337	0.112	55.8	0.2479	0.0000	OK
15 minute summer	2	12	70.050	0.525	55.4	0.5940	0.0000	SURCHARGED
15 minute summer	3	10	73.750	0.128	60.4	0.2938	0.0000	OK
15 minute summer	4	9	71.493	0.159	153.0	0.4564	0.0000	OK
15 minute summer	5	11	69.616	0.366	227.8	0.8978	0.0000	OK
15 minute summer	6	11	69.459	0.809	265.4	1.1576	0.0000	SURCHARGED
15 minute summer	7	11	69.267	0.733	339.1	1.7054	0.0000	SURCHARGED
15 minute summer	8	11	69.100	0.617	335.8	0.8830	0.0000	SURCHARGED
15 minute summer	9	12	68.622	0.292	329.7	0.4182	0.0000	OK
15 minute summer	10	10	75.639	0.091	32.8	0.1611	0.0000	OK
15 minute summer	11	11	74.954	0.141	89.0	0.3133	0.0000	OK
15 minute summer	12	11	73.722	0.797	17.1	1.1644	0.0000	SURCHARGED
15 minute summer	13 (Ph4_PP_364-367)	12	74.630	0.180	30.2	2.6021	0.0000	SURCHARGED
15 minute summer	14	11	73.710	0.993	170.3	1.7371	0.0000	SURCHARGED
15 minute summer	15	11	73.307	0.807	220.8	1.6652	0.0000	SURCHARGED
15 minute summer	16 (Ph4_PP_355-359)	12	75.875	0.295	49.9	5.1701	0.0000	SURCHARGED
15 minute summer	17	11	75.434	0.445	39.7	0.5027	0.0000	SURCHARGED
15 minute summer	18	11	75.357	0.772	53.8	0.3335	0.0000	SURCHARGED
15 minute summer	19	11	75.145	0.723	77.9	0.3853	0.0000	SURCHARGED
15 minute summer	20	11	74.270	0.171	125.2	0.1612	0.0000	OK
15 minute summer	21	11	73.023	0.646	363.6	0.1409	0.0000	SURCHARGED
15 minute summer	22	11	73.053	0.749	52.5	1.6085	0.0000	SURCHARGED
15 minute summer	23	11	72.632	0.563	85.4	0.9936	0.0000	SURCHARGED
120 minute winter	24 (Ph4_PP_344-346)	112	73.233	0.573	14.6	29.7848	0.0000	SURCHARGED
15 minute summer	25	10	72.230	0.122	22.0	0.1863	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	55.4	2.100	0.502	1.1331	
15 minute summer	2	1.001	6	54.2	1.439	1.078	2.4397	
15 minute summer	3	2.000	4	59.3	2.600	0.591	1.3699	
15 minute summer	4	2.001	5	153.0	3.832	0.543	1.6751	
15 minute summer	5	2.002	6	224.7	3.242	0.398	0.6277	
15 minute summer	6	1.002	7	263.6	1.221	1.170	11.4476	
15 minute summer	7	1.003	8	335.8	1.554	1.480	4.9668	
15 minute summer	8	1.004	9	329.7	1.835	1.460	11.8233	
15 minute summer	9	1.005	28 (Ph4_Basin_1)	332.2	2.780	0.570	4.7178	
15 minute summer	10	3.000	11	32.6	1.653	0.349	0.4682	
15 minute summer	11	3.001	14	87.4	3.062	0.637	0.9302	
15 minute summer	12	4.000	14	21.1	0.735	0.527	0.3851	
15 minute summer	13 (Ph4_PP_364-367)	5.000	14	25.8	3.347	0.359	0.1146	
15 minute summer	14	3.002	15	162.6	1.474	1.258	5.6893	
15 minute summer	15	3.003	21	217.7	1.974	1.935	1.6655	
15 minute summer	16 (Ph4_PP_355-359)	6.000	17	39.7	2.547	0.931	0.1601	
15 minute summer	17	6.001	18	41.9	1.282	0.508	0.6430	
15 minute summer	18	6.002	19	52.4	1.318	1.010	0.6493	
15 minute summer	19	6.003	20	76.9	2.006	1.481	1.1662	
15 minute summer	20	6.004	21	124.6	3.935	0.793	0.5988	
15 minute summer	21	3.004	26	358.9	2.585	1.087	8.2961	
15 minute summer	22	7.000	23	49.6	1.247	1.245	1.5819	
15 minute summer	23	7.001	26	85.2	2.143	1.693	0.5119	
120 minute winter	24 (Ph4_PP_344-346)	8.000	25	2.5	0.962	0.090	0.0515	
15 minute summer	25	8.001	26	21.6	1.008	0.541	0.5824	

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.92%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	26	11	72.007	0.285	494.8	0.1432	0.0000	OK
15 minute summer	27	12	69.786	0.336	492.7	0.0000	0.0000	OK
2160 minute winter	28 (Ph4_Basin_1)	2100	68.306	1.306	32.9	1253.7200	0.0000	SURCHARGED
15 minute winter	28_OUT	15	64.796	0.021	4.5	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	26	3.005	27	492.7	4.247	0.679	5.2574	
15 minute summer	27	3.006	28 (Ph4_Basin_1)	495.1	4.006	0.877	6.9308	
15 minute winter	28 (Ph4_Basin_1)	1.006	28_OUT	4.5	1.789	0.006	0.0456	65.4

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.64%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	12	71.471	0.246	72.4	0.5435	0.0000	SURCHARGED
15 minute summer	2	12	70.877	1.352	68.6	1.5292	0.0000	FLOOD RISK
15 minute summer	3	10	73.775	0.153	78.4	0.3516	0.0000	OK
15 minute summer	4	11	71.548	0.214	198.8	0.6132	0.0000	OK
15 minute summer	5	11	70.268	1.018	292.4	2.4964	0.0000	SURCHARGED
15 minute summer	6	11	69.984	1.334	340.0	1.9096	0.0000	SURCHARGED
15 minute summer	7	11	69.660	1.126	432.4	2.6210	0.0000	SURCHARGED
15 minute summer	8	11	69.376	0.893	430.1	1.2778	0.0000	SURCHARGED
15 minute summer	9	12	68.678	0.348	426.6	0.4981	0.0000	OK
15 minute summer	10	12	75.720	0.172	42.6	0.3039	0.0000	OK
15 minute summer	11	12	75.612	0.799	115.6	1.7759	0.0000	SURCHARGED
15 minute summer	12	11	74.430	1.505	22.2	2.1983	0.0000	FLOOD RISK
15 minute summer	13 (Ph4_PP_364-367)	12	74.684	0.234	39.1	4.3253	0.0000	SURCHARGED
15 minute summer	14	11	74.407	1.690	195.3	2.9579	0.0000	SURCHARGED
15 minute summer	15	11	73.840	1.340	269.7	2.7640	0.0000	SURCHARGED
15 minute summer	16 (Ph4_PP_355-359)	13	76.031	0.451	64.7	11.6725	0.0000	SURCHARGED
15 minute summer	17	12	75.846	0.857	43.2	0.9691	0.0000	SURCHARGED
15 minute summer	18	11	75.813	1.228	55.3	0.5303	0.0000	SURCHARGED
15 minute summer	19	11	75.675	1.253	79.6	0.6679	0.0000	SURCHARGED
15 minute summer	20	11	74.895	0.796	138.9	0.7503	0.0000	SURCHARGED
15 minute summer	21	11	73.415	1.038	429.8	0.2263	0.0000	SURCHARGED
15 minute summer	22	11	73.612	1.308	68.2	2.8073	0.0000	FLOOD RISK
15 minute summer	23	11	72.931	0.862	109.6	1.5198	0.0000	SURCHARGED
120 minute winter	24 (Ph4_PP_344-346)	116	73.389	0.729	18.9	40.7952	0.0000	FLOOD RISK
15 minute summer	25	11	72.252	0.144	28.2	0.2195	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	68.6	2.184	0.622	1.5139	
15 minute summer	2	1.001	6	67.3	1.692	1.337	2.4397	
15 minute summer	3	2.000	4	77.0	2.747	0.768	1.6859	
15 minute summer	4	2.001	5	195.3	3.806	0.693	1.9617	
15 minute summer	5	2.002	6	282.5	3.194	0.501	0.6298	
15 minute summer	6	1.002	7	338.4	1.567	1.501	11.4476	
15 minute summer	7	1.003	8	430.1	1.991	1.896	4.9668	
15 minute summer	8	1.004	9	426.6	2.115	1.889	12.8163	
15 minute summer	9	1.005	28 (Ph4_Basin_1)	430.3	2.935	0.738	5.7852	
15 minute summer	10	3.000	11	42.4	1.668	0.453	0.8290	
15 minute summer	11	3.001	14	101.7	3.094	0.741	1.1221	
15 minute summer	12	4.000	14	30.8	0.775	0.768	0.3851	
15 minute summer	13 (Ph4_PP_364-367)	5.000	14	36.5	3.259	0.507	0.1649	
15 minute summer	14	3.002	15	195.2	1.770	1.511	5.6893	
15 minute summer	15	3.003	21	266.3	2.415	2.368	1.6655	
15 minute summer	16 (Ph4_PP_355-359)	6.000	17	43.2	2.489	1.013	0.1601	
15 minute summer	17	6.001	18	47.3	1.411	0.574	0.6430	
30 minute summer	18	6.002	19	57.3	1.440	1.103	0.6493	
15 minute summer	19	6.003	20	80.2	2.016	1.543	1.2852	
15 minute summer	20	6.004	21	135.6	3.941	0.863	0.6599	
15 minute summer	21	3.004	26	425.6	2.787	1.289	8.9743	
15 minute summer	22	7.000	23	63.0	1.585	1.582	1.5819	
15 minute summer	23	7.001	26	108.8	2.736	2.162	0.5119	
120 minute winter	24 (Ph4_PP_344-346)	8.000	25	2.8	0.997	0.102	0.0562	
15 minute summer	25	8.001	26	27.7	1.065	0.694	0.7075	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.64%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	26	12	72.059	0.337	601.7	0.1694	0.0000	OK
15 minute summer	27	12	70.174	0.724	600.1	0.0000	0.0000	SURCHARGED
2160 minute winter	28 (Ph4_Basin_1)	2100	68.669	1.669	44.0	1773.5930	0.0000	FLOOD RISK
2160 minute winter	28_OUT	2100	64.797	0.022	4.8	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	26	3.005	27	600.1	4.315	0.827	6.4887	
15 minute summer	27	3.006	28 (Ph4_Basin_1)	587.3	4.163	1.041	8.8877	
2160 minute winter	28 (Ph4_Basin_1)	1.006	28_OUT	4.8	1.834	0.007	0.0483	572.5

**Design Settings**

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	45	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.350
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		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
CD1			69.500		534255.605	122496.230	0.500
Swale Inlet	0.030	5.00	70.300		534250.423	122513.287	0.500
CD2	0.031	5.00	68.500		534268.306	122479.840	0.500
CD3	0.018	5.00	68.110		534273.346	122459.184	1.000
CD4	0.017	5.00	66.786		534267.323	122441.792	0.900
CD5	0.018	5.00	65.450		534253.643	122430.093	0.500
CD6	0.018	5.00	64.020		534240.579	122426.623	0.500
CD7	0.017	5.00	63.000		534230.073	122425.619	0.500
CD8	0.035	5.00	62.500		534213.772	122423.883	0.500
CD9	0.034	5.00	61.300		534174.831	122420.219	1.100
Swale Outlet	0.110	5.00	59.600		534139.568	122416.659	1.000
Ph4_Swale_AC_2		5.00	58.200		534089.935	122416.357	3.165
1	0.050	5.00	59.400		534128.123	122408.781	1.725
Ph4_Swale_AC_1		5.00	62.000		534164.284	122432.382	3.390
2	0.058	5.00	57.320	1350	534096.767	122405.752	1.725
3			56.720	1350	534086.255	122405.752	1.725
4			55.750	1350	534067.947	122411.425	1.725
5			50.850	1350	534040.590	122370.308	1.725
6			46.100	1350	534001.860	122314.201	1.725
7			41.630	1350	533962.999	122245.048	1.725
8			40.740	1350	533941.232	122209.603	1.725
9			40.150	1350	533926.647	122192.492	1.207
10			40.000	1350	533922.418	122185.616	1.083
12			40.330	1350	533911.653	122185.755	1.505
J1			62.135		534191.146	122422.091	1.000

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	Swale Inlet	CD1	16.980	0.035	69.800	69.000	0.800	21.2	500	5.11	50.0
1.001	CD1	CD2	20.800	0.035	69.000	68.000	1.000	20.8	500	5.24	50.0
1.002	CD2	CD3	7.000	0.035	68.000	67.610	0.390	17.9	500	5.28	50.0
1.003	CD3	CD4	17.110	0.035	67.110	65.886	1.224	14.0	300	5.49	50.0

Name	US Node	DS Node	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	Swale Inlet	CD1	2.610	2610.2	7.9	0.000	0.000	0.030	0.0	27	0.506
1.001	CD1	CD2	2.637	2636.7	7.9	0.000	0.000	0.030	0.0	27	0.511
1.002	CD2	CD3	2.838	2838.4	16.0	0.000	0.000	0.061	0.0	39	0.679
1.003	CD3	CD4	1.359	96.1	20.7	0.700	0.600	0.079	0.0	95	1.084

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)
1.004	CD4	CD5	15.869	0.035	66.286	64.950	1.336	11.9	500	5.57	50.0
1.005	CD5	CD6	18.000	0.035	64.950	63.520	1.430	12.6	500	5.66	50.0
1.006	CD6	CD7	13.800	0.035	63.520	62.500	1.020	13.5	500	5.73	50.0
1.007	CD7	CD8	10.600	0.035	62.500	62.000	0.500	21.2	500	5.79	50.0
1.008	CD8	J1	11.330	0.035	62.000	61.635	0.365	31.0	500	5.88	50.0
1.010_1	CD9	Swale Outlet	32.750	0.035	60.700	59.100	1.600	20.5	500	6.93	50.0
2.000	Ph4_Swale_AC_1	Swale Outlet	17.847	0.600	58.610	58.600	0.010	1784.7	300	5.82	50.0
1.010	Swale Outlet	1	56.411	0.035	58.600	57.675	0.925	61.0	375	8.17	50.0
1.011	1	2	31.543	0.035	57.675	55.595	2.080	15.2	375	8.52	50.0
1.013	2	3	10.512	0.035	55.595	54.995	0.600	17.5	375	8.64	50.0
1.014	3	4	19.167	0.035	54.995	54.025	0.970	19.8	375	8.88	50.0
1.015	4	5	49.386	0.035	54.025	49.125	4.900	10.1	375	9.33	50.0
1.016	5	6	68.176	0.035	49.125	44.375	4.750	14.4	375	10.06	50.0
1.017	6	7	79.324	0.035	44.375	39.905	4.470	17.7	375	11.00	50.0
1.018	7	8	41.595	0.035	39.905	39.015	0.890	46.7	450	11.71	50.0
1.019	8	9	22.484	0.035	39.015	38.943	0.072	313.0	375	12.84	50.0
1.020	9	10	8.072	0.035	38.943	38.917	0.026	313.0	375	13.24	50.0
1.021	10	12	10.766	0.035	38.917	38.825	0.092	117.0	375	13.57	50.0
3.000	Ph4_Swale_AC_2	3	11.225	0.600	55.035	54.995	0.040	280.6	375	5.17	50.0
1.009	J1	CD9	47.250	0.035	61.135	60.200	0.935	50.5	450	6.72	50.0

Name	US Node	DS Node	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)
1.004	CD4	CD5	3.489	3489.2	25.2	0.000	0.000	0.096	0.0	44	0.904
1.005	CD5	CD6	3.389	3389.5	29.9	0.000	0.000	0.114	0.0	49	0.932
1.006	CD6	CD7	3.269	3269.3	34.6	0.000	0.000	0.132	0.0	54	0.948
1.007	CD7	CD8	2.612	2611.7	39.0	0.000	0.000	0.149	0.0	66	0.844
1.008	CD8	J1	2.158	2158.4	48.2	0.000	0.000	0.184	0.0	83	0.789
1.010_1	CD9	Swale Outlet	2.658	2658.0	57.1	0.100	0.000	0.218	0.0	81	0.959
2.000	Ph4_Swale_AC_1	Swale Outlet	0.363	25.7	0.0	3.090	0.700	0.000	0.0	0	0.000
1.010	Swale Outlet	1	0.755	83.4	85.9	0.625	1.350	0.328	0.0	319	0.859
1.011	1	2	1.514	167.2	99.0	1.350	1.350	0.378	0.0	208	1.578
1.013	2	3	1.409	155.6	114.2	1.350	1.350	0.436	0.0	239	1.540
1.014	3	4	1.326	146.5	114.2	1.350	1.350	0.436	0.0	249	1.467
1.015	4	5	1.857	205.1	114.2	1.350	1.350	0.436	0.0	200	1.908
1.016	5	6	1.556	171.9	114.2	1.350	1.350	0.436	0.0	224	1.666
1.017	6	7	1.400	154.6	114.2	1.350	1.350	0.436	0.0	240	1.532
1.018	7	8	0.974	154.9	114.2	1.275	1.275	0.436	0.0	287	1.065
1.019	8	9	0.333	36.8	114.2	1.350	0.832	0.436	0.0	375	0.338
1.020	9	10	0.333	36.8	114.2	0.832	0.708	0.436	0.0	375	0.338
1.021	10	12	0.545	60.2	114.2	0.708	1.130	0.436	0.0	375	0.552
3.000	Ph4_Swale_AC_2	3	1.076	118.9	0.0	2.790	1.350	0.000	0.0	0	0.000
1.009	J1	CD9	0.937	149.0	48.2	0.550	0.650	0.184	0.0	176	0.836

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	16.980	21.2	500	Swale 1:3 with Trench	70.300	69.800	0.000	69.500	69.000	0.000
Underdrain (1.000)	16.980	21.2	150	Circular	70.300	69.300	0.850	69.500	68.500	0.850
1.001	20.800	20.8	500	Swale 1:3 with Trench	69.500	69.000	0.000	68.500	68.000	0.000
Underdrain (1.001)	20.800	20.8	150	Circular	69.500	68.500	0.850	68.500	67.500	0.850
1.002	7.000	17.9	500	Swale 1:3 with Trench	68.500	68.000	0.000	68.110	67.610	0.000
Underdrain (1.002)	7.000	17.9	150	Circular	68.500	67.500	0.850	68.110	67.110	0.850
1.003	17.110	14.0	300	Circular	68.110	67.110	0.700	66.786	65.886	0.600
1.004	15.869	11.9	500	Swale 1:3 with Trench	66.786	66.286	0.000	65.450	64.950	0.000
Underdrain (1.004)	15.869	11.9	150	Circular	66.786	65.786	0.850	65.450	64.450	0.850
1.005	18.000	12.6	500	Swale 1:3 with Trench	65.450	64.950	0.000	64.020	63.520	0.000
Underdrain (1.005)	18.000	12.6	150	Circular	65.450	64.450	0.850	64.020	63.020	0.850
1.006	13.800	13.5	500	Swale 1:3 with Trench	64.020	63.520	0.000	63.000	62.500	0.000
Underdrain (1.006)	13.800	13.5	150	Circular	64.020	63.020	0.850	63.000	62.000	0.850
1.007	10.600	21.2	500	Swale 1:3 with Trench	63.000	62.500	0.000	62.500	62.000	0.000
Underdrain (1.007)	10.600	21.2	150	Circular	63.000	62.000	0.850	62.500	61.500	0.850
1.008	11.330	31.0	500	Swale 1:3 with Trench	62.500	62.000	0.000	62.135	61.635	0.000
Underdrain (1.008)	11.330	31.0	150	Circular	62.500	61.500	0.850	62.135	61.135	0.850
1.010_1	32.750	20.5	500	Swale 1:3 with Trench	61.300	60.700	0.100	59.600	59.100	0.000
Underdrain (1.010_1)	32.750	20.5	150	Circular	61.300	60.200	0.950	59.600	58.600	0.850
2.000	17.847	1784.7	300	Circular	62.000	58.610	3.090	59.600	58.600	0.700
1.010	56.411	61.0	375	Circular	59.600	58.600	0.625	59.400	57.675	1.350
1.011	31.543	15.2	375	Circular	59.400	57.675	1.350	57.320	55.595	1.350
1.013	10.512	17.5	375	Circular	57.320	55.595	1.350	56.720	54.995	1.350
1.014	19.167	19.8	375	Circular	56.720	54.995	1.350	55.750	54.025	1.350
1.015	49.386	10.1	375	Circular	55.750	54.025	1.350	50.850	49.125	1.350

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	Swale Inlet		Junction		CD1		Junction	
Underdrain (1.000)	Swale Inlet		Junction		CD1		Junction	
1.001	CD1		Junction		CD2		Junction	
Underdrain (1.001)	CD1		Junction		CD2		Junction	
1.002	CD2		Junction		CD3		Junction	
Underdrain (1.002)	CD2		Junction		CD3		Junction	
1.003	CD3		Junction		CD4		Junction	
1.004	CD4		Junction		CD5		Junction	
Underdrain (1.004)	CD4		Junction		CD5		Junction	
1.005	CD5		Junction		CD6		Junction	
Underdrain (1.005)	CD5		Junction		CD6		Junction	
1.006	CD6		Junction		CD7		Junction	
Underdrain (1.006)	CD6		Junction		CD7		Junction	
1.007	CD7		Junction		CD8		Junction	
Underdrain (1.007)	CD7		Junction		CD8		Junction	
1.008	CD8		Junction		J1		Junction	
Underdrain (1.008)	CD8		Junction		J1		Junction	
1.010_1	CD9		Junction		Swale Outlet		Junction	
Underdrain (1.010_1)	CD9		Junction		Swale Outlet		Junction	
2.000	Ph4_Swale_AC_1		Junction		Swale Outlet		Junction	
1.010	Swale Outlet		Junction		1		Junction	
1.011	1		Junction		2	1350	Manhole	Adoptable
1.013	2	1350	Manhole	Adoptable	3	1350	Manhole	Adoptable
1.014	3	1350	Manhole	Adoptable	4	1350	Manhole	Adoptable
1.015	4	1350	Manhole	Adoptable	5	1350	Manhole	Adoptable

Pipeline Schedule

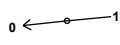
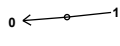
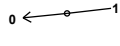
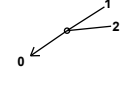
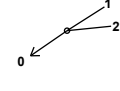
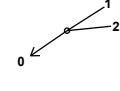
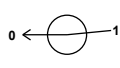
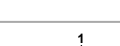
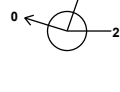
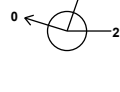
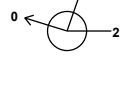
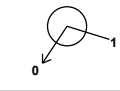
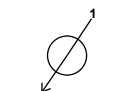
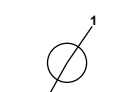
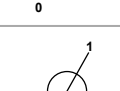
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.016	68.176	14.4	375	Circular	50.850	49.125	1.350	46.100	44.375	1.350
1.017	79.324	17.7	375	Circular	46.100	44.375	1.350	41.630	39.905	1.350
1.018	41.595	46.7	450	Circular	41.630	39.905	1.275	40.740	39.015	1.275
1.019	22.484	313.0	375	Circular	40.740	39.015	1.350	40.150	38.943	0.832
1.020	8.072	313.0	375	Circular	40.150	38.943	0.832	40.000	38.917	0.708
1.021	10.766	117.0	375	Circular	40.000	38.917	0.708	40.330	38.825	1.130
3.000	11.225	280.6	375	Circular	58.200	55.035	2.790	56.720	54.995	1.350
1.009	47.250	50.5	450	Circular	62.135	61.135	0.550	61.300	60.200	0.650

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.016	5	1350	Manhole	Adoptable	6	1350	Manhole	Adoptable
1.017	6	1350	Manhole	Adoptable	7	1350	Manhole	Adoptable
1.018	7	1350	Manhole	Adoptable	8	1350	Manhole	Adoptable
1.019	8	1350	Manhole	Adoptable	9	1350	Manhole	Adoptable
1.020	9	1350	Manhole	Adoptable	10	1350	Manhole	Adoptable
1.021	10	1350	Manhole	Adoptable	12	1350	Manhole	Adoptable
3.000	Ph4_Swale_AC_2		Junction		3	1350	Manhole	Adoptable
1.009	J1		Junction		CD9		Junction	

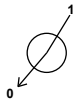
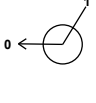
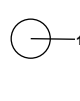
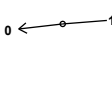
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
CD1	534255.605	122496.230	69.500	0.500			1.000	69.000	500
Swale Inlet	534250.423	122513.287	70.300	0.500			1.000	69.800	500
CD2	534268.306	122479.840	68.500	0.500			1.001	68.000	500
CD3	534273.346	122459.184	68.110	1.000			1.002	67.610	500
CD4	534267.323	122441.792	66.786	0.900			1.003	65.886	300
CD5	534253.643	122430.093	65.450	0.500			1.004	64.950	500
CD6	534240.579	122426.623	64.020	0.500			1.005	63.520	500
							1.006	63.520	500

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
CD7	534230.073	122425.619	63.000	0.500		1 	1.006	62.500	500
						0 	1.007	62.500	500
CD8	534213.772	122423.883	62.500	0.500		1 	1.007	62.000	500
						0 	1.008	62.000	500
CD9	534174.831	122420.219	61.300	1.100		1 	1.009	60.200	450
						0 	1.010_1	60.700	500
Swale Outlet	534139.568	122416.659	59.600	1.000		1 	2.000	58.600	300
						2 	1.010_1	59.100	500
						0 	1.010	58.600	375
Ph4_Swale_AC_2	534089.935	122416.357	58.200	3.165		0 			
1	534128.123	122408.781	59.400	1.725		1 	1.010	57.675	375
						0 	1.011	57.675	375
Ph4_Swale_AC_1	534164.284	122432.382	62.000	3.390		0 			
2	534096.767	122405.752	57.320	1.725	1350	1 	1.011	55.595	375
						0 	1.013	55.595	375
3	534086.255	122405.752	56.720	1.725	1350	1 	3.000	54.995	375
						2 	1.013	54.995	375
						0 	1.014	54.995	375
4	534067.947	122411.425	55.750	1.725	1350	1 	1.014	54.025	375
						0 	1.015	54.025	375
5	534040.590	122370.308	50.850	1.725	1350	1 	1.015	49.125	375
						0 	1.016	49.125	375
6	534001.860	122314.201	46.100	1.725	1350	1 	1.016	44.375	375
						0	1.017	44.375	375
7	533962.999	122245.048	41.630	1.725	1350	1	1.017	39.905	375
						0	1.018	39.905	450

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
8	533941.232	122209.603	40.740	1.725	1350	 1	1.018	39.015	450
						0	1.019	39.015	375
9	533926.647	122192.492	40.150	1.207	1350	 1	1.019	38.943	375
						0	1.020	38.943	375
10	533922.418	122185.616	40.000	1.083	1350	 1	1.020	38.917	375
						0	1.021	38.917	375
12	533911.653	122185.755	40.330	1.505	1350	 1	1.021	38.825	375
						0	1.008	61.635	500
J1	534191.146	122422.091	62.135	1.000		 1	1.008	61.635	500
						0	1.009	61.135	450

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Detailed	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)	20.0	

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440	2160
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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
10	40	0	0
30	40	0	0
100	45	0	0

Node 3 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	1.014	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0073-2600-1237-2600
Invert Level (m)	54.995	Min Outlet Diameter (m)	0.100
Design Depth (m)	1.237	Min Node Diameter (mm)	1200
Design Flow (l/s)	2.6		

Node CD1 Online Weir Control

Flap Valve	x	Invert Level (m)	68.500	Width (m)	0.020
Downstream Link	1.001	Design Depth (m)	0.500	Discharge Coefficient	0.590
Replaces Downstream Link	x	Design Flow (l/s)	10.0		

Node CD2 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	0.350
Downstream Link	1.002	Invert Level (m)	67.500	Discharge Coefficient	0.590

Node CD3 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	0.075
Downstream Link	1.003	Invert Level (m)	67.110	Discharge Coefficient	0.590

Node CD4 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	0.060
Downstream Link	1.004	Invert Level (m)	65.886	Discharge Coefficient	0.590

Node CD5 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	0.075
Downstream Link	1.005	Invert Level (m)	64.450	Discharge Coefficient	0.590

Node CD6 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	0.075
Downstream Link	1.006	Invert Level (m)	63.020	Discharge Coefficient	0.590

Node CD7 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	0.100
Downstream Link	1.007	Invert Level (m)	62.000	Discharge Coefficient	0.590

Node CD8 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	0.100
Downstream Link	1.008	Invert Level (m)	61.500	Discharge Coefficient	0.590

Node CD9 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	0.100
Downstream Link	1.010_1	Invert Level (m)	60.200	Discharge Coefficient	0.590

Node Swale Outlet Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	58.600	Product Number	CTL-SHE-0065-1900-1000-1900
Design Depth (m)	1.000	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	1.9	Min Node Diameter (mm)	1200

Node Ph4 Swale AC_1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	58.610
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	350.0	350.0	1.000	350.0	416.3	1.001	0.0	416.3

Node Ph4 Swale AC 2 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	55.035
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	75.0	75.0	1.500	75.0	121.0	1.510	0.0	121.0

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 99.10%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	CD1	11	68.586	-0.414	1.7	0.0000	0.0000	OK
15 minute summer	CD1 Filter Layer (1.000)	11	68.566	0.066	14.8	0.4330	0.0000	OK
15 minute summer	Swale Inlet	10	69.811	0.011	15.0	0.0134	0.0000	OK
15 minute summer	CD2	11	67.665	-0.335	15.5	0.0000	0.0000	OK
15 minute summer	CD2 Filter Layer (1.001)	11	67.602	0.102	29.7	0.8284	0.0000	OK
15 minute summer	CD3 (1.002)	1	67.610	0.000	0.0	0.0000	0.0000	OK
15 minute summer	CD3	11	67.544	0.434	37.2	0.1564	0.0000	SURCHARGED
15 minute summer	CD3 Filter Layer (1.002)	11	67.391	0.281	29.0	0.8702	0.0000	OK
15 minute summer	CD4	10	66.786	0.900	45.1	0.3584	0.0000	FLOOD RISK
15 minute summer	CD5	11	64.658	-0.292	20.9	0.0000	0.0000	OK
15 minute summer	CD5 Filter Layer (1.004)	11	64.577	0.127	53.1	0.8139	0.0000	OK
15 minute summer	CD6	12	63.235	-0.285	9.0	0.0000	0.0000	OK
15 minute summer	CD6 Filter Layer (1.005)	12	63.168	0.148	61.0	1.0849	0.0000	OK
15 minute summer	CD7	13	62.513	0.013	8.5	0.0088	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	CD1	1.001	CD2	0.0	0.000	0.000	0.0003	
15 minute summer	CD1	Filtration (1.000)		14.8				
15 minute summer	CD1 Filter Layer	Underdrain (1.000)		13.1	1.898	0.251	0.1266	
15 minute summer	CD1 Filter Layer	Infiltration (1.000)		0.0				
15 minute summer	Swale Inlet	1.000	CD1	1.7	0.300	0.001	0.0978	
15 minute summer	CD2	1.002	CD3	0.0	0.000	0.000	0.0001	
15 minute summer	CD2	Filtration (1.001)		15.2				
15 minute summer	CD2 Filter Layer	Underdrain (1.001)		14.7	1.204	0.279	0.2356	
15 minute summer	CD2 Filter Layer	Infiltration (1.001)		0.0				
15 minute summer	CD3	1.003	CD4	37.0	0.638	0.385	0.8513	
15 minute summer	CD3	Filtration (1.002)		0.0				
15 minute summer	CD3 Filter Layer	Underdrain (1.002)		28.9	1.674	0.507	0.1140	
15 minute summer	CD3 Filter Layer	Infiltration (1.002)		0.0				
15 minute summer	CD4	1.004	CD5	12.3	0.712	0.004	0.2735	
15 minute summer	CD5	1.005	CD6	0.0	0.000	0.000	0.0003	
15 minute summer	CD5	Filtration (1.004)		53.1				
15 minute summer	CD5 Filter Layer	Underdrain (1.004)		32.2	2.227	0.457	0.1974	
15 minute summer	CD5 Filter Layer	Infiltration (1.004)		0.0				
15 minute summer	CD6	1.006	CD7	0.0	0.000	0.000	0.0465	
15 minute summer	CD6	Filtration (1.005)		8.6				
15 minute summer	CD6 Filter Layer	Underdrain (1.005)		52.3	3.305	0.764	0.2549	
15 minute summer	CD6 Filter Layer	Infiltration (1.005)		0.0				
15 minute summer	CD7	1.007	CD8	0.0	0.000	0.000	0.1512	
15 minute summer	CD7	Filtration (1.006)		7.6				

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 99.10%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	CD7 Filter Layer (1.006)	13	62.304	0.304	65.8	1.8590	0.0000	OK
15 minute summer	CD8	13	62.045	0.045	17.5	0.0633	0.0000	OK
15 minute summer	CD8 Filter Layer (1.007)	13	62.000	0.500	72.0	2.4040	0.0000	OK
15 minute summer	J1 (1.008)	14	61.635	0.000	0.1	0.0000	0.0000	OK
30 minute summer	CD9	20	61.223	1.023	69.8	0.6324	0.0000	FLOOD RISK
960 minute summer	Swale Outlet (1.010_1)	885	59.126	0.026	1.5	0.0000	0.0000	OK
960 minute summer	Swale Outlet	885	59.122	0.522	16.5	1.1474	0.0000	SURCHARGED
15 minute summer	Swale Outlet Filter Layer (1.010_1)	12	58.876	0.276	69.5	3.9778	0.0000	OK
960 minute summer	Ph4_Swale_AC_2	960	55.791	0.756	4.9	56.7019	0.0000	SURCHARGED
15 minute summer	1	11	57.775	0.100	26.7	0.0582	0.0000	OK
960 minute summer	Ph4_Swale_AC_1	900	59.122	0.512	14.6	170.4021	0.0000	SURCHARGED
960 minute summer	2	960	55.791	0.196	7.4	0.4127	0.0000	OK
960 minute summer	3	960	55.791	0.796	7.4	1.1391	0.0000	SURCHARGED
30 minute summer	4	119	54.054	0.029	2.4	0.0413	0.0000	OK
30 minute summer	5	128	49.156	0.031	2.4	0.0449	0.0000	OK
30 minute summer	6	132	44.408	0.033	2.4	0.0472	0.0000	OK
30 minute summer	7	135	39.945	0.040	2.4	0.0567	0.0000	OK
15 minute summer	8	21	39.081	0.066	2.4	0.0939	0.0000	OK
30 minute summer	9	138	39.009	0.066	2.4	0.0941	0.0000	OK
30 minute summer	10	138	38.981	0.064	2.4	0.0916	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	CD7 Filter Layer	Underdrain (1.006)		59.8	3.651	0.907	0.2119	
15 minute summer	CD7 Filter Layer	Infiltration (1.006)		0.0				
15 minute summer	CD8	1.008	J1	0.1	0.000	0.000	0.0091	
15 minute summer	CD8	Filtration (1.007)		15.3				
15 minute summer	CD8 Filter Layer	Underdrain (1.007)		56.0	3.183	1.073	0.1866	
15 minute summer	CD8 Filter Layer	Infiltration (1.007)		0.0				
30 minute summer	CD9	1.010_1	Swale Outlet	6.2	0.740	0.002	0.2890	
120 minute winter	Swale Outlet	1.010	1	1.8	0.334	0.022	0.4987	
30 minute summer	Swale Outlet	Filtration (1.010_1)		69.6				
30 minute summer	Swale Outlet Filter Layer	Underdrain (1.010_1)		63.7	3.630	1.197	0.5539	
15 minute summer	Swale Outlet Filter Layer	Infiltration (1.010_1)		0.0				
15 minute summer	Ph4_Swale_AC_2	3.000	3	-50.7	-1.265	-0.427	1.0296	
15 minute summer	1	1.011	2	26.1	0.796	0.156	1.0402	
30 minute summer	Ph4_Swale_AC_1	2.000	Swale Outlet	-112.3	-2.199	-4.373	1.0991	
15 minute summer	2	1.013	3	54.2	1.027	0.349	0.6230	
60 minute winter	3	1.014	4	2.4	0.540	0.016	0.0861	
30 minute summer	4	1.015	5	2.4	0.651	0.012	0.2034	
30 minute summer	5	1.016	6	2.4	0.572	0.014	0.3089	
30 minute summer	6	1.017	7	2.4	0.496	0.016	0.4307	
30 minute summer	7	1.018	8	2.4	0.319	0.016	0.4363	
30 minute summer	8	1.019	9	2.4	0.187	0.066	0.2900	
30 minute summer	9	1.020	10	2.4	0.200	0.066	0.1025	
30 minute summer	10	1.021	12	2.4	0.285	0.040	0.0939	35.6

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 99.10%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	J2	137	38.859	0.034	2.4	0.0000	0.0000	OK
15 minute summer	J1	14	61.376	0.241	62.6	0.0000	0.0000	OK
15 minute summer	J1 Filter Layer (1.008)	14	61.527	0.392	63.6	2.0244	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	J1	1.009	CD9	62.8	0.455	0.421	5.7853	
15 minute summer	J1	Filtration (1.008)		2.2				
15 minute summer	J1 Filter Layer	Underdrain (1.008)		62.3	3.540	1.457	0.1995	
15 minute summer	J1 Filter Layer	Infiltration (1.008)		0.0				

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.50%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	CD1	11	68.603	-0.397	2.7	0.0000	0.0000	OK
15 minute summer	CD1 Filter Layer (1.000)	10	68.577	0.077	19.5	0.5017	0.0000	OK
15 minute summer	Swale Inlet	10	69.814	0.014	19.7	0.0172	0.0000	OK
15 minute summer	CD2	12	67.762	-0.238	20.3	0.0000	0.0000	OK
15 minute summer	CD2 Filter Layer (1.001)	12	67.653	0.153	38.5	1.3482	0.0000	OK
15 minute summer	CD3 (1.002)	12	67.621	0.011	0.5	0.0000	0.0000	OK
15 minute summer	CD3	12	67.607	0.497	45.3	0.1789	0.0000	SURCHARGED
15 minute summer	CD3 Filter Layer (1.002)	12	67.484	0.374	35.4	1.1680	0.0000	OK
15 minute summer	CD4	9	66.786	0.900	55.5	0.3893	0.0000	FLOOD RISK
15 minute summer	CD5	11	64.695	-0.255	27.9	0.0000	0.0000	OK
15 minute summer	CD5 Filter Layer (1.004)	11	64.596	0.145	66.1	0.9522	0.0000	OK
15 minute summer	CD6	13	63.417	-0.103	11.8	0.0000	0.0000	OK
15 minute summer	CD6 Filter Layer (1.005)	13	63.264	0.244	75.6	1.9319	0.0000	OK
15 minute summer	CD7	13	62.600	0.100	11.2	0.0681	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	CD1	1.001	CD2	0.0	0.000	0.000	0.0003	
15 minute summer	CD1	Filtration (1.000)		19.5				
15 minute summer	CD1 Filter Layer	Underdrain (1.000)		16.8	1.979	0.322	0.1543	
15 minute summer	CD1 Filter Layer	Infiltration (1.000)		0.0				
15 minute summer	Swale Inlet	1.000	CD1	2.7	0.349	0.001	0.1298	
15 minute summer	CD2	1.002	CD3	0.0	0.000	0.000	0.0200	
15 minute summer	CD2	Filtration (1.001)		19.4				
15 minute summer	CD2 Filter Layer	Underdrain (1.001)		19.3	1.381	0.366	0.2470	
15 minute summer	CD2 Filter Layer	Infiltration (1.001)		0.0				
15 minute summer	CD3	1.003	CD4	45.5	0.760	0.474	0.8928	
15 minute summer	CD3	Filtration (1.002)		0.2				
15 minute summer	CD3 Filter Layer	Underdrain (1.002)		35.6	2.025	0.626	0.1232	
15 minute summer	CD3 Filter Layer	Infiltration (1.002)		0.0				
15 minute summer	CD4	1.004	CD5	16.5	0.787	0.005	0.3338	
15 minute summer	CD5	1.005	CD6	0.0	0.000	0.000	0.0003	
15 minute summer	CD5	Filtration (1.004)		66.1				
15 minute summer	CD5 Filter Layer	Underdrain (1.004)		38.4	2.578	0.544	0.2054	
15 minute summer	CD5 Filter Layer	Infiltration (1.004)		0.0				
15 minute summer	CD6	1.006	CD7	0.0	0.000	0.000	0.5497	
15 minute summer	CD6	Filtration (1.005)		11.3				
15 minute summer	CD6 Filter Layer	Underdrain (1.005)		65.3	3.945	0.954	0.2734	
15 minute summer	CD6 Filter Layer	Infiltration (1.005)		0.0				
15 minute summer	CD7	1.007	CD8	16.0	0.205	0.006	0.9386	
15 minute summer	CD7	Filtration (1.006)		11.0				

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.50%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	CD7 Filter Layer (1.006)	13	62.474	0.474	77.0	2.6889	0.0000	OK
15 minute summer	CD8	13	62.157	0.157	31.5	0.2201	0.0000	OK
15 minute summer	CD8 Filter Layer (1.007)	11	62.000	0.500	83.4	2.4634	0.0000	OK
30 minute summer	J1 (1.008)	21	61.666	0.031	24.8	0.0000	0.0000	OK
30 minute summer	CD9	21	61.300	1.100	86.6	0.6836	0.0000	FLOOD RISK
960 minute summer	Swale Outlet (1.010_1)	960	59.295	0.195	1.4	0.0000	0.0000	OK
960 minute summer	Swale Outlet	960	59.290	0.690	20.3	1.5174	0.0000	SURCHARGED
30 minute summer	Swale Outlet Filter Layer (1.010_1)	24	59.079	0.479	86.8	7.0477	0.0000	OK
720 minute winter	Ph4_Swale_AC_2	705	55.934	0.899	5.0	67.4376	0.0000	SURCHARGED
15 minute summer	1	10	57.789	0.114	34.6	0.0664	0.0000	OK
960 minute summer	Ph4_Swale_AC_1	960	59.291	0.681	18.3	226.5665	0.0000	SURCHARGED
720 minute winter	2	705	55.934	0.339	7.4	0.7139	0.0000	OK
720 minute winter	3	705	55.934	0.939	7.4	1.3439	0.0000	SURCHARGED
15 minute summer	4	106	54.054	0.029	2.4	0.0413	0.0000	OK
15 minute summer	5	115	49.156	0.031	2.4	0.0449	0.0000	OK
15 minute summer	6	119	44.408	0.033	2.4	0.0472	0.0000	OK
15 minute summer	7	122	39.945	0.040	2.4	0.0567	0.0000	OK
15 minute winter	8	20	39.081	0.066	2.4	0.0945	0.0000	OK
15 minute summer	9	125	39.009	0.066	2.4	0.0941	0.0000	OK
15 minute summer	10	125	38.981	0.064	2.4	0.0916	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	CD7 Filter Layer	Underdrain (1.006)		67.5	3.943	1.022	0.2429	
15 minute summer	CD7 Filter Layer	Infiltration (1.006)		0.0				
30 minute summer	CD8	1.008	J1	24.8	0.832	0.011	0.3448	
15 minute summer	CD8	Filtration (1.007)		20.6				
15 minute winter	CD8 Filter Layer	Underdrain (1.007)		56.6	3.215	1.084	0.1866	
15 minute summer	CD8 Filter Layer	Infiltration (1.007)		0.0				
30 minute summer	CD9	1.010_1	Swale Outlet	22.1	1.108	0.008	0.7069	
2160 minute summer	Swale Outlet	1.010	1	1.8	0.315	0.022	0.3364	
30 minute summer	Swale Outlet	Filtration (1.010_1)		86.8				
15 minute summer	Swale Outlet Filter Layer	Underdrain (1.010_1)		63.6	3.614	1.196	0.5766	
15 minute summer	Swale Outlet Filter Layer	Infiltration (1.010_1)		0.0				
15 minute summer	Ph4_Swale_AC_2	3.000	3	-66.4	-1.328	-0.559	1.2312	
15 minute summer	1	1.011	2	33.6	0.848	0.201	1.2588	
15 minute summer	Ph4_Swale_AC_1	2.000	Swale Outlet	-129.0	-2.632	-5.024	1.1360	
15 minute summer	2	1.013	3	70.6	1.114	0.454	0.7543	
15 minute winter	3	1.014	4	2.4	0.581	0.016	0.0862	
15 minute summer	4	1.015	5	2.4	0.699	0.012	0.2034	
15 minute summer	5	1.016	6	2.4	0.623	0.014	0.3089	
15 minute summer	6	1.017	7	2.4	0.544	0.016	0.4307	
15 minute summer	7	1.018	8	2.4	0.343	0.016	0.4383	
15 minute winter	8	1.019	9	2.4	0.190	0.066	0.2901	
15 minute summer	9	1.020	10	2.4	0.207	0.066	0.1025	
15 minute summer	10	1.021	12	2.4	0.285	0.040	0.0939	33.9

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.50%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	J2	124	38.859	0.034	2.4	0.0000	0.0000	OK
30 minute summer	J1	22	61.573	0.437	79.3	0.0000	0.0000	OK
15 minute summer	J1 Filter Layer (1.008)	13	61.635	0.500	96.8	2.5570	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	J1	1.009	CD9	78.0	0.495	0.524	7.3219	
15 minute summer	J1	Filtration (1.008)		10.1				
15 minute summer	J1 Filter Layer	Underdrain (1.008)		63.3	3.594	1.480	0.1995	
15 minute summer	J1 Filter Layer	Infiltration (1.008)		0.0				

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.64%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	CD1	11	68.623	-0.377	4.0	0.0000	0.0000	OK
15 minute summer	CD1 Filter Layer (1.000)	10	68.590	0.090	25.4	0.5818	0.0000	OK
15 minute summer	Swale Inlet	10	69.818	0.018	25.6	0.0218	0.0000	OK
15 minute summer	CD2	12	67.926	-0.074	26.4	0.0000	0.0000	OK
15 minute summer	CD2 Filter Layer (1.001)	12	67.737	0.237	49.8	2.2145	0.0000	OK
15 minute summer	CD3 (1.002)	12	67.714	0.104	1.9	0.0000	0.0000	OK
15 minute summer	CD3	12	67.695	0.585	55.5	0.2106	0.0000	SURCHARGED
15 minute summer	CD3 Filter Layer (1.002)	12	67.608	0.498	43.5	1.4391	0.0000	OK
15 minute summer	CD4	9	66.786	0.900	66.7	0.4215	0.0000	FLOOD RISK
15 minute summer	CD5	13	64.811	-0.139	36.1	0.0000	0.0000	OK
15 minute summer	CD5 Filter Layer (1.004)	13	64.656	0.206	80.3	1.4266	0.0000	OK
15 minute summer	CD6	13	63.603	0.083	15.4	0.0598	0.0000	OK
15 minute summer	CD6 Filter Layer (1.005)	13	63.452	0.432	88.2	3.2183	0.0000	OK
30 minute summer	CD7	21	62.650	0.150	14.8	0.1021	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	CD1	1.001	CD2	0.0	0.000	0.000	0.0003	
15 minute summer	CD1	Filtration (1.000)		25.4				
15 minute summer	CD1 Filter Layer	Underdrain (1.000)		21.3	2.021	0.408	0.1841	
15 minute summer	CD1 Filter Layer	Infiltration (1.000)		0.0				
15 minute summer	Swale Inlet	1.000	CD1	4.0	0.400	0.002	0.1705	
15 minute summer	CD2	1.002	CD3	0.0	0.000	0.000	0.2941	
15 minute summer	CD2	Filtration (1.001)		24.9				
15 minute summer	CD2 Filter Layer	Underdrain (1.001)		25.1	1.723	0.475	0.2604	
15 minute summer	CD2 Filter Layer	Infiltration (1.001)		0.0				
15 minute summer	CD3	1.003	CD4	55.2	0.830	0.574	1.1059	
15 minute summer	CD3	Filtration (1.002)		2.7				
15 minute summer	CD3 Filter Layer	Underdrain (1.002)		43.9	2.493	0.770	0.1232	
15 minute summer	CD3 Filter Layer	Infiltration (1.002)		0.0				
15 minute summer	CD4	1.004	CD5	21.9	0.862	0.006	0.4025	
15 minute summer	CD5	1.005	CD6	0.0	0.000	0.000	0.5562	
15 minute summer	CD5	Filtration (1.004)		80.3				
15 minute summer	CD5 Filter Layer	Underdrain (1.004)		45.0	2.937	0.637	0.2137	
15 minute summer	CD5 Filter Layer	Infiltration (1.004)		0.0				
15 minute summer	CD6	1.006	CD7	6.2	0.099	0.002	1.0343	
15 minute summer	CD6	Filtration (1.005)		13.9				
15 minute summer	CD6 Filter Layer	Underdrain (1.005)		76.6	4.379	1.118	0.3169	
15 minute summer	CD6 Filter Layer	Infiltration (1.005)		0.0				
30 minute summer	CD7	1.007	CD8	31.6	0.224	0.012	1.7576	
15 minute summer	CD7	Filtration (1.006)		13.6				

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.64%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	CD7 Filter Layer (1.006)	11	62.500	0.500	80.7	3.2071	0.0000	OK
30 minute summer	CD8	21	62.239	0.239	50.5	0.3359	0.0000	OK
15 minute summer	CD8 Filter Layer (1.007)	10	62.000	0.500	101.9	2.4634	0.0000	OK
30 minute summer	J1 (1.008)	22	61.949	0.314	56.5	0.0000	0.0000	OK
15 minute summer	CD9	11	61.300	1.100	101.9	0.7282	0.0000	FLOOD RISK
1440 minute summer	Swale Outlet (1.010_1)	1440	59.559	0.459	1.7	0.0000	0.0000	OK
1440 minute summer	Swale Outlet	1440	59.553	0.953	19.2	2.0971	0.0000	FLOOD RISK
15 minute summer	Swale Outlet Filter Layer (1.010_1)	12	59.100	0.500	111.8	7.6115	0.0000	OK
960 minute winter	Ph4_Swale_AC_2	930	56.265	1.230	5.2	92.2153	0.0000	SURCHARGED
15 minute summer	1	10	57.806	0.131	44.4	0.0758	0.0000	OK
1440 minute summer	Ph4_Swale_AC_1	1440	59.555	0.945	17.4	314.1940	0.0000	SURCHARGED
960 minute winter	2	930	56.265	0.670	7.8	1.4091	0.0000	SURCHARGED
960 minute winter	3	930	56.265	1.270	7.6	1.8167	0.0000	SURCHARGED
960 minute winter	4	930	54.055	0.030	2.6	0.0428	0.0000	OK
960 minute winter	5	930	49.158	0.033	2.6	0.0465	0.0000	OK
960 minute winter	6	930	44.409	0.034	2.6	0.0489	0.0000	OK
960 minute winter	7	930	39.946	0.041	2.6	0.0586	0.0000	OK
960 minute winter	8	930	39.083	0.068	2.6	0.0972	0.0000	OK
960 minute winter	9	930	39.011	0.068	2.6	0.0975	0.0000	OK
960 minute winter	10	930	38.983	0.066	2.6	0.0948	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	CD7 Filter Layer	Underdrain (1.006)		70.4	4.001	1.067	0.2429	
15 minute summer	CD7 Filter Layer	Infiltration (1.006)		0.0				
30 minute summer	CD8	1.008	J1	56.5	0.849	0.026	2.9404	
15 minute summer	CD8	Filtration (1.007)		25.2				
30 minute winter	CD8 Filter Layer	Underdrain (1.007)		56.3	3.198	1.078	0.1866	
15 minute summer	CD8 Filter Layer	Infiltration (1.007)		0.0				
30 minute summer	CD9	1.010_1	Swale Outlet	45.2	0.747	0.017	2.4315	
1440 minute winter	Swale Outlet	1.010	1	1.8	0.332	0.022	0.3405	
15 minute summer	Swale Outlet	Filtration (1.010_1)		111.8				
60 minute winter	Swale Outlet Filter Layer	Underdrain (1.010_1)		62.9	3.578	1.183	0.5766	
15 minute summer	Swale Outlet Filter Layer	Infiltration (1.010_1)		0.0				
15 minute summer	Ph4_Swale_AC_2	3.000	3	-86.0	-1.366	-0.723	1.2381	
15 minute summer	1	1.011	2	43.4	0.900	0.259	1.5237	
15 minute summer	Ph4_Swale_AC_1	2.000	Swale Outlet	-152.9	-2.903	-5.957	1.2568	
15 minute summer	2	1.013	3	91.5	1.202	0.588	0.8872	
960 minute winter	3	1.014	4	2.6	0.553	0.018	0.0908	
960 minute winter	4	1.015	5	2.6	0.600	0.013	0.2139	
960 minute winter	5	1.016	6	2.6	0.546	0.015	0.3253	
960 minute winter	6	1.017	7	2.6	0.455	0.017	0.4530	
960 minute winter	7	1.018	8	2.6	0.240	0.017	0.4596	
960 minute winter	8	1.019	9	2.6	0.191	0.071	0.3057	
960 minute winter	9	1.020	10	2.6	0.195	0.071	0.1078	
960 minute winter	10	1.021	12	2.6	0.292	0.043	0.0987	151.5

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.64%

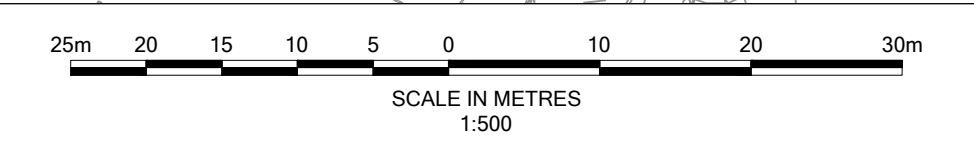
Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	12	930	38.860	0.035	2.6	0.0000	0.0000	OK
30 minute summer	J1	22	61.793	0.658	94.0	0.0000	0.0000	SURCHARGED
15 minute summer	J1 Filter Layer (1.008)	11	61.635	0.500	125.9	2.6335	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	J1	1.009	CD9	94.2	0.595	0.632	7.4865	
30 minute summer	J1	Filtration (1.008)		21.7				
15 minute summer	J1 Filter Layer	Underdrain (1.008)		63.6	3.612	1.487	0.1995	
15 minute summer	J1 Filter Layer	Infiltration (1.008)		0.0				

Appendix 3



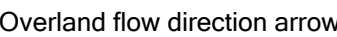
INDICATIVE



Notes

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2. This drawing has been based upon topographical survey information produced by WSP and Milestone Transport Planning cannot be held responsible for any discrepancies which may arise because of it.

Key



FOR APPROVAL

Ordnance Survey Licence number: 100057360

Drawing Revisions

Rev:	Drn:	Date:	Details:	Chk:	App:
P01	AM	28/11/2025	First issue	LP	PK
P02	MB	15/12/2025	New site layout	LP	BM
P03	MB	05/02/2026	New site layout	LP	BM

Client

Barratt David Wilson Homes

Project

Hurst Farm, Hurstwood Lane

Title

Phase 1

Overland Flow Plan

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Scale 1:500 @ A1

Revision P03

Drawing Number

25-058-01-0510



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Key

➔ Overland flow direction arrow

FOR APPROVAL

Ordnance Survey Licence number: 100057360

Drawing Revisions

Rev:	Dm:	Date:	Details:	Chk:	App:
P01	AM	28/11/2025	First issue	LP	PK
P02	MB	15/12/2025	Site layout updated	LP	PK
P03	MB	26/01/2026	Site layout updated	LP	PK

Client

Barratt David Wilson Homes

Project

Hurst Farm, Hurstwood Lane

Title

Phase 2
Overland Flow Plan

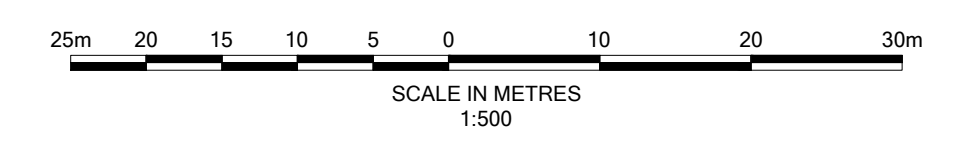
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 Overland flow direction arrow

Ordnance Survey Licence number: 100057360

Rev:	Drn:	Date:	Details:	Chk:	App:
P01	AM	28/11/2025	First issue	LP	PK
P02	MB	15/12/2025	Site layout updated	LP	PK
P03	MB	05/02/2026	Site layout updated	LP	PK

Barratt David Wilson Homes

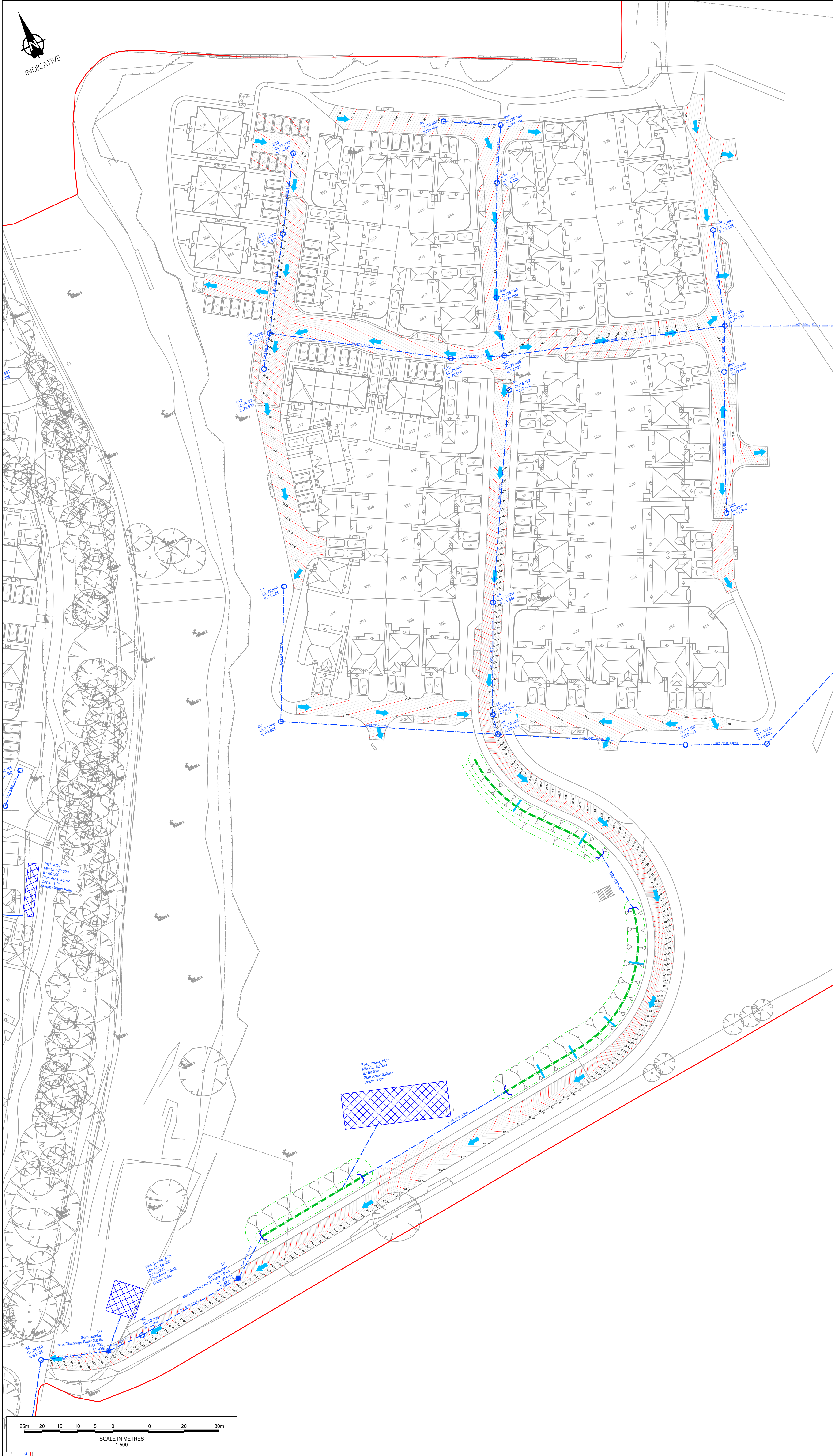
Hurst Farm, Hurstwood Lane

Phase 3 Overland Flow Plan

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Scale	1:500 @ A1	Revision	P03
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Key

Overland flow direction arrow

FOR APPROVAL

Ordnance Survey Licence number: 100057360

Rev	Drm	Date	Details	Chk	App
P01	AM	28/11/2023	First issue	LP	PK
P02	MB	15/12/2023	Site layout updated	LP	PK
P03	MB	05/02/2026	Site layout updated	LP	PK

Client

Barratt David Wilson Homes

Project

Hurst Farm, Hurstwood Lane

Title

Phase 4
Overland Flow Plan

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Scale	1:500 @ A1	Revision	P03
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Drawing Number

25-058-04-0510