

26237-PWA-00-XX-LTR-C-1000-P01

Suite 25, Unit 2
Northlight House
Pendle Road
Brierfield, Nelson
BB9 5FL

07 August 2026

Re: Drainage Strategy

Site: Higher Trapp, Trapp Lane, Simonstone, Burnley, BB12 7QW

Proposal: Erection of new office building on existing storage area.

Dear Sir/Madam,

1. Introduction

This Drainage Strategy Letter has been prepared in support of a planning application for the proposed erection of a new office building on the existing storage area at Higher Trapp, Trapp Lane, Simonstone, Burnley, BB12 7QW.

The purpose of this document is to outline the proposed foul water and surface water drainage arrangements for the site and demonstrate that the development can be adequately drained whilst minimising flood risk both on-site and elsewhere.

1.1. Policy Context

The drainage proposals have been developed in accordance with:

- National Planning Policy Framework (NPPF)
- Planning Practice Guidance (PPG)
- Non-Statutory Technical Standards for Sustainable Drainage Systems
- North Yorkshire Council Local Flood Risk Management requirements
- Lancashire County Council Local Flood Risk Management requirements
- United Utilities asset protection and connection requirements

2. Site Description

The application site extends to approximately 0.53 hectares and is located at Trapp Lane, Simonstone, Burnley, BB12 7QW.

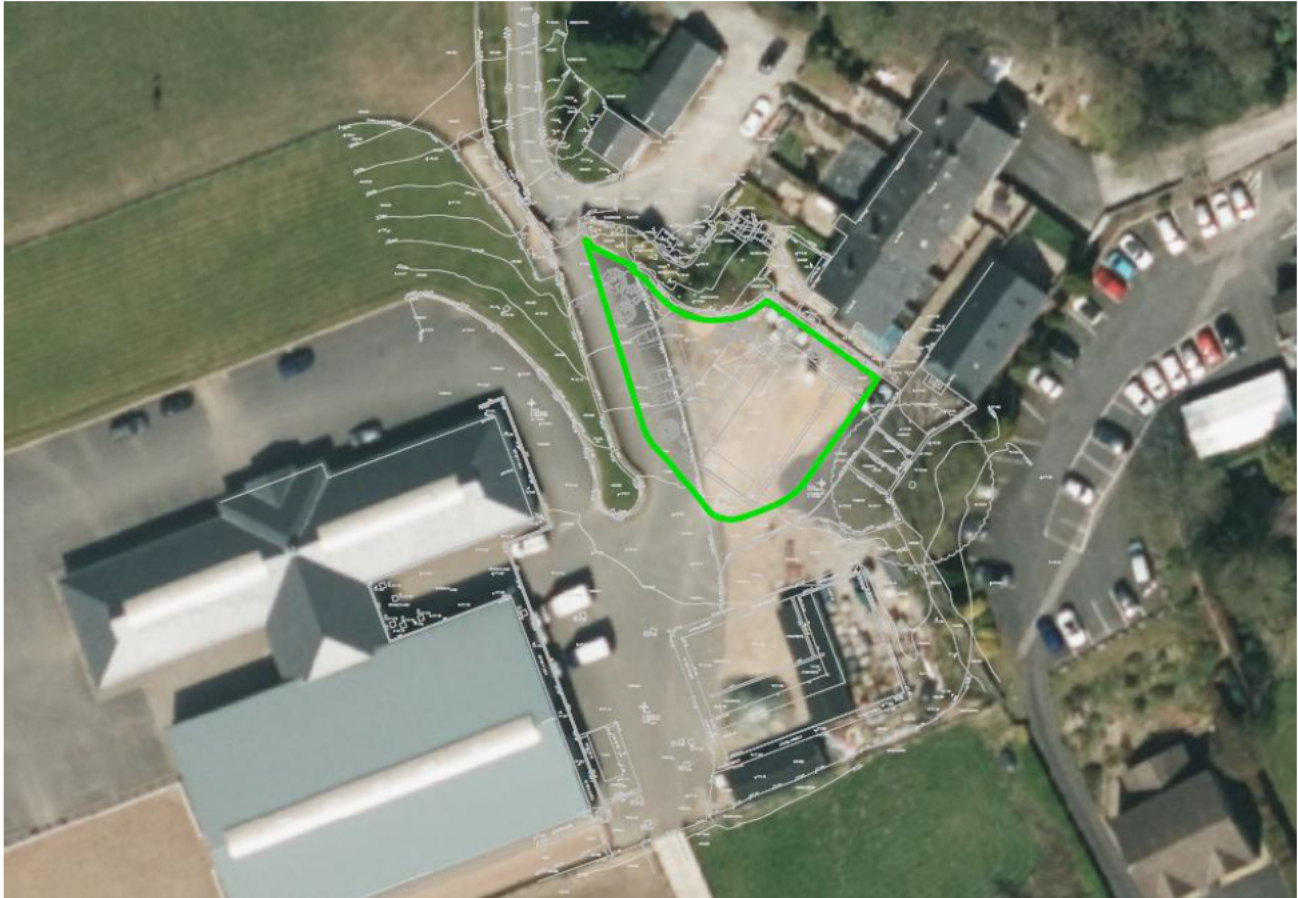


Figure 1 - Site Location Plan

The site currently comprises brownfield land use on the form of an existing stoned up storage area associated with the adjacent equestrian centre.

The site generally falls from north to south and comprises of a crushed stone surfacing.

3. Surface Water Drainage Strategy

The surface water drainage hierarchy has been considered in accordance with national guidance.

1. Re-use for non-potable purposes.
2. Discharge into the ground (infiltration)
3. Discharge to a surface water body
4. Discharge to a surface water sewer, highway drain or other drainage system
5. Discharge to a combined sewer

This hierarchy is explored in the following sections.

3.1. Re-Use

The development will incorporate rainwater harvesting measures in the form of water butts and/or proprietary rainwater storage systems connected to roof drainage where practicable. Collected rainwater will be re-used for non-potable purposes including garden watering and landscape maintenance. This approach will reduce demand on mains water supplies and provide a degree of source control by intercepting and re-using a proportion of the surface water runoff generated by the development.

3.2. Infiltration

British Geological Survey mapping indicates that Devensian diamicton till is present on site, comprising a variety of poorly sorted mixed sediments. These glacial till deposits typically include variable proportions of clay, silt, sand, gravel and cobbles, and are generally expected to exhibit variable but often low permeability due to the presence of fine-grained material.

Given the anticipated heterogeneity and likely limited permeability of the Devensian diamicton till, infiltration drainage techniques, including soakaways, are not considered to represent a reliable means of surface water disposal for the development. Infiltration to ground would be unlikely to provide consistent drainage performance and could result in prolonged water retention within the drainage structure, particularly where clay-rich horizons are encountered.

Accordingly, soakaways have been discounted from the surface water drainage strategy unless future site-specific infiltration testing demonstrates otherwise. Surface water disposal will instead be managed through alternative drainage measures in accordance with the drainage hierarchy and the requirements of the Lead Local Flood Authority.

3.3. Waterbody

In accordance with the drainage hierarchy, the potential for the discharge of surface water runoff to a watercourse has been considered. An unnamed watercourse is located approximately 120m to the south of the proposed development.

The watercourse is located outside the client's ownership boundary. As such, a direct connection to the watercourse cannot be assumed and would be subject to securing any necessary third-party land agreements, easements and approvals from the Lead Local Flood Authority and any other relevant consenting bodies.

3.4. Existing Sewer

Existing foul and surface water sewers are understood to be present on site. A site walkover has been undertaken, during which accessible manhole covers were lifted to review the existing drainage infrastructure where practicable. It is proposed that the existing surface water sewer is utilised as the outfall for the development surface water drainage strategy, subject to further investigation. The exact routes, depths, sizes, condition and available capacity of the existing drainage network are to be confirmed through further site investigation. Any proposed connection or continued use of the existing surface water sewer will also be subject to the necessary technical approvals and agreement with the relevant asset owner or adopting authority.

3.5. Runoff Rates

The proposals seek to remove an area of tarmac hardstanding which is proposed to be landscaping and proposed parking bays. The area of tarmac which is to be removed is 123m², this equates to a runoff rate of 1.7 l/s. This has been calculated using the modified rational method which is detailed below:

$$2.78 \times 50 \text{ mm/h} \times 0.0123 \text{ ha} = 1.7 \text{ l/s}$$

Based on the above, the proposed surface water discharge rate from the development should be restricted to a maximum rate of 1.7 l/s for the worst-case storm event.

3.6. Climate Change Allowances

When assessing peak rainfall allowances for a Less Vulnerable development within Flood Zone 1, the central allowance should be assessed. For this site, an allowance of 30% has been applied to the 3.3% (1 in 30 year) and 35% to the 1% (1 in 100 year) rainfall events.

Table 1 - Ribble Management Catchment peak rainfall allowances

Allowance Category	3.3% annual exceedance rainfall event		1% annual exceedance rainfall event	
	Central allowance	Upper end allowance	Central allowance	Upper end allowance
'2050s' (2024 to 2060)	25%	35%	25%	40%
'2070s' (2061 to 2125)	30%	40%	35%	50%

3.7. Surface Water Attenuation

In order to restrict the proposed surface water flows to 1.7 l/s, the system will require onsite storage to attenuation the restricted flows.

A hydraulic model has been prepared to calculate the surface water attenuation requirements using InfoDrainage design software. This has calculated the required attenuation at 9.6m³ of storage between a cellular attenuation tank and the concrete flow control manhole. Refer to Figure 2 below for the proposed drainage plan.



Figure 2 - Proposed Drainage Layout

3.8. Water Quality

Roof water runoff from the proposed office building will be treated at source through the inclusion of a proposed green roof. The green roof will provide an initial sustainable drainage treatment stage by intercepting rainfall, promoting evapotranspiration, slowing runoff and filtering sediments and potential contaminants before discharge to the downstream surface water drainage system.

The proposed green roof will therefore contribute to the water quality management train for the development and will assist in reducing the rate and volume of roof runoff conveyed to the attenuation and flow control system. Any residual runoff from the green roof will be conveyed via the proposed roof drainage system to the wider surface water drainage network.

PAUL WAITE ASSOCIATES LTD Company Number: 04217530 Register in England.
Registered Address: Summit House, Riparian Way, The Crossings, Cross Hills, West Yorkshire, BD20 7BW

PWA GEO-ENVIRONMENTAL LTD Company Number: 06939651 Register in England.
Registered Address: Summit House, Riparian Way, The Crossings, Cross Hills, West Yorkshire, BD20 7BW

4. Foul Water Drainage

The proposed office building will generate foul flows from welfare and staff accommodation facilities only. Foul water from the development will be collected via a separate below-ground foul drainage system and discharged to the existing foul drainage network serving the site, subject to confirmation of the existing network route, depth, condition and capacity.

5. Management & Maintenance

The proposed drainage system will remain privately owned and maintained. Responsibility for the ongoing management, inspection, maintenance and repair of the proposed foul and surface water drainage systems will rest with the end user, tenant, operator or site owner, as applicable, for the lifetime of the development.

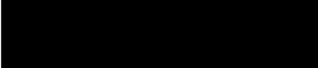
The end user shall ensure that all drainage assets are maintained in good working order to safeguard the operation of the development and prevent an increased risk of flooding, blockage, pollution or nuisance either on-site or elsewhere.

Routine maintenance should be undertaken at suitable intervals and following significant rainfall events, with any accumulated silt, debris or other obstructions removed as necessary.

Records of inspections, cleansing and maintenance activities should be retained by the end user. The management and maintenance arrangements shall remain in place for the lifetime of the development unless otherwise agreed in writing with the relevant approving authority.

If you have any questions regarding the above, please do not hesitate to contact us.

Yours sincerely,


Liam Steadman
Senior Civil Engineer
For and on behalf of Paul Waite Associates Ltd

Enclosures

Enclosure 1 - 26237-PWA-00-XX-DR-C-1000-P01-Proposed Drainage Strategy

Enclosure 2 - 26237-PWA-00-XX-CA-C-1000-P01-Surface Water Calculations

Enclosure 1 - 26237-PWA-00-XX-DR-C-1000-P01-Proposed Drainage Strategy



EXISTING IMPERMEABLE AREA - 1:250

PROPOSED IMPERMEABLE AREA - 1:250

AREA	TOTAL AREA m ² (ha)	
EXISTING IMPERMEABLE		123m ² (0.012ha)
PROPOSED IMPERMEABLE		287m ² (0.029ha)

*TOTALS FOR HECTARES (ha) AND METERS SQUARED (m²) DIFFER SLIGHTLY DUE TO ROUNDING AND ACCUMULATION OF INDIVIDUAL AREAS.

BROWNFIELD RUNOFF RATES	
RETURN PERIOD (YEARS)	FLOW RATE (l/s)
EXISTING	1.7 l/s

TABLE 1: NOTE TO DEVELOPER	
NOTE REFERENCE	NOTE DESCRIPTION
N.01	EXACT ROUTES OF THE EXISTING DRAINAGE SYSTEM IS SUBJECT TO A FULL SITE SURVEY. THE OUTFALL FROM THE PROPOSED SURFACE AND FOUL WATER SYSTEMS IS SUBJECT TO THESE SURVEY WORKS. IF THE SURVEYS IDENTIFY ANY EXISTING DRAINAGE RUNS BENEATH THE PROPOSED BUILDING LOCATION, THE ENGINEER IS TO BE CONSULTED TO PROPOSAL A SUITABLE DIVERSION.
N.02	BASED ON THE SITE WALKOVER AND LIFT/IGN MANHOLE LIDS, IT IS ANTICIPATED THAT THERE IS AN EXISTING FOUL WATER SEWER WITHIN THE TARMAC ACCESS WAY. THIS IS TO BE VERIFIED BY ON-SITE SURVEY PRIOR TO COMMENCEMENT OF WORKS.

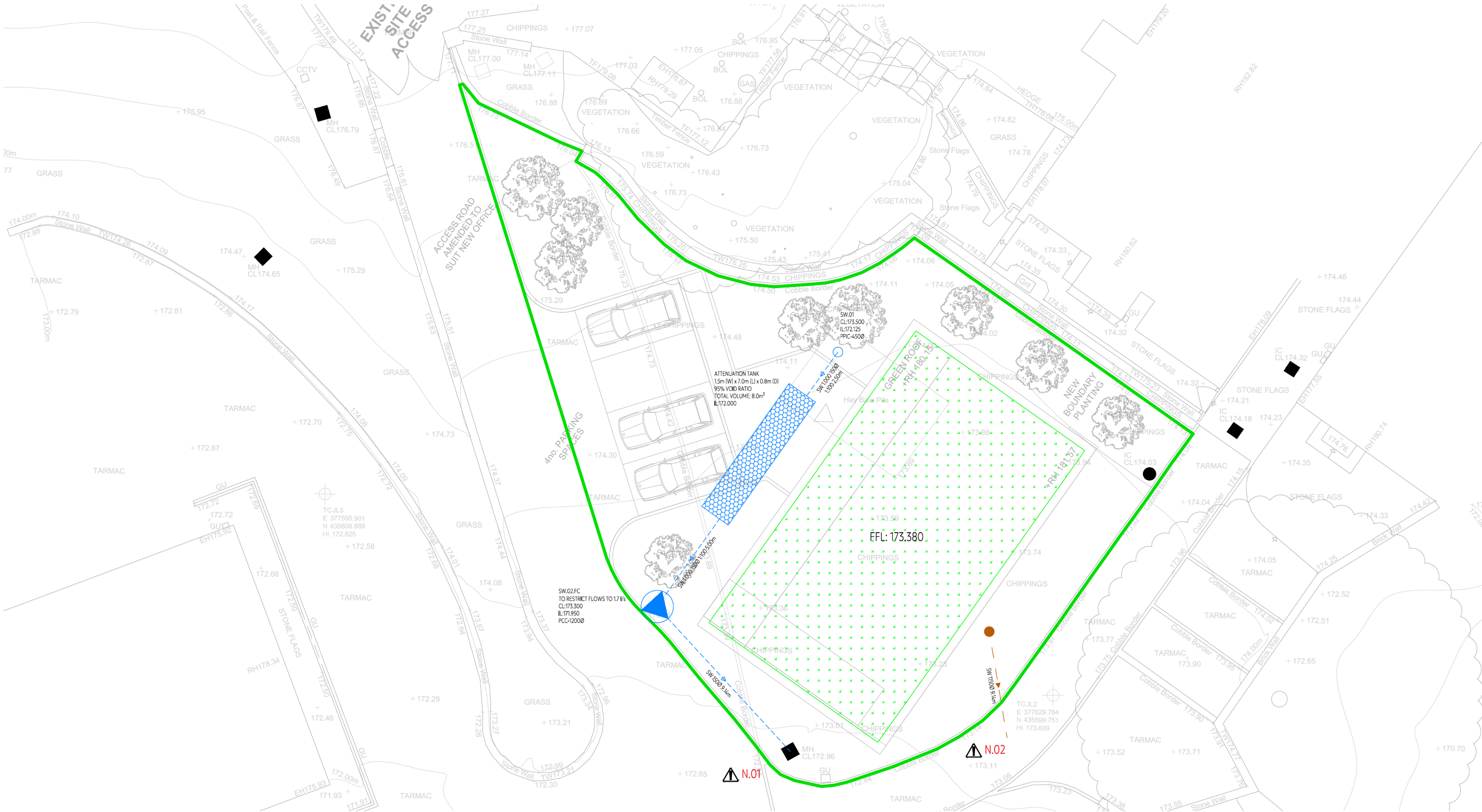
SITE LOCATION
OS X (EASTINGS) 377624
OS Y (NORTHINGS) 435612
NAT GRID SD 77624 35612
POSTCODE BB12 7QW

NOTES:

- COPYRIGHT IN THIS DOCUMENT BELONGS TO PAUL WAITE ASSOCIATES LIMITED & ALL RIGHTS IN IT ARE RESERVED BY THE OWNER.
- NO PART OF THIS DRAWING MAY BE COPIED, TRANSFERRED, OR MADE AVAILABLE TO USERS OTHER THAN THE ORIGINAL RECIPIENT, INCLUDING ELECTRONICALLY, WITHOUT PRIOR PERMISSION FROM PAUL WAITE ASSOCIATES LIMITED.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS & ENGINEERS DRAWINGS & SPECIFICATIONS.
- ALL DIMENSIONS ARE SHOWN IN MILLIMETRES.
- NO DIMENSIONS TO BE SCALED FROM THIS DRAWING.
- ONLY PDF/HARD COPIES OF DRAWINGS SHOULD BE REFERRED TO FOR CONSTRUCTION USE. THE USE OF AUTOCAD DRAWINGS/DWG'S IS UNDERTAKEN ENTIRELY AT THE DEVELOPERS RISK AND ALL DIMENSIONS AND SETTING OUT MUST BE CHECKED IN CONJUNCTION WITH THE ARCHITECT AND ENGINEERS CONSTRUCTION DRAWINGS. ALL DRAWINGS SHOULD BE CONFIRMED AS LATEST ISSUE ON THE DOCUMENT ISSUE SHEET PRIOR TO COMMENCEMENT OF WORKS AND SHOULD BE USED ONLY FOR THEIR DEFINED DRAWING STATUS. ANY DISCREPANCIES BETWEEN THE ARCHITECT AND ENGINEERS DRAWINGS ARE TO BE IMMEDIATELY NOTIFIED TO ALL PARTIES.

KEY

- EXISTING SURFACE WATER SEWER
- EXISTING SURFACE WATER MANHOLE
- EXISTING FOUL WATER SEWER
- EXISTING FOUL WATER MANHOLE
- EXISTING COMBINED WATER SEWER
- EXISTING COMBINED WATER MANHOLE
- PROPOSED SURFACE WATER SEWER
- PROPOSED SURFACE WATER MANHOLE
- PROPOSED SURFACE WATER FLOW CONTROL MANHOLE
- PROPOSED SURFACE WATER INSPECTION CHAMBER
- PROPOSED CELLULAR STORAGE
- PROPOSED CHANNEL
- PROPOSED GULLY
- PROPOSED FOUL WATER SEWER
- PROPOSED FOUL WATER MANHOLE
- PROPOSED FOUL WATER INSPECTION CHAMBER
- SITE BOUNDARY



PROPOSED DRAINAGE PLAN - 1:100

PO1 07/08/26 FIRST ISSUE: LS IB

Rev	Date	Remarks	Drawn	Chk'd

PWA / GROUP

CIVIL: SUMMIT HOUSE, RIPARIAN WAY, 01535 633350
STRUCTURAL: THE CROSSINGS, CROSSHILLS, info@pwagroup.co.uk
GEO-ENVIRONMENTAL: KEBGHLEY, BD20 7BW, www.pwagroup.co.uk

Client: **BARROWCLOUGH ARCHITECTS LTD**

Project: **RPROPOSED NEW OFFICE BUILDING LAND OFF HIGHER TRAPP LANE SIMONSTONE, BURNLEY**

Title: **PROPOSED DRAINAGE STRATEGY**

Size	Scale	Designed	Checked	Date
A1	AS	LS	IB	AUG 26

Drawing Status: **PRELIMINARY**

Job Number	Originator	Zone	Level	Type	Role	Drawing No.	Rev
26237	PWA	00	XX	DR	C	1000	PO1

Enclosure 2 - 26237-PWA-00-XX-CA-C-1000-P01-Surface Water Calculations

PROJECT: PROPOSED NEW OFFICE BUILDING LAND OFF HIGHER TRAPP LANE SIMINSTONE, BURNLEY	Date: 07/08/2026		
	Designed by: LS	Checked by: IB	Approved By: IB
	Report Details: Type: Inflows Storm Phase: Phase Flow Path: Flow Path		
DOCUMENT DETAILS: 26237-PWA-00-XX-CA-C-1000-P01 PROPOSED SURFACE WATER CALCULATIONS			



Catchment Area

Type : Catchment Area

Area (ha)	0.029
-----------	-------

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

PROJECT: PROPOSED NEW OFFICE BUILDING LAND OFF HIGHER TRAPP LANE SIMINSTONE, BURNLEY		Date: 07/08/2026			
Report Details: Type: Junctions Storm Phase: Phase Flow Path: Flow Path		Designed by: LS	Checked by: IB		Approved By: IB
		DOCUMENT DETAILS: 26237-PWA-00-XX-CA-C-1000-P01 PROPOSED SURFACE WATER CALCULATIONS			

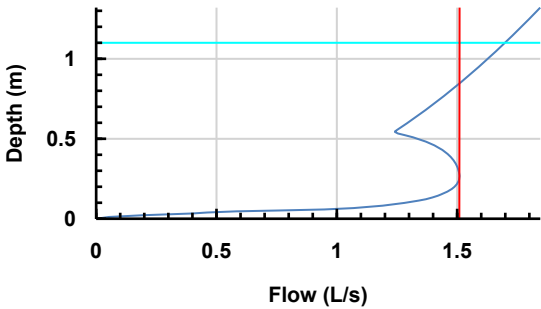
Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
SW.01	Manhole	377620.353	435615.796	173.500	1.375	172.125	Circular	0.450
SW.02.FC	Manhole	377611.963	435603.970	173.300	1.350	171.950	Circular	1.500
EXISTING	Manhole	377618.147	435597.243	172.960	1.110	171.850	Circular	1.200

Name	Lock
SW.01	None
SW.02.FC	None
EXISTING	None

Inlets

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
SW.01	Inlet	Catchment Area	(None)	No Restriction
SW.02.FC	Inlet	1.002	(None)	No Restriction
EXISTING	Inlet	1.003	(None)	No Restriction

Outlets

Junction	Outlet Name	Outgoing Connection	Outlet Type
SW.01	Outlet	1.000	Free Discharge
	Outlet	1.003	Hydro-Brake®
	Invert Level (m)	171.950	
	Design Depth (m)	1.100	
	Design Flow (L/s)	1.7	
	Objective	Minimise Upstream Storage Requirements	
	Application	Surface Water Only	
	Sump Available	☒	
	Unit Reference	SHE-0060-1700-1100-1700	
			
SW.02.FC			

PROJECT: PROPOSED NEW OFFICE BUILDING LAND OFF HIGHER TRAPP LANE SIMINSTONE, BURNLEY	Date: 07/08/2026		
	Designed by: LS	Checked by: IB	Approved By: IB
Report Details: Type: Stormwater Controls Storm Phase: Phase Flow Path: Flow Path	DOCUMENT DETAILS: 26237-PWA-00-XX-CA-C-1000-P01 PROPOSED SURFACE WATER CALCULATIONS		



Cellular Storage

Type : Cellular Storage

Dimensions

Exceedance Level (m)	173.230
Depth (m)	0.800
Base Level (m)	172.000
Number of Crates Long	7
Number of Crates Wide	3
Number of Crates High	2
Porosity (%)	95
Crate Length (m)	1
Crate Width (m)	0.5
Crate Height (m)	0.4
Total Volume (m³)	8.410

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	1.000
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	1.002
Outlet Type	Free Discharge

PROJECT: PROPOSED NEW OFFICE BUILDING LAND OFF HIGHER TRAPP LANE SIMINSTONE, BURNLEY		Date: 07/08/2026		
		Designed by: LS	Checked by: IB	
		Approved By: IB		
Report Details: Type: Manhole Schedule Storm Phase: Phase Flow Path: Flow Path		DOCUMENT DETAILS: 26237-PWA-00-XX-CA-C-1000-P01 PROPOSED SURFACE WATER CALCULATIONS		

Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
SW.01	173.500 172.125	Diameter / Length: 0.450					Manhole
E:377620.353 N:435615.796	1.375		{a} 1.000	Pipe	172.125	Diam/Width:100	Not Applicable
SW.02.FC	173.300 171.950	Diameter / Length: 1.500	{1} 1.002	Pipe	171.950	Diam/Width:100	Manhole
E:377611.963 N:435603.970	1.350		{a} 1.003	Pipe	171.950	Diam/Width:100	Not Applicable
EXISTING	172.960 171.850	Diameter / Length: 1.200	{1} 1.003	Pipe	171.850	Diam/Width:100	Manhole
E:377618.147 N:435597.243	1.110						Not Applicable

PROJECT: PROPOSED NEW OFFICE BUILDING LAND OFF HIGHER TRAPP LANE SIMINSTONE, BURNLEY		Date: 07/08/2026			
		Designed by: LS	Checked by: IB		Approved By: IB
Report Details: Type: Inflow Summary Storm Phase: Phase Flow Path: Flow Path		DOCUMENT DETAILS: 26237-PWA-00-XX-CA-C-1000-P01 PROPOSED SURFACE WATER CALCULATIONS			

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Catchment Area	SW.01		Time of Concentration	0.029	100	0	100	0.029
TOTAL		0.0		0.029				0.029

PROJECT: PROPOSED NEW OFFICE BUILDING LAND OFF HIGHER TRAPP LANE SIMINSTONE, BURNLEY	Date: 07/08/2026		
	Designed by: LS	Checked by: IB	Approved By: IB
Report Details: Type: Rainfall Analysis Criteria	DOCUMENT DETAILS: 26237-PWA-00-XX-CA-C-1000-P01 PROPOSED SURFACE WATER CALCULATIONS		



Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Default
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Rainfall

FSR	Type: FSR
-----	-----------

Region	England And Wales
M5-60 (mm)	19.0
Ratio R	0.268
Summer	☒
Winter	☒

Return Period

Return Period (years)	Increase Rainfall (%)
30.0	30.000
100.0	35.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
240	480
360	720
480	960
960	1920
1440	2880

PROJECT: PROPOSED NEW OFFICE BUILDING LAND OFF HIGHER TRAPP LANE SIMINSTONE, BURNLEY	Date: 07/08/2026		
	Designed by: LS	Checked by: IB	Approved By: IB
Report Details: Type: Inflows Summary Storm Phase: Phase	DOCUMENT DETAILS: 26237-PWA-00-XX-CA-C-1000-P01 PROPOSED SURFACE WATER CALCULATIONS		



FSR: 30 years: Increase Rainfall (%): +30: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
Catchment Area	FSR: 30 years: +30 %: 15 mins: Summer	0.03	13.5	5.956

PROJECT: PROPOSED NEW OFFICE BUILDING LAND OFF HIGHER TRAPP LANE SIMINSTONE, BURNLEY	Date: 07/08/2026		
	Designed by: LS	Checked by: IB	Approved By: IB
Report Details: Type: Inflows Summary Storm Phase: Phase	DOCUMENT DETAILS: 26237-PWA-00-XX-CA-C-1000-P01 PROPOSED SURFACE WATER CALCULATIONS		



FSR: 100 years: Increase Rainfall (%): +35: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
Catchment Area	FSR: 100 years: +35 %: 15 mins: Summer	0.03	18.0	7.966

PROJECT: PROPOSED NEW OFFICE BUILDING LAND OFF HIGHER TRAPP LANE SIMINSTONE, BURNLEY		Date: 07/08/2026			
		Designed by: LS	Checked by: IB		Approved By: IB
Report Details: Type: Junctions Summary Storm Phase: Phase Flow Path: Flow Path		DOCUMENT DETAILS: 26237-PWA-00-XX-CA-C-1000-P01 PROPOSED SURFACE WATER CALCULATIONS			



FSR: 30 years: Increase Rainfall (%): +30: Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SW.01	FSR: 30 years: +30 %: 120 mins: Summer	173.500	172.125	172.580	0.455	6.8	0.072	0.000	6.3	14.309	Surcharged
SW.02.FC	FSR: 30 years: +30 %: 120 mins: Summer	173.300	171.950	172.575	0.625	2.2	1.105	0.000	1.5	14.275	Surcharged
EXISTING	FSR: 30 years: +30 %: 120 mins: Summer	172.960	171.850	171.883	0.033	1.5	0.000	0.000	1.5	14.271	OK

PROJECT: PROPOSED NEW OFFICE BUILDING LAND OFF HIGHER TRAPP LANE SIMINSTONE, BURNLEY		Date: 07/08/2026			
		Designed by: LS	Checked by: IB		Approved By: IB
Report Details: Type: Junctions Summary Storm Phase: Phase Flow Path: Flow Path		DOCUMENT DETAILS: 26237-PWA-00-XX-CA-C-1000-P01 PROPOSED SURFACE WATER CALCULATIONS			



FSR: 100 years: Increase Rainfall (%): +35: Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SW.01	FSR: 100 years: +35 %: 120 mins: Summer	173.500	172.125	173.035	0.910	9.3	0.145	0.000	8.5	19.497	Surcharged
SW.02.FC	FSR: 100 years: +35 %: 120 mins: Summer	173.300	171.950	173.029	1.079	2.8	1.906	0.000	1.7	18.984	Flood Risk
EXISTING	FSR: 100 years: +35 %: 120 mins: Summer	172.960	171.850	171.885	0.035	1.7	0.000	0.000	1.7	18.953	OK

PROJECT: PROPOSED NEW OFFICE BUILDING LAND OFF HIGHER TRAPP LANE SIMINSTONE, BURNLEY		Date: 07/08/2026		
		Designed by: LS	Checked by: IB	
		Approved By: IB		
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase Flow Path: Flow Path		DOCUMENT DETAILS: 26237-PWA-00-XX-CA-C-1000-P01 PROPOSED SURFACE WATER CALCULATIONS		



FSR: 30 years: Increase Rainfall (%): +30: Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Cellular Storage	FSR: 30 years: +30 %: 120 mins: Summer	172.578	172.578	0.578	0.578	6.3	5.767	0.000	0.000	2.2	14.288	31.428	OK

PROJECT: PROPOSED NEW OFFICE BUILDING LAND OFF HIGHER TRAPP LANE SIMINSTONE, BURNLEY		Date: 07/08/2026		
		Designed by: LS	Checked by: IB	
		Approved By: IB		
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase Flow Path: Flow Path		DOCUMENT DETAILS: 26237-PWA-00-XX-CA-C-1000-P01 PROPOSED SURFACE WATER CALCULATIONS		



FSR: 100 years: Increase Rainfall (%): +35: Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residant Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Cellular Storage	FSR: 100 years: +35 %: 120 mins: Summer	173.033	173.033	1.033	1.033	8.5	8.205	0.000	0.000	2.8	19.147	2.437	OK

PROJECT: PROPOSED NEW OFFICE BUILDING LAND OFF HIGHER TRAPP LANE SIMINSTONE, BURNLEY	Date: 07/08/2026		
	Designed by: LS	Checked by: IB	Approved By: IB
Report Details: Type: Connections Summary Storm Phase: Phase Flow Path: Flow Path	DOCUMENT DETAILS: 26237-PWA-00-XX-CA-C-1000-P01 PROPOSED SURFACE WATER CALCULATIONS		



FSR: 30 years: Increase Rainfall (%): +30: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
1.000	FSR: 30 years: +30 %: 15 mins: Summer	Pipe	SW.01	Cellular Storage	173.500	172.378	0.100	5.748	1.5	0.86	11.6	Surcharged
1.002	FSR: 30 years: +30 %: 15 mins: Summer	Pipe	Cellular Storage	SW.02.FC	173.230	172.370	0.100	2.770	0.5	0.48	2.9	Surcharged
1.003	FSR: 30 years: +30 %: 120 mins: Summer	Pipe	SW.02.FC	EXISTING	173.300	172.575	0.034	14.271	0.6	0.24	1.5	Surcharged

PROJECT: PROPOSED NEW OFFICE BUILDING LAND OFF HIGHER TRAPP LANE SIMINSTONE, BURNLEY		Date: 07/08/2026			
Report Details: Type: Connections Summary Storm Phase: Phase Flow Path: Flow Path		Designed by: LS	Checked by: IB		Approved By: IB
DOCUMENT DETAILS: 26237-PWA-00-XX-CA-C-1000-P01 PROPOSED SURFACE WATER CALCULATIONS					



FSR: 100 years: Increase Rainfall (%): +35: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
1.000	FSR: 100 years: +35 %: 15 mins: Summer	Pipe	SW.01	Cellular Storage	173.500	172.528	0.100	7.564	1.9	1.13	15.3	Surcharged
1.002	FSR: 100 years: +35 %: 15 mins: Summer	Pipe	Cellular Storage	SW.02.FC	173.230	172.528	0.100	2.923	0.5	0.58	3.5	Surcharged
1.003	FSR: 100 years: +35 %: 120 mins: Summer	Pipe	SW.02.FC	EXISTING	173.300	173.029	0.035	18.953	0.7	0.26	1.7	Flood Risk

PROJECT: PROPOSED NEW OFFICE BUILDING LAND OFF HIGHER TRAPP LANE SIMINSTONE, BURNLEY	Date: 07/08/2026		
	Designed by: LS	Checked by: IB	Approved By: IB
Report Details: Type: Phase Management Storm Phase: Phase	DOCUMENT DETAILS: 26237-PWA-00-XX-CA-C-1000-P01 PROPOSED SURFACE WATER CALCULATIONS		



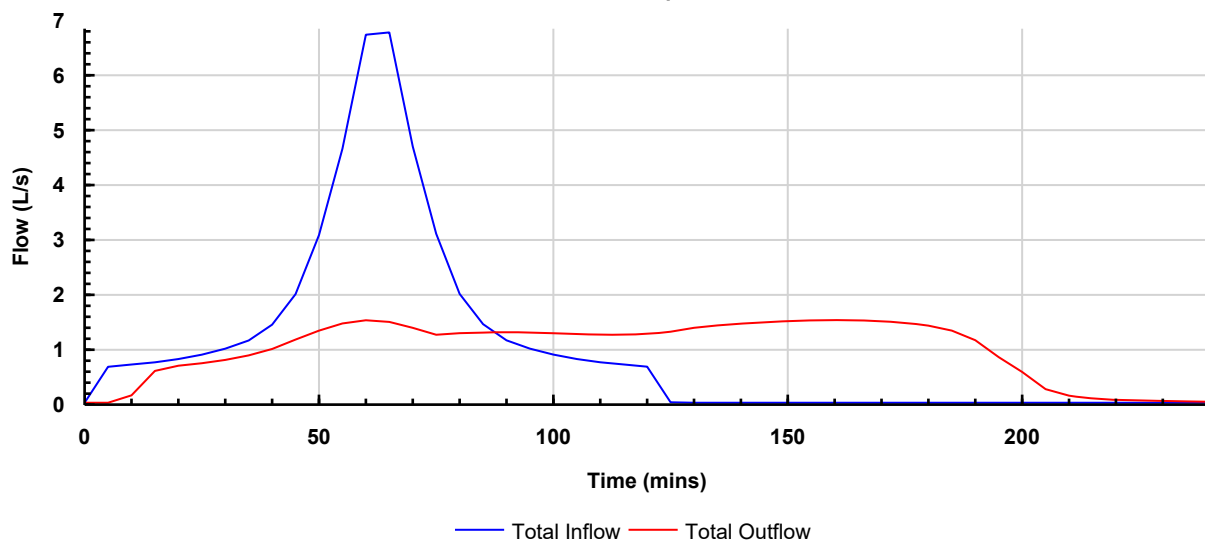
Phase
FSR: 30 years: Increase Rainfall (%): +30: 120 mins: Summer

Tables

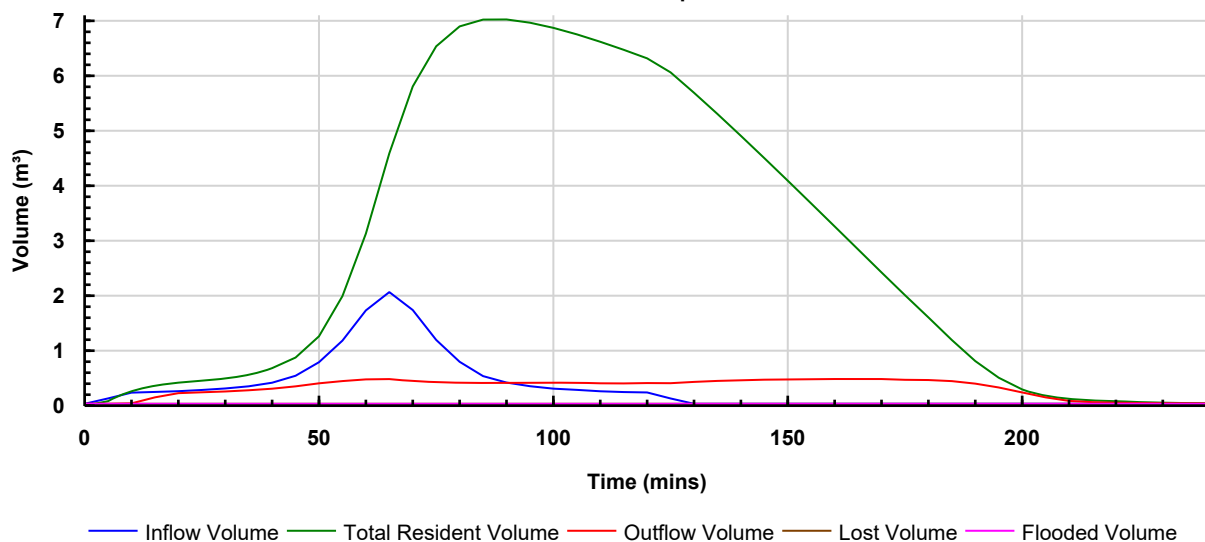
Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
EXISTING			1.5	14.271
TOTAL	6.8	14.309	1.5	14.271

Graphs

Flow Graph



Volume Graph



PROJECT: PROPOSED NEW OFFICE BUILDING LAND OFF HIGHER TRAPP LANE SIMINSTONE, BURNLEY	Date: 07/08/2026		
	Designed by: LS	Checked by: IB	Approved By: IB
Report Details: Type: Phase Management Storm Phase: Phase	DOCUMENT DETAILS: 26237-PWA-00-XX-CA-C-1000-P01 PROPOSED SURFACE WATER CALCULATIONS		



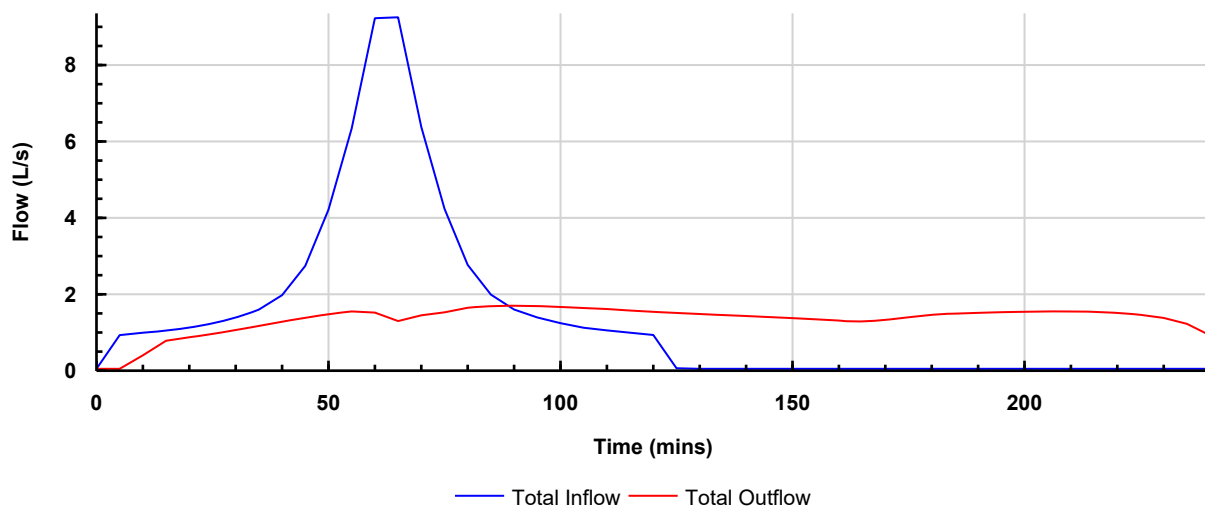
Phase
FSR: 100 years: Increase Rainfall (%): +35: 120 mins: Summer

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
EXISTING			1.7	18.953
TOTAL	9.3	19.498	1.7	18.953

Graphs

Flow Graph



Volume Graph

