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Hampshire
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Our Ref: MT/6096

19th February 2026

Flood and Water Management Team
Hampshire County Council
The Castle
Upper High Street
Winchester
SO23 8UJ

Dear Sir, Madam

Re: Interbridges Site, New Brighton Road, Emsworth (LPA ref. APP/24/01010)

Bellamy Roberts has been instructed by PNH Properties to provide a written response to the LLFA's consultation comments dated 23rd June 2025, which are enclosed for reference.

The matters considered in the LLFA's most recent response are as follows:

- Flood Risk Mapping.
- Groundwater Monitoring.
- Surface Water Drainage Strategy.

These matters have been addressed in turn.

Flood Risk Mapping

The applicant has commissioned Aegaea to undertake detailed hydraulic flood modelling which focuses on the fluvial flood risk identified on the EA's flood map for planning.

The hydraulic model has been developed to quantify the baseline fluvial flood risk for the site by modelling watercourse capacity and exceedance flow paths.

The Aegaea Fluvial Hydraulic Model Report is submitted as a standalone document which outlines the hydrological assessment and hydraulic modelling methodology, presents the baseline simulation results, and details key assumptions and limitations of the model.

In summary, the hydraulic model outputs show that the site remains largely outside the extent of all simulated rainfall events.

The site is identified as being outside the 1% AEP maximum flood extent which is analogous to Flood Zone 3 in lieu of historic or tidal flood extents. Minor encroachments to the site boundary are noted for the 1% AEP + 25% climate change, 1% AEP + 36% climate change and 0.1% AEP events, however the flooding is confined to the lowest ground elevations on site in the very southeast corner of the site.

Figure 1 shows the baseline maximum modelled flood extents.



Director:
IT Roberts MCIHT
Associate Director:
MJ Twinberrow BEng MCIHT
Consultant:
GD Bellamy BSc CEng MICE

Bellamy Roberts Partners Ltd. (trading as Bellamy Roberts) is a Limited Company registered in England.

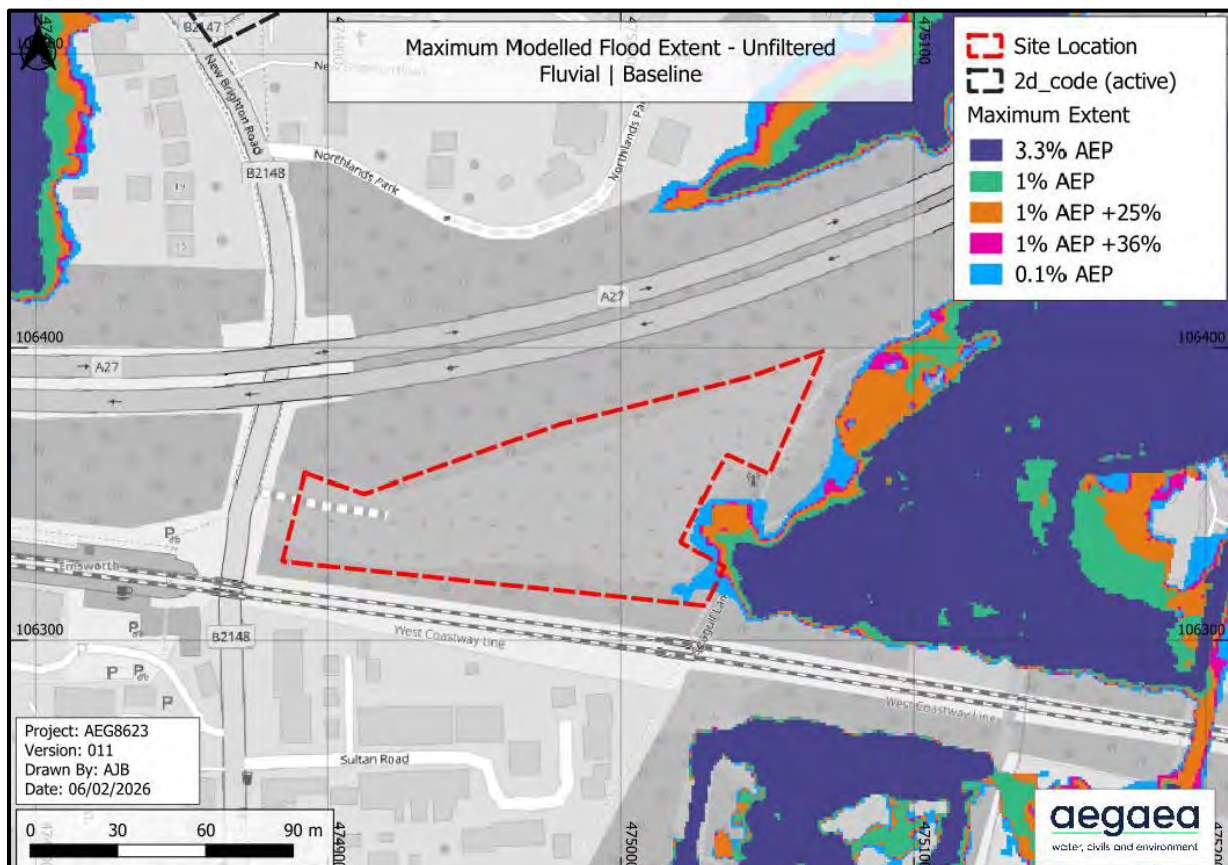


Figure 1: Baseline Modelled Flood Extents (Source: Aegaea)

The Aegaea modelling results demonstrate that the only area of the site affected by future flood risk is the south-eastern corner of Yard B and this is only during the 0.1% AEP event. No other areas of the site are located in areas at risk of flooding.

The depth of flooding in this part of the site is primarily less than 100mm.

The proposed surface water drainage system will therefore not become inundated and would continue to function.

Groundwater Monitoring

Soils Ltd has been instructed to undertake groundwater monitoring at the site and this is ongoing.

The scope of this monitoring has been agreed with the LLFA and comprises two monitoring locations, with monthly recording between the start of October 2025 and end of April 2026.

The monitoring results are enclosed and a summary of the results to date is provided below:

- October 2025 - WS1: 3.45m bgl & WS2: 4.60m bgl
- November 2025 - WS1: 2.18m bgl & WS2: 0.54m bgl
- December 2025 - WS1: 4.57m bgl & WS2: 0.47m bgl
- January 2026 - WS1: 4.10m bgl & WS2: 0.17m bgl

Groundwater levels vary significantly across the site and are at their shallowest in the eastern half of the site. No groundwater breaches have been recorded.



Page 3: Interbridges Site, New Brighton Road, Emsworth

The Ashdown SI Combined Geotechnical Ground Contamination Risk Assessment (available on the Planning Portal) recorded favourable infiltration rates within WS05, located in the north-eastern corner of the site. Elsewhere across the site, the recorded infiltration rates were below 1×10^{-6} m/s and therefore unsuitable for infiltration based drainage.

Whilst the rates recorded in WS05 were favourable, the high groundwater level in this part of the site (as recorded by Soils Ltd) rules out the use of infiltration as a viable means of draining the site. In accordance with the SuDS hierarchy, and given there are no watercourses within the application site that could be connected to, surface water will be attenuated and discharged to the public surface water sewer.

The attenuation crates (located in the eastern half of the site) will be wrapped in an impermeable membrane to ensure groundwater does not enter the surface water drainage network.

Surface Water Drainage Strategy

The proposed surface water drainage strategy has been amended to address the previous comments from the LLFA. In summary, the following changes have been made:

- Access road drainage has been included. Gullies are shown on the drainage strategy.
- A proprietary treatment manhole is shown at manhole MH06.
- The surface water pumping station is not part of the accompanying Infodrainage calculations and has been modelled separately to the proposed hydrobrake.
- 95% porosity has been used for the attenuation storage crates.
- Indicative FFLs have been shown.

The pollution mitigation indices for the proposed treatment manhole are as follows:

- | | | |
|--------------------------|---|-----|
| • Total Suspended Solids | - | 0.8 |
| • Total Metals | - | 0.8 |
| • Hydrocarbons | - | 0.7 |

The treatment manhole will therefore provide adequate levels of surface water treatment, prior to discharge to the public sewer.

The amended surface water drainage strategy is enclosed, along with the accompanying Infodrainage analysis.

Conclusion

The additional information requested by the LLFA has been provided and it has been demonstrated that the proposal accords with the NPPF, PPG and the non-statutory technical standards. I trust that the information provided within this letter will allow the LLFA to issue a positive recommendation for the proposed development.

Yours sincerely

[Redacted Signature]

Matt Twinberrow BEng. MCIHT
Associate Director
(matttwinberrow@bellamyroberts.co.uk)

Enclosed:

1. LLFA Consultation Comments (23rd June 2025)
2. Groundwater Monitoring Results (Soils Ltd)
3. Surface Water Drainage Strategy (6096/101 rev. E)
4. Infodrainage Analysis

ENCLOSURES

ENCLOSURE 1



Hampshire County Council

Universal Services
The Castle
Winchester, Hampshire SO23 8UD

Tel: 0300 555 1375
Fax 01962 847055
www.hants.gov.uk

Enquiries to	Scott Glover	My reference	SWM/2025/0033
Direct Line		Your reference	APP/24/01010
Date	23 June 2025	Email	swm.consultee@hants.gov.uk

Dear Sir/Madam,

Proposed employment development, with associated access, parking, yards and landscaping. at Interbridges Site, New Brighton Road, Emsworth (Application No. APP/24/01010)

Hampshire County Council as Lead Local Flood Authority has provided comments in relation to the above application in our role as statutory consultee on surface water drainage for major developments.

This response does not reflect the position of Hampshire County Council as the Highway Authority. If there is a potential for the drainage features to be offered for adoption, this will need to be discussed separately with Highways development planning as they might not be considered acceptable by the Highway Authority.

In order to assist applicants in providing the correct information to their Local Planning Authority for planning permission, Hampshire County Council has set out the information it requires to provide a substantive response at <https://www.hants.gov.uk/landplanningandenvironment/environment/flooding/planning>

HCC as LLFA were consulted previously on this application and provided comments in our letters dated 10th February 2025 and 17th April 2025. We have been reconsulted following receipt of updated information.

The County Council has reviewed the following additional documents relating to the above application:

- Letter to LLFA – MT/6096 Bellamy Roberts 20th May 2025

Director of Universal Services
Patrick Blogg

- Revised Flood Risk Assessment MT/6096/FRA.3 Issue 3 Bellamy Roberts 9th May 2025

Following review of the above document HCC as LLFA has the following comments:

The Flood Risk mapping has been updated to reflect the latest Environment Agency data. The updated fluvial flood risk maps have been overlaid on a site plan in appendix 8 of the above updated flood risk assessment. This shows that part of Block A, the whole of Block B, and significant areas of service yard / parking areas / access road are all located in identified areas of flood risk. As explained in our previous comments, development should be located outside of areas of flood risk and if development is proposed in these areas, flood compensation areas will be required and details on how the topography will be altered to ensure new development is not at risk. Modelling may also be required to support this. As the identified flood risk is from rivers, the Environment Agency will be able to provide further advice.

The proposed attenuation tank is also partially within the area of fluvial flood risk and fully below the peak flood level. Our understanding is that in the event of a river flood the surface water drainage network would be inundated and would not function. In this event without a functioning surface water drainage system, the discharge from the site would exceed the existing greenfield runoff rate and the downstream flood risk would be increased.

In the event of river flooding, the proposed drainage network would collect the flood water via the gullies, permeable paving, pipes and tank and the pump would activate, pumping river flood water into the public surface water sewer. The Water Authority are best placed to comment on this risk, but we assume this arrangement would not be acceptable.

A response from Southern Water dated 02 April 2025 has been included in the enclosures of the above letter. We note the Water Authority have confirmed adequate capacity in the existing surface water sewer. The Water Authority also require that the hierarchy for surface water as explained in their letter is followed. The LLFA also require that the hierarchy of preferred drainage discharge options is followed as described in the NPPF and other statutory regulations and non-statutory guidance. As explained in our previous letters we consider that the hierarchy has not been adhered to and therefore cannot agree with the proposed discharge point at this stage.

We previously requested further groundwater monitoring data covering the winter peak. Following review of the submitted data collected in May 2024 including the plan showing the location of the boreholes, we still have concerns that the peak may not have been recorded and that potentially high groundwater levels may enter the surface water drainage network. As with river flood water, any groundwater entering the surface water drainage network would be pumped into the public sewer. As stated in our previous

responses our recommendation is that winter groundwater monitoring should be requested before planning permission is granted.

The applicants previous response to our comments relating to the access road drainage have not been incorporated into the drainage strategy layout or the updated flood risk assessment. Gullies are not shown. The proprietary treatment device is not shown or included in the water quality assessment. The proposed drainage system will not provide adequate levels of surface water treatment prior to discharge to the public sewer without the proprietary treatment device recommended in the designers previous letter dated 13th March 2025.

The routing of the permeable paving perforated pipes is now shown on the drainage strategy drawing. We note the modelled maximum water level in the attenuation tank is close to the existing ground level in the corner of Yard B. Our assessment is that the most likely point of flood emergence in a surface water exceedance event is through the surface of the permeable paving.

Hydraulic calculations have been revised. We note the pump is still modelled as a hydrobrake, please refer to our previous comments. We note 100% porosity has been used in attenuation crates which is not representative of these products.

We previously requested an external levels plan to include proposed finished floor levels. We note this has not been provided as levels have not yet been designed. We advise that surface water drainage and flood risk management should be key considerations of the levels design. External levels are required to assess flood risk and surface water flow routes.

We consider that our previous comments have not been adequately addressed and that the proposed drainage strategy is not appropriate for the site. We have particular concerns regarding the proposed drainage strategy in relation to building in areas of identified flood risk and the proposed discharge location. A suitable surface water drainage strategy and appropriate flood risk management have not been demonstrated.

Due to the nature of our concerns, we are not satisfied that flood risk has been assessed appropriately or a suitable surface water drainage strategy proposed. We would advise to the Local Planning Authority that planning permission is not granted until these matters are resolved.

As a statutory consultee, the County Council has a duty to respond to consultations within **21 days**. The 21 day period will not begin until we have received sufficient information to enable us to provide a meaningful response.

Please ensure all data is sent to us via the relevant Local Planning Authority.

If you require additional guidance on providing the correct information, we recommend you use our **Surface Water Management Pre-application service** which will enable discussions with the reviewing engineer and scope out works that would address the points raised. For full details, please visit:

<https://www.hants.gov.uk/landplanningandenvironment/environment/flooding/planning> and click on [pre-application advice request form](#).

This response has been provided using the best knowledge and information submitted by the applicant as part of the planning application at the time of responding and is reliant on the accuracy of that information.

Yours faithfully,



Flood and Water Management Team
Hampshire County Council,
The Castle, Winchester, Hampshire SO23 8UD
Web:

<https://www.hants.gov.uk/landplanningandenvironment/environment/flooding>

General guidance for the application

It is important to ensure that the long-term maintenance and responsibility for Sustainable Drainage Systems is agreed between the Local Planning Authority and the applicant before planning permission is granted. This should involve discussions with those adopting and/or maintaining the proposed systems, which could include the Highway Authority, Planning Authority, Parish Councils, Water Companies and private management companies.

For SuDS systems to be adopted by Hampshire Highways it is recommended that you visit the website at:

<https://www.hants.gov.uk/transport/developers/constructionstandards> for guidance on which drainage features would be suitable for adoption.

Where the proposals are connecting to an existing drainage system it is likely that the authorities responsible for maintaining those systems will have their own design requirements. These requirements will need to be reviewed and agreed as part of any surface water drainage scheme.

Works in relation to ordinary watercourses

PLEASE NOTE: *If the proposals include works to an ordinary watercourse, under the Land Drainage Act 1991, as amended by the Flood and Water*

Management Act 2010, prior consent from the Lead Local Flood Authority is required. **This consent is required as a separate permission to planning.**

Information on ordinary watercourse consenting can be found at the following link

<https://www.hants.gov.uk/landplanningandenvironment/environment/flooding/c/hangewatercourse>

It is strongly recommended that this information is reviewed before Land Drainage consent application is made.

For guidance on providing the correct information, we recommend you use our **Ordinary Watercourse Consents Pre-application service** and help avoid delays occurring at the formal application stage. A Pre-application service for Ordinary Watercourse Consents is available, allowing consents to go through in a smoother, often more timely manner. For full information please visit:

<https://www.hants.gov.uk/landplanningandenvironment/environment/flooding/c/hangewatercourse>

ENCLOSURE 2

North Street

Emsworth, Hampshire PO10 7PP

Legend

- WSDP + Install
- Site Area



Job Number:	22138
Site Name:	North Street
BH/WS ID:	WS1
Date:	23/10/2025
Start Time:	11:20:00 AM

Gas Monitor:*	Gas Data GFM 435 11555	or	Gas Data GFM 435 13571
PID:*	Watchgas Poli 1	or	Watchgas Poli 2
Dip meter:		or	Single Phase

Weather				
Wind			Moderate	
Cloud Cover			Cloudy	
Precipitation			Moderate	
Ground Conditions			Wet	

Step 3	
Depth to Water (m bgl)	Base of Hole (m bgl)
3.45	4.92

Step 1				
Monitoring interval		Flow L/hr	Dp Pa	SP mB
Borehole measurement	00:00:05			
	00:00:30			
	00:01:00			
	00:02:00			
	00:03:00			
	00:04:00			
	00:05:00			
	00:06:00			
	00:07:00			
	00:08:00			
	00:09:00			
	00:10:00			
00:11:00				

Step 2											
Monitoring interval		CH ₄ % v/v	CO ₂ % v/v	O ₂ % v/v	LEL CH ₄ %	H2S ppm	Co ppm	Ap mB	VOC (PPM)	Temp (°C)	
Atmosphere											
Borehole measurement	00:00:05										
	00:00:30										
	00:01:00										
	00:02:00										
	00:03:00										
	00:04:00										
	00:05:00										
	00:06:00										
	00:07:00										
	00:08:00										
	00:09:00										
	00:10:00										

Samples		Notes;
1 Litre Plastic		
1 Litre Glass		
40ml Vial		
Gas sample (Tedlar bag)		
		ONE HOLE PER SHEET. PLEASE RECORD GAS CONCENTRATIONS AT INTERVALS INDICATED ON THE SHEET OR UNTIL THE READINGS STABILISE.

Job Number:	22138
Site Name:	North Street
BH/WS ID:	WS2
Date:	23/10/2025
Start Time:	11:30:00 AM

Gas Monitor:*	Gas Data GFM 435 11555	or	Gas Data GFM 435 13571
PID:*	Watchgas Poli 1	or	Watchgas Poli 2
Dip meter:		or	Single Phase

Weather				
Wind			Moderate	
Cloud Cover			Cloudy	
Precipitation			Moderate	
Ground Conditions			Wet	

Step 3	
Depth to Water (m bgl)	Base of Hole (m bgl)
4.06	4.95

Step 1				Step 2									
Monitoring interval	Flow L/hr	Dp Pa	SP mB	Monitoring interval	CH ₄ % v/v	CO ₂ % v/v	O ₂ % v/v	LEL CH ₄ %	H ₂ S ppm	Co ppm	Ap mB	VOC (PPM)	Temp (°C)
Borehole measurement	00:00:05			Atmosphere									
	00:00:30			Borehole measurement	00:00:05								
	00:01:00				00:00:30								
	00:02:00				00:01:00								
	00:03:00				00:02:00								
	00:04:00				00:03:00								
	00:05:00				00:04:00								
	00:06:00				00:05:00								
	00:07:00				00:06:00								
	00:08:00				00:07:00								
	00:09:00				00:08:00								
	00:10:00				00:09:00								
	00:11:00				00:10:00								

Samples		Notes;
1 Litre Plastic		
1 Litre Glass		
40ml Vial		
Gas sample (Tedlar bag)		
		ONE HOLE PER SHEET. PLEASE RECORD GAS CONCENTRATIONS AT INTERVALS INDICATED ON THE SHEET OR UNTIL THE READINGS STABILISE.

Job Number:	22138
Site Name:	North Street
BH/WS ID:	WS1
Date:	26/11/2025
Start Time:	11:00:00 AM

Gas Monitor:*	Gas Data GFM 435 11555	or	Gas Data GFM 435 13571
PID:*	Watchgas Poli 1	or	Watchgas Poli 2
Dip meter:*	Dual phase	or	Single Phase

Weather	* Delete as appropriate			
Wind	Still			
Cloud Cover		Light		
Precipitation	Dry			
Ground Conditions			Wet	

Step 3	
Depth to Water (m bgl)	Base of Hole (m bgl)
2.18	4.90

Step 1				
Monitoring interval		Flow L/hr	Dp Pa	SP mB
Borehole measurement	00:00:05			
	00:00:30			
	00:01:00			
	00:02:00			
	00:03:00			
	00:04:00			
	00:05:00			
	00:06:00			
	00:07:00			
	00:08:00			
	00:09:00			
	00:10:00			
00:11:00				

Step 2											
Monitoring interval		CH ₄ % v/v	CO ₂ % v/v	O ₂ % v/v	LEL CH ₄ %	H2S ppm	Co ppm	Ap mB	VOC (PPM)	Temp (°C)	
Atmosphere											
Borehole measurement	00:00:05										
	00:00:30										
	00:01:00										
	00:02:00										
	00:03:00										
	00:04:00										
	00:05:00										
	00:06:00										
	00:07:00										
	00:08:00										
	00:09:00										
	00:10:00										

Samples		Notes;
1 Litre Plastic		
1 Litre Glass		
40ml Vial		
Gas sample (Tedlar bag)		
		ONE HOLE PER SHEET. PLEASE RECORD GAS CONCENTRATIONS AT INTERVALS INDICATED ON THE SHEET OR UNTIL THE READINGS STABILISE.

Job Number:	22138
Site Name:	North Street
BH/WS ID:	WS2
Date:	26/11/2025
Start Time:	11:00:00 AM

Gas Monitor:*	Gas Data GFM 435 11555	or	Gas Data GFM 435 13571
PID:*	Watchgas Poli 1	or	Watchgas Poli 2
Dip meter:*	Dual phase	or	Single Phase

Weather	* Delete as appropriate			
Wind	Still			
Cloud Cover		Light		
Precipitation	Dry			
Ground Conditions			Wet	

Step 3	
Depth to Water (m bgl)	Base of Hole (m bgl)
0.54	4.95

Step 1				
Monitoring interval		Flow L/hr	Dp Pa	SP mB
Borehole measurement	00:00:05			
	00:00:30			
	00:01:00			
	00:02:00			
	00:03:00			
	00:04:00			
	00:05:00			
	00:06:00			
	00:07:00			
	00:08:00			
	00:09:00			
	00:10:00			
00:11:00				

Step 2											
Monitoring interval		CH ₄ % v/v	CO ₂ % v/v	O ₂ % v/v	LEL CH ₄ %	H2S ppm	Co ppm	Ap mB	VOC (PPM)	Temp (°C)	
Atmosphere											
Borehole measurement	00:00:05										
	00:00:30										
	00:01:00										
	00:02:00										
	00:03:00										
	00:04:00										
	00:05:00										
	00:06:00										
	00:07:00										
	00:08:00										
	00:09:00										
	00:10:00										

Samples		Notes;
1 Litre Plastic		
1 Litre Glass		
40ml Vial		
Gas sample (Tedlar bag)		
		ONE HOLE PER SHEET. PLEASE RECORD GAS CONCENTRATIONS AT INTERVALS INDICATED ON THE SHEET OR UNTIL THE READINGS STABILISE.

Job Number:	22138
Site Name:	North Street
BH/WS ID:	WS1
Date:	12/12/2025
Start Time:	1:35:00 PM

Gas Monitor:*	Gas Data GFM 435 11555	or	Gas Data GFM 435 13571
PID:*	Watchgas Poli 1	or	Watchgas Poli 2
Dip meter:*	Dual phase	or	Single Phase

Weather	* Delete as appropriate			
Wind		Light		
Cloud Cover			Cloudy	
Precipitation	Dry			
Ground Conditions				Flooded

Step 3	
Depth to Water (m bgl)	Base of Hole (m bgl)
4.57	4.92

Step 1				
Monitoring interval		Flow L/hr	Dp Pa	SP mB
Borehole measurement	00:00:05			
	00:00:30			
	00:01:00			
	00:02:00			
	00:03:00			
	00:04:00			
	00:05:00			
	00:06:00			
	00:07:00			
	00:08:00			
	00:09:00			
	00:10:00			
00:11:00				

Step 2											
Monitoring interval		CH ₄ % v/v	CO ₂ % v/v	O ₂ % v/v	LEL CH ₄ %	H2S ppm	Co ppm	Ap mB	VOC (PPM)	Temp (°C)	
Atmosphere										12	
Borehole measurement	00:00:05										
	00:00:30										
	00:01:00										
	00:02:00										
	00:03:00										
	00:04:00										
	00:05:00										
	00:06:00										
	00:07:00										
	00:08:00										
	00:09:00										
	00:10:00										

Samples		Notes;
1 Litre Plastic		
1 Litre Glass		
40ml Vial		
Gas sample (Tedlar bag)		
		ONE HOLE PER SHEET. PLEASE RECORD GAS CONCENTRATIONS AT INTERVALS INDICATED ON THE SHEET OR UNTIL THE READINGS STABILISE.

Job Number:	22138
Site Name:	North Street
BH/WS ID:	WS2
Date:	12/12/2025
Start Time:	1:30:00 PM

Gas Monitor:*	Gas Data GFM 435 11555	or	Gas Data GFM 435 13571
PID:*	Watchgas Poli 1	or	Watchgas Poli 2
Dip meter:*	Dual phase	or	Single Phase

Weather	* Delete as appropriate			
Wind			Moderate	
Cloud Cover			Cloudy	
Precipitation	Dry			
Ground Conditions			Wet	

Step 3	
Depth to Water (m bgl)	Base of Hole (m bgl)
0.47	4.92

Step 1				Step 2									
Monitoring interval	Flow L/hr	Dp Pa	SP mB	Monitoring interval	CH ₄ % v/v	CO ₂ % v/v	O ₂ % v/v	LEL CH ₄ %	H ₂ S ppm	Co ppm	Ap mB	VOC (PPM)	Temp (°C)
Borehole measurement	00:00:05			Atmosphere									12
	00:00:30			Borehole measurement	00:00:05								
	00:01:00				00:00:30								
	00:02:00				00:01:00								
	00:03:00				00:02:00								
	00:04:00				00:03:00								
	00:05:00				00:04:00								
	00:06:00				00:05:00								
	00:07:00				00:06:00								
	00:08:00				00:07:00								
	00:09:00				00:08:00								
	00:10:00				00:09:00								
	00:11:00				00:10:00								

Samples		Notes;
1 Litre Plastic		
1 Litre Glass		
40ml Vial		
Gas sample (Tedlar bag)		
		ONE HOLE PER SHEET. PLEASE RECORD GAS CONCENTRATIONS AT INTERVALS INDICATED ON THE SHEET OR UNTIL THE READINGS STABILISE.

Job Number:	22138
Site Name:	North Street
BH/WS ID:	WS1
Date:	21/01/2026
Start Time:	2:22:00 PM

Gas Monitor:*	Gas Data GFM 435 11555	or	Gas Data GFM 435 13571
PID:*	Watchgas Poli 1	or	Watchgas Poli 2
Dip meter:*	Dual phase	or	Single Phase

Weather	* Delete as appropriate			
Wind		Light		
Cloud Cover				Overcast
Precipitation	Dry			
Ground Conditions			Wet	

Step 3	
Depth to Water (m bgl)	Base of Hole (m bgl)
4.10	4.93

Step 1				
Monitoring interval		Flow L/hr	Dp Pa	SP mB
Borehole measurement	00:00:05			
	00:00:30			
	00:01:00			
	00:02:00			
	00:03:00			
	00:04:00			
	00:05:00			
	00:06:00			
	00:07:00			
	00:08:00			
	00:09:00			
	00:10:00			
00:11:00				

Step 2											
Monitoring interval		CH ₄ % v/v	CO ₂ % v/v	O ₂ % v/v	LEL CH ₄ %	H2S ppm	Co ppm	Ap mB	VOC (PPM)	Temp (°C)	
Atmosphere										10	
Borehole measurement	00:00:05										
	00:00:30										
	00:01:00										
	00:02:00										
	00:03:00										
	00:04:00										
	00:05:00										
	00:06:00										
	00:07:00										
	00:08:00										
	00:09:00										
	00:10:00										

Samples		Notes;
1 Litre Plastic		
1 Litre Glass		
40ml Vial		
Gas sample (Tedlar bag)		
		ONE HOLE PER SHEET. PLEASE RECORD GAS CONCENTRATIONS AT INTERVALS INDICATED ON THE SHEET OR UNTIL THE READINGS STABILISE.

Job Number:	22138
Site Name:	North Street
BH/WS ID:	WS2
Date:	21/01/2026
Start Time:	2:23:00 PM

Gas Monitor:*	Gas Data GFM 435 11555	or	Gas Data GFM 435 13571
PID:*	Watchgas Poli 1	or	Watchgas Poli 2
Dip meter:*	Dual phase	or	Single Phase

Weather	* Delete as appropriate			
Wind		Light		
Cloud Cover				Overcast
Precipitation	Dry			
Ground Conditions				Flooded

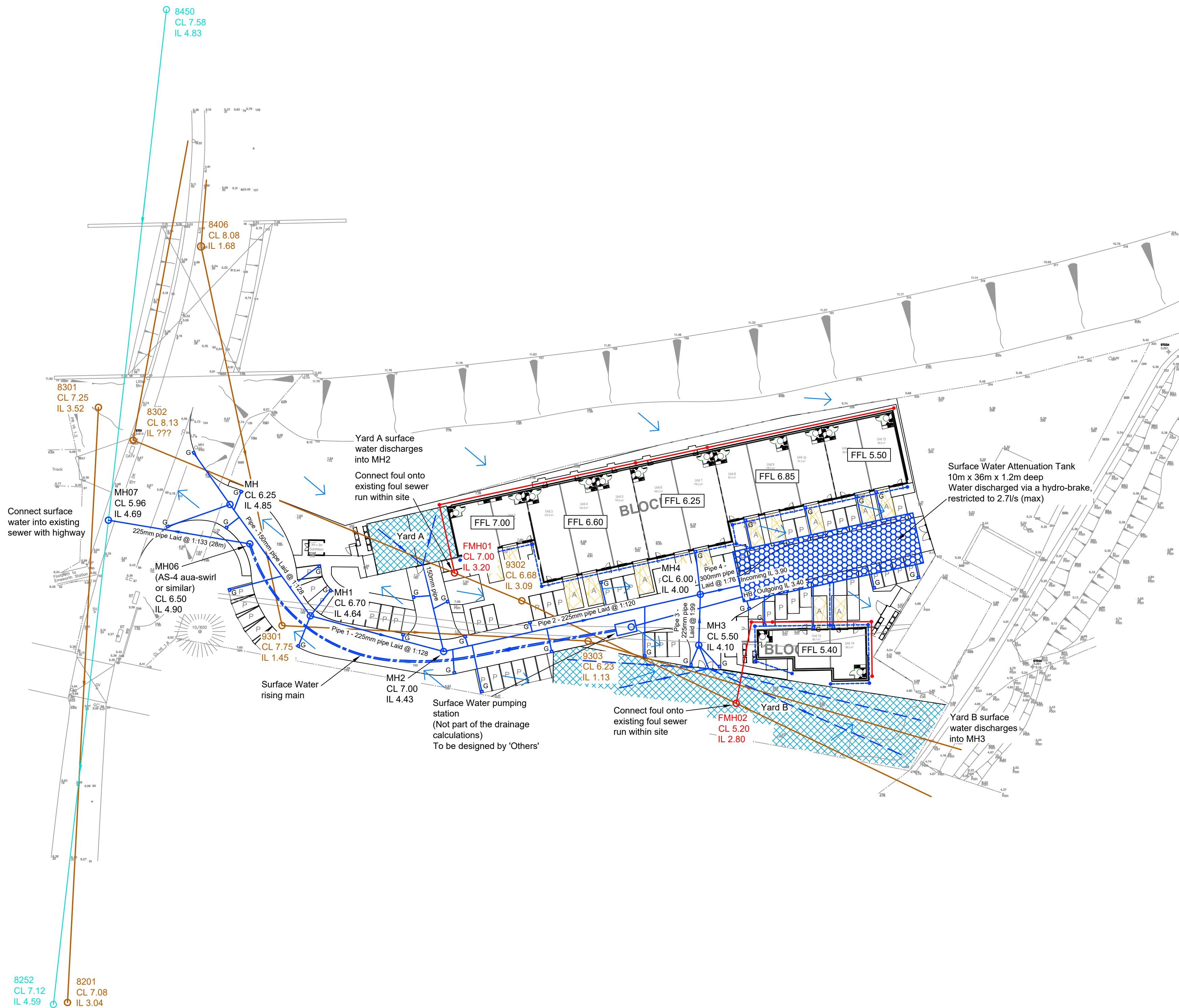
Step 3	
Depth to Water (m bgl)	Base of Hole (m bgl)
0.17	4.92

Step 1				
Monitoring interval		Flow L/hr	Dp Pa	SP mB
Borehole measurement	00:00:05			
	00:00:30			
	00:01:00			
	00:02:00			
	00:03:00			
	00:04:00			
	00:05:00			
	00:06:00			
	00:07:00			
	00:08:00			
	00:09:00			
	00:10:00			
00:11:00				

Step 2											
Monitoring interval		CH ₄ % v/v	CO ₂ % v/v	O ₂ % v/v	LEL CH ₄ %	H2S ppm	Co ppm	Ap mB	VOC (PPM)	Temp (°C)	
Atmosphere										10	
Borehole measurement	00:00:05										
	00:00:30										
	00:01:00										
	00:02:00										
	00:03:00										
	00:04:00										
	00:05:00										
	00:06:00										
	00:07:00										
	00:08:00										
	00:09:00										
	00:10:00										

Samples		Notes; <
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ENCLOSURE 3



Notes

Do not scale this drawing

This drawing shall be read in conjunction with all other relevant Engineering, Architectural, Landscaping details, drawings and specifications and all relevant Highway Authority Plans

Any works constructed prior to technical approval are at the contractors own risk

Yards A and B are to be permeable block paving depth by design, shallow infiltration

Deep infiltration for the remainder of the site is not expected, cellular storage is being suggested, with the capacity storing the surface water runoff from a total impermeable area of; 4330m²

Discharged into a nearby surface water sewer via a surface water pumping station at controlled rates of;

1:1yr - 1.3 l/s

1:30yr - 2.3 l/s

1:100yr - 2.7 l/s

All surface water drainage pipes to be lightweight HDPE pipes or similar to comply with HAPAS BBA, 100mmØ unless otherwise stated

All foul sewer pipes to be PVC or similar material, 150mmØ unless otherwise stated

Proposed foul sewer

Existing foul sewer

Surface water sewer

Surface water raising main

Existing water sewer

Surface water cellular storage crates

HB

Hydro-brake flow control device

G

Gully (subject to change following detailed design of levels design)

Permeable block paving (yard areas)

Overland surface water exceedance flow paths

FFL 5.40

Indicative FFL's

ENCLOSURE 4

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096		Date: 06/08/2025			
Report Details: Type: Junctions Storm Phase: Phase		Designed by: JCB	Checked by: MT		Approved By: MT
		Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU			

Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
Manhole	Manhole	1485.357	1310.404	6.250	1.400	4.850	Circular	1.200
Manhole (1)	Manhole	1501.082	1288.622	6.700	2.060	4.640	Circular	1.200
Manhole (2)	Manhole	1527.147	1281.641	7.000	2.570	4.430	Circular	1.200
Manhole (3)	Manhole	1577.350	1292.824	6.000	2.000	4.000	Circular	1.200
Manhole (4)	Manhole	1577.043	1282.887	5.500	1.400	4.100	Circular	1.200

Name	Lock
Manhole	None
Manhole (1)	None
Manhole (2)	None
Manhole (3)	None
Manhole (4)	None

Inlets

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
Manhole	Inlet	Catchment Area	(None)	No Restriction
Manhole (1)	Inlet	Pipe	(None)	No Restriction
	Inlet (1)	Catchment Area (5)	(None)	No Restriction
Manhole (2)	Inlet	Pipe (1)	(None)	No Restriction
	Inlet (1)	Catchment Area (4)	(None)	No Restriction
Manhole (3)	Inlet	Pipe (2) Pipe (3)	(None)	No Restriction
	Inlet (1)	Catchment Area (1)	(None)	No Restriction
Manhole (4)	Inlet	Catchment Area (3)	(None)	No Restriction

Outlets

Junction	Outlet Name	Outgoing Connection	Outlet Type
Manhole	Outlet	Pipe	Free Discharge
Manhole (1)	Outlet	Pipe (1)	Free Discharge
Manhole (2)	Outlet	Pipe (2)	Free Discharge
Manhole (3)	Outlet	Pipe (4)	Free Discharge
Manhole (4)	Outlet	Pipe (3)	Free Discharge

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096	Date: 06/08/2025		
	Designed by: JCB	Checked by: MT	Approved By: MT
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU		



Cellular Storage

Type : Cellular Storage

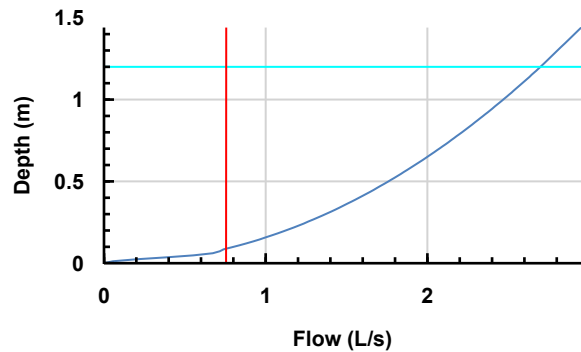
Dimensions

Exceedance Level (m)	5.200
Depth (m)	1.200
Base Level (m)	3.400
Number of Crates Long	36
Number of Crates Wide	10
Number of Crates High	3
Porosity (%)	95
Crate Length (m)	1
Crate Width (m)	1
Crate Height (m)	0.4
Total Volume (m³)	411.000

Outlets

Outlet

Outgoing Connection	(None)
Outlet Type	Hydro-Brake®
Invert Level (m)	3.400
Design Depth (m)	1.200
Design Flow (L/s)	2.7
Objective	Linear Discharge Profile
Application	Surface Water Only
Sump Available	☐
Unit Reference	CCU-0049-2700-1200-2700



Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096		Date: 06/08/2025			
Report Details: Type: Connections Storm Phase: Phase		Designed by: JCB	Checked by: MT		Approved By: MT
		Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU			

Name	Length (m)	Connection Type	Slope (1:X)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)	Upstream Cover Level (m)	Upstream Invert Level (m)
Pipe	26.865	Pipe	127.931		0.6	150	6.250	4.850
Pipe (1)	26.983	Pipe	128.490		0.6	225	6.700	4.640
Pipe (2)	51.434	Pipe	119.614		0.6	225	7.000	4.430
Pipe (3)	9.941	Pipe	99.410		0.6	225	5.500	4.100
Pipe (4)	15.204	Pipe	76.020		0.6	300	6.000	4.000

Name	Downstream Cover Level (m)	Downstream Invert Level (m)	Lock	Velocity (m/s)	Time Of Travel (mins)
Pipe	6.700	4.640	None		
Pipe (1)	7.000	4.430	None		
Pipe (2)	6.000	4.000	None		
Pipe (3)	6.000	4.000	None		
Pipe (4)	5.200	3.800	Levels		

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096		Date: 06/08/2025			
Report Details: Type: Inflow Summary Storm Phase: Phase		Designed by: JCB	Checked by: MT		Approved By: MT
		Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU			

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Catchment Area	Manhole		Time of Concentration	0.011	100	0	100	0.011
Catchment Area (1)	Manhole (3)		Time of Concentration	0.093	100	0	100	0.093
Catchment Area (2)	Cellular Storage		Time of Concentration	0.247	100	0	100	0.247
Catchment Area (3)	Manhole (4)		Time of Concentration	0.107	100	0	100	0.107
Catchment Area (4)	Manhole (2)		Time of Concentration	0.059	100	0	100	0.059
Catchment Area (5)	Manhole (1)		Time of Concentration	0.035	100	0	100	0.035
TOTAL		0.0		0.552				0.552

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096	Date: 06/08/2025		
	Designed by: JCB	Checked by: MT	Approved By: MT
Report Title: Rainfall Analysis Criteria	Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU		



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	☐

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096		Date: 06/08/2025			
Report Details: Type: Inflows Summary Storm Phase: Phase		Designed by: JCB	Checked by: MT		Approved By: MT
		Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU			



FSR: 1 years: Increase Rainfall (%): +0: 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: 1 years: +0 %: 15 mins: Summer	0.01	1.4	0.606
Catchment Area (1)	FSR: 1 years: +0 %: 15 mins: Summer	0.09	11.7	5.113
Catchment Area (2)	FSR: 1 years: +0 %: 15 mins: Summer	0.25	31.0	13.576
Catchment Area (3)	FSR: 1 years: +0 %: 15 mins: Summer	0.11	13.4	5.878
Catchment Area (4)	FSR: 1 years: +0 %: 15 mins: Summer	0.06	7.4	3.242
Catchment Area (5)	FSR: 1 years: +0 %: 15 mins: Summer	0.04	4.4	1.925

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096		Date: 06/08/2025			
Report Details: Type: Inflows Summary Storm Phase: Phase		Designed by: JCB	Checked by: MT		Approved By: MT
		Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU			



FSR: 30 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: 30 years: +35 %: 15 mins: Summer	0.01	4.6	2.003
Catchment Area (1)	FSR: 30 years: +35 %: 15 mins: Summer	0.09	38.7	16.915
Catchment Area (2)	FSR: 30 years: +35 %: 15 mins: Summer	0.25	102.9	44.925
Catchment Area (3)	FSR: 30 years: +35 %: 15 mins: Summer	0.11	44.6	19.459
Catchment Area (4)	FSR: 30 years: +35 %: 15 mins: Summer	0.06	24.6	10.731
Catchment Area (5)	FSR: 30 years: +35 %: 15 mins: Summer	0.04	14.6	6.364

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096		Date: 06/08/2025			
Report Details: Type: Inflows Summary Storm Phase: Phase		Designed by: JCB	Checked by: MT		Approved By: MT
		Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU			



FSR: 100 years: Increase Rainfall (%): +45: 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: +45 %: 15 mins: Summer	0.01	6.2	2.799
Catchment Area (1)	FSR: 100 years: +45 %: 15 mins: Summer	0.09	52.6	23.641
Catchment Area (2)	FSR: 100 years: +45 %: 15 mins: Summer	0.25	139.8	62.791
Catchment Area (3)	FSR: 100 years: +45 %: 15 mins: Summer	0.11	60.6	27.203
Catchment Area (4)	FSR: 100 years: +45 %: 15 mins: Summer	0.06	33.4	14.999
Catchment Area (5)	FSR: 100 years: +45 %: 15 mins: Summer	0.04	19.8	8.898

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096		Date: 06/08/2025			
Report Details: Type: Junctions Summary Storm Phase: Phase		Designed by: JCB	Checked by: MT		Approved By: MT
		Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU			



FSR: 1 years: Increase Rainfall (%): +0: 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
Manhole	FSR: 1 years: +0 %: 15 mins: Summer	6.250	4.850	4.879	0.029	1.4	0.032	0.000	1.3	0.602	OK
Manhole (1)	FSR: 1 years: +0 %: 15 mins: Summer	6.700	4.640	4.691	0.051	5.7	0.058	0.000	5.2	2.521	OK
Manhole (2)	FSR: 1 years: +0 %: 15 mins: Summer	7.000	4.430	4.505	0.075	12.6	0.085	0.000	11.4	5.736	OK
Manhole (3)	FSR: 1 years: +0 %: 15 mins: Summer	6.000	4.000	4.114	0.114	36.2	0.129	0.000	33.7	16.691	OK
Manhole (4)	FSR: 1 years: +0 %: 15 mins: Summer	5.500	4.100	4.185	0.085	13.4	0.096	0.000	13.1	5.875	OK

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096		Date: 06/08/2025			
Report Details: Type: Junctions Summary Storm Phase: Phase		Designed by: JCB	Checked by: MT		Approved By: MT
		Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU			



FSR: 30 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
Manhole	FSR: 30 years: +35 %: 15 mins: Summer	6.250	4.850	4.904	0.054	4.6	0.061	0.000	4.3	1.999	OK
Manhole (1)	FSR: 30 years: +35 %: 15 mins: Summer	6.700	4.640	4.738	0.098	18.9	0.111	0.000	18.0	8.354	OK
Manhole (2)	FSR: 30 years: +35 %: 15 mins: Summer	7.000	4.430	4.589	0.159	42.6	0.179	0.000	39.4	19.052	OK
Manhole (3)	FSR: 30 years: +35 %: 15 mins: Summer	6.000	4.000	4.268	0.268	121.2	0.303	0.000	115.7	55.371	OK
Manhole (4)	FSR: 30 years: +35 %: 15 mins: Summer	5.500	4.100	4.363	0.263	44.6	0.298	0.000	43.0	19.453	Surcharged

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096		Date: 06/08/2025			
Report Details: Type: Junctions Summary Storm Phase: Phase		Designed by: JCB	Checked by: MT		Approved By: MT
		Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU			



FSR: 100 years: Increase Rainfall (%): +45: 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
Manhole	FSR: 100 years: +45 %: 15 mins: Summer	6.250	4.850	4.916	0.066	6.2	0.074	0.000	5.1	2.889	OK
Manhole (1)	FSR: 100 years: +45 %: 15 mins: Summer	6.700	4.640	4.898	0.258	24.9	0.291	0.000	14.5	11.960	Surcharged
Manhole (2)	FSR: 100 years: +45 %: 15 mins: Summer	7.000	4.430	4.850	0.420	47.9	0.476	0.000	42.2	27.126	Surcharged
Manhole (3)	FSR: 100 years: +45 %: 1440 mins: Winter	6.000	4.000	4.585	0.585	8.9	0.662	0.000	8.7	304.677	Surcharged
Manhole (4)	FSR: 100 years: +45 %: 15 mins: Summer	5.500	4.100	4.646	0.546	60.6	0.618	0.000	57.7	27.222	Surcharged

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096		Date: 06/08/2025			
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Designed by: JCB	Checked by: MT		Approved By: MT
		Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU			



FSR: 1 years: Increase Rainfall (%): +0: 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. Residual Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Status
Cellular Storage	FSR: 1 years: +0 %: 1440 mins: Summer	3.675	3.675	0.275	0.275	6.8	94.053	0.000	0.000	1.2	138.474	754	OK

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096		Date: 06/08/2025			
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Designed by: JCB	Checked by: MT		Approved By: MT
		Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU			



**FSR: 30 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. Residual Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Status
Cellular Storage	FSR: 30 years: +35 %: 1440 mins: Summer	4.239	4.239	0.839	0.839	18.4	286.936	0.000	0.000	2.2	277.199	1303	OK

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096		Date: 06/08/2025			
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Designed by: JCB	Checked by: MT		Approved By: MT
		Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU			



FSR: 100 years: Increase Rainfall (%): +45: 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. Residual Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Status
Cellular Storage	FSR: 100 years: +45 %: 1440 mins: Winter	4.584	4.584	1.184	1.184	15.8	404.897	0.000	0.000	2.5	334.451	1551	OK

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096		Date: 06/08/2025			
Report Details: Type: Connections Summary Storm Phase: Phase		Designed by: JCB	Checked by: MT		Approved By: MT
		Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU			



FSR: 1 years: Increase Rainfall (%): +0: 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
Pipe	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	Manhole	Manhole (1)	6.250	4.879	0.040	0.602	0.3	0.08	1.3	OK
Pipe (1)	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	Manhole (1)	Manhole (2)	6.700	4.691	0.063	2.521	0.6	0.11	5.2	OK
Pipe (2)	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	Manhole (2)	Manhole (3)	7.000	4.505	0.095	5.736	0.7	0.24	11.4	OK
Pipe (3)	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	Manhole (4)	Manhole (3)	5.500	4.185	0.100	5.875	0.8	0.25	13.1	OK
Pipe (4)	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	Manhole (3)	Cellular Storage	6.000	4.114	0.110	16.691	1.4	0.26	33.7	OK

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096		Date: 06/08/2025			
Report Details: Type: Connections Summary Storm Phase: Phase		Designed by: JCB	Checked by: MT		Approved By: MT
		Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU			



FSR: 30 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
Pipe	FSR: 30 years: +35 %: 15 mins: Summer	Pipe	Manhole	Manhole (1)	6.250	4.904	0.076	1.999	0.5	0.28	4.3	OK
Pipe (1)	FSR: 30 years: +35 %: 15 mins: Summer	Pipe	Manhole (1)	Manhole (2)	6.700	4.738	0.128	8.354	0.8	0.39	18.0	OK
Pipe (2)	FSR: 30 years: +35 %: 15 mins: Summer	Pipe	Manhole (2)	Manhole (3)	7.000	4.589	0.213	19.052	1.0	0.83	39.4	OK
Pipe (3)	FSR: 30 years: +35 %: 15 mins: Summer	Pipe	Manhole (4)	Manhole (3)	5.500	4.363	0.225	19.453	1.1	0.82	43.0	Surcharged
Pipe (4)	FSR: 30 years: +35 %: 15 mins: Summer	Pipe	Manhole (3)	Cellular Storage	6.000	4.268	0.245	55.371	1.9	0.91	115.7	OK

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096		Date: 06/08/2025			
Report Details: Type: Connections Summary Storm Phase: Phase		Designed by: JCB	Checked by: MT		Approved By: MT
		Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU			



FSR: 100 years: Increase Rainfall (%): +45: 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
Pipe	FSR: 100 years: +45 %: 15 mins: Winter	Pipe	Manhole	Manhole (1)	6.250	4.912	0.106	2.825	0.4	0.36	5.7	OK
Pipe (1)	FSR: 100 years: +45 %: 30 mins: Summer	Pipe	Manhole (1)	Manhole (2)	6.700	4.738	0.132	15.673	0.8	0.4	18.1	OK
Pipe (2)	FSR: 100 years: +45 %: 15 mins: Summer	Pipe	Manhole (2)	Manhole (3)	7.000	4.850	0.225	27.126	1.1	0.89	42.2	Surcharged
Pipe (3)	FSR: 100 years: +45 %: 15 mins: Summer	Pipe	Manhole (4)	Manhole (3)	5.500	4.646	0.225	27.222	1.5	1.11	57.7	Surcharged
Pipe (4)	FSR: 100 years: +45 %: 15 mins: Summer	Pipe	Manhole (3)	Cellular Storage	6.000	4.475	0.300	77.911	2.1	1.17	149.6	Surcharged

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096	Date: 06/08/2025			
Report Details: Type: Phase Management Storm Phase: Phase	Designed by: JCB	Checked by: MT	Approved By: MT	
	Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU			



Phase
FSR: 1 years: Increase Rainfall (%): +0: 1440 mins: Summer

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
Cellular Storage			1.2	138.474
TOTAL	6.8	150.666	1.2	138.474

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096		Date: 06/08/2025			
Report Details: Type: Phase Management Storm Phase: Phase		Designed by: JCB	Checked by: MT		Approved By: MT
		Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU			



Phase
FSR: 30 years: Increase Rainfall (%): +35: 1440 mins: Summer

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
Cellular Storage			2.2	277.199
TOTAL	18.4	405.382	2.2	277.199

Project: Interbridges, Emsworth Surface Water Drainage Ref: 6096	Date: 06/08/2025		
	Designed by: JCB	Checked by: MT	Approved By: MT
Report Details: Type: Phase Management Storm Phase: Phase	Company Address: Bellamy Roberts Clover House, Western Lane Odiham, Hampshire, RG29 1TU		



Phase
FSR: 100 years: Increase Rainfall (%): +45: 1440 mins: Winter

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
Cellular Storage			2.5	334.413
TOTAL	16.0	547.854	2.5	334.413