

INDURENT, HEYWOOD

PRIMARY SUBSTATION DRAINAGE STRATEGY FOR INDURENT

DOCUMENT CONTROL SHEET

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Project: Heywood

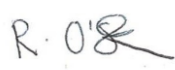
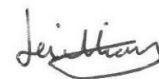
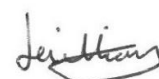
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Document Revision Record

Version Number	Date	
P01	13/06/2025	First Issue
P02	19/06/2025	Updated to suit drainage connection requirements and Planning Prospects comments.
P03	23/06/2025	Appendix A updated

Burrows Graham Limited has prepared this report in accordance with the instructions of the above-named Client for their sole and specific use. Any third parties who may use the information contained herein do so at their own risk.

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1.0– SURFACE WATER DRAINAGE STRATEGY

1.1 – Planning Policy Context

This Substation Outline Drainage Strategy has been developed in due cognisance of all relevant available policy information. It is anticipated that this report will satisfy the requirements of the National Planning Policy Framework (NPPF) and all relevant flood risk planning policies. It has been prepared to support a full planning application for a primary substation within Heywood Distribution Park.

The following documents were reviewed as part of this Substation Outline Drainage Strategy:

- Defra Sustainable Drainage Systems Non-Statutory Technical Standards for Sustainable Drainage Systems (March 2015)
- Environment Agency Climate Change Guidance (February 2016)
- Flood and Water Management Act (April 2010)
- National Planning Policy Framework (Updated December 2024) and Planning Practice Guidance (March 2014)
- Sustainable Drainage Systems Written Statement HCWS161 (December 2014)
- Bury, Rochdale, and Oldham Strategic Flood Risk Assessment (SFRA) Level 2 (October 2020)
- Rochdale Borough Strategy for Flood Risk Management 2014-2024 (March 2014)
- Rochdale Metropolitan Borough Council Preliminary Flood Risk Assessment (PFRA) (May 2011)

1.2 - Disposal of surface water

The method for removal of surface water from the site has been selected in accordance with the hierarchy outlined in Building Regulations Part H as summarised below:

- Infiltration to the ground
- Discharge to a watercourse
- Connection to a surface water sewer
- Connection to a combined sewer

The proposal comprises a compound and hardstanding. The area within the compound is permeable and therefore not considered within the drainage design. It is proposed to discharge the surface water runoff from the hardstanding to an existing manhole within the site which ultimately discharges to Blighty Brook. This mimics the existing situation.

1.3 – General strategy

For details of the Substation Proposed Drainage for the site, reference should be made to the strategy drawing ref: 30042-BGL-XX-XX-DR-C-00301, which has been included in Appendix A of this report.

1.4 – Total site area and impermeable areas

The total drained impermeable area of the proposed development has been measured to be 0.01 hectares.

1.5 – Climate Change and Discharge rates

In line with the latest guidance, a 45% allowance has been made.

The site is considered to be a greenfield development.

The hydrological characteristics for the site have been taken from uksuds.com and summarised in Table 3 below.

Table 3 – Hydrological characteristics for the site

SAAR (mm)	1052
Hydrological region	10
Soil type	4
SPR	0.47

The maximum runoff rate from the developed site will not exceed 5 l/s for all storms up to and including the 1 in 100-year storm plus 45% allowance for climate.

1.6 – Attenuation storage

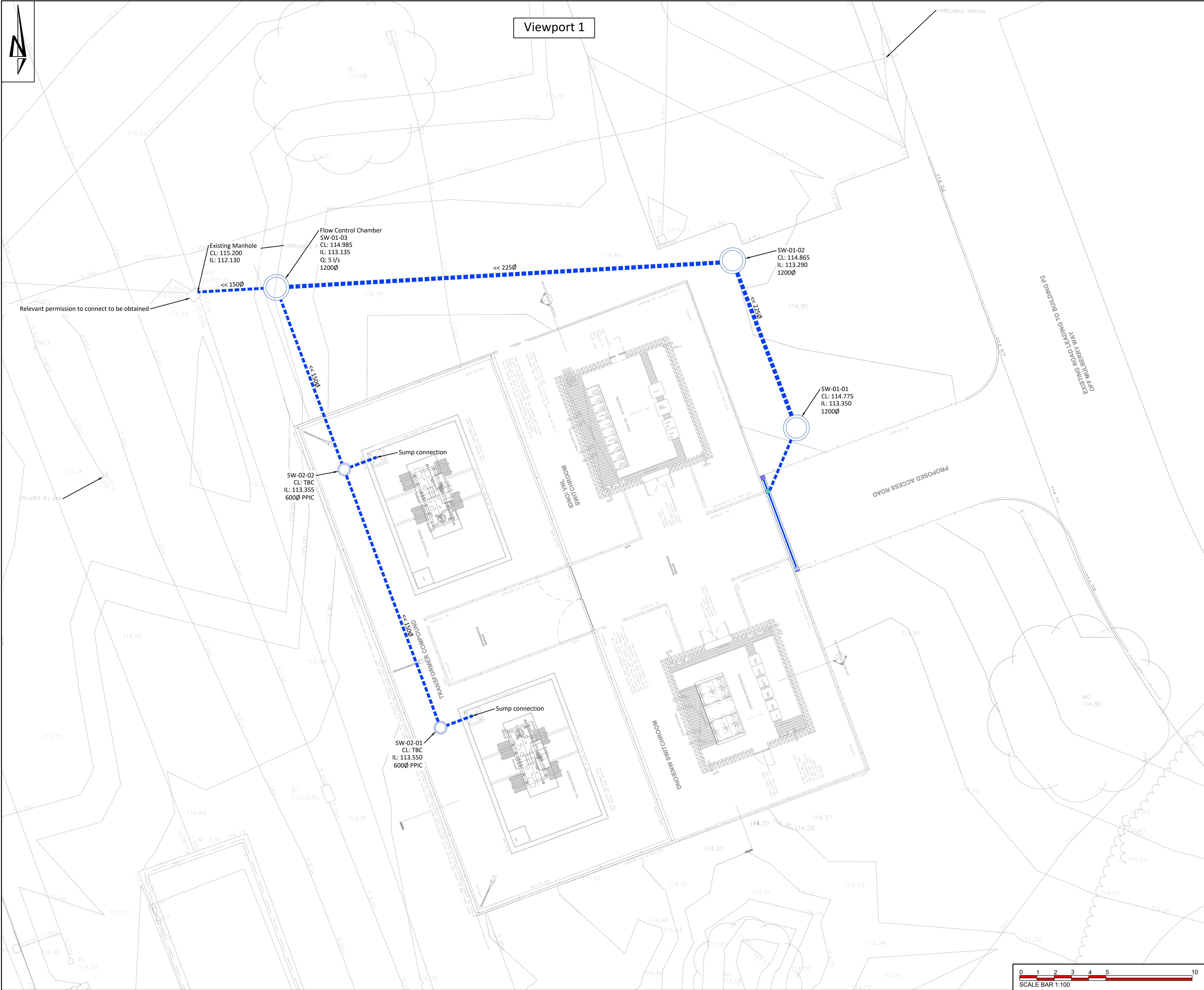
In order to achieve the restriction in peak rate of surface water runoff from the developed site as described above, oversized surface water pipes will be required in order to temporarily store the residual volume of surface water for rainfall events resulting in a peak runoff rate over and above the discharge rate.

The oversized pipes will be designed to ensure that there is no surface water flooding on site for rainfall events up to and including the 1 in 30-year storm event. The oversized pipes will be designed to ensure that surface water runoff for storm events up to and including the 100-year storm plus a 45% allowance will not cause a risk of flooding to properties or increase the flood risk outside of the site.

1.7 – Maintenance

Reference should be made to the Drainage Inspection and Maintenance Schedule in Appendix B, which includes required actions and typical frequencies for all drainage infrastructure serving the development.

The drainage will be managed and maintained by an appointed Management Company.



Viewport 1

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SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING

CONSTRUCTION

MAINTENANCE

DEMOLITION

IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT

GENERAL NOTES:

- This drawing shall be read in conjunction with all the relevant architects, engineers' and service engineers drawings & specifications.
- All units in millimeters U.O.N. on the drawing.
- Do Not Scale off the drawing.
- This drawing is based on SMOP drawing no HYD-SMP-ZZ-00-DR-ME-CCP-004

P03	23.06.2025	RO	Updated to suit latest layout	JW
P02	19.06.2025	RO	Updated to suit drainage connection requirements	RJ
P01	13.06.2025	RO	Preliminary Issue	JW
REV	DATE	BY	DESCRIPTION	CHKD

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CLIENT

PROJECT

HEYWOOD

DRAWING TITLE

SUBSTATION
PROPOSED DRAINAGE

BGL PROJECT NUMBER	DRAWING STATUS	OFFICE	
30042	PRELIMINARY	NORTH	
SCALE @ A1	DATE	DRAWN BY	CHECKED BY
1:100	13.06.2025	RO	JW

DRAWING No	REV
30042-BGL-XX-XX-DR-C-00301	P03

APPENDIX B – DRAINAGE INSPECTION & MAINTENANCE SCHEDULE

Maintenance Schedule	Required Action	Typical Frequency
Below Ground Drainage Pipes, Manholes, etc		
Regular Maintenance	Lift covers and inspect manholes for evidence of debris and silt deposits and evidence of blockages (standing water). Carry out CCTV survey if required. Inspect ditches, trash screens, headwalls etc. and clear debris and silt deposits to avoid restriction to flow.	Quarterly or following significant rainfall events.
Remedial Actions	High pressure jetting and/or remove minor blockages and silt build up	As required – 20% loss of pipe cross-section
	Replace broken access covers, remove major blockages, repair structurally defective pipework	As required
Flow control chamber		
Regular Maintenance	Lift covers and inspect chamber for evidence of debris and silt deposits and evidence of blockages. Test bypass door operating correctly.	Quarterly or following significant rainfall events.
Remedial Actions	High pressure jetting and or remove minor blockages and silt build up	As required
	Replace broken access covers, remove major blockages, repair/replace defective flow control devices	As required
Linear channel drains and gullies		
Regular Maintenance	Lift access covers and inspect for silt/debris accumulation	Quarterly or following significant rainfall events.
Remedial Actions	Replace broken access covers, gratings	Annually
	High pressure jetting and/or remove minor blockages and silt build up	As required