



GENERAL NOTES:

- This drawing is to be read in conjunction with all relevant architects and engineers drawings and specifications.
- Do not scale this drawing. any ambiguities, omissions and errors on drawings shall be brought to the engineers attention immediately. All dimensions must be checked / verified on site.
- All dimensions are in metres unless noted otherwise.
- For general notes refer to drawing and 92001.

KEY:

Surface water private drain

Surface water flow control

BD IL ##

Incoming backdrop IL

Rainwater pipe

Surface water private gully

Surface water highway gully

Filter drain (perforated pipe)

Channel drain (with Access, and Sump box)

Pervious pavement

Below ground surface water storage tank

Foul water private drain

Foul water rising pump main

Foul water pop-up

Existing major (0.5m) and minor (0.1) contours

Proposed major (0.5m) and minor (0.1m) contours

Existing Topographical information

Surface Water Drainage Philosophy - Outfall to Quarry (North)

- Surface water drainage drain via permeable paving and surface water gullies. Catchment of the proposed site to drain down the hill following existing road centreline.
- Drainage to be limited to greenfield rates before outfalling to Redhills Quarry to the north.
- Existing catchment area to Quarry: 0.875ha
- Equivalent Qbar runoff rate from catchment: 6.6 l/s
- Proposed Impermeable area: 0.305ha
- Proposed (1:1yr) restricted runoff rate 5.7 l/s.
- Rate of runoff equates to a 58% betterment over the 1:100 greenfield runoff rate).
- Attenuation Volume required: 160m³ A cellular attenuation tank to accommodate volume for all storms up to and including the 1:100 yr + 35% climate change located under coach turning head.
- A combination of permeable paving, gravel filter filled trenches, silt trap/catchpit chambers, and ACO Quadrceptor provides water quality improvement.

Proposed Foul Drainage Philosophy

- Foul to drain to pumping station on north east side of site.
- Foul drainage to then be pumped circa 1km into neighbouring town's (Milom) public sewer assets.

Foul Loading - TBC

British Water Foul Flows and Loads - Code of Practice
Canteen 58 covers - 10 l/p/a
Staff 10 works - 50 l/p/a
Visitor Toilets - 150 visitors - 10 l/p/a
Total flow - 2,870 l/d

Over 9h opening time
=2,870/(9 x 3,600) ≈ 0.01 l/s

Design Notes:

- Below ground pipes Ø to be 100mm for Surface water, and 150mm for foul UNO.
- Invert levels are for chamber outfall pipes, UNO.
- Placement of lids/covers/frames to suit paving patterns where possible and to be wholly within one surface pavement type where possible - to landscape architects specification.
- Final placement of internal foul pop-ups to be confirmed.
- 24hr Emergency pump storage based on foul loading total flow.

Information require from others to develop design:

- Pumping station, pressure break/air admittance/flush out chambers and rising main to be designed by specialist.
- Quarry outfall bank levels and water level range to be confirmed.

SHEET LAYOUT

P01	INITIAL ISSUE FOR PLANNING	08/04/25	CC	GW
Rev:	Description:	Date:	By:	Chkd:

Curtins

Units 24-25 Riverside Place K Village Lound Road Kendal LA9 7FH
01539 724 823
kendal@curtins.com
www.curtins.com

Civils & Structures • Transport Planning • Environmental • Infrastructure • Geotechnical • Conservation & Heritage • Principal Designer
Birmingham • Bristol • Cambridge • Cardiff • Douglas • Dublin • Edinburgh • Glasgow • Kendal • Leeds • Liverpool • London • Manchester • Nottingham

Status: **SUITABLE FOR INFORMATION** **S2**

Client: **STORY** **Cumberland Council**

Project: **MILLOM IRON LINE**

Dwg Title: **DRAINAGE STRATEGY SHEET 3**

Drawn By: CC	Designed By: CC	Checked By: GW
Date: 07/04/25		Scales @ A1: 1:1000
Project No - Originator - Function - Spatial - Form - Discipline - Number		

081617 - CUR - 01 - ZZ - D - C - 92003 P01

Refer to 92001 for chainage plan 0 to 60m.

Foul rising pump main to be designed by specialist.

W:\s1\Projects\B081617 Milom Iron Line\QA-Production\A4-Model\Drawings\CModel