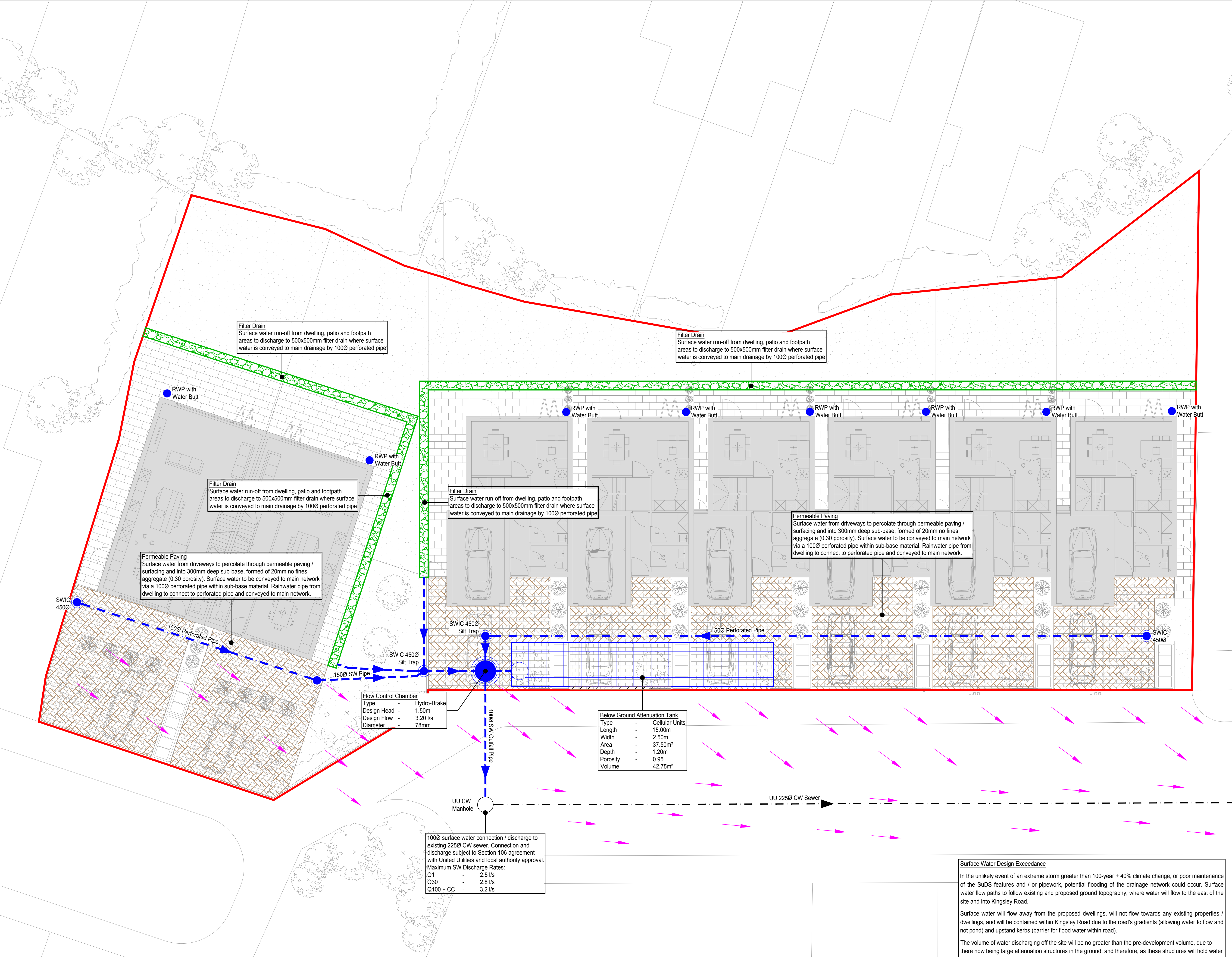




Surface Water Drainage

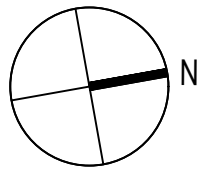
Perforated Pipe

Permeable Paving

Filter Drain

Network Exceedance Flows

Development Boundary



P1	Issued for Planning	MDS	AC	27.05.21
Rev	Description	Dn	Chk	Date

Client

-

Project

Kingsley Road, Northenden
Manchester, M22 4NL

Drawing

Surface Water
Management Layout

Scale	Date	Drawn by	Checked
1:100@A1	May '21	MDS	AC

Status

Planning



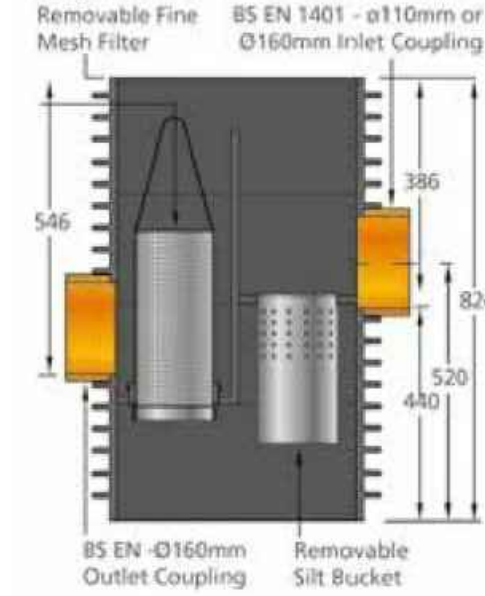
Job No.	Org. No.	Rev
716	DR-100	P1

Surface Water Design Exceedance

In the unlikely event of an extreme storm greater than 100-year + 40% climate change, or poor maintenance of the SuDS features and / or pipework, potential flooding of the drainage network could occur. Surface water flow paths to follow existing and proposed ground topography, where water will flow to the east of the site and into Kingsley Road.

Surface water will flow away from the proposed dwellings, will not flow towards any existing properties / dwellings, and will be contained within Kingsley Road due to the road's gradients (allowing water to flow and not pond) and upstand kerbs (barrier for flood water within road).

The volume of water discharging off the site will be no greater than the pre-development volume, due to there now being large attenuation structures in the ground, and therefore, as these structures will hold water in any storm event, the risk of flooding at surface and subsequently the risk of flooding to any properties will not increase. Therefore, the flood risk to land or properties within or outside the development would not increase even in an extreme (greater than 1% AEP + 40% cc) storm event.



Job No.	Drg. No.	Rev
716	DR-101	P1

Technical Specification

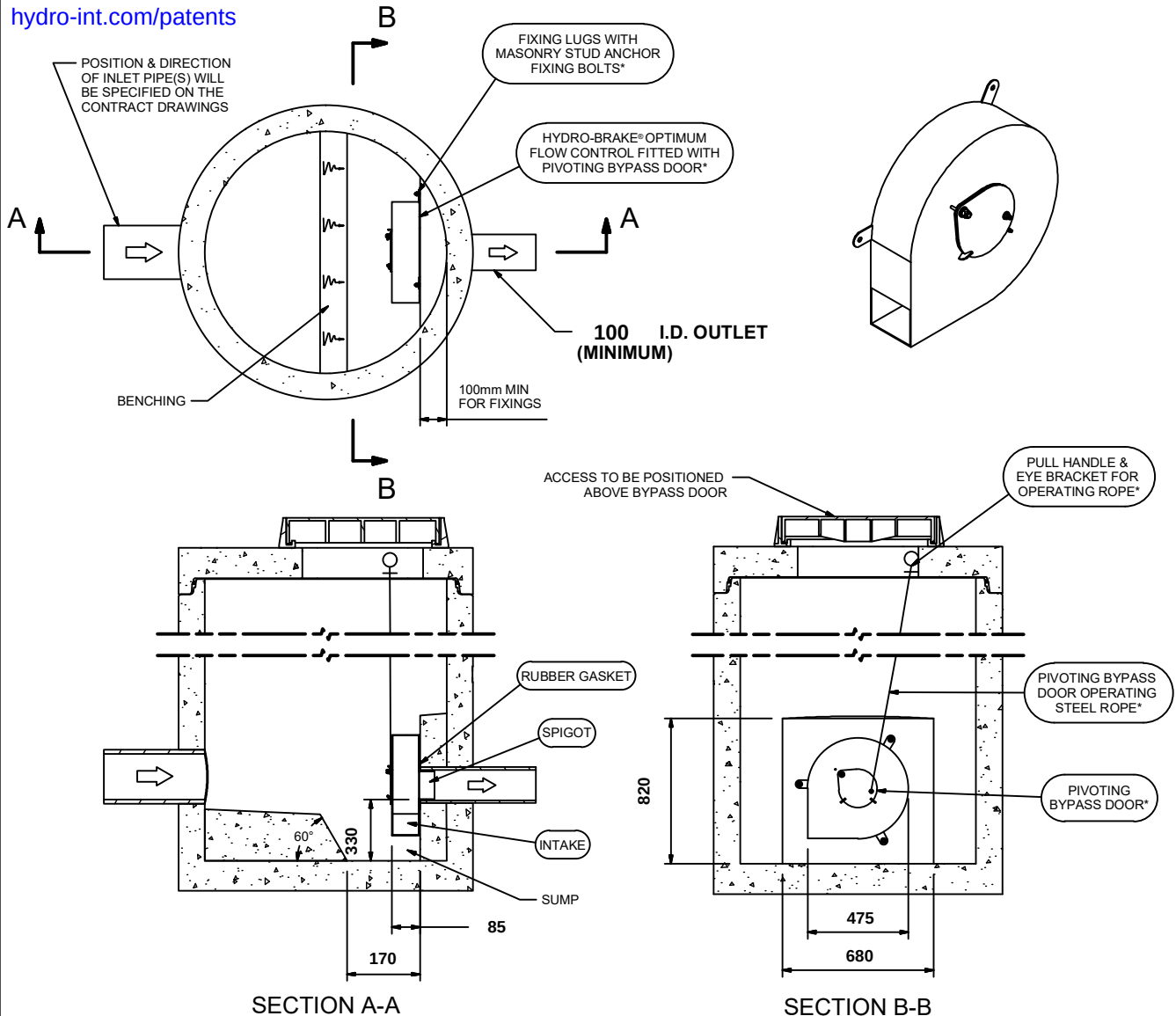
Control Point	Head (m)	Flow (l/s)
Primary Design	1.500	3.200
Flush-Flo™	0.343	2.794
Kick-Flo®	0.697	2.253
Mean Flow		2.597

Hydro-Brake® Optimum Flow Control including:

- 3 mm grade 304L stainless steel
- Integral stainless steel pivoting by-pass door allowing clear line of sight through to outlet, c/w stainless steel operating rope
- Beed blasted finish to maximise corrosion resistance
- Stainless steel fixings
- Rubber gasket to seal outlet



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IMPORTANT:

○ LIMIT OF HYDRO INTERNATIONAL SUPPLY

THE DEVICE WILL BE HANDED TO SUIT SITE CONDITIONS
FOR SITE SPECIFIC DETAILS AND MINIMUM CHAMBER SIZE REFER TO HYDRO INTERNATIONAL
ALL CIVIL AND INSTALLATION WORK BY OTHERS

* WHERE SUPPLIED

HYDRO-BRAKE® FLOW CONTROL & HYDRO-BRAKE® OPTIMUM FLOW CONTROL ARE REGISTERED TRADEMARKS FOR FLOW CONTROLS DESIGNED AND MANUFACTURED EXCLUSIVELY BY HYDRO INTERNATIONAL

THIS DESIGN LAYOUT IS FOR ILLUSTRATIVE PURPOSES ONLY. NOT TO SCALE.

**DESIGN
ADVICE**



The head/flow characteristics of this SHE-0078-3200-1500-3200 Hydro-Brake® Optimum Flow Control are unique. Dynamic hydraulic modelling evaluates the full head/flow characteristic curve.
The use of any other flow control will invalidate any design based on this data and could constitute a flood risk.

**Hydro
International**

DATE 5/27/2021 11:26 AM

SITE Kingsley Road

DESIGNER Mark Symonds

REF 716

SHE-0078-3200-1500-3200

Hydro-Brake® Optimum

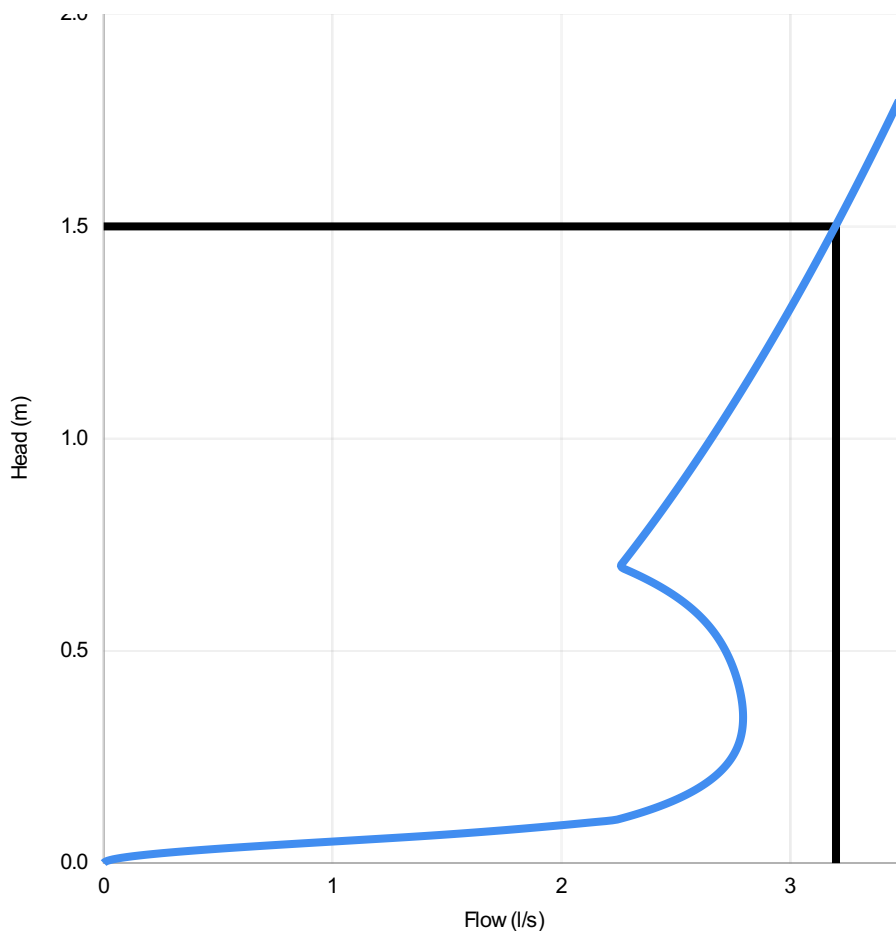
Technical Specification

Control Point	Head (m)	Flow (l/s)
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Flush-Flo	0.343	2.794
Kick-Flo®	0.697	2.253
Mean Flow		2.597



PT/329/0412

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Head (m)	Flow (l/s)
0.000	0.000
0.052	1.030
0.103	2.250
0.155	2.523
0.207	2.676
0.259	2.756
0.310	2.789
0.362	2.793
0.414	2.777
0.466	2.747
0.517	2.700
0.569	2.628
0.621	2.520
0.672	2.358
0.724	2.292
0.776	2.365
0.828	2.435
0.879	2.503
0.931	2.569
0.983	2.634
1.034	2.696
1.086	2.757
1.138	2.816
1.190	2.874
1.241	2.931
1.293	2.986
1.345	3.040
1.397	3.094
1.448	3.146
1.500	3.197

DESIGN ADVICE



The head/flow characteristics of this SHE-0078-3200-1500-3200 Hydro-Brake Optimum® Flow Control are unique. Dynamic hydraulic modelling evaluates the full head/flow characteristic curve.

The use of any other flow control will invalidate any design based on this data and could constitute a flood risk.

Hydro
International

DATE 27/05/2021 11:26

Site Kingsley Road

DESIGNER Mark Symonds

Ref 716

SHE-0078-3200-1500-3200

Hydro-Brake Optimum®