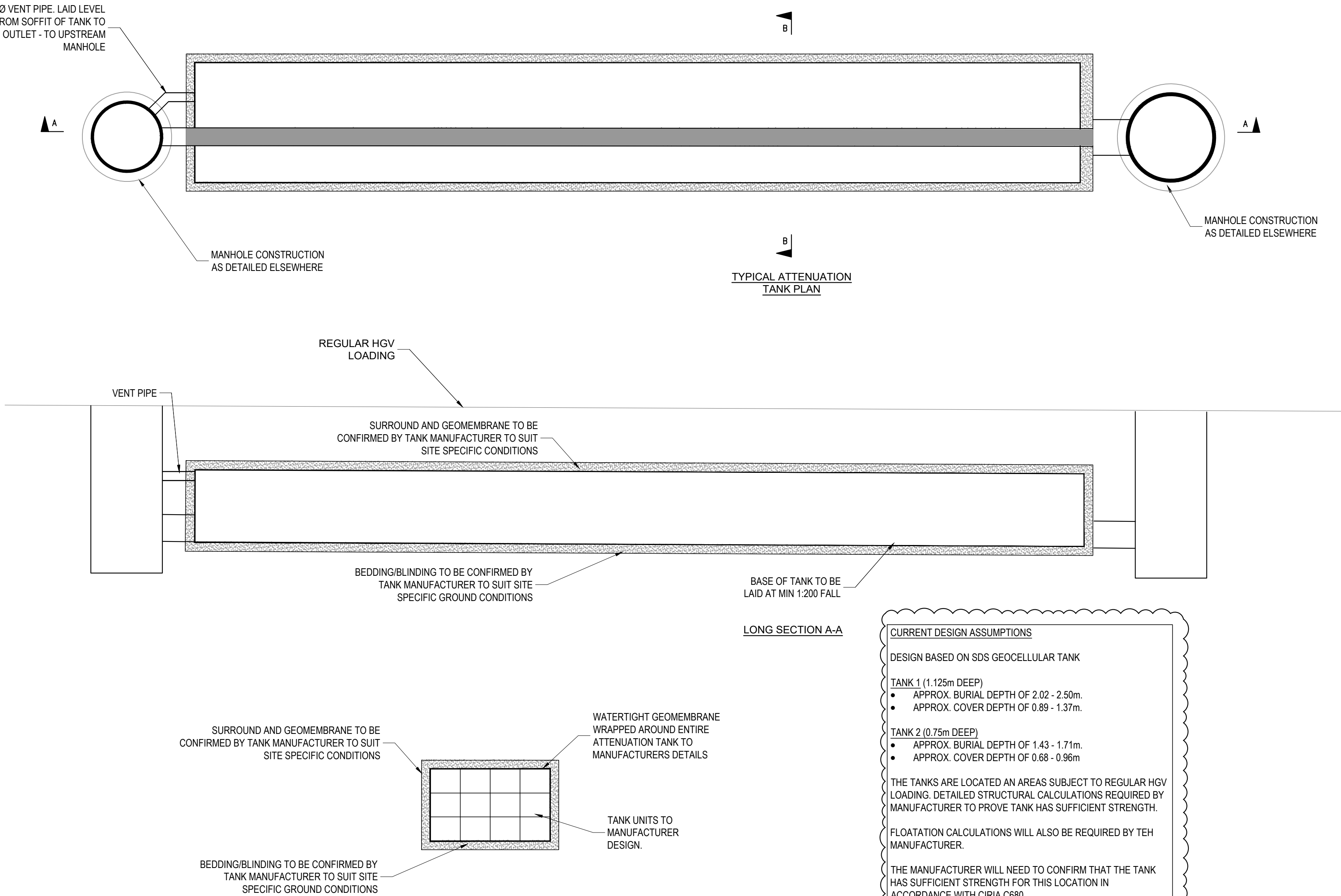
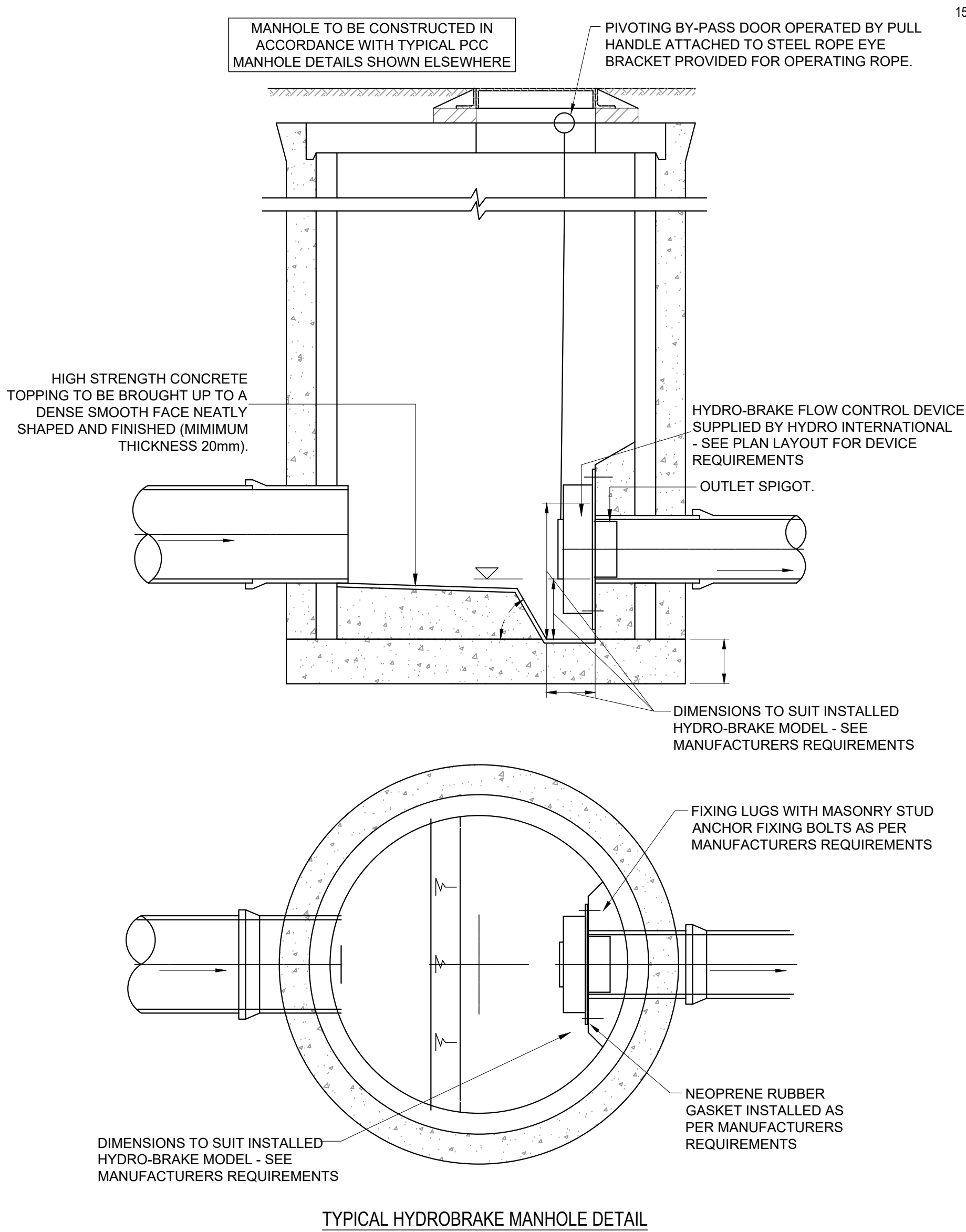




CURRENT DESIGN ASSUMPTIONS

DESIGN BASED ON SDS GEOCELLULAR TANK

TANK 1 (1.125m DEEP)

- APPROX. BURIAL DEPTH OF 2.02 - 2.50m.
- APPROX. COVER DEPTH OF 0.89 - 1.37m.

TANK 2 (0.75m DEEP)

- APPROX. BURIAL DEPTH OF 1.43 - 1.71m.
- APPROX. COVER DEPTH OF 0.68 - 0.96m

THE TANKS ARE LOCATED IN AREAS SUBJECT TO REGULAR HGV LOADING. DETAILED STRUCTURAL CALCULATIONS REQUIRED BY MANUFACTURER TO PROVE TANK HAS SUFFICIENT STRENGTH.

FLOATATION CALCULATIONS WILL ALSO BE REQUIRED BY THE MANUFACTURER.

THE MANUFACTURER WILL NEED TO CONFIRM THAT THE TANK HAS SUFFICIENT STRENGTH FOR THIS LOCATION IN ACCORDANCE WITH CIRIA C680.

FOR SIZES OF TANKS & INLET LEVELS/ LOCATIONS REFER TO DRAWING 080139-CUR-XX-XX-DR-C-92500

TANKS ARE ONLINE - ACCESS REQUIREMENTS FOR INSPECTION/ MAINTENANCE TBC BY MANUFACTURER.

IMPERMEABLE MEMBRANE, BED AND SURROUND TO BE CONFIRMED BY THE MANUFACTURER TO SUIT SITE SPECIFIC GROUND CONDITIONS.

Technical Specification

Control Point	Head (m)	Flow (l/s)
Primary Design	1.300	11.000
Flush-Flo™	0.386	10.998
Kick-Flo®	0.836	8.932
Mean Flow		9.537

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
- Bevel blasted finish to maximise corrosion resistance
- Stainless steel flange
- Rubber gasket to seal outlet
- Indicative Weight: 30 kg

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SECTION A-A

SECTION B-B

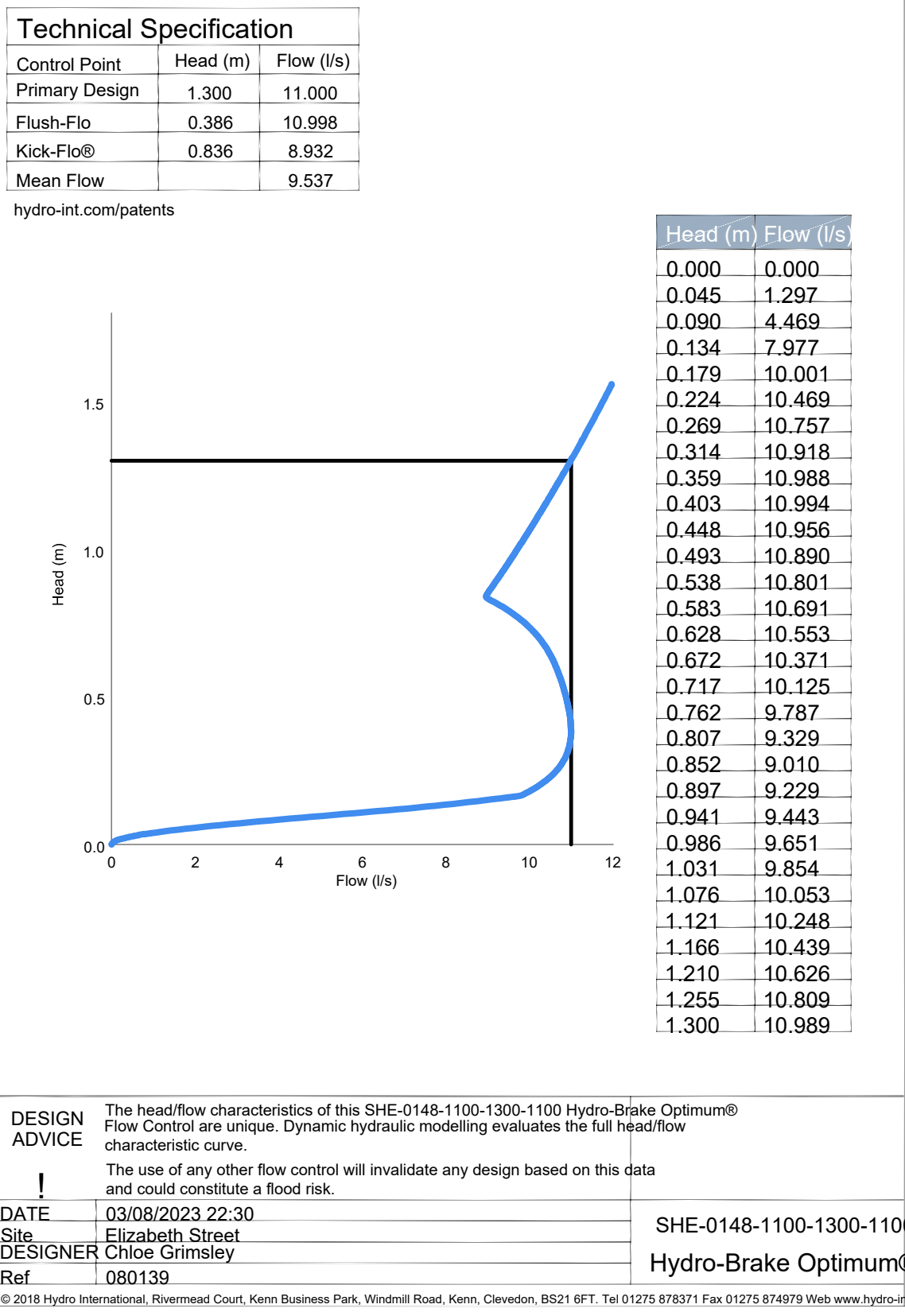
IMPORTANT: LIMIT OF HYDRO INTERNATIONAL SUPPLY THE DEVICE WILL BE HANDLED TO SUIT SITE CONDITIONS. FOR SITE SPECIFIC DETAILS AND MINIMUM CHAMBER SIZE REFER TO HYDRO INTERNATIONAL. ALL CIVIL AND INSTALLATION WORK BY OTHERS WHERE SUPPLIED HYDRO-BRAKE FLOW CONTROL & HYDRO-BRAKE OPTIMUM FLOW CONTROL ARE 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-0148-1100-1300-1100 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.

DATE: 03/08/2023 22:30
SITE: Elizabeth Street
DESIGNER: Chloe Grimley
REF: 080139

SHE-0148-1100-1300-1100
Hydro-Brake Optimum



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 ENGINEER'S ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
- ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
- REFER TO DRAINAGE LAYOUT 080139-CUR-XX-XX-DR-C-92500 FOR THE LOCATION OF THE ATTENUATION TANK AND FLOW CONTROL MANHOLE.
- ATTENUATION TANK TO BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
- WHERE AN ALTERNATIVE ATTENUATION TANK DEVICE IS PREFERRED, IT WILL BE SUBJECT TO REDESIGN TO CONFIRM WHETHER THE SYSTEM HAS CAPACITY.
- THE DESIGN OF THE TANK SHOULD BE PROVIDED BY THE MANUFACTURER OR SUPPLIER TO ENSURE THE TANK IS SUFFICIENT FOR THE SITE SPECIFIC CRITERIA.
- THE TANK DESIGN SHOULD INCORPORATE:
 - GRATES SUBJECT TO REGULAR HEAVY VEHICLE LOADING,
 - SUITABLE MAINTENANCE ACCESS, AND
 - VENTING TO PREVENT TRAPPED AIR POCKETS.
- THE STRENGTH OF THE TANK SHOULD COMPLY WITH CIRIA C680 STRUCTURAL DESIGN OF MODULAR GEOCELLULAR DRAINAGE TANKS.
- ACCESS FOR MAINTENANCE SHOULD BE IN ACCORDANCE WITH CIRIA GUIDANCE.
- VENTING TO THE TANK SHOULD BE CONFIRMED BY THE TANK MANUFACTURER. VENTING CURRENTLY PROPOSED TO BE ROUTED BACK TO THE NEAREST MANHOLE ABOVE THE DESIGN WATER LEVEL.
- CONSTRUCTION AND INSTALLATION OF THE TANK SHOULD BE STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION REQUIREMENTS.
- THE CURRENT DESIGN OF THE TANK IS BASED ON USE OF SDS MODULES. HOWEVER, WHERE AN ALTERNATIVE SYSTEM IS PROPOSED, THE DIMENSIONS OF THE UNITS WILL NEED TO BE CHECKED WITHIN THE DESIGN AND MAY RESULT IN A REDESIGN.
- THE CONTRACTOR SHALL PROHIBIT THE MOVEMENT OF CONSTRUCTION PLANT ACROSS THE STORAGE TANK AND WHERE NECESSARY PROVIDE ADDITIONAL SUPPORT AND PROTECTION TO THE STRUCTURE. PARTICULARLY POST CONSTRUCTION. TEMPORARY FENCING CAN BE USED TO PROHIBIT TRADE STOCKS, PILLING MATERIALS, HEAVY PLANTS ETC.
- FLOW CONTROL TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS, INSTRUCTIONS AND RECOMMENDATIONS.
- WHERE ALTERNATIVE FLOW CONTROL DEVICE IS PREFERRED, IT WILL BE SUBJECT TO REDESIGN TO CONFIRM WHETHER THE SYSTEM HAS CAPACITY.
- SURFACE WATER DRAINAGE CONNECTION SUBJECT TO S106 AGREEMENT WITH UNITED UTILITIES.
- FOR FULL DRAINAGE NOTES REFER TO 080139-CUR-XX-XX-DR-C-92530.

C02	NOTES AMENDED	07/09/23	ATL	CG
C01	CONSTRUCTION ISSUE	04/08/23	ATL	CG
P02	TENDER ISSUE	14/10/22	ATL	CG
P01	STAGE 3 ISSUE	15/06/22	LK	CG
Rev:	Description:	Date:	By:	Chkd:

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Status: **SUITABLE FOR STAGE APPROVAL**

Project: **ELIZABETH STREET, CHEETHAM HILL**

Orig Title: **TYPICAL DRAINAGE DETAILS SHEET 3**

Size:	Date:	Drawn By:	Designed By:	Checked By:
A1	27/05/22	LK	CG	CG

Scale: 1:20

Project No: Originator: Volume: Level: Type: Role: Category / Number: Rev:

080139 - CUR - XX - XX - DR - C - 92522 - C02