



COMMENTS:
 1. MANHOLE WALL AND SLAB THICKNESSES ARE NOT TO SCALE.
 2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING FIRST DEFENSE MANHOLE.
 3. CONTRACTOR TO CONFIRM RIM, PIPE INVERTS, PIPE DIA. AND PIPE ORIENTATION PRIOR TO RELEASE OF UNIT TO FABRICATION.

REVISION HISTORY			
REV	BY	DESCRIPTION	DATE
-		FIRST RELEASE	

DATE: 2/16/2018 SCALE: NTS
 DRAWN BY: KO CHECKED BY: APPROVED BY:

Title
 1800mm DIAMETER
 FIRST DEFENSE HIGH CAPACITY

CAPACITIES:

1. PEAK HYDRAULIC FLOW: 32.0 cfs (708 l/s)
2. TREATMENT FLOW: 2.2 cfs (63 l/s)
3. SEDIMENT STORAGE CAPACITY: 1.6 cu. yd. (1.2 cu. m.)
4. OIL STORAGE CAPACITY: 496 gal. (1878 liters)
5. MAXIMUM INLET/OUTLET PIPE DIAMETERS: 30 in. (750 mm)

PRODUCT SPECIFICATIONS:

- A. The treatment system shall use an induced vortex to separate pollutants from stormwater runoff.
- B. The treatment system shall fit within the limits of excavation (area and depth) as shown in the project plans and will not exceed the dimensions for the design flow rates specified herein.
- C. The treatment system shall remove greater than or equal to 90% of TSS based on the Target Particle Size (TPS) of 106 Microns and/or 80% of TSS based on the TPS of 230 microns at 2.2 cfs and 3.8 cfs, respectively.
- D. The treatment system shall convey the Peak On-line Flow Rates of up to 32 cfs without causing upstream surcharge conditions. Full-scale independent laboratory scour testing shall demonstrate effluent control of less than or equal to 5 mg/L for all flows up to 200% of MTRF-106.
- E. The treatment system shall be capable of capturing and retaining fine silt and sand size particles. Analysis of captured sediment from full-scale field installations shall demonstrate particle sizes predominately in the 20-micron range

SECTION A-A

PARTS LIST

ITEM	QTY	SIZE (mm)	DESCRIPTION	TYPE
1	1	1800	I.D. PRECAST MANHOLE	
2	1		LEDGER SUPPORT	
3	1		SEPARATION MODULE	
4	1	750	FRAME AND COVER (ROUND)	
5	1	750	OUTLET PIPE (BY OTHERS)	CPP
6	1	750	INLET PIPE (BY OTHERS)	CPP

ANY WARRANTY GIVEN BY HYDRO INTERNATIONAL WILL APPLY ONLY TO THOSE ITEMS SUPPLIED BY IT. ACCORDINGLY HYDRO INTERNATIONAL CANNOT ACCEPT ANY RESPONSIBILITY FOR ANY STRUCTURE, PLANT, OR EQUIPMENT, (OR THE PERFORMANCE THERE OF) DESIGNED, BUILT, MANUFACTURED, OR SUPPLIED BY ANY THIRD PARTY. HYDRO INTERNATIONAL HAVE A POLICY OF CONTINUOUS DEVELOPMENT AND RESERVE THE RIGHT TO AMEND THE SPECIFICATION. HYDRO INTERNATIONAL CANNOT ACCEPT LIABILITY FOR PERFORMANCE OF ITS EQUIPMENT, (OR ANY PART THEREOF), IF THE EQUIPMENT IS SUBJECT TO CONDITIONS OUTSIDE ANY DESIGN SPECIFICATION. HYDRO INTERNATIONAL OWNS THE COPYRIGHT OF THIS DRAWING, WHICH IS SUPPLIED IN CONFIDENCE. IT MUST NOT BE USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS SUPPLIED AND MUST NOT BE REPRODUCED, IN WHOLE OR IN PART, WITHOUT PRIOR PERMISSION IN WRITING FROM HYDRO INTERNATIONAL.
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DO NOT SCALE DRAWING
 UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ARE:
 FRACTIONS ± 1/16
 DECIMALS ± .06
 ANGLES ± 1°



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APPROX WEIGHT: N/A	MATERIAL:
NEXT ASSEMBLY: PROJECT NO.-NEXT ASSY	
DRAWING NO.: PROJECT NO.-FDHC GA	
SHEET SIZE: B	SHEET: 1 OF 1
Rev: -	