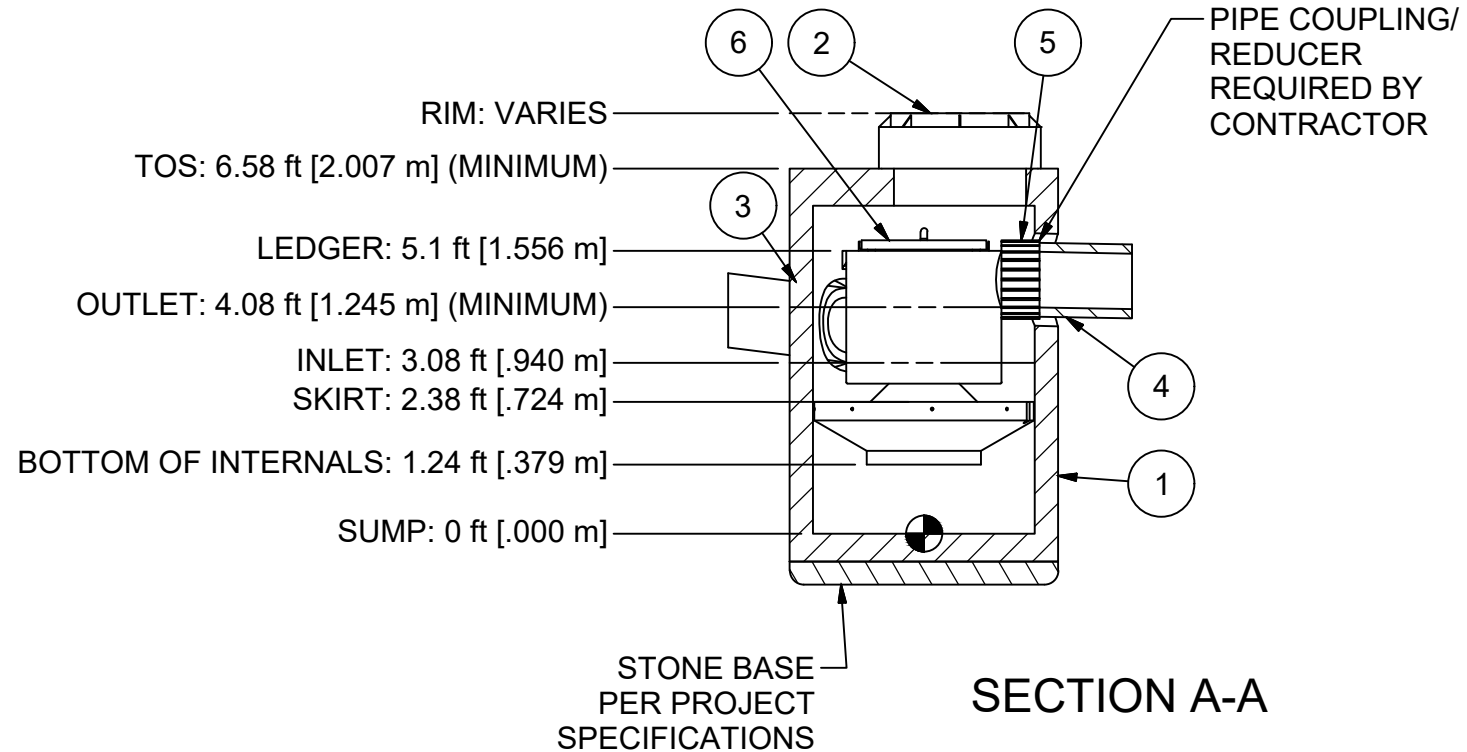


**HYDRO FRAME AND COVER (INCLUDED)**  
GRADE RINGS BY OTHERS  
AS REQUIRED



NOTE: NOT FOR CONSTRUCTION.  
CONTACT HYDRO FOR SITE  
SPECIFIC DETAIL

**EQUIPMENT PERFORMANCE**

The stormwater treatment unit shall adhere to the hydraulic parameters given in the chart below and provide the removal efficiencies and storage capacities as follows:

1. The treatment system shall use an induced vortex to separate pollutants from stormwater runoff.
2. Peak Hydraulic Capacity: 3.0 cfs (85 l/s)
3. Sediment Storage Capacity: 0.70 cu. yd. (0.53 cu. m)
4. Continuous Oil Storage Capacity: 70 gal. (265 liters)
5. Sediment shall be stored in a zone that is isolated from the main flow path and protected from reentrainment by a benching skirt.
6. For more product information including regulatory acceptances, please visit <https://hydro-int.com/en/products/downstream-defender>

PARTS LIST				
ITEM	QTY	SIZE (in)	SIZE (mm)	DESCRIPTION
1	1	48	1200	PRECAST MANHOLE (BY HYDRO VIA PRECASTER)
2	1	30	750	FRAME AND COVER
3	1	12 (MAX)	300 (MAX)	INLET PIPE (BY OTHERS)
4	1	12 (MAX)	300 (MAX)	OUTLET PIPE (BY OTHERS)
5	1			PIPE COUPLING (BY OTHERS)
6	1			INTERNAL COMPONENTS (PRE-INSTALLED)

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.

**PROJECTION**

**IF IN DOUBT ASK**

COMMENTS:  
1. MANHOLE WALL AND SLAB THICKNESSES ARE NOT TO SCALE.  
2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING DOWNSTREAM DEFENDER MANHOLE.

DATE: 11/8/2019  
SCALE: NTS

DRAWN BY: GW  
CHECKED BY:  
APPROVED BY:

Title  
4ft-DIAMETER DOWNSTREAM DEFENDER

**Hydro International**  
hydro-int.com  
HYDRO INTERNATIONAL

**DO NOT SCALE DRAWING**  
**STEEL FABRICATION TOLERANCES**  
UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN INCHES.  
  
LINEAR  
000 - 012in = ±0.04in  
012 - 024in = ±0.06in  
024 - 048in = ±0.08in  
048 - 120in = ±0.12in  
120in >>> = ±0.20in  
  
ANGULAR  
000 - 120in = ±1°  
120 - 240in = ±0.5°  
240in >>> = ±0.25°

WEIGHT: N/A  
MATERIAL:

REFERENCE NUMBER:

DRAWING NO.: 4'GA-DWG

SHEET SIZE: B  
SHEET: 1 OF 1  
Rev: -