

FLOW, TREATMENT, & BYPASS SPECIFICATIONS FOR THE BIOMASS SEPARATING BASKET

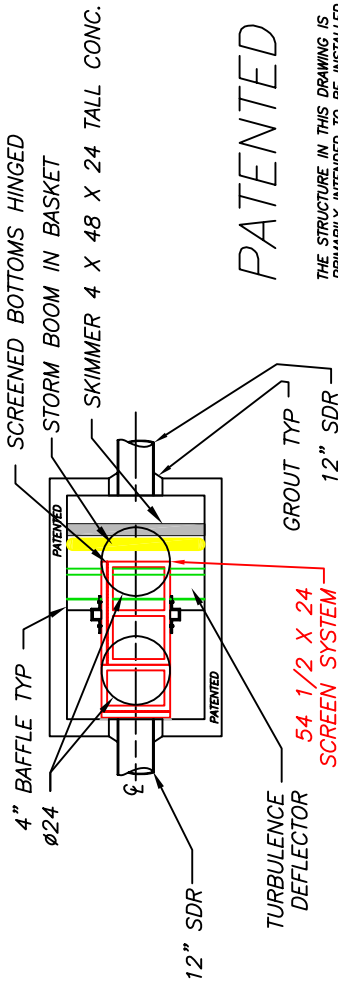
- 1. Inflow Pipe Area — .78 SQ.FT.
- 2. Open Orifice Area in Biomass Separating Basket — 10.4 SQ.FT.
- 3. Treatable Flow Area With No Blockage — 10.4 SQ.FT.
- 4. Treatable Flow Area With 50% Blockage — 5.2 SQ.FT.
- 5. Treatable Flow Area With 75% Blockage — 2.6 SQ.FT.
- 6. Minimum Bypass Available (With Basket 100% Full) — 2.0 SQ.FT.

BASKET STORAGE = 11.8 CU. FT. (.43 CU YD.)

SEDIMENT STORAGE

- Lower Front Chamber — 38 CU. FT.
- Lower Rear Chamber — 36 CU. FT.

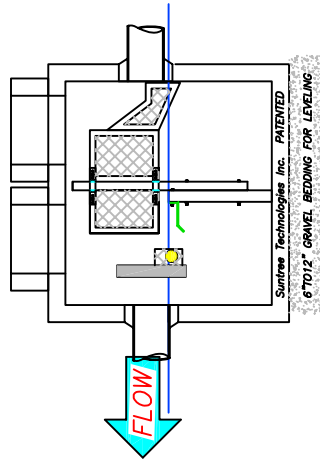
TOTAL — 74 CU. FT. (2.5 CU YD.)



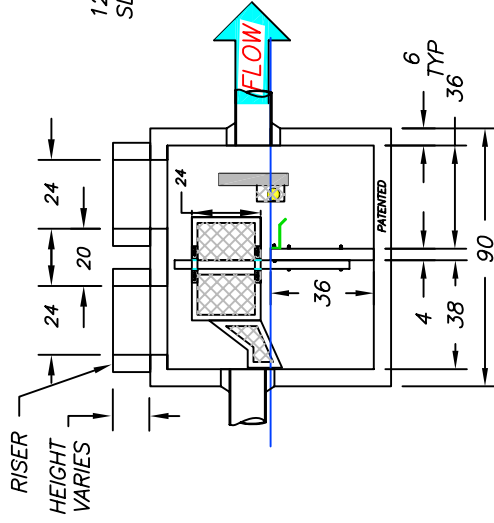
PATENTED

THE STRUCTURE IN THIS DRAWING IS PRIMARILY INTENDED TO BE INSTALLED IN OFF-ROAD LOCATIONS WITH LESS THAN 5' OF COVER. STRUCTURES ARE READILY AVAILABLE FOR ALL OTHER CONDITIONS. CONSULT SUNTREE TECHNOLOGIES' REPRESENTATIVE FOR DETAILS.

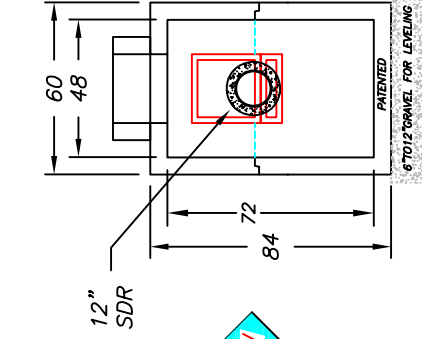
PLAN VIEW



REAR VIEW



LEFT END VIEW



RIGHT END VIEW

NOTES:

1. CONCRETE 28 DAY COMPRESSIVE STRENGTH f_c = 5,000 PSI.
2. REINFORCING: ASTM A-615, GRADE 60.
3. SUPPORTS AN H2O LOADING AS INDICATED BY AASHTO.
4. JOINT SEALANT: BUTYL RUBBER SS-S-00210
5. ALL WALLS, TOP + BOTTOM ARE 6" THICK.

PEAK DESIGN FLOW
10.6 C.F.S.

(BASED ON 6 FT. PER SEC. FLOW MULTIPLIED BY THE MIN. BYPASS AVAILABLE.)

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SUNTREE TECHNOLOGIES, INC. 798 CLEARLAKE RD SUITE #2 COCOA, FL 32922	PROJECT: SUNTREE TECHNOLOGIES SPEC.
	REVISIONS: DATE:
NUTRIENT SEPARATING BAFFLE BOX MODEL NO. NSBB 4-6.5-72	REVISIONS: DATE:
	REVISIONS: DATE:
DATE: 11/10/04	SCALE: SF = 72
DRAFTER: N.R.B.	UNITS = INCHES

sectional area of the inflow pipe.

r exceed the cross

10. The nutrient separating screen system shall give access from above grade to the lower sediment collection chambers by the following method. The bottom of the screen system will contain hinged screened doors that can be opened in such a way as to allow adequate access for a vacuum truck to remove everything in all the lower collection chambers.

11. The nutrient separating screen will be a welded aluminum framework spanned by stainless steel screen, be rectangular in shape, and be formed to make a bottom, 2 long sides, and 1 end; the top and 1 end will remain open. The screen system will consist of panel sections that are held together with stainless steel bolts. When the panel sections are unbolted and separated from each other they must be able to pass through an access hatch or manhole in the top of the baffle box for removal purposes. The aluminum frame work will be made 1 1/2" x 1 1/2" x 1/4" aluminum angle beam. The screen used to span the aluminum frame is described as follows: For the body of the screen system, flattened expanded stainless steel sheet 1/2" No. 16 F; Open area = 60%; Grade = 304 Stainless Steel. The screen will be attached to the screen system frame by sandwiching the screen to the aluminum frame between a series of 1" x 3/16" aluminum bars and welded in place.

12. A turbulence deflector will be attached near the top of each of the baffles with 1/2" stainless steel through bolts and stainless steel fender washers. The turbulence deflectors will be made from laminated fiberglass and measure a minimum of 1/4" in thickness. The turbulence deflectors will form a horizontal ledge that measures 8" from the downstream side of the first baffle and 6" from the downstream side of the second baffle, and span the full width of the baffle box.

13. The stormwater treatment system will be precast concrete. The concrete will be 28 day compressive strength $f_c = 5,000$ psi. Steel reinforcing will be ASTM A - 615 Grade 60. Structure will support an H2O loading as indicated by AASHTO. The joint between the concrete sections will ship lap and the joint sealed with Ram-Nek or equal butyl rubber joint sealant.

14. For access into the stormwater treatment system, two to three holes will be cast into the top of the vault.

15. The inflow and outflow pipes will not intrude beyond flush with the inside surface of the Nutrient Separating Baffle Box. The space between the pipe holes in the ends of the stormwater treatment system and the outside surface of the pipe will be filled with non-shrink grout to form a water proof seal.

16. The nutrient separating screen system shall extended more than half way of the internal length of the stormwater treatment system. The nutrient separating screen system shall start at the inflow pipe not more than 4" from the wall of the inflow pipe.

17. The stormwater treatment system must have two separate reports verifying no scouring occurs at flows equal to or greater than the specified treatment flow rate for that particle size distribution.

18. The stormwater treatment system shall have a shallow sump, not more than 48" from invert of outflow pipe to bottom floor of the sump area.

19. The stormwater treatment system must have a minimum of two sediment chambers (sump areas) which are separated by a vertical pier that divides the chamber from the bottom of the sump to the invert of the outflow pipe. No openings are allowed at the bottom or coming up vertically along the pier. Or any other method that would connect the two chambers together such as orifices.