# SUNTREE TECHNOLOGIES MODEL NO. NSBB-8-14-100

FLOW & BY-PASS SPECIFICATIONS FOR BIOMASS SEPARATING SCREEN SYSTEM, SEDIMENT COLLECTION CHAMBERS, AND SKIMMER SPECIFICATIONS

1. Pipe inflow area (Drawn as 42" RCP) ——— 9.61 sq.ft.

SCREEN SPECIFICATIONS:
2. Open orifice area in screen system ——— 44.36 sq.ft.
3. Open orifice area in screen system with 50% blockage ——— 22.18 sq.ft.
4. Open orifice area in screen system with 75% blockage ——— 11.09 sq.ft.
5. Minimum by-pass through screen system below the top surface of the pipe ——— 19.23 sq.ft.
6. Minimum by-pass around screen system below the top surface of the pipe ——— 13.4 sq.ft.
7. Screen system storage volume ——— 108.72 cu.ft.

SEDIMENT STORAGE:
8. Volume of first sediment chamber ——— 120 cu.ft.
9. Volume of second sediment chamber ——— 117.7 cu.ft.
10. Volume of third sediment chamber ——— 117.7 cu.ft.
11. Total sediment volume ——— 355.4 cu.ft.

SKIMMER SPECIFICATIONS:
12. Flow area under skimmer ——— 12.86 sq.ft.
13. Area of pipe in line with skimmer ——— 5.68 sq.ft.
14. Area between the skimmer and the outflow pipe parallel with the surface of the pipe ——— 14.91 sq.ft.

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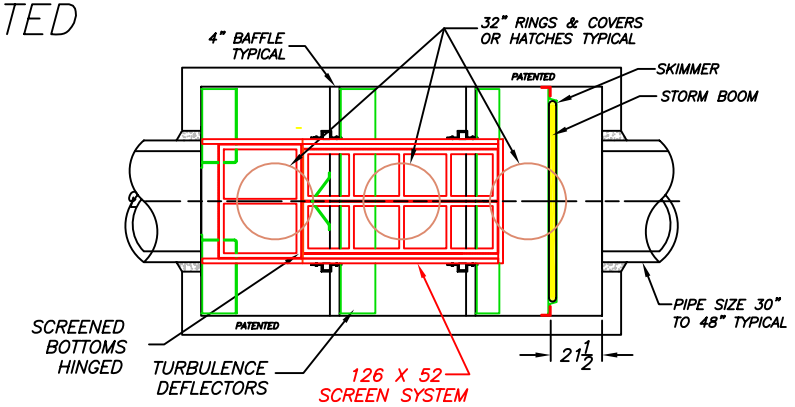


PLAN VIEW

INSTALLATION NOTES:

1. INFLOW AND OUTFLOW PIPES ARE TO BE FLUSH WITH THE INSIDE SURFACE OF THE CONCRETE STRUCTURE. (CAN NOT INTRUDE BEYOND FLUSH)

2. INVERT OF OUTFLOW PIPE SHOULD BE EVEN WITH THE TOP OF THE BAFFLES.

3. BAFFLES SHOULD BE SEALED WITH GROUT.

4. THE BOTTOM OF THE SKIMMER SHOULD BE 6" BELOW THE INVERT OF THE OUTFLOW PIPE.

5. INVERT OF THE INFLOW PIPE SHOULD NOT BE BELOW THE INVERT OF THE OUTFLOW PIPE.


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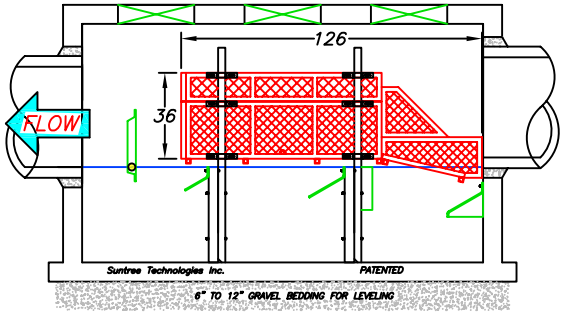
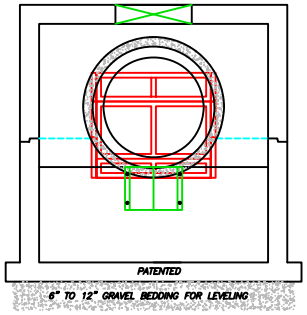
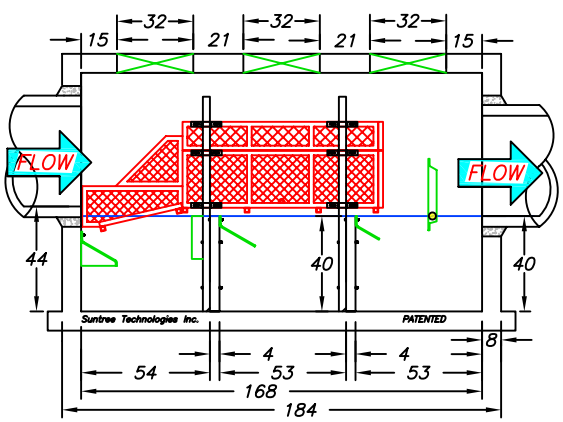


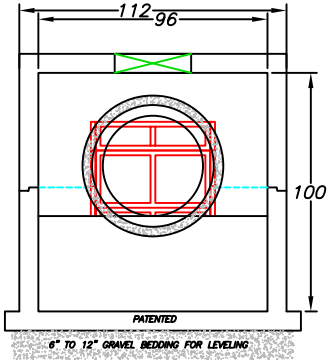

REAR VIEW




LEFT END VIEW




FRONT VIEW




RIGHT END VIEW

NOTES:

1. CONCRETE 28 DAY COMPRESSIVE STRENGTH FC=5000 PSI
2. REINFORCING: ASTM A-615 GRADE 60
3. SUPPORTS AN H20 LOADING AS INDICATED BY AASHTO.
4. JOINT SEALANT: BUTYL RUBBER SS-S-00210
5. BAFFLES ARE TO BE SEALED WITH GROUT TO FORM 3 WATER TIGHT CHAMBERS.
6. ALL WALLS, TOP & BOTTOM ARE 8" THICK
7. TREATMENT DESIGN FLOW FOR 80% REMOVAL EFFICIENCY OF TSS IS 32 CFS.
8. PEAK DESIGN FLOW IS 60 CFS.
9. INFLOW AND OUTFLOW PIPES ARE TO BE FLUSH WITH THE INSIDE SURFACE OF THE CONCRETE STRUCTURE. (CAN NOT INTRUDE BEYOND FLUSH)

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| SUNTREE TECHNOLOGIES, INC. 798 CLEARLAKE RD. SUITE #2 COCOA, FL. 32922 | | PROJECT: |
| NUTRIENT SEPARATING BAFFLE BOX MODEL NO.NSBB-8-14-100 | | DRAWING #: 2-03-06-08-05 |
| | | FILE NAME: NSBB-8-14-100 |
| DATE: 2/16/08 | SCALE:SF = 72 | REVISIONS: / DATE: |
| DRAFTER: T.H.H. | UNITS =INCHES | REVISIONS: / DATE: |