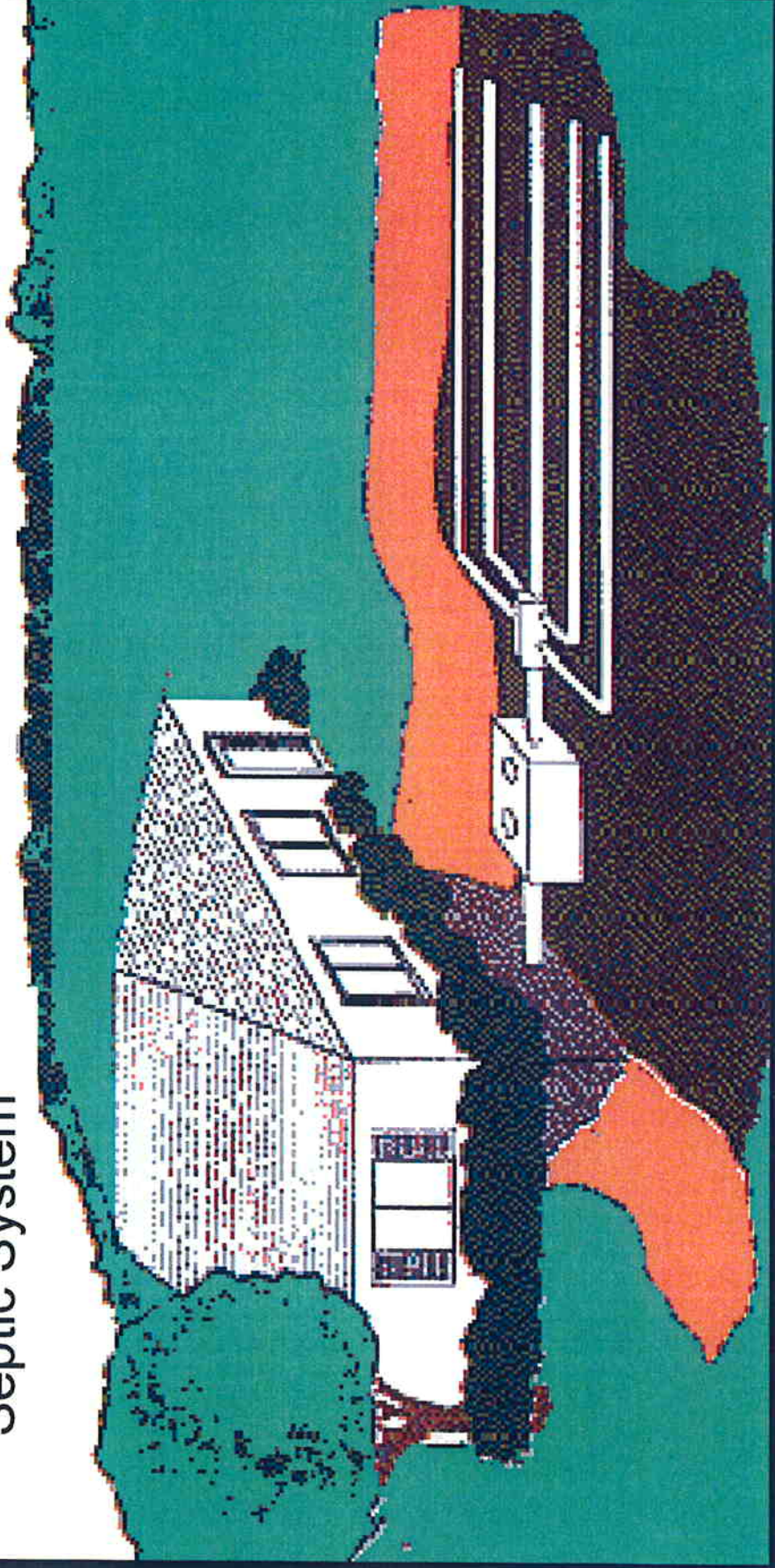

Chapter 3 Figures

A Conventional Title V Septic System



Source: Massachusetts DEP, <http://www.mass.gov/dep/water/wastewater/yoursyst.htm>

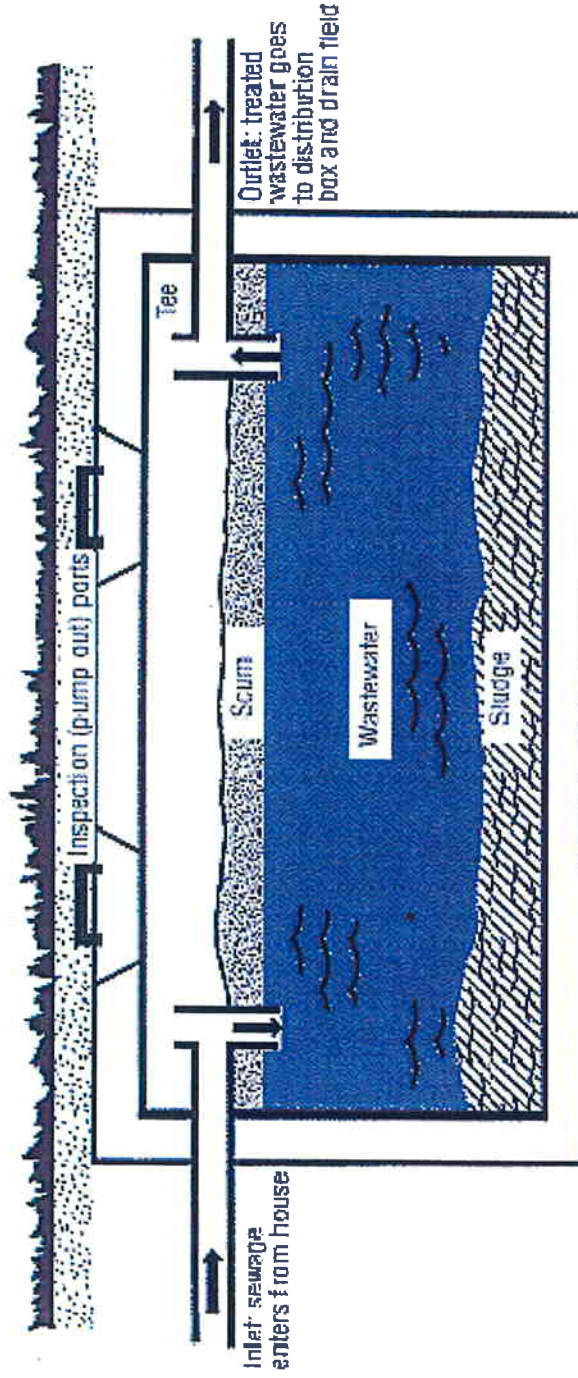


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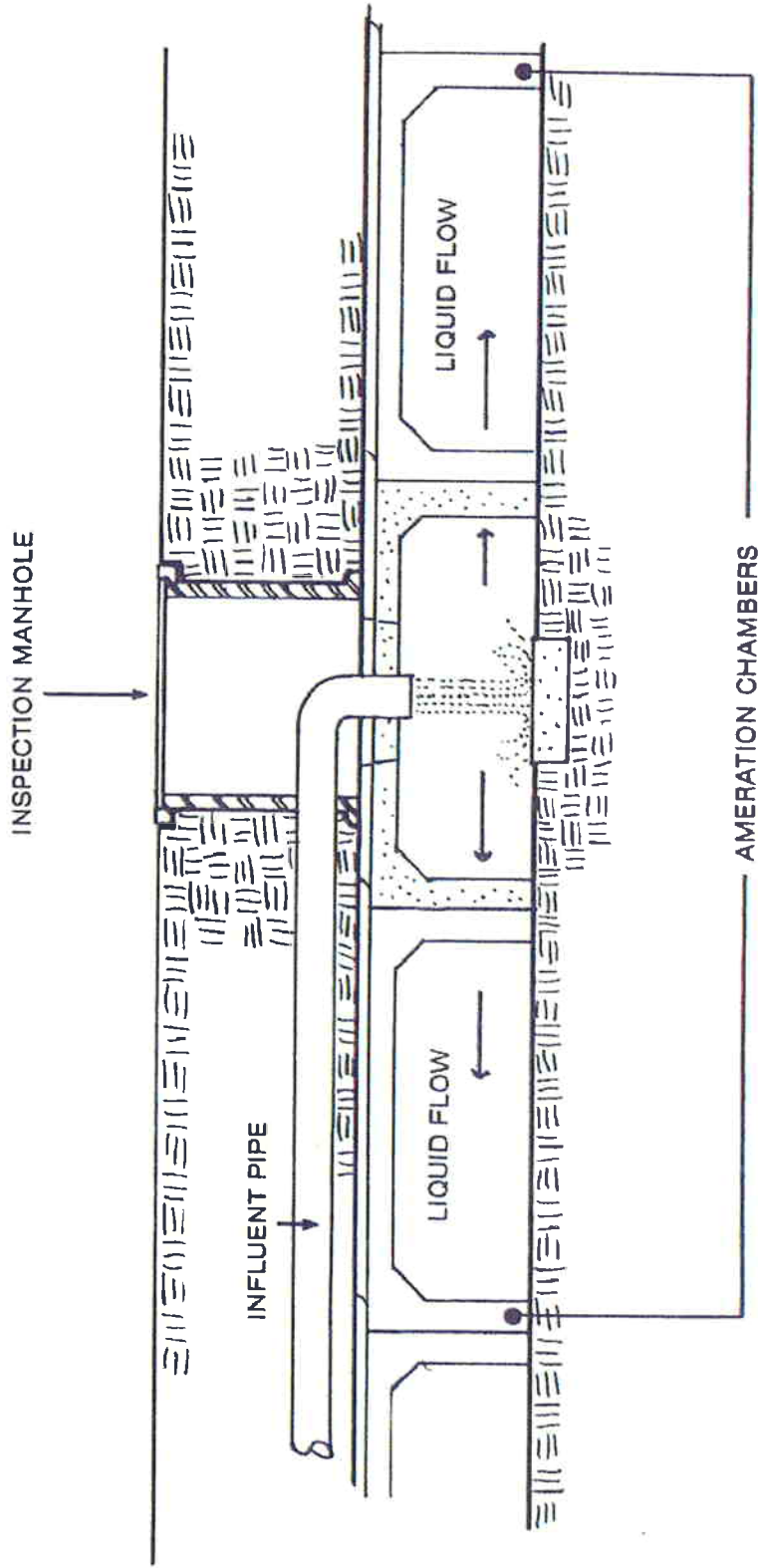
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Town of Barnstable, Massachusetts
Comprehensive Wastewater and
Nutrient Management Plan
Conventional Title V Septic System
FIGURE 3-1



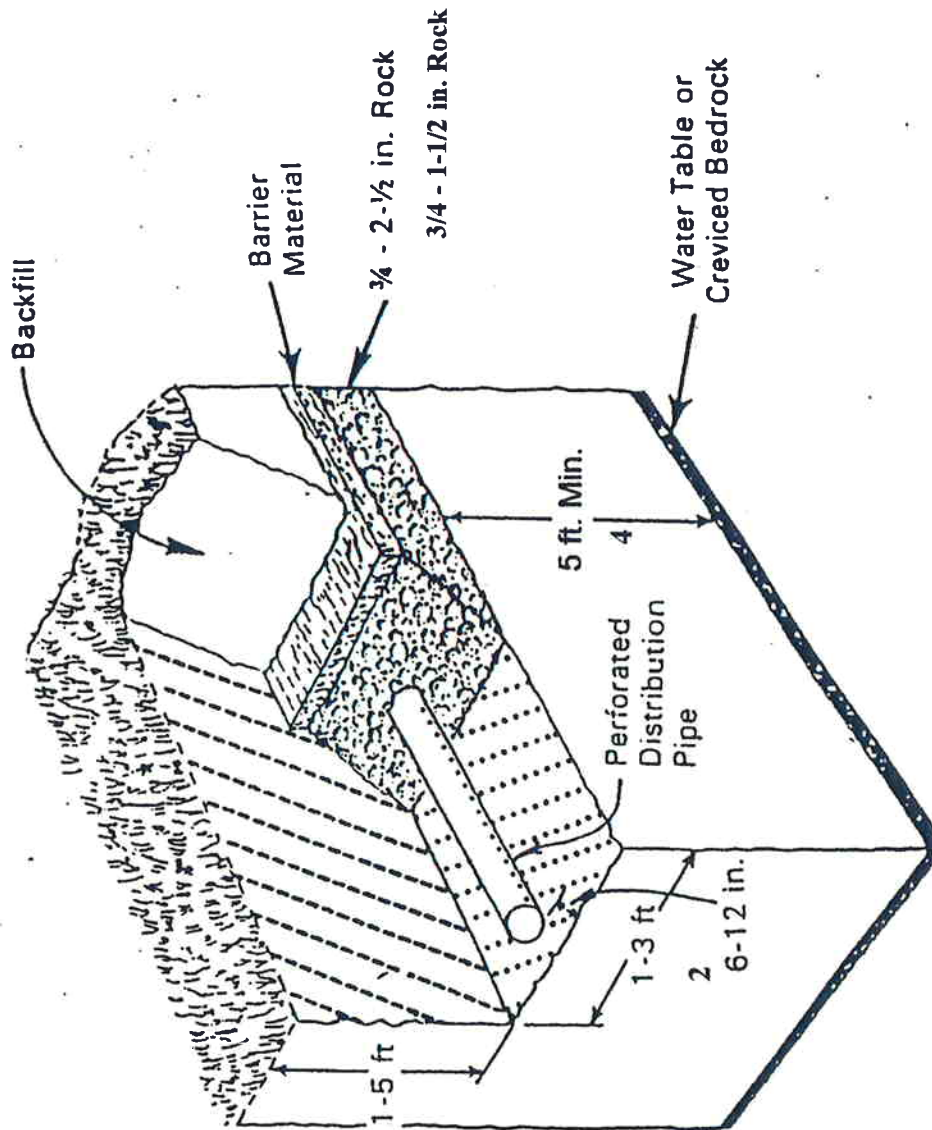
Source: Massachusetts DEP, <http://www.mass.gov/dep/water/wastewater/yoursyst.htm>

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Septic Tank Diagram	
FIGURE 3-2	Job No.: 861247400 Date: 05/11/2010



Source: Shorey Precast, 2000

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Septic Tank Diagram	
FIGURE 3-3	Job No.: 861247400 Date: 05/11/2010

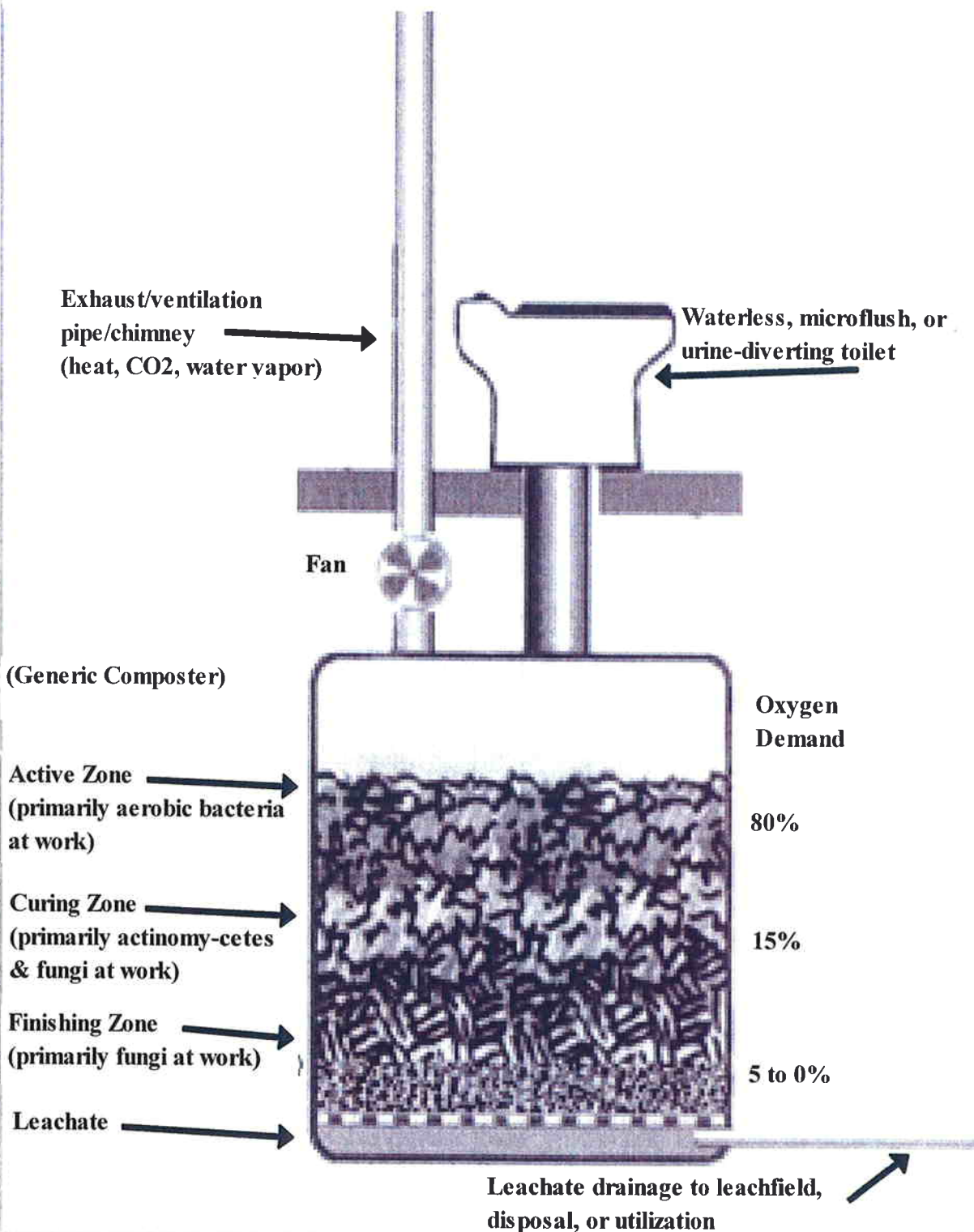


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 Leaching Trench Diagram
FIGURE 3-4

DIAGRAM OF A TYPICAL COMPOSTING TOILET PROCESS



Source: Oikos®, © 1996-2002



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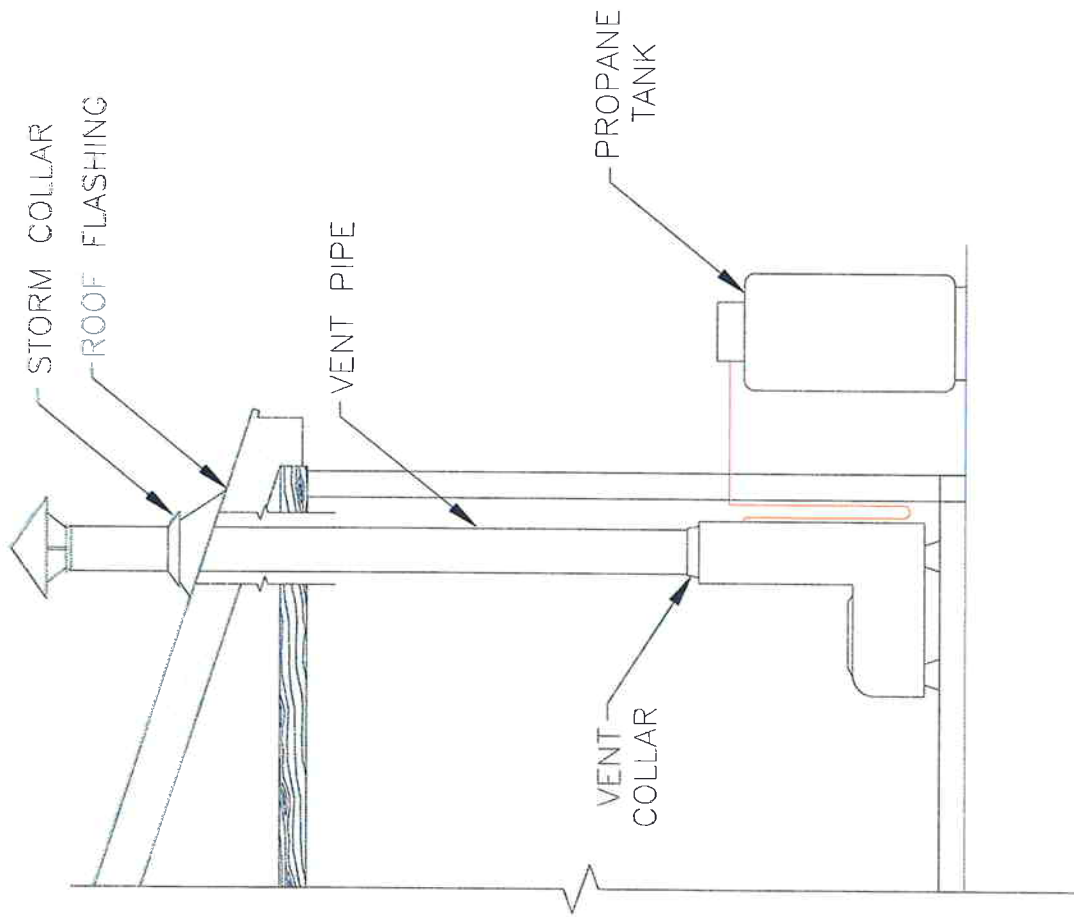
Date: 5/2010 Project No. 8612474

TOWN OF BARNSTABLE

**Comprehensive Wastewater and
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COMPOSTING TOILET DIAGRAM

FIGURE 3-5



Source: Barnstable County Department of Health, June 2003

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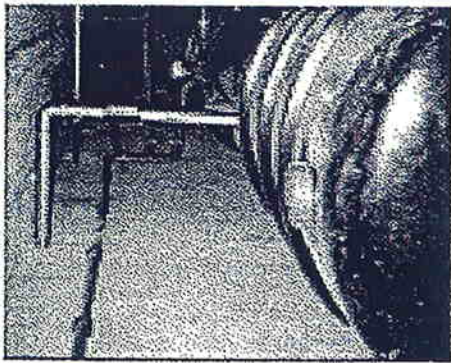
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Incinerating Toilet Diagram

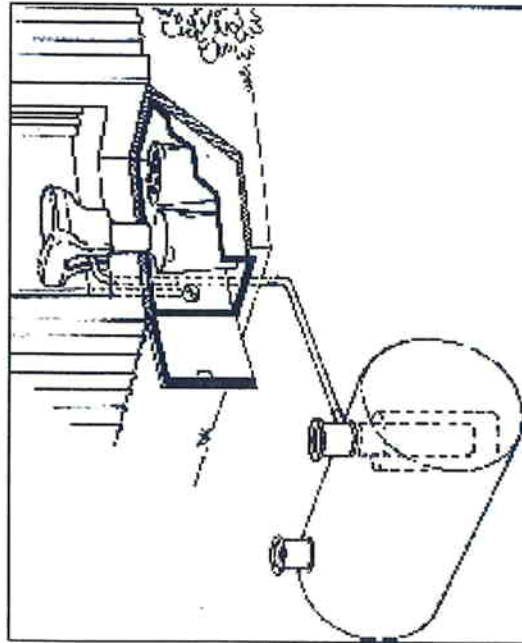
FIGURE 3-6

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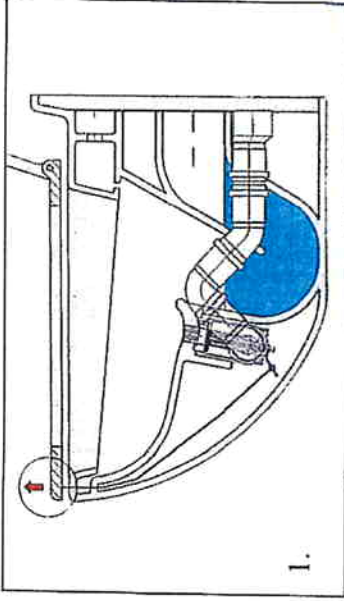
Urine Collection in Basement or as Separate Tank Outdoors

Source: Ecological Engineering Group, Weston, MA
<http://www.ecological-engineering.com>

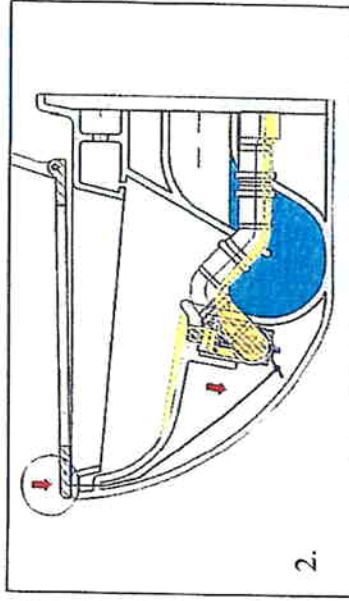


Source: Ecological Engineering Group, Weston, MA
<http://www.ecological-engineering.com>

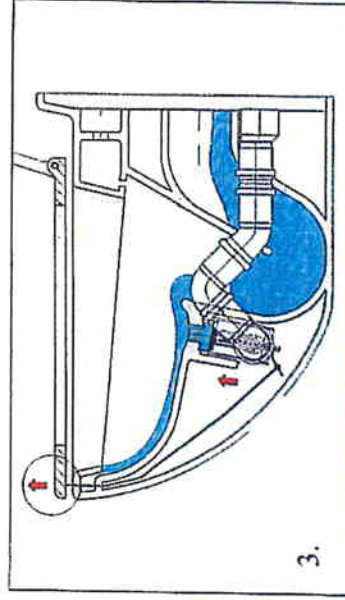
1. Idle: Outlet for urine drainage is closed by a movable plug.



2. In Use: While the toilet is in use (person sitting), the plug is mechanically opened by a lever. Urine flows to the front inlet.



3. Flushing: After the user is getting up, the toilet can be flushed. While the plug for the urine outlet is closed, feces and paper can be flushed out with minimal amounts of water through the rear outlet.



Source: Roediger Vacuum, Hanau Germany
<http://www.roevac.com>



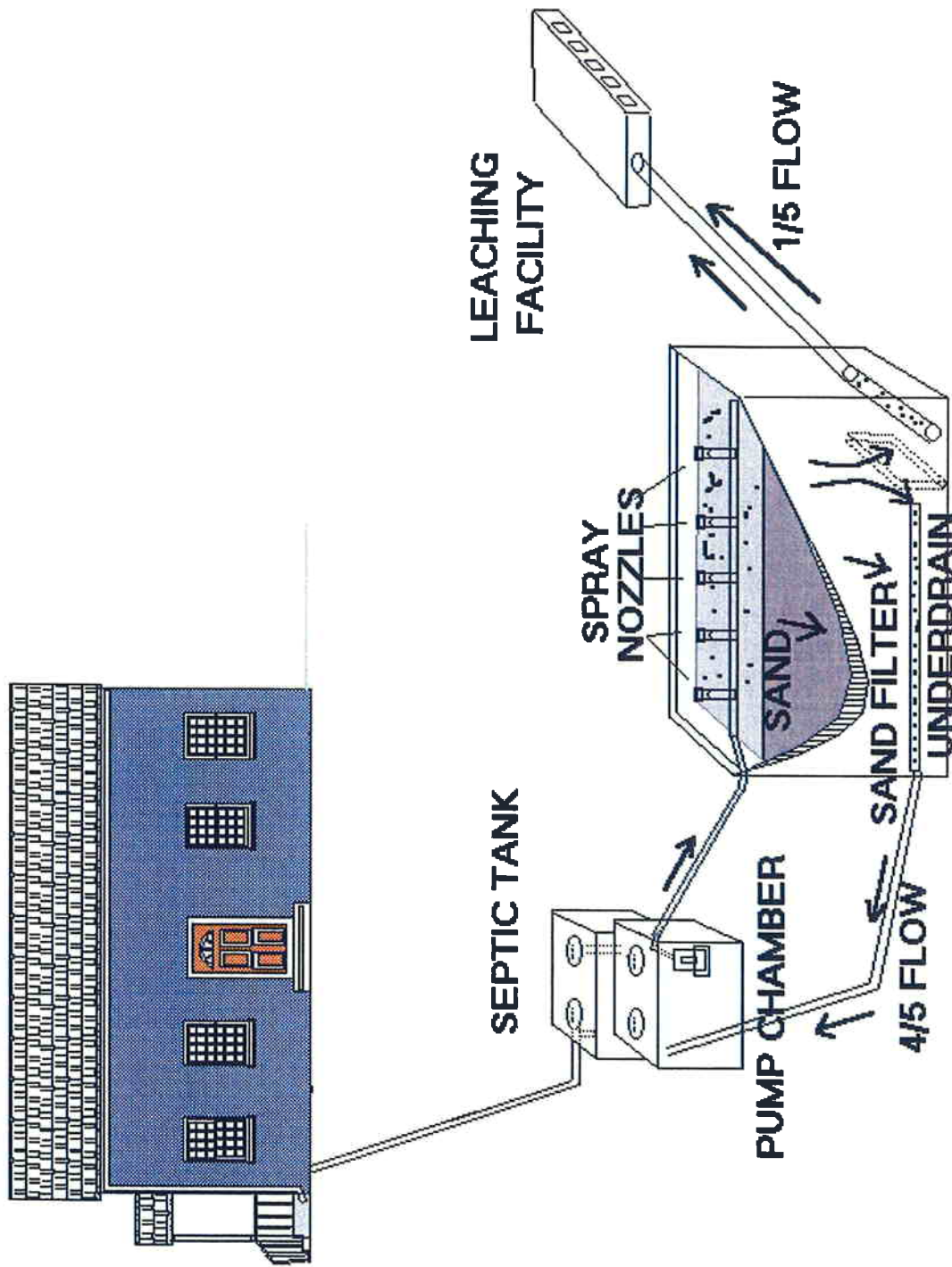
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Urine Source Separation

FIGURE 3-7



Source: Barnstable County Department of Health, June 2003

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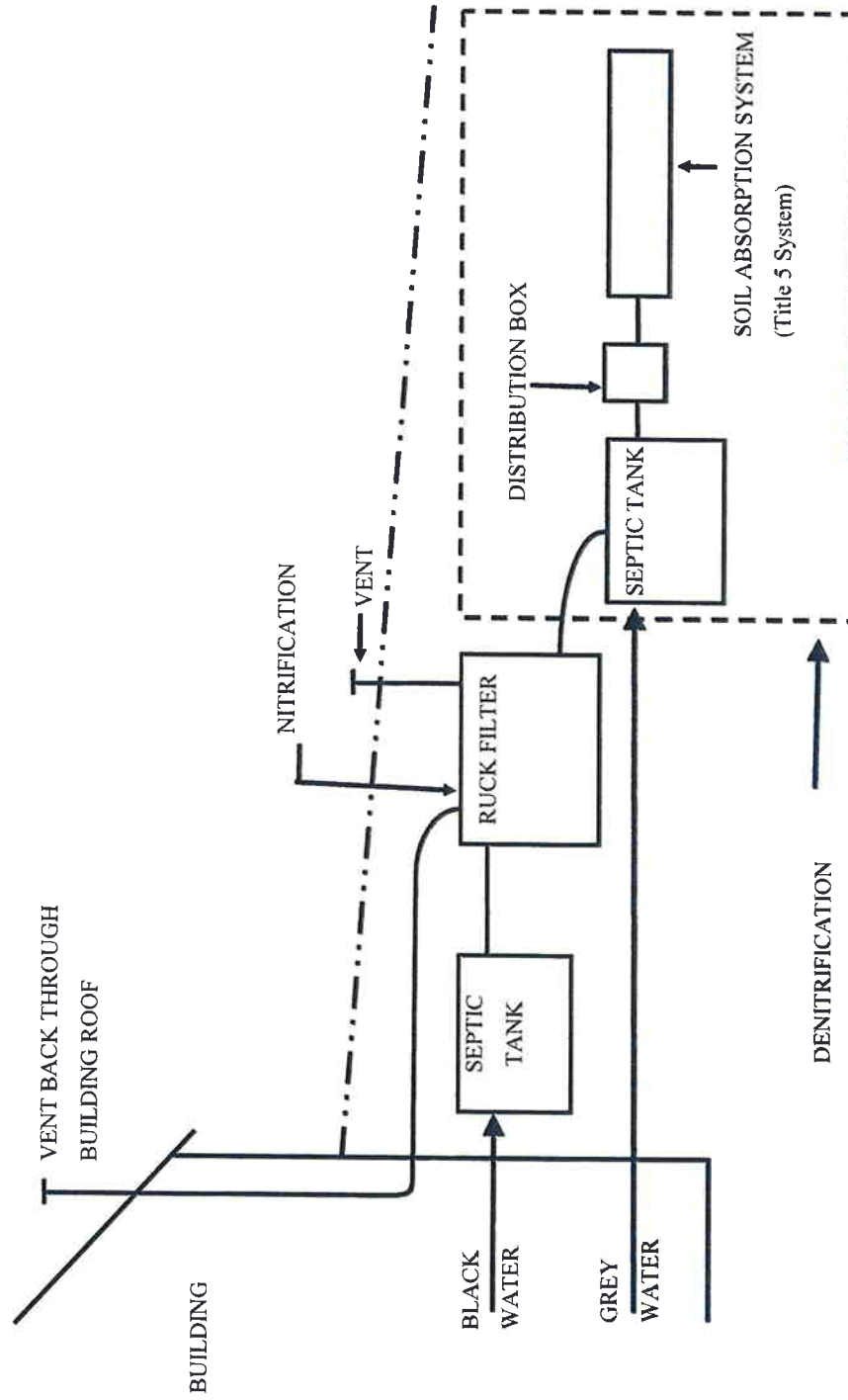
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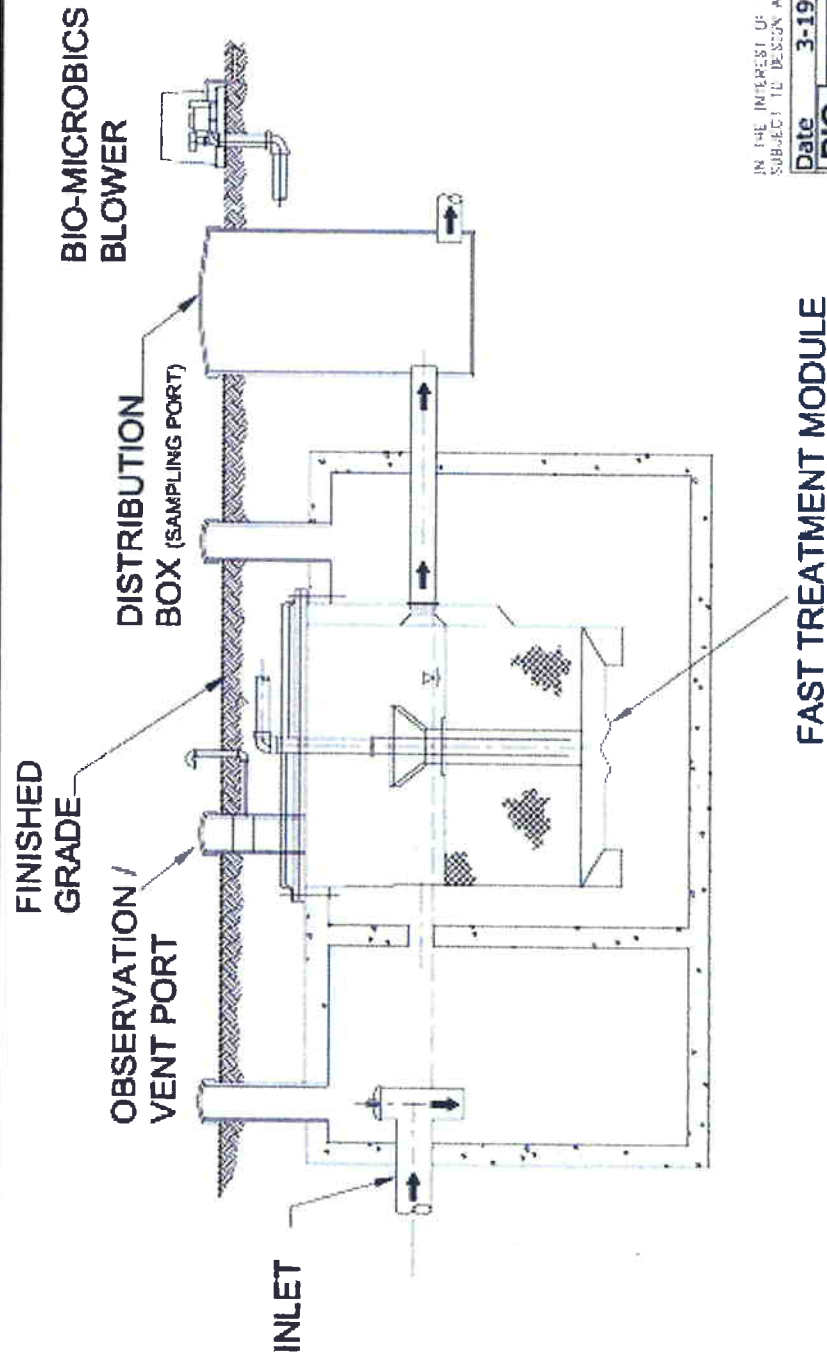
Recirculating Sand Filter

FIGURE 3-8



Source: RUCK Systems, Inc., June 2003

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	Ruck System Diagram FIGURE 3-9



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2. DISTRIBUTION BOX (SAMPLING PORT) SHALL BE ENGINEERED TO PROVIDE ADEQUATE CLEARANCE FOR EFFLUENT SAMPLING FROM THE FAST TREATMENT MODULE.
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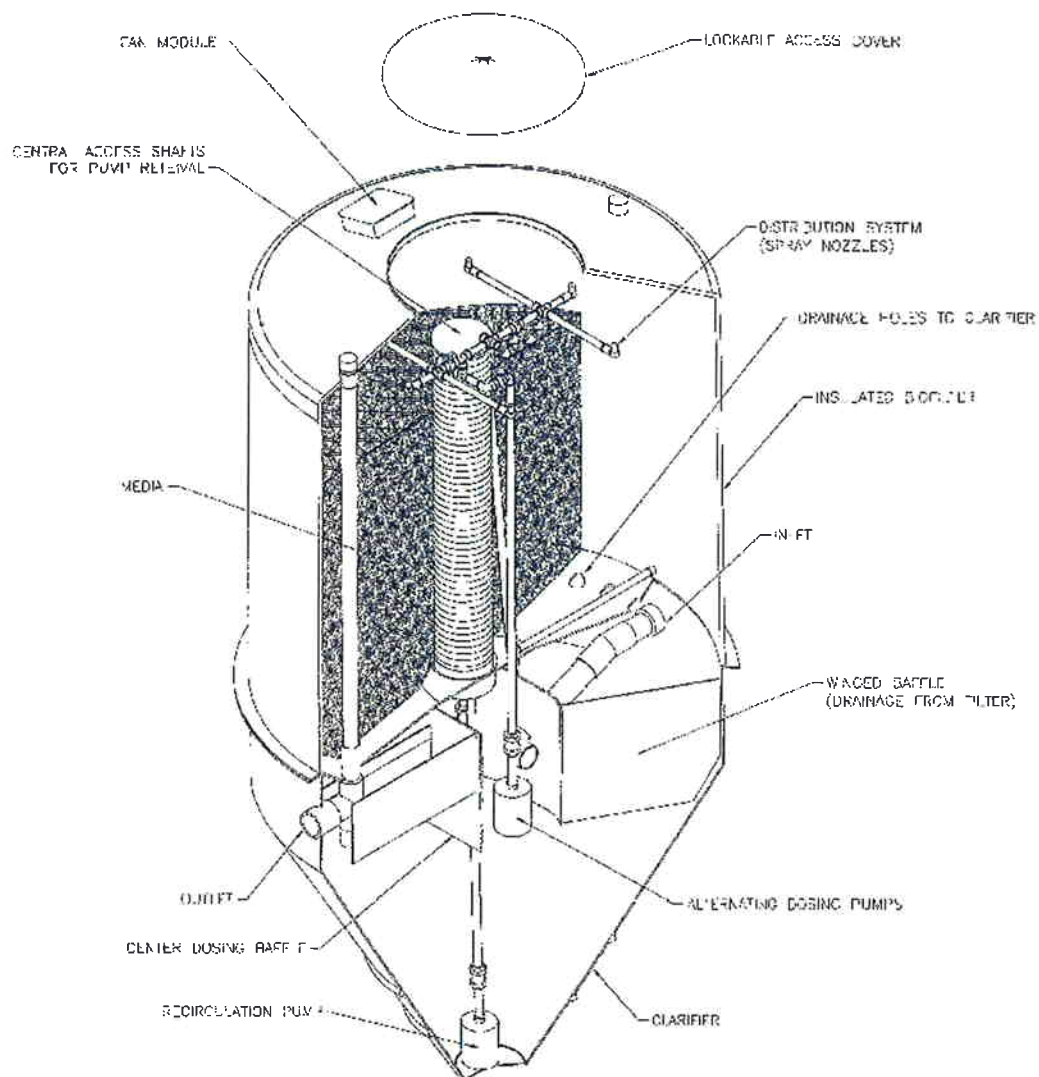
Source: Bio-Microbics, Inc.

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Fast Treatment System (Bio-Microbics)
FIGURE 3-10



ISOMETRIC VIEW OF BIOCLERE

Source: Oikos® © 1996-2002
Source: AquaPoint



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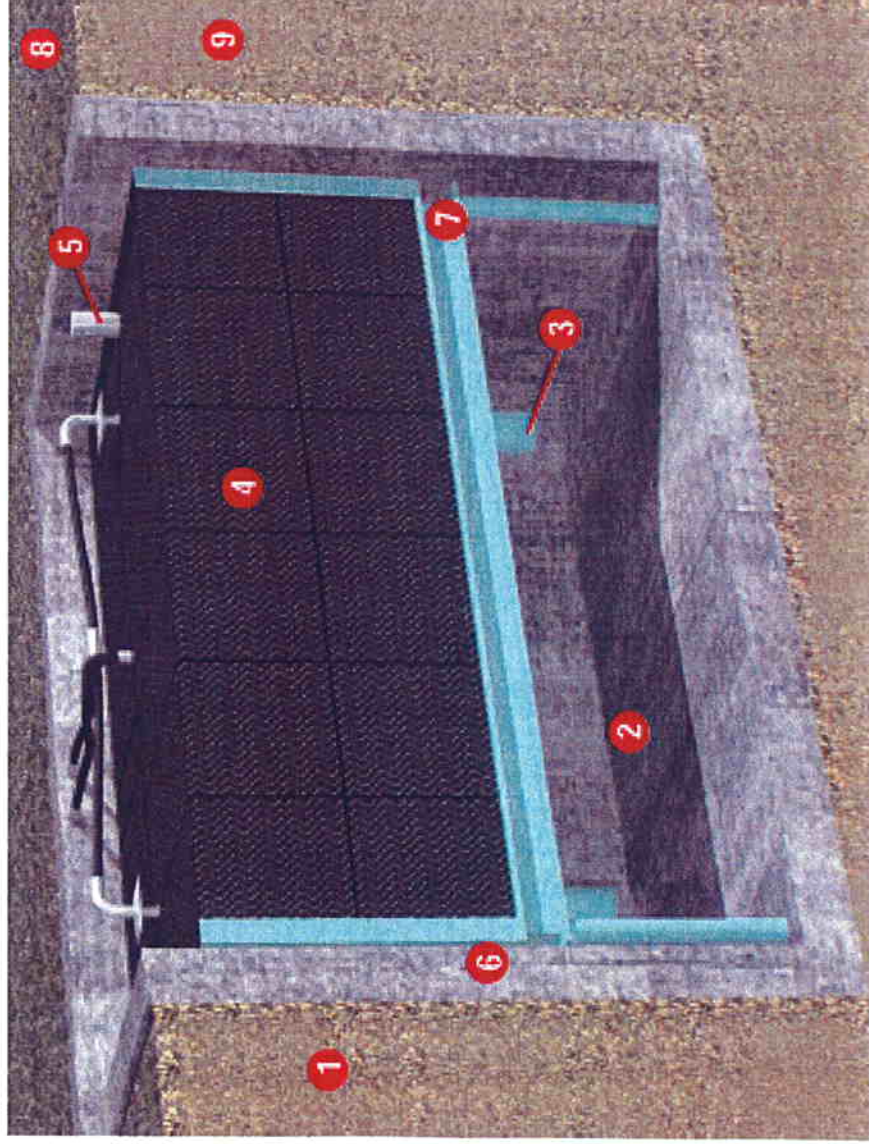
TOWN OF BARNSTABLE

**Comprehensive Wastewater and
Nutrient Management Plan**

Bioclere Treatment Unit

FIGURE 3-11

Modular FAST Design Features



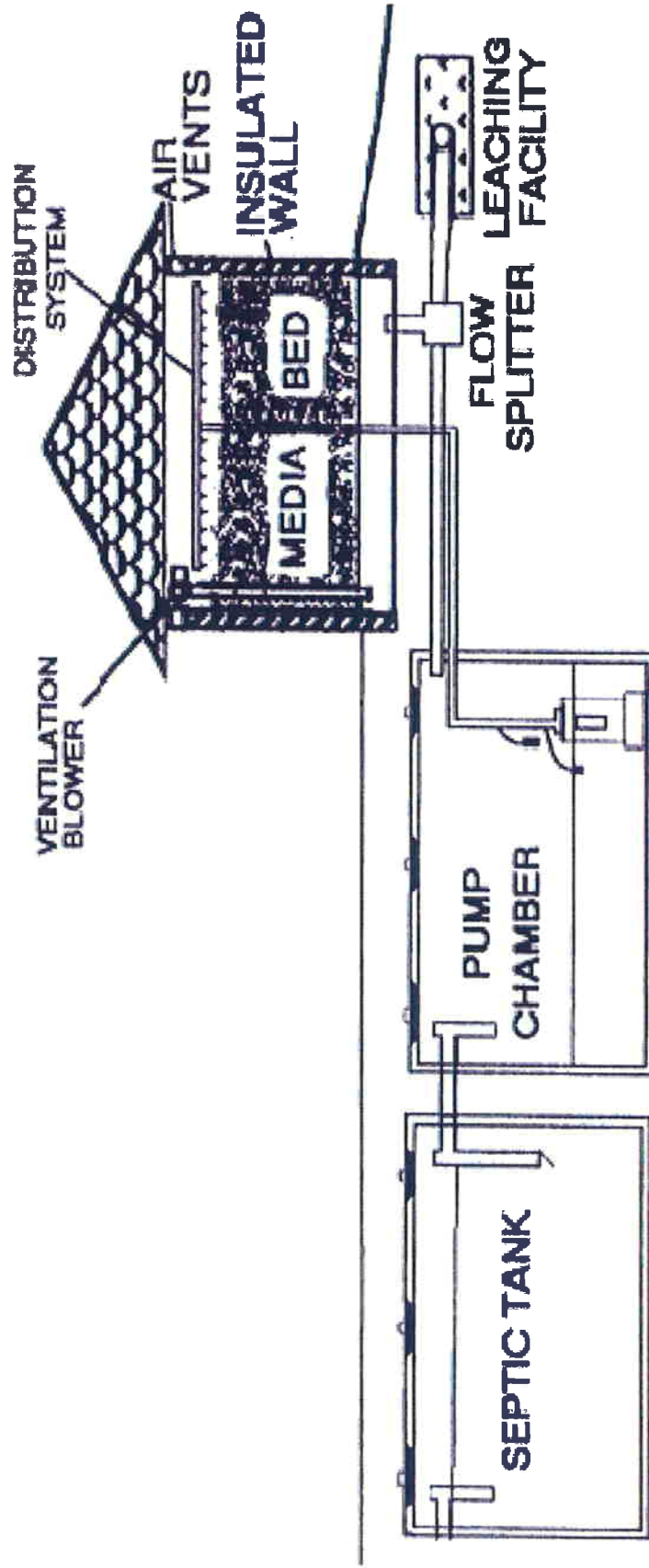
Source: Smith & Loveless, Inc.

- 1 Influent Pipe
- 2 Solids Collection Zone
- 3 Draft Tube
- 4 FAST Media
- 5 Sludge Withdrawal Pipes
- 6 System Tank
- 7 Module
- 8 Blower
- 9 Influent Pipe


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Modular Fast System (Smith & Loveless)
FIGURE 3-12

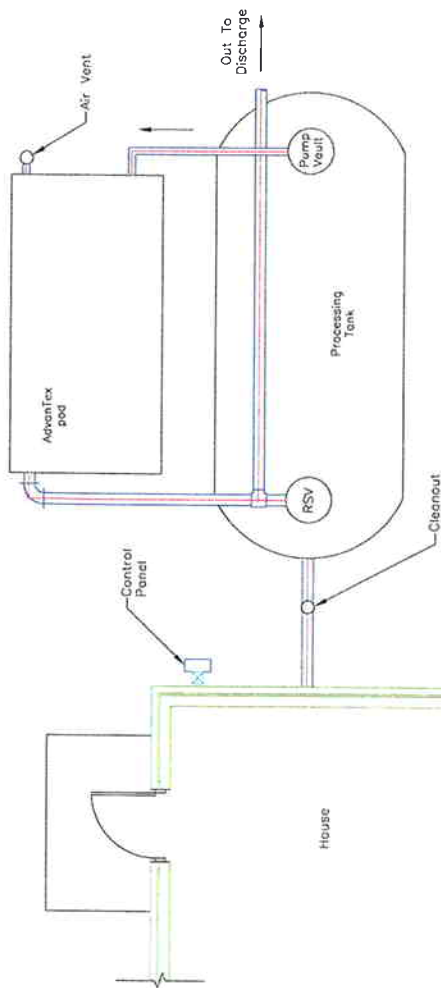


Source: Buzzards Bay Project, June 2003

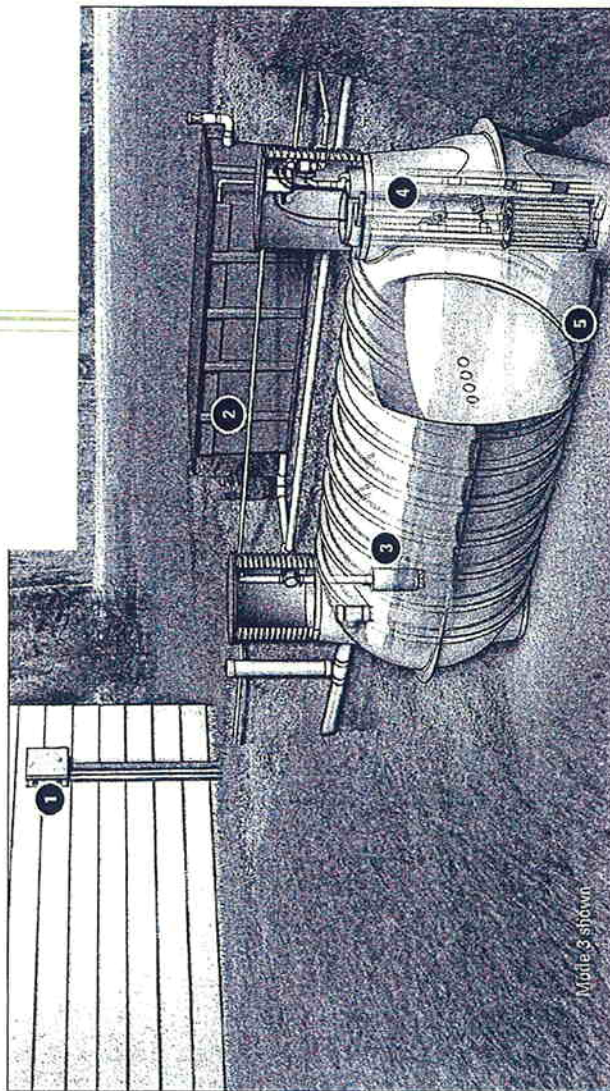
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Town of Barnstable, Massachusetts
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 Waterloo Biofilter
FIGURE 3-14



1. Control Panel
2. AdvanTex Filter Pod
3. Recirculating Splitter Valve
4. Biotube® Pumping Package
5. Processing Tank



Source: http://www.orenco.com/pdfs/AXRES_Install_3.31.pdf

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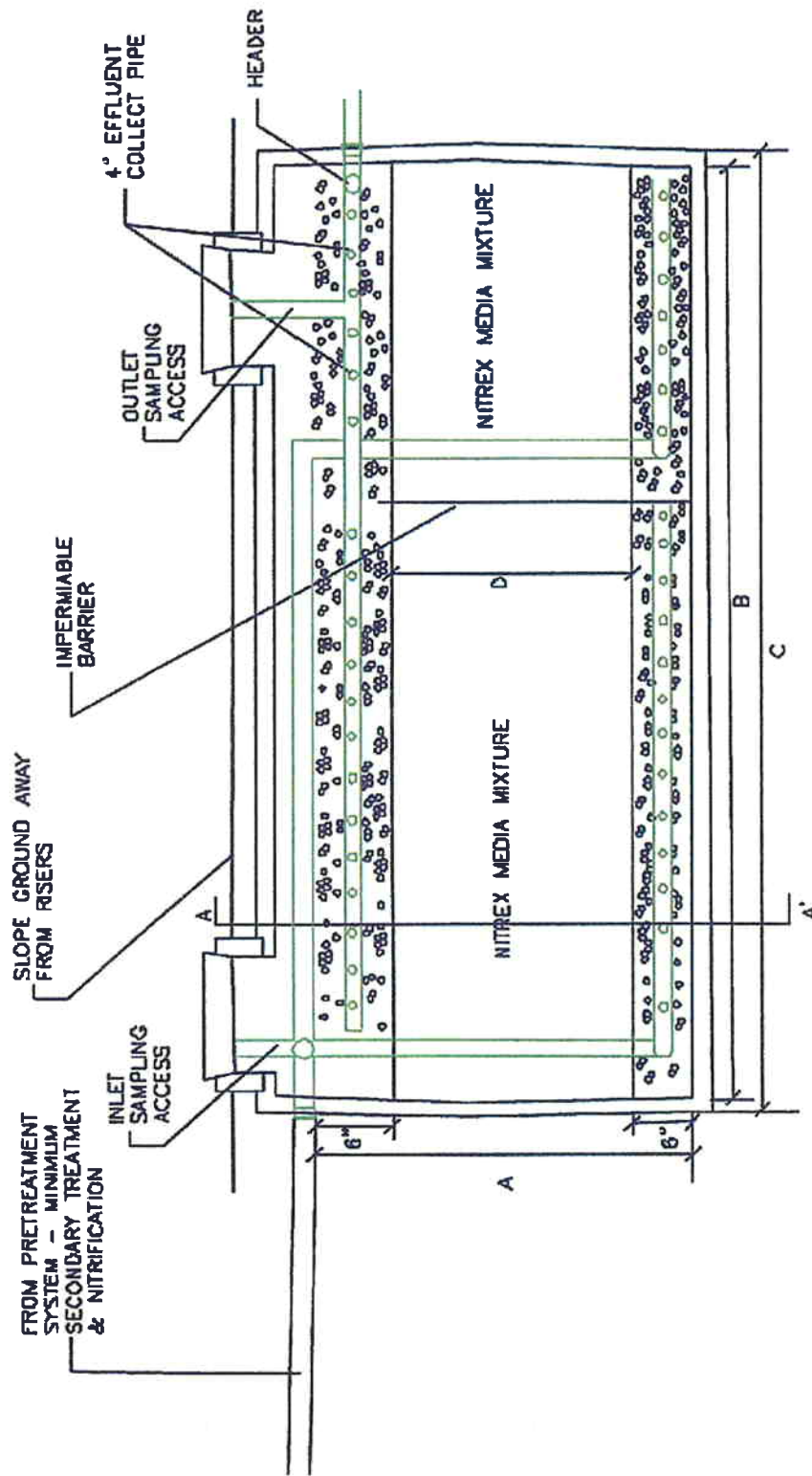
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Advantex

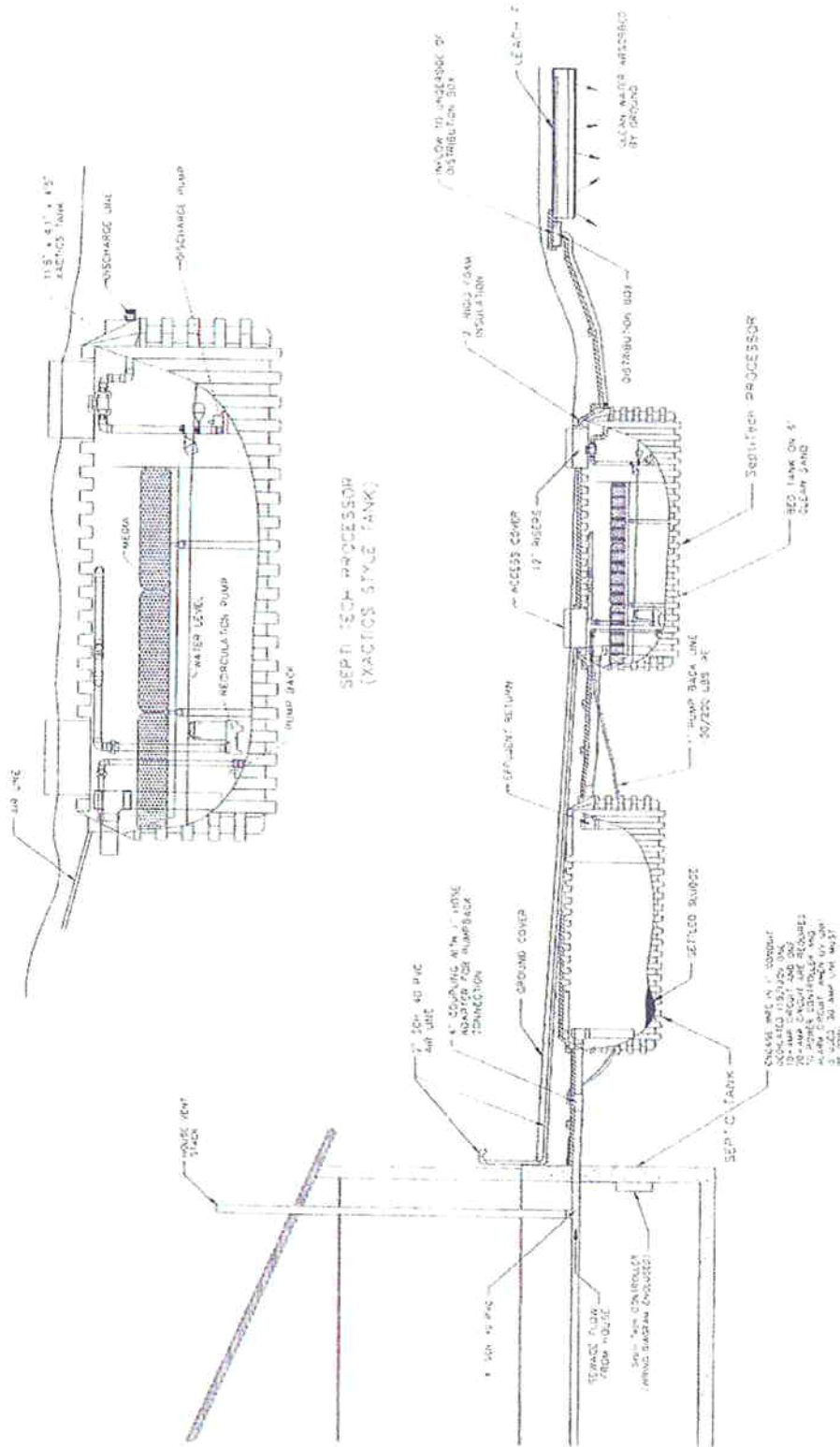
FIGURE 3-15

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SEPTITECH PROCESSOR
(EXACTOS STYLE TANK)



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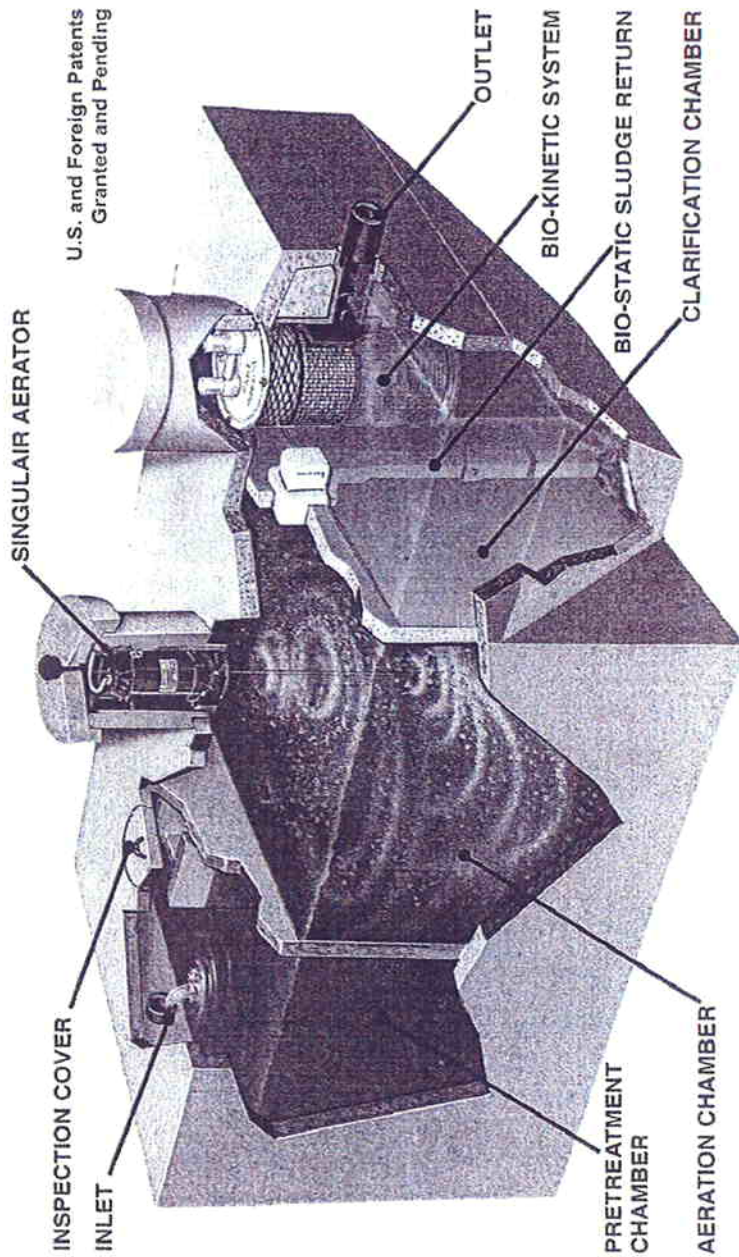
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FIGURE 3-17



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Source: Norwalk Wastewater Equipment Company, Inc.

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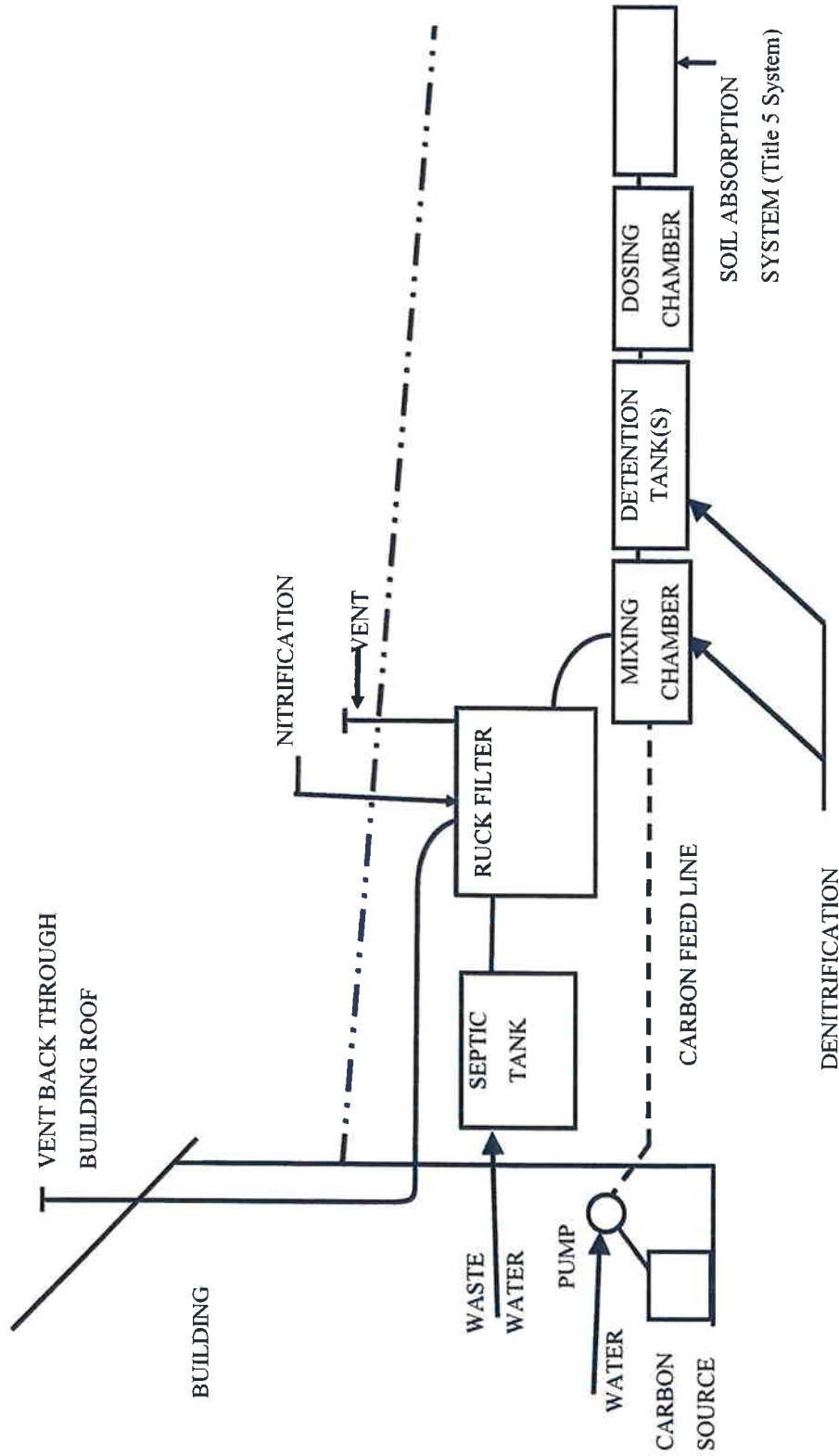
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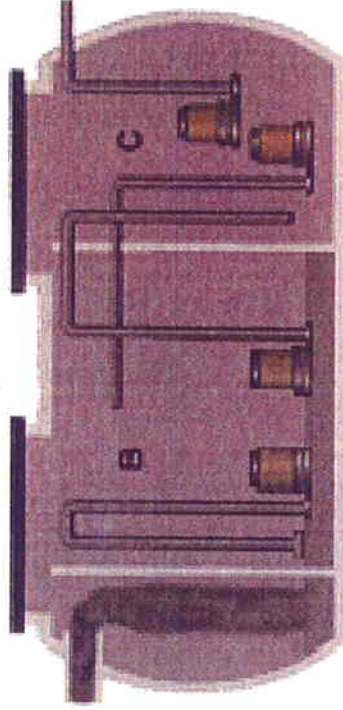
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Singularair System

FIGURE 3-18

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Source: Cromaglass Corp



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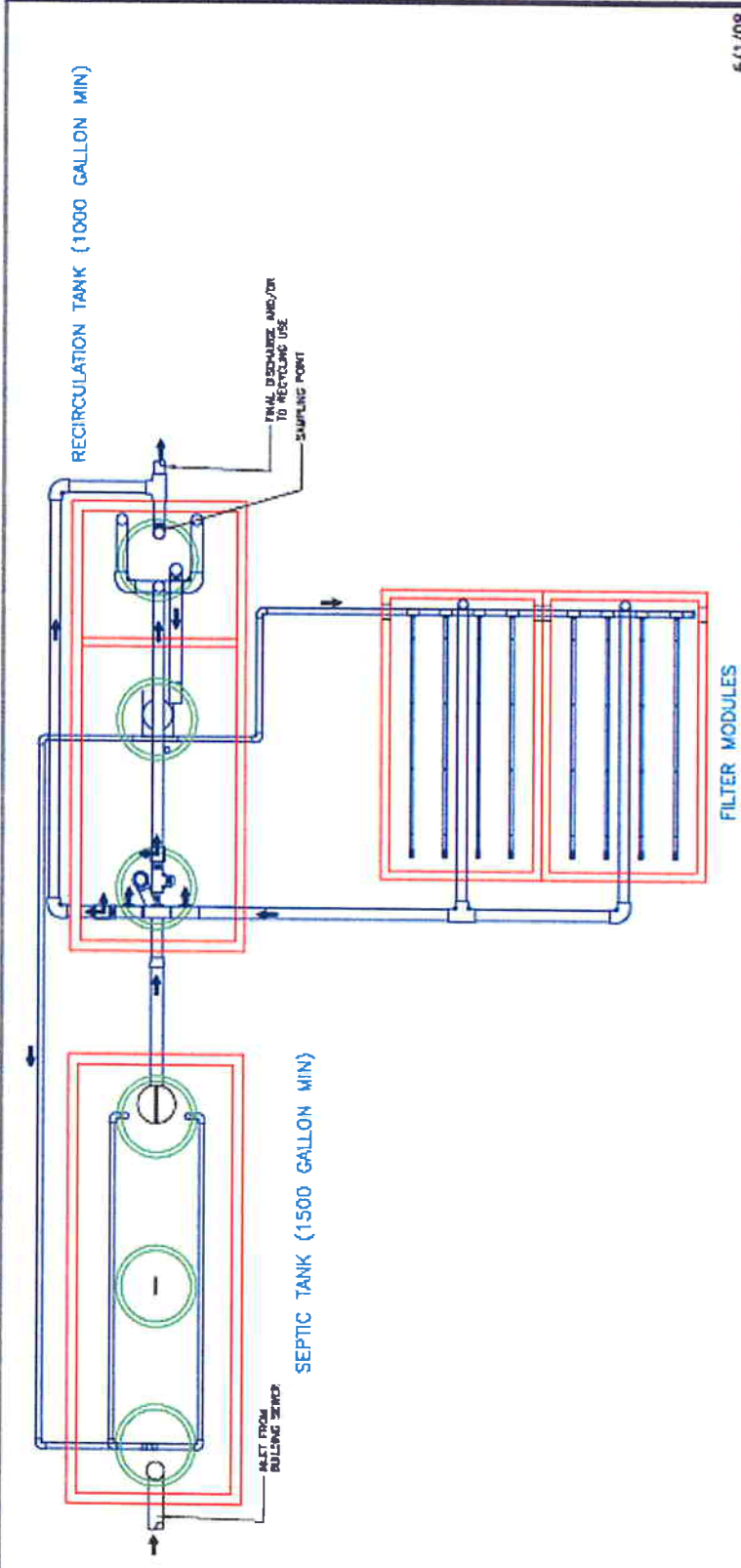
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Cromaglass System

FIGURE 3-20



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OMNI-CYCLE PROCESS FLOW DIAGRAM
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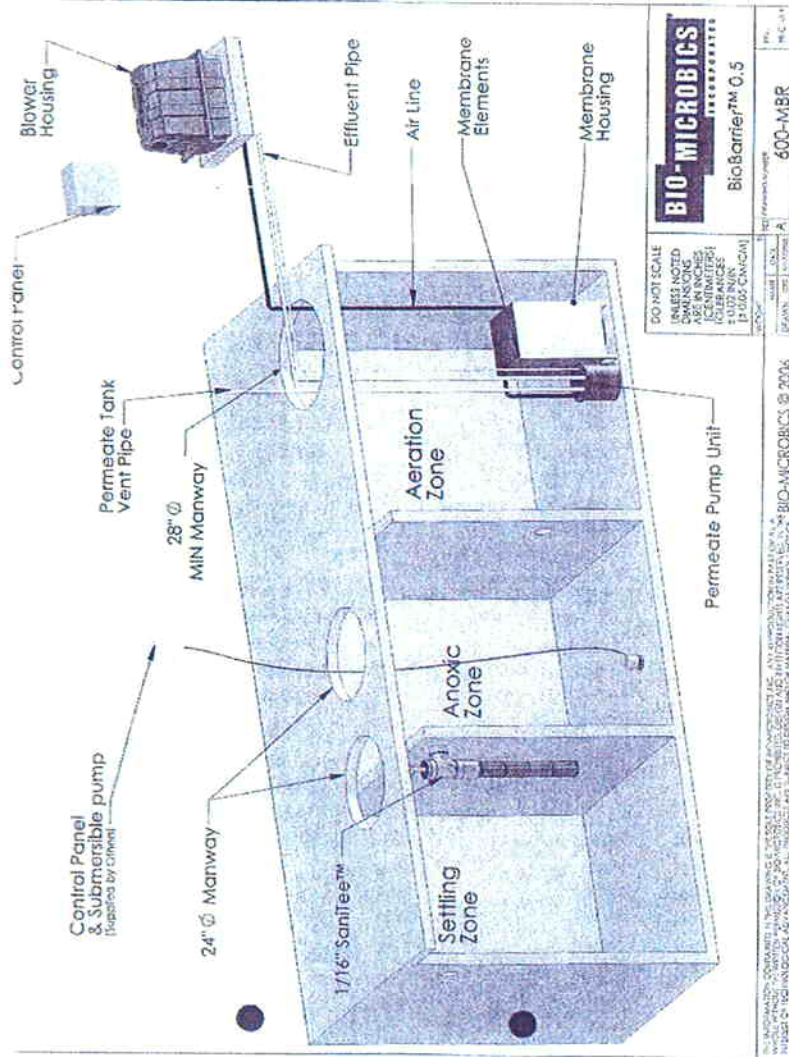
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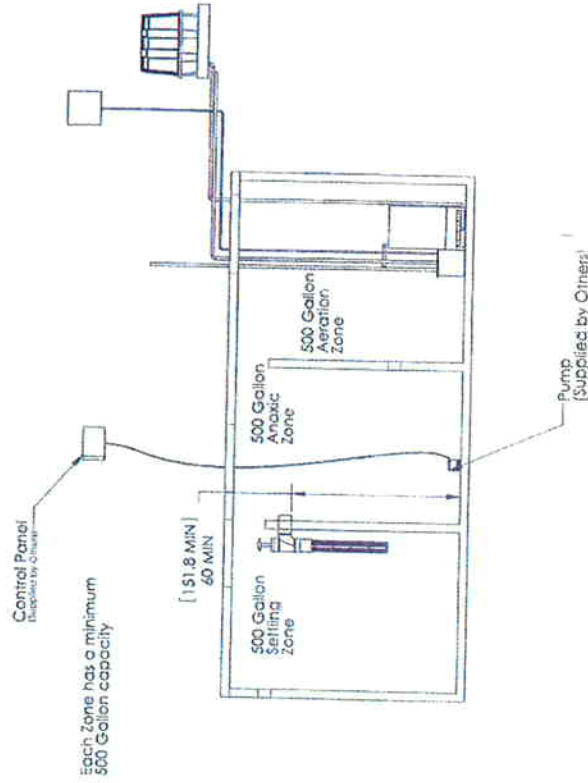
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Omni - Cycle System

FIGURE 3-21



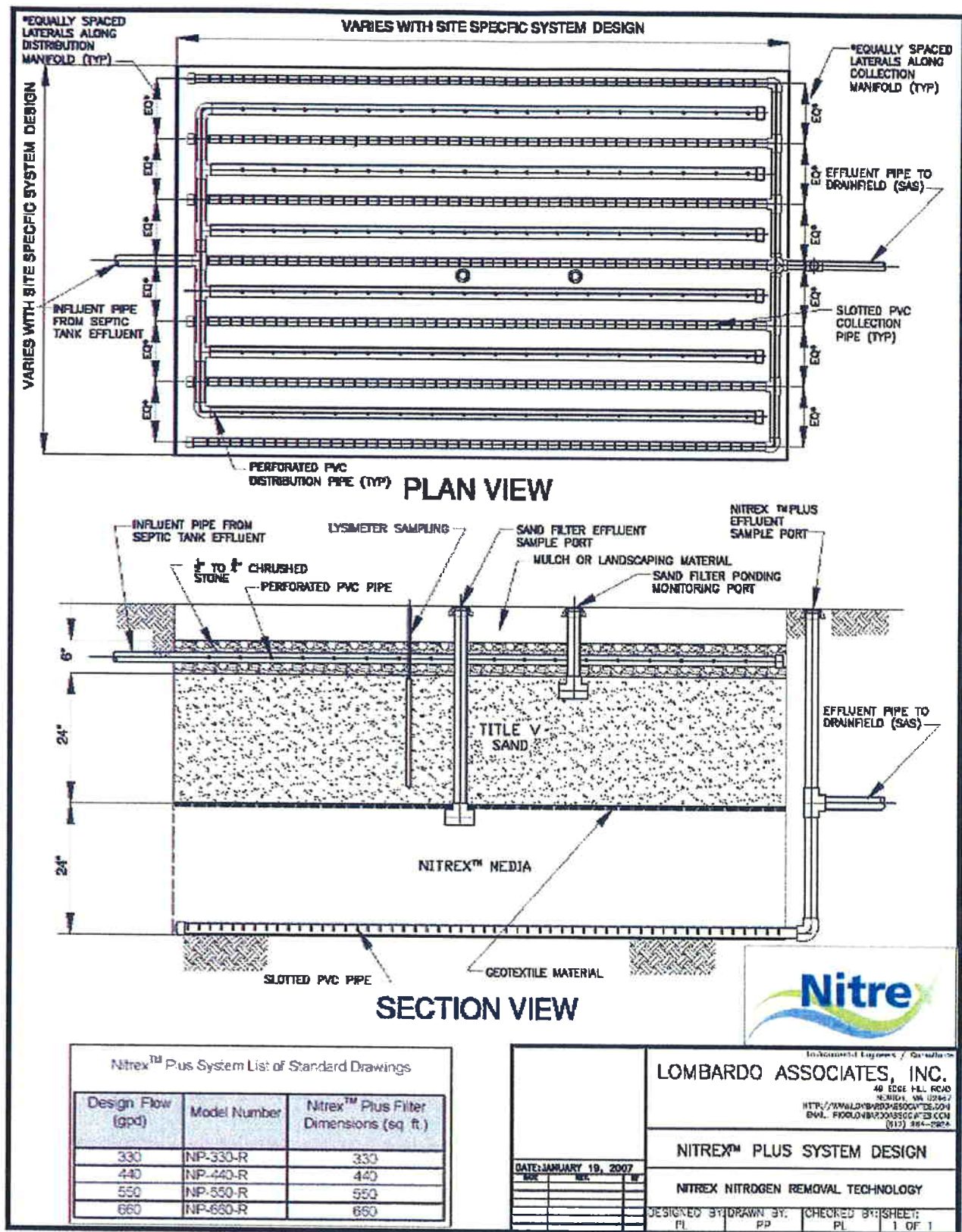
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Bio-Barrier MBR System
FIGURE 3-22

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TOWN OF BARNSTABLE
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NITREX Plus

FIGURE 3-23

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TOWN OF BARNSTABLE MASSACHUSETTS

Comprehensive Wastewater
and Nutrient Management Plan

Red Lily Pond
Cluster System Site

Figure 3-24



Feet
0 30 60 120 180 240

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TOWN OF BARNSTABLE GEOGRAPHIC INFORMATION SYSTEMS UNIT

FIGURE PREPARED FOR STEARNS & WHEELER GHD

Aerial Photo Taken April 19, 2008

- Wastewater Pipe
- ◆ Tank
- Leaching Facility
- Cleanout
- Grinder Pump
- Distribution Box

