

**PERC TEST DATA:**  
 PERC 1: 7.26 MIN/IN  
 PERC 2: 28.47 MIN/IN  
 PERC 3: 13.00 MIN/IN  
 PERC 4: 1.88 MIN/IN  
 PERC 5: 5.10 MIN/IN  
 PERC 6: 51.23 MIN/IN

**TEST PIT DATA:**

Test pits logged 08/14/01 by Bruce Cox.

Test Pit 1

|         |  |
|---------|--|
| 0'-12"  | Topsoil Dry  |
| 12'-30" | Medium grey brown till                               |
| 30'-8"  | Medium grey brown till with abundant weathered rock. |

No refusal to depth  
 No seepage observed  
 Faint, light-brown orange mottles at 30"

Test Pit 2

|        |                         |
|--------|-------------------------|
| 0'-17" | Topsoil Dry             |
| 17'-8" | Medium grey brown till. |

No refusal to depth  
 No seepage observed  
 Moderately prominent, discontinuous, light-medium orange mottles 26'-64"

Test Pit 3

|        |                        |
|--------|------------------------|
| 0'-16" | Topsoil Dry            |
| 16'-9" | Medium grey brown till |

No refusal to depth  
 No seepage observed  
 Faint, discontinuous, medium, brown, orange mottles at 36"

Test Pit 4

|        |                           |
|--------|---------------------------|
| 0'-15" | Topsoil Dry               |
| 15'-5" | Medium grey brown till    |
| 5'-8"  | Till as above, but gravel |

No refusal to depth  
 No seepage observed  
 Trace of mottles

Test Pit 5

|        |                           |
|--------|---------------------------|
| 0'-13" | Topsoil Dry               |
| 13'-4" | Medium grey brown till    |
| 4'-9"  | Till as above, but gravel |

No refusal to depth  
 No seepage observed  
 Faint, discontinuous, light-medium brown orange mottles below 30"

Test Pit 6

|        |                           |
|--------|---------------------------|
| 0'-12" | Topsoil Dry               |
| 12'-4" | Medium grey brown till    |
| 4'-8"  | Till as above, but gravel |

No refusal to depth  
 No seepage at 34"  
 Prominent, continuous, light-medium orange mottles at 24"

**GROUND SAND SIEVE ANALYSES:**

| TYPE    | SIEVE NUMBER | OPENINGS (MM) | PERCENT PASSING BY WEIGHT |
|---------|--------------|---------------|---------------------------|
| TYPE A: | 10           | 2,000         | 85-100                    |
|         | 60           | 0,420         | 25-75                     |
|         | 100          | 0,149         | 0-50                      |
|         | 200          | 0,075         | 0-5                       |
|         | 4            | 4,750         | 95-100                    |
| TYPE B: | 8            | 2,380         | 80-100                    |
|         | 16           | 1,190         | 50-85                     |
|         | 30           | 0,590         | 25-60                     |
|         | 50           | 0,297         | 10-30                     |
|         | 100          | 0,149         | 2-10                      |
| TYPE C: | 10           | 2,000         | 85-100                    |
|         | 40           | 0,420         | 30-50                     |
|         | 200          | 0,075         | 0-10                      |

**Septic Tank to Leaching Area CONSTRUCTION NOTES:**

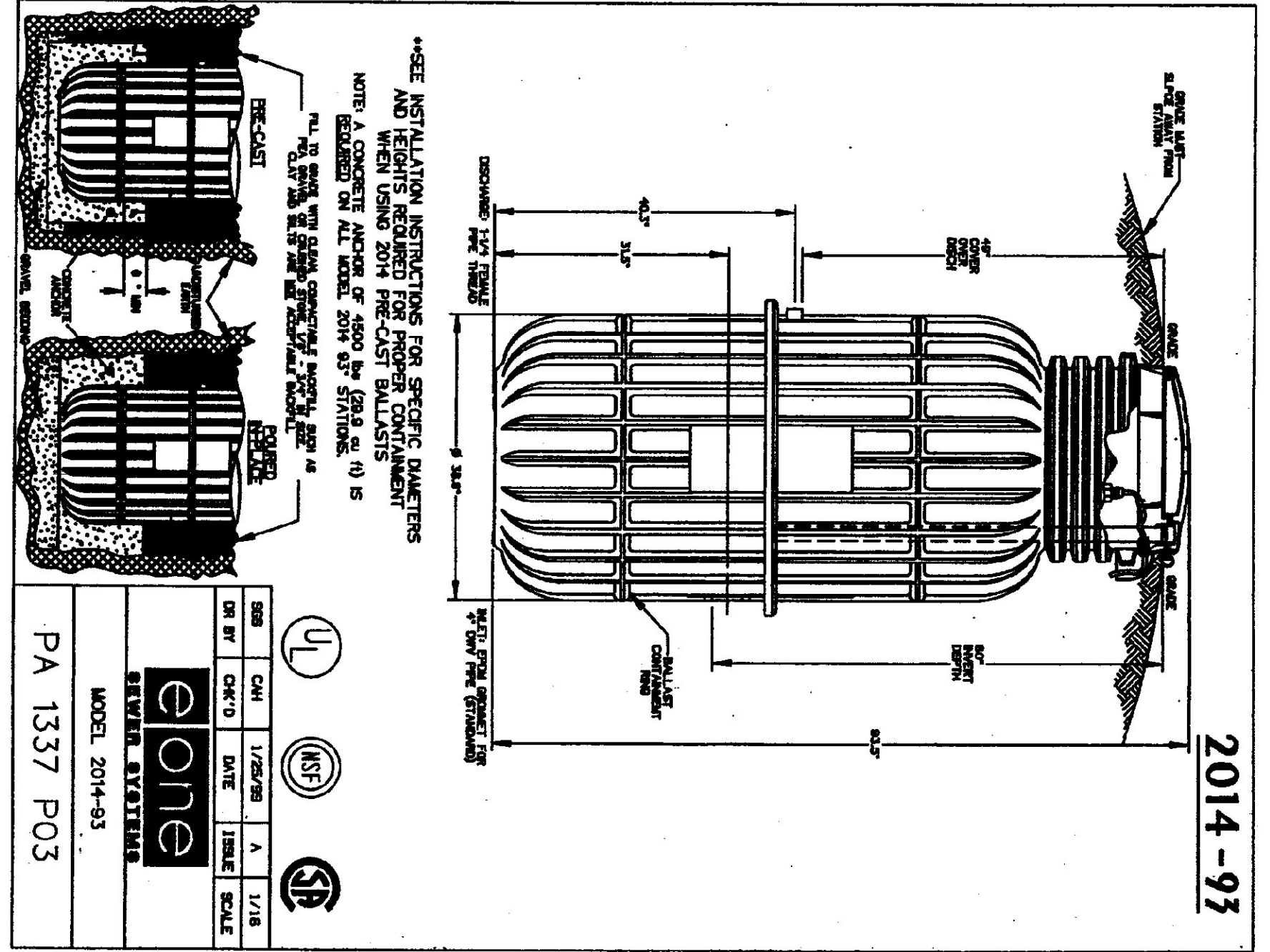
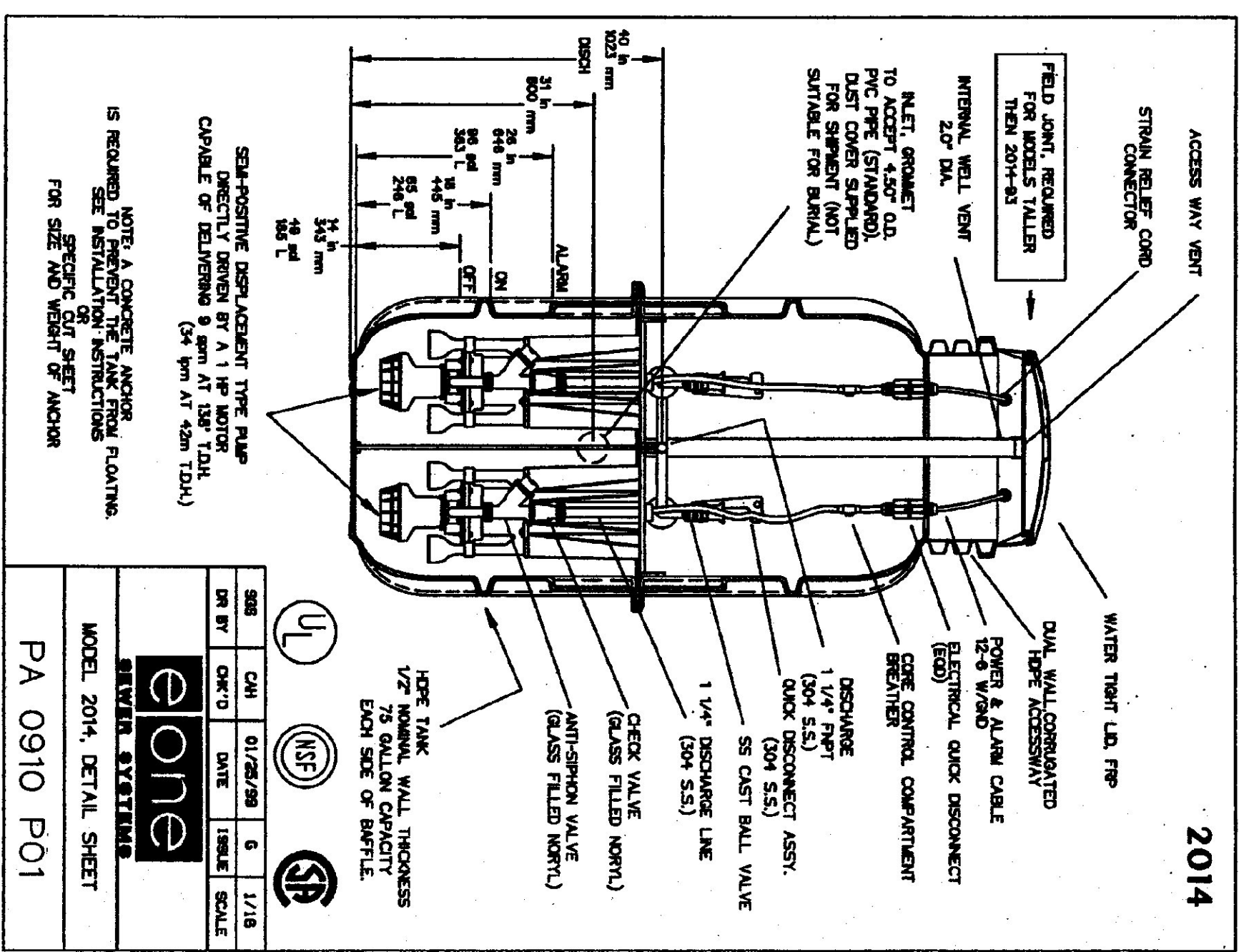
1. Cut and remove all above-ground vegetation in the area of proposed mound. Cut any tree stumps flush with the ground and leave the roots in place.
2. Plow the area parallel to the contour of the land to a depth of 7-8 inches, throwing the soil windward. Construction equipment should be used to level the surface after the plowing is complete. Prior to placing any fill for the mound, the plow surface shall be inspected and approved by the Engineer.
3. Place the sand fill over the area per plan, (minimum depth of 21 inches) above the plowed surface. The Engineer shall approve the sand fill prior to installation.
4. Excavate the bed and place 9 inches of crushed stone in the trenches. Hand level the stone and temporarily install the distribution pipe without giving the joints, with the perforations placed facing upward for testing. Cap the ends of the pipe as shown in the detail on this sheet.
5. Test the network with clean water to assure equal distribution through the pipes. The difference in discharge between any two perforations shall not be greater than 15%. This testing shall be conducted in the presence of the Engineer. Upon successful testing move the pipe joints and end caps so the perforations are facing downward.
6. Place 2" crushed stone over the distribution pipe. Cover the crushed stone with a layer of filter fabric (Mirofil 140N).
7. Cover the entire mound with soil less permeable than the sand fill to a depth of 18 inches at the center and 12 inches on the side slopes. Seed and mulch the entire mound. A minimum of 4" of topsoil will be placed at the surface.
8. All work shall be performed in conformance with the Environmental Protection Rules 8/8/96, Vermont Agency of Environmental Conservation, including leakage testing of force mains.
9. Surface runoff from building and driveway area shall not be directed toward septic system.
10. "Crushed stone" used in the construction of leaching trenches shall be a clean and durable stone, and be no larger than 1 1/2 inches in diameter or larger than one and one-half inches in diameter, as per (Environmental Protection Rules 1-703).
11. The septic tanks and distribution boxes shall be precast units as supplied by W.E. Daley, Inc. to be installed in accordance with the plans and modified structurally as needed for earth cover, water table conditions and septic cover modifications.
12. When manholes or inspection covers with risers constructed to grade are constructed the ground surface surrounding the manholes shall be sloped to insure drainage away from the manhole.
13. The septic tank shall have a filter constructed on the outlet pipe. Filter shall be a 4" biotube effluent filter, model FT-0418-4, by Omeco System Inc.

**DESIGN CRITERIA FOR WASTEWATER DISPOSAL**

1. DESCRIPTION
  - a) FLOWS TO THE SEPTIC SYSTEM WILL COME FROM DOMESTIC USE BY EMPLOYEES.
2. AVERAGE FLOWS
  - 5 EMPLOYEES AT 15GPD EACH = 75 GPD
3. SEPTIC TANK REQUIREMENTS
  - USE 1000 GALLON HEAVY DUTY 10'x7' SEPTIC TANK BY W.E. DALEY, INC. WITH ACCESS COVER OPENINGS FOR 4" DIAMETER RISER
4. LEACHING AREA
  - a) DESIGN PERC RATE = 28.47 MIN/IN.
  - b) APPLICATION RATE = 0.74gal/sf/day
  - c) APPLICATION RATE = 101 s.f. REQUIRED
  - d) APPLICATION AREA REQUIRED
  - e) TRENCH LENGTH = 28
  - f) TRENCH WIDTH = 4
  - g) STONE DEPTH BELOW PIPE = 9"
  - h) LEACHING AREA PROVIDED = 1 TRENCH, 4' WIDE, 28' LONG = 104 SF (BOTTOM AREA)

**PUMP STATION DETAIL**

11  
C-1



**BID DOCUMENTS**  
 DO NOT REVISE  
 January 24, 2002



**LineSync Architecture**  
 1406 Hillside Vermont 05696 USA  
 802.453.1232  
 www.line-sync.com

**SEPTIC SYSTEM DETAILS**

PROJECT NUMBER: 0000  
 DATE: 25 OCTOBER 2001  
**C10**