NOTE:  OAR 340-071-0160 (1) No person shall cause or allow construction, alteration, or repair of a system, or any part thereof, without first applying for and obtaining a permit.

A sewage disposal system must be installed by either the owner of the property or a DEQ licensed, bonded sewage disposal system installer.

1. Serial Distribution is on sloping ground with a slope of approx. 3% or more. If the ground is level, (less than 3% slope), the system is Equal Distribution. See diagrams.

2. Septic Tank: must be from an approved manufacturer, a min. of 1000 gal., watertight with a watertight manhole riser diameter of 20 inches brought to grade with no more than 18 inches of soil cover. The site must be a stable, level base free of protruding rocks or sharp debris. If located in a high groundwater area, an anti-buoyancy device will be needed to prevent flotation. Stay 5 feet from any building or property line. Stay 50 feet from any well, spring, or surface water.

3. Effluent Sewer Pipe (located between the septic tank and the distribution box): must be at least 5 feet of solid pipe with a minimum two (2) inch fall or 4 inches per 100 feet. There must be a 8 inch fall from the septic tank outlet and the invert of the header to the distribution pipe of the highest lateral. See approved material list.

4. Drop Boxes: must be watertight and corrosion resistant with at least a 2 inch sump and an outlet 2 inches below the inlet. The boxes must accommodate watertight connections. The box covers must be marked with a manufacture name or DEQ #. Note: Drop boxes have outlets to the next box that are the same height as the inlet.

5. Header Pipe: shall be watertight with a minimum diameter of 3 inches and be bedded on undisturbed earth. Header pipes shall be at least 4 feet in length.

6. Disposal Trenches: A minimum depth of 24 inches and 24 inches wide. There must be 8 feet of undisturbed soil between trenches. The bottom of the trenches shall be level within a tolerance of plus or minus one inch. Rake sidewalls of the trench to insure permeability- sidewalls should not be smeared or compacted. There shall be at least 6 inches of media under the distribution pipe and 2 inches of drain media over the distribution pipe. Cover the drain media with filter fabric or other approved material before backfilling. Note: A Pre-cover inspection is required before backfilling. There must be at least 12 inches of soil cover over the filter fabric. There is no minimum or maximum length, but lines shorter than 30 feet are not recommended. All disposal trenches must be at least 100’ from any well, year round springs, creeks, rivers and ponds. Note: Maximum depth of trench is specified on the permit.

7. As-Built Drawing: submit a drawing with measurements of the drainfield to locate all parts of the septic system. Include setbacks from buildings, wells, or property lines.
Effluent Sewer Pipe

The effluent sewer pipe is the distribution pipe that extends from the septic tank or gravity discharge point of a sand filter to the distribution box at the beginning of the first absorption trench in the absorption field.

- Minimum inside pipe diameter: **Three (3) inches. Four (4) inch diameter pipe is typically installed.**
- Pipe minimum fall or gradient: **Two (2) inches for pipe runs up to but not exceeding ninety-nine (99) feet. Four (4) inches for each additional one-hundred feet of pipe run thereafter.**

<table>
<thead>
<tr>
<th>PIPE MATERIAL</th>
<th>TYPE</th>
<th>SPECIFICATION</th>
<th>JOINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cast Iron</td>
<td>Soil</td>
<td>CISPI 301-68T</td>
<td>No Hub Connector Lead Joint</td>
</tr>
<tr>
<td>ABS</td>
<td>Sch 40</td>
<td>ASTM F-628</td>
<td>Solvent Weld</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ASTM D-2661</td>
<td>Solvent Weld</td>
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<tr>
<td></td>
<td></td>
<td>ASTM D-2751</td>
<td>Solvent Weld</td>
</tr>
<tr>
<td>PVC</td>
<td>Sch 40</td>
<td>ASTM D-2665</td>
<td>Solvent Weld</td>
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<td>ASTM D-2672</td>
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<td>PVC</td>
<td>PSM</td>
<td>ASTM 3033</td>
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<td>ASTM 3034</td>
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<tr>
<td>PVC</td>
<td>PSP</td>
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<tr>
<td></td>
<td></td>
<td>ASTM 3034</td>
<td>Solvent Weld or Gasket</td>
</tr>
</tbody>
</table>

Note: A minimum elevation difference of eight (8) inches between the invert of the septic tank outlet and the invert of the solid header pipe extending from the distribution box to the perforated pipe in the first absorption trench is required.

Absorption Field Pipe

The distribution pipe and the perforated pipe that is found in the absorption field area of the septic system.

- Minimum inside pipe diameter: **Three (3) inches. Four (4) inch diameter pipe is typically installed.**
- Pipe minimum fall or gradient:
  - From distribution box to absorption trench perforated pipe: +/- one (1) inch
  - Absorption trench perforated pipe: +/- one (1) inch

Note: The perforated pipe in the absorption trench is required to have perforations that are one-half (1/2) inch diameter in size. The perforations must be separated by a minimum separation distance of five (5) inches and configured on the pipe in two (2) rows that are pointed downward and oriented sixty (60) degrees on either side of the pipe centerline.

<table>
<thead>
<tr>
<th>PIPE MATERIAL</th>
<th>LENGTH</th>
<th>SPECIFICATION</th>
<th>CONFIGURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Styrene Rubber</td>
<td>10’</td>
<td>ASTM D-2852</td>
<td>Solid Pipe Perforated Pipe</td>
</tr>
<tr>
<td>Polyethylene (Corrugated)</td>
<td>10’</td>
<td>ASTM F-405</td>
<td>Solid Pipe Perforated Pipe</td>
</tr>
<tr>
<td>Polyethylene (smooth)</td>
<td>10’</td>
<td>ASTM F-810</td>
<td>Solid Pipe Perforated Pipe</td>
</tr>
<tr>
<td>PVC</td>
<td>10’</td>
<td>ASTM D-2729</td>
<td>Solid Pipe Perforated Pipe</td>
</tr>
</tbody>
</table>
TYPICAL SERIAL DISTRIBUTION SYSTEM
(With Drop Boxes)

SLOPING GROUND

Structure

Building Drain

Building Sewer

Septic Tank

Effluent Sewer - 5' Min.

Header Piping

Lateral Piping

Disposal Trenches

Future Replacement Area

Natural Ground

Level

Lateral must be level from the outlet of each drop box to the end of each trench.

Diagram of serial distribution system with drop boxes, showing septic tanks, disposal trenches, and building drain lines. Instructions for leveling laterals.

Diagram of a house and septic tank on a sloping ground, with drop box and drain field details.
TYPICAL EQUIL DISTRIBUTION SYSTEM
(With Distribution Box)

LEVEL GROUND

All header pipes to be level from distribution box to end of trench.
All trenches to be equal length.

structure
Building
Drain
Building Sewer

Effluent Sewer
5' Min.

Septic Tank
5' Min.

Distribution Box

Header Pipes

Future Replacement Area

Lateral Piping at the Same Elevation

18" to 36"
24"

10' Min.

Section A - A

DRAKEFIELD GRAVEL

3/4" - 2" WASHED RIVER ROCK
or
3/4" - 2" WASHED CRUSHED ROCK

SITIFICATIONS:
NATIVE SOIL
FLOODPLAIN GRAVEL
SANDY" DEPOSIT AND SOUTH SIDES
PRE-COVER INSPECTION

REQUIREMENTS & CHECKLIST

The following items must be provided to complete the pre-cover inspection. Prior to requesting the inspection, please check the following;

**SEPTIC TANK WATER TEST is required.** Fill the tank with water to two (2) inches into the manhole riser and watch for leaks or water drops. Check to assure tank is watertight. Seal/repair leaks, if found. **RETEST.**

**“AS-BUILT” DRAWING must be at the job site or delivered to livered to this office prior to inspection.** Failure to provide this complete drawing will delay completion of the job and may incur a **$100.00 Re-inspection Fee.** Accurate measurements to the septic tank and the first drop box are required from two permanent points, for the record. If the “As-Built is left on the job, place it in a plastic bag, on the septic tank for the operator.

**PUMP ASSEMBLES and pressure lines should be pre-tested by the contractor to determine if they are working properly and do not leak.** Make any repairs, if necessary, prior to the inspection. **Power and water MUST be available to test the effluent pump.**

**SYSTEM TESTING.** Visually check the installation for completion prior to requesting an inspection. **Call (503) 623-9237 to set up an inspection.** Be sure to have the permit number available. Polk County will attempt to complete septic pre-cover inspections as soon as possible.
AS-BUILT PLAN OF CONSTRUCTED SYSTEM

POLK COUNTY ENVIRONMENTAL HEALTH
850 Main St., Dallas, OR 97338
Phone 503-623-9237 Fax 503-623-6009

Permit # _______ T_______ R_______ S_______ TL__________ Owner___________________________

SITE ADDRESS _______________________________ Date __________

AS - BUILT PLAN OF CONSTRUCTED SYSTEM: scale 1" – 50'

NORTH

SYSTEM MATERIALS AND SPECIFICATIONS

Septic Tank: Size: ____________ Mat‘l:_______________________ Mfg: ______________________________________
Dosing Tank: Size: ____________ Mat‘l:_______________________ Mfg: ______________________________________
Effluent Sewer: Size: ____________ Mat‘l:_______________________ Mfg: ______________________________________

Box (es): [ ] Distribution [ ] Drop [ ] Concrete [ ] Plastic

Drainfield Pipe: Size: ____________ Mat‘l:_____________________ Header: _______________ Perf: ________________
Total Drainfield Footage: __________ Rock Depth: Total: ____________ Under pipe: ____________

Trench Depth: Minimum: ____________ Maximum: ____________ Curtain Drain Depth: __________


Pump Cycle Time: ________ Gallons per: Cycle: ________________________

Attach an additional sheet for components and materials not listed above.

INSTALLERS CERTIFICATION


[ ] I HAVE TESTED THE SEPTIC TANK AND CERTIFY IT TO BE WATERTIGHT.

THE SYSTEM WAS INSTALLED BY:

[ ] PROPERTY OWNER (permittee)
[ ] LICENSED SEWAGE DISPOSAL SERVICE

Signed: _________________________________________

Company Name: _________________________________
(Please print)

Date: __________Permit #________ __ _______

(for Polk County use only)

The above septic system has been inspected by Polk County. The information has been determined to be accurate and the system is:

[ ] Approved
[ ] Approved with corrections: see inspection report
[ ] Denied

Signed: _________________________________________ Title: __________________ Date: __________