ATTACHMENT D

Geotechnical Report and

Engineering Installation Plan

Requirements

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Geotechnical Report & Engineering Installation Plan Requirements for:
➢ Slopes Exceeding 20%
➢ Reduction of Horizontal Setbacks

When it is proposed to install an OWTS on slopes over 20% the County OWTS Ordinance, Code Section B11-83, requires that it be demonstrated "through a geotechnical report and complete engineering installation plan … that use of the subsurface dispersal system will not permit sewage effluent to surface, degrade water quality, create a nuisance, affect soil stability, or present a threat to the public health or safety. The geotechnical report shall include, but not be limited to, soil percolation rates, contours, soil depth, seasonal groundwater elevation(s), location of all existing or proposed ground cuts, rock formations, soil stability, drainage, and other data as determined by the director and the County geologist."

Also, under Section B11-67(i)(6) regarding horizontal setback distances between the dispersal field and cut banks, embankments, steep slopes and unstable land masses, the Code allows for reduction of the required setback distance "…in accordance with recommendations provided in a geotechnical report by a registered civil engineer or professional geologist…".

The following are the minimum requirements for the preparation of the geotechnical report and engineering installation plan pertaining to the above provisions of the Code.

1. The geotechnical report must be prepared by a state registered civil engineer or a professional geologist certified as an engineering geologist or having similar geotechnical expertise as determined by the County geologist. The engineering installation plan must be prepared by a state registered civil engineer, professional geologist, or registered environmental health specialist. The report and plan may be prepared by different authorized professionals.

2. Engineering Installation Plan Requirements:

    a) The plan must be wet-stamped by the designer and initialed or signed.

    b) The plan must include cross section(s) through the dispersal field that show dispersal line depths and details, and any benching that will be necessary to install the system.

    c) Any OWTS proposed for installation on slopes between 30% and 40% shall require the use of pressure distribution methods, designed in accordance with applicable guidelines in Part 4 of the Onsite Systems Manual.

    d) Any OWTS proposed for installation on slopes between 40% and 50% shall require the use of subsurface drip dispersal methods, designed in accordance with applicable guidelines in Part 4 of the Onsite Systems Manual.

    e) The plan must include an erosion control plan, incorporating measures consistent with guidelines and requirements contained in Division C12, Chapter III of the Santa Clara County Code (County Grading Ordinance).

f) The plan shall incorporate applicable recommendations contained in the geotechnical report regarding the avoidance or mitigation of slope stability concerns, including, as applicable, recommended horizontal setback distance(s) from cut banks, embankments, steep slopes, or any identified unstable land mass within 100 feet the dispersal field.

3. Geotechnical Report Requirements:

a) The report must specifically reference the engineering installation plan. If, at some future date, the dispersal field is appreciably modified an amended report must be submitted that references the modified plan.

b) The geotechnical report must discuss the geology, slope stability and seismic hazards, soils, groundwater, drainage, percolation rate, topography, cuts, vegetation and other pertinent site features.

c) The report shall include any recommendations deemed appropriate or necessary to mitigate potential slope stability, drainage or seepage concerns associated with either the installation or on-going operation of the proposed OWTS, including, as applicable, recommended horizontal setback(s) from any cut banks, embankments, steep slopes or any identified unstable land mass.

d) The report must state specifically in the conclusion that the proposed OWTS will not (or other wording such as not likely to, risk is very low, etc.):

1) Permit sewage effluent to surface

2) Degrade water quality

3) Affect soil stability

4) Present a threat to the public health or safety

5) Create a public nuisance

e) The geotechnical report shall be wet-stamped and signed by the responsible licensed professional.