

**LFH AT-GRADE SEWAGE TREATMENT SYSTEMS;
DESIGN CONSIDERATIONS AND ISSUANCE OF VARIANCES**

This document identifies guidelines respecting the design of At-Grade sewage treatment systems and considerations to be made by a Plumbing Group B Safety Codes Officer evaluating a variance application.

The At-Grade system design is not recognized in the Alberta Private Sewage Systems Standard of Practice 2009 (SOP), however the At-Grade system can be used under a site-specific variance granted by a Plumbing Group B Safety Codes Officer (SCO). A detailed site evaluation, soil assessment and system design must be provided with the variance application demonstrating the design will achieve an equivalent level of safety compared to systems recognized in the SOP.

The Alberta Onsite Wastewater Management Association (AOWMA), with stakeholder input, developed design guidelines for the At-Grade effluent treatment system:

“Guidelines for Alberta At-Grade Systems for Onsite Wastewater Treatment”
available at www.aowma.com

These guidelines reflect design requirements and principles set out in the 2009 SOP and research conducted by the University of Alberta and University of Calgary. This new guideline updates older design principles used in the industry.

Alberta Municipal Affairs considers the guideline developed by AOWMA as a sound guidance document for the design of these systems and a benchmark SCOs need to consider in an At-Grade system variance application. Consideration by the Safety Codes Officer of the site suitability, surrounding development density and long term suitability of such a system is also needed.

Consistent with Safety Codes Council Policy documents, the variance application also needs to include the name, address and signature of the owner and be sent to the owner. Further detail on the information required in the variance application is provided on the attached page for quick reference and the complete policy section on variances can be found on the SCC website:

<http://www.safetycodes.ab.ca/upload/docs/Policy/Governance/Variances.pdf>

Where an At-grade system is used, a private sewage permit cannot be issued unless an approved At-Grade system variance and the detailed design for the system are submitted with the permit application.

From section 9.80 of the Safety Codes Council Policy & Information Manual

11. A request for a specific variance request shall include not less than the following:
 - a. name and address of the owner,
 - b. description of the project the variance is intended to apply to,
 - c. identification of the site/location the variance applies to,
 - d. identification as an application for variance,
 - e. explanation of what a variance is,
 - f. code, standard or regulation reference to which the variance is to apply to,
 - g. description of the variance being requested,
 - h. reason/rational for the variance,
 - i. evidence/proof of equal or better safety performance to persons and property,
 - j. declaration of understanding,
 - k. date of application, and
 - l. signature of the owner.

13. A copy of a specific variance shall be provided to the:
 - a. owner,
 - b. contractor where applicable,
 - c. Safety Codes Officer, and
 - d. Technical Administrator.