

Excavation Requirements for Single Family & Two Family Dwelling Construction

Excavation causing damage to adjacent (existing) structures and creating a risk to workers is an unacceptable practice. All or most of these cases are for single family new construction or large additions. Effective immediately, construction work that includes excavation close to adjacent properties and City infrastructure must include a site specific design by a professional geotechnical engineer.

Construction work with excavation

Permit submissions for construction with excavation work must include:

- Letters of assurance for Geotechnical – Temporary including items 7.1, 7.2 **ALL PROJECTS** and 7.3 if applicable.
- Letters of assurance for Geotechnical – Permanent items applicable to the project.
- Ink sealed drawings for all excavations with a vertical cut of more than 4' or benched at more than forty-five degrees with a vertical height more than 4', including:
 - A site plan and elevations showing existing structures, retaining walls and trees within 5' of the property, and;
 - Cross sections demonstrating the shear line for the bearing will be maintained (please refer to diagram below).

Construction work with excavation that does not require design by a geotechnical engineer

Some construction such as slab-on-grade or crawl space only construction may not require letters of assurance for Geotechnical – Temporary and ink sealed drawings. **Note:** Geotechnical – Permanent items applicable to the project are still required.

For those cases, the submission requirement is still a detailed site plan plus sufficient diagrams to demonstrate that the work is safe and existing structures will not be impacted. These diagrams might include cross sections to show that all excavation work will have vertical cuts less than 4' deep and all other cuts will be benched no steeper than forty-five degrees.

Requests for exemptions must take into account the space required for work at the foot of the excavation, sufficient space to stockpile soil at an angle of 45 degrees and sufficient space to walk around the perimeter of the site. Special features such as large protected trees and window and stair wells must be considered.

Excavation work on site

The general contractor of record is responsible to ensure that the geotechnical design is adhered to. Failure to meet the design (even by the excavation subcontractor) will result in a stop-work-order and enforcement by WorkSafeBC.

On site supervision by the registered professional of the excavation work and shoring construction is required. Groundwater management is also required during and after construction to avoid impact on adjacent properties. A professional field review memo for site safety must also be on site at all times. Failure to meet these requirements may result in a stop-work-order. Copies of any geotechnical field reviews for all applicable items must be submitted to the Building Inspector on request.

