

Soils Report Requirements

1. A complete Soils Report is required for all structures requiring a building permit.

Exceptions: Residential room additions, carports, utility sheds, decks and detached garages accessory to single family dwellings (the structure must be located more than 10 feet from the top or bottom of a slope and not located in an area of the city where soil or geological problems are known to exist (i.e. steep slopes, areas of historic slope failure or mine hazards). No other exceptions will be granted without the approval of the Building Official.

Note: All structures constructed under this exception must be designed using an assumed maximum soil bearing value of 1,500 pounds per square foot or less.

2. The Soils Report shall be prepared by a professional engineer with expertise in geotechnical engineering and licensed in the State of Washington. The report shall include but is not limited to test records, results, evaluations and recommendations consisting of the following items as applicable:
 - a) It is required that the soils report identify the plans that are being reviewed in coordination with the soils report. The report must describe the buildings, expected cuts and fills and associated retaining walls, as needed, and their locations on site. For the purpose of issuance of a building permit, the City will not accept a previous report addressing a different project although this information may be accepted as part of new soils report. All soils reports must be project specific unless otherwise accepted by the Building Official;
 - b) Plot plan showing the location of all test borings or excavations;
 - c) Sub-surface field investigation;
 - d) Results of sub-surface field investigation;
 - e) Elevation of the water table (and groundwater seepage) if encountered;
 - f) Results of slope stability analysis (required on all sloped lots);
 - g) Expected total differential settlement;
 - h) Engineering recommendations;
 - i) Recommendations for foundation and/or retaining wall/basement wall design and drainage;
 - j) Piling requirements;
 - k) Recommendations for slabs;
 - l) Soil bearing value;
 - m) Active fluid pressure;
 - n) Specification of the friction coefficient;
 - o) Fill material (specify compaction requirements, keying or benching, maximum fill lifts and field testing);
 - p) Potential for liquefaction and seismic design;
 - q) Special inspection requirements for earthwork, including foundations, prior to foundation inspection;
 - r) Construction sequencing plan to minimize risk of destabilizing the cut slopes or hillside. (required on sloped lots);
 - s) Oversized particles;
 - t) Field report boring logs;
 - u) Review of construction drawings.

3. If the proposed construction site is located in a known coal mine hazard area, include in the Soils Report an analysis of the site relative to coal mine hazards. Specifically, address the level of hazard (i.e., declassified, moderate, severe etc.); recommendations for development of the site; potential hazards that may occur (i.e., schedule of formation subsidence, mine bases, structural and utility impacts); recommendations to mitigate against coal hazards. The Soils Report must also identify the engineer's experience and knowledge in identifying and understanding the mechanics and engineering principles of coal mine hazards.
4. Inspection and certification of foundation footings by the soils engineer of record.
 - The soils engineer may recommend in the report that he/she be called to inspect the footings prior to pouring concrete, including observations for pile installations. In most cases, the city will follow this recommendation and stamp the plans with this requirement as a "Special Inspection"
5. Consultant Review: in areas where known or soil reports identify slope stability issues, buildings supported on fill material and or seismic concerns, the City may use the services of an outside geotechnical engineering firm to expedite the review. Per City Ordinance IMC 16.04.015 (E), the fee charged to review this portion of work will be charged to the applicant and added to the sum of fees charged to issue the building permit. Changes or revisions to approved plans that affect soils or foundation designs may also be subjected to an outside review.
6. Plat Developments: single family homes developed in newly platted areas where a preliminary plat soils report was approved by the city, may use the original plat soils report for individual lot upon which individual building permits will be issue subject to the following:
 - a) The soils report for the plat must identify general soil conditions, recommendations and design requirements as noted above for individual lots. Any sensitive areas as noted above must also be addressed in that report. Submit one copy of plat soils record to the building department for plat record.
 - b) The plat soils report must reflect current plat layout, conditions, and location of lots and provide all of the information request in #2 (items a-u) for each of the lots.
 - c) Soil borings or test pits must be adequately spaced so as in the opinion of the engineer of record, reflects soil conditions consistent with "building" development and not necessarily just utility or roadway development.
 - d) Each individual lot must be identified in the report (i.e. specific lot called out or lots XX through YY in which the specific lot is included within that range of lots)
 - e) There must be field reports prepared by the geotechnical engineering firm of record. noting onsite grading operations (including structural fill placement observation and testing) in accordance with soil report recommendations. Submit one copy of all field reports to the building department for plat record. The field reports are not required to be submitted as part of individual building permits but must be the basis of the final acceptance letter.
 - f) A final acceptance letter or soils report addendum must be provided with each building permit application from the soils engineer of record accepting the work as installed and in conformance with the soils report recommendations. The final acceptance letter requires the individual lot to be identified in the letter as noted above in this subsection.