

SCHEDULE 3 EARTHWORKS

3.1 Geotechnical General

- 3.1.1. A geotechnical plan showing the intent and scope of all geotechnical works on and off site is be required and must be certified by a Professional Engineer and submitted with the construction drawings for approval.
 - 3.1.1.1 The Professional Engineer must apprise the City Engineer of any changes, alterations or unforeseen circumstances relating to the geotechnical works.
 - 3.1.1.2 Inspection reports for all geotechnical works and findings relating to on and off site works for the subdivision or development are to be copied to the City Engineer.
- 3.1.2. The Professional engineer shall provide a digital photographic record of all complete and certified works. This shall include a photograph of each prepared building site, retaining walls and slopes. The elevation of walls or slopes shall be indicated by a levelling rod.
- 3.1.3. Retaining structures greater than 1.2 metres above finished grade must be certified by a registered Professional Engineer for the B.C. Building Code earthquake design.
- 3.1.4. Stacked rock boulder walls are not allowed adjacent to a City or public right of way.
- 3.1.5. The maximum height for a stacked rock boulder wall is 2.5 metres from finished grade unless, in the opinion of the City Engineer, the wall will not have a visual impact on surrounding properties or the general public or the wall is terraced in 2.5 metre lifts with a minimum 1.5 metre landscaping area provided (measured from back of lower wall to front of upper wall) with landscaping approved by the City Parks Manager.
- 3.1.6. Masonry walls may not be constructed on top of non-mortared stacked boulder walls without express written permission from the City Engineer and certification from the Professional Engineer of record.
- 3.1.7. All slopes greater than 30% created by the construction of the development or subdivision are to be shown on the as-constructed drawings and certified stable by a registered Professional Engineer, for the B.C. Building Code earthquake design.
- 3.1.8. Areas of fill must be recorded on the engineer's as-constructed drawings and certified by a Professional Engineer as to load carrying capability and long term stability for intended use.

- 3.1.9. The as-constructed drawings shall show any retaining structures including geo grid ties backs, anchors and other Mechanically Stabilized Earth (MSE) devices as certified by the geotechnical engineer, all relative to the property lines. The digital as-constructed drawings shall be to UTM coordinates.

3.2. Blasting Requirements

- 3.2.1. Notification and monitoring for any blasting required for the construction of a building, subdivision, development, utility installation and/or road works are required in accordance with this section. These requirements apply where the volume of rock to be blasted for the entire site exceeds 500m³ (in situ), except that no blasting shall be done within 300 metres of a School or Hospital, until notice as required in this bylaw has also been given to the Senior Administrator of the School or Hospital by the owner or contractor and has provided notice to the City Engineer. Further notice must be given to the Senior Administrator, or their designate, at least two hours prior to each actual blast, stating the approximate time of the blast.
- 3.2.2. Where blasting is required for site development and servicing, the blasting contractor shall indicate the estimated location and approximate quantity of the proposed blasting program and shall include a blasting schedule.
- 3.2.3. A certificate of insurance providing a minimum of \$5,000,000 general liability coverage for the Blaster, the Owner and the City of Langford against liability for loss or damage to persons or property as a result of blasting must be submitted to the City Engineer prior to the commencement of any blasting on site.
- 3.2.4. Where the volume of rock to be blasted for the entire site exceeds 500m³ (in situ), the City Engineer and owners and occupiers within 300 metres of the perimeter of the blast site shall be given 48 hours notice in writing of the commencement of any blasting by the Blaster and at least seven (7) days notice shall be given of any blasting expected to continue for more than one calendar week. The area of proposed notification shall be submitted to the City Engineer and may be modified at the discretion of the City Engineer on the basis of the likely impact of blasting, and all notification of owners and occupiers required under this bylaw shall be given in the area as approved by the City Engineer, with a copy of the notification provided to the City for public display.
- 3.2.5. The notice shall describe the work to be done, the expected date of commencement, duration of the project, methods to be used to safeguard life and property and warning methods used to signal an impending blast and the name and phone number of the representative of the Blaster or Owner who will provide additional information.
- 3.2.6. Blasting shall be exempt from all provisions of this section if the blasting is specifically authorized by a statute or regulation other than the *Local Government Act*, or if the blasting is, in the opinion of the City Engineer, required on an urgent basis to lessen or eliminate an imminent threat to life, safety, property or public transportation routes and communication systems.

- 3.2.7. At least one recording seismograph shall be used on the site of all blasting and the records retained by the blasting company and submitted to the City of Langford by facsimile at the end of each working week for the duration of blasting on site.
- 3.2.8 Every person who fails to comply with any of the requirements of this section is liable to a fine and penalty of not more than \$10,000 for each offence and each day that an offence continues shall constitute a separate offence.