Concern:

Granular bases often vary locally in both elevation and quality. These issues are critical for the performance of a concrete slab on grade.

Solutions:

Each project has unique concrete characteristics that require very careful consideration. It is strongly recommended that this issue be discussed at the preconstruction meeting with the participation of the earthworks contractor.

CSA A23.1 states that a granular base shall be level to within +/- 10mm in elevation prior to concrete placement.

The General Contractor shall be responsible for:

1) Acceptance of the compaction, moisture content and quality of the granular base prior to ordering a concrete placement.
2) Acceptance of the elevations of the granular base prior to ordering a concrete placement.
3) The provision of a signaller for the safe flow of earthworks equipment.
4) On-site modifications to the granular base to repair rutting or displacement of granular materials as caused by concrete delivery vehicles and placing equipment.

Position Statement:

- The concrete floor contractor will notify the prime contractors field representative of excess variations in the granular base elevation when possible.
- The General Contractor will ensure that granular bases are compliant with the +/- 10mm elevation tolerance prior to ordering a concrete placement.
- Once a concrete floor placement has started, all costs associated with cancelling or delaying the continuation of the floor placement due to unacceptable granular base conditions or elevations, shall be the responsibility of the General Contractor.
- The concrete floor contractor shall not be responsible for any liability or costs associated with slab thickness reductions as caused by incorrect granular base elevations or changes in slab thickness caused by soft spots (eg: rutting).

Further references:

- CSA A23.1 Materials and Methods of Concrete Construction
- OGCA Best Practices Guidelines for Concrete Construction
- Occupation Health and Safety Act and Regulations for Construction Projects