



## **Subject: Torvane Usage for Sloped Excavations**

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The Torvane (or Shearvane) is a soil-testing tool utilized for rapid determination of cohesive soils' undrained shear strength ( $S_u$ ). The use of a Torvane is an acceptable practice according to Cal/OSHA<sup>1</sup> for determining the maximum allowable slope of an excavation.

Projects utilizing a Torvane will also require the following conditions be met and addressed with each shoring submittal:

- Tension cracks must be prevented from developing at the top of the excavation.
- Water must be prevented from ponding at the top of and the toe of the slope.
- Soil must be consistent and homogeneous throughout the excavation.
- Cal/OSHA requirements must be adhered to at all stages of the excavation.

In situations where the contractor is proposing to use a Torvane, consult the Trenching and Shoring Senior Specialist in the HQ Structure Construction at (916) 227-8060 for assistance.

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<sup>1</sup> Cal/OSHA §1541.1, Appendix A (d)(2)(D) ([https://www.dir.ca.gov/title8/1541\\_1.html](https://www.dir.ca.gov/title8/1541_1.html)).