



Nicholson Construction Company is a recognized leader in the use of highly efficient and cost-effective ground improvement techniques such as vibro-compaction. Vibro-compaction is a foundation construction technique used in areas where weak and unconsolidated soils impose constraints on development.

Nicholson's vibro technologies create reinforced, compacted columns in poor soils. The technologies involve the use of a vibrating probe suspended from a crawler crane. As the vibroprobe is lowered, it penetrates weak soils until reaching the required depth.

Vibro-compaction combines the action of the vibrating probe and saturation by water jetting to reorganize the soil particles in the borehole to a denser state. This action is repeated at predetermined intervals across the site. Sand backfill, from either on-site or off-site sources is then typically placed and compacted with the vibroprobe at the compaction location in order to compensate for the reduction of volume resulting from the densification. Vibrocompaction is especially effective in areas of loose, clean sands and gravels.

COMMON USES:

- To improve granular soils prior to construction of foundations and slabs constructed for commercial, industrial and residential buildings.
- To reduce settlement in areas of landfill.
- To reduce the risk of liquefaction under roadways, airport runways, embankments, bridges and tunnels.
- As an alternative support system to deep foundations (piling).