



Subsurface Investigation CPT

District 6

Problem:

Current subsurface investigations are conducted using the Standard Penetration Test. While SPT is tried and true with more than 100 years of use, it has significant limitations. SPT is time consuming, labor intensive and requires large and dangerous machinery that is difficult to use in confined spaces. In addition, the sample intervals required for SPT result in information gaps. This method also disturbs the sample during collection, so it may not accurately reflect the true strength of the material.

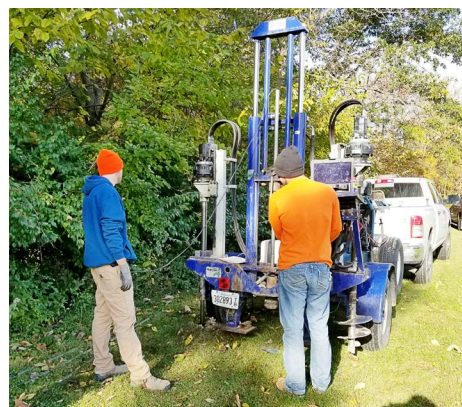


Solution:

Cone Penetration Testing is a faster, cheaper and safer method that requires no drilling or heavy equipment, allowing for a smaller footprint. CPT consists of pushing a probe directly into the ground for collection of soil parameters, including bearing pressure, skin friction, pore water pressure and seismic measurement, all of which are collected continuously without gaps in information. Data is collected continuously through a probe-computer interface, making results immediately available for real-time investigation.



The CPT equipment has a smaller footprint and can be towed by department vehicles.



When compared to the SPT method, CPT is faster, cheaper and safer.



Data is collected continuously, and results can be observed in real time.