BULLETIN

News from *SubTerra, Inc.®*

WSDOT Interstate 5 to Fredonia Improvements
Burlington, Washington

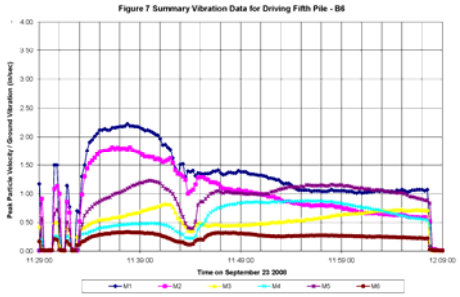
SubTerra, Inc. was subcontracted to monitor vibrations during pile installation for the I-5 to Fredonia Improvements project under construction by IMCO using a Delmag D6-22 Diesel Hammer. Permanent monitors were installed adjacent to two proximate structures and five mobile units were deployed to monitor at different distances from the pile driving operation. Data from the mobile units was used to determine attenuation characteristics for the project site.

The photograph below shows piles being installed.

Permanent monitors were installed and provided data via the internet.

Individual Instantel Minimate Plus equipped with triaxial geophones were installed at different distances from each pile group.

Vibration data were recorded and correlated by pile and pile tip depth from first strike to completion of the installation.



The chart above shows plotted, time phased data for Pile No. 6. These data confirm that maximum vibrations occur during initial pile driving and decrease with depth. Measured impacts were not impactive to off site structures.

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