

BULLETIN

News from *SubTerra, Inc.*[®]

Geotechnical Engineering / Review of Retaining Structure Designs Issaquah, Washington

Since 2002, **SubTerra, Inc.** has provided *Geotechnical Engineering and Design Review* for retaining structures as part of the *City of Issaquah's Major Design Review Team (MDRT)*. Typical projects in the *Issaquah Highlands and Talus developments* have included *soldier pile and tieback, MSE walls, soil nail wall designs; landslide and slope site investigation and slope stability analyses; and coal mine hazards evaluations.*

Located north of Interstate 90, Issaquah Highlands is a 2,200 acre master-planned community incorporating a mix of single-family and multi-family residential, commercial, and retail properties. This photograph shows a view from the Talus development towards Issaquah Highlands.



SubTerra's MDRT work at Issaquah Highlands included review of soil nail, MSE wall, and conventional soldier pile and lagging retaining walls, analysis of cut slope stability under static and dynamic loading conditions, and surface water management system designs.

We also completed an evaluation of

potential impacts from abandoned Coal Mines as part of our CAS review of the Issaquah Highlands development.

SubTerra obtained mine maps from the WADNR, developed a 3-D model of the surface and underground areas, and completed an analysis of sinkhole and subsidence potential for the project site.

The 630 acre Talus Development is part of the largest urban wildland in the nation, spanning 20,000 acres. At Talus, permanent soil nail, micropile and segmental block MSE retaining walls designs, plans and specifications were reviewed for parcel development along with steep slope hazard critical area studies, settlement analyses and foundation designs for water tanks and reinforced rockery retaining wall designs.



SubTerra reviewed geology and hydrology studies submitted in support of surface water infiltration system design and slope stability analysis for the southwestern edge of the plateau and joined other team members in evaluating the Camp Creek landslide above I-90.