

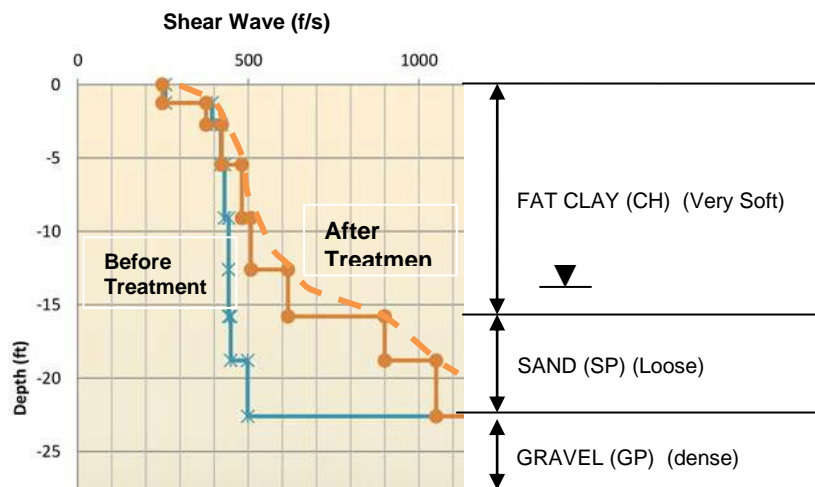
## PROJECT DESCRIPTION

**PROJECT:** St. Edward Catholic Church

**LOCATION:** Keizer, OR

**DESIGN TEAM:** *Architect:* DiLoreto Architecture : Portland, OR  
*Structural Engineer:* WDY Structural Engineering : Portland, OR  
*Geotechnical Engineer:* Carlson Geotechnical : Tigard, OR

**CONTRACTOR:** *The Grant Company* : Mt. Angel, OR



*"... an average shear-wave velocity increase through the 22.6' thickness ... on the order of 26% was determined .."*

*(Siemens & Associates)*

### DESCRIPTION:

- 11,700 square-foot, wood-framed, church building on a site with very poor soil conditions
- Aggregate piers were recommended to achieve 3 significant site improvements:

*control foundation settlements in the upper 15' of soft CLAY*

*reduce liquefaction-induced settlement in the loose SAND between 15'-22'*

*increase the Seismic Site Classification from "E" to "D"*

GTFC-W designed and installed Engineered Aggregate Pier soil reinforcement throughout the building footprint to achieve all 3 of the above noted project requirements.

The project Geotechnical Engineer retained an outside geophysical consultant (Siemens & Associates) to perform in-situ field testing that would demonstrate the degree of improvement in subsurface shear-wave velocity with depth that was achieved by the aggregate pier installation. The depth profiles from that testing are shown in the above graphs. This data together with the GTFC-W proprietary rammer force and deflection monitoring confirm that the design and installation achieved all 3 of the project goals.

**REFERENCES:**

Mike Grant, President The Grant Company	Dave Kirk, Superintendent The Grant Company
Brad Wilcox, P.E., G.E. Carlson Geotechnical	Dale DiLoreto, S.E. WDY Structural Engineers