Table S2. Numerical data used to determine origin of Riedel shears in Aplodontia and Springboard trenches. See text Figure 12 for graphic presentation of tabular results in this supplement.

Table S2A. Fault- and fracture-attitude data from Aplodontia and Springboard trenches.

Feature type[a]	Horizontal position (m)[b]	Strike Azimuth (°)	Mean Strike fractures+shears (± 1σ)	Mean Strike main FZ (± 1σ)	Angular difference (± 1σ)
fracture	A 9.3	301	303 ± 4	286 ± 1	17 ± 5
shear	A 10.9	308			
shear	A 12.5	300			
fracture	A 13.3	305			
shear	A 13.6	300			
main fault zone	**A 15.0**	**285**			
fracture	S 6.7	301			
fracture	S 7.7	305			
shear	S 9.2	298			
shear	S 10.0	301			
shear	S 11.8	312			
main fault zone	**S 12.6**	**287[c]**			

[a]Listed structures restricted to those that could be traced across the 2-m-wide floor of the trench and into the back wall.

[b]Features located using horizontal scale from trench logs (Fig. 5); A—Aplodontia trench, S—Springboard trench.

[c]Value is mean (±3°) of observed range in strike of 284-290° across the trench floor.

Table S2B. Published data from Seattle area used to estimate angle of internal friction (ϕ) of faulted sediments in Aplodontia and Springboard trenches.

Material[*]	(ϕ, in °)[*]	mean	± 1σ	median	mode
Vashon recessional outwash	34	32	5	33	34
Vashon recessional lacustrine	24				
Vashon recessional coarse grained	34				
Vashon ice-contact	30				
Vashon till	33				
Vashon subglacial meltout till	33				
Vashon advance outwash	38				
Vashon Lawton clay	26				

[*]Material classifications and angles of internal friction (ϕ) from Harp, E.L., Michael, J.A., and Laprade, W.T., 2008, Shallow landslide hazard map of Seattle, Washington, *in* Baum, R.L., Godt, J.W., and Highland, L.M., eds., Landslides and Engineering Geology of the Seattle, Washington, Area: Geological Society of America Reviews in Engineering Geology, v. 20, p. 67–82, doi: 10.1130/2008.4020(04).