

Palisades (42.32° N, 86.31° E), Control Point Hazard

SA (g)	AFE 0.5 Hz	AFE 1 Hz	AFE 2.5 Hz	AFE 5 Hz	AFE 10 Hz	AFE 25 Hz	AFE 100 Hz
0.001000	4.754954e-03	7.575026e-03	1.103868e-02	1.169385e-02	1.181049e-02	1.165456e-02	1.088877e-02
0.001122	4.747622e-03	7.574939e-03	1.103868e-02	1.169385e-02	1.181049e-02	1.165456e-02	1.088877e-02
0.001259	4.632207e-03	7.556120e-03	1.103868e-02	1.169385e-02	1.181049e-02	1.165456e-02	1.088877e-02
0.001413	4.451815e-03	7.454613e-03	1.103868e-02	1.169385e-02	1.181047e-02	1.165456e-02	1.088877e-02
0.001585	4.234151e-03	7.317088e-03	1.103867e-02	1.169384e-02	1.181032e-02	1.165456e-02	1.088877e-02
0.001778	4.023519e-03	7.118578e-03	1.103859e-02	1.169377e-02	1.180958e-02	1.165456e-02	1.088877e-02
0.001995	3.822582e-03	6.877394e-03	1.103819e-02	1.169312e-02	1.180675e-02	1.165454e-02	1.088877e-02
0.002239	3.630484e-03	6.622933e-03	1.103650e-02	1.168857e-02	1.179735e-02	1.165365e-02	1.088874e-02
0.002512	3.445452e-03	6.353218e-03	1.103097e-02	1.166992e-02	1.176951e-02	1.163728e-02	1.088669e-02
0.002818	3.266386e-03	6.062502e-03	1.101611e-02	1.162572e-02	1.170885e-02	1.155939e-02	1.085883e-02
0.003162	3.091163e-03	5.755197e-03	1.098258e-02	1.155200e-02	1.161498e-02	1.143261e-02	1.074418e-02
0.003548	2.918805e-03	5.442957e-03	1.091835e-02	1.144684e-02	1.149520e-02	1.128520e-02	1.051600e-02
0.003981	2.747264e-03	5.135291e-03	1.081125e-02	1.130905e-02	1.135155e-02	1.111365e-02	1.023030e-02
0.004467	2.575889e-03	4.836179e-03	1.064764e-02	1.113991e-02	1.118246e-02	1.091513e-02	9.916099e-03
0.005012	2.403165e-03	4.546646e-03	1.042082e-02	1.094095e-02	1.098617e-02	1.068885e-02	9.572957e-03
0.005623	2.229014e-03	4.266053e-03	1.014592e-02	1.071273e-02	1.076117e-02	1.043391e-02	9.202367e-03
0.006310	2.053012e-03	3.993866e-03	9.840869e-03	1.045519e-02	1.050622e-02	1.014942e-02	8.806820e-03
0.007079	1.875937e-03	3.728739e-03	9.511892e-03	1.016829e-02	1.022061e-02	9.835092e-03	8.388507e-03
0.007943	1.699325e-03	3.469944e-03	9.161165e-03	9.852353e-03	9.904354e-03	9.491849e-03	7.949751e-03
0.008913	1.526891e-03	3.216205e-03	8.791132e-03	9.508127e-03	9.558080e-03	9.121017e-03	7.493583e-03
0.010000	1.362192e-03	2.967030e-03	8.404511e-03	9.136838e-03	9.182925e-03	8.724388e-03	7.023552e-03
0.011220	1.203502e-03	2.721904e-03	8.004121e-03	8.740134e-03	8.780566e-03	8.304377e-03	6.543369e-03
0.012589	1.051370e-03	2.480989e-03	7.592908e-03	8.320047e-03	8.353285e-03	7.863906e-03	6.057139e-03
0.014125	9.069692e-04	2.244906e-03	7.173792e-03	7.878977e-03	7.904013e-03	7.406762e-03	5.569425e-03
0.015849	7.726307e-04	2.014905e-03	6.749458e-03	7.419713e-03	7.436334e-03	6.937136e-03	5.085253e-03
0.017783	6.496871e-04	1.793713e-03	6.322233e-03	6.945449e-03	6.954430e-03	6.459970e-03	4.610065e-03
0.019953	5.391724e-04	1.582493e-03	5.894108e-03	6.459868e-03	6.463013e-03	5.980126e-03	4.149237e-03
0.022387	4.413892e-04	1.383405e-03	5.466789e-03	5.967194e-03	5.967319e-03	5.503165e-03	3.707990e-03
0.025119	3.566427e-04	1.198007e-03	5.041819e-03	5.472174e-03	5.472889e-03	5.034218e-03	3.290751e-03
0.028184	2.845001e-04	1.026937e-03	4.620750e-03	4.980011e-03	4.985369e-03	4.578448e-03	2.900205e-03
0.031623	2.240578e-04	8.708371e-04	4.205298e-03	4.496210e-03	4.510231e-03	4.140036e-03	2.530059e-03
0.035481	1.742679e-04	7.310342e-04	3.797552e-03	4.026355e-03	4.052563e-03	3.720279e-03	2.164575e-03
0.039811	1.339209e-04	6.076760e-04	3.400078e-03	3.575756e-03	3.616650e-03	3.296023e-03	1.811587e-03
0.044668	1.017886e-04	5.002060e-04	3.015943e-03	3.149271e-03	3.205709e-03	2.850369e-03	1.499681e-03
0.050119	7.648479e-05	4.074975e-04	2.648591e-03	2.750887e-03	2.820377e-03	2.433434e-03	1.234318e-03
0.056234	5.687702e-05	3.285658e-04	2.301597e-03	2.383304e-03	2.457215e-03	2.062579e-03	1.011629e-03
0.063096	4.188345e-05	2.622501e-04	1.978213e-03	2.047835e-03	2.115694e-03	1.736940e-03	8.265501e-04
0.070795	3.060947e-05	2.072815e-04	1.680801e-03	1.744753e-03	1.802872e-03	1.454040e-03	6.738848e-04
0.079433	2.222410e-05	1.623311e-04	1.410846e-03	1.473604e-03	1.524643e-03	1.210649e-03	5.486988e-04
0.089125	1.604837e-05	1.260553e-04	1.169247e-03	1.233966e-03	1.281680e-03	1.003084e-03	4.464787e-04
0.100000	1.155261e-05	9.721397e-05	9.566142e-04	1.025320e-03	1.071879e-03	8.275126e-04	3.632054e-04
0.112202	8.312802e-06	7.456536e-05	7.732199e-04	8.463291e-04	8.922927e-04	6.801197e-04	2.952177e-04
0.125893	5.997168e-06	5.693105e-05	6.184133e-04	6.947211e-04	7.397629e-04	5.572022e-04	2.382449e-04
0.141254	4.341995e-06	4.329694e-05	4.901666e-04	5.676538e-04	6.111249e-04	4.550679e-04	1.888108e-04
0.158489	3.164742e-06	3.284451e-05	3.855710e-04	4.620777e-04	5.033220e-04	3.702756e-04	1.477777e-04

0.177828	2.325798e-06	2.489907e-05	3.013996e-04	3.749761e-04	4.134509e-04	3.001451e-04	1.151759e-04
0.199526	1.724342e-06	1.888909e-05	2.344260e-04	3.035034e-04	3.386699e-04	2.423392e-04	8.926141e-05
0.223872	1.291056e-06	1.434887e-05	1.816084e-04	2.450556e-04	2.762699e-04	1.948065e-04	6.850785e-05
0.251189	9.773774e-07	1.092161e-05	1.402183e-04	1.973198e-04	2.241653e-04	1.558702e-04	5.193556e-05
0.281838	7.478266e-07	8.340314e-06	1.079390e-04	1.583252e-04	1.808174e-04	1.240769e-04	3.894623e-05
0.316228	5.778587e-07	6.398914e-06	8.293608e-05	1.264719e-04	1.448942e-04	9.805654e-05	2.890034e-05
0.354813	4.499355e-07	4.936997e-06	6.373379e-05	1.004961e-04	1.153289e-04	7.681685e-05	2.115637e-05
0.398107	3.526161e-07	3.833154e-06	4.903243e-05	7.938302e-05	9.118345e-05	5.959121e-05	1.522532e-05
0.446684	2.775963e-07	2.996044e-06	3.772188e-05	6.229066e-05	7.157090e-05	4.573902e-05	1.074369e-05
0.501187	2.192074e-07	2.355466e-06	2.896045e-05	4.851397e-05	5.572196e-05	3.469022e-05	7.436395e-06
0.562341	1.734061e-07	1.859456e-06	2.217616e-05	3.747381e-05	4.294501e-05	2.598572e-05	5.041668e-06
0.630957	1.373350e-07	1.469809e-06	1.694756e-05	2.869651e-05	3.271949e-05	1.917743e-05	3.340532e-06
0.707946	1.088508e-07	1.158973e-06	1.291406e-05	2.177514e-05	2.461136e-05	1.388986e-05	2.161840e-06
0.794328	8.628767e-08	9.091344e-07	9.786942e-06	1.635395e-05	1.822551e-05	9.835930e-06	1.364232e-06
0.891251	6.833662e-08	7.097017e-07	7.362531e-06	1.213939e-05	1.325844e-05	6.775499e-06	8.382705e-07
1.000000	5.396805e-08	5.525738e-07	5.492161e-06	8.898628e-06	9.468594e-06	4.528804e-06	4.997443e-07
1.122019	4.240815e-08	4.296190e-07	4.053182e-06	6.440212e-06	6.613477e-06	2.921057e-06	2.872995e-07
1.258925	3.312763e-08	3.333000e-07	2.950249e-06	4.600384e-06	4.486136e-06	1.800449e-06	1.582988e-07
1.412538	2.571522e-08	2.574516e-07	2.116359e-06	3.240199e-06	2.943661e-06	1.051287e-06	8.239938e-08
1.584893	1.981859e-08	1.973538e-07	1.501781e-06	2.246053e-06	1.868354e-06	5.777707e-07	3.922414e-08
1.778279	1.514092e-08	1.497226e-07	1.058644e-06	1.528875e-06	1.144890e-06	2.976902e-07	1.640451e-08
1.995262	1.145437e-08	1.124177e-07	7.395255e-07	1.019972e-06	6.726251e-07	1.419282e-07	5.765585e-09
2.238721	8.570625e-09	8.372711e-08	5.089485e-07	6.658787e-07	3.752274e-07	6.025823e-08	1.565150e-09
2.511886	6.328899e-09	6.194554e-08	3.444341e-07	4.246168e-07	1.978355e-07	2.151373e-08	2.819841e-10
2.818383	4.604471e-09	4.549373e-08	2.303330e-07	2.636897e-07	9.865020e-08	6.101627e-09	2.860333e-11
3.162278	3.469449e-09	3.466317e-08	1.656855e-07	1.781925e-07	5.884018e-08	3.154309e-09	1.431880e-11
3.548134	2.334427e-09	2.383261e-08	1.010381e-07	9.269523e-08	1.903017e-08	2.069900e-10	3.427962e-14

Palisades (42.32° N, 86.31° E), Response Spectra

Frequency (Hz)	UHRS 1E-4 (g)	GMRS (g)	UHRS 1E-5 (g)
0.500000	0.044988	0.053249	0.105178
0.561009	0.049237	0.058896	0.116639
0.629463	0.054393	0.065781	0.130631
0.706269	0.060956	0.074828	0.149155
0.792447	0.069494	0.086929	0.174091
0.889140	0.081485	0.104271	0.210013
0.997631	0.098353	0.128296	0.259646
1.000000	0.098756	0.128867	0.260824
1.122019	0.122121	0.165246	0.337502
1.258925	0.149777	0.204913	0.419673
1.412538	0.179063	0.243183	0.497138
1.584893	0.209510	0.281615	0.574222
1.778279	0.239656	0.317828	0.645882
1.995262	0.266443	0.346990	0.701949
2.238721	0.281257	0.368383	0.746292
2.500000	0.291405	0.387207	0.787257
2.805046	0.302071	0.410012	0.838069

3.147313	0.307908	0.424589	0.871298
3.531344	0.316899	0.434148	0.889463
3.962233	0.321848	0.440787	0.902992
4.445698	0.333782	0.453793	0.927936
4.988156	0.355672	0.471337	0.957664
5.000000	0.356140	0.471692	0.958250
5.610092	0.363993	0.485088	0.986992
6.294627	0.373560	0.497927	1.013159
7.062688	0.377130	0.495091	1.003562
7.924466	0.378881	0.484666	0.976086
8.891397	0.374579	0.479546	0.965967
9.976312	0.380278	0.487007	0.981081
10.000000	0.380500	0.487230	0.981500
11.220185	0.377925	0.471408	0.943421
12.589254	0.362842	0.454734	0.911125
14.125375	0.351558	0.441352	0.884694
15.848932	0.340455	0.429947	0.863108
17.782794	0.333603	0.420249	0.843116
19.952623	0.323813	0.408952	0.820971
22.387211	0.313206	0.393913	0.789957
25.000000	0.300351	0.372513	0.744441
28.050461	0.285671	0.353920	0.707093
31.473135	0.275663	0.338410	0.674559
35.313439	0.265033	0.322380	0.641130
39.622330	0.255394	0.308550	0.612585
44.456985	0.248791	0.297789	0.589846
49.881558	0.242889	0.288969	0.571510
55.968028	0.237283	0.281075	0.555293
62.797161	0.231506	0.273467	0.539887
70.459573	0.225330	0.266287	0.525767
79.056942	0.218076	0.258595	0.511015
88.703347	0.209780	0.250592	0.496111
99.526793	0.201923	0.243426	0.483028
100.000000	0.189547	0.229876	0.456823