

Robbie Lyng  
Alameda Unified School District  
2060 Challenger Drive  
Alameda, California 94501

November 14, 2017

**RE: Lincoln Middle School Liquefaction Settlement**

Robbie,

ZFA has reviewed the report titled "Geotechnical Engineering Investigation Evaluation of Liquefaction Risk and Liquefaction Induced Settlement Potential at Lincoln Middle School Campus" Report by Miller Pacific dated November 10, 2017. The site is expected to experience some level of liquefaction during the maximum credible earthquake. This is the earthquake that is expected to occur once every 2475 years on average. The expected total settlement at the school site is expected to be between 1.5-3.0 inches. The total differential settlement is expected to be between 0.75-1.5 inches. While some impact on the buildings could occur, we do not believe it will significantly impact the overall building performance during a large seismic event. Based on current standard of practice we do not believe additional steps need to be taken at this time.

Should you have questions, please contact the undersigned.

Regards,



Chris Warner, SE 4613  
**ZFA STRUCTURAL ENGINEERS**  
Senior Principal