Lum Elementary School

Update on Community Meetings and Next Steps

June 12, 2018

Background: Timeline

- **March 2017**: Geotechnical and structural engineers discover that the foundations beneath Lum Elementary's classroom buildings are not adequate for depth of liquefiable soil on the site.

- **May 2017**: After a series of public meetings, the Board of Education decides that students and staff should be moved off Lum for 2017-2018.

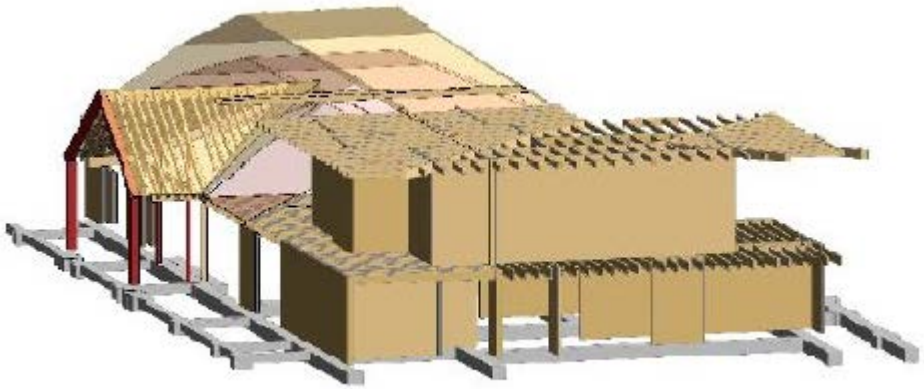
- **September 2017**: Board requests study on the logistics and costs of repairing or replacing Lum Elementary School.

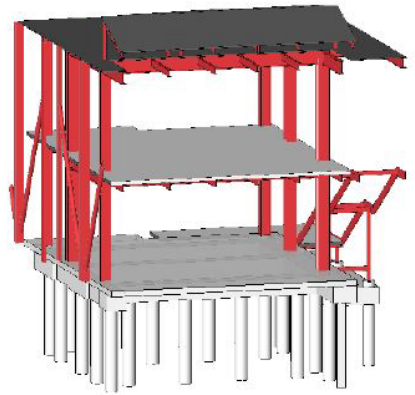
- **January 2018**: Architect and structural engineer **present study** to Board. The Board requests that one more community meeting be held to hear and respond to community ideas/questions before deciding whether to refer the facility to the District Advisory Committee.

Background: Review of the Technical Issues

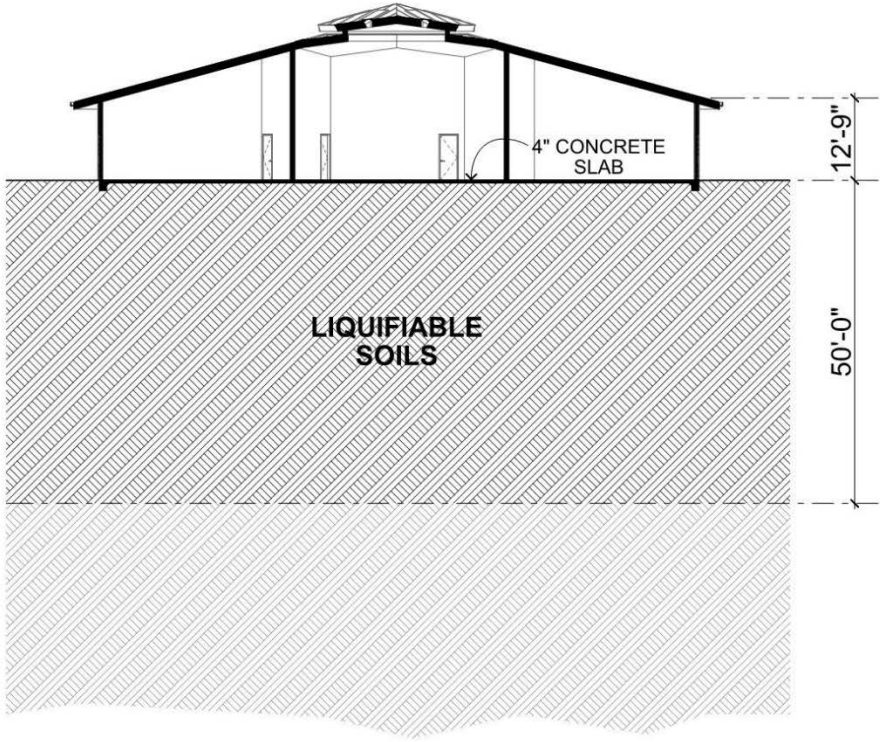
The **soil** beneath Lum's classroom buildings could liquefy to a depth of 50 feet. This could lead to 5 to 10 inches of uneven surface soil settlement in the event of an earthquake.

The **foundations** beneath the classroom buildings at Lum Elementary School are 4 inch slabs of concrete. Geotechnical and structural engineers now know that this type of foundation is not sufficient for structures built on sites with potential for significant soil liquefaction and settlement.





Background: Review of the Technical Issues



SECTION DIAGRAM
DONALD LUM ELEMENTARY SCHOOL
ALAMEDA UNIFIED SCHOOL DISTRICT

QUATTROCCHI KWOK ARCHITECTS

Background – Review of the Resultant Risk

- The combination of deep, liquefiable soils, a shallow, inadequate foundation, and potential soil settlement can lead to buildings partially collapsing in the event of a major earthquake.

- The shaking or soil settlement also could render doors and windows inoperable, which could result in children and staff being unable to use windows or doors to escape their classrooms. This situation could be life threatening in the event of a fire or gas leak.

Option 1: Repair Lum Elementary School

Seismic upgrade entails:

- Significant and invasive work
- Demolishing portions of roofs, walls, and covered walks, as well as all the slabs
- Driving 90-foot concrete piles into the ground
- Installing new slabs of 8-12 inches thick, plus many concrete beams from 48”x32” to 18”x32”
- Installing new covered walks, wall and roof framing, mechanical and electrical systems, site paving, building finishes
- Significant fire/life safety and accessibility upgrades are also triggered

Cost:

- $34.4 million
- Exceeds 50% replacement cost by 210%

Note: Liquefiable soil cannot be remediated because it is so deep (50 feet)

Option 2: Replace Lum Elementary School

New facility would include:

- 2-story classroom buildings with new concrete pile foundations
- 1 administration and multi-use building
- New site paving and landscaping

Cost:

- Option 2A: $32.8 million for 480-student campus
- Option 2B: $47.4 million for 750-student facility

Option 1 & 2: Funding

Repair: $34.4 million

Replace: $32.8 - $47.4 million

- These projects don't qualify for state matching funds as we have capacity at other schools.
- Measure I bond funds have been allocated to sites across the district for other critical maintenance and/or repair projects.
- To pay for this, AUSD would have to reduce or cancel Measure I bond projects at other AUSD schools.

Community Meeting

- Clarifying questions related to
  - Soil and structural analysis
  - Difference between Wood Middle and Lum Elementary soil and structure
  - Possible remediation solutions

- Construction of a new building
  - $32.8 million (minus some relatively small amount if deep piles are not needed) for 480-student campus
  - $47.4 million (minus some relatively small amount if deep piles are not needed) for 750-student facility
  - The project would not qualify for state funding and additional bond funds are not available

- Converting Wood Middle into a K-8 program
  - Wood's capacity is approximately 725-750 students, not quite big enough for a K-8 under current configurations
  - Given current discussions about consolidating Alameda High School and Encinal High School, the eventual transition of Wood to include elementary levels is a possibility to be explored

Next Steps

- If the direction from the Board is to pursue replacement or remediation of the Lum Elementary building:
  - Which of the two options?
  - Further Board action would be required during future open session meetings.
  - Bond funds may have to be repurposed to provide funding for replacement or remediation.

- If the direction from the Board is not to pursue replacement or remediation of the Lum Elementary building at this time:
  - The matter will be referred to the District Advisory Committee (AKA 7-11 Committee) to review and analyze and to determine if the Lum Elementary property should be designated as “excess” or “surplus” because it will not be needed for school purposes.