

Oxford Elementary School
Alan Kropp & Associates
Geotechnical Report

Board of Education Summary
October 23, 2019

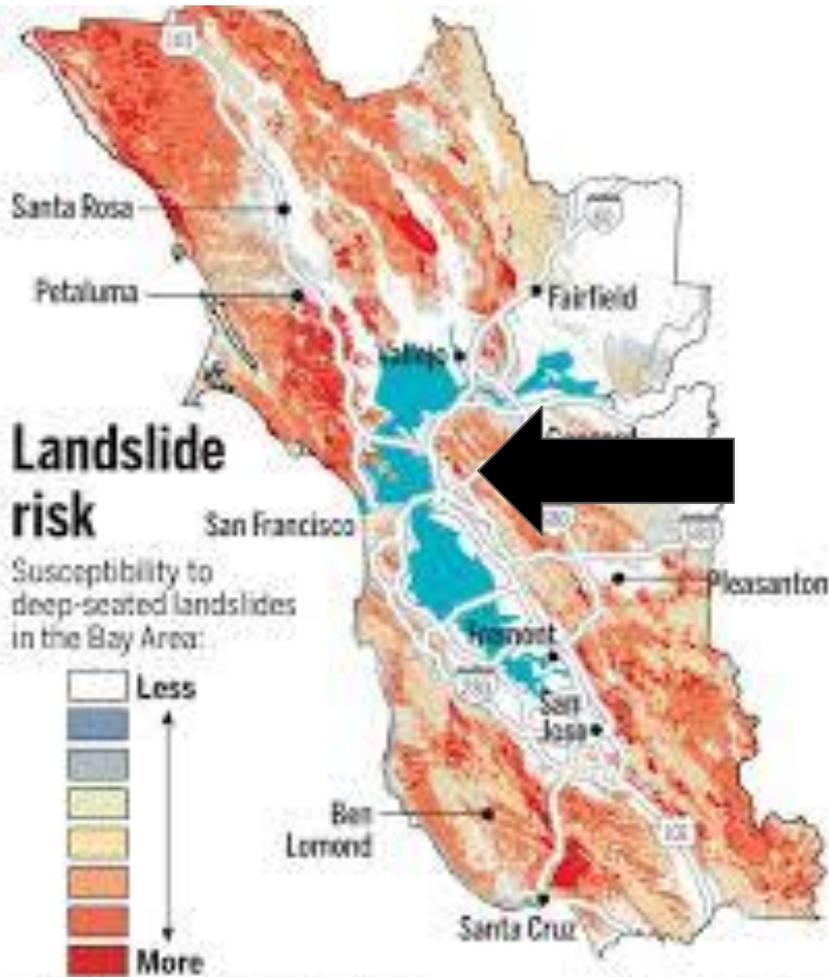
Brent Stephens, Ed.D. Superintendent
John Calise, Executive Director, Facilities

Outcomes for this Meeting:

- Understand in a common way the key findings of the Alan Kropp report
 - What the report says
 - What the report doesn't say
 - How AKA arrived at its conclusions
- Share information about community engagement and reactions to date
- Discuss a preliminary staff recommendation for short-term actions related to these findings
- Share initial thinking about the long-term decision-making process related to the Oxford campus

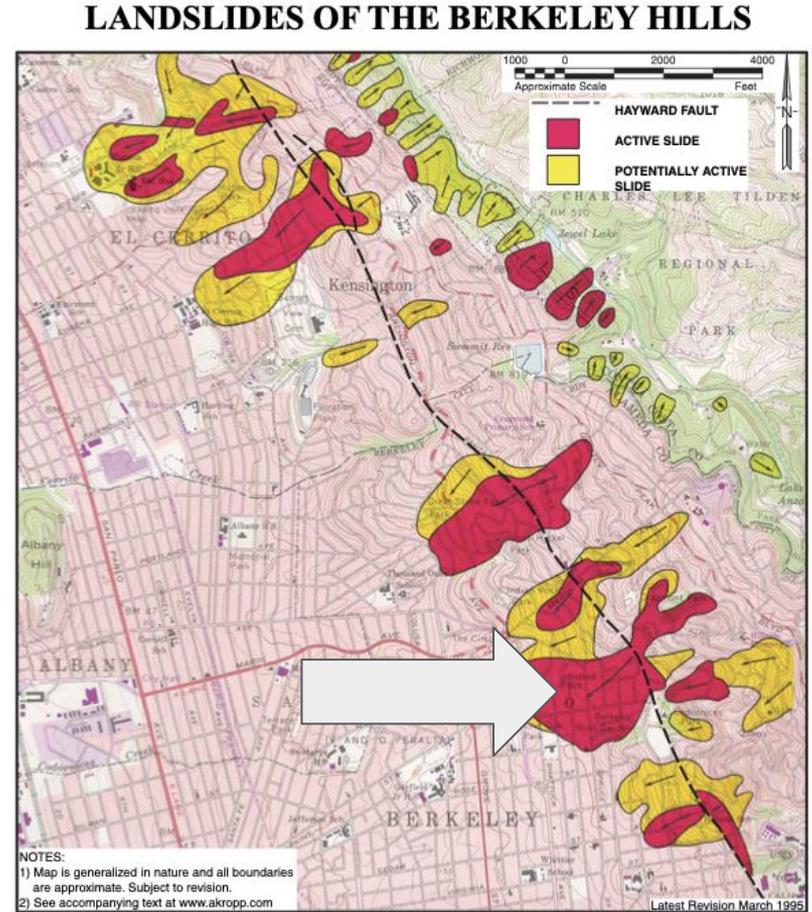
What We Already Knew Prior to the September 2019 AKA Report

Bay Area Landslide Risk California Geological Survey



In the Bay Area, and in the Berkeley Hills, we've been aware of the risk of landslides. Here is one landslide map that is available to the public:

The map to the right was published in 1995 by Alan Kropp and Associates



ALAN KROPP & ASSOCIATES, INC.
Geotechnical Consultants
2140 Shattuck Avenue, Berkeley, CA 94704
(510) 841-5095





The City of Berkeley has maintained its own website on "seismic hazard zones".

Members of the community can access this information at this [link](#).

What the report says

Delivered in September 2019, The Alan Kropp & Associates Landslide Deformation Study Report indicated a triggering event, such as an earthquake, would create a significant risk to the Oxford neighborhood, potentially precluding emergency vehicles from accessing the neighborhood and Oxford Elementary School, while also preventing the evacuation of students and staff.

The level of this risk was greater than what was originally anticipated due to the complexity of the Keith Avenue landslide combined with the school's proximity to the Hayward Fault. While the risk is based on the magnitude of a potential future earthquake, it is still clearly a risk the district must address.

Key Report Findings

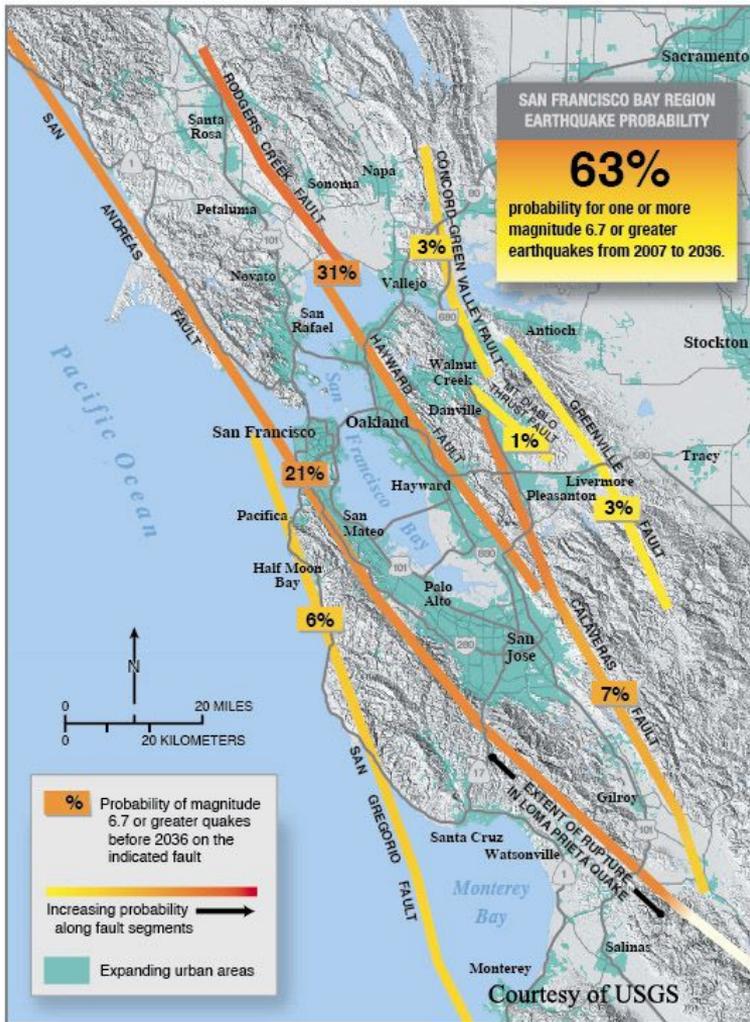
- The study confirmed the Oxford Elementary School site is located within the actively-moving Keith Avenue Landslide Complex.
- An extensive compilation of past data indicates this landslide mass generally moves at an average rate of about one inch per year, with significant variations related to annual rainfall patterns; this movement will continue.

- The existing school buildings appear to be in relatively good condition considering they are approximately 60 years old. The buildings, pavement areas, and the existing retaining wall do not appear to have been significantly distressed by landslide movement. The lack of building distress, and limited observed surficial damage on the school property and in the surrounding area, probably indicate that the school property and the immediate surrounding area are moving as a relatively coherent block since these features were originally constructed.
- Based on calculations of the additional magnitude of landslide movement that would occur during an earthquake, the Oxford Elementary School campus would likely have a total movement which might range from as little as 2 feet to as much as 20 feet.

- Without major site reconstruction, a high safety hazard would result at the Oxford Elementary School site.
- With some substantial remedial schemes, it may be possible for an entirely reconstructed school campus to achieve reasonable performance, but still experience localized, non-structural damage.
- The risk to the neighborhood during an earthquake is significant; this may preclude emergency vehicles from accessing the neighborhood and school, and may prevent evacuation of children. This could lead to an extended period of isolation. This is already made worse by the narrow streets in that neighborhood.

- The active Keith Avenue Landslide (also known as the North Berkeley Slide) is very large; even if the school were built on a mat foundation, there will still be a debris field around the school, or coming at the school.
- Even with a mat foundation, the school will have to be rebuilt after a landslide.
- Seismologists anticipate that a large earthquake will occur in the next 20-30 year window (see slide 15)

How should we think
about this risk?



The AKA report describes “risk” and does not assess “safety”.

This means thinking about probability, based on the best information we have available to all of us.

For example, the UC Berkeley Seismology Lab has published this map to express the probability of a 6.7 quake in the region between 2007 to 2036. They don’t know that this will happen, just as we can’t know what would happen in the Oxford neighborhood in the event of a large earthquake.

How have other communities reacted to this kind of information?

A few examples include:

- Berkeley, Hillside Elementary School
- Alameda, Lum Elementary School
- El Cerrito, Portola Middle School



Hillside School, Berkeley USD

In 1983, the school district closed Hillside^[Z] because of a declining school age population, and because it sits near or on the Hayward Fault. In 2012, the Berkeley Unified School District sold it to the German International School of Silicon Valley (GISSV), which used it for their Berkeley campus until 2017—then vacating it because of earthquake safety concerns. (WIKIPEDIA)



El Cerrito, Portola Middle School

In an initial geologic hazard screening study, AKA found that the existing school buildings were located on the toe of a large urban landslide. Through these analyses it was determined that safety concerns associated with the landslide could not be readily mitigated and that future school development would need to occur at an alternate nearby site. (Alan Kropp Associates)



Donald Lum Elementary School, Alameda

“Lum closed in June 2017 after a structural engineer testing soil for the construction of a new building on the campus discovered it was subject to liquefaction, putting classrooms at risk during a major earthquake.

The tough decision came despite appeals from parents who questioned the findings and who wanted the school to stay open.” (East Bay Express, 2018)

Our first priority has been to share the results of this report publicly, and establish a clear process for engaging the community, hearing concerns, and collecting feedback and suggestions.

To date, we have

- Made the full report available on the BUSD website, accessible through the “Oxford Report” quick link
- Met with teachers on October 4, 2019
- Met with Oxford parents on October 4 and 15
- Scheduled a Technical Panel with Alan Kropp on November 4
- Set up the “oxfordfeedback@berkeley.net” email

As of October 23, 2019

We've had seven emails to the District about this topic:

- Seeking recent seismic safety analysis for BHS buildings
- Relocate students ASAP, may explore leaving the District
- Concerned Oxford might be closed; can't find report on website
- Detailed why Oxford is not a good site for the school community she loves
- Why wasn't the West Campus project finished for this year?
- Would like additional information on the West Campus facility
- Would like more information about the mid-year transfer process

Sharing the Report and Planning for 2020-2021

- October 3, 2:30, Oxford Staff Meeting
- October 3, outreach to local press and other local agencies
- October 3, 6:00, Oxford Parent Meeting
- October 4, establish website page for ongoing updates, access to the full AKA report, and links to resources; establish BUSD email "oxfordfeedback@berkeley.net"
- October 15, 6:00, Oxford Parent Meeting #2 (neighbors invited)
- October 23, Board meeting: Presentation of staff recommendations on temporary housing for Oxford and parent/teacher feedback to the Board
- November 4, "Technical Panel" Meeting at Oxford with Alan Kropp and other experts,
- November 6, 2019, Board meeting: Further discussion and probable decision on staff recommendations

As of October 15, 2019, the following media has covered the report

[Oxford Elementary at risk for a major earthquake](#) - Daily Cal, Oct 8

[Berkeley elementary school deemed at major risk during and earthquake](#) - KPIX TV, Oct 7

Above story picked up on [Patch](#)

[Elementary School in Berkeley could move as much as 20 feet during an earthquake](#) - KGO TV, Oct 5

[Oxford Elementary School in risk of major earthquake damage, report finds](#) - Berkeleyside, Oct 4

[Tweet](#) - Berkeleyside, Oct 4

Our second priority is to develop recommendations to the Board of Education about temporary housing for the Oxford community.

Should staff and students move while the District and community discuss the long-term options?

For the purposes of discussion this evening, the Superintendent's current thinking is that Oxford should be temporarily relocated to West Campus, located at 1222 University Avenue, beginning in the 2020-2021 school year.

Rationale:

- Unlike most other districts, we are fortunate that we will have an available, fully renovated, and Field Act compliant school facility for the 2020-2021 school year
- We had already planned to move Oxford to this location for renovations
- A temporary move eliminates the elevated risk from a landslide if there were a major earthquake while deliberations about long-term options are taking place
- It is the District's responsibility to ensure that safest possible conditions in all our schools

What a move for the 2020-2021 school year could mean:

- Completion of the West Campus facility by August
- Communication timeline for students, staff, parents, and community
- Packing, moving, and unpacking timeline
- Transportation planning
- Schedule of staff and community tours of the West Campus facilities, while construction takes place
- Enrollment information by December for incoming Oxford families
- Accessibility analysis for Oxford students and staff
- After-school program planning
- Additional planning at 2020 Bonar and West Campus (like community notices, parking lot, drop-off zone on Addison, West Campus pool)
- Timeline and process for deliberating the long-term strategy for the Oxford campus

*Division of State Architect's Office has final say over the West Campus work

Long-Term Decision Making

There are many conceivable options for the Oxford campus, including:

- Rebuilding the site to better suit the site's geological conditions, at an approximate cost of \$120M
- Applying for state Facilities Hardship funds to support the purchase of a new site and new school construction
- Rebuilding on another BUSD property
- Closing the school altogether

I propose that the community try to separate a decision about temporary housing for the school at West Campus, even if this could last for 3-7 years, from a decision about the long-term future of the current Oxford location.

We recognize that this a challenging, complicated discussion - and that it will have a strong emotional impact on families, the Oxford community, the neighborhood, and all of Berkeley.