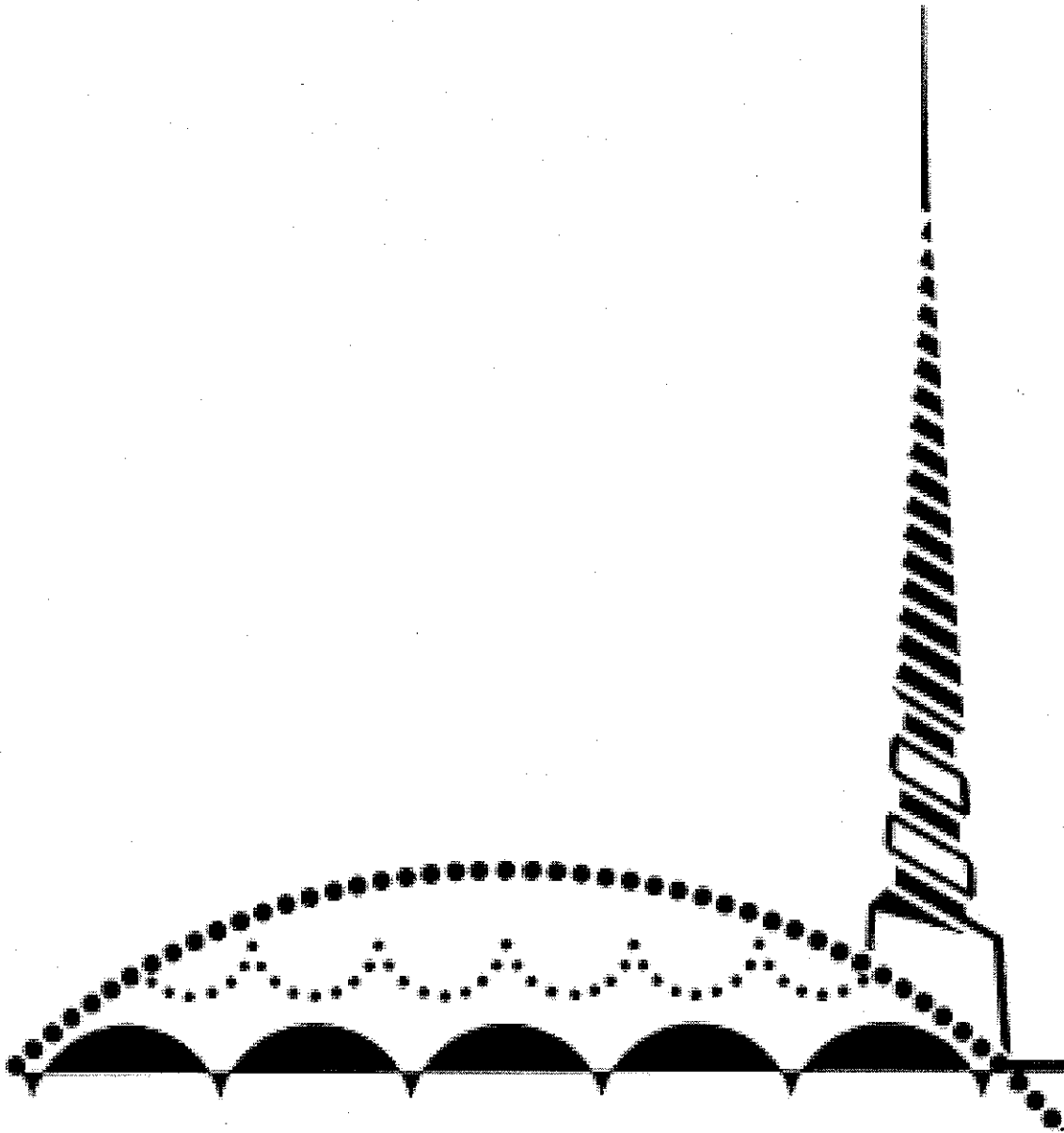
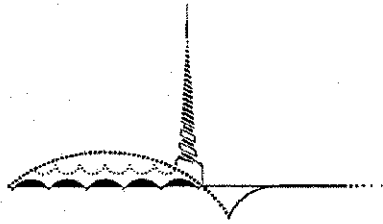


2008-2009 MARIN COUNTY CIVIL GRAND JURY

Seismic Safety and Marin Public Schools

March 23, 2009





SUMMARY

More than 4,700 children died and thousands more were injured in the devastating magnitude 7.9 earthquake in Sichuan, China, on May 12, 2008. More than 6,000 classrooms collapsed. The earthquake focused new attention in seismically active California on whether the state's school children will be safe in their classrooms if a similar earthquake occurs here.

The good news is that public school buildings in California are among the safest in the world, primarily because of the 1933 Field Act that required a high standard of seismic design for public schools. More stringent seismic standards for public schools were added to the Uniform Building Code for California in 1978.

In 2002, in response to Assembly Bill 300, the state issued a "Seismic Safety Inventory of California Public Schools." The inventory concluded that 80 percent of California public school buildings met life-safety standards that would protect children during an earthquake. However, the inventory also concluded that 7,537 school buildings appeared to fall into a less safe Category 2 and might need to undergo detailed seismic evaluations. Because of the way the law was written, the school buildings identified as Category 2 were not identified to the public. It was not until last year that the list became available to the public.

The Grand Jury has learned there are at least 75 buildings in Marin County school districts – in Novato, Mill Valley, Tamalpais, San Rafael, Ross Valley and possibly Shoreline districts – that are deemed to be the riskier Category 2 buildings. These are concrete, brick and steel buildings that were constructed before July 1, 1978, for which no plans for retrofit modifications had been filed with the state. These buildings are identified in the Discussion section of this report beginning on page 4.

While architects and engineers urge seismic inspection of schools listed as Category 2, they told the Grand Jury that parents need not be unduly alarmed. Just because buildings are listed as Category 2 does not mean they will fail in a major earthquake. All Category 2 buildings in use in Marin meet the seismic requirements of the 1933 Field Act, and most have been modernized in recent years. Structural engineers note that the buildings have withstood 40 or 50 years of earthquakes in this area, and that no public school building in the county has experienced structural cracks or serious damage because of a quake during that time.

Nevertheless, the risk of earthquake damage to school buildings is real. Studies show that the Bay Area faces a 62 percent probability of a magnitude 6.7 or larger earthquake over the next 30 years. Even a moderate quake can devastate a building made of concrete with inadequate steel reinforcements or with weak roof-to-wall connections.

Marin school district officials are confident that all of their buildings are safe, but they acknowledge that seismic evaluation of Category 2 buildings should be conducted. Few districts, however, can afford the \$10,000 to the more common \$30,000 cost per building to conduct a detailed seismic evaluation, much less the hundreds of thousands of dollars that would be required for a major structural retrofit.

The Grand Jury recommends that school districts that have Category 2 buildings on their campuses make the facts known to their communities and seek support in deciding which buildings need to be evaluated soon and whether these buildings need to be retrofitted. As one step, we recommend that the Marin County Office of Education join with the Marin County Public Works Department to consult with school districts on addressing seismic safety requirements for buildings identified as Category 2. Marin's Joint Legislative Action Committee, comprised of school board members and superintendents, should report Category 2 conditions to the California Legislature and urge it to free up state funds for seismic inspection and retrofit work. Parent-teacher associations and others should encourage grass-roots efforts that in some communities have focused government attention on school seismic safety and resulted in local funding or bond issues to address the problem.

Public school districts in Marin have already done major modernization work to improve what engineers call the life-safety performance of school buildings, and it is clear that this work has enhanced the stability of many of these structures. Seismic inspection and retrofit where necessary are next steps in ensuring the safety of classroom buildings.

The Grand Jury acknowledges that schools are particularly hard hit by today's sagging economy and California's budget difficulties. Some teaching positions and classroom programs are being eliminated. However, the safety of our children is a serious matter and the need to plan for seismic review of public school buildings should not be overlooked.

BACKGROUND

Public school buildings in California are among the safest in the world. California's Field Act was enacted in 1933 after the Long Beach earthquake destroyed 70 schools and damaged 120 others. Private schools are not covered by the Field Act but are subject to the similar but more limited Private Schools Building Act of 1986. The Field Act requires a high standard of seismic design for public schools. After studying the effects of later earthquakes, scientists and engineers added more stringent standards of seismic safety for schools as part of the Uniform Building Code for California in 1978. For example, the code requires that concrete-frame buildings include more steel reinforcement in and around their beams and columns as well as stronger walls. The aim is to make buildings flexible enough to bend instead of break during prolonged shaking.

Because of concerns that many of California's classrooms were built before the 1978 seismic revisions, the State Legislature in 1999 approved Assembly Bill 300, requiring the Department of General Services and its Division of the State Architect (State

Architect) to conduct a "Seismic Safety Inventory of California Public Schools." The inventory did not involve site visits. Instead, the State Architect staff scoured its archives for the building plans filed for public school structures designed and built before July 1, 1978. Wood frame schools were excluded, since their construction flexibility makes them relatively stable in earthquake conditions. The other buildings were placed in one of two categories: Category 1 buildings are likely to perform well in an earthquake; Category 2 buildings are not expected to perform as well and should undergo detailed seismic evaluation to determine if they are likely to meet life-safety standards in the event of an earthquake.

The resulting AB300 inventory, completed in 2002, concluded that 80 percent of California's kindergarten through 12th grade public school buildings meet expected life-safety performance standards as Category 1 or wood-frame structures and would protect children from injury during a serious earthquake. However, the inventory also concluded that 7,537 school buildings in the state appeared to fall into Category 2 and should undergo detailed seismic evaluation to determine if they should be retrofitted. The State Architect recommended that school districts first do seismic evaluation on Category 2 buildings within 2 kilometers (about 1.2 miles) of a major fault, then prioritize and fund retrofit as necessary. Similar steps would then apply to Category 2 buildings between 2 and 5 kilometers (3.1 miles) of a major fault and, later, those between 5 and 10 kilometers (6.2 miles) and those over 10 kilometers from a major fault. No Category 2 public school building in Marin is within 1.2 miles of a major fault, and few if any are closer than the next 3.1-mile level.

The law required that the AB300 inventory "not identify individual school sites on which inventoried school buildings are located." Category 2 buildings were not identified to a school district unless the district formally applied to the State Architect to release the list for that district. It is estimated that only about 10 percent of school districts did that. Last year, however, the inventory became public. The inventory listed 76 school buildings located in Marin County as Category 2. The Grand Jury found numerous errors in this listing. The inventory misidentified some buildings, double counted others because of record-keeping discrepancies, and it listed several structures that over time had been closed or demolished.

School officials who studied the history of AB300 say that the state's inventory was not intended to be precise in identifying particular school buildings. In a written response to the Grand Jury's questionnaire, one school district executive offered this explanation of the state's intent: "Assembly Bill 300 was intended to create an inventory of buildings that may be more vulnerable in an earthquake so the State could attempt to provide a funding mechanism to retrofit vulnerable buildings....The purpose of AB300 was to catalogue, characterize and estimate the scope of the problem as the State had done for hospitals, bridges and government buildings so that the legislature could begin seeking solutions for the problem."

The Grand Jury in this report sought to determine what school districts in Marin County have done to evaluate and correct seismic deficiencies in the school buildings that should properly be identified as Category 2 structures.

METHODOLOGY

The Grand Jury sent a two-page questionnaire to the superintendent of each of Marin County's 19 school districts and the Marin County Office of Education asking what school buildings had been identified under the State Architect criteria as needing further seismic evaluation, whether that evaluation has been done, and what retrofit construction has been conducted. The Grand Jury interviewed three officials in the Division of the State Architect, and it gathered information from superintendents or their representatives in districts that reported the presence of Category 2 buildings on their campuses. Additionally, the Grand Jury interviewed a number of county officials, architects and engineers familiar with school construction. The Grand Jury also reviewed documents produced by the State Architect, California code provisions, numerous technical reports and newspaper articles, and commentary and general information on the Internet.

DISCUSSION

Category 2 school buildings in Marin County

The Grand Jury's survey shows there are at least 75 school buildings in Marin County – in Novato, Mill Valley, Tamalpais, San Rafael, Ross Valley and possibly Shoreline districts – that are deemed by school officials to be the riskier Category 2 buildings. In other words, based on records on file with the State Architect and on each district's assessment of its campuses, these 75 concrete, brick and steel buildings were constructed before July 1, 1978, when stricter seismic requirements went into effect in the Uniform Building Code, and no notices of retrofit modifications since that time have been filed with the State Architect. According to the State Architect, such buildings are not expected to perform as well as Category 1 buildings in a major earthquake and should undergo detailed seismic evaluation to determine if retrofit work is necessary.

On a positive note, the great majority of school buildings in Marin County appear to be safe. In fact, 11 of the 19 Marin County school districts and the Marin County Office of Education report that none of the school buildings on their campuses today would be designated as Category 2. Some of the buildings in Marin school districts that were identified in the AB300 survey as Category 2 buildings built before July 1, 1978, have since been sold, demolished or replaced.

The Grand Jury gathered information and interviewed engineers and school district superintendents, business officers and facilities managers in school districts that reported Category 2 buildings. In general, we were told that the buildings identified as Category 2 are believed to be structurally sound and most have been inspected many times as part of renovation and modernization work, although none has been subjected to a comprehensive seismic evaluation. We also were told that the cost of a detailed seismic

evaluation ranges from a low of \$10,000 to a more common \$30,000 per building. Seismic evaluations include collection and analysis of soil samples, structural analysis of walls and foundations, including core samples, and assessment of roof and wall support design and condition. As one district put it, "The district has no funds to procure a seismic/structural evaluation of all of the Category 2 buildings identified, especially given the state budget crisis and upcoming mid-year budget cuts."

Here are the results of our survey for each of the school districts in which Category 2 buildings were identified.

San Rafael City Schools

The San Rafael High School District identified seven Category 2 buildings on the campuses of Terra Linda High School and San Rafael High School. For the San Rafael City Elementary School District, the AB300 inventory identified three buildings on two campuses as Category 2. Only one of those buildings is on an active campus (Laurel Dell Elementary School), while the two other buildings were on a campus (Hartzell School) that was sold and demolished many years ago.

Category 2 buildings identified on San Rafael campuses are as follows:

SCHOOL	DATE	DESCRIPTION
Terra Linda High School	1958	Woodshop/classroom (Bldg. D)
Terra Linda High School	1958	Building G dance studio
Terra Linda High School	1958	Administration Building
San Rafael High School	1938	Auto shop, woodshop, tech, Bldg. K
San Rafael High School	1938	Ceramic and art wing
San Rafael High School	1938	Administration/classroom/theater
San Rafael High School	1964	Language arts wing
Laurel Dell Elementary School	1970	One building (2,832 square feet)

The district notes that for decades it has performed work on all its buildings with State Architect review and approval, although the work did not necessarily include specific seismic retrofitting. The district believes that every building identified was examined as part of the district's modernization program that has been ongoing since passage of bond issues in 1999 and 2002. All of the work was overseen by professional architects. Structural elements of district buildings were reviewed and enhanced with roof-to-wall connections and additional bracing consistent with State Architect requirements and with State Architect approval.

Novato Unified School District

The Novato Unified School District identified 50 buildings that fall within Category 2 criteria. The district notes that of that total, 39 buildings have been modernized over the last several years, and the construction and upgrades have been submitted to and approved by the State Architect and comply with all applicable building codes and

regulations. Nevertheless, a comprehensive seismic evaluation of the buildings has not been conducted. The district notes that, based on AB300 projections, evaluation costs for the Category 2 buildings would be approximately \$16,600 per building for a total evaluation cost of \$830,000 in 2002 dollars.

The school district identifies its Category 2 buildings on six campuses, as follows:

Hamilton Elementary: Five buildings, all dating to 1965 and ranging in size from 2,856 to 7,323 square feet. All but one of these buildings have been modernized in recent years, and all work has been approved by the State Architect.

Pleasant Valley Elementary: Six buildings, dating to 1964 and 1965 and ranging in size from 361 to 7,243 square feet. All of these buildings have been modernized in recent years, and all work has been approved by the State Architect.

San Jose Middle: One structure, dating to 1960 and containing 5,800 square feet of space. The structure, a covered outdoor lunch area, has not been modernized in recent years.

Sinaloa Middle: Four buildings, all dating to 1967 and ranging in size from 14,670 to 18,873 square feet. All four buildings have been modernized in recent years, and all work has been approved by the State Architect.

San Marin High School: Eight buildings, dating to 1967 and 1971 and ranging in size from 6,294 to 24,232 square feet. All but one of these buildings have been modernized in recent years, and all work has been approved by the State Architect.

Novato High School: Twenty-six buildings, dating from the mid-1950s to the early 1960s. Most of them measure in the 4,000 or 5,000 square foot range, although one is as small as 553 square feet and another as large as 13,347 square feet. Eighteen of the buildings have been modernized in recent years, and all work has been approved by the State Architect.

As to those buildings that have been modernized recently, the district states that “structural components of district buildings were considered as part of modernization with our design team’s professional assistance and through the formal DSA [Division of the State Architect] process. The district believes that all structural issues raised by DSA during the process, if any, were addressed.”

In responding to the Grand Jury’s questionnaire, Novato school executives analyzed all of their school buildings and added at least 10 more buildings to the list supplied by the State Architect based on the criteria used in compiling the AB300 inventory. A school executive emphasized that the district believes that all of these buildings are safe, and most have withstood more than 40 years of Bay Area earthquakes without serious damage. At the same time, the executive agreed that a seismic evaluation of all of the Category 2 buildings is desirable.

While Novato in 2001 passed a \$107 million bond issue for school renovation, none of that money was earmarked for seismic upgrading. Novato officials are urging the legislature to consider a statewide funding mechanism for seismic evaluation and retrofit.

Mill Valley School District

There are 10 buildings identified as Category 2 in the Mill Valley School District, four at the Edna Maguire Elementary School and six at the Mill Valley Middle School. There were five other Category 2 buildings on the AB300 list, but one of those (Marin Terrace) has been sold and is no longer in use and another (at the Lomita/Alto School campus) is surplus property and is rented to a private school. Three buildings on the AB300 list apparently are part of the Ross Valley School District rather than the Mill Valley School District.

The four Category 2 buildings on the Edna Maguire Elementary campus are identified by State Architect identification number and square footage. Two of the buildings each have 12,974 square feet of space, one has 5,780 square feet of space, and one has 2,785 square feet of space. Three of the buildings appear to have been built in 1955, and one in 1961.

The six Category 2 buildings on the Mill Valley Middle School campus all appear to have been built in 1969. Four of the buildings have 21,500 square feet of space each, one has 18,000 square feet of space, and one has 15,200 square feet of space.

All 10 of these Mill Valley buildings have been upgraded with interior and exterior finishes, climate control installation and other work in recent years, but there has been no detailed seismic evaluation of any of the buildings.

Mill Valley school officials said that a facilities master plan is in the works and should be ready in April, and a bond measure – Mill Valley’s first since 1998 – is being considered for the November 2009 ballot. One executive told the Grand Jury: “All work proposed will be done with seismic considerations, and the school board considers seismic safety as priority one.”

Tamalpais Union High School District

There are four Category 2 buildings in the Tamalpais Union High School District, one of them at Redwood and three at Tamalpais. The four buildings are as follows.

SCHOOL	DATE	DISTRICT DESCRIPTION
Redwood High School	1960	Student Center
Tamalpais High School	1956	Girls gym and locker room
Tamalpais High School	1962	Unable to identify based on DSA information
Tamalpais High School	1971	Student Center

The district states that “every building identified above has gone through some level of modernization which included some level of structural evaluation. A ‘comprehensive’

seismic evaluation of those buildings was not performed, but the structural components of each of the buildings were reviewed when this work was performed, consistent with DSA requirements and with DSA approval. A significant portion of this work was done as part of the District's modernization program that has been ongoing since 2001."

According to the district, all of its buildings are safe and structurally sound. It adds that the safety of students and staff is the district's first priority.

Ross Valley School District

The AB300 report did not identify any buildings as Category 2 in the Ross Valley School District. However, there were three buildings listed on the Mill Valley School District inventory as "Hidden Valley School." Ross Valley previously had a school with that name, but it is now called Brookside Upper Campus. The district is seeking confirmation from the State Architect that the three Hidden Valley buildings should be identified as on the campus of the Brookside Upper Campus.

The three buildings identified as Category 2 are each described as "PC1-A Precast tilt-up concrete shear wall with concrete floor and roof diaphragms."

The district notes that every building "was evaluated as part of the District's modernization program that has been ongoing since 2000. The architect for that program was Hibser Yamauchi Architects, Inc. (formerly Arthur Tam Associates). To be clear, the District did not necessarily have a comprehensive seismic evaluation of those buildings performed at that time, but the structural components of district buildings were reviewed when this work was performed, consistent with DSA requirements and DSA approval." The district adds that it "believes that its buildings are structurally sound."

Shoreline Unified School District

There are no Shoreline Unified school buildings on the AB300 inventory list. However, after reviewing the State Architect criteria with the district's project manager, architect and structural engineer, the district submitted an update to the State Architect for Tomales High School. All other school sites are wood-framed buildings or were built after 1978.

In its report to the State Architect, the district notes: "Tomales High School went through a state-approved modernization project in 2001. At that time no significant structural changes were requested or made, nor was a full review done by a structural engineer. We have recently inquired as to the cost of a seismic study for Tomales High School. The cost for the study will be over \$10,000." The district added: "Given the current state of public school budgets, the district is not in a position to spend that amount on a study without outside help. The district will be watchful for grants in order to conduct the study in the future."

How serious is the threat?

The risk of a major earthquake affecting the Bay Area is real. Following the Loma Prieta earthquake in 1989, the Working Group on California Earthquake Probabilities published a report that concluded that the Bay Area faces a 62 percent probability of a magnitude 6.7 or larger earthquake over the next 30 years (2003-2032). Updated information was released by the California Geological Survey in 2008. It estimates there is a 21 percent chance of a 6.7-magnitude earthquake along part of the San Andreas Fault in the Bay Area over the next three decades. Another hazardous fault system in the Bay Area is the Hayward-Rodgers Creek, with a 31 percent likelihood of a 6.7-magnitude quake in the next 30 years. A portion of the Rodgers Creek-Hayward Fault system slices through San Pablo Bay and into Sonoma County just a few miles from Marin.

While they urge seismic inspection of schools listed as Category 2, State Architect officials told the Grand Jury that parents need not be unduly alarmed. Just because buildings may be listed as Category 2 does not mean that they will fail in a major earthquake. Seismic building standards have been in effect since the Field Act in 1933, and that means that the buildings constructed since then are likely to withstand most quakes, even severe ones. Structural engineers note that California has experienced several major earthquakes since 1933 and no public school building in Marin County has experienced structural cracks or serious damage because of a quake during that time.

One State Architect engineer gave us this example: “Our paper evaluation produced a non-intuitive judgment that a particular building examined near the Hayward Fault was not very likely to withstand an earthquake of severe magnitude, say 6.9. The construction style was tilt-up, generally regarded as an inferior building method for seismic standards today. On paper, the building did not look as safe as it could have been. But on inspection, it turned out that the building had other reinforcement features that moved it to a better risk possibility, even Category 1.”

That’s why the State Architect and structural engineers emphasize the importance of on-site inspection of buildings listed as Category 2. Such buildings are more vulnerable than Category 1 buildings based on several factors. Structural engineers look at the content of soil on which the structures are built, the size and height of the structures, the methods of construction and use of horizontal beams, type of foundation, and the bolting of roofs to walls and walls to base. A key consideration is the proximity of the building to a major fault, with more urgent attention recommended for those Category 2 buildings within 1.2 mile of a fault, followed by those Category 2 buildings within 3.1 miles of a fault, then those within 6.2 miles, and then any beyond that. As was the case of the school building near the Hayward Fault, a seismic inspection may determine that a building that looks vulnerable on paper might in fact be at or near Category 1 status because of factors unique to that building.

One district facilities manager told the Grand Jury: “With bond issue money, we have completed renovations on all Category 2 buildings that in some cases went down to the studs. All work was done under DSA guidance and with a structural engineer, and we

carried out seismic change recommendations in the normal course of modernization, including roof-to-wall connections and additional bracing.” While the facilities manager acknowledged that seismic evaluation of Category 2 buildings is desirable, “we are confident that all of our buildings are safe and that they will fare better in an earthquake than neighboring buildings.”

Officials in all school districts told the Grand Jury that they are confident of the structural safety of all of their buildings. Nevertheless, all said they would welcome a detailed seismic evaluation of Category 2 buildings as soon as money can be found to conduct the work. A State Architect engineer told the Grand Jury that school renovation projects are not a substitute for detailed seismic evaluations, noting that, under the Building Code, renovations that do not exceed 50 percent of the replacement value of a structure do not require seismic evaluation as part of the work. Accordingly, review and approval by the State Architect of a school’s construction documents does not necessarily signify that the building meets seismic standards.

Are new bond issues the answer?

In better times, school districts might have looked to bond issues to fund seismic evaluation of Category 2 buildings. In 2000, Proposition 39 was passed, a constitutional amendment changing the threshold for local school facilities bonds to a 55 percent supermajority instead of a two-thirds majority required by Proposition 13. Since that time, school districts have been better able to pass local school facilities bonds, and this has given districts access to matching funds provided by state school facilities bonds. As a result, school facilities have improved dramatically throughout the state. The same dramatic improvement has been true in Marin County. The accompanying chart on the following page shows that voters in Marin school districts have since 1994 approved nearly \$650 million in bond issues for K-12 public school modernization and renovation.

School district officials interviewed by the Grand Jury say that current economic conditions will make it difficult to pass additional school bonds in the near future, although at least one district hopes to put a capital improvement bond issue on the ballot in November 2009. One problem is that a school district cannot know how much money will be needed for retrofit of school buildings until the district conducts detailed seismic evaluations to pinpoint what reconstruction, if any, is necessary.

While commenting on it carefully, one school official told the Grand Jury that seismic evaluations may have to wait until school districts work through more clearly immediate problems of revenue reductions, teacher layoffs and program reductions required by the budget crisis. Even the State Architect recommends that the urgency of seismic evaluations, funding and retrofit should apply first to Category 2 buildings within 1.2 miles of a major fault, while Category 2 buildings further from a fault should be dealt with later. No Category 2 public school building in Marin is within 1.2 miles of a major fault, and few if any are closer than the next 3.1-mile level.

MARIN PUBLIC SCHOOL BONDS 1994-2008			
School District	Measure	Year	Million Dollars
Dixie	B	1999	10.00
Kentfield	B	1998	13.50
	E	2004	11.90
Lagunitas	C	1995	2.60
Larkspur	A	2000	21.70
Mill Valley	E	1994	18.60
	H	1998	7.70
Nicasio	H	1999	2.50
Novato Unified	A	2001	107.00
Reed Union	C	2001	38.00
	A	2005	13.00
Ross	B	2006	15.00
	A	2008	6.75
Ross Valley	E	1999	19.80
San Rafael Elementary	B	2002	49.30
	C	1999	26.00
San Rafael High Schools	A	2002	49.50
	A	1999	13.00
Sausalito Marin City	I	2004	15.90
Shoreline Unified	B	2000	7.00
Tamalpais Union HS	A	2001	121.00
	A	2006	79.92
Total Marin Districts			649.67

So what can be done?

The Grand Jury acknowledges that schools are particularly hard hit by today's sagging economy and California's budget difficulties. Some teaching positions and classroom programs are being eliminated. However, the safety of our children is a serious matter and the need to plan for seismic review of public school buildings should not be overlooked.

Like most school districts in California, Marin County school districts with Category 2 buildings on their campuses face the quandary of what to do when funding for seismic evaluation and retrofit is not available. The cost to do a seismic analysis of suspect buildings in one large district would be more than \$800,000. A school executive added:

“What could be done if the evaluations identified problems with no funding for repairs? What would you do if you had to close the schools? Where would you house the students?”

The federal economic stimulus program recently signed into law by President Obama may provide money for Marin’s schools, but the money will be targeted toward programs such as special education and Head Start and probably will not be available for seismic evaluation and retrofit. When California voters in 2006 approved Proposition 1D, a \$10.4 billion school construction bond, \$199.5 million was set aside for matching grants for seismic retrofits at public schools. But the State Architect has stated that Proposition 1D funds for seismic retrofitting were only aimed at a few dozen specific buildings close to major fault lines, none of which is in Marin County. According to one district executive, extremely difficult eligibility requirements under Education Code section 17075.10 preclude Marin schools from qualifying for these funds. Section 17075.10 requirements include proximity of a building to a major fault, type of soil on which a structure is built and an engineering survey showing high potential for catastrophic collapse.

The Grand Jury believes that the community should be aware that at least 75 of Marin’s public school buildings are identified as Category 2 structures. While the school districts believe that these buildings are safe and structurally sound, they acknowledge that seismic evaluations can provide more solid evidence to reassure parents of children attending classes in these buildings.

As one initial step, we endorse the proposal of a top county executive to have the Marin County Office of Education team up with the Marin County Public Works Department to establish a community plan for school districts in dealing with seismic evaluation of their buildings. While neither of these agencies has direct authority over autonomous school districts, the County Office of Education is uniquely qualified to assemble information on possible state and federal grants and to work directly with the Division of the State Architect. Engineers in the Public Works Department have training aimed specifically at reconstruction after disasters and could help write proposals for work that a district needs. County government has a direct interest in seismic evaluation of school buildings because school buildings would serve as emergency shelters under the county’s emergency disaster plan.

As part of a community plan, it was proposed that a principal civil engineer from the County Public Works Department, or possibly a consulting engineer, could meet with school district staffs to look at those buildings identified as Category 2. The purpose of the consultation would be to advise districts on the level or type of engineering that may be required and to help prioritize the necessary steps that should be taken to address the seismic safety requirements urged by the state. The plan would involve a single meeting or site visit with the district staff to provide assistance. The Public Works staff would not be able to assist with seismic analysis, funding or grant information.

As another step, school districts should enlist the support of the Joint Legislative Action Committee. This committee is a county-wide organization of superintendents and school board members who meet regularly to evaluate common areas of interest and work with state legislators to deal with those issues. The committee could urge state legislators to free up state funds for seismic retrofits in Marin. A committee representative said the group would find it difficult to turn to this issue now because it is consumed with issues of revenue cutbacks, teacher layoffs, larger class sizes and program changes. Nevertheless, the Grand Jury urges the Joint Legislative Action Committee to take note of the number of Category 2 buildings in Marin County and to bring that issue to the attention of legislators representing the county.

Finally, the Grand Jury recommends that school districts with Category 2 buildings inform their communities of the problem and encourage grass-roots efforts by parent-teacher associations and others to focus government attention on school seismic safety. As part of that effort, school districts that have Category 2 buildings should prepare written material discussing their situation in more detail to distribute to parents. In Berkeley, which sits astride the Hayward Fault, a group of parents worked with the Bay Area Earthquake Preparedness Project, the California Seismic Safety Commission and the Office of the State Architect to persuade the city in 1992 to seek and successfully pass a \$158 million bond issue to rebuild Berkeley schools. Fremont and San Mateo have conducted seismic evaluations and retrofit of their public school buildings. In Marin, the Ross School District is midway through a major reconstruction project that will replace the entire Ross School campus with buildings that meet all current seismic requirements. The effort is financed by 2006 and 2008 bond issues and a private funding campaign.

FINDINGS

The Grand Jury finds that:

- F1.** In 1999, Assembly Bill 300 required the Department of General Services and its Division of the State Architect to conduct a "Seismic Safety Inventory of California Public Schools."
- F2.** The resulting State Architect inventory listed 7,537 school buildings in the state that appeared to fall into a less desirable Category 2 and should undergo detailed seismic evaluation.
- F3.** At least 75 buildings in Marin County school districts – in Novato, Mill Valley, Tamalpais, San Rafael, Ross Valley and possibly Shoreline districts – are deemed to be the riskier Category 2 buildings.
- F4.** Marin school districts with Category 2 buildings state that they are confident that all of their buildings are safe and structurally sound, but they would welcome a detailed seismic evaluation of Category 2 buildings if and when funding is available to conduct the work.

F5. The cost of a detailed seismic evaluation of a school building ranges from a low of \$10,000 to a more common \$30,000, not including the cost of any work required by the evaluation.

F6. Current economic conditions impose unusually difficult budgetary restrictions on public schools.

F7. Few if any Marin County school districts have funding necessary to do seismic evaluations of buildings on their campuses.

F8. The Marin County Public Works Department can provide assistance on a limited basis in developing a community action plan for seismic review of public school buildings.

F9. The Joint Legislative Action Committee, comprised of school board members and superintendents, works with state legislators on school issues.

F10. Parent groups in Berkeley have effectively focused attention on public school seismic issues. Seismic evaluations and retrofit have already occurred at public schools in such places as Fremont and San Mateo.

RECOMMENDATIONS

The Grand Jury recommends that:

R1. The Marin County Office of Education join with the Marin County Public Works Department to offer school districts assistance in development of a seismic safety community action plan.

R2. School districts with Category 2 buildings on their campuses ask the Joint Legislative Action Committee to work with state legislators to free up state funds for seismic evaluations and retrofits.

R3. School districts with Category 2 buildings communicate the problem within their communities and encourage grass-roots efforts by parent-teacher associations and others to focus government attention on school seismic safety.

REQUEST FOR RESPONSES

Pursuant to Penal Code Section 933.05, the Grand Jury requests responses from the following governing bodies:

- The Marin County Office of Education to Findings 3, 4, 5, 6 and 7 and Recommendations 1, 2 and 3.
- The Marin County Department of Public Works to Findings 5 and 8 and Recommendation 1.

- The San Rafael City Schools to Findings 3, 4, 5, 6 and 7 and Recommendations 2 and 3.
- The Novato Unified School District to Findings 3, 4, 5, 6 and 7 and Recommendations 2 and 3.
- The Mill Valley School District to Findings 3, 4, 5, 6 and 7 and Recommendations 2 and 3.
- The Tamalpais Union High School District to Findings 3, 4, 5, 6 and 7 and Recommendations 2 and 3.
- The Ross Valley School District to Findings 3, 4, 5, 6 and 7 and Recommendations 2 and 3.
- The Shoreline Unified School District to Findings 3, 4, 5, 6 and 7 and Recommendations 2 and 3.
- The Marin County Board of Supervisors to Recommendation 1.

The governing bodies indicated above should be aware that the comment or response of the governing body must be conducted in accordance with Penal Code Section 933 (c) and subject to the notice, agenda and open meeting requirements of the Ralph M. Brown Act.

California Penal Code Section 933 (c) states that "...the governing body of the public agency shall comment to the presiding judge on the findings and recommendations pertaining to matters under the control of the governing body." Further, the Ralph M. Brown Act requires that any action of a public entity governing board occur only at a noticed and agendized public meeting.

The Grand Jury invites a response from:

- The California Department of General Services, Division of the State Architect.
- The Joint Legislative Action Committee.
- The American Red Cross, Marin Chapter.

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Reports issued by the Civil Grand Jury do not identify individuals interviewed. Penal Code Section 929 requires that reports of the Grand Jury not contain the name of any person, or facts leading to the identity of any person who provides information to the Civil Grand Jury. The California State Legislature has stated that it intends the provisions of Penal Code Section 929 prohibiting disclosure of witness identities to encourage full candor in testimony in Civil Grand Jury investigations by protecting the privacy and confidentiality of those who participate in any Civil Grand Jury investigation.