

REPORT OF THE EXECUTIVE OFFICER
State Allocation Board Meeting, December 14, 2011

SEISMIC MITIGATION PROGRAM STATUS REPORT

PURPOSE OF REPORT

To provide the State Allocation Board (Board) an update on the Seismic Mitigation Program (SMP).

DESCRIPTION

At the September 28, 2011 meeting, a member requested that the Division of the State Architect (DSA) provide the Board with an update on the DSA role in the implementation of the SMP. This report provides the Board with a status of the program's current activity, the status of seismic eligibility reviews funded by the grant from the California Seismic Safety Commission (CSSC) and a presentation by DSA staff.

AUTHORITY

School Facility Program (SFP) Regulation Section 1859.82 Facility Hardship states in part "A district is eligible for facility hardship funding to replace or construct new classrooms and related facilities if the district demonstrates there is an unmet need for pupil housing or the condition of the facilities, or the lack of facilities, is a threat to the health and safety of the pupils. A facility hardship is available for: (a) new classrooms and/or subsidiary facilities (corridors, toilets, kitchens and other non-classroom space) or replacement facilities if: (1) the facilities are needed to ensure the health and safety of the pupils if the district can demonstrate to the satisfaction of the Board that the health and safety of the pupils is at risk. Factors to be considered by the Board shall include the close proximity to a major freeway, airport, electrical facility, high power transmission lines, dam, pipeline, industrial facility, adverse air quality emission or other health and safety risks, including structural deficiencies required by the DSA to be repaired, seismic mitigation of the most vulnerable Category 2 Buildings as verified by the DSA, traffic safety or because the pupils reside in remote areas of the district and transportation to existing facilities is not possible or poses a health and safety risk...."

BACKGROUND

The Kindergarten-University Public Education Facilities Bond Act of 2006 (Proposition 1D) provided up to \$199.5 million in bond authority to establish the SMP. At the June 22, 2011 meeting, the Board adopted amended SMP regulations with the intent to open up access to the program. These regulations took effect on September 8, 2011 after being approved by the Office of Administrative Law. Under the new regulations, qualifying projects must meet all of the following:

- (1) The project is for repair or replacement of a Category 2 building¹;
- (2) The construction contract was executed on or after May 20, 2006;
- (3) The project funding provided shall be for the minimum work necessary to obtain DSA approval;
- (4) The Building is designed for occupancy by students and staff; and
- (5) The DSA concurs with a report by a structural engineer, which identifies structural deficiencies that results in a high potential for catastrophic collapse in a seismic event. The engineer's determination shall be made in accordance with a recognized national standard, as specified by the DSA. The presence of faulting, liquefaction or landslide hazards must be documented by a geologic hazard report prepared by an engineering geologist in accordance with California Building Code section 1803A and with the concurrence of the California Geological Survey.

(Continued on Page Two)

¹ The Category 2 building types are defined in the AB 300 Seismic Safety Inventory of Public Schools report (2002).

BACKGROUND (cont.)

To date, three applications from two districts have been approved under the SMP for a total of \$4.7 million. The current remaining bond authority is \$194.7 million. The Board has also approved a conceptual approval for another SMP project estimated at \$14.3 million. However, this conceptual approval does not represent a reservation of funds. The district must submit a complete application for funding to be recommended for potential future funding.

STAFF ANALYSIS/STATEMENTS

Current SMP Applications

Since the new regulations became effective, the OPSC has not received any new applications for SMP conceptual approval or funding.

SMP Eligibility Reviews

The CSSC provided the OPSC with \$127,347 in grant funding for school districts to complete initial seismic eligibility reviews. The reviews were intended to assist school districts with identifying and evaluating buildings for SMP eligibility. The funds for completing DSA Eligibility Evaluation Reports were offered on a first-come, first serve basis. Since the effective date of the new regulations, school districts have submitted requests for all of the remaining CSSC grant funding. Currently, five school districts have submitted requests for 40 buildings, thus, subscribing the entire \$127,347 CSSC grant funding available for the seismic evaluation of facilities.

DSA Process and Updates

The amended SFP Regulations triggered revisions in the DSA review and approval process. The revised procedures and additional clarifications are contained in the DSA Procedure 08-03 revised on September 15, 2011.

While the OPSC has not received any new applications for the SMP, the attached report by the DSA provides an overview of the DSA review and approval process for SMP projects and the status of SMP projects currently being reviewed by the DSA.

RECOMMENDATION

Accept this report.

ATTACHMENT
**SCHOOL FACILITY PROGRAM: SEISMIC MITIGATION
IMPLEMENTATION OF PROGRAM CHANGES BY THE DIVISION OF THE STATE ARCHITECT**

OVERVIEW

The Division of the State Architect (DSA) conducts review and approval of projects for purposes of Seismic Mitigation Program (SMP) funding in two main areas:

- Building Eligibility: DSA reviews technical reports to verify specific building eligibility for purposes of SMP.
- Construction Approval: DSA provides plan review and construction oversight for replacement or repair of eligible buildings to ensure compliance with structural safety, accessibility and fire-life safety of newly constructed or modernized facilities.

BUILDING ELIGIBILITY

The building eligibility is determined by analyzing the following components:

- presence of a site hazard (ground shaking, faulting, liquefaction, or landslides);
- determination of a particular building type as one of the types of construction determined to be more vulnerable in a seismic event; and,
- presence of specific structural deficiencies that contribute to the collapse potential in a seismic event.

Site Hazard

The site's ground shaking potential can be determined by a structural engineer utilizing spectral maps. The presence of faulting, liquefaction, or landslides cannot be determined without a site specific report and California Geological Survey (CGS) review, as there are no maps documenting such hazards on a site-specific basis.

Building Type

The determination of the building type is made by a structural engineer from the review of building records and a site visit.

Structural Deficiencies

The structural engineer's analysis for the SMP also includes an identification of structural deficiencies, such as a weak connection of masonry or concrete walls to a roof of a building, for example.

The rapid evaluation approach adopted for SMP projects requires the preparer to identify one or more deficiency that may contribute to the risk of collapse. The detailed evaluation of all building components is required once the building owner pursues rehabilitation or replacement to be funded under the SMP.

CONSTRUCTION APPROVAL

An identification of an SMP eligible building may lead to any of the following:

- A. Building repair
- B. Building replacement on the original site
- C. Building replacement on a different site

The scope of work and the complexity of planning efforts vary depending on the approach.

A. Building Repair

A repair of a school building for purposes of seismic rehabilitation is subject to the requirements of the California Building Code. These requirements are intended to achieve a level of performance in existing buildings comparable to new building construction under the current building standards. DSA reviews proposed construction plans for compliance with these requirements as well as applicable fire-life safety and accessibility provisions that are triggered by the alteration work. In order to design the rehabilitation project, a detailed structural engineer's report is required to identify all aspects of the building that require strengthening. Furthermore, DSA requires a submittal of a pre-application to review and approve the proposed design approach that will be used in development of plans for rehabilitation work.

ATTACHMENT

B. Building replacement on original site

For a replacement building, the proposed building plans and specifications are submitted to the DSA for review and approval, in the same manner as non-SMP projects. The plans must meet all the applicable requirements of the California Building Code, administrative provisions, and DSA policies and procedures. In addition to building construction, the design may include site improvements to mitigate the site hazard, if applicable, such as construction of a retaining wall, for example.

C. Building replacement on a different site

The DSA review and approval process is identical to the one described above for building replacement on the original site. However, if the replacement site is a proposed new site, additional planning and design is likely needed to accommodate site infrastructure and additional buildings.

DSA REVIEW: PROCESS CHANGES

Eligibility Evaluation Report

The recent revision to DSA Procedure incorporates a template for determining building eligibility for SMP. This template report is completed by a structural engineer and reviewed by DSA, and represents a rapid evaluation method utilizing national engineering standards. It has been developed by two structural engineering firms and the DSA utilizing grant funding from the California Seismic Safety Commission. By implementing a template report, the DSA is able to achieve consistency and efficiency in review and approval of eligibility requests.

Documenting Geologic Hazards

Since CGS review and concurrence is required for buildings which are evaluated based on the presence of faulting, liquefaction, or landslides, the DSA expanded Procedure 08-03 to incorporate the CGS review and documentation requirements. This change was made in response to the additional eligibility criteria adopted through the SMP regulations.

Processing Steps

To provide clarity and process transparency, the DSA outlined its requirements and review process in a series of phases which also include CGS and OPSC requirements, as coordinated among the agencies. The DSA Procedure 08-03 delineates the process for each phase of approval, outlines the differences between review of rehabilitation and replacement projects, and provides expected DSA review timelines. The DSA review steps, as listed below, are required to be completed before a funding application can be submitted to the OPSC.

- Phase 1: Verification of Eligibility (submission of Eligibility Evaluation Report to the DSA)
- Phase 2: Replacement Option Analysis (not required for rehabilitation projects)
- Phase 3: Seismic Rehabilitation Pre-Application (not required for replacement projects)
- Phase 4: Project Application (submission of construction plans to the DSA)

STATUS OF SMP PROJECTS

As of December 1, 2011, the DSA received 66 applications for Phase 1 review. Forty seven buildings from five school districts have been deemed eligible and can proceed to Phase 2 or 3 review depending on the type of project. Five buildings were deemed ineligible and 14 applications were incomplete as of December 1, 2011.

Since the reports prepared for Phase 1 are used to determine eligibility of the buildings, rather than the proposed remediation, the applications on file at DSA to date do not document potential cost of construction.

As an indication of increased interest in the SMP, the DSA has received various inquiries from school districts and their consultants regarding projects that already have DSA approved construction plans and may qualify for the SMP funding under the amended regulations.