

## **Non-Structural Earthquake Damage**

- *THE COALINGA EARTHQUAKE: A REPORT  
ON SCHOOLS*
- *REDUCING THE RISKS OF NON-STRUCTURAL  
EARTHQUAKE DAMAGE: A PRACTICAL GUIDE*



# The Coalinga Earthquake: A Report on Schools

At 4:42 P.M. on Monday, May 2, 1983, an earthquake registering 6.5 on the Richter magnitude scale struck the Coalinga, California, area. Within seconds an aftershock of 5.0 magnitude occurred.

There are three elementary schools, one junior high, and one high school in Coalinga. The school buildings were constructed between 1939 and 1955. They contain 75 classrooms, a gymnasium, auditorium, libraries, and multi-purpose rooms. There are approximately 1,900 students enrolled in this school district.

The following is an account of the non-structural damage to these schools.

## Glass Damage

- Windows broke in direct proportion to the size of the windows; small windows held up much better than large ones.
- The 31-year-old junior high library had eight-by-ten foot double-height glass windows on the north and south walls. All windows imploded and completely littered the room. There were dagger-shaped pieces throughout the room. The floor tile and wooden furniture were gouged with flying glass.
- The school superintendent believes that, had school been in session, death and serious injury would have occurred in the library. The glass in the library windows was not tempered.

## Lighting Damage

- Approximately 1,000 fluorescent bulbs fell from their fixtures and broke. Many fixtures also came down. There were no safety chains on the fixtures.
- Although hanging fixtures suffered much more damage than recessed fixtures, glass in the older recessed fixtures was shaken out and broke.
- The elementary school library lost all its fixtures.

Excerpts from a report prepared by E. Robert Bulman for Charles S. Terrell, Jr., San Bernardino County, CA, Superintendent of Schools. Reprinted with permission from Mr. Bulman and Ray Simpson, Coalinga Unified School District.

### **Ceiling Damage**

- Improperly installed T-bar ceilings came down.
- Glued ceiling tiles came down, especially around vent ducting and light cut-outs.

### **Water Damage**

- Most district buildings have basements. Where water pipes entered through concrete walls, they were severed by the movement of the walls. Basements were flooded to five feet.

### **Electrical Damage**

- All electrical supply and switching mechanisms were in the basement; all were destroyed by water.

### **Chemical Spill Damage**

- In the second-floor high school chemistry lab, sulfuric acid and other chemicals stored in glass containers in open cabinets overturned and broke. Acid burned through to the first floor.
- Cupboard doors sprang open and glass cabinet doors broke, allowing chemicals to fall.
- The lack of electric ventilation caused toxic fumes to permeate the building.

### **Furnishings and Miscellaneous Items Damage**

- File cabinets flew across the room; bookcases fell over; free-standing cupboards, cabinets, and miscellaneous shelving fell.
- Machine shop lathes and presses fell over.
- Typewriters flew around.
- Metal animal cages and other paraphernalia stored on top of seven-foot cabinets crashed to the floor.
- Movie screens and maps became projectiles.
- High school storage cabinets had been "molly-bolted" to walls, but not into studs. They pulled out of the wall and fell to the floor.

# Reducing the Risks of Non-Structural Earthquake Damage: A Practical Guide

The author's note below pertains to the excerpts contained in this appendix.

"This booklet has been written with non-engineers in mind . . . . [It] attempts to provide useful advice for self-help earthquake protection measures and presumes the advice will be applied wisely and that expert assistance will be obtained where necessary." —R. Reitherman

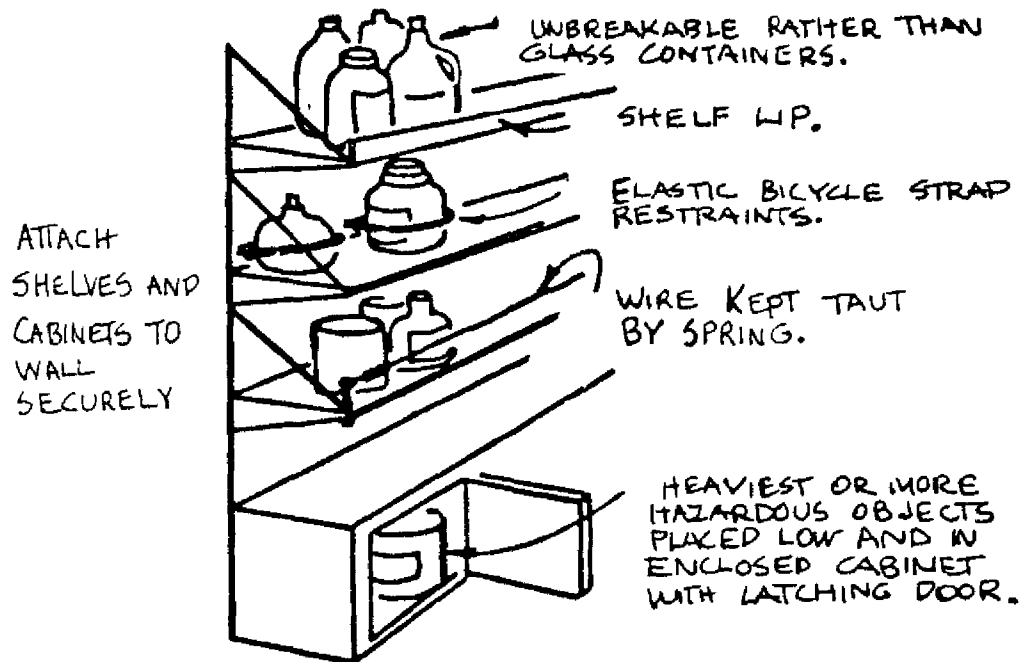
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Prepared by Robert Reitherman for the Southern California Earthquake Preparedness Project, California Seismic Safety Commission, Sacramento, CA.

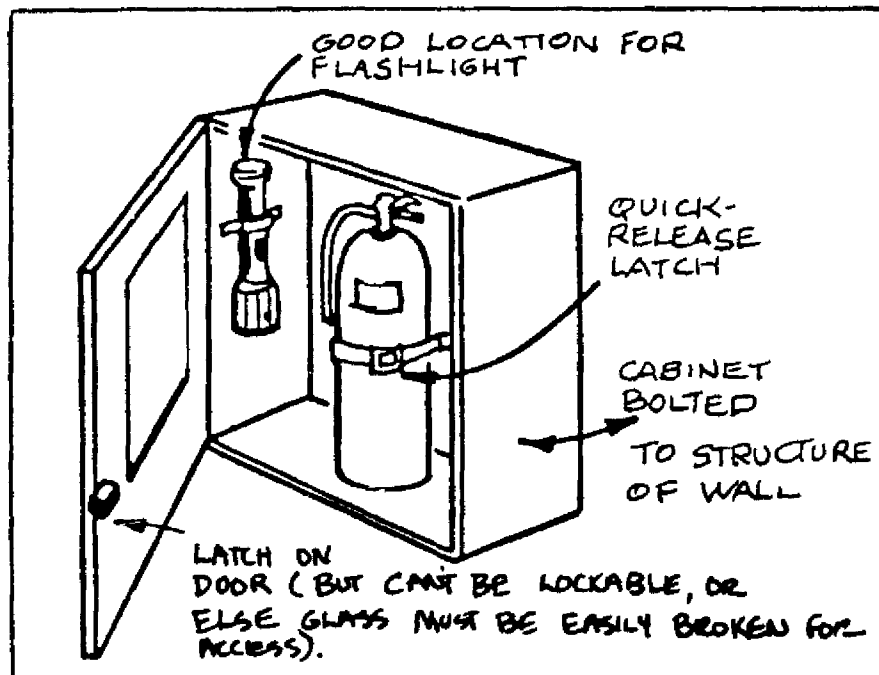
## WINDOWS

IF THE USE OF TINTED ADHESIVE SOLAR FILM IS DESIRABLE TO REDUCE LIGHT AND HEAT, ITS USE WILL ALSO HELP HOLD TOGETHER FRAGMENTS OF ANY WINDOW PANES THAT CRACK IN AN EARTHQUAKE. "SECURITY FILMS" WITH STRONGER ADHESIVE, HOWEVER, WORK BETTER THAN ORDINARY "SOLAR FILMS."

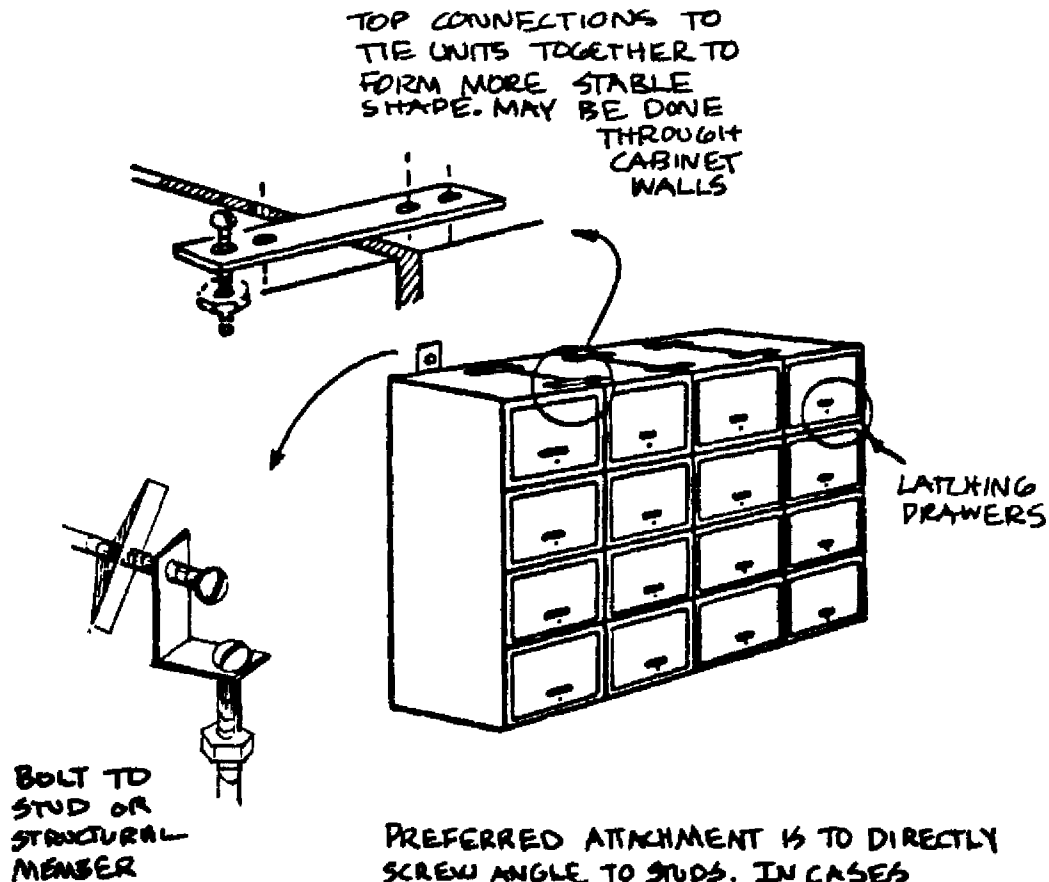
## CONTAINERS OF HAZARDOUS MATERIALS



## FIRE EXTINGUISHERS



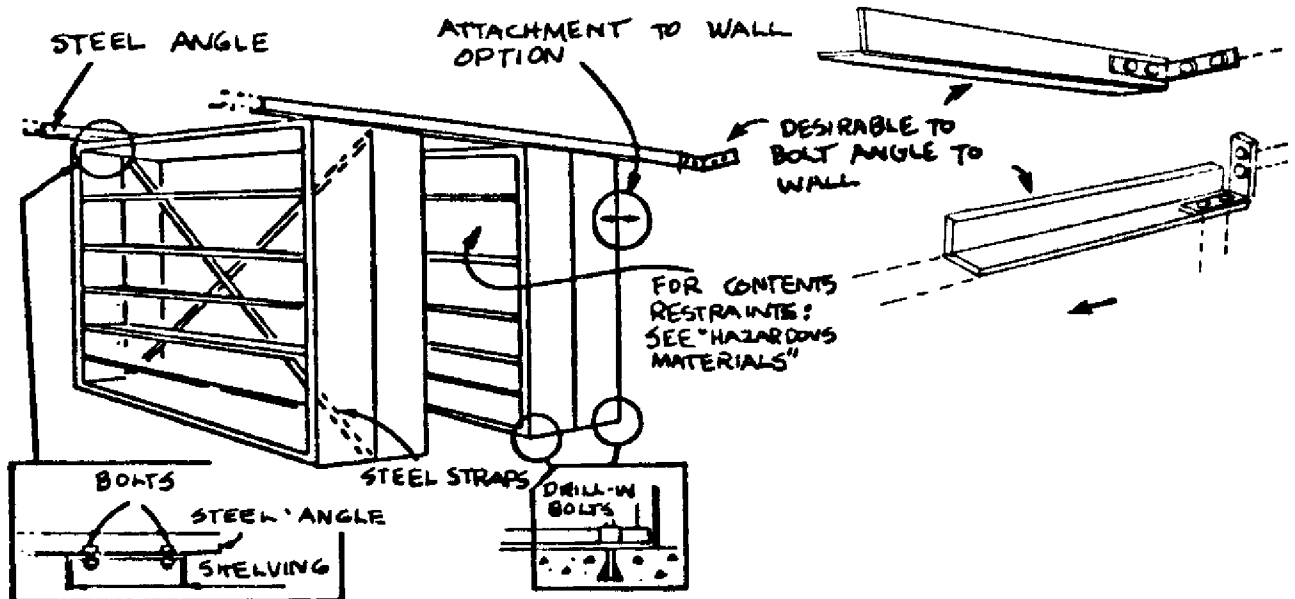
# TALL FILE CABINETS



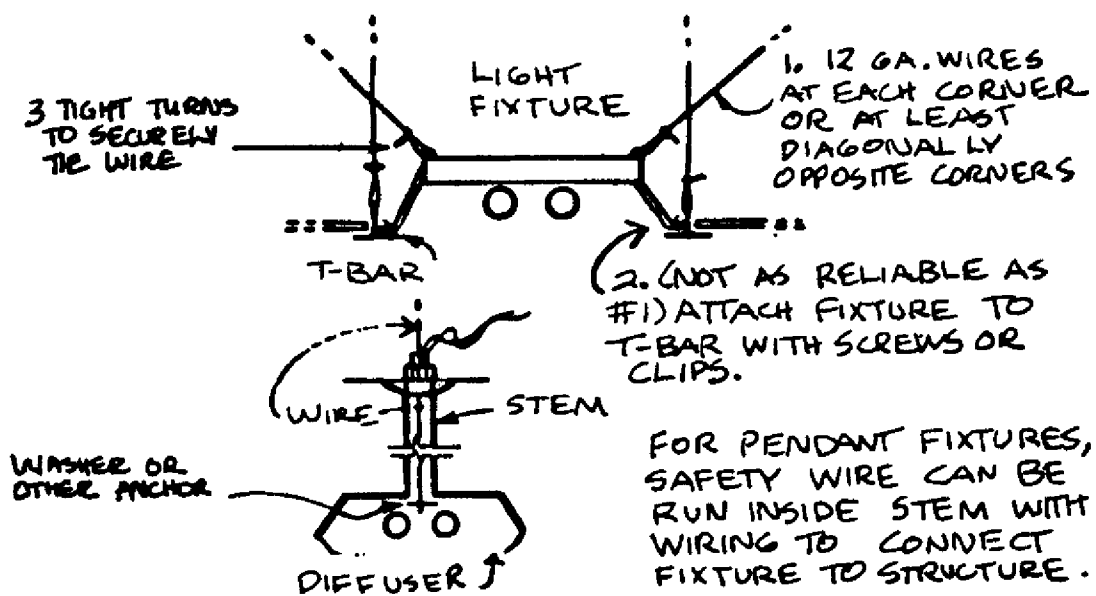
PREFERRED ATTACHMENT IS TO DIRECTLY SCREW ANGLE TO STUDS. IN CASES WHERE A NEEDED ATTACHMENT WOULD NOT LINE UP WITH NEARBY STUD, TWO LARGE ( $3/16"$  DIAMETER) TOGGLE OR BUTTERFLY BOLTS (AS SHOWN) COULD BE USED FOR EACH TALL CABINET TO ATTACH THROUGH GYPSUM BOARD OR SHEETROCK, OR PLASTER PARTITION SURFACE.



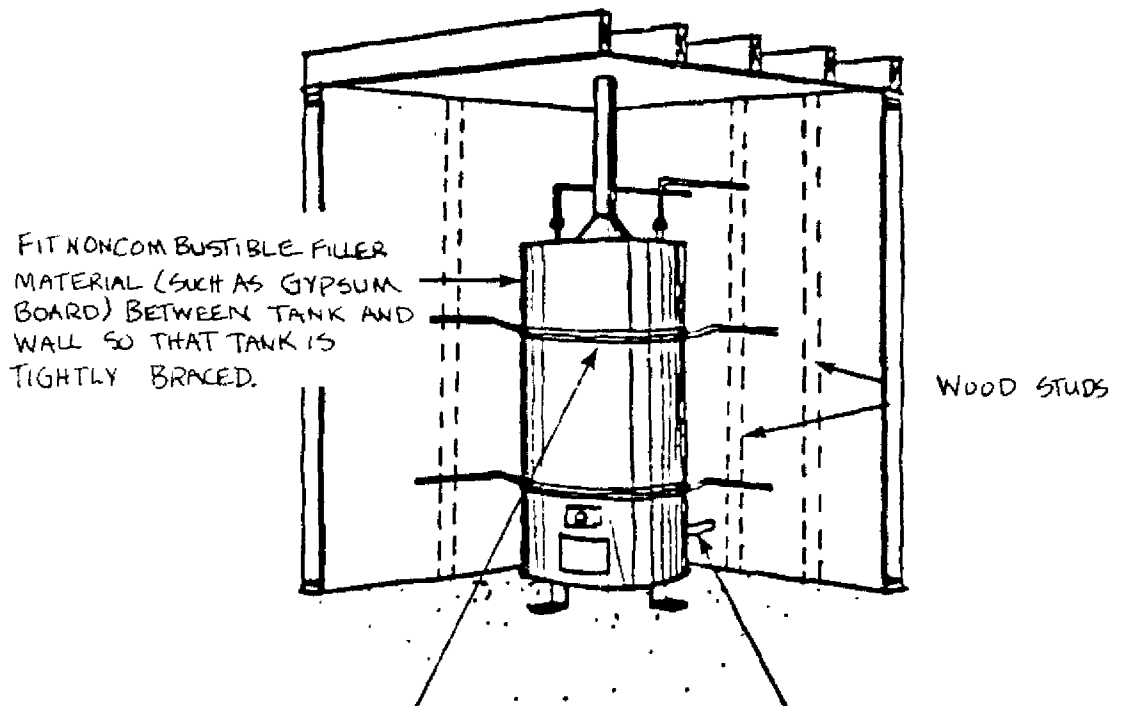
## TALL SHELVING



## LIGHT FIXTURES



## WATER HEATERS

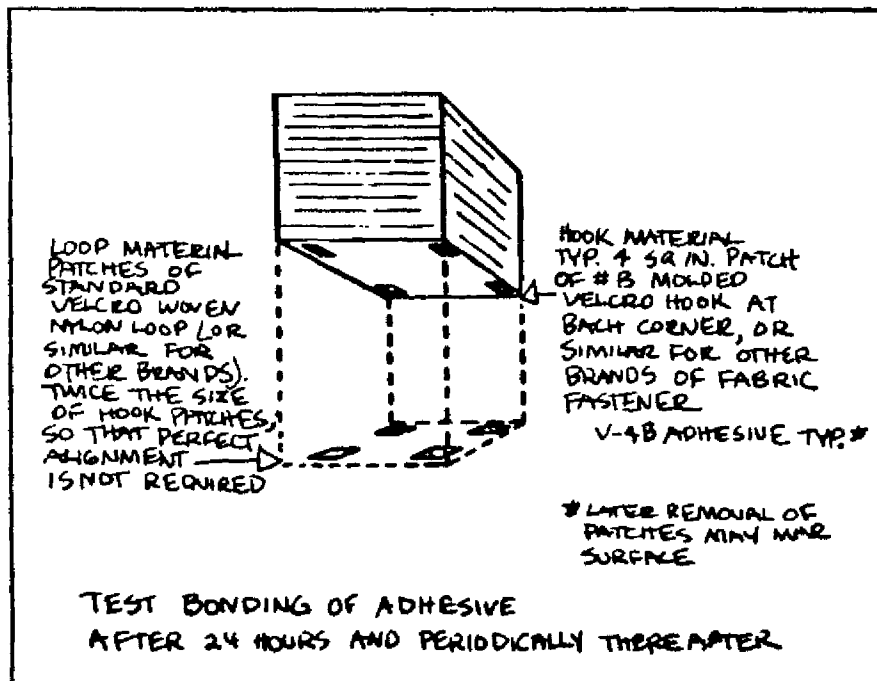
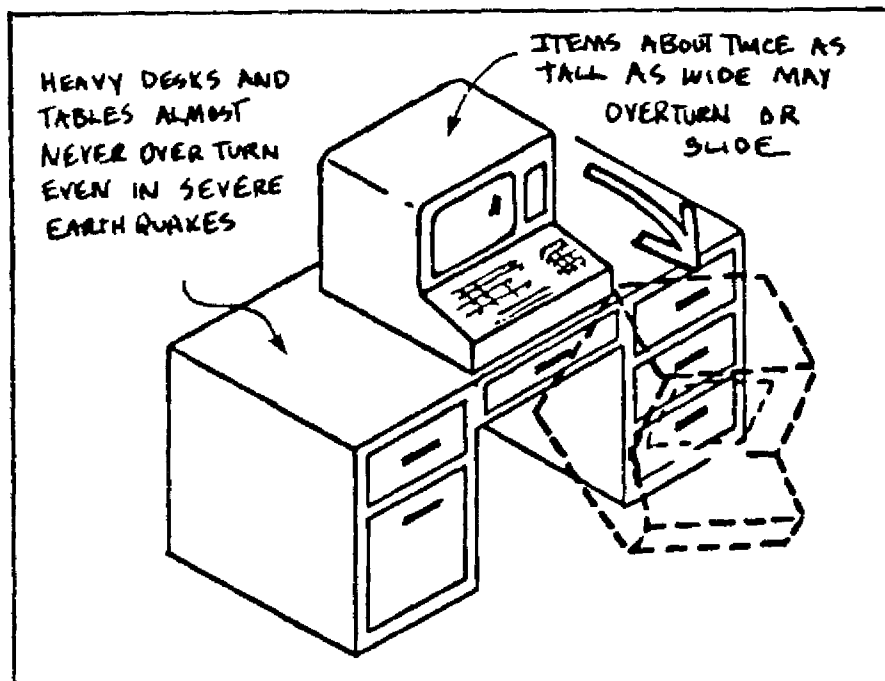


WRAP PLUMBER'S TAPE (PERFORATED METAL STRAPPING) AROUND WATER HEATER, CRISS CROSS TAPE IN FRONT OF HEATER AND ATTACH TAPE DIRECTLY TO STUDS WITH LARGE SCREWS (SUCH AS  $\frac{1}{4}$ " DIAMETER LAG SCREWS) PENETRATING SEVERAL INCHES INTO STUD.

HAVE PLUMBER REPLACE RIGID GAS LINE WITH FLEXIBLE CONNECTION.

FOR CONCRETE WALLS, SUBSTITUTE  $\frac{1}{4}$ " EXPANSION BOLTS FOR SCREWS.

# OFFICE EQUIPMENT





## **Sample Earthquake Safety Plan**

- *EARTHQUAKE DISASTER PREPAREDNESS  
PLAN FOR THE LAS LOMITAS SCHOOL  
DISTRICT*



# EARTHQUAKE DISASTER PREPAREDNESS PLAN



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LAS LOMITAS SCHOOL DISTRICT  
EARTHQUAKE DISASTER PREPAREDNESS PLAN

Introduction

This earthquake disaster preparedness plan provides for the welfare and safety of the students and staff of Las Lomitas and La Entrada Schools in the event of a severe earthquake and establishes a method for evacuation of school premises following such an occurrence.

The plan is the result of a growing awareness within our community of the need for earthquake preparedness in our schools as well as meeting the legal requirements of the California Administrative Code. Representing the Las Lomitas School District at earthquake preparedness meetings in Palo Alto in 1980 and 1981, Mary Bulf, resource teacher at La Entrada School, envisioned an earthquake safety program in the school district where she works. In the fall of 1981 the Las Lomitas School PTA independently sponsored an earthquake education program for parents and formed a committee chaired by Kay Naylor and Beverly Pape to implement earthquake safety procedures at their school. At about the same time, an earthquake preparedness committee for the entire school district was commissioned by Superintendent Richard Jensen under the chairmanship of Mary Bulf. In January 1982 both committees joined forces. This group was comprised of staff, and parent volunteers from both schools. Using material developed by the committee as well as other resources, Beverly Pape wrote a prototype of the plan which the committee developed into its present form.

Much of the material in this plan was drawn from the work of other individuals and groups. The committee especially wishes to acknowledge the contributions of the CAEER Committee (Community Alliance of Earthquake Education Resources) of the Environmental Volunteers; Margaret Masdeo who contributed much to the CAEER Committee; the Palo Alto Unified School District, particularly the Crescent Park PTA; the Los Altos School District; the San Mateo City School District; the Menlo Park City School District; the disaster coordinators of the cities of Menlo Park and Atherton; and Donna Jones-Dulin of the San Mateo County Disaster Office.

The superintendent and committee appreciate the enormous commitment of time and energy already given to the production of this plan. They anticipate the continued participation of the school staff, parents, and the community in the implementation of the many aspects of this plan and in ensuring that it remains current and viable.

June 10, 1982

Richard A. Jensen, Superintendent  
Mary Bulf, Committee Chairperson  
Pat Adams  
Susan Kadlec  
Barbara Murray  
Kay Naylor  
Beverly Pape  
Bob Spence  
Wanda Callaway-Warren  
Carol Wong



LAS LOMITAS SCHOOL DISTRICT  
EARTHQUAKE DISASTER PREPAREDNESS PLAN

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\*Appendices A and E are not included in this reprint.

## SECTION ONE - PREPARATION: PRE-EMERGENCY PROCEDURES

### I. Preparation of the schools

#### A. Hazard assessment

1. To be performed by qualified structural and/or civil engineer where appropriate
2. To include evaluation of interior and exterior portions of school buildings as well as school grounds
3. To include assessment of:
  - a. Proximity of toxic, flammable, corrosive, chemically reactive, or radioactive material
  - b. Proximity of high voltage power lines
  - c. Flooding from collapsed dam or reservoir, soil liquefaction, landslides; likelihood and possible effects of flooding at Las Lomitas School to receive particular consideration
  - d. Probable safety of evacuation areas after a quake; proximity of gas, water, sewer lines
  - e. Interior hanging fixtures
  - f. Windows, particularly those near doorways
  - g. Bookcases and shelving within classrooms as well as all objects on shelves and cabinets
  - h. Stability of water heaters
4. To allow for removal or correction of hazards insofar as practicable

#### B. Classroom emergency supplies

1. Emergency supplies to be contained in tote bag placed near doorway in each classroom, library, music room, etc. (See appendix for list of contents)
2. Additional gallon distilled water stored in each classroom

#### C. First aid supply stations

1. To provide decentralized storage of full first aid material at three locations at La Entrada School, two at Las Lomitas School
2. To include approximately 25 gallons of water for each 100 persons, appropriately chlorinated (Add 10 drops clorox per gallon)
3. To include special equipment and all information sheets (See Section One, I, D and E)

I. Preparation of the schools - continued

4. To include first aid supplies (See itemized list in appendix)

D. Equipment

1. To be inventoried at each school and supplemented with new purchases if necessary (See equipment list in appendix)
2. To be cited as to location on school premises in lists and maps held at first aid supply stations and main office (See appendix)
3. To include tools and instructions for shutting off gas and water which remain permanently located at appropriate sites
4. To provide communication equipment including AM-FM transistor radios, walkie-talkies, bullhorns, and extra batteries
5. To include provision for emergency sanitation facilities
  - a. Waste baskets lined with plastic garbage bags, trenches dug with shovels
  - b. Privacy provided by roll of 4-foot wide black plastic sheeting, bamboo poles (or window poles) and strapping tape

E. General information listings

1. To be maintained at all first aid supply stations and main office
2. To include:
  - a. Plot plan of school including shut-off valves for gas, water and electricity and shut-off valves to hot water heaters, and listing of names of at least three persons trained to disconnect them
  - b. Number and locations of fire extinguishers
  - c. Emergency telephone numbers for city and county disaster-responding agencies (including police and fire departments, hospitals, Red Cross, Civil Defense, gas, electric and water companies, city offices of Menlo Park and Atherton)
  - d. Contents and locations of all first aid supplies plus suggested locations for establishing emergency disaster and first aid treatment centers; first aid procedures
  - e. Chain of command: principal plus names of two others who would function in his stead
  - f. List of disaster-related equipment and map where located
  - g. Call letters of radio station broadcasting local disaster information: KMAH - 89.1 FM

## I. Preparation of the schools - continued

- h. Duplicate copies of emergency cards to be held at one other location besides office
- i. Names of at least two persons with first aid training who would operate emergency first aid center
- j. Names of staff members with training in first aid and/or CPR
- k. Copy of complete earthquake preparedness plan and evacuation procedures
- l. Names, addresses and telephone numbers of those in the surrounding community who have agreed to assist the schools (See Section V)
- m. Identification and location of emergency supplies of water within the school: hot water heaters, etc.
- n. Notation concerning special medication for students and staff

## II. Preparation of the students

### A. Drills

- 1. Complete drill to be held twice a year
  - a. At teacher's command, students assume drop position
    - (1) Away from windows or other potential hazards
    - (2) Under desk, table or other shelter or against inside wall
    - (3) Drop to knees with back to windows
    - (4) Head down towards knees, hands clasped behind neck, arms against ears, eyes closed
    - (5) If jacket or other object available, could be used for additional head protection
    - (6) Be silent so directions can be heard
  - b. Teacher also assumes drop position with children, then stands and monitors students' position
  - c. Students hold drop position for 60 seconds
  - d. Teacher gives directions for evacuation to prearranged location
  - e. Teacher takes emergency kit to evacuation site
  - f. Teacher makes provision for gallon of water to be taken also

## II. Preparation of the students - continued

- g. Teacher and students stay at evacuation site until directed to return to room
- 2. Students learn what to do during quake if no adult is present or if student is at lunch, in the corridor, on the playground
- 3. Additional drills including non-homeroom settings, e.g., recess, lunch, etc., to be held at the discretion of the principal

### B. Classroom education

- 1. To include earthquake education program to be taught annually as designated by the principal; to include:
  - a. Geology of earthquakes
  - b. Importance of drills
    - (1) Discuss noise accompanying quake, results (fallen books, broken glass, etc.), and need for students to be silent and listen for directions
    - (2) Discuss aftershocks and procedures if elsewhere at time of quake (bathroom, on the way to or from school, etc.)
    - (3) Discuss prevalence of quakes all over the world; frequent natural event which will occur here again
    - (4) Discuss location of emergency kit, evacuation plan, procedures if teacher is not available (out of room, unconscious)
    - (5) Discuss student releasing policy
  - c. Hazard awareness at school and elsewhere
  - d. Home and family preparedness
- 2. To incorporate appropriate first aid training into earthquake education program

### C. Elective First Aid Course

To offer 5th through 8th grade students an elective Basic First Aid Course, staffed by volunteers, during each school year

## III. Preparation of the staff

### A. The superintendent shall:

- 1. Be knowledgeable of responsibilities for earthquake preparedness
- 2. Appoint a second-in-command and a backup

### III. Preparation of the staff - continued

3. Order a site and building hazard survey which would include recommendations on how to determine the safety of buildings after an earthquake
4. See that principals and staff are trained to determine safety of buildings after an earthquake
5. Require all staff to review annually earthquake preparedness and disaster procedures and check preparations for their own classrooms
6. See that all schools carry out drills and earthquake education programs for both students and staff
7. Recommend that all teachers hold current first aid certification; recommend that one teacher out of every six at each school hold current CPR certification
8. Instruct business manager to check disaster plans of bus drivers
9. Encourage all staff to prepare family disaster plans
10. Appoint a chairperson for the Earthquake Preparedness Committee; should be a staff member who would serve for more than one year to provide continuity
11. Cooperate with the chairperson of the Earthquake Preparedness Committee to see that the terms of the preparedness plan are carried out
12. Keep parents informed of school policies and plans relating to earthquakes
13. By May receive from the committee a list of supplies needed for the following year
14. In the spring prepare an annual report to the school board on earthquake preparedness including updating procedures, expenses and recommendations for the following year

#### B. The principals shall:

1. Be knowledgeable of the responsibilities for earthquake preparedness
2. Designate a second-in-command and a backup
3. Designate a location for emergency first aid center and persons to operate it; supervise decentralized storage of equipment and water
4. Set up procedures to protect essential records
5. See that teachers are trained (responsibilities, earthquake curriculum, buddy system, first aid and CPR)

### III. Preparation of the staff - continued.

6. With teachers decide on alternate routes from each classroom to the evacuation site
7. See that earthquake education and drills are completed as designated
8. Provide earthquake resource materials for use in an earthquake education program (resource person, curriculum, etc.)
9. Work with teachers to develop a method to include substitutes and aides as part of this earthquake preparedness plan
10. Plan for traffic control during disaster and designate person to be in charge and backup person
11. Develop emergency procedures for night custodians

#### C. The teachers shall:

1. Be knowledgeable of responsibilities for earthquake preparedness
2. Include earthquake education in the curriculum as directed and when appropriate
3. Conduct meaningful drills
4. Take and maintain current first aid training as provided
5. Consider developing family disaster plan

#### D. The nurse shall:

1. Organize and maintain first aid supplies working with the earthquake committee when appropriate
2. Plan for special medical needs of students and staff

#### E. The secretarial staff shall:

1. Know procedures for preserving essential school records in case of disaster
2. See that battery-operated AM-FM radio is available and in working condition, and know call number and frequency of disaster information station - KMAH - 89.1 FM

#### F. The custodians shall:

1. Know location of and procedures for turning off water, gas and electricity and intake valve on water heaters
2. Know procedures for setting up emergency sanitary facilities
3. Know fire-fighting procedures
4. Know location of earthquake equipment and supplies



### III. Preparation of the staff - continued

#### G. The bus drivers shall:

1. Be aware of administrative policy regarding earthquake procedures
2. Keep current on state and county earthquake procedures for bus drivers

#### H. The chairperson of the Earthquake Preparedness Committee shall:

1. Keep the plan implemented and updated
2. Be responsible for coordinating subsequent earthquake preparedness planning
3. Serve as liaison between staff, schools, PTAs, local governments, emergency agencies, and news media
4. See that a committee be formed including staff from each school, PTA earthquake representative from each school, and other interested persons
5. See that parents are informed of school policies and disaster plans
6. Hold an earthquake education meeting for parents and other community members in the fall of 1982 and at least once every three years thereafter; prepare informational leaflet (See V. B., p. 8
7. Encourage community members to take first aid and CPR training
8. Keep a current list of:
  - a. Search and rescue volunteers from the community
  - b. Satellite homes
  - c. Community members to assist teachers immediately following disaster
  - d. People with special skills or equipment in community to be made available to the schools following a disaster
  - e. Extra supplies to be stored in homes near schools
9. Cooperate with Menlo Park Block Coordinators
10. During May present to the superintendent a list of supplies needed for the following year
11. During May present to the PTA presidents a list of supplies for which PTA funds are requested for the following year
12. In May prepare an annual report to the superintendent on earthquake preparedness including updating procedures, expenses, and recommendations for the following year

#### IV. PTA participation

##### A. The PTA presidents shall:

1. Appoint an earthquake representative to serve on the Earthquake Preparedness Committee each year who shall carry out the updating check of classroom kits, water, emergency supplies, and volunteers each September
2. Throughout the year keep informed of the implementation of this plan through the PTA representative
3. In May receive the report from the committee on disaster supplies needed for the following year for which PTA funding is requested
4. See that all pertinent information relating to earthquake preparedness is passed on to the succeeding president

##### B. The PTA boards shall:

Be presented with a request for funding for supplies for classroom emergency kits and classroom water

#### V. Preparation of parents and the community at large:

##### A. Informational meeting for parents and the community

1. To be held in early fall, 1982, and at least once every three years thereafter
2. To explore the probability of earthquakes in our area and introduce geology of earthquakes
3. To provide general instruction for earthquake preparedness
4. To provide information concerning the school district's intended earthquake disaster procedures
5. To recruit volunteers, homes, skills and disaster supplies and equipment
6. To encourage development of home and neighborhood preparedness in cooperation with the cities of Menlo Park and Atherton

##### B. Informational leaflet

1. To provide much of the information in IV. A. above in written form
2. To be distributed at the public information meeting and made available at the schools for parents new to the district

##### C. To urge parents and other adults in the community to take First Aid and CPR training

## VI. Preparation of the surrounding community to assist the schools

### A. Search and rescue volunteers

1. To provide each school a minimum of six volunteers
2. Volunteers to make first commitment after a severe earthquake to proceed immediately to school and participate in search and rescue operations
  - a. Such volunteers to be those whose daily occupations are near school
  - b. Such volunteers to have affirmed with their associates their intent to serve the school immediately following a quake
  - c. Such volunteers to be familiarized with school buildings and equipment

### B. Satellite homes (pending legal approval)

1. To provide shelter for those students who remain at school unclaimed by authorized adult following a serious earthquake
2. To be provided by a minimum of six volunteer households in close proximity to each school
3. To be provided by families who will:
  - a. Agree to take in four or five students
  - b. Accept students following an earthquake for as much as several days
  - c. Consider keeping extra supplies of food and water on hand

### C. Assistants to teachers:

1. To provide each school a group of parents whose informal agreement is to report to the school disaster center following a major earthquake for assignment to assist teachers. The wish of such volunteers to serve the teacher of their own children is to be honored.
2. To be comprised of a number of at least twice that of the teaching staff

### D. Persons with special skills or equipment

1. To provide the school with a group of persons whose resources in skills or equipment might be tapped in the event of an emergency
  - a. Skilled volunteers might include doctors, nurses, para-professionals, psychologists, those trained in first aid and/or CPR, engineers, handymen, licensed CB radio operators.

VI. Preparation of the surrounding community to assist the schools - continued

- b. Volunteers with equipment might include those with chain saws, towing equipment, recreational vehicles with generators

- 2. To be a provisional agreement only

E. Home storage of extra supplies

To provide nearby homes for storage of extra blankets, water and other items for emergency use (To be expanded if satellite home plan is not used)

F. Menlo Park Block Coordinators

Block Coordinators working with Menlo Park Disaster Center will provide contact with the community near the schools

G. Local restaurants

To be contacted regarding the possibility of their donating food to the school in the event of widespread disaster

H. Recruitment

- 1. All of the above community volunteers to be recruited by personal contact or school notice
- 2. All volunteers to be spoken with in person or sent written communication to affirm level of commitment and anticipated tasks in an emergency

## SECTION TWO - EMERGENCY AND EVACUATION PROCEDURES

### I. In the event of an earthquake

#### A. Inside the school building

1. If inside the school building at the time of an earthquake
  - a. Move away from windows or other potential hazards
  - b. Get under desk or table or other shelter or against inside wall. If shelter moves, move with it and stay under.
  - c. Assume drop position and be silent so directions can be heard above the noise of the earthquake.
  - d. Stay in drop position until earthquake is over and/or until further instructions are given.
2. After the initial shock and things settle down, teachers will evacuate classroom, being alert to possibility of aftershocks.
3. When leaving classrooms, teachers should make every effort to take with them the roll book, emergency supplies stored in a tote bag near the door, and the gallon of distilled water also stored in the classroom. Announce that nobody is to return to the room unless authorized to do so.
4. Teachers will take classes to pre-arranged places on the playgrounds and will remain there until re-entry to school buildings has been approved, they are directed to take the children elsewhere, or they have been picked up by parents or other authorized persons.
5. In the event that Las Lomitas School is flooded by the rupture of the Bear Gulch Dam, children will be walked to La Entrada School where they will remain under the supervision of the Las Lomitas staff.
6. Schools will remain open indefinitely until every child has been released to parents or to an authorized person.

#### B. Outside the school building

1. If outside the school building or walking to or from school when an earthquake occurs:
  - a. Get clear of all buildings, trees, exposed wires, or other hazards that may fall. The safest place is in the open.
  - b. Assume drop position until quake is over
2. After the earthquake, if on the way to school, continue to school. If on the way home, continue home.

I. In the event of an earthquake - continued

C. On the school bus

1. Drivers should immediately stop the bus away from hazards.
2. Occupants should assume drop position under seats if possible or in the aisles
3. After the quake, if on the way to school, continue to school; if on the way delivering students home, continue to do so.
4. If conditions do not permit such continuation, send message to superintendent or principal and wait for assistance.

II. During an extended period after an earthquake

A. The superintendent shall:

1. Check status at the schools and the district office and buses
2. Evacuate district office if necessary and set up command post
3. Confer with police, fire department and city officials regarding situation at each school and in the community
4. Determine plan for continuation of school following disaster
5. Notify principals and radio station so that parents are informed of the situation at each school and what school plans are
6. Release principals when all students and teachers have been released

B. The principals shall:

1. Appoint guards to see that no unauthorized person goes back into the buildings until they have been declared safe
2. Post traffic control at school gates to keep parking lot free for emergency vehicles
3. Assess total school situation and check with superintendent
4. Announce location of disaster and first aid centers; call on principal's designee(s) to operate the first aid center
5. Direct the recovery of all disaster-related and medical supplies, equipment, and information listings from the two/three first aid supply stations
6. Oversee conservation and distribution of water

## II. During an extended period after an earthquake

7. See that parents and guardians are notified as soon as possible of any serious injury to students; if necessary, send injured children to emergency centers designated by the cities of Menlo Park and Atherton
8. Release students according to the superintendent's directive
9. Release teachers at the principal's discretion

### C. The teachers shall:

1. Remain with their class group, or report to the disaster center if they do not have a class group.
2. Teachers are in charge of all first aid for the students in their class group until an emergency first aid station is established. Students with major injuries are to remain in the classroom supervised by one teacher from a buddy group; children with minor injuries are to be cared for after evacuation. Use bottled water until notified that water system is safe. Use red flag in emergency kit to signal major first aid needs whether they are on the field or in the classroom.
3. When evacuating classroom, take emergency kit and water.
4. Check with buddy classes when evacuating. If there are seriously injured persons who cannot be moved, assign one teacher to remain. Other teachers evacuate the rest of the children.
5. Take roll. Send notice to disaster center immediately of any student who is not with class group, noting possible whereabouts, i.e., at library, absent from school, etc. Take roll periodically throughout the disaster period.
6. Note on class roster in emergency kit the name of anyone who for any reason leaves the class group: to go to first aid center, disaster center, home, home of authorized person.
  - a. Teachers are asked to be specific in noting names and addresses of those to whom students are released if other than parents.
  - b. Note on records time child was released
  - c. Record any unusual behavior or any first aid given
7. If the child is released to anyone other than a parent or authorized person, i.e., to first aid center, write the child's name on the child in permanent ink. (The child might go into shock or become unconscious later and not be able to give name. If child is sent to medical center away from school, identification is even more essential.)

## II. During an extended period after an earthquake - continued

8. Be aware that there are many members of the community who are expected to assist those at the schools: search and rescue volunteers, persons with special skills or equipment, those who have stored supplies, and volunteers to help teachers.
  9. Encourage students to talk about their experiences and feelings. Talking is the best way for a fearful child to give expression to his/her concerns. Maintaining verbal contact with students will not only provide reassurance but will allow the anxious child the means to vent his/her apprehensions. Talking it out is absolutely essential in psychological adjustment to the disaster.
  10. As the time period extends, remind students that they are in perhaps the safest place possible under disaster conditions. Fill in time with games, songs, stories, exercise and rest periods.
  11. Report to the principal when all students have been released.
- D. The nurse shall: (if at the school)
1. Assist the injured
  2. Help staff the emergency first aid center when it has been set up
- E. The secretarial staff shall:
1. Under the direction of the principal provide for the preservation of essential school records
  2. Monitor radio emergency broadcasts: KMAH 89.1 FM
  3. Funnel volunteers to locations where needed
- F. The custodians shall:
1. Check water, gas and electricity; if so directed by the principal, turn off utilities and intake valve on water heater
  2. Assist in any fire-fighting or recovery activities
  3. Assist the principal in establishing controls to prevent the use of contaminated water
  4. Help set up emergency sanitation facilities if needed

Throughout this plan all key persons have been designated by role. It is assumed that each of these persons will have one or two people trained to carry out their responsibilities in their stead if necessary.



### SECTION THREE - ANNUAL REVIEW

#### I. The superintendent shall:

- A. Appoint a second-in-command and a backup
- B. Appoint a chairperson for the Earthquake Preparedness Committee or reaffirm one who is continuing in that position
- C. Update hazard survey if necessary
- D. See that supplies needed to implement the plan are provided
- E. Carry out responsibilities as designated in Section One, III. A., p. 4
- F. Schedule each fall a workshop for staff covering emergency preparedness
- G. Schedule community education program on appropriate years

#### II. The principals shall:

- A. Appoint a second-in-command and a backup
- B. Carry out responsibilities as designated in Section One, III. B., p. 5
- C. See that earthquake preparedness training is provided for all new staff, aides and substitutes
- D. Receive from each teacher a hazard survey report on classroom conditions; take necessary action to remove or correct hazards as practicable
- E. See that first aid equipment and supplies are checked at each location
- F. See that disaster equipment is properly located and in working order and that maps locating such equipment are up-to-date
- G. Conduct an earthquake preparedness review with staff including reminders of earthquake drills to be conducted during the year and curriculum for students

#### III. The teachers shall:

- A. Conduct a hazard survey of their classrooms and report to principal
- B. Carry out responsibilities as designated in Section One, III. C., p. 6

#### IV. The nurse shall:

- A. Check first aid supplies in stations, recirculating and replacing when necessary
- B. Update any special medical information when necessary

V. The secretarial staff shall:

Carry out responsibilities as designated in Section One, III. E., p. 6

VI. The custodians shall:

Carry out responsibilities as designated in Section One, III. F., p. 6

VII. The bus drivers shall:

Carry out responsibilities as designated in Section One, III. G., p. 7

VIII. The chairperson of the Earthquake Preparedness Committee shall:

A. Be responsible for the annual review of the preparedness plan according to the guidelines set forth in Section Three

1. See that each school's representative conducts a site check including:

- a. Presence and condition of all items in emergency kits including replacing and chlorinating water in quart bottles (three drops of clorox per quart) and exchanging pens and bandaids with main school supplies to insure freshness
- b. Check on one gallon distilled water in each classroom; replace every two years beginning in 1985
- c. Check drinking water at first aid supply stations; replace and chlorinate yearly (ten drops of clorox per gallon)
- d. Check and update general information sheets at all first aid supply stations and in main office

2. Contact the following to ensure their continued commitment for the current year:

- a. Search and rescue volunteers
- b. Satellite homes
- c. Assistants to teachers
- d. Persons with special skills or equipment
- e. Persons in whose homes are stored extra supplies
- f. Menlo Park Block Coordinators
- g. Restaurants which will donate food

3. Check with principals to be sure that earthquake training is provided for all new staff, aides and substitutes and offer committee assistance where appropriate

VIII. The chairperson of the Earthquake Preparedness Committee shall: - continued

4. Check with principals to see that earthquake education is taught yearly to all students and offer committee assistance where appropriate
  5. Check with La Entrada principal about provisions for elective first aid course and offer committee assistance where appropriate
  6. Update informational leaflet when necessary
- B. With the committee evaluate the plan and its effectiveness and report recommendations to the superintendent, principals and PTA presidents

IX. The PTA presidents shall:

Carry out responsibilities as designated in Section One, IV. A., p. 8

## APPENDIX B

### List of contents for classroom emergency kits

- Adhesive tape
- Antiseptic solution (green soap)
- Band-aids
- Brush - soft bristle paint brush (for glass fragments, etc.)
- Class roster - updated each semester and as needed
- Compresses - sheets and towels
- Drinking cups
- Gauze pads, bandages including one triangle bandage
- Light stick or flashlight with batteries
- List of disaster procedures
- Means of identifying children (fineline permanent marker pens)
- Pen, pencil, small notebook
- Plastic drop cloths
- Pre-moistened towelettes or baby wipes
- Red flag - emergency signal
- Safety pins
- Scissors
- Space blanket
- Tissues
- Tweezers
- Quart of water in plastic container (three drops of clorox)

## APPENDIX C

### List of first aid supplies to be stored at first aid supply stations\*

| Quantity | Supplies                                       |
|----------|--|
| 1        | Band-aids, box                                 |
| 5        | Steri-pads Gauze pads, pkg 2x2                 |
| 5        | " " " " " 4x4                                  |
| 2        | Gauze roller 2" x 5yd, doz                     |
| 1        | Adhesive tape roll 1"                          |
| 1        | " " " " 2"                                     |
| 1        | Tongue depressors, box 500 (finger splints)    |
| Stack    | Magazines for splints for arms                 |
|          | Wood, long pieces from shop for leg splints    |
| 2        | Elastic bandages 2" ankle wrap                 |
| 1        | Ampules ammonia inhalant, box                  |
| 1        | Eye irrigating solution                        |
| 2        | Instant cold packs squeezable                  |
| 1        | Scissors, small sharp                          |
| 1        | Splinter forceps                               |
| 1        | Forehead thermometer                           |
| Assorted | Safety pins                                    |
| 1        | Phisoderm (green soap)                         |
| 1        | Red Cross first aid manual                     |
| 1        | Sanitary napkins, large box                    |
| 1        | Household bleach, pint                         |
| Several  | Plastic straws (for measuring drops of bleach) |
| 1        | Tylenol, bottle                                |
| 2        | Eyepatches, sterile                            |
| 1        | Kleenex, 200-size box                          |
| 1        | Warm blanket                                   |
| 1        | Flashlight with batteries                      |
| 1        | Baking soda, box                               |
| 1        | Universal antidote, bottle                     |
| 1        | Iso rubbing alcohol, pint                      |
| 1        | Neosporum, tube                                |
| 1        | Kaopectate and spoon                           |
| 1        | Stretcher                                      |
|          | Paper, pens, marking pens for keeping records  |

\*To be revised following meeting of school nurses for San Mateo County.

## APPENDIX D

### List of emergency supplies and equipment for each school

Axe  
Blankets  
Bullhorn, battery operated, extra batteries  
Can opener, manual  
Coleman lantern and fuel  
Coleman stove and fuel for first aid needs  
Crowbars  
Cups, paper or plastic  
Fire extinguishers  
Flashlights with extra batteries  
Hammers  
Hoses for fire-fighting and siphoning  
Knives, heavy duty  
Light sticks  
Masking tape  
Matches with wax-protected tips  
Pails  
Picks  
Plastic garbage bags, 1 per child, rain protection  
Plastic sheeting, black, 4 foot wide x 100 ft long  
agricultural quality for privacy screen sanitary facilities  
Plastic water containers, 4 - 55 gallon  
Pot to boil water for emergency first aid  
Rope, nylon  
Saws, hand  
Screwdrivers  
Shovels  
Stretcher  
String  
Tarps, drop clothes  
Toilet paper  
Transistor radio, AM-FM, battery operated, extra batteries  
Walkie-talkies, hand-held with extra batteries  
Waterbaskets and plastic liners  
Window poles for stretchers and sanitary facility screen holders  
Wire  
Wire cutters  
Wrenches