Disaster Assistance Team Program

The Component Handbook for Disaster Assistance Programs

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The Component Handbook for Disaster Assistance Programs

The Unpredictable Fury of Natural Disasters

The United States was particularly hard hit by natural disasters in 1998. Ice storms paralyzed the Northeast, California was swept by massive flooding, tornadoes and floods across the Southeast were spawned by El Niño, and the Atlantic coast states were pounded by a series of strong hurricanes and tropical storms. A record number of 17 tornado-related disasters were declared, topping the previous historic high of 13 set in 1992. The losses in the built environment were tremendous. Every available resource was necessary to prevent a total disruption of the physical and human fabric of those communities.

A major natural disaster occurs in the United States, on average, ten times a year, with minor disasters sometimes as frequently as once a week: floods, tidal waves, tornadoes, ice storms, fires, landslides, hurricanes, and earthquakes. These defiant acts of nature occur at any hour and often with little warning. Each time, the damage can range from a few trees uprooted to the near-obliteration of entire communities.

As soon as possible after each disaster strikes, relief efforts begin. First, the injured are cared for. If necessary, emergency repairs are made or severely damaged buildings are classified off limits. The focus then shifts to making homes livable and work places functional and putting the community in working order. Licensed building experts—architects, engineers, builders, and others—are often called to assist in evaluating post-disaster conditions and later to help in restoring a community.

As a community begins to rebuild, it needs some kind of "quality control." On one hand, opportunities may arise to improve, rather than simply replace, its physical structure. On the other hand, "rebuilding fever" can result in a built environment less attractive than it was before. A long-term redevelopment plan is crucial during this rebuilding time.

AIA Disaster Assistance Programs

In 1972 the AIA formally recognized the important role that architects can play in disaster response. It became clear that architects could take a lead role in disaster assistance when the mayor of Rapid City, S.D., called for an AIA Regional/Urban Design Assistance Team (R/UDAT) to revisit after a devastating flood. In Washington, members and staff began developing strategies to assist AIA components respond quickly to requests for aid. Since then, several AIA state and local components, including Texas, California, Ohio, Kentucky, Kansas, and New York, have developed formal

programs to provide assistance in communities struck by natural disasters.

Currently, the AIA Disaster Assistance Programs encourage architects to use their professional skills to help communities recover from a natural disaster and, in the long run, to foster a more productive relationship between AIA and the established disaster response community.

The Disaster Response Handbook

This handbook outlines initial and long-term disaster responses that AIA members can undertake, particularly at the state and local level. It examines the organization, training, and coordination of disaster assistance efforts are examined, and tips on liability and other concerns are offered. The principles and techniques presented here have been used by architects in the past. In fact, over 30 years of experience has proved that the unique skills of the architect can be applied broadly and visibly in lending assistance in assessing damage, arranging temporary relief, and in rebuilding and reshaping communities.

Disaster Declaration

Depending on its magnitude, a natural occurrence is a "disaster" when so declared by the governor of the state in which it occurs. This declaration triggers action from various statewide agencies, as well as the federal government and nonprofit groups.

Typically, the Federal Emergency Management Agency (FEMA) coordinates the disaster-response efforts of all federal agencies, particularly the Corps of Engineers and various federal insurance programs. On the state level, the Office of Civil Defense generally heads the disaster response. The Red Cross and the Salvation Army play prominent roles in aiding victims. Local volunteer organizations also participate. The AIA and other professional organizations, such as the American Consulting Engineers Council, the Associated General Contractors, and the American Public Works Association, take part. The National Guard and the State Police may be called upon to police the disaster-hit area.

Organizing a Disaster Assistance Team

In areas vulnerable to natural disasters, developing a response strategy before a disaster occurs will result in a more effective response, even if the plan is not be called into action for a long time. In Texas, for example, the state's disaster action committee, TSA Disaster Action, Inc., did not face a disaster until 18 months after its formation. Then, in 1972, two strong hurricanes smashed into different parts of the state within a space of a few weeks. The AIA California Council program ensures that a cadre of trained architects is available and ready to spring into action when disaster strikes.

Although AIA members have been involved with disaster assistance at the

local, state, and national levels, the most effective programs have been organized at the state level, in part because:

- **Most government agencies coordinating disaster assistance and long-term reconstruction are at the state level. AIA state components can most easily plug into this network**

- **A state component is better able to examine the entire state's history to discern disaster patterns and trends and tailor programs before a disaster**

- **The AIA state component can most effectively marshal professional resources from nearby, unaffected areas**

At the state level, the AIA disaster assistance team can consist of the state component's executive committee, a subcommittee set up by that executive committee or the chairperson of the AIA disaster team, or a separate entity, such as a nonprofit organization. A 501(C) nonprofit organization is highly recommended, since it can receive donations of services and materials that are tax deductible to the giver. In addition, a 501(C) nonprofit corporation may be required in some states to take advantage of volunteer liability protection and Good Samaritan laws. It is essential to adhere to the legal constraints of liability as defined by each state.

For an effective program, the AIA state component should establish a roster of potential volunteer component members. To accomplish this, the state component needs to know the capabilities and willingness of its members statewide. In addition, a directory of all human resources in the state promotes understanding of each other's capabilities. It is essential to understand state relief agencies — how they operate, what their mandates are, and how they are financed.

In areas where disasters can occur frequently, a coalition should be formed by representatives from the governor's office, the state association of mayors and city managers, officials of federal agencies operating in the states, state agencies dealing with construction, code enforcers, general contractors, home builders, insurance industry representatives, other professional associations, and churches. This will help avoid duplication of rescue efforts. A comprehensive list of contacts in each of these organizations should be regularly updated.

Coordination with AIA National may prove pivotal. At its headquarters in Washington, D.C., the AIA has assembled a team of willing volunteers in regions across the country. These volunteers can assist and supplement local volunteer efforts where necessary.

Three Stages of Disaster Assistance

EMERGENCY: This is the first response. It relies on quick, decisive action and involves providing emergency shelter, medical services, food, and other such efforts. This stage can last two to three weeks.

RELIEF: Short-term housing, health services, and employment counseling are provided. At this time, formal assessment of damage begins, with examinations of the condition of buildings, including analysis of historic properties and other non-building structures. This stage may last up to six months.

RECOVERY: This stage is characterized by rebuilding. Long-term comprehensive planning to enhance the physical fabric of the community should be emphasized. Regulatory changes may be necessary to mitigate the effect of future disasters. This period may last three years or more.

When a Natural Disaster Strikes

After a disaster strikes, architectural expertise must be provided as quickly as possible to assess the nature and extent of the damage. The disaster team's response should be patterned on the general plan formulated prior to the disaster, with any necessary emergency changes. Members of the AIA disaster assistance team from around the state will be called, depending on need and expertise.

Adequate accommodations for out-of-town team members must be secured. A conference room at the local AIA chapter or an architect's office can serve as the team's "war room" and readied with the following equipment:

- Communications: telephone (cellular much preferred), copier, fax machine, citizen's band radio, radio/TV
- Office supplies: clip boards, pens, pencils, evaluation forms, file cabinet, typewriter or laptop computer, maps, chairs and desks, soda, snacks, conference room with eight to ten chairs, chalkboard, and tackboard
- Team members: proper identification, pen/pencil, clipboard, camera and film, hard hat, first-aid kit, goggles, heavy shoes or boots, work clothes, gloves, flashlight

Four-wheel drive vehicles are preferred. Consider any other special equipment needed for a particular disaster.

Team members are assigned specific jobs, among them field evaluation work, liaison with local, state, and federal officials, "Good Samaritan" on-

site consultations, and press liaison.

The team leader should forewarn the members if the local police force or National Guard is policing the area.

Disaster Response Teams In Action

When team members arrive, the team leader should do the following:

- Note important emergency response telephone numbers
- Discuss the known scope of damages in the disaster area. Specific buildings may be identified
- Warn team members of the possible physical danger to be found in damaged buildings
- Explain that all structures will not need evaluation, particularly buildings totally destroyed and those with only cosmetic damage
- Advise team members not to give cost estimates of the repair of damaged structure. At the same time, remind team members of the Good Samaritan practices and liability limitations
- Instruct team members to evaluate a damaged building in as comprehensive a manner as possible
- Suggest team members be especially aware that building owners and dwellers may be emotionally fragile. An effort should be made by all to identify owner concerns
- Set up a system for team members to report to the team leader during the day — by sunset at the latest

The local government will most likely set up a "one-stop center" of representatives of several emergency-recovery agencies. The AIA disaster response team should be represented there by architects or by others who are familiar with architects — office assistants, students, and others familiar with building construction.

At the "one-stop center," the disaster assistance team offers an overview of its services. Appointments are made for team members to go to specific sites for evaluation.

The victim must accompany the team member to the building, even if the architect is familiar with the area, since street signs and other landmarks may have been destroyed. The property owner must be present during the architect's evaluation.

At the site, the team member tours the building(s) thoroughly, recording any

observations. The team member may discuss debris removal, demolition, and repair/replacement with the owner of the site but should not offer cost estimates for specific repairs.

Evaluation forms are filled out in triplicate, with the original given to the owner, one copy to the building inspector, and one to the base of operations. A team member should take several blank evaluation forms to a site, because others in the field may solicit assistance.

The time needed for evaluations varies depending on the disaster and the team makeup. To facilitate 10 visits a day; each visit should be approximately 30 to 45 minutes.

At the end of the day, team members report back to the base of operations. All "war stories" are recorded and any other miscellaneous, but pertinent, information. It is particularly important to discuss the local public's fears, concerns, and needs regarding the buildings in their community.

An experienced team member will examine the evaluation files to correct errors. Corrections must be reported to the site owner. The forms are then filed at the base of operations.

In some instances, a cost estimate may be requested by authorities for use in establishing an overall cost of the disaster damage. Only highly experienced professionals should be assigned this job. Under no circumstances should the estimate be revealed to the victim, since it is not a fixed cost.

When the evaluation process is running smoothly and the team can initiate a long-range reconstruction plan, it is most effective to recommend any action directly to the mayor and city council. In fact, the team leader or members can take a leadership role in establishing a committee of 15 to 20 highly responsible citizens to oversee the day-to-day needs of recovery, as well as long-term planning. The committee usually is needed for 90 days to six months.

This committee can help mitigate potential problems. In the aftermath of the Loma Prieta earthquake, for instance, so many buildings were torn down that local architects and preservations cried "demolition fever." Thanks to intense lobbying, the state legislature passed legislation calling for mandatory approval before demolition was permitted.

When the AIA disaster assistance team is no longer needed, a written report of the entire operation should be delivered as soon as possible to the state disaster recovery board. The team's efforts will also be evaluated by the AIA's National Disaster Assistance Team program for future reference by others who may need to provide similar assistance.

What To Do After the Crisis

The reconstruction/redevelopment committee can envision a positive and imaginative recovery program for an area devastated by an natural disaster. Since local and state officials need to make long-term decisions that will affect and may even significantly alter the city's built environment, it is important that they are made aware of the opportunities for change and solidification. Among these are comprehensive neighborhood redesign, urban redesign, landscape redesign, preservation, appreciation of little-known assets, and utility relocation.

The architectural community should visually and verbally articulate a positive perspective of the future. Timing is important.

In other follow-up, the disaster assistance team should establish a positive relationship with other professions, suggest changes in the city's comprehensive plan and building codes, and educate others in the community about the options available.

The reconstruction/redevelopment committee may:

- Change building codes.
- Design "in-house" shelter for citizens on a pro bono basis.
- Modify the city's comprehensive plan.
- Establish a permanent disaster/emergency plan.
- Establish a community design center for reconstruction.
- Promote design assistance teams for redevelopment.
- Develop design/construction guidelines.
- List tradeoffs for future development.
- Set up a government affairs agenda.
- Research and analyze case studies.
- Set up a strategy for dealing with banks and insurance companies.
- Reinforce positive relationships with agencies involved.
- Review land-use guidelines.

The Link to AIA National

AIA National has established a network of volunteers in regions across the country who are interested in providing assistance to communities devastated by disaster. These volunteers receive training from the AIA National Disaster Assistance Team program to certify that they have the tools and knowledge necessary to conduct effective and empathetic disaster response operations within their region.

AIA National also compiles a clearinghouse of information for communities to assist them in disaster-mitigation efforts. Such information includes the

latest research and manuals on hazard-resistant design and planning. This information is available to AIA members and components across the country to aid in local disaster mitigation and response efforts.

In addition, AIA National works with officials at FEMA, the Red Cross, and other disaster-relief agencies to establish more formal relationships and partnerships to benefit members and components on the ground at the scene of a disaster.

Special Skills Lead To Special Assistance

When a natural disaster strikes, architects can play an important role in emergency relief, as well as long-term recovery. Such aid is most effective if a disaster response is organized through the AIA state component. Architects can offer invaluable guidance as a community rebuilds itself.

Texas Society of Architects Disaster Assistance Center Program Description (December 1971, Revised May 1980)

The city of Lubbock in West Texas was devastated the night of May 11, 1970, by a tornado. A 25-square-mile area in the center of the city was almost totally destroyed. The Lubbock architects began studies with the officers of the Texas Society of Architects (TSA) to determine how the architects could help in the recovery.

Hurricane Celia blasted Corpus Christi, Texas, on August 3, 1991, causing at least $750,000 in damages to Corpus Christi and the surrounding area. The reported damages included over 9,000 homes completely destroyed, 14,000 damaged severely, and at least 42,000 others with some damage. This does not count the thousands of area business and industrial structures destroyed and damaged. Almost every structure in the area suffered some damage. Communications and utilities were non-existent, and business was at a standstill. A dozen counties in the area were declared to be in a state of disaster by the Governor and the President.

Almost all the local architects suffered damages to their own homes and business structures. In spite of this, the next day they were out helping neighbors, relatives, and friends to determine the safety and extent of their damages. The services that they were performing spread by word of mouth through the area, and soon the architects were deluged with requests for help.

Because great cooperation between local, state, and national architects led directly to the establishment of Disaster Action, Inc., it continues today, having helped many Texas cities and communities recover from local disasters with the overwhelming response of many Texas architects within a matter of hours of the disaster.

The following program description is one way of organizing a Disaster Response Program for your component. It was written and published by Disaster Action Inc., and is reprinted here with their permission.

Why Is There A TSA Disaster Action, Inc.?

For several years, many large industrial and commercial firms, such as those in communications, transportation, chemicals, petroleum, and metallurgy, have had well-organized plans to cope with all sorts of emergencies. Their motive, quite naturally, is uninterrupted production and the safety of their employees and facilities. When a disaster strikes, the plan is triggered.

The Bell Telephone System, for instance, has such plans. When weather reports indicated Hurricane Celia was going to move into the lower Texas coastal area, "war rooms" in district offices went into action. Telephone employees throughout the United States immediately began preparations for the storm. People and equipment were dispatched before the first winds of Celia were felt in Corpus Christi. In other words, emergency operators, repair crews, and materials were on the way to repair damages that had not yet occurred.

Such is the determination of the large organization to sustain itself when faced with an emergency. But what about the small homeowners, especially those in the economically depressed areas? When their homes are severely damaged or destroyed by a disaster, they have no prearranged restoration plan. In fact, most of them do not know what to do first regarding the repair or replacement of their homes. Of course, there are the Red Cross and the various state and federal relief agencies, but even though they arrive soon and administer to the vital needs of the victims, they are not equipped to provide the assistance and counseling of the design professional, which is needed so badly.

That is why there is a TSA Disaster Action, Inc. Its motive: compassion and a concern for raising the level of the living environment. Its purpose: to provide immediate, professional advice to disaster victims.

How Does TSA TSA Disaster Action, Inc., Work?

TSA Disaster Action, Inc., is a non-profit corporation, which was incorporated in the State of Texas in July, 1971. It was created as a wholly owned subsidiary of the Texas Society of Architects (TSA) to provide a tax-free mechanism through which the design professions and other allied groups could respond quickly and effectively to the restoration needs of the people of any community in Texas if and when their living and working shelters are ravaged by a disaster. The idea was conceived by members of TSA because of growing concern that disaster restoration should be more effective and should improve living conditions over those that existed prior to the disaster.

There are two general categories of disasters: those that are the result of natural causes such as storms, and those that are caused by the carelessness and indifference of man where he allows poor planning and poor maintenance. Both categories, like pollution, take their deadly toll on our living environment.

In recent years, the architectural profession has become more acutely aware of this degeneration, whatever the cause, and the impact of this awareness has resulted in an action-oriented effort to turn the trend around. For instance, many community design/development centers have been established in urban areas as encouraged by the American Institute of

Architects (AIA) and its component chapters. The evidence of their good efforts is already a matter of record.

The Lubbock Tornado

Members of the design professions volunteer for and work hard on public committees and commissions in the interest of effective rehabilitation of disaster areas. One such example occurred after the Lubbock tornado of May 11, 1970. Following the almost total destruction of a 25-square-mile area of the city, a group of Lubbock architects, with the Lubbock City Council, began the studies for eventual recommendations on immediate and long-range rehabilitation goals. These actions resulted in a new Civic Center, a new library, park improvements, and other projects. In addition, safety inspections were made of damaged structures soon after the disaster.

Hurricane Celia

And then came Celia on August 3, 1970, causing approximately three-quarters of a billion dollars in damages in the Corpus Christi-Aransas Pass area. Reports indicate that over 9,000 homes were destroyed, 14,000 were damaged severely, and at least 42,000 suffered minor damages. Hardly a church, a school, a business building or an industrial complex could be found that had not sustained damages. Communications and utilities were wiped out, and business was at a standstill. President Nixon and Governor Smith promptly declared a dozen counties in the area in a state of disaster.

Although most of the local architects had sustained damage to their own homes, as early as the next day they were out helping relatives, neighbors, and clients inspect their homes and property to determine safety and the extent of damages. By word of mouth, the service they were performing spread through the stricken area, and soon they were receiving a deluge of requests for help. How could they respond to the needs?

TSA's Corpus Christi Chapter held emergency planning meetings, and chapter representatives attended similar meetings with officers and TSA members in Austin. Decisions and actions at or immediately following those meetings that resulted in:

- Organization of a Community Design Center in Corpus Christi to be known as the Redevelopment Assistance Center (RAC). (Corpus Christi architects had been trying to set up a CDC prior to the storm but could develop no momentum.)
- A call for help to other architects in the state, to which volunteers responded.
- The University of Texas School of Architecture allowing fourth- and fifth-year students to volunteer for RAC. (An RAC architect was designated as a faculty member to give academic status to part of the work so the students could receive class credit for their work. The faculty members' salary was donated to RAC to help offset

operations expenses.)

- The School of Architecture at Rice University allowing certain students to volunteer for service at RAC. (While working there, they gathered data to use in class projects upon returning to Rice.)
- The Corpus Christi Junior Bar Association preparing documents for the incorporation of RAC.
- An architect from Del Mar College in Corpus Christi taking over as Director of RAC long enough to get it organized and in operation.
- The director of Regional & Urban Design from AIA National going to Corpus Christi to help RAC work out strategy.

By August 17, 1970, RAC was a working organization soon to receive its Certificate of Incorporation from the Secretary of State — all in record time.

One immediate goal of RAC was to provide damage surveys to accelerate the processing of low-interest, long-term loans from the Small Business Administration (SBA) and to serve as a guide for insurance settlements. One SBA official stated that the completed damage surveys RAC gave the victims saved the SBA untold thousands of man hours and several weeks in processing the victims' loan requests.

The rehabilitation and improvement activities generated by Texas architects following the disastrous Lubbock tornado and the Corpus Christi hurricane would not have happened had those architects not cared enough to volunteer freely their time and skill. As professionals, they felt a responsibility toward the damaged communities. TSA Disaster Action, Inc., came into existence as an extension of that same spirit of caring.

After the establishment of TSA Disaster Action, Inc., Texas architects have responded to disasters across the state, including at Burnet (near Austin), Hubbard (near Waco), Plainview, and, most notably, Wichita Falls.

The Wichita Falls Tornado

Among those natural disasters whose painful impact still lingers is the Wichita Falls tornado of April 10, 1979. Described as one of the worst tornadoes in modern history to hit a Texas city, this deadly twister cleared a path eight miles long and one-half to three-quarters of a mile wide, leaving 44 persons dead and some 20,000 homeless.

Within 24 hours after initial telephone contact was made with the disaster area, staff persons from the Texas Society of Architects had arrived in Wichita Falls — at the request of local architects, Governor Clements, and emergency services officials of the Texas DPS — to establish a base of operations for TSA's Disaster Action program.

Working with members of the National Guard and Shepard Air Force Base as well as citizens of Wichita Falls, the Disaster Action team used a systematic plan that was instrumental in directing the recovery process. Chief among this multi-step process was a carefully coordinated information exchange, which included notices in daily newspapers, appearances on television news programs, and briefing sessions with key community leaders, to explain recovery procedures, to direct victims to the one-stop centers, to emphasize safety practices, and to report other vital information regularly.

With the damage assessment survey form developed from the Corpus Christi hurricane effort, the Disaster Action team was able to standardize — and thereby expedite — the process of helping property owners to determine the extent of damage to their property. The Disaster Action team also helped counsel Wichita Falls tornado victims against hurriedly entering into contractual agreements for construction services, realizing they might be particularly vulnerable to anyone engaged in unscrupulous building enterprises.

The response to the Wichita Falls tornado by TSA's Disaster Action team succeeded not only in administering invaluable aid and design direction at a critical time, but also in establishing the operation as a well-regarded one on both state and national levels. One example of this national recognition came from The American Institute of Architects, which subsequently encouraged TSA's regional counterparts to use the Disaster Action Program as a guideline for developing their own recovery programs.

Administration

The unusual nature of TSA Disaster Action, Inc., requires good administration and efficient operations. Disasters of the type and magnitude to which the Corporation is intended to respond occur in Texas approximately every three years. Thus, the mechanics of the Corporation will be dormant most of the time and for this reason, every participant, president, or volunteer must be familiar with its structure and operational procedures.

Organization

The basic concept agreed upon when the organization was first being planned was to structure it for simplicity of operations and administration. A study of the Texas non-profit corporation law revealed various simplifications that were incorporated with others that became apparent as the plan developed.

The Board of Directors of the Corporation, as explained in the Articles of Incorporation, is made up of the members of the Executive Committee of the Texas Society of Architects. The terms of office of the Board members run concurrently with the terms of the TSA Executive Committee, and their election is automatic on the flat of each calendar year. Their names and titles

are entered in the minutes of the annual meeting of the Disaster Action Corporation. This structure will: 1) ensure the continuity of the intent and policies of the Corporation, 2) eliminate the necessity of holding separate elections each year, 3) simplify administrative and operations procedures, and 4) allow the routine business matters of the Corporation to be handled when the TSA Executive Committee holds its regularly scheduled meetings.

The Disaster Action Committee is appointed by the president of TSA each year. The Committee is selected from the TSA membership and is preferably composed of people who have had experience or training in a similar group or have had actual disaster recovery experience. Selecting members from different areas of the state is also considered. The committee currently consists of a chairman and six members.

Liaison to the Disaster Action Committee consists of a member of each AIA chapter in the region who is appointed each year by the president of his chapter. The liaison appointee should be a person who is interested in Disaster Action activities and who is in a position to encourage members of his chapter and members of other companion professions and industries in his community to volunteer for Disaster Action service.

The Disaster Action Team is composed entirely of volunteers who are in a position to or who can arrange to disengage themselves from their normal responsibilities for at least two or three days to serve on the team in a disaster area. The team will be made up principally of members of the design professions but may include volunteers from other companion professions and industries or simply individuals whose desire, resources, or experience qualify them to assist the Corporation in its commitment to provide professional guidance to the victims in a disaster area.

Students from schools of architecture in the state volunteered and very successfully served on the Disaster Action team in Corpus Christi after Hurricane Celia struck and in Wichita Falls following the devastating tornado. They should always be considered as potential team members, but while attending school, they should be allowed to participate only with the approval of the heads of their schools. Those who served in Corpus Christi received credit toward their degrees for the work they did there.

Corporation Office

The Corporation office is the control center for all State level administrative and operations matters both routine and emergency and is located in the same quarters with TSA.

Functions

The Board of Directors' general functions are stated in the Corporation Bylaws and are quoted in part as follows:

"The duties of the Board of Directors of the Corporation shall be to establish managerial and operational policies and procedures for the Corporation and basic organizational and procedural guidelines for the volunteer disaster action teams."

More specifically, the Board will be responsible for:

- Attending the annual meeting and any special called meetings
- The preparation and approval of the Corporation's annual financial report
- The promotion of and acceptance of donations to the Corporation
- Compliance with the requirements of the Texas non-profit corporation law
- Submitting the report required by the Internal Revenue Service annually or as required
- Advising the president and Secretary regarding the commitment of Corporation resources in a Disaster Action operation
- Advising and assisting in the establishment of a long-term rehabilitation operation (CDC type) when it is the extension of a Disaster Action operation
- Controlling the use and revisions of the Administration and Operations Guide
- The approval and payment of administrative and operations expenses
- Promoting the interest and enthusiasm of the TSA membership in the Corporation's purposes and activities

The Disaster Action Committee will be responsible to the Board of Directors of the Corporation for the following functions:

- To be a continuing research and study resource for the administration, operations and funding of the Corporation
- To establish and update each year, a "Roster of Disaster Action Volunteers" from which Disaster Action team members, including team leaders, can be drawn when needed
- To communicate with the committee's liaison representative in each AIA chapter for the promotion of interest in Disaster Action work and for the soliciting of candidates for the "Roster of Disaster Action Volunteers"
- To assist in selecting a Disaster Action team if requested by the Corporation
- The individual members of the committee, when available, will respond to the following on short notice when requested by the Corporation office:
- Visit a disaster area to provide the Corporation office with an

estimate of the situation when the information cannot otherwise be obtained from disaster area sources
- Serve as a Disaster Action team leader
- Spend a day or two in the disaster area assisting another team leader in setting up a Disaster Action operation

The Disaster Action Team members will perform such functions as:

- Contacting their team leader as soon as they arrive in the disaster area
- Assisting in setting up the operations office in the disaster area. (This is why Disaster Action volunteers must be familiar with operations procedure before they are called to serve)
- Performing damage surveys of homes and buildings. (The more experienced will do damage survey summaries and complete the survey forms)
- Assisting in instructing less experienced team members
- Assisting in communicating with the relief agencies
- Assisting in setting up a longer-term rehabilitation and planning operation if directed by management

The chapter liaison to the Disaster Action Committee will have two functions:

- Acquaint his or her home chapter with TSA Disaster Action, Inc., and interest them in its purposes
- Assist the Disaster Action Committee in finding people in his or her chapter or community to serve as Disaster Action volunteers

When the chapter liaison thoroughly acquaints him- or herself with the Administrative and Operations Guide, she or he will be prepared to satisfy both of his functions.

The Corporation office, in addition to handling the routine business of the Corporation, will facilitate various disaster action operations. The Corporation office will:

- Have available during office hours the Corporation executive vice president or her or his assistants who can initiate the early Disaster Action activities
- Issue all decisions pertaining to committing a Disaster Action team into operation, termination of a disaster operation, extending the Disaster Action operation to a long-range rehabilitation and planning operation, and legal involvement
- Be the communications clearinghouse between the Disaster Action base of operations and regional AIA chapters to relay personnel needs

and team news

- Provide central control of the Disaster Action operation, communications between the Disaster Action operation and higher level agencies, and logistical and supply support for the team
- Communicate as needed with state and national relief agencies such as the Texas Civil Defense, National Guard, Red Cross, Small Business Administration, Housing and Urban Development, Office of Emergency Preparedness, Volunteers In Service To America (VISTA), etc.

Early Considerations

The basis for the Corporation's response is knowledge of the kind, severity, magnitude, and location of a disaster and the availability of local facilities and organizations with which the Corporation can coordinate its efforts. If the disaster occurs in a major metropolitan area, the local AIA chapter may be able to provide immediate staffing of the Disaster Action team and operate it with some guidance from the Corporation. The base of operations might be established in cooperation with the local Community Design Center, with the local or area planning office, or even with a local urban renewal operation, depending upon which is most immediately available and has the capacity.

If the disaster occurs in a small, remote community, the Corporation officers will face a different and possibly more difficult set of circumstances. They must determine which AIA chapter of sufficient size is nearest the disaster area and from which volunteers may be obtained, the accessibility of the community, and the availability of communications.

The first criterion for committing TSA Disaster Action resources in a disaster area is the availability of effective disaster action personnel who are geared to respond on short notice, preferably within a few hours.

The next criterion is the ability to provide assistance and counseling for long-range planning project involving permanent rehabilitation activities similar to those performed by architects in Lubbock, Corpus Christi, and Wichita Falls. It is in this area that the continuity of Corporation effort can provide a permanent benefit to the community as a whole.

When the Disaster Occurs

A Corporation officer, possibly the executive vice president at the Corporation office or the president, must obtain, as soon as is practical, an estimate of the situation from officers or members of the local or nearest AIA chapter, or, if they cannot be reached, by sending the nearest available member of the Disaster Action Committee to the disaster area to survey conditions and report back from the nearest telephone as soon as possible. If commitment of a Disaster Action team seems to be indicated this early, then

the Committee member should be one who is prepared to stay in the area and serve as the team leader.

The information needed includes:

- The degree of severity of damage (minor, moderate, or major) and the portion of the community damaged (ten, twenty, thirty percent, etc.)
- The kinds of areas of the community that are damaged (residential, commercial, industrial, or institutional)
- Whether the area has been declared a disaster area by state or federal authority, or the likelihood of such a declaration
- The capability of the local or nearest AIA chapter to participate in a TSA Disaster Action operation. (If the community is moderate in size or smaller and most of it is affected, it is not likely that local chapter members will be able to participate in the early recovery effort)
- The status of telephone communications in the disaster area
- The status of highways leading into the disaster area
- The identification needed by team members if the disaster area is policed by the National Guard or other special policing groups
- The availability of a base of operations and living quarters, food, and water for the team

When the above information has been received by the Corporation officer and the conditions indicate the community probably will be declared a disaster area, the Corporation must consider quickly what its response will be. The president, if not already involved, should be informed of the situation at this time so that decisions can be made.

The urgency and magnitude of the Corporation's response will depend largely on the situation, which will be similar to one of the following:

- If the community is medium to large in size and the damages are confined to a relatively small part of it, some, if not all, Disaster Action volunteers, including the team leader, may be available locally. (If so, the Corporation may need to send only one or two experienced volunteers for a short time for organizational guidance)
- If a larger part of the same community is damaged, some of the team may have to come from outside the area
- If the community is medium to small and is remotely located and damage is extensive, it is likely that all team members will have to come from wherever they are available, near or far
- If the disaster covers several small but remote communities, the situation will be the same as above

Having received the needed information, the president must decide on a

course of action and, if it involves Disaster Action volunteers, authorize their commitment to action. With this authorization, the Disaster Action committee chairman will enact the committee to respond as directed by the president.

Selecting and Committing the Team

The Disaster Action team and its work are the essence of the Corporation. The members of the TSA Board authorized the creation of the Corporation because of their belief that the membership, like themselves, is concerned with what happens to a disaster-devastated community during and following the recovery operations — concerned enough that a sufficient number of volunteers will always be available for team action when needed.

The team will be selected from the Roster of Disaster Action Volunteers. They are contacted by the Disaster Action committee members to determine their immediate availability. Understandably, some volunteers listed on the Roster cannot always be immediately available because of personal or business reasons. These will be bypassed and others called in order of their nearest proximity to the disaster area.

The team leader will be the Disaster Area committee chair, a designated alternate, or another Disaster Action committee member, depending on availability and proximity to the disaster. Selection of the chair/team leader may be made on the basis of previous disaster recovery experience, but such experience will not always be essential.

It is more important that the team leader knows and understands the purposes and procedures for the team. In other words, he or she must know how to put the team into action, how to use the members efficiently, and how to get them replaced when they have served the time for which they have committed.

The Corporation officer will brief the team leader on:

- The conditions in the disaster area
- The names and telephone numbers of anyone to contact upon arrival in the disaster area, such as the president of the local AIA chapter, representatives of relief agencies (Small Business Administration, Office of Emergency Preparedness, Civil Defense, Red Cross, etc.), city or county administration
- The approximate time when the team leader plans to depart for the disaster area
- The need to inform her or his AIA chapter president as to his or her involvement before she or he departs
- Who the team members are and their addresses

- The desirability of arriving in the disaster area ahead of the team, if feasible, to find a base of operations and living accommodations for team members
- The need to travel to the disaster area in her or his own transportation, as local transportation may not be available or reliable
- The need to report to the Corporation office the address and telephone number of the base of operations as soon as possible

The team leader will advise all team members as to:

- The identity of the team leader and approximate time of arrival in the disaster area
- The conditions at the site, the need to advise the chapter president, and the need for personal transportation
- The need for comfortable, out-of-doors work clothing and such emergency items as flashlights, first aid kit, heavy shoes or boots, rain gear, small tools, and possibly a camera and film, since such items may be impossible to obtain in the disaster area
- The identification needed if the disaster area is policed by the National Guard or another special policing group
- The urgency of finding and reporting to the team leader immediately upon arrival in the disaster area
- The approximate time of arrival of each in the disaster area
- The length of time each can work with the team
- The need to keep a record of transportation and living expenses for submission to the Corporation for payment if so desired

Disaster Area Operations

As the Disaster Action team moves into the disaster area, it is suggested the order of its activities be generally as follows:

- Establish the base of operations
- Communicate with the Corporation office
- Establish local communications with community officials, relief agencies, and the news media
- Plan damage survey strategy
- Set up operations office procedures
- Consider the possibility of a long-range rehabilitation operation
- Terminate the Disaster Action operation when appropriate

The base of operations, if one has not already been made available, is the first order of business for the team leader upon arrival. It is suggested that he or she enlist the help of the local AIA chapter, if there is one in the community and it is not totally incapacitated, or architects, engineers, contractors, local officials, or a local institution. It can be office space in a

damaged building; hotel or motel rooms; space in a public school, church, college, or university; or perhaps vacant space in a commercial building. It is hoped the owner will donate the space and save the Corporation that expense, but if not, a rental agreement must be worked out. The rental agreement should not be finalized without Corporation approval. The space obtained must have lighting, electrical outlets for lamps and business machines, and telephones. If it has only one telephone, arrange with the local telephone company to install two or three more on an emergency basis. If possible, the space should be large enough for a reception area and five or six work stations at least and have appropriate furniture such as desks, tables, and chairs. Restrooms should be reasonably close.

If telephone service is not in operation, apply to the local telephone office for emergency repair priority. Officials of Southwestern Bell report that all of their telephone offices in Texas are acquainted with TSA Disaster Action, Inc., and they will cooperate in providing emergency attention to requests by the Disaster Action team. The team will give the local telephone office the name and address of the Corporation office in Austin for billing purposes. As with Southwestern Bell, Disaster Action's working relationship with other utilities and relief agencies should be re-established periodically.

For proper operations, the office should have a large tack space, a small photocopy machine with a supply of paper, a four-drawer filing cabinet with dividers, and at least one typewriter. These should be obtained locally, if possible, when time permits, along with such supplies as colored map tacks for the strategy map, note pads, typing and carbon paper, colored magic markers, pencils or felt tip pens, survey forms, and possibly an expense record book. The survey forms are pre-printed and kept in bulk at the TSA office. Each chapter Disaster Action liaison has 50+ survey forms to facilitate early response capability anywhere in the state. If some of these items of equipment and supplies are not available locally, request assistance from the Corporation office in obtaining them.

Communication with the Corporation office must be established as soon as practical after the base is in operation and telephones are in service. Report the status of the base of operations, the local contacts that have been made, and the names of the Disaster Action team members who have arrived.

Establish local communications with community officials, relief agencies, and the news media as soon as the base is in operation. Acquaint them with TSA Disaster Action, Inc., and its purpose for being there in order to link the operation into the overall recovery effort. If the Disaster Action operation is to be immediately effective, it is important that the local news media run announcements describing the Disaster Action operation, giving the office address and telephone number and explaining, especially to the victims in the economically depressed areas, that the service will be of no expense to them.

Interviews on both radio and television proved to be most effective in Corpus Christi and Wichita Falls.

During the course of operations, victims will request information pertaining to other relief agencies, legal matters, directives, and other information put out by the local authorities. The "one-stop center" technique of grouping relief agencies under one roof, as done after the Wichita Falls tornado, worked well. However, all Disaster Action personnel should be familiar with the name, address, telephone number, and the nature of the work of each relief agency and emergency office; name, address, and telephone number of the local legal-aid society; all directives and announcements put out by the local authorities; and the locations of various other local aid stations.

The team leader must see that this information is gathered and relayed to all personnel and is posted at each telephone in the operations office. It is suggested that this task be assigned to another experienced, preferably local volunteer as soon as one is available.

Damage survey strategy should be given early priority because very soon after the news media announcements go out and the presence and purposes of the Corporation become known in the community, there win be a flood of requests for damage surveys for victims. To be ready for them, the following advanced preparations must be made:

- An area street map must be found and prepared for zoning and charting field operations
- Damage survey forms must be produced in bulk and available immediately in limited quantity from local chapter liaisons
- Damage survey procedures must be prepared and conveyed to the team members

The area map, to be effective, should be a large street map of the disaster area. Such maps are usually available at the local chamber of commerce or planning office. If not, find an up-to-date oil company street map at a local gasoline station and, if it is not large enough, use it until a larger one can be obtained.

Put the map up in a prominent place in the base of operations on a large tackboard or on a wall. Subdivide it into zones with a magic marker, and identify zones with code names or numbers. Each zone may contain from four to six square miles or whatever convenient size area that may fall within distinguishing features. As damage surveys are made and brought in for further processing, locate them on the map with a red map tack, and as each is completed and ready for the owner, change the tack to a green one. This helps in assigning survey teams to areas with the greatest amount of reported

damage, and it indicates the progress of the surveys.

The damage survey form should be designed to provide the kind of damage information from which a quick but reasonable damage cost can be figured. It is not to be as detailed as a contractor's cost estimate. In fact, local contractors should be told through their local association that the survey is not intended to be an estimate for rebuilding, but rather a guide to tell the owner approximately how much damage he has sustained. For this reason, we do not call our survey form an estimate.

In use, the form has a carbon backup attached, eliminating the use of the separate carbon sheet.

The damage survey procedure should be developed and reviewed with an survey team members before they attempt to do any survey work in the field. However, because many things should be looked for and recorded as damages, it is suggested the team leader spend a few hours looking around the disaster area to get an idea of the nature of the damages before meeting with the team.

When the leader is ready to review the procedures with the team, he or she should first caution them not to survey a house or building unless the owner or his or her representative is present. Also, they must assure themselves that the owner knows who they are and what they are there for; otherwise a situation could develop that would be embarrassing to the team members and to the Corporation.

Explain the damage survey form to them, and emphasize that if it is to serve its purpose, they must gather all the information it asks for. Go over it with them item by item, and encourage questions. Incidentally, it is important to note whether the owner's insurance company has made an inspection of the damages. If it has, this may add higher priority to the processing of that survey, because the owner may need it quickly as a guide to what the insurance settlement should be.

To the less experienced survey volunteers, describe the kind of damage to look for that is not apparent on the surface, such as loosened structural joints, damaged electrical wiring and plumbing in the attic, opening of joints at corners on the building exterior where a strip of unweathered wood has been recently uncovered by movement, or signs of the building's movement where it rests on its foundations. Structural weakening can be more serious to the owner than damage of surface materials. A time frame of 30 to 45 minutes per survey will allow the volunteer to make 8 to 10 surveys per day. Good judgment should prevail in each instance.

Emphasize that survey volunteers should not make damage cost estimates or

reconstruction suggestions.

Before the survey members are released to work in the field, briefly explain to them the in-office procedure for handling the survey forms. They will have a better idea of the importance of the data they enter.

Operations office procedures will be based largely on the processing of the damage survey forms and should be kept as simple and logical as possible. The following procedure is a synthesis of disaster response operations since the inception of Disaster Action:

- Keep a supply of damage survey forms near each telephone and at interview tables for in-person damage survey requests
- When a request for damage survey is received, see that the top or applicant portion of the form is completed
- Number each form in the upper right corner for proper sequential processing on a daily basis. The request is then zoned on the map and the zone code number placed at the top of the form in color. Place a red map tack in the proper zone of the map
- The form is filed in the open, near the map under its code, to make it readily available to the survey volunteers and, on the bottom of the request, under its code for proper processing sequence
- When the damage survey is completed, detach the carbon copy for office records, giving the original to the property owner. Return the carbon copy to the office and file under “Completed Surveys” unless cost surveys are being performed and have been requested by the property owner. Replace the red map tack in the proper zone with a green one
- It is taken from the file by the cost survey volunteer that analyzes the survey data and arrives at a total cost of damages, which is entered on the form along with the data and his signature. The cost survey volunteer must be experienced, qualified for the work, and preferably a registered architect or engineer. (A demolition and installed new materials price list can probably be obtained from an area contractor or the nearest contractor association office. However, following disasters, these prices generally are radically changed and may make cost estimates unfeasible)
- It is returned to the file under the category “Cost Survey Complete”
- It is taken from the file and photocopied, and the photocopy is clipped to the original and filed under “Survey and Photocopy”
- The owner is informed the survey is ready and given the photocopy when he or she arrives for it
- The survey is then filed under “Survey Process Complete”

In order to use the Disaster Action volunteers who are professionals to best

advantage, community volunteers, high school students, and university architectural students may serve as office staff. It is recommended that the team leader conduct nightly orientation meetings to advise incoming volunteers, as well as to update the team recovery efforts. Scheduling of volunteers and damage assessment requests can be planned during this time.

Although it is not recommended that unlicensed professionals conduct damage surveys, certain exceptions will require special consideration. In addition to the above operations files, the team leader should also see that the following files are set up and maintained:

- Purchase receipts and charge account statements. (It is suggested these be subdivided by companies)
- Personnel file. (As volunteers come and go, a record should be kept of each volunteer's name and address, dates served, and task assignments)
- Legal documents. (If by chance the Disaster Action operation gets involved in any legal implications, a file should be kept of all documents, correspondence, evidence of any implicating circumstances, names and addresses, etc. The Corporation must be informed immediately if such implications occur)

A long-range planning and rehabilitation operation may be considered shortly after the Disaster Action base of operations is established. If local architects or community officials suggest this operation, they should be referred to Corporation officers. The team leader should not get involved in such discussions until the damage survey work is under way for several days. That time will be filled by briefing and assigning personnel and getting operations working smoothly. After this, he or she should join in the discussions to determine whether or not she or he can stay on as team leader.

If a long-term operation is considered seriously, many questions will have to be resolved at top level. Some of them are:

- Funding
- More permanent office space
- Size and type of operation (CDC?)
- A permanent director
- Personnel from outside (public volunteers?)
- Local professional volunteers (how many, and for how much time?)
- Type of projects
- Necessary equipment

If a CDC is a possibility, then AIA National may be able to help resolve some of the questions about planning strategy

Termination of the Disaster Action operation must be considered sooner or later. When that time arrives, the team leader will be responsible to see that the following tasks are accomplished:

- Pack all records and ship or take them to the Corporation office
- Have rental companies pick up their pieces of equipment and forward a final statement to the Corporation office. (A receipt should be obtained for each piece of equipment as it is picked up)
- If the office is rented space, provide the landlord with the date the office will be closed and vacated and have them settle balance due with the Corporation office
- Give the telephone company the date the office will be closed and request telephone service be terminated
- If utilities for the office are being paid by the Corporation, inform them of the date of closing
- The team leader in each disaster should follow up the response efforts with a written report to the officers of the Corporation. This report will be used to evaluate and improve TSA's disaster response

California Council Emergency Response Guidelines (January 1990)

The San Francisco Bay area, long known for its flair for the dramatic, continued that tradition on October 7, 1989, when tens of millions of Americans turned on their televisions expecting to see the third game of the World Series and instead saw a significant earthquake on the San Andreas fault.

Basic utilities were cut off to dozens of communities over a seventy-mile area, and thousands of buildings had to be evaluated for structural safety. The AIA response to the Loma Prieta earthquake demonstrated vividly the importance of preparing in advance for a disaster.

With a large and well-established architectural community in the Bay Area, there was an ample supply of volunteers, but a lack of adequate preparation initially restricted the effectiveness of the architects.

The following report of recommendations was published by the California Council AIA and is reprinted here with their generous permission.

Acknowledgement

The Loma Prieta Earthquake is estimated to be the most costly natural disaster in U.S. history. Over $5.6 billion in damage to homes, businesses and state infrastructure occurred in concentrated pockets widely disbursed throughout eight Bay Area counties. Sixty-seven people died, more than 2,400 injuries were reported and 76,000 requests for disaster assistance were received. (Loma Prieta Earthquake, October 17, 1989, Preliminary Reconnaissance Report; Earthquake Engineering Research Institute. November 1989, p. 1)

These are the numbers by which most people will remember this earthquake. Yet, for The American Institute of Architects chapters in the San Francisco Bay Area, the experience of living through, and dealing with, the effects of a large scale natural disaster offered a more personal set of statistics.

The few hectic weeks following the earthquake saw Bay Area chapters fielding and processing more than 1,000 requests for assistance by individuals whose buildings were damaged in the disaster. It saw chapter executives and leaders recruiting and directing over 300 volunteer members into state emergency service. And it saw hundreds of chapter members becoming involved in critical post-disaster chapter activities.

CCAIA wishes to acknowledge the tireless efforts of Bay Area chapter members, leaders and executives throughout the earthquake recovery process. Hundreds of individuals in the architectural profession freely gave of their time and resources to stabilize and rebuild their communities.

Specifically, we extend our gratitude to the five Bay Area AIA chapter presidents and executives for organizing the architectural community into swift and effective emergency action. The following individuals significantly contributed to the overall AIA response:

Rosemary Muller, AIA, President
Sally Phillips, Executive Director
East Bay Chapter/AIA

Jeanne Byrne, AIA, President
Monterey Bay Chapter/AIA

Michael Roanhaus, AIA, President
Kathryn Davis, Executive Director
Santa Clara Valley Chapter/AIA

Charles Eley, AIA, President
Robert Jacobvitz, Executive Director
San Francisco Chapter/AIA

George Sinclair, AIA, President
Shirley Mildes, Executive Director
San Mateo Chapter/AIA

Robert A. Odermatt, FAIA

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Rosemary Muller, AIA
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Introduction

On December 1, 1989, representatives from the five Bay Area chapters affected by the Loma Prieta Earthquake met as an ad hoc committee to compile an outline of critical issues arising from the AIA response to the disaster. Committee members were charged with identifying essential issues which they felt must be addressed prior to any future emergencies. From this meeting, thirteen recommendations were compiled as a starting point for preparing a plan or adding to an existing one that will undoubtedly require updating.

While Bay Area chapter responses to the earthquake varied from location to location, some common experiences developed throughout the region. This report shares these experiences and explores some of the issues that shaped the local AIA emergency response effort. The recommendations outlined in this document are intended to be used as a guide for chapters in formulating individual emergency response plans.

The AIA was in a unique position to offer necessary and timely services to Bay Area residents in need of professional advise following the earthquake. This opportunity will undoubtedly avail itself again following the next large scale disaster. Unless chapters are prepared to respond immediately, they will face many of the same obstacles the Bay Area chapters encountered following Loma Prieta.

OES Volunteer Recruitment

When a disaster is officially declared in California by the Governor, the Office of Emergency Services (OES) is the state agency responsible for assisting local governments. Through various state agencies, including the office of the State Architect, Office of Statewide Health Planning and Development, State Fire Marshal, Caltrans and local budding departments, OES will provide immediate damage assessment services in a triage-type operation. OES will also respond to any requests for assistance from a city or county.

If the disaster is large enough to warrant additional professional help from outside governmental agencies, which was the case with Loma Prieta, the

OES will call upon private professionals to assist in the operations. To ensure the participation of private sector design professionals, the OES has established agreements with the Structural Engineers Association of California (SEAOC) and the American Society of Civil Engineers (ASCE). On a moments notice, OES can call SEAOC or ASCE headquarters and request any number of engineers be delivered-go -an affected area within hours of the disaster.

In the aftermath of the October 17 earthquake, this system proved very effective in mobilizing large numbers of design professionals into a large geographic area. However, even with the prearranged private assistance, there remained a shortage of design professionals to service the needs of local governments and individual home and building owners.

To help fill some of the voids, CCAIA and local components recruited over 200 members from the Bay Area to assist with OES damage assessment teams. An emergency registration procedure was put in place to deal with the disaster at hand. CCAIA is presently working to establish a standing agreement with the OES, much the same as SEAOC and ASCE, to provide assessment services for the state in the event of another large-scale disaster.

Recommendations

Chapters should implement an OES volunteer recruitment plan. Each chapter should collect the names of architects willing to dedicate at least one full day in assessing damaged structures in an affected area anywhere in the state. The OES provides for lodging, meals, transportation and some equipment.

Names should be forwarded to the CCAIA offices where they will be filed in the event of another disaster. The information accompanying those names should include home and work addresses and telephone numbers, California Architects license number and area of professional expertise. new lists should be updated at least once a year.

Hazard Assessment Training

When a member volunteers for OES service, he/she is required by OES to attend annual training courses. However, OES has never been able to enforce t Hazard assessment training is essential for providing consistent and effective services, following a major disaster. While hundreds of design professionals participated in OES field operations after the earthquake, follow-up investigations in some of the hardest hit areas revealed a disparity in services. Residents, and even design professionals, commented that there was a lack of consistency in evaluations from one OES team to another.

A couple of factors help to explain this problem. Because of the immediate need for qualified design professionals after the earthquake, most architects

who volunteered on an emergency basis were never given any training and were sent directly into the field. Engineers were not totally prepared because SEAOC training had not occurred in more than two years. Additionally, OES was in the process of changing field manuals and procedures when the quake hit. When A/E's were given the new manuals for application in the field, it was the first time anyone had seen them.

Recommendations

Given the public safety ramifications inherent in performing assessment services, it is recommended that every member placed on a volunteer list take an annual training course. Annual training is a good way for chapters to keep track of those members still interested in serving as a volunteer, and a method to purge outdated volunteer lists. Training will also keep members up-to-date on the latest OES procedures, manual revisions, and technological advances in assessing damaged structures.

Because OES relies on professional organizations to train their own members, the AIA will be responsible for creating and maintaining a training program. Chapters should develop an individual plan, or coordinate regionally, to prepare training courses for their volunteer members.

Chapters have a couple of options available to accomplish this. First, they may create their own courses, using chapter representatives who have the knowledge, experience and expertise to prepare such a program. Second, and probably the best course of action given the relative infancy of the program, they may contract with a private company or individual who has the experience in this type of work Bay Area chapters are presently seeking assistance from the Applied Technology Council (ATC), which prepared the training-manuals for A/Es, to coordinate workshops for that region.

Chapter/Resident Assistance

While the OES volunteer service is a preferred method of volunteering time and services to a disaster recovery effort, we found, given the magnitude and large geographic area affected by this earthquake, that the OES program could not reach everyone needing assistance. Due to a large influx of requests from the public for assistance by the AIA, some chapters implemented programs which offered free consultation services to certain building owners.

In the absence of legal immunity, some members requested budding owners to sign a liability waiver. Insurance carriers were quick to recommend language and sample documents for use in the field. Others who were willing to accept the liability risk and opted not to use a waiver, proceeded very cautiously in their assessment recommendations and made sure to offer only professional opinions and not statements of fact about the

buildings they inspected.

Architects in California risk considerable liability when performing services without legal immunity. OES and local government deputization will provide a design professional with legal immunity. However, following a large disaster, a local government may not be able to, or simply might refuse, to deputize individuals. Bay Area architects encountered both of these problems after the earthquake.

We feel that in the interest of human compassion in times of emergencies and positive public relations for the profession, the benefits of a chapter/resident assistance component is essential to an emergency response plan. Liability concerns can be minimized through legislative remedies, which CCAIA will be addressing in 1990, and careful document preparation prior to a disaster.

Recommendations

Chapters should develop a contingency plan to provide free emergency safety evaluation services to building owners, to be implemented in the event that government agencies are not able to respond to safety concerns. These emergency services to owners should be limited to life safety concerns, such as assessment of buildings' structural worthiness.

These services should cease when the local government agencies and OFS are able to furnish them.

This recommendation should only be implemented when it is apparent to the chapter leadership that the local government and OES efforts are failing to service segments of the affected communities.

Citizens may contact chapter offices requesting architects to advise them concerning repair of damaged property. Chapters may want to maintain a referral list of members interested in doing this work for a fee and make this list available to those who request it.

Liability Waiver Forms

As mentioned in section IV, some members who did individual assessments outside the OES process used a liability waiver form to protect themselves from subsequent litigation. In some instances, members received these forms or modified contracts from their insurance carriers. To facilitate the use of such forms in the future, CCAIA will be formulating suggested language for liability immunity to be made available to all chapters.

Also, CCAIA will be seeking liability relief through good Samaritan legislation. We will attempt to negate the use of waiver forms by exempting

architects and engineers from liability in a declared emergency when assistance is requested by state or local officials.

Recommendations

While CCAIA works toward a statewide legislative remedy to the liability question, it is important for each chapter to have copies of a liability waiver form on file. CCAIA will make recommended language available to each chapter upon request. Additionally, when the press inquires about the extent of AIA services during an emergency, chapters should make them aware that individuals may be required to sign a waiver for assistance.

Historic Preservation Efforts

One of the most disturbing aspects of post-earthquake recovery was the lack of scheduled for demolition, and in fact some had already been razed. Most of this was being done without the benefit of follow-up inspections by qualified design professionals. Local building officials, overworked and under tremendous stress, were making decisions without expert advice and community input.

As part of the overall response plan initially established by the Bay Area chapters, it was agreed that a high priority would be placed on preservation efforts. Each chapter mobilized its historic resources committee, or if none was in place, a key individual was appointed to head up the effort. Within three days of the quake, letters were sent to local officials recommending restraint in demolition orders and warning of some precipitous razing of historic structures.

In the east bay region, the East Bay AIA Chapter became the hub of all preservation activities for the area. Because the chapter had an established, active and highly visible historic resources committee, concerned public interest groups coalesced with the AIA to form a strong and effective voice in the region. By the fourth week of the crisis, the Oakland Building Department was requesting advice from the coalition on severely damaged buildings and running all demolition orders by the group. The efforts of this group have continued even after the critical first few weeks.

Recommendations

Chapters should appoint a key individual to act as a liaison with local officials and preservation interest groups. Typically this will be the chair of the chapter's historic resources committee. In chapters with multiple jurisdictions, additional representatives should be appointed to help disperse the workload.

Chapters also should establish communication and a working relationship

with local preservation organizations to formalize an emergency plan for safeguarding historic structures.

After developing a tentative plan, a dialogue should be started with local officials to have the plan in place in case of an emergency. Out of the events following the earthquake, the East Bay developed a good model whereby the AIA and other preservation interest groups acted as a technical resource for the building department in their decision making process.

Agreements with Local Jurisdictions

While there was a genuine need for more design professionals to perform asses architects to do field assessments. These officials explained that they preferred to use engineers. Other officials did use architects, so confusion and uncertainty resulted.

When residents of the city began calling the chapter office in San Francisco, members were frustrated that they could not help because of the building department's professional bias.

Recommendations

Chapters should appoint a representative to establish a dialogue with local officials about emergency preparedness procedures. Meetings should be scheduled with elected and appointed officials to underscore the architectural profession's usefulness in times of emergencies. Additionally, local officials should be invited to attend any chapter training sessions that are held.

Chapters should also stress to local officials that by virtue of their professional license and scope of practice as defined by the State of California, architects, as well as engineers, are qualified and trained to perform assessment services.

The professional bias barrier to architect involvement in recovery plans should also be addressed through long-term political and community involvement. Jurisdictions within chapters will likely differ in their perceptions about the architects role in disaster recovery efforts. Appointed representatives will have to assess each community before a plan is put in place.

CCAIA will be holding discussions with the California Building Officials in 1990 to discuss local biases and preferences in emergencies. We are hopeful that our meetings will produce an agreement which can be emulated at the local level. For now, chapters should concentrate on developing relationships with their budding and elected officials.

Media

Within hours of the earthquake, AIA chapter offices were contacted by representatives of the media. The press was anxious to speak with anyone who had expertise in seismic design and eager to know how the AIA would respond to the disaster. Unfortunately, the AIA response to these requests was inconsistent. Some chapters hurried to find members who could respond to press inquiries. In many instances, they were able to cover what press exposure was created for them. Some opportunities however were missed because the chapter did not have a proactive media plan in place prior to the disaster.

Recommendations

Chapters should designate at least one member to act as press spokesperson in the event of an emergency. In a larger chapter, more than one person may be necessary to handle this task, especially in a large geographic area with diverse media. Each chapter also should compile a press packet containing the representative's biography and qualifications, AIA information, necessary telephone numbers, and the chapter's emergency plan.

Once the press representatives) is selected, the chapter should make sure that the local media (newspapers, radio and television) have the name and telephone numbers.

Relationships with the media should be established before a major event. It is beneficial for the representative to contact the local media and offer them stories on earthquake preparedness and related issues. This action can solidify media relationships and insure greater AIA visibility and involvement in press coverage of major disasters.

Chapter Emergency Contact Rosters

One problem encountered by chapter officers and executives following the earthquake was their inability to contact other chapter leaders immediately following the disaster. Because the quake struck just after office hours, many members had left work for the evening. For chapter officers who only filed an office phone number with the chapter, they were unreachable. As the chapters started receiving inquiries from the public and the press, executives and chapter leaders needed access to other chapter leaders for making decisions.

Recommendations

The chapter board of directors and executive should maintain a roster of office, home and car phone numbers for the chapter leadership. This roster should also include the office, home, and car phone numbers of past chapter presidents. In the event that present chapter leaders are unable to respond or are incapacitated, past presidents who are familiar with the chapter structure

and organization can be called on to stand in.

Chapter rosters should be sure to list the cellular car phone numbers of board members. Following the earthquake, the cellular phone network in the Bay Area performed very well. Lifeline personnel used cellular phones almost exclusively for the first couple of days after the incident because of their reliability over the traditional phone system.

This roster should be updated yearly and distributed to all those listed on it, the AIA, the CCAIA, local government officials and allied professional societies.

Plan for Architect Assistance

Most Bay Area architects fortunately experienced little personal loss from the earthquake. CCAIA received very few notices that members had been displaced from their offices as a result of the disaster. Most architects who did find themselves out on the street were able to set up shop elsewhere and continue semi-normal business operations with little disruption.

Given the likelihood that there will be another major earthquake in California in the near future, AIA chapters must be prepared to deal with the possibility of member displacement If Loma Prieta had been a 7.8 magnitude rather than 7.1, there is a real possibility many more architects, especially in the South of Market area in San Francisco, would be without business housing today.

Recommendations

Chapters should develop a local plan to address member displacement. This could include a survey of the membership to request volunteers to provide office space following a disaster, or a list of available office space in the area.

Following the initial shock of a major disaster, experts advise that getting back into a normal work pattern can ease post disaster stress. (Letter from Mercer Meidinger Hansen, Inc regarding post earthquake recovery. October 31, 1989, p. 2) AIA members and chapters can offer assistance by providing or directing displaced architects to work space, materials and equipment necessary for daily business operations.

Emergency Chapter Office Space

On October 18, the morning following the earthquake, all the chapter offices in the Bay Area, except San Francisco, were operational. While the San Francisco chapter office did not suffer any structural damage, electricity, gas and telephones were out of service which made the office uninhabitable for one day. Quick action by the San Francisco and East Bay Chapter executives and officers enabled San Francisco to set up temporary operation in the East

Bay office and resume work on a limited basis.

While Bay Area operations remained virtually intact for the AIA, the temporary loss of the San Francisco Chapter office highlights the need for contingency arrangements for chapter operations in the event of a major disaster.

Recommendations

Chapter executives and leaders should choose at least two or three possible alternative locations for emergency chapter housing in the event of displacement from a disaster. Alternatives could include board member offices and chapters sharing office space (as was the case for San Francisco and the East Bay.) This was possible because of the two chapters' close proximity. In other parts of the state, this may be more difficult to accomplish.

Chapter members, the AIA and the CCAIA should be informed of the alternate locations in a priority order so they can attempt to contact chapter representatives following an incident.

Emergency Permit Procedures

Dealing with the sudden influx of building permit applications following the earthquake became a nightmare for some local governments. In most cases, cities and counties established emergency permit procedures to expedite reconstruction. However, it took some time for local jurisdictions to come up with these plans.

One aspect of the permitting process which created a long-term problem for many cities and counties was the backlog the disaster created for new permits already in the pipeline. Following an incident, life goes on. People need to get back to work, and the economy needs to start up again. If local building departments are bogged down with reconstruction permit applications, contingency plans must be in place to deal with the projects already on the table.

Recommendations

Chapters should start a dialogue with local building officials about their emergency preparedness plans. If none are in place, one should be drawn up and the chapter should lend assistance developing it. Recommendations to the building department may include temporarily shifting personnel within the department, contracting with private individuals to do overflow plan check work, and hiring temporary staff to meet the additional demands on the department.

Housing Decisions

Many AIA chapters have active housing committees. In these chapters there was concern following the earthquake that local government responses had an adverse effect on low and moderate income housing. In Oakland for example, many single room occupancy (SROS) buildings were damaged and rendered uninhabitable. The loss of this critical housing compounded an already untenable homeless situation in urban centers of the Bay Area.

Weeks after the crisis, local governments still had not decided what to do with the SROs badly damaged by the quake. In some cases there was no plan for temporary housing. Frustration among the homeless and the design community escalated as the cities dragged their feet.

Decisions about these types of buildings and other essential housing structures in most of the affected areas is a time consuming process for local officials, elected and appointed. These decisions can often times divert resources from the overall recovery process.

Recommendations

Chapters with housing committees should start a program to work with their local jurisdictions to establish housing policies prior to a large scale disaster dealing with low and moderate income housing, as well as temporary housing in the area. A goal of the program should be to have policies adopted by local governments in advance of a disaster so decisions can be made swiftly and effectively following the incident.

Student Trauma

Following any major earthquake, much attention is given to the special fears and needs of children affected by the disaster. Loma Prieta traumatized many children in the Bay Area, and created a great deal of stress among young people throughout the state. A 24 hour media barrage of pictures of collapsed freeways, bridges, buildings, homes and schools impressed the uncertainty of the built environment's structural worthiness.

CCAIA's Built Environment Education Program (BEEP) is designed to teach children about their built environment and make them aware of the contributions they can make to their physical surroundings. Following the earthquake, a plan was prepared for modifying BEEP to deal with students' immediate fears.

Recommendations

Chapters should develop a program to address post disaster student trauma within their jurisdiction. Chapters may want to modify their existing BEEP programs to offer school districts disaster educational programs applicable to

post-disaster situations. Chapters should also create a student trauma disaster response program to implement immediately following an incident.

Chapters are advised to establish liaisons and agreements with school district personnel prior to a disaster to ensure these programs will be implemented at the appropriate time.

CEDATs and Charrettes

Due to the relative frequency of earthquakes in California, the CCAIA has developed a modified form of Regional/Urban Design Assistance Team (R/UDAT) known as CEDAT, or California Emergency Design Assistance Team. Following any disaster, a community must decide how, where and when to rebuild. CEDATs were designed to lend assistance to community leaders and planners by holding intensive design charrettes in affected areas.

CEDATs and charrettes are good opportunities for the AIA to present a positive image of the architectural profession and contribute a valuable service to the community. Following a major disaster, most local government officials are at a loss as to where to turn for help. AIA is in a unique position to offer civic leaders answers and visions for the future.

Following Loma Prieta, the East Bay Chapter held a design charrette for the hard hit downtown Oakland civic center area. The San Francisco Chapter held a charrette for the damaged Embarcadero Freeway and adjoining sites. CCAIA is also planning CEDATs for the communities of Santa Cruz, Hollister and Watsonville.

Recommendations

Once the initial emergency recovery efforts have been addressed following a disaster, chapters should look toward the redevelopment stage of recovery. Chapters should be familiar with the CCAIA CEDAT program and be prepared to identify communities which would benefit from a CEDAT following a disaster. Chapters may also want to consider local design charrettes for smaller scale endeavors.

Update and Test Emergency Plan Early

The Bay Area chapters learned many valuable lessons from the October 17 earthquake. One of the most valuable is the benefit of being prepared. If the chapters had a plan responding to the ideas expressed in this document in place on October 17, many more members would have been involved in recovery efforts, many more residents would have been served, and much more exposure would have been given to the AIA.

Members of the Bay Area chapters, in post-earthquake meetings, have indicated that they will implement a comprehensive emergency response

plan this year. The East Bay Chapter has established a standing emergency preparedness committee to develop their plan and other chapters will be doing so soon.

Recommendations

Every AIA chapter should prepare an emergency response plan and annually review and update it. Bay Area representatives have even suggested that national AIA consider making an emergency response plan a mandatory component standard for operations.

While the recommendations in this plan were born from the experiences of the Bay Area chapters, other AIA components may need to test their plans to determine if the programs will be useful in an actual emergency. Some elements of this document may not apply to all jurisdictions. A dry run, or test, of the proposed plan will help to assure its effectiveness.

Conclusion

In the final analysis, northern California was fortunate that the loss of life was relatively low, and essential services were not dramatically altered by the earthquake. Yet, experts warn that the Loma Prieta was not the “big one” that Californians have expected for so long.

An event such as an earthquake is a powerful reminder of the forces which dictate the makeup of our built environment, economy and lifestyle. For a brief time, it seems to focus our attention on the urgency of preparedness. But like every disaster preceding Loma Prieta, time has a way of focusing our attention and energies on “more important and more immediate matters.”

Will we be prepared the next time? How will we respond? Will we be able to participate to our fullest extent and contribute significantly to the recovery effort? Each chapter can answer these questions in advance of the next major disaster in California. We hope your chapter takes advantage of the lessons learned in 1989.