

AIA Handbook for Disaster Assistance Programs

Table of Contents

Introduction	2
Chapter 1: Disaster Awareness	3
Chapter 2: Comprehensive Response System	7
Chapter 3: Legal Ramifications	10
Chapter 4: Before Disaster Strikes	13
Chapter 5: Post-Disaster	18
Conclusion	29

Introduction

In 1972 the AIA formally recognized the important role that architects can play in disaster response. Members and staff began developing strategies to assist components to respond quickly to requests for aid. Since then, several state and local components have developed programs to provide assistance to communities struck by disasters. AIA National maintains a Disaster Assistance Program which is advised by expert members of the Disaster Assistance Committee. These individuals work to strengthen component preparedness and foster a more productive relationship with the larger disaster-response community.

Architects play a vital role in creating and maintaining a resilient built environment in the face of natural and man-made hazards. After a disaster occurs, many architects aspire to provide leadership and volunteer design skills, but it is only by preparing ahead of time that they will actually be able to help. A disaster is not a priority until it happens, but if we are prepared when a disaster strikes, architects can be trusted participants in the recovery.

Architects, by training and practice, have the skills to assess structural damage and determine numerous solutions under any circumstance. After disaster strikes, architects can contribute to public health, safety and welfare by assessing the overall situation, counseling those affected, and helping to rebuild a community.

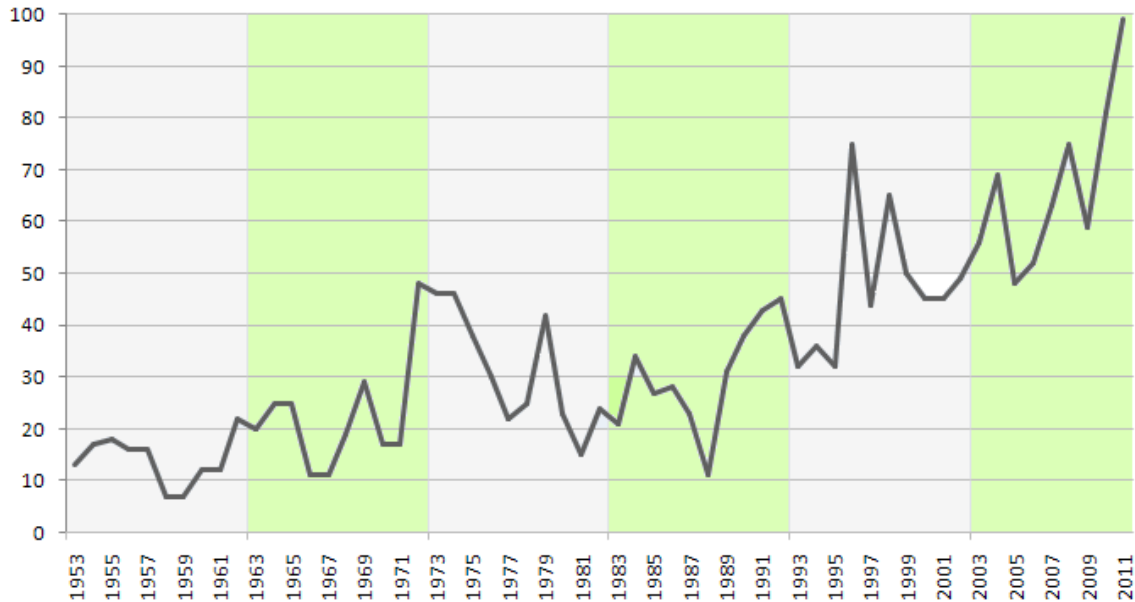
The **AIA Disaster Assistance Program**, with guidance from the **AIA Disaster Assistance Committee** not only encourages architects to use their skills but also seeks to position the architect as a civic leader whose capacities are vital to the development of more livable communities.

The ***AIA Handbook for Disaster Assistance Programs*** provides general information for architects undertaking disaster assistance programs and outlines the initiatives, structures and policies that the AIA follows to implement the **Comprehensive Response System (CRS)**. It is most effective as a supplemental companion to the AIA Disaster Assistance Training Courses, but it can also help AIA chapters and members prepare to serve when a disaster occurs. The AIA stresses the importance of preparedness to respond to disasters and the steps that a region and its AIA components need to take in order to create an emergency response plan as well as a disaster assistance program. It also outlines initial and long term disaster assistance efforts.

Chapter 1: Disaster Awareness

Major natural disasters occur, on average, 10 times a year, with minor disasters striking as frequently as once a week. These include floods, tidal waves, tornadoes, ice storms, fires, landslides, hurricanes, and earthquakes, and the damage can range from a few uprooted trees to the near-obliteration of entire communities.

Frequency of Major Disasters



This graph displays the increasing number of federal disaster declarations over time. The upward trend could be attributed to several possible reasons, ranging from environmental problems to land development patterns to the way FEMA now declares disasters. The graph's tendency closely tracks population growth over the same period of time, and stresses the heightened importance of disaster preparedness. SOURCE: FEMA.

Disaster Declaration

For governmental and statistical purposes, a major natural or manmade occurrence is a “disaster” when so declared by the governor of the state in which it occurs. This declaration triggers action from various state agencies, the federal government, relief organizations and other nonprofit groups.

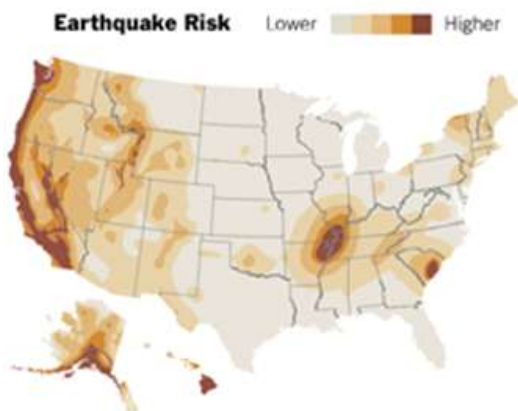
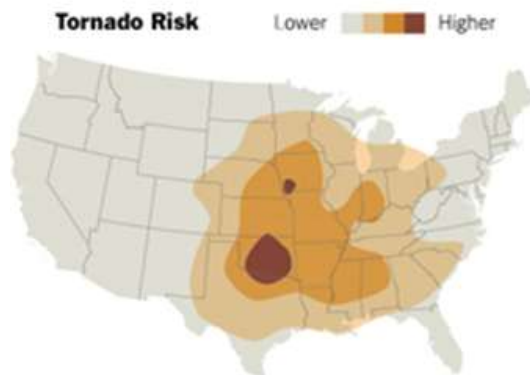
Types of Disasters

Natural Disasters

- Earthquakes, landslides, mudslides, liquification
- Floods, heavy rains, flash flooding, ground saturation
- Hurricanes and tropical storms
- Severe storms—wind, rain, lightning, hail
- Severe winter weather—snow, ice, freezing weather
- Storm and tidal surges, tsunamis
- Tornadoes
- Volcanoes
- Wildfires, heat and drought

Human Caused Disasters

- Power outages
- Fire, war, terrorism, civil unrest
- Engineering—dam failures, mine subsidence, structural failures
- Agricultural
- HAZMAT spills
- Environmental/ecological
- Hydrological/groundwater contamination
- Industrial
- Chemical
- Biological
- Nuclear

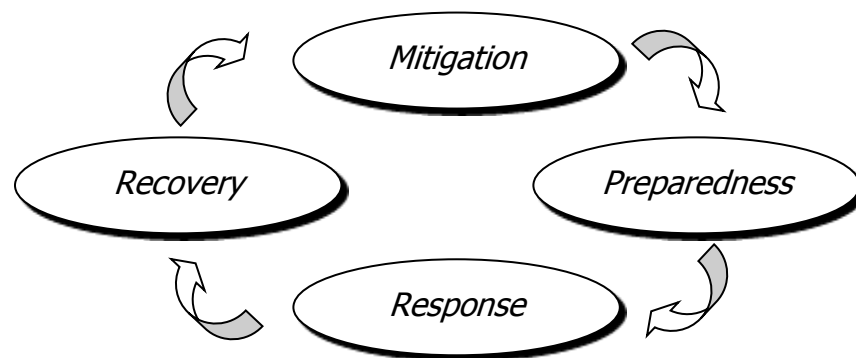


Disaster Response Stages

Since World War II emergency management has focused primarily on preparedness. Often this involved preparing for enemy attack. Community preparedness for all disasters requires identifying resources and expertise in advance, and planning how these can be used in a disaster. However, preparedness is only one phase of emergency management. Current thinking defines four phases of emergency management: mitigation, preparedness, response, and recovery. The emphasis on preparedness still underlies the AIA's promotion of practices for its members, components, and communities as they deal with disasters.

To prepare members and promote the architects' role in disaster assistance, the AIA offers training courses to certify architects as building safety evaluators.

The Four Phases of Emergency Management



Mitigation

This phase includes any activities that prevent an emergency, reduce the likelihood of occurrence, or reduce the damaging effects of unavoidable hazards. Mitigation activities should be considered long before an emergency.

For example, to mitigate fire in your home, follow safety standards in selecting building materials, wiring, and appliances. But, an accident involving fire could happen. To protect yourself and your animals from the costly burden of rebuilding after a fire, you should buy fire insurance. These actions reduce the danger and damaging effects of fire.

Preparedness

This phase includes developing plans for what to do, where to go, or who to call for help before an event occurs; actions that will improve your chances of successfully dealing with an emergency. For instance, posting emergency telephone numbers, holding disaster drills, and installing smoke detectors are all preparedness measures.

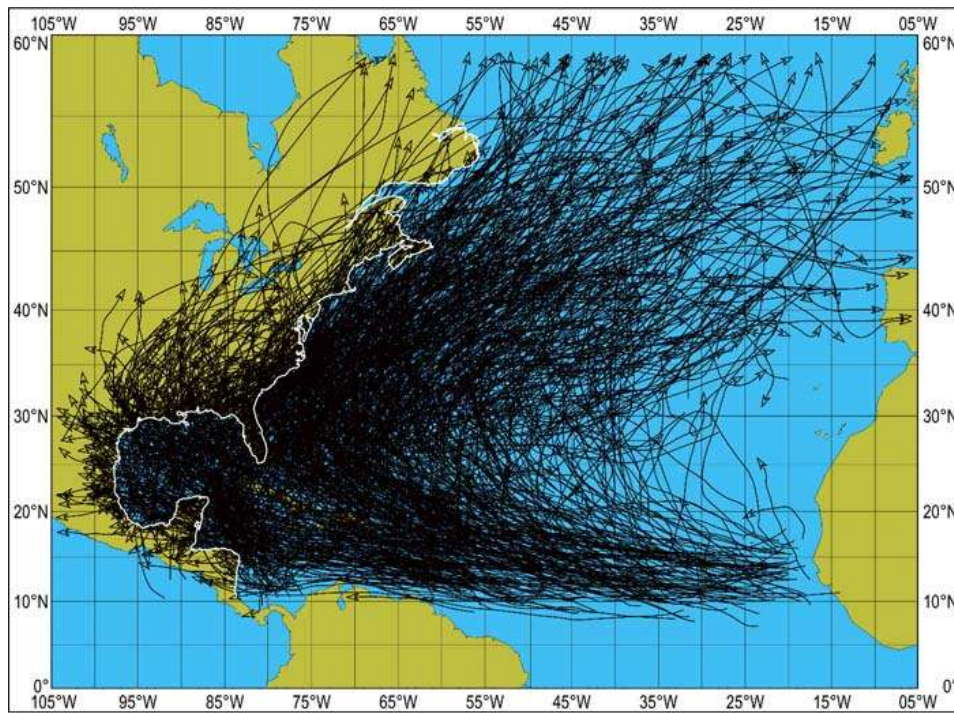
Other examples include identifying where you would be able to shelter your animals in a disaster. You should also consider preparing a disaster kit with essential supplies for your family and animals.

Response

Your safety and well-being in an emergency depend on how prepared you are and on how you respond to a crisis. By being able to act responsibly and safely, you will be able to protect yourself, your family, others around you and your animals. Taking cover and holding tight in an earthquake, moving to the basement with your pets in a tornado, and safely leading horses away from a wildfire are examples of safe response. These actions can save lives.

Recovery

After an emergency and once the immediate danger is over, your continued safety and well-being will depend on your ability to cope with rearranging your life and environment. During the recovery period, you must take care of yourself and your animals to prevent stress-related illnesses and excessive financial burdens. During recovery, you should also consider things to do that would lessen (mitigate) the effects of future disasters.



Atlantic Tropical Storms and Hurricanes 1851 – 2004 Source NOAA

Chapter 2: Comprehensive Response System

Introduction

In the aftermath of a disaster, architects immediately contemplate how best to participate in the rebuilding. Indeed, this was never more true than following hurricanes Katrina and Rita when the outpouring of interest and willingness to contribute were overwhelming. More than 600 AIA members nationwide volunteered by registering on the AIA Web site and offering to step forward and assist wherever needed.

In 2006 the American Institute of Architects adopted the implementation of the AIA Disaster Assistance Comprehensive Response System (CRS). To address liability concerns and best reflect the structure of professional emergency management activities, the AIA strongly discourages its members from crossing state lines to provide professional assistance. The CRS system is the AIA's initiative to ensure that the Institute, including members, components and their communities, are ready for disasters by being properly prepared to take action alongside, state, and local authorities.



Mission

Architects and allied professionals play a central role in helping communities prepare for, respond to and recover from natural and man-made disasters. All components have an obligation to establish and maintain a comprehensive disaster preparedness and recovery plan.

The AIA Disaster Assistance Program is supported and lead by the Disaster Assistance Committee whose role is provide guidance, direction, development, documents, standards, templates, toolkits and training to members and the AIA Components. The primary role of AIA National is to support components and members and enhance response capacity at the local level.

The AIA CRS supports governmental policies, programs, and incentives that facilitate the ability of architects to prevent and respond to disasters, and that recognize the role of design in helping communities mitigate the effects of and recover from disasters.

The Changing Role of Architects in Disaster Response

The question was (and is): How can the AIA and its members best be of use?

Architects are equipped with unique skills to help communities recover from disasters. These skills include:

- Assessing the safety of damages to the built environment
- Working in their reconstruction
- Exploring the standards that guarantee built safety
- Facilitating the long term recovery of a neighborhood.

With the combination of these skills, architects offer a unique capacity to coordinate and enable preparedness.

The AIA Disaster Assistance Program not only encourages architects to use these skills but also seeks to position the architect as a civic leader whose capacities are vital to the development of more livable communities.



Organization

The implementation structure of the CRS seeks to empower the state component as the key preparedness and response core. The most effective AIA programs have been organized at the state level, in part because:

- Most emergency management agencies coordinating disaster assistance and long-term reconstruction are at the state level, and the CRS structure is designed to reflect this.
- A state component is better able to examine and to discern regional patterns and trends and tailor programs before disaster strikes.
- The state AIA component can most effectively marshal professional resources from nearby unaffected areas.
- State components can coordinate activities, trainings, and educational opportunities to maintain engagement with the program in between disaster events

This structure remains active both during preparedness and in the response phases.

Chapter 3: Legal Ramifications

Introduction

A number of states have adopted Good Samaritan laws intended to provide at least some protection to licensed architects against liability for voluntary services provided during a government-declared disaster, whether man-made or natural. State or local governments may not have the resources to respond adequately to the challenges that confront them following a major disaster. Architects are often willing to volunteer their time and services if asked by government agencies to help ensure the preservation of a community's health, safety, and welfare.

Good Samaritan Law

In summary, Good Samaritan Law provides that *"if an architect provides architectural services for free to a victim during a declared disaster or state of emergency, at the request of a public official, relating to a building or structure,"* the architect is immune from civil damages (including personal injury, wrongful death, property damage, or other loss), unless the action of the architect involved gross negligence or wanton, willful or intentional misconduct. This does not mean that an architect cannot be sued, but ultimately, even if a suit is filed, the architect will not be held liable unless there is evidence of grossly negligent or willful misconduct.

Advantages of Good Samaritan Laws

State legislatures throughout the country, by passing Good Samaritan laws, express a willingness to protect architects from unnecessary liability claims that may arise from voluntary work during emergencies. Architects who choose to assist communities during emergencies should not have to be concerned about possible liability issues. Architects are more than willing to volunteer their time in order to help communities rebuild after disasters, however, without Good Samaritan statutes in place architects must rightly be concerned for their liability on related projects.

During such situations, a licensed architect may be exposed to questions of liability even though he or she is acting in good faith to preserve the safety of a community. While most states have statutes that cover certain volunteers from liability during an emergency situation, it is questionable if these statutes would shield an architect from liability if he or she is called upon to render professional services in a time of crisis. This ambiguity needs to

be removed by passing Good Samaritan legislation.

Many states have extended immunity from liability to doctors and various other professionals who are needed during a crisis. Immunity from liability allows these professions to volunteer more readily and gives the public access to crucial services during major disasters.

Similarly, a number of states have recognized the importance of giving licensed architects immunity during a disaster. For the public good it is important that other states follow suit and pass Good Samaritan laws for architects.

Statutes throughout the country can differ widely in scope, dependent on a broad range of issues. The model below is meant provide an example of a typical Good Samaritan law.

MODEL GOOD SAMARITAN STATUTE¹

1. *As used in this Section:*
 - a. *“Professional Engineer” shall mean a person duly licensed under the state engineering licensure law as a professional engineer;*
 - b. *“Registered Architect” shall mean a person duly licensed under state architectural licensure laws as a registered architect;*
 - c. *“Public Official” means any federal, state, or locally elected official with executive responsibility in the jurisdiction in which the emergency or event has occurred;*
 - d. *“Public Safety Official” means any appointed or elected federal, state, or local official with executive responsibility to coordinate public safety in the jurisdiction in which the emergency or event has occurred;*
 - e. *“Law Enforcement Official” means any appointed or elected federal, state, or local official with executive responsibility to coordinate law enforcement in the jurisdiction in which the emergency or event has occurred; and,*
 - f. *“Building Inspection Official” means any appointed or elected federal, state, or local official with executive responsibility to coordinate building inspection in the jurisdiction in which the emergency or event has occurred.*
2. *A registered architect or professional engineer who voluntarily, without compensation (other than expense reimbursement), provides architectural, structural, electrical, mechanical, or other design professional services related to a declared national,*

¹ Please note: The model is a reference only and in no way is expected to take the form of legal advice. For that reason, please contact the state or your attorney directly if there is a question on a state’s authority to use Good Samaritan laws.

state, or local emergency caused by an earthquake, hurricane, tornado, fire, explosion, collapse, or other similar disaster or catastrophic event, at the request of or with the approval of a national, state, or local public official, law enforcement official, public safety official, or building inspection official believed by the registered architect or professional engineer to be acting in an official capacity, shall not be liable for any personal injury, wrongful death, property damage, or other loss of any nature related to the registered architect's or professional engineer's acts, errors, or omissions in the performance of any architectural or engineering services for any structure, building, facility, project utility, equipment, machine, process, piping, or other system, either publicly or privately owned.

a. The immunity provided in this Section shall apply only to a voluntary architectural or engineering service(s) that occurs during the emergency or within 90 days following the end of the period for an emergency, disaster, or catastrophic event, unless extended by an executive order issued by the Governor under the Governor's emergency executive powers.

b. Nothing in this Section shall provide immunity for wanton, willful, or intentional misconduct.

AIA Government Advocacy: Good Samaritan Laws and the Stafford Act

The AIA continues its preparedness and assistance advocacy efforts at the local, state and federal levels. The AIA promotes the adoption of Good Samaritan legislation by all states to offer liability protection to volunteer architects. The AIA also promotes appropriate modifications to the Stafford Act, which governs how FEMA operates, and enhancement of the Emergency Management Action Compact (EMAC) in effort to pursue the development of regional Response Teams that fit within EMAC.

Chapter 4: Before Disaster Strikes

Every Component's Disaster Assistance Program leader should have a list of essential and initial contact people throughout the area who are part of the state-wide organization. These people are committed and trained and can often be available on short notice, even if they are located outside of a disaster area. **Keep AIA state component phone numbers and contact names handy.** It may be that someone outside of your chapter area is the most appropriate person to get the ball rolling.

Component Preparedness

AIA Components are encouraged to:

- Promote pre-disaster preparedness programs with citizens and elected officials at all levels of government
- Support initiatives to implement pre-disaster mitigation procedures
- Support efforts by Federal Emergency Management Agency (FEMA)
- Promote cooperation between architects and building officials
- Establish contacts w/ federal, state, & local officials to implement mitigation plans
- Establish ties with local emergency management officials
- Promote local building codes/safety policies with local building inspectors
- Help organize mitigation meetings with interested civic leaders and citizens
- Designate specific tasks to hasten response time after a disaster occurs
- Understand relief/recovery procedures, i.e. Permitting

For an effective program, AIA local components should establish rosters of potential volunteer members, provide training and maintain supplies for the volunteers to work with. Each component needs to understand the capabilities and willingness of its members statewide. A directory of all human resources in the region or state promotes such an understanding and should include not only architects but also the allied professional organizations and trades that will need to be marshaled. Communication and coordination are vital—especially as affected areas may be without power, telephone, or public services for at least a week.

Partnerships

To avoid duplication of rescue efforts, a coalition must be formed by representatives from local agencies dealing with construction, code enforcement, general contractors, home builders, insurance industry representatives, other professional associations, and churches. A list of contacts in each of these organizations must be maintained and include cell-phone and e-mail information. Relevant groups include but are not limited to:

- Code enforcement officials
- Allied professionals
- General contractors
- Homebuilders
- Construction organizations
- Insurance industry
- Civic and religious organizations

Training Sessions

The single most important factor that will determine whether or not architects can provide disaster assistance services is whether or not you are prepared ahead of time. Training sessions are not only useful for the materials that are presented. It is essential to promote these courses as opportunities to engage with building officials, engineers, and, most importantly, emergency management officials.

The AIA Disaster Assistance Committee has adopted the California Safety Assessment Program (SAP) as its preferred standard of training. The Safety Assessment Program utilizes volunteers and mutual aid resources to provide professional engineers and architects and certified building inspectors to assist local governments in safety evaluation of their built environment in an aftermath of a disaster. The program is managed by the California Office of Emergency Services with cooperation from professional organizations and there are over 2000 architects nationwide who are licensed building evaluators under this standard.

However, SAP is not the only standard of training. It is important to check with your state authorities to see how professional volunteers can best prepare to serve their communities and assess the safety of the built environment in a disaster situation.

The initial training session should be conducted by an person who is a certified SAP trainer, serves, or has served, on the AIA Disaster Assistance Committee. The class will last at least five hours and consists of an overview of the AIA program, a PowerPoint pertaining to performance of safety evaluations, and tips for working as a volunteer after a disaster where both technical and emotional assistance will be required. You will be taught what to look for and how, and given step-by-step instructions for filling in assessment forms, including how to record a variety of problems and circumstances. The training sessions will be tailored to the type of problems you will likely encounter.

Be sure you've checked in with your city officials and the state Historic Commission, as they may have materials/flyers that the architect-volunteers should be considering and should be disseminating to homeowners regarding their rebuilding efforts.

Component Kits

Preparedness includes the preparation of disasters kits with emergency procedures and related training. The Disaster Preparedness Component Kit constitutes a basic resource and reference needed in the event of a disaster emergency.

Ongoing education, training and consistent implementation of the Disaster Assistance Comprehensive Response System will support the permanent update and availability of the component kit. The AIA Regional Directors, having been fully empowered with education and communications materials from the Institute, are asked to communicate and advocate for implementing the kits and preparedness programs at the component level.

Regional directors will explain the importance of disaster preparation to their component leaders. Over time, the regional director can ensure that the components are maintaining updated programs as an annual responsibility of their position.

Kit Contents

The kit is compiled in 3-ring notebook format for easy updating. Three copies are maintained at all times: Executive Director, Component Office and one alternative location. The kit will also need to be available on-line.

Typical items in the kit, with regional variations, include:

- Compilation of Excom., Board members and staff contact info (see below)
- Generic agency phone #s, emails, and addresses for state FEMA and emergency management agencies, hospitals, animal shelters, etc.
- Phone trees, lists of suggested emergency supplies to have on hand, including sister components' contacts (from non-geographically connected components), and "response teams" contacts listed in the resource book
- Lists of non-architects, i.e. associates, staff, volunteers, spouses etc., to assist with assessments
- Listings of a network of Executive Directors from engineering, contracting, building officials associations etc., to broaden perspective of activities
- Copy of the board policy describing the planned reallocation of staff resources during disaster recovery operations
- Samples of Good Samaritan laws, Executive Orders, Waivers of Liability
- Hard copy downloads of AIA National forms, placards, hard copies of insurance and other critical (minimal) office documents.

5-7 Days Prior to a Forecast Disaster

AIA State Components should have a designated volunteer to manage their program in between disasters. He/she will maintain a roster of local architects in place at all times, anyone willing to assist as a volunteer. It should include cell phone numbers and emails, as well as the usual office contact numbers. This group will be your **Local Disaster Response Team**, willing to come together quickly **PRIOR** to a storm or other event that can be forecast in advance. If a predicted weather disaster is forecast, call a meeting as soon as it is announced and **appoint a lead person** for the specific disaster. At that meeting, get information from everyone about their evacuation plans and alternative contact numbers. The group should get as much information as possible from local media, websites, etc., about probable destruction.

Be in touch with your state component as soon as it appears that your area might be hit. Architects in a disaster area will have to deal with their families' safety and personal property first before they can adequately fill the subsequent volunteer role.

State Disaster Assistance Coordinators and/or designated Component Liaisons are charged with initiating and maintaining contact with the Emergency Management Coordinators. It's also a good idea to have a reliable **contact with** someone from your Mayor's office, building inspection office, or other city official with whom you can communicate. This is crucial when it comes to disseminating accurate information, including the declaration of disaster areas. Your DAC representative will help establish communications at the state level, but each chapter should have someone who is in local government on the ground with whom it will work.

Gather and maintain up-to-date maps of the area that can be used to (a) track neighborhoods that might suffer the most extensive damage, (b) identify possible sites to place fliers about the assistance program later, and (c) assist in organizing assessments geographically.

Funding

Whatever the needs after a disaster may be, they will surely cost money not allocated in a chapter's budget. (See Appendix 13 for example budget items you may or may not need, depending on the size of your chapter, the extent of the disaster and your resources and for some job descriptions of people you may need to consider hiring) Create a list of funding options such as local foundations, charities, philanthropists, businesses, insurance companies, other AIA chapters, etc. Even though you may not know what you will need prior to the disaster, having names, email addresses, and phone numbers easily accessible helps save valuable time and energy. Contacts should include engineers and contractors who have been supportive of the chapter. They will be helpful for in-kind donations, as well as financial support for whatever project is undertaken after disaster strikes. Extension of

community good will be paramount before, during, and after the disaster. This includes grateful Thank You's for cooperation and moral support, in addition to actual funding.

The length of time that your assessment program will operate should also be decided at the outset. People need to know how long they have to request and expect assessments. The time frame of your program will depend on funding, the extent of the disaster, and the number of volunteers you have. Remember you can always extend the program, if there is still more work to be done.

Chapter 5: Post-Disaster

You will probably have a few days to one week after a disaster to get organized and determine the scope of your program. **Architects are not first responders, and initially need to stay out of the way.** First responders are emergency medical personnel, National Guard and law enforcement, fire departments, power company workers, etc. Until you are working under the direction of emergency management officials, or an area has been declared safe for return, stay away!

Office and Project Director

The first decision to make is whether a separate disaster action office is needed. Coordination of disaster response is not business-as-usual for anyone including a chapter office and staff, and it is strongly recommended that you have a **Project Director**, paid if you have the money or a volunteer. This person should be the point person for all activities, training and communications. The Local Response Team will have to determine the level of staffing needed. If you decide to set up an office, you will more than likely be able to find **donated space and furniture**. You should **install phone lines, a phone and IT cabling** as soon as possible. Most people will have a laptop available, but if a personal computer is not available, **refurbished laptops and printers** are very affordable. Office supplies and other equipment and supplies for volunteers (listed below) will probably need to be purchased. As soon as you get an office up and staffed, a call for volunteers should be issued and a volunteer organizational system should be created. You should also create a database to help you organize the assessments that are being assigned and/or have been completed. (See Appendix 10 for a sample.) Be aware that this office will be temporary, and that turning off phone lines, returning donated items, and having a policy of how to respond to the public once the program is terminated will be issues that must be addressed by the end of the assessment period.

Performing Rapid Safety Assessments

The most effective kind of help, established by decades of experience of other architects throughout the country is the AIA building assessment program. Limiting the assessment to single-family houses has been found to be the most manageable way to conduct such a program. Large commercial and institutional buildings often have their own architects who are called in and paid, so it is sensible to limit volunteer efforts to helping those who have no other resources. Assessment forms should be provided by emergency management officials, but can be ordered from AIA National.

Once you have organized databases for volunteers and those requesting help you should begin as soon as possible sending volunteers into the field. Your program should require that the homeowner be present during the evaluation of their home.

Volunteers should wear boots, jeans / work clothes and take the following things with them:

- Assessment forms and pens
- Clipboard
- Your AIA Membership card or your driver's license
- Map of the area
- Mobile phone
- Digital camera
- Flash light
- Tape measure
- Pocketknife
- Hammer
- First aid kit
- Disposable facemasks
- Goggles
- Hardhat
- Gloves
- Work Boots

Although your business card may be an easy form of identification you can leave with the owner, it is a **violation of the AIA code of professional ethics** for any architect to use his or her status as a volunteer to market professional services. You should make this clear to the homeowner — you are there as a volunteer, but if they need an architect to help with their rebuilding effort, they will have to engage someone else.

- An architect should **never give any kind of estimate for repairs**, despite the fact that you will frequently encounter this question. This will also be stressed during training. You are there to tell them what is wrong, not what it will cost to fix it. The local municipality may also have information on codes, repairs, green strategies for rebuilding, etc. that they will want you to distribute for them. **Leave one copy of your completed form with the owner**, and offer to email them photographs after you have downloaded them.

In addition to properly filling in and returning assessment forms, volunteers must send in **digital photographs**, which are an important part of the assessment report. Volunteers should turn in their completed assessment forms and photographs at the end of the day of the assessment, if possible. One copy is intended to be given to the local Permitting and/or Code enforcement office to help in processing permits for repairs.

Maps

Maps are critical to the operation. They provide a visual of what is out there. It is difficult to envision the extent of the damage without the maps. Equally it is essential to use the maps to assign areas for the field teams to inspect. Typically a two square block is assigned at a time (2 hours in the field).

Aerial maps are equally critical when areas have been completely destroyed and you don't know what was there. Recently GIS mapping has been used when available.

Maps Checklist:

- ❑ Large jurisdictional maps (2) Includes all major buildings with brief descriptions.
- ❑ Field maps (10 or more) Identifies block and street names and address numbers to assist inspectors identify correct street addresses. Coordinate with the property ownership list. May be based on tax assessment/ subdivision maps.
- ❑ Address maps (10 or more) Helps field inspection teams to find their location. Provides method to identify correct address and legal description at disaster assessment operations center.
- ❑ Aerial photographic map. Shows structures and buildings on each lot and parcel of land. Acquire from County GIS or tax appraiser.
- ❑ GIS maps (if available)

R. A. MORRIS SUBDIVISION						
HELEN STREET						
SUMMIT AVENUE	800	802	804	806	808	KELLY AVENUE
	LOT 1	LOT 2	LOT 3	LOT 4	LOT 5	
	LOT 10	LOT 9	LOT 8	LOT 7	LOT 6	
	801	803	805	807	809	
BOBBIE STREET						
SUMMIT AVENUE	800	802	804	806	808	KELLY AVENUE
	LOT 1	LOT 2	LOT 3	LOT 4	LOT 5	
	LOT 10	LOT 9	LOT 8	LOT 7	LOT 6	
	801	803	805	807	809	

Sample Field Map

Field maps show the subdivision name, street addresses, and lot and block numbers so that damage assessments can be correlated with property tax assessment records. This is the area assigned to a

team. The field assessments are all done on foot, occasionally teams will need to drive to an area, or close to an area.

Volunteers: Step-by-Step

1. Find a **volunteer training site** and **establish a date, in coordination with the AIA National Disaster Assistance Committee, for the initial training**. Be prepared to accommodate groups of 40 -50 for these initial sessions.
2. It is crucial to **engage local officials** from the beginning; invite them to participate in the training sessions.
3. **Set up Excel spread sheets** in advance for a volunteer database. Send out a **call for volunteers** to all members, firm staffs, local architecture schools, affiliate members and friends. [See Appendix 7 for a sample.] This is most effectively done through email and social media (Twitter, Facebook, LinkedIn, etc.) While the person who signs the forms must be a registered architect, teams of at least two people are preferable, and the second team member can be a student, intern, engineer, contractor, etc. So try to sign up as many volunteers as possible; you can assign teams later.
4. **Damage Assessment Forms:** Usually, the state or local emergency management agency you are coordinating with will provide these forms but the AIA has also developed a template.

Trained volunteers from outside of your area, even out-of-state, will want to help. How much help you can use from these out-of-town people will depend on the severity of the disaster, the number of volunteers available locally, and most crucially, whether those from out-of-state have reciprocal legislative permission to work in the area and whether your program can afford to reimburse those volunteers for travel and lodging. **You should be prepared with an answer for out-of-town volunteers, particularly those from out-of-state.** The AIA Disaster Assistance Committee and General Counsel at AIA National should be able to help you answer questions of liability coverage and applicability of laws to out-of-state architects, but your local Disaster Response Team will have to make other decisions such as reimbursement policies. The question might also arise as to whether the chapter can or will pay for gas or other expenses. Generally however, local volunteers are happy to donate not only their time, but also the associated costs of doing the volunteer work.

AIA DISASTER ASSISTANCE PROGRAM – DAMAGE ASSESSMENT REPORT

Owners Name: _____ Date: ___/___/___ Phone: (____) _____ eMail: _____
(Please Print) (Please Print)

Address: _____ Age of Building: _____ Survey Team: _____
(Please Print)

❖ **Instructions: Please fill in the (O) completely (●). Please Do Not Use a x or a ✓.**

1. Overall, what is the extent of the damage?
 Inspected (Green Placard)
 Restricted (Yellow Placard)
 Unsafe (Red Placard)
2. What is the owner estimated pre-disaster value?
 \$100,000 - \$199,999
 \$200,000 - \$299,999
 \$300,000 - \$399,999
 \$400,000 +

3. What is the primary use of the structure?
 Single-Family Multi-Family
 Commercial Other: _____

4. Please select as many answers as needed to best describe the structure:
 Wood-Frame Brick Veneer Wood Wood Shingle Roof
 Concrete-Block Stucco Wood Joists Asphalt Shingle Roof
 Masonry Siding Steel Joists Built-Up Roof
 Other: _____

5. Please select the answer that best explain the type of wind and/or water damage:

	None/Minor	Moderate	Severe	Needs Detailed Evaluation
Wind Damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Water Damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Depth of Water in Structure:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	0 - 11"	1' - 2' 11"	3' - 4' 11"	5' +

6. Please select the answer that best explain the damage to the exterior of the structure:

	None/Minor	Moderate	Severe	Needs Detailed Evaluation
Structural	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exterior Walls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Roof	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Garage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Please select the answer that best explain the damage to the interior of the structure:

	None/Minor	Moderate	Severe	Needs Detailed Evaluation
Floor Level _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Floor Level _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Partition Damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Door Damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Storm Doors Damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Window Damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Storm Windows Damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ceiling Damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Electrical Damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plumbing Damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mechanical Damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Architect's Remarks: _____



Assessment Teams in Action



Teams determine safety of each structure and apply appropriate placard:

GREEN, YELLOW or RED

Presently FEMA does not have a standard system adopted. Instead, it has a set of recommendations and requirements. Currently these requirements look at a placard system recognized by the state, which matches at least the three levels marked by the green, yellow, and red placards. It is then at the discretion of the state to implement such a system with local modifications as they see fit. Language reflecting this notion is common in many states.

Team members will meet several affected individuals and families. Providing information sheets and phone banks to give and receive information will help the survivors and allow the teams to move more quickly through the damaged area. If this information is not available, let them know to listen to their radios or watch television where the local officials will broadcast where they can get help and what to watch out for.

*** PLACARD – SAFE**

DAMAGE ASSESSMENT SURVEY

**Do Not Remove this Placard until
Authorized by Governing Authority**

**INSPECTED
SAFE FOR OCCUPANCY
WARNING:**

This structure has been inspected under emergency conditions and minimal damage has been found. Report any damage or unsafe conditions to the local authority.

**ADDRESS _____ Date _____ Time _____
Jurisdiction _____ Team No. _____**

Type Inspection: Exterior Interior

Contact the Inspection Department and/or Jurisdiction Authorities for a copy of the damage report for insurance purposes. All damage repairs must comply with local building codes and regulations.

INSPECTED: (Green Placard) Buildings can be damaged yet remain safe. If the safety of a building was not significantly changed by the disaster, it should be posted with a green placard reading INSPECTED.

Examples of damages considered safe:

- Temporary utility and/or access interruption.
- Debris and/or flood water in yard.
- Cosmetic damages to interior and/or exterior of structure.
- Home can safely be lived in without repairs. No housing requirement.
- Water did not get in the hot water tank or furnace.
- Water intrusion in non-essential living space only.

*** PLACARD – HABITABLE
DAMAGE ASSESSMENT SURVEY**

Do Not Remove this Placard until
Authorized by Governing Authority

Restricted Use

REPAIRS ARE REQUIRED

WARNING:

This structure has been inspected under emergency conditions and repairs are required.
Report any damage or unsafe conditions to the local authority.

ADDRESS _____ Date _____ Time _____
Jurisdiction _____ Team No. _____

Type Inspection: Exterior Interior

Contact the Inspection Department and/or Jurisdiction Authorities for a copy of the damage report for insurance purposes. All damage repairs must comply with local building codes and regulations.

RESTRICTED USE: (Yellow Placard) When there is some risk from damage in all or part of the building that does not preclude individuals from entering the structure, a yellow tag should be used. The placard should indicate the specific restriction (i.e., entry, duration of occupancy, use, etc.). When the extent of damage is uncertain or cannot be ascertained within the time and resources available to a Rapid Evaluation team, the building should be posted with a yellow placard reading RESTRICTED USE indicating additional inspection requirements, and clearly noted restrictions on use or occupancy.

Examples of damages with restricted use:

- Damage that requires more than 30 days to repair.
- Damage to structural components (foundation failures, load carrying wall failures, damage to framing components of roof)
- Loss of access to residence that cannot be re-established.
- Rental assistance required by renter or owner.
- Water standing for more than 24 hour or more will cause sheetrock to wick and cause more damage.
- Minor damages that will become major damages.
- Concern for mold.

- Between 24-48 hours floor tile and linoleum will begin to buckle.
- Between 48-72 hours sub-flooring will begin to buckle.
- Prolonged utility and/or access interruption requiring alternate housing for resident.
- Debris and/or flood water in yard that poses a health and/or safety issue for resident.
- Damage that affects the safety, sanitation, and/or security of the residence.
- Clean and sanitize.
- Clean and test furnace.
- Damage to appliances (washer/dryer/freezer).
- Insulation, duct work, belly-board damage on a mobile home.
- Structures with more than a trace of water in finished basements (four inches of water in unfinished basements).
- Structures with wind/hail damage to roof and exterior that require replacement of shingles, roof sheathing, windows, doors, or siding.

*** PLACARD – UNSAFE
DAMAGE ASSESSMENT SURVEY**

Do Not Remove this Placard until
Authorized by Governing Authority

UNSAFE

Enter at Your own Risk! Do Not Occupy!

WARNING:

This structure has been inspected under emergency conditions and may not be safe to enter due to serious structural damage.

Entering this structure may result in death or injury.

ADDRESS _____ Date _____ Time _____
Jurisdiction _____ Team No. _____

Type Inspection: Exterior Interior

Contact the Inspection Department and/or Jurisdiction Authorities for a copy of the damage report for insurance purposes. All damage repairs must comply with local building codes and regulations.

UNSAFE: (Red Placard) Buildings damaged by a disaster that pose an imminent threat to life or safety under expected loads or other unsafe conditions should be posted with a red placard reading UNSAFE. These are not demolition orders.

The actual posting of a structure is accomplished by mounting the appropriate placard in a clearly visible place near all usual points of entry to the building or when unsafe or inaccessible, in another convenient location outside the structure.

Examples of damages deemed unsafe:

- Structure is not economically feasible to repair.
- Complete foundation and/or structural failure.
- Imminent danger situations (slide/collapse hazard).
- Occupants will not be able to live in home while repairs are being made.
- Rental assistance will be required.
- Occupants will need to be out of their home for more than 30 days.

Tell the World

Once you have a stable of committed, trained volunteers, you can begin to **advertise the program**. Of course, some of this can and should be done simultaneously, but be sure you don't have a rash of people calling and being frustrated, because trained volunteers are not available. To get the word out to the community, you should use a variety of methods.

Create fliers [See Appendix 9 for sample fliers and press releases] that can be circulated at FEMA sites, grocery stores, home improvement and hardware stores, and municipal sites such as city hall, libraries, recreation centers, or wherever you can get people to agree to hand them out. Your local Bar Association may also be running a legal aid assistance program for disaster victims, so contact them to help distribute your fliers too. Most of those you will help will not have computers up and running, although they may have cell phones, so use as many **social and networking media** tools as possible: Twitter, Facebook, LinkedIn, etc. You should have dedicated phone line(s) for people to call in to schedule assessments. Again, set up Excel spread sheets to keep track of those who need help.

Post-Assessments

After assessments have been completed, it is extremely important that paperwork is turned in and someone is designated to enter critical data from the assessment forms into a database, so that recordkeeping is as seamless and accurate as possible. This daily record-keeping will ensure that the program can be reviewed, analyzed and improved upon to provide the best response in future disasters to our communities and can assist in developing future updated versions of this Handbook. This recordkeeping is also critical to maintaining and building future funding requests by providing potential donors with hard data that supports the merits of the program. (See Appendix 10 for a sample of the content for a database that could be used.)

Architect surveys, during and after the program, are another important consideration for local disaster assistance programs. Knowing how architects viewed the experience, what can be done to improve the volunteer experience and finding out who else might be out there interested in volunteering are all critical questions to be surveyed. (See Appendix 7 for a sample)

Lastly, don't forget to thank your volunteers and donors.

Conclusion

Volunteering in response to a disaster can be one of the most fulfilling and gratifying experiences in an architect's career. The free assistance you provide homeowners during such a devastating time in their lives is invaluable. While your primary purpose for meeting with homeowners is technical in nature, don't discount the emotional support you can also provide. These victims have just suffered losses – sometimes small, in the best-case scenario, and sometimes overwhelmingly large, in the worst-case scenario. Their emotions are raw and will likely still be in shock when you're meeting with them, trying to absorb and process the damage and losses they've experienced personally and through their interactions with neighbors. Keep in mind that your free damage assessment is probably the one unbiased professional opinion these victims will encounter. During the process of rebuilding, they will likely be approached by a variety of other interested parties like contractors, subcontractors, homebuilders, government programs, and insurance adjusters—all of whom may have a financial interest in the outcome of each homeowner's decisions. You, on the other hand, provide these victims with a big picture unbiased assessment that arms them with important knowledge regarding the extent of damage to their homes. By arming them with knowledge from a licensed professional, you're empowering them to negotiate and navigate through a rebuilding process that is not always friendly and easy to understand.

Thank you for volunteering for Disaster Assistance, Inc. We hope your experience is as positive as we anticipate it will be.

Long Term Recovery

The long term recovery of an area devastated by a disaster is focused on rebuilding. One of the keys to success in the rebuilding process is the involvement of architects in the opportunity for change offered by the event. Long term comprehensive planning, enhancing the physical fabric of the neighborhoods and community, and the potential for regulatory change to mitigate future disasters are among the elements of successful long term recovery.