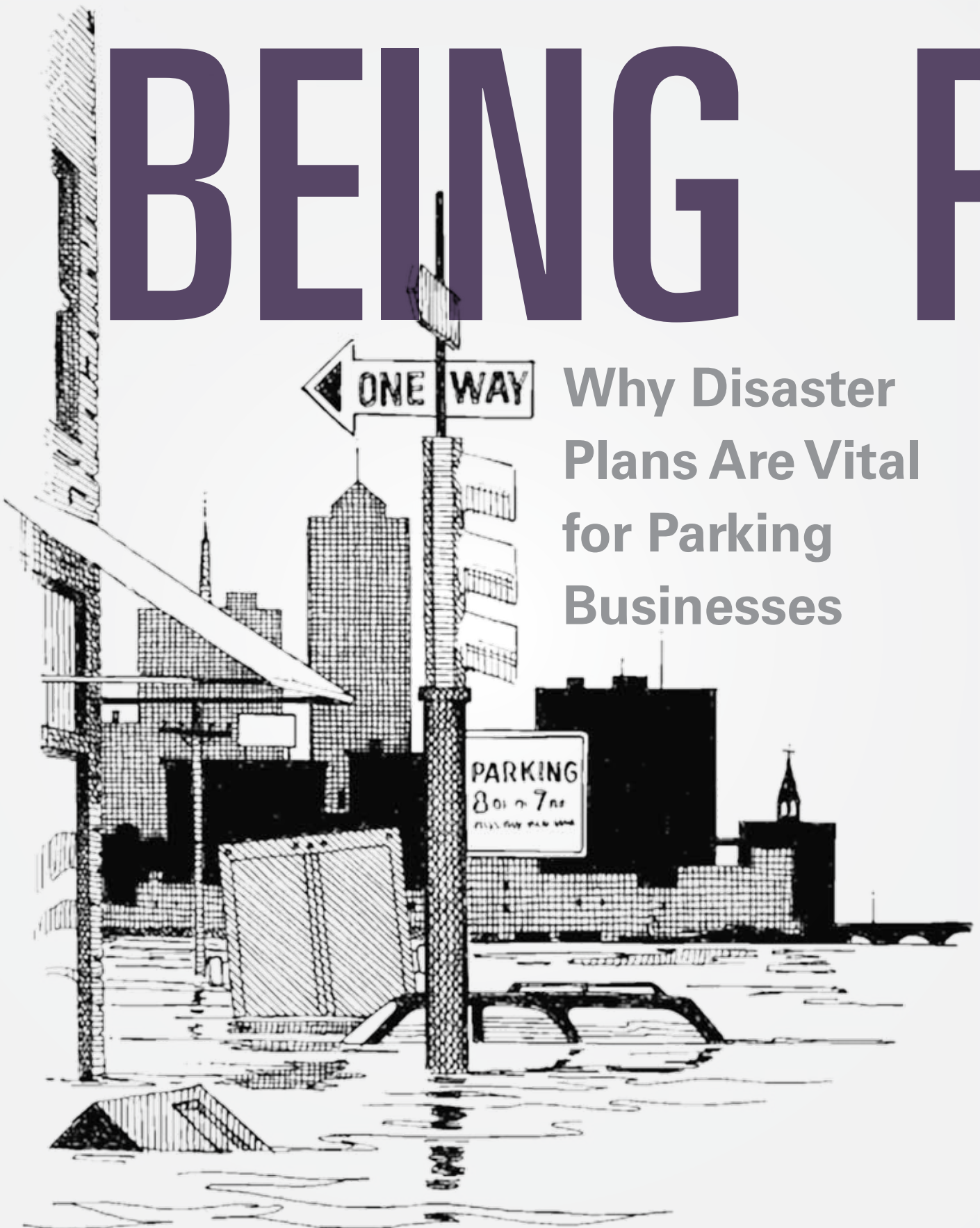


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Why Disaster
Plans Are Vital
for Parking
Businesses



REPAIRED

By Geary L. Robinson, Ph.D., CAPP

Do you have a disaster plan for your parking facility?

Safety and security planning is used to protect the nation's critical infrastructures and key assets, and parking facilities have a role to play. Threat analysis requires a true understanding of a facility's purpose, be it a transportation terminal or bus maintenance building, to determine what threat potential exists for it, and how to best plan for safety and security. Several questions should be addressed when developing a scenario for protecting human and physical assets:

- What is the organization trying to protect?
- What kinds of actions would damage the asset(s)?
- Is there a likelihood negative events could occur based on these factors?
- What are the varying threat levels on adjacent properties?

Site safety and security planning for countermeasures has changed since the attacks of September 11, 2001. Transportation assets designed for cross-country flights were used as airborne bombs to destroy or incapacitate fixed targets on the ground. The difficulty for planners since then has been to imagine the worst possible catastrophe to ensure the highest levels of safety and security countermeasures, while also requiring the use of a passive countermeasure program that avoids creating a fortress out of a building project.

Cost determinations have to be made when planning the level of countermeasures an owner desires or can afford for a project. The use of setbacks, barriers, access control, layered perimeters, and video/audio devices and/or human personnel should be considered part of the countermeasure of any project. When considering safety and security threat level decisions for defensible design, other factors to consider are the level of risk management associated with facilities and human assets to be protected.

Disaster Definition

Understanding the definition of a disaster is as relevant as the event itself when differentiating between a human-made or natural event. Both kinds of disaster often contain elements of the other type with unintended consequences.

An example of a human-made disaster is the series of coordinated bombings that occurred on the commuter rail system in Madrid, Spain, on the morning of March 11, 2004—just three days before Spain's general elections. The goal was to disrupt the general elections and ostensibly bring about a change in government. Multiple attacks involving 10 passenger trains caused 191 deaths and wounded 2,040 people, effectively shutting down the passenger rail services across the country (Fox News 2004).

Natural disasters are characterized as weather-related events or earthquakes, and have the same potential as human-made disaster events to disrupt a community, state, or nation.

In recent years, the most significant weather-related events in the U.S. were Hurricanes Katrina and Rita in 2005, and Ike in 2008. Each created unique situations in which the local transit assets were underutilized or not used at all to aid in evacuations.

New Orleans was extensively affected by both natu-

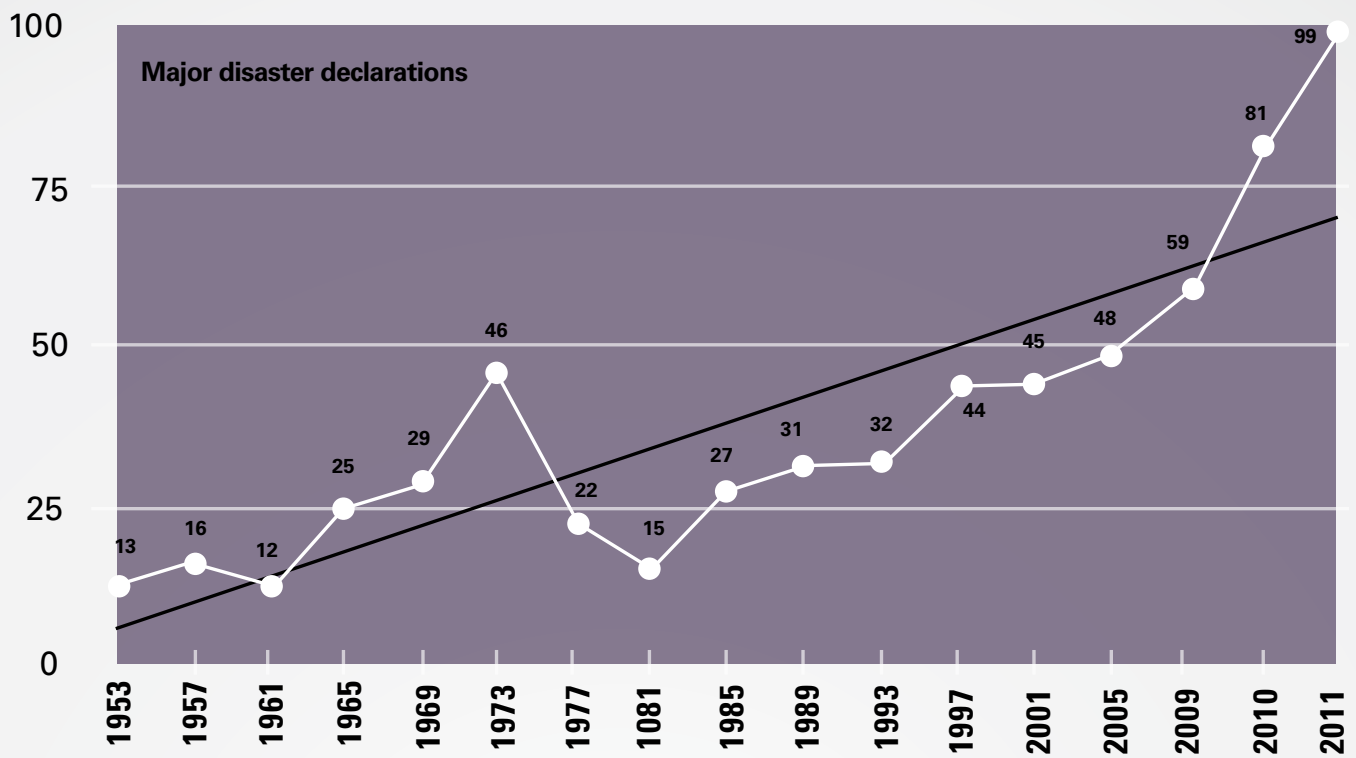


Figure 1: FEMA Disaster Data 1953 - 2011

ral and manmade disasters as a result of Hurricane Katrina. Because of its location, the New Orleans had developed a series of levees and pumping systems that were designed to keep the city dry, compensating for the elevation of the city (below sea level). Flooding from Katrina could be attributed to design flaws in the construction of the levees around Lake Pontchartrain (Daniels, 2006). Human error was in part to blame for the disastrous flooding of New Orleans.

Disaster data collected by FEMA shows there has been an increase of disaster events in the United States. The increase in major disaster declarations from 1953 to 2011 is dramatic, from 13 major declarations in 1953, to 99 in 2011, as shown in Figure 1.

Disaster Preparedness Planning

Disaster preparedness planning involves many areas—human resources, infrastructure (most notably power, water, and communications), and transportation—that, when brought together, effectively produce a positive outcome for societies, governments, private businesses, and individuals before, during, and after a disaster event.

Unfortunately, disaster planning often takes place after an event occurs. Planners, administrators, public officials, emergency management agencies, and ordinary citizens often come together to build a plan based on the most recent event rather than creating a proactive, holistic document that covers all potential infrastructure and societal issues of an event before it happens.

University Transit Systems

The Transportation Research Board’s (TRB) Committee for the Role of Public Transportation in Emergency

Evacuation reported in 2008, “While recognizing that transit plays a supporting role in emergency response... it is the mutual responsibility of transit agencies, as well as emergency managers, to ensure that transit is included.” The TRB Special Report 294 (2008) did not focus on university transit systems, but its findings are applicable to university transit professionals, recommending that they be actively engaged in disaster emergency preparedness within their communities.

Mineta Transportation Institute faculty members and researchers Frances Edwards, Ph.D., and Dan Godrich, believe university transit systems should play an active role within the local framework of disaster planning. Their recommendation is straightforward: “University emergency planners would be well advised to thoroughly think through the obvious applications of resources and personnel, and plan for their uses in advance” (Edwards 2009). The integration of campus transit systems into emergency operating plans has the benefit of aiding in evacuations and recovery assistance during and after a disastrous incident. Additionally, the U.S. Department of Education Office of Safe and Drug-Free Schools developed an Action Guide for Emergency Management at Institutions of Higher Education, Washington, D.C., in 2009. This guide is available on the Department of Education’s website at <http://www.ed.gov/emergencyplan>.

Institutional behavior often determines what is accomplished in a disaster and how needs will be met during and after an event. The “Disaster Response and Recovery Resource for Transit Agencies” (USDOT FTA 2006) provides a guide on how to deal with the varied issues brought on by a disaster. Concerns and issues at the institutional level might consist of one or more of the following:



Figure 2: Cots at the field house at LSU await evacuees of Hurricane Katrina.

- Information for transit providers in affected areas.
- Information for transit providers serving displaced/relocated persons.
- Charter service requirements.
- Funding eligibility and reimbursement.
- Helping emergency evacuees.
- Emergency transportation for persons with special needs.
- Assisting the special needs populations.

The USDHS developed two plans to further assist all agencies: the National Response Plan and the National Incident Management System. The National Incident Management System provides a template for government and nongovernmental responders to respond to all domestic incidents using a coordinated and modular approach.

Higher Education Involvement

Before, during, and after a disaster occurs, many different federal, state, regional, and local agencies might play a role in the response to events.

At the state level, assistance may be delivered through universities. For example, Louisiana State University (LSU) provided facilities to house evacuees and students displaced by Hurricane Katrina. LSU also converted its Carl Maddox Fieldhouse (Figure 2) and Pete Maravich Assembly Center into an 800-bed medical facility.

Many universities along the Gulf Coast found themselves in the path of Hurricane Katrina; Tulane University was one of several universities directly affected. That particular weekend was Tulane’s new student orientation. For the administration, it was decision time: close the university, or stay open. Tulane President Scott Cowen made the hard decision; he closed the university in the middle of orientation weekend.

After Katrina, Tulane incorporated in its renewal plan

the courage, strength, and resolve the administration, faculty, staff, students, and the New Orleans community had to summon from within themselves to rebuild from a disastrous event. Property damage estimates at Tulane were approximately \$600 million, which did not account for the loss of faculty and staff who were laid off or students who did not return to campus. In its Action Guide for Emergency Management at Institutions of Higher Education (2009) the U.S. Department of Education published the following statement about Tulane (emphasis added):

*“The devastation of Katrina forced the university to undertake a major reorganization, which resulted in the layoff of hundreds of faculty and staff members, elimination of several undergraduate majors, removal of men’s and women’s sports programs, and significant changes to its school of medicine and other graduate programs. The university swiftly developed a renewal plan, approved by the Board of Tulane on Dec. 8, 2005. **For Tulane University, the challenges of emergency management became a way of life and a constant struggle.**”*

However, from their experiences in this tragedy, they “gathered once again and are now called to be the architects of and witnesses to the renewal of a great American university and a great American city.” (Tulane’s renewal plan is located at <http://renewal.tulane.edu/renewalplan.pdf>.)

Parking facilities need their own disaster management plans, incorporating them with those of the surrounding community where appropriate. The time to formulate such a plan is before, not after, a disaster strikes. **P**



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