

DAMAGE ASSESSMENT ANNEX

ACTIVATION:

Upon receiving notification of an event resulting in structural damages to businesses, public infrastructure, and residences, Broomfield Emergency Management Unit will activate this Annex by requesting assistance from the lead agencies.

MEMBER AGENCIES:

Lead – Broomfield Building Division
Broomfield Assessor
Supporting Agencies – Engineering Division
Broomfield Police Department
Finance Department
Information Technology – GIS
Public Health Division
Public Works Department
North Metro Fire Rescue
American Red Cross
Health and Human Services

REFERENCE:

City and County of Broomfield All-Hazard Emergency Operations Plan
Broomfield Municipal Code, Section 2-48-030
All Applicable Municipal Ordinances, State and Federal Statutes

Damage Assessment Annex

I. Purpose

The purpose of this annex is to describe the operational concepts and policy used to estimate the nature and extent of the damage and costs incurred caused by a disaster or emergency within the City and County of Broomfield. Damages include the loss sustained to business, residential, infrastructure and agricultural sectors, the economic effects of job loss, tax revenue disruptions, and the human impacts such as health and welfare.

The damage assessment process consists of a series of activities designed to allow local government to develop a coordinated picture of the overall impact of the incident and to establish priorities for post-disaster recovery efforts. This information also provides a basis and substantiation for requesting state and federal assistance, as well as the degree and type of assistance needed. Safety focused inspections of buildings, roads and bridges are another critical piece of the damage assessment process.

II. Authority

A. Federal

Robert T. Stafford Disaster Relief and Emergency Assistance Act and Amendment (42 U.S.C. 5121, et al., as amended)

B. State

Colorado Disaster Emergency Act of 1992 (Part 21 of Article 32, Title 24, Colorado Revised Statutes, 1988 as amended)

Building Code Inspectors - Qualified immunity from civil liability (Statute 108.3 of Part 1, Article 21, Title 13, Colorado Revised Statutes, 2009 as amended)

C. Local

City and County of Broomfield Ordinance No. 2001-1652 (Chapter 2-48 of the Broomfield Municipal Code, Emergency Management, as amended)

III. Acronyms and Definitions

ARC – American Red Cross

ARES – Amateur Radio Emergency Services

CDEM – Colorado Division of Emergency Management

Damage Assessment – The systematic gathering of information, which details an emergency or disaster's nature and includes the estimated cost for damages or loss to agriculture, infrastructure, property, businesses inventory and equipment. Losses also include costs such as debris clearance and emergency protective measures.

Damage Assessment Team (DAT) – Teams possessing specific skills, training and knowledge that can accurately and in a timely manner, estimate damage to businesses, residential, agriculture and infrastructure property, equipment and land. A DAT gathers information that

office-based staff will use for determining valuation of damages, economic impacts, and other information to inform policymakers and begin recovery.

EOC – Emergency Operations Center

EOP – *Emergency Operations Plan*

ESF – Emergency Support Function – Labeled 1 thorough 15, ESFs are emergency plans that coordinate those emergency response functions a jurisdiction would most likely perform in a disaster.

IC – Incident Commander

IDA – Initial Damage Assessment – The initial financial assessment of damages to public and private property which is typically conducted by drive-by inspection within 72 hours.

ICS – Incident Command System

MOU – Memorandum of Understanding

PDA – *Preliminary Damage Assessment* – A joint assessment with local/state/federal assessors to identify and evaluate the magnitude and severity of a disaster. The PDA is the basis for determining whether supplemental federal and other assistance are necessary to recover.

RA – *Rapid Assessment* – Takes place during or within hours after an incident and focuses on lifesaving needs, imminent hazards, and critical lifelines.

IV. Situation and Assumptions

A. Situation

1. Natural, manmade (technological), or terrorist incidents may occur within or adjacent to Broomfield at any time and may cause extensive damage to both public and private property. A disaster, regardless of hazard, requires an accurate assessment of the impact to population and property. The timely documentation and reporting of the damage incurred are vital during the response and recovery phases of a disaster or emergency.
2. First responders will identify areas of damage and the types of damage sustained, but are unable to assess and process damage estimates. For this, Damage Assessment Teams (DATs) are required to conduct field assessments. The Assessment teams are typically divided into two types, one dealing with residential & business, the other with public infrastructure. These teams require training prior to being deployed into any incident area.
3. Damage assessments will be undertaken at different periods during a disaster event. A “windshield survey”, or Rapid Assessment, most likely will be done initially to get an overall general impression of the impact area, while a more detailed report will be needed for state/federal aid assistance.
4. The use of designated report forms will ensure that the data required for local use and state and federal assistance are captured. Regular updates to this plan that include the newest forms will be vital if the information collected is to be accurate and complete.
5. Broomfield departments and agencies should collect and record information on the utilization of labor, materials, equipment, and disaster-related costs. This documentation should begin as soon as possible, as the state and/or federal government may later provide reimbursement of documented costs associated with disaster response.
6. Transportation and communications systems may be severely disrupted or inoperable. To safely move about areas that have been impacted by the disaster, damage assessment teams may require assistance from public works and or law enforcement.

7. Safety of all assessment teams is paramount. Disaster circumstances require precautionary measures beyond that of normal activities. Assessment teams can expect to experience trip/fall hazards, structural hazards, transportation hazards, loose animals, people defending property, and others.

B. Assumptions

1. While the initial response to a disaster will come from resources within Broomfield, mutual aid may be required to cope with the overall incident.
2. If the nature of the emergency is such that local and mutual aid resources are incapable of assessing the damage, Emergency Management Unit will initiate a request for state assistance through the Colorado Division of Emergency Management.
3. The Incident Command System (ICS) will be used to manage disasters and/or emergencies in accordance with the National Incident Management System.
4. Damage assessment will be performed on an urgent basis and be based upon actual observation and inspection.
5. Damage assessment also includes those administrative tasks and responsibilities of agencies and staff that are not part of the fieldwork.

V. Concept of Operations

A. General

1. The lead agencies will be the Building Department and Broomfield County Assessor. Emergency Management Unit will help coordinate communication between them and state and federal agencies involved in the damage assessment process.
2. If possible, Broomfield staff will maintain management responsibilities of all damage assessment field staff.
3. The lead agencies will coordinate identifying qualified personnel from the stakeholder agencies and provide damage assessment training on a regular basis to maintain knowledge and skills.
4. In the event that the EOC is operational, the Damage Assessment Team reports damage information to the EOC manager or designee.

B. Rapid Assessment

1. Rapid Assessment (RA) is different from other forms of damage assessment that come later in the event. The purpose of RA is not to estimate the dollar value of the damage, but to assess the nature, magnitude and scope of the event so that the decision makers can assign the appropriate priorities to their response and request outside resources that are the most beneficial and most needed.
2. RA takes place during an incident and focuses on addressing immediate lifesaving and life sustaining needs. The ability of local governments to perform a rapid assessment accurately and within the first few hours of an incident is critical to providing an adequate response for life-threatening situations and imminent hazards. RA should include the status or impact to the areas of:
 - a. Life safety
 - b. Transportation systems
 - c. Communications
 - d. Utilities

- e. Emergency services
 - f. Public services
 - g. Imminent hazards
3. RA involves teamwork among local public and private personnel. Depending on the time of the incident and the amount of warning, it may initially include personnel from law enforcement, fire, public works, utility, special district, non-governmental and volunteer organizations.
 4. RA most likely will be accomplished by driving through the affected areas; however, walking or the use of aircraft is acceptable if required. Depending on the severity and scope of the damage, security support from law enforcement agencies may be needed.
 5. General guidelines for Rapid Assessment teams include:
 - a. Look for the perimeter of the damaged area, not the interior
 - b. Survey as many streets as possible, noting which ones have damage, not detailed addresses
 - c. Rapid Assessment teams observe, they do not fix
 - d. Refer media personnel to PIO
 - e. Report any hazardous conditions to the established information collection point (smell of natural gas, fires, etc.) Initially this point may be the Broomfield Communications Center, but it may migrate to another point to alleviate traffic.
 6. During RA, take as many pictures as possible to record the severity and type of damage. Some of these pictures will be used in the EOC to identify the type of damage experienced and where the damage is located, along with detailed maps of the overall incident area.
 7. See Rapid Assessment checklist in Appendix B – Checklists.

C. Scene Access and Security

1. If possible, law enforcement will secure the perimeters of the affected areas and restrict access as the situation warrants.
2. All agencies entering a restricted access area requires special access permission from the established incident management organization. Each agency member must carry and display official identification when entering the restricted area.
3. The incident management organization will determine if and/or when residents are allowed to enter restricted areas.
4. Unauthorized parties within the disaster area are subject to local and state laws and incident specific policies regarding security of a disaster area.
5. City Council may enact certain local laws temporarily restricting certain actions and behaviors, as necessary.

D. Situation Report

1. The Emergency Operations Center/Emergency Management Unit is responsible for creating and disseminating an event situation report. The purpose of the report is to keep involved jurisdictions, first responders, emergency managers, special districts, volunteer groups and state agencies informed of the happenings and needs of the event.

2. Damage assessment should be part of this report and may include information such as:
 - a. Areas of reported damage.
 - b. Extent of the damage.
 - c. Nature of the damage (residential, business, infrastructure).
 - d. Impacts to critical facilities/services.
 - e. Casualty estimates.
 - f. Resources deployed to assess the damage.
 - g. Outside assistance needed or anticipated.

E. Initial Damage Assessment

1. The Initial Damage Assessment (IDA) provides timely and comprehensive information on the scope and impacts of a disaster. Along with a summary of the impacts to people, estimates are made (in dollars) of the damage sustained and the costs incurred to respond to the incident. The purpose of an IDA is to:
 - a. Support effective decision making regarding response/recovery priorities.
 - b. Measure the economic impacts of the disaster and identify the need or justify a local disaster declaration.
 - c. Provide situation report information.
 - d. Substantiate disaster-related expenditures.
 - e. Support the request for state and federal aid.
 - f. Provide a basis for the more formalized Preliminary Damage Assessment (PDA) with state and federal officials.
 - g. Keep public advised and news media up to date on disaster statistics.
2. IDA surveys are conducted by qualified inspector/engineer teams. Damage Assessment Teams (DATs) can be made up of individuals from many disciplines, but all should take damage assessment training before being deployed to the field. Disciplines for possible DAT members may include:
 - a. City/County Engineers
 - b. County Assessors
 - c. City/County Public Works
 - d. Utility Representatives
 - e. City/County Building Officials/Inspectors
 - f. Agricultural Extension Office
 - g. American Red Cross
 - h. Individuals with skill sets the damage assessment coordinator deems vital.
3. DATs can be divided into two functional groups, Residential–Business and Public Infrastructure.
 - a. Residential-Business Teams are lead by the Building Division and assess damages to:
 - (1) Individuals
 - (2) Families
 - (3) Businesses

4. Residential-Business assessments are needs-based and estimate the degree of damage to homes and businesses, including habitability, insurance coverage and the impacts to the community at large (e.g. lost jobs and lost income to owners and employees).
5. All inspected/assessed structures shall be placarded with standard damage assessment signage. The placard shall include the name of the inspector and a call-back phone number.
6. Public Infrastructure Teams are lead by Public Works Department and Engineering Division and assess damages to:
 - a. Public Buildings
 - b. Roads
 - c. Bridges
 - d. Water Control Structures
 - e. Public Utilities
 - f. Parks & Recreation Facilities
7. The appropriate utility provider or special district will assess damage to utilities such as electrical, communications, cable, etc.
8. Initial damage assessments for public infrastructure are cost driven and are based on a description of the damages or the scope of work to be performed.
9. The DAT may establish an intergovernmental liaison position to coordinate damage assessment responsibilities with special districts, private utilities, and other quasi-governmental entities.
10. The DAT may establish a GIS Support Unit to document incident damages and consequences using data as reported by field teams.
11. The DAT will fall under the incident management organization. Most likely, it will coordinate its actions through the emergency operations center.
12. Organizational Structure Guideline: Figure 1.

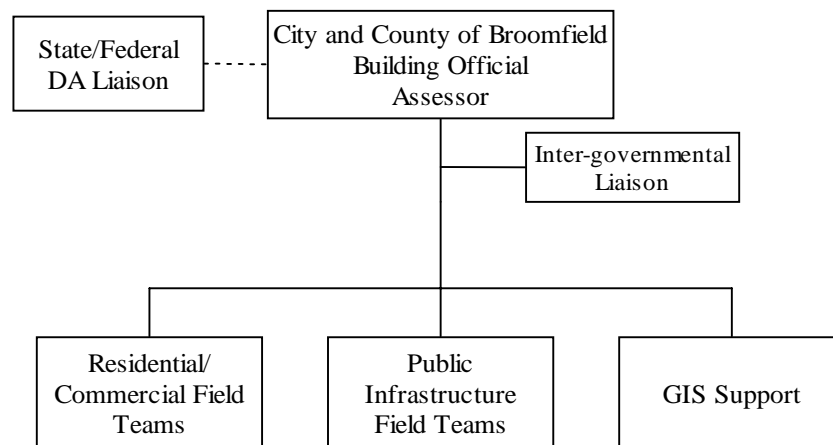


Figure 1.

13. Data collected by assessment teams can be summarized on the Damage Assessment Summary Form (see Appendix E – Damage Assessment Forms), which can then be used to inform local officials, the general public, State EOC, congressional offices and the media.
14. Each field unit shall have at least two qualified assessors to assist each other and act as an external monitor while the other enters property.
15. All field assessors/inspectors shall undergo a pre-assignment briefing that will cover the following:
 - a. DAT teams will maintain communications using the designated protocol and keep the Damage Assessment Coordinator apprised of progress.
 - b. DAT personnel will most likely encounter homeowners and members of the media while out in the field surveying damage. The media should be referred to the designated Public Information Officer (PIO) or media liaison. Home owners that have sustained damage will be under a great deal of stress, and may be undergoing a tremendous amount of hardship as they recover from a disaster. DAT personnel need to be compassionate and understanding. See Appendix C – Media and General Public.
 - c. Damage Assessment Coordinator is responsible for properly equipping staff with safety equipment, credentials, and high-visibility official outerwear; coordinating with law enforcement for securing damaged areas. Taking all of these measures will lessen the risk of injury and possibility of mistaken identity.
 - d. Each respective incident may require special instructions or guidelines for assessing residential or commercial properties. The Damage Assessment Coordinator will establish those standards, if possible, prior to conducting field work.
16. Standardized forms and procedures, as developed by the Colorado Chapter of the International Code Council and coordinated with the State of Colorado will serve as the official system for assessing property and structures in the City and County of Broomfield. See Appendix E – Damage Assessment Forms
 - a. ATC20 Forms: Earthquake
 - b. ATC45 Forms: Wind and Flood
 - c. Initial Damage Assessment – Housing Losses
 - d. Initial Damage Assessment – Business Losses
 - e. Initial Damage Assessment Summary
17. Appendix G represents the local process for handling and analyzing information collected during field assessments. It also identifies the potential stakeholders and the outcomes for each stakeholder.
18. It may be necessary to conduct a supplemental damage assessment to gather additional information, inspect placarded structures, and/or any other fieldwork that makes collected data more accurate.

F. Human Needs Assessment

1. The American Red Cross performs damage assessment as the basis for their disaster relief program. The intent of the assessment is to establish a level of damage on which the level of Red Cross assistance is based. The Red Cross does not set a dollar

value to the estimated loss. Affected living units are categorized as having no damage, minor damage, major damage or being destroyed.

2. After the initial “windshield” survey, individual casework for clients may begin and a home visit to accomplish a detailed damage assessment is often done. This is not to determine a dollar value loss, but to determine what items were damaged or lost that fall within the Red Cross disaster assistance program for repair or replacement.
3. Broomfield Health and Human Services (HHS) will coordinate with the American Red Cross for conducting a human needs assessment and provide support during case management.

G. FEDERAL - Preliminary Damage Assessment

1. The Preliminary Damage Assessment (PDA) is a more formalized process to document the damage identified during the IDA. A FEMA/State team will usually visit local applicants and view their damage first hand.
2. Directed by FEMA, the PDA is requested by the state on behalf of the locally affected jurisdiction. The report will determine if the impacts are severe enough to warrant a federal disaster or emergency declaration.
3. The forms required for the PDA will depend on the severity and type of damage sustained. In general, PDA data collection for large disasters may include the areas of:
 - a. Damage description and impact to the community
 - b. Site-specific evaluations – scope of work, cost estimates, and impacts
 - c. Equipment inventory & rental
 - d. Payroll
 - e. Historic reviews
 - f. Force account labor
 - g. Contract work
 - h. Materials used
 - i. Special considerations
4. Forms to capture this information are available on FEMA’s website at: <http://www.fema.gov/government/grant/pa/forms.shtm>
5. FEMA PDA Coordinator is responsible for all field activity relative to FEMA teams. The coordinator gathers information from the different teams and finalizes the write-up estimating the extent of the disaster and its impact on individuals and public facilities.
6. State PDA Coordinator is responsible to the State Emergency Management Director and works with FEMA PDA to ensure an accurate assessment is completed. They are also responsible for initiating contact with potential applicants and coordinating specialized transportation.
7. To ensure that relevant and accurate data is collected, each jurisdiction should coordinate the data collection process with the State and FEMA PDA Coordinator.

VI. Assignment of Responsibilities

A. General

1. All involved agencies will be responsible for:
 - a. Developing department specific procedures and protocol to support their role in damage assessment.

- b. Ensuring that the Emergency Management Unit is aware of all damage assessment specific plans for emergency preparedness, mitigation, response, and recovery.
- c. Obtaining and maintaining mutual aid agreements, MOUs, and or other agreements to fulfill their specific task responsibilities as defined in Damage Assessment.

B. Task Assignments

1. The *Building Department* will be responsible for:
 - a. Acting as Damage Assessment Field Coordinator for residential, businesses, and public infrastructure throughout Broomfield.
 - b. In conjunction with EOC staff, establish the priorities for damage assessment based on the needs of public safety, continuity of government services, and local economy.
 - c. Coordinating the countywide home & business damage assessment process by gathering loss estimates from all reporting sources.
 - d. In conjunction with Assessor, coordinate type of information that damage assessment teams will collect during field surveys.
 - e. In conjunction with the EOC staff, coordinate and escort State and Federal damage survey officials on inspections of damaged areas.
 - f. Assist in developing damage assessment reports.

2. The *Assessor's Office* will be responsible for:
 - a. Acting as Damage Assessment Data Coordinator for residential, business, and public infrastructure.
 - b. In conjunction with Building Department, oversee the compilation of all damage assessment reports.
 - c. In conjunction with EOC staff, establish the priorities for damage assessment based on the needs of public safety, continuity of government services, and local economy.
 - d. Utilizing GIS capability to develop data layers that help to capture damage assessment figures such as damage pattern recognition, costs incurred by neighborhoods or communities, loss estimates, etc.
 - e. Assist in developing damage assessment reports.

3. The *Finance Department* will be responsible for:
 - a. Providing technical assistance for the collection and tracking of expenditures incurred from emergency response activities (force accounts).
 - b. Assessing economic effects, including projections/forecasts of current year and following year, and providing information to the EOC and to city management.
 - c. Conducting risk management activities including assessing insurance coverages and providing analysis to decision makers in the EOC and to city management.

4. The *Public Works Department* and *Engineering Division* will be responsible for:

- a. In conjunction with the Assessor, Building Department and EOC Staff, establish the priorities for damage assessment based on the needs of public safety, continuity of government services, and local economy.
 - b. Assessing the damage to roads, bridges, and traffic controls for areas falling under their jurisdiction.
 - c. Providing technical specialists that inspect buildings for structural, electrical, gas, plumbing and mechanical damage following a disaster.
 - d. Evaluating damage to Parks and Community Resources facilities.
 - e. Evaluating damage to Broomfield owned and operated buildings.
 - f. Performing a safety assessment of public buildings and facilities and reporting damages back to the assessor.
5. The *Police Department* will be responsible for:
- a. Providing initial information for the rapid assessment of damages that have occurred in a disaster or emergency.
 - b. Assessing costs of emergency protective measures (Category B).
 - c. Coordinating with the Damage Assessment Coordinators and providing security for Damage Assessment Teams in the damage areas.
6. The *Information Technology – GIS Division* will be responsible for:
- a. Assisting the damage assessment function with spatial data analysis and mapping support.
7. The *American Red Cross* will be responsible for:
- a. Notification to City and County of Broomfield of ARC involvement, ARC will attempt to provide initial event information such as:
 - (1) The type of disaster that has occurred
 - (2) The potential number of people impacted by the disaster
 - (3) General information about the type or extent of damage that has occurred
 - (4) ARC response efforts
 - (5) Providing a trained government liaison to the EOC to coordinate ARC emergency response functions.
8. *North Metro Fire Rescue* and mutual aid agencies will be responsible for:
- a. Providing initial information for the rapid assessment of damages that have occurred in a disaster or emergency.
 - b. Assessing costs of emergency protective measures.
9. The *Health and Human Services Department* will be responsible for:
- a. *Human Services:* As needed, provide support to American Red Cross in human needs assessment and case management.
 - b. *Public Health Division:* Assisting the Damage Assessment Teams in determining health related issues inside and outside the damaged area during rapid assessment and initial damage assessment.

10. Local special districts, private utilities (communications, cable, gas, electric), and other quasi-governmental agencies will be responsible for:
 - a. Conducting damage assessment of their resources, in coordination with local, state, and federal personnel as appropriate.
 - b. Providing timely damage assessment information to the Damage Assessment Coordinator, especially as it relates to interruptions of critical services.

11. The *Colorado Division of Emergency Management* will be responsible for:
 - a. The Colorado Division of Emergency Management (CDEM) will coordinate assistance from state government agencies in support of local governments when it has been determined by the Governor that an incident is beyond the response capabilities of the local jurisdiction (including mutual aid).
 - b. The execution of incident management activities at the state level is guided by the State Emergency Operations Plan (SEOP). The SEOP is intended to provide a seamless link between local, state and federal operations in conformance with the National Response Plan (NRP). The SEOP is supported by: (1) the Statewide Intergovernmental Agreement for Emergency Management, (2) the Colorado Resource Mobilization Plan, and (3) the Emergency Management Assistance Compact (EMAC).
 - c. The direction of state resources in support of local government during response operations will take place from the State Emergency Operations Center/Multi-Agency Coordination Center.

12. The *Federal Emergency Management Agency* will be responsible for:
 - a. When warranted, participating in a joint Preliminary Damage Assessment (PDA) to determine the magnitude and impact of an event's damage. A FEMA/State team will usually visit local applicants and view their damage first-hand to assess the scope of damage and estimate repair costs.
 - b. If a federal disaster is declared and financial assistance offered, FEMA will open Disaster Field Offices (DFO) in or near the affected communities. The DFO will serve to coordinate with local jurisdictions in the determination of the types of assistance being offered.

Appendix A – Damage Assessment Contacts

Appendix B - Checklists

Rapid Assessment Checklist

Life Safety Concerns:

- Number of people injured
- Number of people dead
- Missing persons
- People impacted, by location
- Estimates of displaced persons
- Public Health issues
- Need for medical evacuations
- Special Needs facilities
- Collapsed buildings
- Need for search & rescue
- Evacuation needs (food, water)
- Dam integrity
- Public unrest
- Travel restrictions

Status of Transportation Systems:

- Road damage/closures
- Detours
- Bridge integrity/need for barricades
- Bus, rail transit systems
- Railroad
- Airports
- Evacuation routes
- Plow routes

Status of Communications:

- Local phone systems
- Long distance phone service
- Cell phone service
- Cable television
- Internet service
- Emergency Alert System
- EPN (Reverse 911)
- Radio
- Satellite phones

Status of Utilities:

- Electric
- Gas
- Water
- Sewer

Impact to Emergency Services:

- Fire
- EMS
- Law Enforcement
- Hospitals/Care Centers
- Communication Centers/Dispatch
- Public Works
- Emergency Management/EOC
- Shelters

Impact to Public Services:

- County/City administration
- County/City public programs
- Television/Radio
- Schools/School bus routes
- Mail service
- Scheduled public events

Status of Imminent Hazards:

- Local weather conditions/forecast
- Long-term exposure hazards
- Hazardous materials
- Hazard-specific information
- Fire danger
- Daylight – nighttime concerns
- Terrorism
- Livestock/companion animal issues

Other:

- Environmental concerns
- Historical preservation issues

Damage Assessment Coordinator Checklist

- Coordinate all phases of damage assessment, including the activities of supporting agencies
- Coordinate assessment with private sector utilities, special districts, and other jurisdictions
- Establish contact with Engineering Division and Assessor's Office
- Set up damage assessment table in county EOC, distribute phone and fax numbers that will be used
- Coordinate damage assessment information with FEMA, State and municipalities
- Coordinate with Public Works Facilities Maintenance for the assessment of County buildings
- Coordinate with Park Operations to the parks and open space
- Coordinate with non-profits (American Red Cross, The Salvation Army etc.) for information
- Coordinate with school districts for damage assessment information
- Build damage assessment team of advisors, as needed
- Determine which inspection specialties are needed and ensure contacts are made
- Provide technical assistance in evaluation of public buildings and public infrastructure damaged by the event
- Coordinate any request for aerial reconnaissance with the EOC (Civil Air Patrol, Denver Air One)
- Prepare priority list for those facilities with the highest risk to public health, welfare and safety
- Check with the Broomfield Police and North Metro Fire Rescue for safety concerns
- Identify emergency badge/identification needed to access damaged areas
- Advise EOC Manager of situation updates, needs
- Brief DAT Team Leaders of assignments and coordinate field damage assessment activities
- Stress safety to DAT team leaders and members
- Secure services of other professionals, as necessary, to assist in damage assessment and repair strategies
- Collect, compile and maintain damage assessment records, including costs of emergency work
- Make initial disaster report to county, state and federal officials
- Provide required paperwork to support requests for state and federal assistance
- Coordinate with GIS Division to support damage assessment data
- Provide GIS damage assessment maps for EOC display
- Coordination with PIO for relevant damage assessment information needed for media reports and the public (damaged roads, bridges, extent of damage, etc.)
- Coordinate with Finance for the tracking of disaster-related costs
- Coordinate on-site surveys from State and FEMA officials
- Ensure that unsafe buildings, roads, bridges, structures etc. are visibly barricaded or marked as unsafe
- Keep track of weather forecast for each day's damage assessment field activities
- Inform officials of hazardous conditions that may put people at risk
- Maintain unit log

DAT Team Leader Briefing Checklist

General

- Provide current update concerning the disaster event
- Review priority for buildings, roads, bridges that are critical to response and recovery efforts
- Designate team members and assign designated team leader
- Outline geographic areas affected by the event
- Distribute prioritized list of sites/areas to be assessed, provide maps
- Assign sites to specific DATs
- Assign shift duration
- Anticipate degree of damage and destruction that should be encountered
- Designate level of detail needed for the damage assessment
 - Windshield Survey, RA
 - More detailed house-by-house, IDA
- Stress importance of expediting the process (objective is to obtain information as accurately as possible with as little delay as possible)
- Notify team members of policy dealing with the media, who to contact, what to say and not say, etc.
- Review guidelines for interaction with the public

Safety and Maneuvering

- Unstable/unsafe building, structures (ID and known areas)
- Review closed bridges, damaged roads, traffic detours and suggested routes
- Potential Hazards that might be encountered and how to handle:
 - Downed electrical wires
 - Political unrest
 - Areas of high crime rates, looters
 - Earthquake aftershocks
 - Exposure to hazardous materials
 - Excessive noise, dust, smoke
 - Excessive exposure to sun
 - Contaminated air and water
 - Flash floods, high water
 - Adverse weather
 - Dogs, snakes, creepy things
- Personal health, possible factors to consider:
 - Stress
 - Fatigue
 - Poor eating
 - Water quality
 - Lack of sleep
 - Injury

Equipment

- Assign vehicles, if appropriate
- Compensation for use of private vehicles, if appropriate
- Assign team equipment kits
- Check out radios, go over channels, talk groups or frequency information
- Where to obtain fuel
- Review damage assessment forms and guidelines
- Procedures for obtaining & being reimbursed, should additional supplies be needed

Communications

- Verify call-out roster, phone numbers, radio call names and emergency contact information
- Radios, cell phones (operations check)
- Pamphlets explaining types of assistance, if available
- List of emergency shelters, recovery centers, mobile feeding sites
- Contact local EOC to clarify questions and instructions

Sample Damage Assessment Team Equipment Checklist

<input type="checkbox"/> First aid kit	1
<input type="checkbox"/> Clipboard	2
<input type="checkbox"/> Water bottles	2
<input type="checkbox"/> Shovel, folding spade type	1
<input type="checkbox"/> Maps	
<input type="checkbox"/> Hard hat	1
<input type="checkbox"/> Eye protective glasses	1
<input type="checkbox"/> Hearing protection	1
<input type="checkbox"/> Road flares	12
<input type="checkbox"/> “CAUTION” / “DO NOT ENTER” tape	2 roll 1000 ft. ea.
<input type="checkbox"/> Phone numbers (EOC, Animal Control, Utilities, Supporting Agencies)	
<input type="checkbox"/> Binoculars	1
<input type="checkbox"/> Cell phone	1
<input type="checkbox"/> Hand held radio (county/city supplied)	1
<input type="checkbox"/> Flash light / extra batteries	1
<input type="checkbox"/> Duct tape	1
<input type="checkbox"/> Damage assessment forms (check with Team Leader)	
<input type="checkbox"/> Residential-Business	
<input type="checkbox"/> Public Infrastructure	
<input type="checkbox"/> Damage Assessment Level Guide	
<input type="checkbox"/> Project Worksheet	
<input type="checkbox"/> Camera	1
<input type="checkbox"/> Note pads	3
<input type="checkbox"/> Pens, pencils	6 ea.
<input type="checkbox"/> Clip boards	2
<input type="checkbox"/> Whistle for signaling	1
<input type="checkbox"/> Safety vest	1
<input type="checkbox"/> Flashlights (w/extra batteries)	2
<input type="checkbox"/> Tape measure, 50 & 25 feet	2
<input type="checkbox"/> Guidance, contact with media/public	1
<input type="checkbox"/> English/Spanish language communications chart	1
<input type="checkbox"/> Recovery flyers to distribute to residents/businesses	100
<input type="checkbox"/> Safety pamphlets for residents/businesses	100
<input type="checkbox"/> GPS unit	1
<input type="checkbox"/> Gloves	1
<input type="checkbox"/> Sunscreen	1
<input type="checkbox"/> Mosquito repellent	1

Damage Assessment Team Member Checklist

- Obtain proper photo identification, if available
- Obtain weather forecast, advisories for time period you will be in the field
- Dress appropriately for field work and weather conditions and bring supplies you will need
 - Damage assessment forms, pens, pencils
 - Work clothes, gloves, boots (generally, sneakers are not appropriate)
 - Rain jacket
 - Hard hat, safety vest
 - Maps
 - Credentials necessary to gain entry into secured areas
 - Radio, cell phone
 - GPS unit
 - Camera
 - Bring food, water, personal medications or other items you deem necessary
- Confirm where you are going, what your assignment is and approximate return time
- Check all equipment before departing
- While in transit, monitor disaster information from local media
- Inform officials of hazardous conditions that may put people at risk
- If speaking with the owner or occupant, do not give information you do not have, refer them to your list of available services for the affected public should they have questions in this area
- Ask the owner or occupant their opinion of the amount (in dollars) of their loss. *Do not argue*; just record the figure on the form
- Be polite and professional, but expedite gathering the information necessary to assess the damage
- Ensure you have all the necessary information before you leave, when in doubt, write it down
- Write down the location and time of the debriefing meeting
- At end of your shift, remove all forms and issued equipment from the vehicle

SAFETY IS ALWAYS FIRST

- As you enter your assigned area, get the “big” picture by observing overall damage (i.e. trees blown over, downed power lines, roads blocked, and emergency crews working)
- When you observe a home or business that has sustained damage, slowly approach the structure

Electricity

24 hour Emergency Number: _____

- Downed Electric Power Lines:

- Notify EOC
- Don't attempt to remove a tree limb or other object from power lines. Don't attempt to use a branch, board, fiberglass etc. All these can conduct electricity.

- If you are in a vehicle and power line falls on it, **STAY IN THE VEHICLE**. If for some life-threatening reason, you must exit the vehicle, jump. Do not touch both the vehicle and the ground at the same time.

Natural Gas

24 hour Emergency Number: _____

- If you smell gas:
 - Immediately extinguish all open flames and turn off machinery
 - Prohibit smoking
 - DO NOT** – operate electrical switches or machinery, telephones, ring doorbells, use flashlights or use two-way radios
 - Avoid any actions that could cause a spark
 - Alert people of the potential for danger (remember, do not use your radio)
 - Notify EOC

Animals – Avoiding Dog Bites

- When Dogs Might Bite:
 - They feel threatened, are afraid, are protecting their territory/food/family/pups
 - They don't know you
 - Their chase response is triggered
 - They are in pain or irritated
- Warning Signs a Dog Might Bite:
 - Dog stands stiff and still, hair maybe up
 - Dog stares at you
 - Dog's tail is stiff and wagging very fast, ears are erect
 - Dog growls, snarls, shows teeth
- What to do if Threatened by a Dog:
 - Do not trigger the natural instinct to chase
 - Stand still, remain calm, don't run or turn your back to the dog. Wait until dog leaves, then back away slowly
 - If dog comes to sniff you, let it. Don't pet the dog
 - Don't make any fast or jerky movements
 - Don't stare into the dog's eyes. This is a challenge to fight
 - Speak in a loud, calm, low voice, "GO HOME", "NO", "STAY"
- If the Dog Attacks:
 - Shield yourself by keeping something between yourself and the dog
 - Feed the dog your jacket, anything that will give it something else to bite
 - If you get knocked down, curl into a ball with hands over your head and neck. Don't scream or roll. "Play Dead"
 - Report incident and get medical attention

Appendix C - Media and General Public

Dealing with the media:

- Teams that encounter members of the public or media should not discuss potential or anticipated damage assessment outcomes.
- Give a concise description of your job as a team member and explain that you will refer them to someone who can answer their questions.
- If you have to answer, be honest and do not say “no comment.”
- If you don’t have an answer, say “I don’t know.” Refer them to the PIO.
- Be sensitive, serious, pleasant and polite.
- Assume microphones and cameras are on.
- Treat media as a partner in getting out important information.
- Remember, you are never “off the record.”
- Don’t get defensive or hostile. Don’t argue.

Dealing with the public:

Keep in mind that victims of a disaster have just had their lives “turned upside down.” They are often emotional, sad, distressed, frightened, and feeling out of control.

- Teams should not volunteer commitments to the public concerning disaster response or disaster assistance. Informational brochures about safety and recovery assistance are ok.
- Be compassionate and understanding.
- Have a list of services available for the affected public (shelters, feeding, counseling, etc.).
- Refer people to the FEMA hot-line number if one has been established.
- Be sensitive, serious, pleasant and polite.
- Don’t get defensive or hostile. Don’t argue.

Questions you might expect from the media or public:

- What kind of help is available for residents who have damaged or destroyed homes?
- Who is eligible for assistance?
- How does someone apply for loans or housing assistance?
- Are renters eligible for assistance?
- How much assistance can individuals get from the grant programs?
- What can I do about my unresponsive insurance company?
- Flood insurance – Can I get this and how expensive?
- Is there financial assistance to help business owners?
- How long do property owners wait to get money?
- Can property owners rebuild in a flood/plain coastal zones?
- Are people who have flood insurance eligible for help from FEMA?

Appendix D - Estimating Damage

NOTE: These instructions are based upon an outdated version of the Damage Assessment manual. Efforts are currently under way to update this system with that of the ATC 20 and ATC 45 manuals.

With different individuals assessing damage and different agencies applying the information to their own programs, it is important to establish consistent standards in estimating damage. Estimating damage costs, as described in these guidelines, can be broken down into residential-business, which generally relate to residential dwellings, small business facilities and other small structures, and public infrastructure.

Residential – Business

1. A damage scale of 1-10 can be used to estimate the level of damage to residential or business property.

1	2	3	4	5	6	7	8	9	10
least									most
severe									severe

- a. Level 10 is the most severe damage, and level 1 is the least severe. The **Damage Assessment Level Guide** on page 26 gives specific guidance in determining damage levels and was compiled using resources from federal, state and private agencies. It is designed to help make a somewhat subjective process more objective and consistent across different assessors.
 - b. The ten level scale can be used to provide:
 1. A damage scale that correlates to damage descriptions of Affected, Minor, Major or Destroyed. (see page 26 – Damage Assessment Level Guide)
 - Affected** – Minimal damage, structure is safely habitable without repairs.
 - Minor Damage** – Structure is may be used under limited conditions, may be restored to service with minor repairs, in less than 30 days.
 - Major Damage** – Structure is damaged to the extent that it is no longer usable and may be returned to service only with extensive repairs. Has more than 50% damage to structure, repairs will take longer than 30 days.
 - Destroyed** – Structure is a total loss or is damaged to the extent that it is not usable and not economically repairable. Will require removal or demolition.
 2. Guidance concerning the structure’s habitability.
 3. Things for damage assessors to look for in evaluating a structure.
 4. Water level assessments when flooding is involved. (Note: water levels are general guides. Flooding damage intensifies with the force of the water, duration of the flood and the degree of contaminants and sediments in the water.
3. As general rules of thumb, assessors should:
 - a. Refer to damage level guidelines.
 - b. Be consistent in assessments.
 - c. Choose the more severe level if damage appears to border between two levels.
 - d. Supplement assessments with damage descriptions and photographs.
 - e. It should not be necessary to enter most structures.
 4. Much of the damage classification to a dwelling is based on its habitability.

Ask yourself:

- a. Is the dwelling SAFE, SANITARY, SECURE?
 - b. Could I live in this dwelling as it is?...or as repairs are being made?
 - c. How much repair would it take to make it habitable?
 - d. Consider the essential living areas needed for habitability.
5. Estimating water depths:
- a. Brick – 2.5 inches per course
 - b. Concrete or cinder block – 8 inches per course
 - c. Lap or aluminum siding – 4 inches or 8 inches per course
 - d. Door knobs – 36 inches above floor
 - e. Stair risers – 7 inches
 - f. Standard doors – 6 2/3 feet
6. Estimating Dollar Amount of Damage:
- Estimated Dollar Damage = [Damage Level x .1] x [Pre-disaster market value x 1.1]
- a. Convert damage level to a percent of damage. i.e. damage level 3 is 30%, damage level 7 is 70% damage, etc.
 - b. Multiply the pre-disaster market value of structure by 1.1 or 110% of pre-disaster value.
 - c. Multiply the percent of damage by 110% of pre-disaster market value.

Example:

Damage Level 7 x .1 = .7

Pre-Disaster Market Value in \$100,000.

\$100,000. x 1.1 = \$110,000.

Estimated Dollar Damage is .7 x \$110,000. = \$77,000.

7. Estimating damage to contents:
- a. Estimating damage to contents will assist the family services caseworkers as well as increase total damage cost estimates. Contents will include food, clothing, furniture & major appliances. An estimation of probable damage to contents is obtained from asking the occupants of the property, if at all possible.
8. Forms (See *Appendix E – Damage Assessment Forms*):
- a. For residential/business damage assessment, use the following forms:
 1. Initial Damage Assessment – Housing Losses
 2. Initial Damage Assessment – Business Losses
 3. Initial Damage Assessment Summary

Public Infrastructure

1. The **Project Worksheet** is the principal form for documenting infrastructure damages. The form describes the damages or the scope of work to be performed, including an estimated cost for repairs (quantities and unit prices can be identified, where possible, but an informed estimate may be sufficient). The form also can be used to identify name and location of damaged facilities, damage category (i.e., roads and bridges, water control facilities, etc.), percent of work completed, and (where applicable) special considerations such as insurance coverage and hazard mitigation potential. For Project Worksheet, see *Appendix E – Forms*, page #.

2. Estimating Debris Costs:

Estimated price per cubic yard - \$4.00/CY

One Story Structure:

$$\frac{L' \times W' \times H'}{27} = \text{___ CY} \times .33 = \text{___ CY}$$

Loose Debris Piles:

$$\frac{L' \times W' \times H'}{27} = \text{___ CY}$$

Trees: 15'-17' tall w/8' diameter = 40 CY

Single-Wide Mobile Home = 290 CY

Double-Wide Mobile Home = 415 CY

3. FEMA's Schedule of Equipment Rates:

Damage assessments for public infrastructure are cost driven and are often based on the scope of work to be performed. Because of this, FEMA uses a standard rate list that determines what the allowable cost is for equipment. This list can be found on FEMA's web page:

<http://www.fema.gov/government/grant/pa/eqrates.shtm> **These rates are applicable to major disasters and emergencies declared by the President.** Check with a FEMA representative to ensure the most updated list is being used to determine costs.

The rates on this Schedule of Equipment Rates are for applicant-owned equipment in good mechanical condition, complete with all required attachments. Each rate covers all costs eligible under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. § 5121, et seq., for ownership and operation of equipment, including depreciation, overhead, all maintenance, field repairs, fuel, lubricants, tires, OSHA equipment and other costs incident to operation. Standby equipment costs are not eligible.

Equipment must be in actual operation performing eligible work in order for reimbursement to be eligible. Labor costs of operator are not included in the rates and should be approved separately from equipment costs. Rates for equipment not listed will be furnished by FEMA upon request.

Appendix D cont. – Damage Assessment Level Guide - Residential/Business

Damage Level	General Description	FEMA DL Description	Things to Look For	ARC DL Description	Water Levels		Single, Multi Family Homes
					FEMA	ARC	
10	Structure leveled, foundation, basement damaged. Water above the eaves.	DESTROYED	Structure leveled or has major shifting off its foundation or only the foundation remains. Roof is gone with noticeable distortion to walls.	DESTROYED	DESTROYED	DESTROYED	More than 8 feet
9	Structure leveled above the foundation. Second floor is gone.	Structure is total loss or permanently uninhabitable. <u>Not economically feasible to rebuild</u>			More than 5 feet on first floor		More than 8 feet in structure (first floor)
8	Water above first floor. Structure moved off foundation. Walls collapsed.	MAJOR	Portions of the roof and decking missing. Twisted, bowed, cracked, or collapsed walls. Structure penetrated by large foreign object, such as tree. Damaged foundation.	MAJOR	MAJOR	MAJOR	6 to 7 feet
7	Exterior frame damage. Roof off or collapsed. Accessory/service/outbuildings damaged.						Structure is currently uninhabitable. Extensive repairs are necessary to make habitable.
6	Foundation damaged. Insulation damaged. Exterior wall(s) damaged. Production equipment/office equipment damaged.	Will take <u>more than 30 days to repair</u>		MAJOR	Structure currently uninhabitable, will require extensive repairs	MAJOR	4 to 5 feet
5	One room destroyed. Exits blocked. Utilities damaged: furnace, water heater, well, septic system.						Will take <u>more than 30 days to repair</u>
4	Interior flooring/exterior walls with minor damage. Tree(s) fallen on structure. Business inventory destroyed.	MINOR	Many missing shingles, broken windows and doors. Loose or missing siding. Minor shifting or settling of foundation. Attached garage damaged. Damaged septic system.	MINOR	MINOR	MINOR	2 to 3 feet
3	Smoke damage. Fire escape inoperable. Shingles/roof tiles moved or missing. Fleet/vehicles damaged.	Structure is damaged, but habitable, will need minor repairs.					2 inches to 3 feet, first floor <u>Basement</u> (summer) 5 feet or more in basement (winter) 1 foot or more base. <u>No Basement</u> 2" - 3' first floor <u>Crawl space</u> reach insulation <u>Sewage</u> 1ft or more basement <u>Mobile Home</u> , BB to 6 inches
2	Chimney damaged. Porch damaged. Carpet on first floor soaked. Parking lot damaged.	AFFECTED HABITABLE	Few missing shingles, some broken windows. Damage to air conditioning units/etc. Suspected damage to contents. Some minor basement flooding.	Structure currently habitable or requires minor repairs or cleaning to be habitable	AFFECTED HABITABLE	AFFECTED HABITABLE	3 to 6 inches
1	Broken windows. Damage to landscaping. Business signs damaged.	Structure has received minimal damage and is habitable without repairs.					2 inches or less, first floor Minor basement flooding Summer less than 5 feet Winter less than 1 foot Mobile home, no water in belly board

Adapted from FEMA, ARC, various state and county EOPs, private agencies

Appendix E - Damage Assessment Forms

Initial Damage Assessment – Housing Losses

NOTE: These instructions are based upon an outdated version of the Damage Assessment manual. Efforts are currently under way to update this system with that of the ATC 20 and ATC 45 manuals.

Instructions:

A. General Information

1. **County** - The term “County” refers to the name of the county where the reported damages occurred. Information reported on the Initial Damage Assessment - Housing Losses form is a composite of all such damages incurred within the stated “County”.
2. **Municipality** - Indicate the name of the municipality where these damaged houses, living units, or manufactured homes are located.
3. **Incident: Flood (), Tornado (), Hurricane (), Other ()** - The term “Incident” refers to the tornado, hurricane, flood, fire, chemical spill, etc., which caused the need to file this report in the first place. Check the appropriate incident. If ‘Other’ is checked, specify the incident by name.
4. **Assessment Team** - Indicate the last name, first initial, of those individuals responsible for conducting the damage assessment and for reporting the damages as shown.
5. **Incident Period** - The “Incident Period” refers to the time span from when the incident occurred to when there is no longer a threat to people or their property. In the case of a hurricane, flood, or even a fire, the “Incident Period” may encompass several days. In the case of a tornado, the “Incident Period” is usually only one day. However, there are exceptions.
6. **Date of Survey** - The term “Date of Survey” refers to the date the damage assessment was conducted. This may or may not be the date the incident occurred.
7. **Page ___ Of ___** - Pages should be numbered in consecutive order with the total number of pages indicated on each page, i.e., 1 of 5, 2 of 5, 3 of 5, etc.

B. Damage Assessment Information - Housing Losses

8. **Ref. No.** - The term “Ref. No.” is an abbreviation for “reference number”. Each affected house, living unit or manufactured home are to be numbered in consecutive order for ease in identification, totaling, etc.
9. **Name of Occupant** - Indicate, if known, the name of the owner / renter occupant of the affected house, living unit or mobile home. However, if the occupant is a renter, then you must also enter the name of the owner of the building on the Initial Damage Assessment - Business Losses form.
10. **Street/Route/SR/Mobile Home Park/Bldg, Name/Development/Etc.** - Indicate the affected property’s site address, i.e., street address, route, road, mobile home park, building name, development, etc.
11. **PRI (Home)** - The term “PRI” is an abbreviation for primary home. If the occupant lives in the home 50% or more of the year the home is considered their primary dwelling. Indicate, by a check mark, if the damaged home in question is the primary dwelling unit for the occupant. If unknown, check “PRI”.
12. **Sec (home)** - The term “Sec” is an abbreviation for secondary home. If the occupant lives in the home less than 50% of the year the home is considered their secondary dwelling. Indicate, by a check mark, if the damaged home in question is a secondary dwelling unit for the occupant. If unknown, check “PRI”.
13. **SF (type of home)** - The term “SF” is an abbreviation for a single-family type of home. Unless known otherwise, consider all stick-built, wood-frame and pre-fabricated housing units as “SF”. Indicate, by the use of a check mark, that the home in question is a single-family type of home.

14. **MF (type of home)** - The term “MF” is an abbreviation for multi-family type of home. Multi-family dwelling units include all duplexes, apartments and condominiums. Indicate, by the use of a check mark, that the home in question is a multi-family type of home.

15. **MH (type of home)** - The term “MH” is an abbreviation for manufactured or mobile home. Indicate, by the use of a check mark, that the home in question is a manufactured (mobile) type of home.

16. **Own (status)** - The term “Own” refers to ownership status of the home in question, i.e., whether or not the home is owned or rented. Indicate, by the use of a check mark, that you consider the home in question to be owned by the occupant.

17. **Rent (status)** - The term “RNT” refers to the ownership status of the home in question, i.e., whether or not the home is owned or rented. Indicate by the use of a check mark, that you consider the home in question to be rented by the occupant. If rented, then you must also consider the home to count as a business and enter the name of the owner and other appropriate information on the Initial Damage Assessment - Business Losses form.

18. **Min (damages/uninhabitable)** - The term “MIN” is an abbreviation for “minor” damage. “Minor” damages, when considering housing damages, are defined as physical damages which make the impacted home uninhabitable and have damages of 10% or less of the home’s replacement cost or fair market value. “Min” damages are those which will require minimal repairs to doors, windows, floors, utilities, etc, to make the structure habitable again.

19. **Maj (damages/uninhabitable)** - The term “MAJ” is an abbreviation for “major” damage. “Major” damages are defined as physical damages which make the impacted structure or facility uninhabitable and have damages between 11% and 74% of the home’s replacement cost or fair market value. A home with extensive damages to its foundation, roof and walls would indicate “MAJ” damages.

20. **Dest (damages/uninhabitable)** - The term “DEST” is an abbreviation for “destroyed”. “Destroyed” is defined to mean those homes which have been made uninhabitable as a result of the incident and have damages in excess of 75% of their replacement cost or fair market value. If reconstruction or relocation are the only options to restoring the home to its original use, then “DEST” should be checked. HINT: Consider older manufactured homes which have been flooded or overturned manufactured homes as being destroyed.

21. **Iso.** - “ISO” is an abbreviation for “isolated”. Even though the home may not have sustained any physical damages, the structure is considered unusable if the home is no longer accessible or if there is a lack of essential utilities such as electricity, water, etc.

22. **Water Level In structure** - In the event that flood waters entered the home, indicate, in feet, the height of the water within the structure.

23. **Replacement Cost or Fair Market Value** - Obtain from the owner or occupant, or estimate from existing tax records, or give your best estimate of the fair market value or replacement cost of the damaged, destroyed or otherwise uninhabitable home, to include contents. However, this does not include land value.

24. **Est. Dollar Loss** - Obtain from the owner or occupant, or give your best estimate, as to the estimated total dollar loss incurred as a result of the incident. Include contents.

25. **HO (insurance)** - The term “HO” is an abbreviation for homeowners (insurance). Indicate, to the best of your ability, whether or not the owner / occupant has homeowners insurance coverage. Put a “check” in the column if the answer is yes. Leave blank if the answer is no. If unknown, leave blank.

26. **NFIP (insurance)** - Indicate, to the best of your ability, whether or not the owner / occupant has flood insurance coverage. Put a “check” in the column if the answer is yes. Leave blank if the answer is no. If unknown, leave blank.

27. **Low (estimate income)** - Based upon guidance received from the local tax office, indicate, to the best of your ability, whether the owner / occupant has a low, medium or high average annual income. Indicate, by the use of a check mark, your particular choice. In the absence of any guidance, utilize the following table as a general guide as to income levels:

Income (per year)	Rank
Less than \$15,000	LO
\$15,000 - \$50,000	MED
Greater than \$50,000	HI

28. **Med (estimate income)** - Based upon guidance received from the local tax office, indicate, to the best of your ability, whether the owner / occupant has a low, medium or high average annual income. Indicate, by the use of a check mark, your particular choice. In the absence of guidance, utilize the above table.

29. **Hi (estimate income)** - Based upon guidance received from the local tax office, indicate, to the best of your ability, whether the owner / occupant has a low, medium or high average annual income. Indicate, by the use of a check mark, your particular choice. In the absence of guidance, utilize the above table.

Initial Damage Assessment – Business Losses

Instructions:

A. General Information

1. **County** - The term "County" refers to the name of the county where the reported damages occurred. Information reported on the Initial Damage Assessment - Business Losses form is a composite of all such damages incurred within the stated "County".
2. **Municipality** - Indicate the name of the municipality where these business or industrial losses were incurred.
3. **Incident: Flood (), Tornado (), Hurricane (), Other ()** - The term "Incident" refers to the flood, tornado, hurricane, fire, chemical spill, etc., which caused the need to file this report in the first place. Check the appropriate incident. If "Other" is checked, specify the incident by name.
4. **Assessment Team** - Indicate the last name, first initial, of those individuals responsible for obtaining the information contained on the form.
5. **Incident Period** - The "Incident Period" refers to the time span from when the incident occurred to when there is no longer a threat to people or their property. In the case of a hurricane, flood, or even a fire, the "Incident Period" may encompass several days. In the case of a tornado, the "Incident Period" is usually only one day. However, there are exceptions.
6. **Date of Survey** - The term "Date of Survey" refers to the date the information being reported is assessed. This may or may not be the date the incident occurred.
7. **Page ___ Of ___** - Pages should be numbered in consecutive order with the total number of pages indicated on each page, i.e., 1 of 5, 2 of 5, 3 of 5, etc.
8. **Ref. No.** - The term "Ref. No." is an abbreviation for "reference number". Each affected business or industry are to be numbered in consecutive order for ease in identification, totaling businesses and industries, etc.

B. Damage Assessment Information - Business Losses

9. **Name of Business/Site Location/Telephone Number** - Indicate the name of the business or industry which incurred physical damages as a result of the incident. If more than one building or facility was affected per business or industry, summarize and report damages on one line only. Also enter the site location of the affected business or industry. For example, the site location would include the street, route, road, industrial park, etc, where the impacted structure is located. Also enter the business telephone number.
10. **Tenant/Owner (circle choice) & Type of Bus.** - Circle whether the damaged structure and contents being assessed is owned by the business occupant (circle O) or rented/leased by the business occupant, and thus a tenant (circle T). IF THE BUSINESS OCCUPANT IS A TENANT, ADD TO THE FORM A SECOND BUSINESS FOR THE OWNER OF THE BUILDING. Enter the kinds of products manufactured, stored, shipped, treated, sold, etc., by the affected entity. If services are provided, indicate the type of service, e.g., catering, landscaping, legal financial, etc.
11. **Estimated Days out of Operation** - Estimate the number of days the affected business or industry will be inoperable as a result of the incident.
12. **Number (Employees)** - Obtain from the owner or other officials the number of people employed by the business or industry. If not readily available, give best estimate.
13. **Covered by U.I. (Employees)** - Obtain from the employer or appropriate officials the number of employees covered by Unemployment Insurance. If the information is not readily available, give best estimate.
14. **Replacement Cost or Fair Market Value** - Obtain from the employer or other appropriate officials, or estimate from tax records the total replacement cost or fair market value of the damaged business' land, structure and contents.
15. **Estimated Dollar Loss** - Obtain from the owner or other appropriate officials the estimated total dollar loss incurred as a result of the incident. If the information is not readily available, give a best estimate. Include losses to inventory, equipment, furnishings, etc.
16. **Dollar Amount Insurance Coverage** - Obtain from the owner or other appropriate officials the estimated total dollar amount of insurance coverage. If unknown, enter "unk".

17. % Unins. Loss Bus. Value - The “% Unins. Loss Bus. Value” is an abbreviation for the percent uninsured loss to the value of the business. This value consist of the relationship between the businesses’ total losses, its insurance coverage, and the replacement cost or total fair market value of land, structure and contents. The percentage is calculated by subtracting column 16 from column 15 and dividing that number by the dollar estimate listed in column 14. The entire result is then multiplied by 100%. For example, if the:

Estimated Dollar Loss = \$325,000
Dollar Amount of Insurance Coverage = \$100,000
Total Fair Market Value:
Land = \$120,000
Structure = \$675,000
Contents = \$200,500

Then, the % uninsured loss to the value of the business is:
 $(\$325,000 - \$100,000 / (\$120,000 + \$675,000 + \$200,500) \times 100\% = 22.6\%$

If the insurance information required under column number 16, “DOLLAR AMOUNT OF INSURANCE COVERAGE”, is not known, then do not attempt to calculate the percentage to be entered under column 17. Simply, leave this column blank.

18. If Col. 17 is <40% Min - If the percentage calculated and entered under column number 17, “% UNINS. LOSS BUS. VALUE”, is less than 40%, check “MIN”. Column number 17 must have been filled out in order to complete this entry. If column 17 is left blank, also leave columns 18, 19 and 20 blank.

19. If Col. 17 is: 40% - 75% Maj - If the percentage calculated and entered under column number 17, “% Unins. Loss Bus. Value”, is between 40% and 75% (inclusive), check “Maj”. Column number 17 must be filled out in order to complete this entry. If column 17 is left blank, also leave columns 18, 19 and 20 blank.

20. If Col. 17 is: >75% Dest - If the percentage calculated and entered under column number 17, “% Unins. Loss Bus. Value”, is greater than 75%, check “Dest”. Column number 17 must have been filled out in order to complete this entry. If column 17 is left blank, also leave columns 18, 19 and 20 blank.

INITIAL DAMAGE ASSESSMENT - BUSINESS LOSSES

(1) COUNTY: _____		(3) INCIDENT (X) () FLOOD () HURRICANE () TORNADO () OTHER _____ (Specify)	(4) ASSESSMENT TEAM _____	(5) INCIDENT PERIOD: _____
(2) MUNICIPALITY: _____				(6) DATE OF SURVEY: _____
				(7) PAGE _____ OF _____

REF. NO.	NAME OF BUSINESS / SITE LOCATION / TELEPHONE NO.	NAME OF TENANT OR OWNER & TYPE OF BUSINESS	ESTIMATED DAYS OUT OF OPERATION	EMPLOYEES		REPLACEMENT COST OR FAIR MARKET VALUE	ESTIMATED DOLLAR LOSS	DOLLAR AMOUNT OF INSURANCE COVERAGE	% UNINSURED LOSS TO BUSINESS VALUE [(col. 15)-(col. 16) / (col. 14) X 100%]	IF COLUMN 17 IS:		
				NUMBER COVERED	BY U.I.					<40%	40-75%	>75%
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
		Tenant OR Owner (circle one)				LAND:\$ _____	\$ _____	\$ _____				
						STRUCTURE:\$ _____	\$ _____	\$ _____				
						CONTENTS:\$ _____	\$ _____	\$ _____				
						OTHER:\$ _____	\$ _____	\$ _____				
		Tenant OR Owner (circle one)				LAND:\$ _____	\$ _____	\$ _____				
						STRUCTURE:\$ _____	\$ _____	\$ _____				
						CONTENTS:\$ _____	\$ _____	\$ _____				
						OTHER:\$ _____	\$ _____	\$ _____				
		Tenant OR Owner (circle one)				LAND:\$ _____	\$ _____	\$ _____				
						STRUCTURE:\$ _____	\$ _____	\$ _____				
						CONTENTS:\$ _____	\$ _____	\$ _____				
						OTHER:\$ _____	\$ _____	\$ _____				
		Tenant OR Owner (circle one)				LAND:\$ _____	\$ _____	\$ _____				
						STRUCTURE:\$ _____	\$ _____	\$ _____				
						CONTENTS:\$ _____	\$ _____	\$ _____				
						OTHER:\$ _____	\$ _____	\$ _____				
		Tenant OR Owner (circle one)				LAND:\$ _____	\$ _____	\$ _____				
						STRUCTURE:\$ _____	\$ _____	\$ _____				
						CONTENTS:\$ _____	\$ _____	\$ _____				
						OTHER:\$ _____	\$ _____	\$ _____				
EM 40-A		TOTALS				\$ _____	\$ _____	\$ _____				
REV. 7/96 dls												

Initial Damage Assessment – Summary

Instructions:

This form is intended to provide local jurisdictions with a standard method of reporting initial and supplemental damage estimates to COEM. This information will be used to assess the situation throughout the affected area. It will also be combined with other reported information and used to help decide on future actions.

These forms are intended to be cumulative. If you submit additional reports, all of the columns MUST show current totals. For example, if the first form you submitted showed sixteen residential structures damaged and you identify four more damaged residential structures, the next form you submit MUST show twenty damaged residential structures.

1. **Jurisdiction(s) Affected:** Please include the name of the area affected, including county, and date of report.
2. **Disaster:** List the type, time and date of incident.
3. **Report by:** List name of person submitting report, his/her title, home and work phone numbers. This person will be COEM's point of contact for additional information.
4. **Affected Individuals:** List affected individuals based on the category the individual fits in. Please assign individuals to only one of the six categories. For example, do not assign someone to the "injuries" category if they are already assigned to "hospitalized".
5. **Property Damage:**
 - a. **Residence:** List the number of residential properties damaged as a result of the disaster (separated either by single family, multi family or mobile homes) in the categories provided. Provide a total dollar amount in estimated losses to residences.
 - b. **Business:** List the number of business properties damaged as a result of the disaster in the categories provided. Provide a total dollar amount in estimated losses to businesses.
 - c. **Public Facilities:** List the estimate in dollars, the number of sites, and a brief description of damages in the six categories under Type of Work or Facility. Provide a total dollar amount in estimated losses to public facilities.

Initial

Supplemental

Initial Damage Assessment Summary

1. Jurisdiction(s) Affected _____ Date _____

2. Disaster: Type _____ Date _____ Time _____

3. Report by: Name _____ Title _____

Work Phone _____ Home Phone _____

4. Affected Individuals: (Assign affected individuals to only one category.)

- a. Fatalities _____
- b. Injuries _____
- c. Hospitalized _____
- d. Missing _____
- e. Evacuated _____
- f. Sheltered _____

5. Property Damage:

a. Residence

	# Destroyed	#Major	#Minor	#Inaccessible	# Insured
Single Family					
Multi Family					
Mobile Homes					

Estimated Losses to Residence \$ _____

b. Business

# Destroyed	# Major	# Minor	# Insured

Estimated Loss to Business \$ _____

c. Public Facilities

Type of Work or Facility Categories	Estimate	# of Sites	Brief Description of Damages
A. Debris Removal	\$		
B. Protective Measures	\$		
C. Roads & Bridges	\$		
D. Water Control	\$		
E. Buildings Equipment	\$		
F. Utilities	\$		
G. Parks and Receptions	\$		
Total Estimate	\$		

Appendix F

A. Eligible Public Assistance Damage Categories

1. Damage to public property, infrastructure, emergency protective measures, and debris removal costs are potentially reimbursable following a federally declared disaster. Under the Public Assistance Program and administered by FEMA, this is the primary source of federal assistance to help local governments recover from a disaster. See FEMA Publication 322 Public Assistance Digest for detailed information.
2. Seven basic categories of eligible damage exist in FEMA's Public Assistance Program. Conforming damage assessment data to these categories will aid in the reimbursement and recovery process:

Category A – Debris Clearance

This category includes all storm induced debris on non-federal public waterways, other public and private property when removal is legally undertaken by local government forces. It can also cover the cost of demolition of public structures if those structures were made unsafe by the disaster

Category B – Emergency Protective Measures

This category addresses the provision of appropriate emergency measures designed to protect life, safety, property and health (i.e. barricades, sand bags, and safety personnel).

Category C – Road system

This category addresses damages to non-federal roads, bridges, streets, culverts, and traffic control devices.

Category D – Water Control Facilities

Eligible damages under this category include costs to repair or replace dikes, dams, drainage channels, irrigations works and levees.

Category E – Building and Equipment

Eligible damages under this category include costs to repair buildings equipment, supplies/inventories that were damaged, and transportation systems such as public transits system.

Category F – Public Utility Systems

Under this category, assistance is available for damaged water systems, landfills, sanitary sewage, storm drainage systems and light/power facilities.

Category G – Other

The “other” category includes parks and recreational facilities, or any other public facility damages that do not reasonably fit in one of the other six categories.

