

ANNEX K

PUBLIC WORKS

&

ENGINEERING

(Office of Facilities Management)



TABLE OF CONTENTS

Annex K

Public Works

I.	AUTHORITY.....	K-1
II.	PURPOSE.....	K-1
III.	EXPLANATION OF TERMS.....	K-1
IV.	SITUATION & ASSUMPTIONS.....	K-1
V.	CONCEPT OF OPERATIONS.....	K-2
VI.	ORGANIZATION & ASSIGNMENT OF RESPONSIBILITIES.....	K-5
VII.	DIRECTION & CONTROL.....	K-7
VIII.	READINESS LEVELS.....	K-7
IX.	ADMINISTRATION & SUPPORT.....	K-8
X.	DEVELOPMENT & MAINTENANCE.....	K-8
XI.	REFERENCES.....	K-8

ANNEX K

PUBLIC WORKS & ENGINEERING

I. AUTHORITY

- A. See University of Texas at Arlington (UT Arlington) Section I of the Basic Plan for general authorities.
- B. Texas Government Code, Section 418.023, Clearance of Debris.

II. PURPOSE

The purpose of this annex is to outline the campus organization, operational concepts, responsibilities, and procedures to accomplish coordinated public works and engineering activities during emergency situations.

III. EXPLANATION OF TERMS

A. Acronyms

EOC	Emergency Operations Center
EMC	Emergency Management Coordinator
EH&S	Environmental Health & Safety
FEMA	Federal Emergency Management Agency
IC	Incident Commander
ICP	Incident Command Post
OFM	The Office of Facilities Management
DSHS	Texas Department of State Health Services
TDEM	Texas Division of Emergency Management
TDSR	Temporary Debris Storage and Reduction
UT Arlington	The University of Texas at Arlington
UT System	The University of Texas System

B. Definitions

1. Debris clearance. Clearing roads of debris by pushing debris to the roadside.
2. Debris disposal. Placing mixed debris and or the residue of debris volume reduction operations into an approved landfill.
3. Debris removal. Debris collection and transport to a temporary storage site for sorting and/or volume reduction or to a permanent disposal site. Debris removal also includes damaged structure demolition and removal.

IV. SITUATION & ASSUMPTIONS

A. Situation

1. UT Arlington anticipates emergency situations may occur which may threaten students, staff, and faculty's health, safety and/or property. An emergency situation of this nature may require emergency public works and engineering services.

B. Assumptions

1. The Office of Facilities Management (OFM) who is responsible for the public works and engineering function at UT Arlington may have insufficient resources to remove the debris created by a major emergency or disaster and accomplish other recovery tasks.
2. Local contractors have resources to assist with public works activities in an emergency situation.
3. OFM should be able to organize and carry out debris clearance in the aftermath of an emergency. Large scale debris and/or hazardous material operations, however, may require external assistance.
4. Through the University of Texas System (UT System) mutual aid agreements with Arlington, and neighboring jurisdictions, assistance may be available.

V. CONCEPT OF OPERATIONS**A. General**

The public works and engineering tasks to be performed during emergency situations include:

1. For slowly developing emergency situations, take actions to protect government facilities, equipment, and supplies prior to the onset of hazardous conditions.
2. Provide heavy equipment support for search and rescue operations.
3. Conduct damage-assessment surveys of campus facilities, roads, pedestrian bridges, and other infrastructure.
4. Inspect damaged structures.
5. Clear debris from campus roads.
6. Make repairs to essential campus facilities to restore operations or protect them from further damage.
7. Remove debris from campus property and manage debris disposal operations.

B. Protecting Resources and Preserving Capabilities

1. OFM resources may be employed during slow developing emergency situations to protect and limit damage to government facilities, equipment, and essential utilities. Protective actions may include sandbagging, building protective levees, ditching, installing protective window coverings, or removing vital equipment. OFM elements are to identify buildings and other infrastructure that will benefit from protective measures and, in coordination with the departments or agencies that occupy those facilities, carry out necessary protective actions.
2. If time permits, OFM is expected to take action in advance of an emergency situation to preserve response and recovery capabilities by protecting vital equipment and supplies, either in place or by relocating them to a safe location.

C. Search & Rescue Support

OFM may be required to provide, or obtain, heavy equipment support for search and rescue operations, particularly support for search operations in collapsed buildings.

D. Damage Assessment

1. OFM may lead preliminary damage assessments of campus buildings, roads, pedestrian bridges, and other infrastructure following a disaster. Damage assessment procedures and forms used in the assessment processes are discussed in Annex J, Recovery.
2. OFM personnel are to inspect damaged structures. Inspections are conducted to identify unsafe structures and, if necessary, take actions to restrict entry and occupancy until the structures can be made safe.
3. Damaged buildings posing an immediate threat to public health and safety should be appropriately posted to restrict public access pending repairs or demolition.

E. Debris Clearance and Removal

See Support Document 1, Debris Management.

F. Temporary Repairs and Restoration

1. OFM is to make timely temporary repairs to campus buildings and other infrastructure essential to emergency response and recovery operations.
2. Hazardous situations may result in damage to computers storing vital campus records and/or hard copy records, such as building plans, legal documents, tax records, and other documents. When computers or paper records are damaged, it is essential to obtain professional technical assistance for restoration as soon as possible.
3. During the emergency response phase, it is generally impractical to restore buildings sustaining major damage during the emergency response phase. Major repairs may be

postponed until recovery operations commence and will typically be performed by contract personnel.

G. Phases of Emergency Management:

1. Prevention
 - a. Identify vulnerabilities of existing campus buildings, roads, bridges, water systems, and sewer systems to known hazards and take steps to lessen vulnerabilities.
 - b. Develop mitigation projects to protect facilities and equipment at risk from known hazards.
 - c. Install emergency generators in key facilities and have portable generators available to meet unexpected needs.
2. Preparedness
 - a. Ensure campus buildings and equipment is in good repair.
 - b. Ensure an adequate number of personnel are trained to operate heavy equipment and other specialized equipment.
 - c. Stockpile materials needed to protect and repair structures, roads, bridges, and other infrastructure.
 - d. Develop general priorities for clearing debris from roads.
 - e. Maintain an adequate quantity of barricades and temporary fencing.
 - f. Maintain current maps and plans of campus facilities, roads, bridges, and utilities.
 - g. Review plans, evaluate emergency staffing needs in light of potential requirements, and make tentative emergency task assignments.
 - h. Establish and train damage assessment teams.
 - i. Ensure state-owned vehicles and other equipment can be fueled during an electrical outage.
3. Response
 - a. If warning is available, take actions to protect campus facilities and equipment.
 - b. Survey areas affected by a hazard, assess damage, and determine the need and priority for expedient repair or protection to prevent further damage. Report damage assessments to UT Arlington Emergency Operations Center (EOC) if activated.
 - c. Clear roads of debris.
 - d. Inspect damaged buildings to determine if they are safe for occupancy.
 - e. Remove debris from campus and manage proper debris disposal.
 - f. Make repairs to damaged campus facilities and equipment.
 - g. Coordinate with the energy providers to arrange for emergency electrical service, if required, to support emergency operations.
 - h. Upon request, restrict access to hazardous areas, using barricades and temporary fencing.
4. Recovery
 - a. Repair or contract repairs to campus buildings, roads, bridges, and other infrastructure.
 - b. Participate in compiling estimates of damage and response and recovery costs.

- c. Participate in post-incident review of emergency operations and make necessary changes to improve emergency plans and procedures.

VI. ORGANIZATION & ASSIGNMENT OF RESPONSIBILITIES

A. Organization

The function of public works and engineering during emergency situations shall be carried out in the framework of our normal emergency organization described in Section VI, of the Basic Plan.

B. Assignment of Responsibilities

1. UT Arlington police department should:
 - a. Supervise debris clearance from the public right-of-way and support debris removal operations.
 - b. Emplace barricades where needed for safety.
 - c. Provide personnel and equipment to aid in search and rescue operations as needed.
2. UT Arlington Environmental Health & Safety (EH&S) should:
 - a. Support emergency OFM operations with available resources.
 - b. Inspect shelter and mass care facilities for safety.
3. OFM should:
 - a. Support damage assessment operations.
 - b. Determine if access to damaged structures should be restricted or if they should be condemned and demolished.
 - c. Collect and properly dispose of refuse, when available.
4. UT Arlington telecommunications/Office of Information Technology Network Management should:
 - a. Restore damaged communications systems, as needed.
 - b. Provide communications technical and equipment support for emergency operations, when available.

If the university contacts the city of Arlington for their services, the following roles will be assigned at the city:

1. City of Arlington street superintendent should:
 - a. Maintain contact with Arlington's EOC.

- b. Coordinate emergency public works activities to include restoration of public streets, other essential services, and vital facilities in accordance with national incident management system and as required.
 - c. Train personnel on emergency procedures.
 - d. Develop list of cities and other agencies with their associated capabilities and resources.
 - e. Identify local private contractors who can provide back up support.
 - f. Develop resource lists.
 - g. Participate in development and execution of emergency preparedness exercises.
 - h. Remove debris from public streets, right-of-way, street storm drains, and in or around those structures where public safety and/or health are endangered.
 - i. Assist in search and rescue operations as needed.
 - j. Provide equipment, as needed.
2. City of Arlington engineering operations manager should:
- a. Maintain contact with Arlington's EOC.
 - b. Provide engineering services and advice.
 - c. Safeguard vital engineering records.
 - d. Ensure emergency repair of essential storm drain systems and other assorted services and vital facilities.
3. City of Arlington director of utilities should:
- a. Maintain contact with Arlington's EOC.
 - b. Maintain the city's EOC utilities, as necessary.
 - c. Repair and restore essential services and vital utility services as required.
 - d. Obtain emergency power, if required.
 - e. Conduct inspections required for restoration of service.
 - f. Clear debris as necessary.
 - g. Assess damage, survey disaster area, and evaluate in terms of utility estimates.
 - h. Secure assistance of private contractors and request aid from other jurisdictions and from private sector, as needed.
 - i. Make recommendation to alleviate problems.
 - j. Effect movement of equipment and supplies, as required.
 - k. If shortages or overload conditions appear imminent, work in coordination with the city's EOC to initiate curtailment procedures.
 - l. Install and restore service to locations that are without utility service.
 - m. Ration utility use if necessary.
4. City of Arlington EOC liaison should:
- Work in partnership with the UT Arlington with updates, as needed.

VII. DIRECTION & CONTROL

- A. UT Arlington, pursuant to the National Incident Management System, provides general guidance for the public works and engineering function and, when necessary, approves requests for state or federal resources.
- B. The incident commander (IC) will manage public works and engineering emergency resources committed to an incident site and should be assisted by a staff commensurate with the tasks to be performed and resources committed to the operation. If the EOC is not activated, the IC may request additional resources from Arlington. The IC may also request authorized officials to activate mutual aid agreements or emergency response contracts to obtain additional resources.
- C. The EOC may be activated for major emergencies and disasters. The IC shall direct resources committed to the incident site and coordinate resource requests through the Operations Section Chief.
- D. OFM should respond to mission priorities established by the IC, direct departments and agencies with public works and engineering resources to accomplish specific tasks, and coordinate task assignments to achieve overall objectives.
- E. A major emergency or disaster may produce substantial property damage and debris requiring a lengthy recovery operation. In such incidents, it may be desirable to establish a Debris Removal Task Force to manage debris removal and disposal. The task force may continue to operate even after the EOC deactivates. See Support Document 1 for the organization and responsibilities of this element.
- F. Normal supervisors of public works and engineering personnel participating in emergency operations should exercise their usual supervisory responsibilities over assigned personnel, subject to National Incident Management System span of control guidelines. Organized crews from other jurisdictions responding pursuant to inter-local agreements should normally operate under the direct supervision of their own supervisors. Individual volunteers should work under the supervision of the individual heading the team or crew to which they are assigned.

VIII. READINESS LEVELS

A. Normal Conditions - Level 4 –

1. Review and update the Public Works & Engineering Annex biennial.
2. Conduct tests to determine readiness of all emergency equipment.
3. Check readiness of all facilities.

B. Increased Readiness - Level 3 -

1. Correct deficiencies in equipment, facilities and/or supplies.

C. High Readiness - Level 2 - High Readiness

1. Alert personnel for possible emergency duty.
2. Place off-duty personnel on stand-by.

D. Maximum Readiness - Level 1 -

1. Mobilize emergency personnel.

IX. ADMINISTRATION & SUPPORT**A. Resource Support**

1. In the event that campus resources prove to be inadequate during an emergency; requests may be made for assistance from Arlington. In the event that resources from Arlington prove to be inadequate, requests may be made for assistance from the UT System Mutual Aid Plan or Tarrant County emergency management.

B. Reporting

OFM and agencies participating in emergency operations should provide appropriate situation reports to the IC, if established. The IC will forward periodic reports to the EOC.

C. Records

Expenses incurred in carrying out emergency response and recovery operations for certain hazards may be recoverable from the responsible party, insurers, or as a basis for requesting reimbursement for certain allowable costs from the state and/or federal government. All OFM elements should maintain detailed records of labor, materials, equipment, contract services, and supplies consumed during large-scale emergency operations.

F. Post Incident Review

For large-scale emergency operations, the chief of police/emergency management coordinator (EMC) should organize and conduct an after action critique of emergency operations in accordance with the guidance provided in Section IX.E of the Basic Plan.

X. DEVELOPMENT & MAINTENANCE

- A.** The Office of Emergency Management in conjunction with OFM is responsible for developing, and maintaining this annex.
- B.** This annex will be reviewed every two years, and updated in accordance with the schedule outlined in Section X of the Basic Plan.

XI. REFERENCES

- A.** Texas Department of Emergency Management, Texas Disaster Recovery Manual. (IDEM-62).
- B.** Federal Emergency Management Agency, Public Assistance Debris Management Guide (FEMA-325).

- C.** Federal Emergency Management Agency, State and Local Guide for All-Hazard Emergency Operations Planning (SLG-101).
- D.** Federal Emergency Management Agency, Reducing Losses in High Risk Flood Hazard Areas: A Guidebook for Local Officials (FEMA-116).