

ESF-3

PUBLIC WORKS & ENGINEERING

CONTENTS	PAGE
I. PURPOSE	ESF 3.1
II. SITUATIONS AND ASSUMPTIONS	ESF 3.1
A. Situations	ESF 3.1
B. Assumptions	ESF 3.1
III. CONCEPT OF OPERATIONS	ESF 3.2
A. General	ESF 3.2
B. Operational Time Frames	ESF 3.2
IV. ORGANIZATION AND ASSIGNMENT RESPONSIBILITIES	ESF 3.4
A. Primary Agencies	ESF 3.4
B. Support Agencies	ESF 3.5
C. State Agency	ESF 3.5
D. Federal Agency	ESF 3.5
V. DIRECTION AND CONTROL	ESF 3.6
VI. CONTINUITY OF OPERATIONS	ESF 3.6
VII. ADMINISTRATION AND LOGISTICS	ESF 3.6
VIII. ESF DEVELOPMENT AND MAINTENANCE	ESF 3.6
APPENDICES	
1. Activation List	ESF 3.8
2. Organizational Chart	ESF 3.9

ESF-3

PUBLIC WORKS & ENGINEERING

PRIMARY AGENCIES: **Battlefield Public Works**
 Greene County Highway Department

SUPPORT AGENCIES: **City of Battlefield Emergency Management**
 Building Inspector
 Battlefield City Engineer
 Springfield-Greene County Office of Emergency Management

I. **PURPOSE**

The purpose of the ESF is to provide Public Works and Engineering support for assistance in life-saving support or disaster relief through engineering services, technical evaluation, inspection, damage assessment, debris clearance and disposal, support for roads, bridges, vehicles, and buildings, restoration of transportation facilities and flood control associated with a catastrophic disaster. This ESF will organize local public works resources in such a manner that they will be able to perform the many tasks that are essential to an effective emergency (disaster) response.

II. **SITUATION AND ASSUMPTIONS**

A. Situation

1. The City of Battlefield is subject to many types of hazards (**see Hazard Mitigation Plan**). Public works could become involved in any of these and could be asked to perform any of a large number of assignments.
2. The City of Battlefield is served by a Public Works Department and Planning & Zoning Commission.
3. Private resources are available to assist in public works activities as needed.
4. Outside resources are available to assist should all local resources become committed.

B. Assumptions

1. Local public works department would not have adequate resources to cope with anything more than a minor incident..
2. Local private resources may be adequate to supplement public resources.
3. State and federal assistance will respond when called upon.
4. When a disaster occurs, all public works equipment and personnel will be available for response or all available public works resources will be committed and additional help may be needed to complete the mission.
5. There may be numerous incidents occurring simultaneously in separate locations.

6. Ground routes and transportation must be provided to allow access to disaster areas so emergency road repairs and debris clearance will have top priority to support immediate lifesaving emergency response activities.
7. Rapid damage assessment of the disaster area will be necessary to identify target areas and potential workloads.
8. Emergency environmental waivers and legal clearance will be needed for disposal of materials from debris clearance and demolition activities.
9. Secondary events or disasters may threaten lives, property and infrastructures.

III. CONCEPT OF OPERATIONS

A. General

1. The ultimate responsibility for providing public works services to the citizens of Battlefield rests with local government.
2. During a declared emergency, public works will coordinate activities with the EOC or the site commander.
3. This ESF includes:
 - a. Support of technical engineering, construction management, damage assessment, and storm water evaluation through inspection, response and emergency contracting to minimize loss to transportation and drainage services.
 - b. Support for emergency clearance of debris for reconnaissance of damaged areas and passage of emergency personnel, supplies and equipment for lifesaving, life protection, health, and safety purposes during immediate response phase.
 - c. Temporary clearing, repair or construction of emergency access routes which include damaged streets, roads, bridges, waterways, drainage systems, airports and any other facilities necessary for passage of rescue personnel.
 - d. Emergency demolition or stabilization of damaged structures and facilities designated by state or local government as immediate hazards to public health and safety, or as necessary to facilitate the accomplishment of lifesaving operations.
 - e. Assistance with damming, diking and containment of hazardous materials.

B. Actions to be taken by Operational Time Frames

1. **Mitigation**
 - a. The potential hazards (see **Hazard Mitigation Plan**) that could affect Battlefield identify:
 - Special procedures that need to be developed.
 - Vulnerabilities in the public works system.
2. **Preparedness**
 - a. When advised of a potential hazard, check status of:
 - Personnel
 - Equipment
 - Supplies

- Facilities
- b. Train personnel in emergency procedures.
 - c. Ensure protection of all public works personnel and equipment.
 - d. Maintain emergency procedures to include, but not limited to, the following:
 - Call-up lists
 - Priorities for debris removal
 - Priorities for road and bridge repairs
 - Damage assessment/control
 - Priorities for flood control and snow removal
 - Garbage/Debris disposal
 - Evacuation
 - Sheltering of personnel and equipment
 - During evacuation, assistance to Law Enforcement for Traffic Control
 - Support to other agencies
 - e. Review all other ESF's of this plan to clarify public works roles.
 - f. Establish contact with private resources that could provide support during an emergency.
 - g. Participate in drills, tests, and exercises to include critique and follow-up actions.

3. **Response**

- a. Determine the safety of the Emergency Operations Center and any Mass Care Centers as necessary.
- b. Provide support on a priority basis as determined by the EOC or the Incident Commander and provide liaison to the EOC.
- c. Clear roads to facilitate emergency operations. Post high wind alerts where structural damage causes debris in roadways. Be prepared to deploy field repair equipment for public safety vehicles.
- d. Survey public works damage and report to the EOC.
- e. Make recommendations to the EOC on:
 - Priority of repairs;
 - Outside assistance required.
- f. Assist in search and rescue operations as required under the direction of the fire services.
- g. Primary agencies personnel from this ESF will be members of damage assessment teams (**ESF-16**). Besides assessing damage, these personnel will review damaged structures and facilities to determine whether they pose a threat as an immediate hazard to the health and safety of the public. If these damaged structures are deemed threats, they will be prioritized for demolition, stabilization or repair as deemed appropriate by current ordinance, ruling, order or law.
- h. Emergency debris removal efforts will focus on clearing major transportation routes to allow for the movement of emergency vehicles, traffic, and emergency resources and supplies. After major routes are cleared, debris will then be removed from secondary routes, residential neighborhoods, and public parks. Emergency debris removal must adhere to established FEMA guidelines for reimbursement.
- i. Assist in estimating the total population exposed to the emergency.

- j. Clear debris and make repairs to roads and bridges that are impending rescue crews and equipment (lifesaving).
- j. Restore routes to facilities with special needs (temporary shelters, etc.).
- k. Repairs to roads and bridges that have isolated people.
- l. Restore routes to schools and businesses.
- m. Make any necessary repairs to expedite recovery.

4. **Recovery**

- a. Repair public works and buildings on a priority basis.
- b. Maintain debris management procedures.
- c. To minimize impact on landfill capacity, alternative means of disposal will be used when applicable, (i.e., wood and vegetative debris: burned or chipped, appliances: stockpiled until necessary arrangements can be made for disposal, demolition or construction debris should be separated and disposed of accordingly, household garbage: taken to landfill).
- d. The storage and/or disposal of hazardous materials will be done in such a manner so as to protect water supplies and the environment.
- e. Support potable water distribution and sanitary facilities, if necessary.
- f. Provide signage on roads to food, water and ice distribution points.
- g. Support decontamination, as necessary.
- h. Participate in after-action reports and critiques.
- i. Make necessary changes in plans and procedures, such as EOP, with representative from Springfield-Greene County Office of Emergency Management.
- j. Recommend changes in planning, zoning, and building codes to mitigate future disasters.
- k. Obtain proper State/Federal permits for depositing of debris material.

IV. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

A. Primary Agencies:

**Battlefield Public Works
Greene County Highway Department**

- 1. Battlefield's head of Public Works or his/her designee will act as the Public Works Liaison for the City of Battlefield.
- 2. The County Highway Department Administrator or his/her designee will function as the Highway Liaison for Greene County.
- 3. The head of Battlefield's Public Works and County Highway Department Administrator are responsible for ensuring that the streets and roads are cleared of debris and are maintained in good working condition in their respective jurisdictions.
- 4. The Battlefield Public Works Department and County Highway Department will assist other agencies as applicable (i.e., using heavy equipment to assist with rescue operations).
- 5. The Battlefield Public Works Department and County Highway Department will handle issues related to management of emergency debris removal and manage recovery oriented debris removal.
- 6. Maintain records of the cost of supplies, resources and man hours needed to respond to the disaster event.

**Battlefield City Engineer
Battlefield Building Inspector**

1. Battlefield's City Engineer and Building Inspector are responsible for ensuring that buildings, other critical structures and facilities are inspected to determine if they pose a threat as a hazard to the health and safety of the public.
2. This function may require extensive interaction with other departments such as Fire and Law Enforcement to gather information about damage areas.
3. Maintain records of the cost of supplies, resources and man-hours needed to respond to the disaster event.

B. Support Agencies:

City of Battlefield Emergency Management

1. Maintain EOC readiness in the event of a disaster involving the use of this ESF.
2. Coordinate with all Primary and Support Agencies to ensure they have all appropriate and needed resources.
3. Help identify areas for staging of equipment and temporary holding of debris.
4. Coordinate the logistics and management of debris disposal, storage, burning, etc.

Springfield-Greene County Office of Emergency Management

1. Participate as a support agency if the City of Battlefield becomes overwhelmed and requests additional support.
2. Staff debris management "hotlines" in conjunction with Public Information (**ESF-15**) to assist with debris and damage assessment collection information at the request of the City of Battlefield.

C. State Support Agencies

Missouri Department of Natural Resources (MODNR)

1. Coordinate environmental issues with personnel from Primary Agencies.
2. Secure necessary emergency environmental waivers and legal clearances for debris clearance and disposal.

Missouri Department of Transportation (MoDOT)

Coordinate road clearance and repair priorities with Primary Agencies.

Missouri State Highway Patrol (MSHP)

If available and appropriate, provide aerial support services for aerial damage surveys post impact.

Missouri National Guard

If available and appropriate, provide use of heavy equipment and personnel for rescue and debris management operations. Utilize engineering personnel to provide expertise with structural inspections.

D. Federal Support Agency

Department of Defense, U.S. Army Corps of Engineers

Supplement State and local emergency response actions by providing technical advice and evaluation, engineering services, contracting for construction management, inspection, contracting for the emergency repair of water and wastewater treatment facilities, potable water, ice, emergency power and real estate support.

V. DIRECTION AND CONTROL

- A.** All public works response and recovery efforts will be coordinated through the Incident/Unified Command System (UC/ICS) and through the EOC.
- B.** Field communications for the aforementioned personnel will be provided by their own radio-equipped vehicles.
- C.** Outside resources will be under the direct control of the agency supervisors, but will be deployed by the EOC and controlled by the on-site commanders.

VI. CONTINUITY OF OPERATIONS

The key purpose of Continuity of Operations planning is to provide a framework for the continued operation of critical functions. When implemented, these plans will determine response, recovery, resumption, and restoration of Department/Agency services.

COOP Plans for the Departments/Agencies present a manageable framework, establish operational procedures to sustain essential activities if normal operations are not feasible, and guide the restoration of the critical functions of the Department/Agencies functions. The plan provides for attaining operational capability within 12 hours and sustaining operations for 30 days or longer in the event of a catastrophic event or an emergency affecting the department.

VII. ADMINISTRATION AND LOGISTICS

A. Administration

Resources for this function will be requested through the Emergency Operations Center (EOC).

B. Logistics

- 1. Normal hiring procedures for hiring outside contractors can be circumvented, but only when authorized in writing by the chief elected official as outlined in the current ordinance, statute, order or law.
- 2. Other emergency supplies should be procured through normal procurement channels when possible. If normal channels are inappropriate and procurement is made direct, adequate records should be kept.

VIII. ESF DEVELOPMENT AND MAINTENANCE

It is the responsibility of the City of Battlefield, the Office of Emergency Management, Public Works Coordinators, and Greene County Highway Department Coordinators to support the maintenance of this ESF. They will participate in regularly conducted drills and exercises and incorporate the results into the ESF.

ESF-3

PUBLIC WORKS & ENGINEERING

APPENDICIES

CONTENTS	PAGE
APPENDIX 1: Activation List	ESF 3.8
APPENDIX 2: Organizational Chart	ESF 3.9

APPENDIX 1

This is a restricted document

