



Brazoria County, Texas Disaster Debris Management Plan

January 2021



Brazoria County, Texas Disaster Debris Management Plan

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1.1 Overview

1.1.1 Purpose

Brazoria County, Texas (County) approved the update of the Disaster Debris Management Plan (DDMP) to better respond to emergency debris removal situations. The purpose of this plan is to outline the components critical to the success of a debris removal operation in the County. This plan provides key information that will help the County coordinate and effectively manage a turn-key debris removal effort if the County is affected by a major debris-generating incident. Central to the success of debris removal operations the County's understanding of the following elements prior to a debris-generating incident:

- The parties involved and their roles and responsibilities with regard to the debris removal operation;
- The rules, regulations, and guidelines enacted by the Federal Emergency Management Agency (FEMA) and other agencies governing debris removal;
- The process of collecting debris; and
- The disposal of debris, including where the debris will be staged for reduction and/or hauled to final disposal.

1.1.2 Plan Development

This plan provides a coordinated response blueprint for the County and other organizations and contract debris hauling and monitoring firms with a role in disaster debris operations. Departments within the County, as well as regional and private planning partners, have been instrumental in the development of the plan and in clarifying roles and responsibilities in the event of a debris-generating incident. Planning efforts have included participation in a project kickoff meeting to discuss roles and responsibilities in debris management following a disaster, analysis of potential debris management sites, determination of the resources that can be brought to bear in debris-generating incidents, and the collection of data needed for development of the plan. County departments with a role in development of the plan include the following:

- County Judge's Office
- County Commissioner's Offices
- Engineering Department
- Emergency Management Department
- Agricultural Extension
- District Attorney

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- Parks Department
 - Purchasing
 - Sheriff's Department
 - Auditor's Office

1.2 Updates to the DDMP

As part of the update process, the following changes were made to the DDMP:

- Updated contracting guidance.
- Updated historical disaster information for the County.
- Replaced the Saffir-Simpson Hurricane Wind Scale with the current version.
- Updated the authorities and references listed in the DDMP.
- Updated demographic information.
- Updated debris estimates.
- Removed reference to the 70-hour push. Federal guidance has changed and no longer references this.
- Revised the debris management organization chart to better reflect the structure of the County response.
- Streamlined and reformatted the roles and responsibility section.
- Incorporated the use of social media in public information strategies.
- Updated list of resources for diversion of debris from landfills.
- Referenced the use of Automated Debris Management Systems (ADMS) by monitoring firms to document debris management operations.
- Updated the list of regulations listed in the DDMP.
- Updated the Health and Safety Plan.
- Updated the list of potential debris management sites.

1.3 Authority

This DDMP is developed, promulgated, and maintained under the following County, state, and federal statutes and regulations:

State

- Local Government Code, 54.018 Action for Repair or Demolition of Structure
- Government Code, Title 4, Subtitle 418, Chapter 418, Emergency Management; Sec 418.023 Clearance of Debris; Sec 418.0425 State Emergency Management Plan Annex

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- Texas Administrative Code, Title 37, Part 1, Chapter 7; Subchapter A, Emergency Management Program Requirements; Subchapter C
 - Health and Safety Code, Title 5, Subtitle A, Chapter 343 Abatement of Public Nuisances; Subtitle B, Chapter 361 Solid Waste Disposal Act

Federal

- Sandy Recovery Improvement Act (SRIA) included as Division B of the Disaster Relief Appropriations Act, PL 113-2, signed into law January 29, 2013
- Robert T. Stafford Disaster Relief and Emergency Assistance Act, PL 100-707, signed into law November 23, 1988; amended the Disaster Relief Act of 1974, PL 93-288
- U.S. Code, Title 23 Highways, Part 125 Emergency Relief Section 1107 Public Law 112-141 Moving Ahead for Progress in the 21st Century Act (MAP-21), July 2012
- Title 2 Code of Federal Regulations, Part 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (2 CFR 200)
- US Code, Title 42, Chapter 103, Comprehensive Environmental Response, Compensation, and Liability (CERCLA) and Title III of Superfund Amendments and Reauthorization Act of 1986 (SARA)
- Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. §9601 et seq
- Resource Conservation and Recovery Act, 42 U.S.C. §69012 et seq
- Federal Clean Water Act, 33 U.S.C. §1251 et seq
- Toxic Substances Control Act, 15 U.S.C. §1601 et seq
- Occupational Safety and Health Act, 29 U.S.C. §651 et seq
- Hazardous Materials Transportation Act, 49 U.S.C. §1802, et seq

1.4 References

The following references were used in the development of the plan:

Local

- Brazoria County Emergency Management Plan
- Brazoria County Hazard Mitigation Plan, 2017

State

- Managing Debris from Declared Disasters, TCEQ 2017
- State of Texas Emergency Management Plan, Annex K: Public Works and Engineering

Federal

- FEMA Comprehensive Planning Guide 102 Version 2

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- FEMA Publication FP 104-009-2 – Public Assistance Program and Policy Guide, 2020
 - FEMA 329 Debris Estimating Field Guide, September 2010
 - FEMA Public Assistance Alternative Procedures Pilot Program Guide for Debris Removal, Version 6.1, June 28, 2018
 - FEMA Public Assistance Alternative Procedures EMMIE Cost Codes for Debris Removal
 - National Response Framework, Department of Homeland Security, Third Edition, June 2016
 - Pre-Disaster Recovery Planning Guide for Local Governments, FEMA, February 2017
 - National Disaster Recovery Framework, Second Edition, Department of Homeland Security, June 2016

1.5 Incidents and Assumptions

Population and Demographics¹

An important consideration in disaster debris management is the population of the area to be served under the plan and factors relating to demographics that will need to be considered in developing strategies for debris removal strategies and communications. According to the U.S. Census Bureau, in July 2018 the population of the County was estimated at 370,200. 26.6% of the population speaks a language other than English at home. The County will need to ensure that public information regarding set-out procedures and the safe handling of debris is accessible in multiple formats. In addition, 11.8% of the population is over the age of 65 and approximately 10.1% of the population live in poverty. During disasters, populations with functional and access needs and socio-economic barriers, which may include persons over the age of 65 and persons in poverty, often have less access to resources and support. The County will consider the needs of these populations in planning and in response to a debris-generating incident.

Physical Characteristics

The County encompasses approximately 1,597 square miles in southeast Texas. The topography of the County is mostly flat. The geographic location of the County makes it susceptible to several types of incidents that could result in widespread disaster debris, including hurricanes/tropical storms, flooding, tornadoes, severe thunderstorms with high winds, and wildfire.²

With regard to debris removal efforts, this plan assumes the following:

- The greatest threat of a debris-generating incident to the County is in the form of a hurricane or a flooding incident.
- The response and recovery outlined in this plan is designed to address two types of debris-generating scenarios:
 - Scenario 1: Low Probability – High Consequence Incidents (Hurricane)
 - Scenario 2: High Probability – Medium Consequence Incidents (Flooding)

¹ U.S. Census Bureau QuickFacts: Brazoria County, Texas, 2020

² Brazoria County Hazard Mitigation Plan, Part 4 Hazard Identification

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- In the event of a debris-generating incident, the County may activate one or more debris removal contractors.
 - In the event of a debris-generating incident, the County may activate a monitoring firm.
 - If warranted, the County will request federal assistance from FEMA through the State.
 - The County will be operating under the current Public Assistance (PA) guidelines for reimbursement as described in the Stafford Act. Changes to the PA Program or published program-specific guidance may result in a revision to the DDMP or its implementation.

1.5.1 Incident Description

The multi-hazard DDMP is designed to address numerous debris-generating incident scenarios. For the purposes of the DDMP, two scenarios have been developed based on maximum impact, ability to respond, and frequency of incident.

Scenario 1: Low Probability – High Consequence

This scenario focuses on catastrophic debris-generating incident that may significantly impact the County. In this case, resources are severely strained throughout the entire region, and a Presidential Disaster Declaration for Category A is immediate or imminent due to:

- Long-term impacts to roads, bridges, and highways;
- Composition of debris includes vegetative and construction and demolition (C&D) debris; and
- Post-incident debris estimates have the potential to exceed 100,000 cubic yards (CY).

This incident is best described as a Category 3 hurricane. The period for debris removal and demobilization may last from 3 months to 1 year and beyond.

The National Oceanic and Atmospheric Administration (NOAA) National Weather Service utilizes the recently updated Enhanced Fujita (EF) Scale to rate the severity of tornadoes. The table below describes the EF Scale and associated wind speed categories.

Scenario 2: High Probability – Medium Consequence Impact

This scenario focuses on those higher frequency debris-generating incidents that may impact the County. These incidents may be characterized as those that do not immediately receive a Presidential Disaster Declaration for Category A:

- Short-term impacts to roads, bridges, and rail lines;
- Composition of debris is primarily C&D with some vegetative debris and white goods; and
- Post-incident debris estimates do not exceed 100,000 CY.

This incident is best described as a flood. The period for cleanup may last from 1 to 2 months. Depending on the severity of the incident, debris management site (DMS) locations may or may not be operational. In this case, the cities may choose to rely on local contractors or force account labor.

1.6 Debris Volume Estimate

The debris volume generated by an incident will depend on the type of incident. Table 1-3 describes the disaster incidents that may affect the County. The table also illustrates the probability of the disaster incident occurring, the nature of the debris generated, the debris generation potential, and the widespread impact to the County.

Table 1-1: Potential Disaster Incidents

Type of Incident	Risk Rating ³	Nature of Debris	Debris Generation Potential ⁴	Widespread Impact
Flood	High	Vegetative C&D HHW	Medium to High	Medium to High
Hurricane/Tropical Storms	High	Vegetative C&D Personal Property HHW White Goods Vehicles Putrescent	High	High
Tornado	High	Vegetative C&D HHW Limited White Goods	High	Low
Wildfires	Likely	C&D HHW	Low to Moderate	Low

For planning purposes, this plan will be based on debris volumes generated by the most probable incident to produce conditions common to a Category 1 to 3 hurricane. However, the guidance that follows in this plan will apply to all debris-generating incidents that may affect the cities.

1.6.1 Debris Estimate

Three For purposes of generating debris estimates for the DDMP under Scenario 1, the low probability, high consequence debris incident is assumed to be a hurricane impacting the County. A hurricane has the greatest opportunity to generate large quantities of debris and therefore will act as the basis for the high-volume debris estimate.

The Saffir-Simpson Hurricane Wind Scale is a 1 to 5 rating based on a hurricane's sustained wind speed. This scale estimates potential property damage. Hurricanes reaching Category 3 and higher are considered major hurricanes because of their potential for significant loss of life and damage. Category 1 and 2 storms are still dangerous, however, and require preventative measures. In the western North Pacific, the term "super typhoon" is used for tropical cyclones with sustained winds exceeding 150 mph.⁵

³ Brazoria County Hazard Mitigation Action Plan, Part 4 Hazard Identification

⁴ The ability of a particular incident to produce debris based upon historical data on each incident. High could generate more than 1,000,000 cubic yards of debris; medium could generate more than 50,000–1,000,000 cubic yards; and low could generate 25,000–50,000 cubic yards of debris.

⁵ National Hurricane Center Website, Saffir-Simpson Hurricane Wind Scale

Table 1-2: Saffir-Simpson Hurricane Wind Scale

Saffir-Simpson Hurricane Wind Scale		
Category	Sustained Winds	Types of Damage Due to Hurricane Winds
1	74-95 mph	Very dangerous winds will produce some damage
2	96-110 mph	Extremely dangerous winds will cause extensive damage
3 (major)	111-129 mph	Devastating damage will occur
4 (major)	130-156 mph	Catastrophic damage will occur
5 (major)	157 mph or higher	Catastrophic damage will occur

Table 1-3 provides information on the tropical storms and hurricanes that have caused greater than 1 million dollars in property damage to the County in the past.

Table 1-3: Past Tropical Storms and Hurricanes Affecting Brazoria County

Location	Date	Magnitude	Property Damage	Remarks
Coastline	8/21/1998	Tropical Storm	5,000	Tropical Storm Charley (Landfall near Corpus Christi)
Countywide	9/7/1998	Tropical Storm	\$28 Million	Tropical Storm Francis (Landfall southwest of Victoria)
Coastline	8/30/2003	Tropical Storm	\$30,000	Tropical Storm Grace (Landfall between Port O'Connor and Freeport)
Countywide	6/5/2001	Tropical Storm	\$22.2 Million	Tropical Storm Allison (Landfall at Galveston)
Countywide	7/14/2003	Category 1	\$20 Million	Hurricane Claudette (Landfall at Port O'Connor)
Countywide	9/23/2005	Category 3	\$500,000	Hurricane Rita (Landfall in southwest Louisiana)
Countywide	9/12/2008	Category 2	\$700 Million	Hurricane Ike (Landfall at Galveston)
El Bernardo, Sweeny, West Columbia	7/1/2010	Category 2	1.75 Million	Hurricane Alex (Landfall in northern Mexico)
Coastline	6/15/2015	Tropical Storm	No damage	Tropical Storm Bill (Landfall at Matagorda Island)
Countywide	8/29/2017	Category 4	2 Billion	Hurricane Harvey (Landfall near Rockport)

A tool for estimating the quantities of debris from a hurricane is the U.S. Army Corps of Engineers (USACE) Hurricane Debris Estimation Model. The model takes into account several variables to provide an estimate of the cubic yards of debris that might be generated from a hurricane. An explanation of the model and the variables used to determine the debris estimates for Brazoria County are listed below.

Debris Forecast Formula

The forecasted amount of residential debris in the cities is based on the following formula.

$$Q=H(C)(V)(B)(S)$$

Where:

Q = Cubic yards (CY) of debris

H = Number of households in the community

C = Storm category factor (Category 1)

V = Vegetative characteristic multiplier

B = Commercial multiplier

S = Precipitation characteristic multiplier

Storm Category

C is the storm category factor as shown below. It expresses debris quantity in CY per household by hurricane category and includes the house, its contents, and land foliage. Debris estimates will be provided for each hurricane category.

Table 1-4: Storm Category Factor

Hurricane Category	Value of "C" Factor
1	2
2	8
3	26
4	50
5	80

Vegetative Cover

V is the vegetation multiplier as shown below. It acts to increase the quantity of debris by adding vegetation, including shrubbery and trees, on public rights-of-way.

- Light (1.1 multiplier) includes new home developments where more ground is visible than trees. These areas will have sparse canopy cover.
- Medium (1.3 multiplier) generally has a uniform pattern of open space and tree canopy cover. This is the most common description for vegetative cover.
- Heavy (1.5 multiplier) is found in mature neighborhoods and woodlots where the ground or houses cannot be seen due to the tree canopy cover.

For the purpose of providing debris estimates for Brazoria County, a medium vegetation cover will be used.

Table 1-5: Vegetative Cover Factor

Vegetation Cover	Value of "V" Factor
Light	1.1
✓Medium	1.3
Heavy	1.5

Commercial Multiplier

B is the multiplier that takes into account areas that are not solely single-family residential, but includes small retail stores, schools, apartments, shopping centers, and light industrial-manufacturing facilities. Built into this multiplier is the offsetting commercial insurance requirement for owner/operator salvage operations. For the purpose of providing debris estimates for Brazoria County, a medium commercial density will be used.

Table 1-6: Commercial Multiplier Factor

Commercial Density	Value of "B" Factor
Light	1
✓Medium	1.2
Heavy	1.3

Precipitation Multiplier

S is the precipitation multiplier that takes into account either a "wet" or "dry" storm incident. For the purpose of providing debris estimates for Brazoria County, a medium to heavy precipitation characteristic will be used.

Table 1-7: Precipitation Multiplier Factor

Precipitation Characteristic	Value of "B" Factor
None to Light	1
✓Medium to Heavy	1.2

USACE Hurricane Model Estimate Results

Table 1-8, shows the estimated quantity of debris using the USACE hurricane model estimates for each hurricane category based upon the Brazoria County unincorporated area population of 148,114 and an estimate of 51,788 households in the unincorporated area of Brazoria County.

Table 1-8: Hurricane Debris Estimate

Unincorporated Households of Brazoria County	Storm Category	Storm Category Factor	Vegetative Cover Factor	Commercial Factor	Precipitation Factor	Total Estimated CY of Debris
51,788	1	2	1.3	1.2	1.2	210,000
	2	8				840,000
	3	26				2,730,000
	4	50				5,250,000
	5	80				8,400,000

1.6.2 Local Resource Needs Assessment

Local resources, also known as force account resources, are County-owned resources, including equipment and labor, that the County can use to respond to a debris-generating incident. For relatively minor incidents, the County can rely on its own resources to respond. For larger-scale

incidents and disasters, the demand for resources may quickly overwhelm the resources that the County might have available. In that case, the County may look to mutual aid resources or may rely upon contracted services to provide the needed staffing, equipment, and expertise to help manage the debris. In the event of a large-scale disaster, the County must assess the local labor and determine the resources that might be needed to respond.

The matrix below provides resource requirements for hurricane and flooding debris incidents based on the debris estimation models.

Assumptions regarding resource requirements for hurricane and flooding incidents include the following:

- Average debris collection truck capacity is 35 CY.
- Average number of trips per day for each collection truck is six.
- One monitor in place for each loading unit. Note that a Disposal Monitor will also be needed at the disposal site and DMS if activated.
- Contractor will use tandem self-loading vehicles—two containers for each loading device.
- Volume of debris that can be staged per acre is based on a 20-foot stack height: 32,267 CY/acre.
- Minimum area for a DMS is 5 acres.
- The number of operational days will vary depending on the scope of the operation.
- Number of trucks will fluctuate throughout the operation. Table 1-9 lists the debris resource requirements over the entire operation.

Table 1-9: Debris Resource Requirements

Hurricane Category	Total Debris (CY)	Operational Days	DMS Acres Needed	Tandem Trucks Needed	Collection Monitors Needed
1	210,000	30	10.8	33	17
2	840,000	90	43.2	44	22
3	2,730,000	180	140.5	72	36
4	5,250,000	270	270.1	92	46
5	8,400,000	365	432.2	109	55

Section 2

ROLES AND RESPONSIBILITIES

2.1 Administration and Logistics

Staff from each of the County departments involved in debris management activities will document the personnel, equipment, and material resources used to comply with this plan. Documentation will then be used to support reimbursement from any state or federal assistance that may be requested or required.

The County will implement 12-hour staffing for debris operations as the emergency or disaster requires or as directed by the Debris Manager [County Engineer].

The County Engineering Department is responsible for the annual review of this plan. It will be the responsibility of each tasked County department and agency to update its respective portion of the plan and ensure any limitations and shortfalls are identified and documented, and work-around procedures are developed, if necessary.

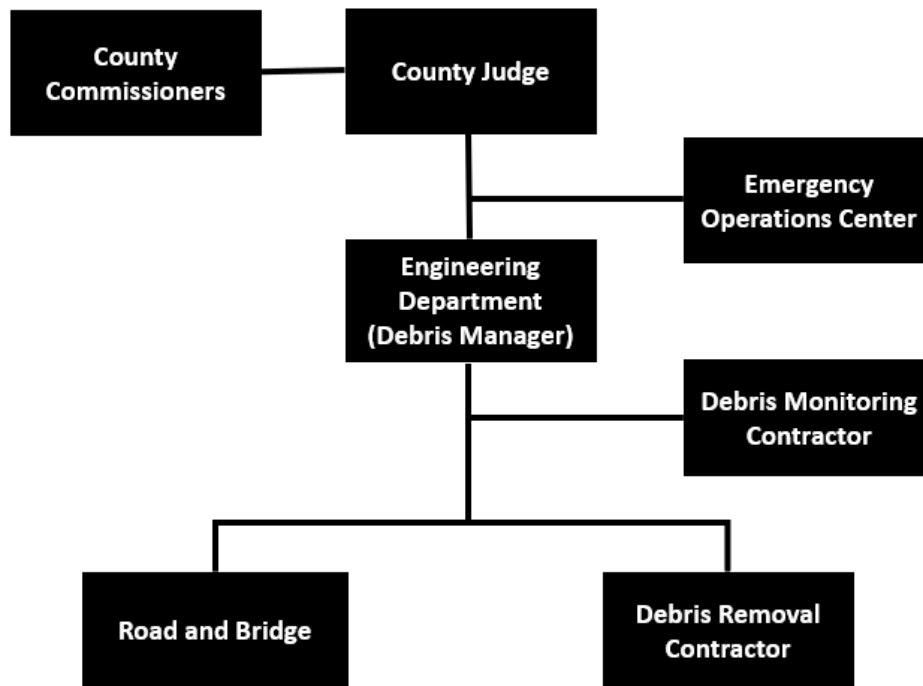
The review will consider such items as:

- Changes in mission;
- Changes in concept of operations;
- Changes in organization;
- Changes in responsibility;
- Changes in desired contracts;
- Changes in pre-positioned contracts; and
- Changes in priorities.

2.2 Debris Management Organization

To prevent duplication of effort following a disaster incident, roles and responsibilities of key staff and County departments, as related to debris removal and management, must be clearly defined prior to a disaster. An organization structure for local management of debris-generating incidents is depicted on Figure 2 1. The purpose of the organizational chart is to further clarify roles and facilitate local communication following a disaster.

Figure 2-1: Debris Management Operations Chart



2.3 Key Roles and County Departments in Debris Management

Key roles and departments that could be needed for debris management operations are described below. The level of staffing for response to a debris-generating incident will depend on the magnitude of the incident.

2.3.1 County Judge’s Office

The County Judge is the highest authority in the County and is responsible for the day-to-day management of Brazoria County.

- Call for the initiation of debris removal operations upon receiving recommendations from the Engineering Department.
- Provide elected officials and the public with information regarding the progress of the debris removal efforts.
- Carry out County policies in accordance with State law.

2.3.2 County Commissioners

The County Commissioners are generally responsible for all legislative and governing activities of the County and are the community’s decision makers.

Section 2

- Provide approval for various contracts and documents throughout the debris removal operation.
- Address inquiries from their constituents regarding debris operations.

2.3.3 Emergency Management

Emergency Management is responsible for monitoring potential threats and coordinating the evacuation of citizens in the event of a disaster.

- Activate the Emergency Operations Center (EOC) and manage the EOC throughout the course of response and recovery.
- Request needed resources through mutual aid agreements or through the State of Texas Assistance Request (STAR) process.
- Coordinate mitigation and preparedness activities.
- Coordinate training and exercises.
- Conduct after action briefings and develop after action reports and improvement plans following exercises and real incidents.

2.3.4 Engineering Department

Following a disaster, the Engineering Department will be the lead department responsible for coordinating with external agencies such as the State and federal government regarding debris removal.

- Assign a staff member to serve as the Debris Manager.
- Obtain DMS approval
- Maintain responsibility of contractor work and payments
- Assist the Treasurer's Office in Project Worksheet (PW) development following a disaster
- Assist in debris damage assessments
- Maintain the road list and geographic information systems (GIS) data related to debris removal operations
- Schedule all training activities and meetings regarding the issue of debris management
- Coordinate with designated County departments prior to and after an event
- Act as the County's representative in discussions and meetings with external agencies (e.g., utility companies) regarding debris removal
- Communicate and meet with various State and federal agencies (e.g., FEMA, the Texas Division of Emergency Management (TDEM) and the Texas Department of Transportation (TxDOT))
- Coordinate with the monitoring firm regarding contractor invoice reconciliation

- Provide the County Judge and the County Commissioners with information regarding the progress of the debris removal effort
- Activate monitoring firm and debris removal contractors
- Oversee all private contractors, including hauling and monitoring firms, through the duration of the cleanup process.

2.3.5 Debris Manager (County Engineer)

- Activate contractors for debris clearing and debris monitoring services.
- Establish priorities for debris management operations.
- Collaborate with federal, state, and other agency representatives.
- Provide updates to Emergency Management regarding debris management operations.
- Coordinate with the County Public Information Officer to develop public information messages regarding debris operations.
- Coordinate with the Auditor's Office in the tracking of debris management costs.
- Coordinate the demobilization of debris management operations.
- Coordinate local and contract resources to conduct special debris operations including removals of dangerous trees, privately owned vehicles, and vessels, waterway debris, parks debris, and private property debris in accordance with FEMA authorization and guidelines.
- Track progress of debris collection, recycling, and disposal in coordination with the Debris Monitoring contractor.
- Coordinate with the Safety Officer in the EOC to ensure debris collection and disposal operations are conducted in a safe manner.
- Ensure all hours, expenses, and equipment use are accurately documented.

2.3.6 Road and Bridge

Road and Bridge, in conjunction with the Engineering Department, will lead logistical operations prior to and following a disaster event.

- Facilitate debris removal, reduction and disposal activities.
- Pre-position equipment for emergency roadway clearance prior to a disaster event.
- Assist in emergency roadway clearing activities following a disaster event.
- Conduct debris damage assessments of the County following a disaster event.
- Assist in the oversight of all private contractors, including hauling and monitoring firms, through the duration of the cleanup process.

2.3.7 Parks Department

The Parks Department is responsible for all County parks and facilities.

Section 2

- Assist in debris removal from County park properties.
- Oversee debris removal from County parks.
- Provide space for storage space of debris clearance equipment.
- Provide park space to serve as DMS as needed.

2.4 Interdepartmental Coordination

With the Engineering Department acting as the lead agency in the cleanup effort, additional County departments will have specific duties to assist in the recovery effort. An account of the primary roles and responsibilities for each department is summarized below.

2.4.1 AgriLife Extension Service

The AgriLife Extension Service is generally responsible for providing guidance regarding the preparedness for and response to animal-related emergency situations. During a debris-generating event, the Agricultural Extension Office will:

- Assist in the coordination of cattle and livestock evacuation.
- Coordinate with the United States Department of Agriculture (USDA) and the Texas Animal Health Commission (TAHC) regarding the disposition of animal carcasses.
- Provide consulting assistance regarding DMS reclamation.
- Provide disaster recovery information to communities and individuals.

2.4.2 District Attorney

The District Attorney is responsible for ensuring the legality of all debris removal activities and provides legal advice and representation to the County Commissioners, County Judge, staff, and official boards and commissions of Brazoria County.

- Review all contracts (e.g., Right-of-Entry (ROE), Hold Harmless, Subrogation of Insurance), including any contracts for the use of private land for DMS locations.
- Interact with the State Legislature to ensure that the County will receive support during significant incidents that overwhelm County resources.

2.4.3 Purchasing Department

The Purchasing Department is generally responsible for the procurement and contracting of equipment and services for the County.

- Procure and contract for needed equipment and services for debris operations.
- Coordinate with the Engineering Department regarding project worksheet (PW) development.

2.4.4 Sheriff's Office

The Brazoria County Sheriff's Office is responsible for preserving peace and order, preventing and detecting crime, apprehending offenders, and enforcing the law within County limits.

- Coordinate with the debris contractor to provide security at the DMS.
- Provide situational awareness to the EOC.
- Coordinate with the Medical Examiner's Office in death investigations.
- Enforce any curfews enacted by Commissioner's Court.

2.4.5 Auditor's Office

The Treasurer's Office is responsible for the monitoring of all financial systems, accounting, revenue management and fiscal reporting for the County.

- Monitor and track costs associated with debris management operations.
- Coordinate with FEMA and the Engineering Department regarding project worksheet development.

2.4.6 Volunteer Fire Departments

Fire departments throughout the County are largely staffed by volunteer firefighters. These firefighters have several areas of responsibility, including fire suppression, emergency medical services, public fire safety and public education.

- Suppress fires at DMS.

2.5 Texas State Agencies

2.5.1 Texas Animal Health Commission (TAHC)

- Assist in the disposition of dead animals.

2.5.2 Texas Commission on Environmental Quality (TCEQ)

- Oversee and approve DMS selection and closure.
- Provide guidance in managing and disposing of debris from a disaster.
- Provide regulatory assistance to local governmental and other entities in debris management operations, relating to compliance with environmental laws, to enable them to be eligible for FEMA reimbursement.

2.5.3 Texas Department of State Health Services (DSHS)

- Coordinate with the Brazoria County Health Department to monitor the health status of affected communities and respond to any public health threats. The DSHS Asbestos Program is tasked with regulating and enforcing asbestos regulations in the State of Texas.

2.5.4 2-1-1 Texas, Texas Health and Human Services Commission (HHSC)

- Serve as a resource to the cities to help provide information to the public regarding debris management operations.

2.5.5 Texas Division of Emergency Management (TDEM)

- Coordinate resource requests for state assets, i.e., the National Guard or other State agencies or from neighboring Disaster Districts.

2.5.6 Texas General Land Office (GLO)

- Provide assistance in the removal of derelict vessels and coordinate debris removal from publicly owned beaches and State-owned submerged lands.
- Manage recovery grants through the U.S. Department of Housing and Urban Development (HUD).

2.5.7 Texas Historical Commission (THC)

- Provide a review and certification of sites for potential use as DMS.

2.5.8 Texas Department of Transportation (TxDOT)

- Conduct emergency road clearing activities immediately after a natural disaster and the “first pass” of debris removal on all state and federal roads.

2.6 Federal Agencies

2.6.1 Federal Emergency Management Agency (FEMA)

- Provide guidance to affected cities regarding debris eligibility and the FEMA reimbursement process.
- Develop PWs for the County’s debris cleanup operations.
- Oversee any private property cleanup, should this be declared.

2.6.2 Federal Highway Administration (FHWA)

- Fund debris clearance and removal on federal aid highways through the Emergency Relief (ER) Program for an incident not declared a major disaster or emergency by the President under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, or an incident declared a major disaster or emergency by the President under that Act if the debris removal is not eligible for assistance under Section 403, 407, or 502 of that Act.

2.6.3 Natural Resources Conservation Service (NRCS)

- Provide assistance through the Emergency Watershed Protection (EWP) Program in debris cleanup for runoff retardation or soil erosion prevention that causes impairment in a watershed and is an imminent threat to life or property.

2.6.4 Office of Inspector General (OIG)

- Conduct an aggressive and ongoing audit effort designed to ensure that disaster relief funds are spent appropriately, while identifying fraud, waste, and abuse as early as possible.

2.6.5 U.S. Army Corps of Engineers (USACE)

- Assist local jurisdictions in debris removal operations following catastrophic incidents as well as provide assistance in assessing and restoring critical infrastructure.

2.7 Private Enterprise

A listing of private enterprise firms contracted by the County to provide services in response to a debris generating incident can be found in Appendix A: Contacts and Resource List.

2.7.1 Debris Hauling Firm

- Clear and remove debris from County roadways and waterways to make them passable immediately following a declared disaster.
- Conduct debris removal from the right-of-way (ROW).
- Manage and operate DMS locations.
- Conduct debris reduction.
- Haul-out reduced materials to recycling/end-use facilities.
- Remove hazardous leaning trees and hanging limbs.
- Removal of hazardous stumps.
- Remove white goods debris from the ROW.
- Coordinate the removal of household hazardous waste (HHW) from the ROW.
- Coordinate derelict vehicle removal and abandoned vehicle removal.

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- Remove animal carcasses from areas designated by the County.
- Build relationships with County officials to have an active voice in the debris operations.
- Communicate status of operations and supply chains as well as challenges and time lines to local officials.

2.7.2 Debris Monitor Firm

- Perform truck certifications.
- Conduct DMS monitoring.
- Conduct ROW collection monitoring.
- Conduct disposal site monitoring.
- Support monitoring and documentation of hazardous tree removal and specialized debris removal programs such as waterways debris removal and private property debris removal.

2.8 Nonprofit Organizations

- Assist residents unable to bring debris to the ROW.
- Assist the County in communicating instructions to populations with communication barriers.

Section 3

DEBRIS COLLECTION AND REMOVAL PLAN

This section provides guidance required for all phases of a debris-generating incident. For the purposes of this plan, four phases are discussed: Normal Operations, Pre-Incident Preparation, Post-Incident Response, and Post-Incident Recovery.

3.1 Normal Operations

Normal Operations is the period of time when the County is not in any serious threat of a disaster incident. Severe weather can occur at any time but are most likely to take place throughout the spring and summer months in the southern portions of the United States. However, the County's geographic location is in an area of the country where severe storms, tornadoes and flooding can occur any time during the year, so it is imperative to maintain a constant state of preparedness throughout Normal Operations by reviewing and updating the plan annually.

The Normal Operations phase is the ideal time for the County to establish and/or review pre-positioned contracts with its monitoring firm and debris removal contractor(s) and review current local ordinances and their historical impact on debris removal operations. The Normal Operations period is also the ideal time for the Engineering Department and Emergency Management to re-evaluate the roles and responsibilities of each department and other involved outside agencies. The purpose of this evaluation is to ensure that all impacted departments and external agencies maintain the capacity to fulfill their obligations in a timely and effective manner should a disaster strike the cities. Once roles and responsibilities have been re-evaluated, a review and update of the plan should be conducted annually prior to severe weather season. Also, prior to hurricane season, a pre-season kickoff meeting should be held between the County and the pre-positioned monitoring firm and debris removal contractors. The Normal Operations Checklist is also provided in Appendix B: Debris Management Operations Checklist.

3.1.1 Normal Operations Checklist

- Update contact lists.
- Evaluate DMS locations.
- Review road list and road maps.
- Establish and maintain pre-positioned contracts.
- Review FEMA guidance.

Update Contact Lists

Contact lists for staff should be updated periodically to reflect changes in personnel or contact information.

Evaluate DMS Locations

Locations identified to serve as DMS following a debris-generating incident should be re-evaluated annually to ensure they remain viable candidates for DMS operations. Likewise, additional DMS locations may be identified as the development and landscape of the County progresses over time. The County can obtain pre-approval for DMS through the TCEQ; however, the County must still submit a Request for Approval of Temporary Debris Management Site form to the TCEQ regional office for each site they plan to operate as a DMS prior to conducting DMS operations. The County must also gain approval for DMS use through the Texas Historical Commission (THC). Federal regulations require permitting through both the TCEQ and THC before DMS operations can commence. Estimates of the amount of acreage needed for DMS in the County can be found in Appendix C. A listing and analysis of potential DMS in the County can be found in Appendix O: Debris Management Site Analysis Report.

Review Road List and Road Maps

Changes or updates relating to road segments and applicable maintenance responsibility among local, state, and federal agencies are critical for reimbursement through the PA Grant Program and the Federal Highway Administration-Emergency Relief (FHWA-ER) Program.⁶ It is critical that the County review and update road lists and maps annually. Updated and accurate road lists and maps will assist in documenting debris removal operations and thereby assist the County during the reimbursement process.

Establish and Maintain Pre-Positioned Contracts

During times of normalcy, the County should establish, and maintain pre-positioned contracts for debris monitoring and debris removal services. The procurement of such services should be compliant with the County's Purchasing Policies and Procedures and the procurement competition requirements specified in 2 Code of Federal Regulations 200 (2 CFR 200). According to 2 CFR, the County must follow the strictest procurement policy. See Appendix D for additional guidelines and checklists to aid in contracting. See Appendix E for a sample Request for Proposal with a debris hauler scope of work. See Appendix A for a list of debris removal contractors that may be pre-positioned by the County.

Review FEMA Guidance

Rules and regulations dictating operational procedures change periodically, the information in the plan should be updated annually to reflect such changes.

3.2 Pre-Incident Preparation

The County should begin pre-incident preparations when a potential debris-generating hazard is moving toward the County. However, because of the relatively short notice that most incidents provide the opportunity to make pre-incident preparations can be limited. If it is feasible to employ pre-incident preparations, key County personnel, and representatives of involved outside agencies,

⁶ FHWA Special Federal Aid Funding, <https://www.fhwa.dot.gov/programadmin/erelief.cfm>

as well as their staffs, should be put on alert and maintain awareness that they may be required to work extended hours in adverse conditions.

The availability of pre-selected/pre-approved DMS locations will be evaluated by the Engineering Department. An analysis of the designated DMS location for the County can be found in Appendix C. A sample memorandum of understanding for establishing an agreement with a private owner for use of their land as a DMS can be found in Appendix F. Alternate locations may be considered if the pre-approved site is not available. County representatives should place the pre-positioned monitoring firm and debris removal contractors on stand-by.

County representatives should be familiar with 2 CFR Super Circular as part of the federal contracting requirements to receive federal awards: <https://www.govinfo.gov/app/details/CFR-2014-title2-vol1/CFR-2014-title2-vol1-part200>.

3.2.1 Pre-Incident Checklist

- Download most recent road list and relevant documents to a portable storage device.
- Alert key personnel and place monitoring firm and debris removal contractors on stand-by.
- Review plan with key personnel.
- Issue pre-incident media press releases.

The checklist performed during pre-incident preparation is critical in assembling a coordinated response. The checklist is a valuable tool to ensure that proper steps are taken in a time of extreme duress. The Pre-Incident Checklist is also provided in Appendix B.

Download Most Recent Road List and Relevant Documents to a Portable Storage Device

The Engineering Department will acquire and download to a portable storage device the most recent street list and maps of the County prior to the debris-generating incident. Many of the computers and servers that store this information may be unavailable immediately following an incident. Having this information on-hand ensures that debris collection operates properly and commences in a timely manner. It is critical that the County provide updates of the road list to the monitoring firm as they become available.

Copies of the portable storage device should be stored with the Engineering Department in a safe location outside the projected path of the debris-generating incident.

Alert Key Personnel and Place Monitoring Firm and Debris Removal Contractors on Stand-By

Prior to a debris-generating incident, Engineering Management, in coordination with Emergency Management, should contact key County personnel to inform them of information needed to begin the response and recovery process.

The debris monitoring firm and debris removal contractors should be put on alert that their contracts may be activated. (See Appendix A for contact information.) Discussions with the monitoring firm and debris removal contractors should address the following key issues:

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- Availability and amount of assets that will be dedicated to debris removal operations;
- Estimated time of mobilization;
- Exchange of mobile contact information; and
- Identification of staging area(s) for truck certification.

Review Plan with Key Personnel

Once an initial meeting is scheduled with key contacts, County staff with a role in debris management, the monitoring firm, and debris removal contractors should review the DDMP. During the initial meeting, the Health and Safety Strategy located in Appendix G of this plan should also be reviewed by the County and modified/appended as necessary.

3.2.2 Public Information Pre-Incident

The Debris Manager, as assigned by the County, and the Public Information Officer through the EOC will disseminate a message preparing residents for the potential debris removal operation. The message should assure the public that the County is prepared and has a plan in place to immediately respond to an incident. The message should also include information on County office closure times/dates (this should include information regarding garbage collection and County facilities). In addition, the County should provide information on proper set-out procedures and estimates on when the cleanup process will begin. A draft message for this scenario is included in Appendix H.

3.3 Post-Incident Response

Immediately following the incident, roadways must be cleared of scattered debris, leaning trees, and other obstructions in roadways for emergency response vehicles. This specific operation is reimbursable by FEMA on a time and materials basis. It is critical that all types of equipment and the amount of time the equipment is used are documented with detail and accuracy. (Please note that the reimbursement criteria and duration for time and materials work is subject to change following a disaster.)

During this phase, the County will initiate emergency road clearance activities. If necessary, the County may request additional resources for emergency road clearance operations from the debris removal contractor. Road clearance priorities are pre-established to allow access to critical public facilities such as: fire stations, police stations, hospitals, shelters, emergency supply centers, and other critical facilities. Concurrent to emergency push operations, the County's debris removal contractors should perform necessary preparation work to open the DMS location.

3.3.1 Emergency Road Clearance Priorities

Certain roads will require priority for emergency road clearance operations. Priority roads are deemed as such based on many considerations including size, proximity to adjacent citizen populations, Police and Fire Department locations, and ingress/egress capabilities for the community. The list of priority roads is within Appendix I.

3.4 Post-Incident Response Checklist

The following Response Checklist is critical in assembling a coordinated response. The checklist is a valuable tool to ensure that proper steps are taken in a time of extreme duress. The Response Checklist is also provided in Appendix B.

- Conduct damage assessment.
- Establish a DMOC.
- Activate monitoring firm and debris removal contractors.
- Begin emergency roadway debris clearance.
- Begin truck certification.
- Prepare DMS based on concentration of debris.
- Conduct meetings/briefings with key personnel.
- Review debris volume and collection cost assessment.
- Request contact information and meeting with FEMA Public Assistance Program Delivery Manager (PDMG).
- Issue media press release.

3.4.1 Conduct Damage Assessment

Damage assessments are necessary to determine the extent and the location of the debris. Windshield surveys of affected cities should be taken and used to communicate critically damaged areas to the EOC. If possible, additional aerial surveys should be conducted by helicopter or drone to obtain an aerial view of damaged areas within the cities. Often, aerial surveys are available through debris removal contractors independently surveying affected areas to determine asset levels and configuration.

3.4.2 Establish a Debris Management Operations Center

To effectively manage debris operations, a DMOC may be established by the Debris Manager. From the DMOC, key strategies and functions of debris management operations will be coordinated in collaboration with other County departments with a role in debris management as well as the debris monitor and debris hauler. In addition, the DMOC will also be the hub for information regarding the status of debris management operations with information flowing in from field operations staff, processed in the DMOC, and then used to provide situational awareness regarding debris management operations to the EOC. The Engineering Department, in coordination with the debris monitoring firm, will provide the necessary staffing to operate the DMOC with support from other County departments as needed. An Engineering Department County staff member will be selected by the department to serve as the Debris Manager to lead County debris operations and direct DMOC activities. The responsibilities of the Debris Manager are listed in Section 2.3.5 of this plan.

3.4.3 Activate Monitoring Firm and Debris Removal Contractors

The Debris Manager, working in coordination with Emergency Management, will utilize the damage assessments to determine whether to activate the monitoring firm and debris removal contractors. Once the monitoring firm and debris removal contractors are activated, the contractor should review an updated priority road list (Appendix I), debris collection zone map (Appendix J), and the Health and Safety Strategy (Appendix G). The monitoring firm and debris removal contractors should begin logistical coordination and equipment ramp-up immediately upon receiving a Notice to Proceed.

Monitoring Function

Upon activation, the monitoring firm deploys staff to support truck certification, collection, and Disposal Monitoring functions. The monitoring firm will orient employees with operational procedures and refresh staff with the field training program on current debris removal eligibility, FEMA requirements, County debris removal contract requirements, and safety procedures. Collection monitors must carefully document debris collection information to demonstrate eligibility and ensure proper debris removal contractor payments and FEMA reimbursement. Most monitoring firms use a Automated Debris Management System (ADMS) as part of their standard operations to document monitoring functions. The documentation should include:

- Recipient name
- Location of debris, including full address and zone
- Time and date of collection
- Name of contractor
- Name and unique employee monitor number
- Truck certification number
- Truck capacity (disposal site monitor will fill out load call [percentage] information)
- Debris classification
- Disaster declaration number

Debris Removal Contractor Function

Upon activation, the debris removal contractor mobilizes staff and equipment to the incident location. Equipment will be certified as required by the monitoring firm. With regard to DMS locations, site preparation, including logistical setup and tower construction, will begin. The contractor will orient subcontractors with operational procedures and refresh staff with current debris removal eligibility, FEMA requirements, County debris removal contract requirements, and safety procedures.

3.4.4 Begin Emergency Roadway Debris Clearance

The County will commence with road clearance or “cut and toss” activities. These operations should first focus on major arteries leading to storm shelters, hospitals, fire stations, police stations,

supply points, and other critical locations throughout the County. A list of priority facilities and roads for the County can be found in Appendix I.

3.4.5 Begin Truck Certification

Truck certification is the most important function in initiating a debris removal operation. Accuracy and documentation of all measurements is critical. All debris removal trucks hauling debris under volumetric contracts with the County must have their capacity and dimensions measured, photographed, and documented on a truck certification form. See Appendix K. Each debris removal truck will be assigned a unique number for debris tracking and invoice reconciliation purposes. Truck certifications should contain:

- Unique truck number
- Driver name
- Driver phone number
- License number, state issued, and expiration
- Tag number, state issued, and expiration
- Vehicle measurements
- Pictures of the vehicle

3.4.6 Prepare Debris Management Sites Based on Concentration of Debris

The Debris Manager, the monitoring firm, and debris removal contractors will meet to discuss the opening and operation of pre-identified DMS locations. Before DMS preparation begins, the County will obtain DMS approval from TCEQ and THC. The following items should be taken into consideration when opening and operating DMS:

Qualification Criteria

- Current availability
- Duration of availability
- Ingress/egress
- Concentration of debris relative to each site
- Geographic location within the County

An analysis of the DMS locations for the County is located in Appendix C of this plan.

Reduction Method

- **Incineration** – The burning of vegetative debris in an air-curtain incinerator requires approval from the Fire Department and the TCEQ due to air quality concerns. The burning of vegetative debris typically results in a reduction ratio of 20:1. The leftover ash may be hauled to a final disposal facility or be incorporated in a land application.

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- **Chipping and Grinding** – Using this method, vegetative debris is chipped or ground and typically results in a reduction ratio of 4:1. The leftover mulch is either hauled to a final disposal facility or recycled.
- **Crushing** – The crushing of vegetative debris is the least effective reduction method and results in a reduction ratio of 2:1. Crushing is an appropriate reduction method for C&D debris that cannot be recycled.

Recycling of Debris

Common recyclable materials that are a result of a debris-generating incident include wood waste, metals, and concrete. The following are potential uses for each of the materials:

- **Wood Waste** – Vegetative debris that is reduced through chipping or grinding results in leftover mulch. The remaining mulch can be used for agricultural purposes or fuel for industrial heating. For the mulch to be viable in agricultural purposes the end user typically has a size requirement and requests mulch is as clean as possible of plastics and dirt.
- **Metals** – Metal debris such as white goods, aluminum screened porches, etc. that may result from a debris-generating incident can be recycled. Certain metals such as aluminum and copper are highly valuable to scrap metal dealers.
- **Concrete** – Concrete, asphalt, and other masonry products that may become debris as a result of a debris-generating incident can be crushed and potentially used for road construction projects or as trench backfill.

There is a multitude of information available regarding the recycling and selling of solid waste debris. An example of one such resource is TCEQ's recycling resource website at <https://www.tceq.texas.gov/p2/recycle>. Appendix A contains a list of possible end users for recyclable debris.

DMS Preparation

After a review of the availability and suitability of DMS, the debris removal contractor can begin site preparation. As part of the preparation, baseline data should be gathered from the site to document the state of the land before debris is deposited. The following action items are recommended to compile baseline information:

- **Photograph the Site** – Digital photos should be taken to capture the state of the site before debris reduction activities begin. Photos should be updated periodically throughout the project to document the progression of the site.
- **Record Physical Features** – Records should be kept detailing the physical layout and features of the site. Items such as existing structures, fences, landscaping, etc., should be documented in detail.
- **Historical Evaluation** – The past use of the site area should be researched and documented. Issues relating to historical or archeological significance of the site should be cleared with the state historical preservation agency.
- **Sample Soil and Water** – If possible and deemed necessary, soil, and groundwater samples will be taken before debris reduction activities commence. Samples will help ensure the site

is returned to its original state. Typically, soil and groundwater samples should be analyzed for total Resource Conservation and Recovery Act (RCRA) metals, volatile organic compounds, and semi-volatile organic compounds using approved Environmental Protection Agency (EPA) methods.

The Debris Manager and monitoring firm will oversee the debris removal contractor's activities to ensure that they follow their contractual obligations, environmental standards, and act in the best interest of the County and its residents. TCEQ and THC will be contacted to provide final approval under an emergency declaration for the DMS locations.

Disposal Monitoring

The primary function of the monitoring firm with regard to disposal monitoring is to document the disposal of disaster debris at approved DMS and final disposal locations. Disposal Monitors perform quality assurance/quality control (QA/QC) checks on all load tickets and haul-out tickets to ensure that information captured by collection monitors is complete. This QA/QC includes but is not limited to:

- Inspection of truck placards for authenticity and signs of tampering;
- Verification that placard information is documented properly; and
- Verification that all required fields on the load ticket have been completed.

Afterwards, the Disposal Monitor will document the amount of debris collected by making a judgment call on vehicle fullness (typically on a percentage basis). The percentage documented for each debris removal vehicle is later applied to the calculated cubic yard capacity of the vehicle to determine the amount of debris collected. The disposal monitor's responsibilities include but are not limited to:

- Completing and physically controlling load tickets;
- Ensuring debris removal trucks are accurately credited for their loads;
- Ensuring trucks are not artificially loaded;
- Ensuring hazardous waste is not mixed in with loads;
- Ensuring all debris is removed from the debris removal trucks before exiting the DMS or final disposal site; and
- Ensuring only debris specified within the County's scope of work is collected.

In addition to the responsibilities listed above, final disposal site monitors are also tasked with the following:

- Ensuring all debris is disposed at a properly permitted landfill; and
- Matching landfill receipts and/or scale house records to haul-out tickets.

3.4.7 Conduct Meetings/Briefings with Key Personnel

Coordination meetings and briefings with key personnel should be conducted to update the status of the road clearance efforts, DMS openings, contractor asset ramp-up, and pertinent public information for press releases.

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Daily meetings should be held each morning and include key personnel from the County, monitoring firm, and debris removal contractors. The purpose of daily meetings is to focus on daily objectives and include a discussion of operational progress, safety, and best practices moving forward. During the meeting, the County will also review real time statistics and completion maps that reflect operations through the end of the previous day.

3.4.8 Review Debris Volume and Collection Cost Assessment

The County's Debris Manager, monitoring firm, and debris removal contractors will meet to review the debris volume and collection cost assessment. The topics of discussion in this meeting may include but are not limited to:

- Amount of debris generated (total CYs);
- Type of debris generated (vegetative, C&D or other miscellaneous debris);
- Number and estimated date of arrival for assets (trucks, loaders, monitoring personnel);
- Estimated number of DMS locations necessary;
- Preliminary scope of debris removal efforts; and
- Estimated cost of the debris removal efforts.

Following this meeting, the County, and/or monitoring firm will begin to collect required documentation for the development of FEMA PWs.

3.4.9 Request Contact Information and Meeting with the FEMA PAPDM

Emergency Management should immediately request, through TDEM, a meeting with the designated FEMA PAPDM for the disaster. During this meeting, the County will:

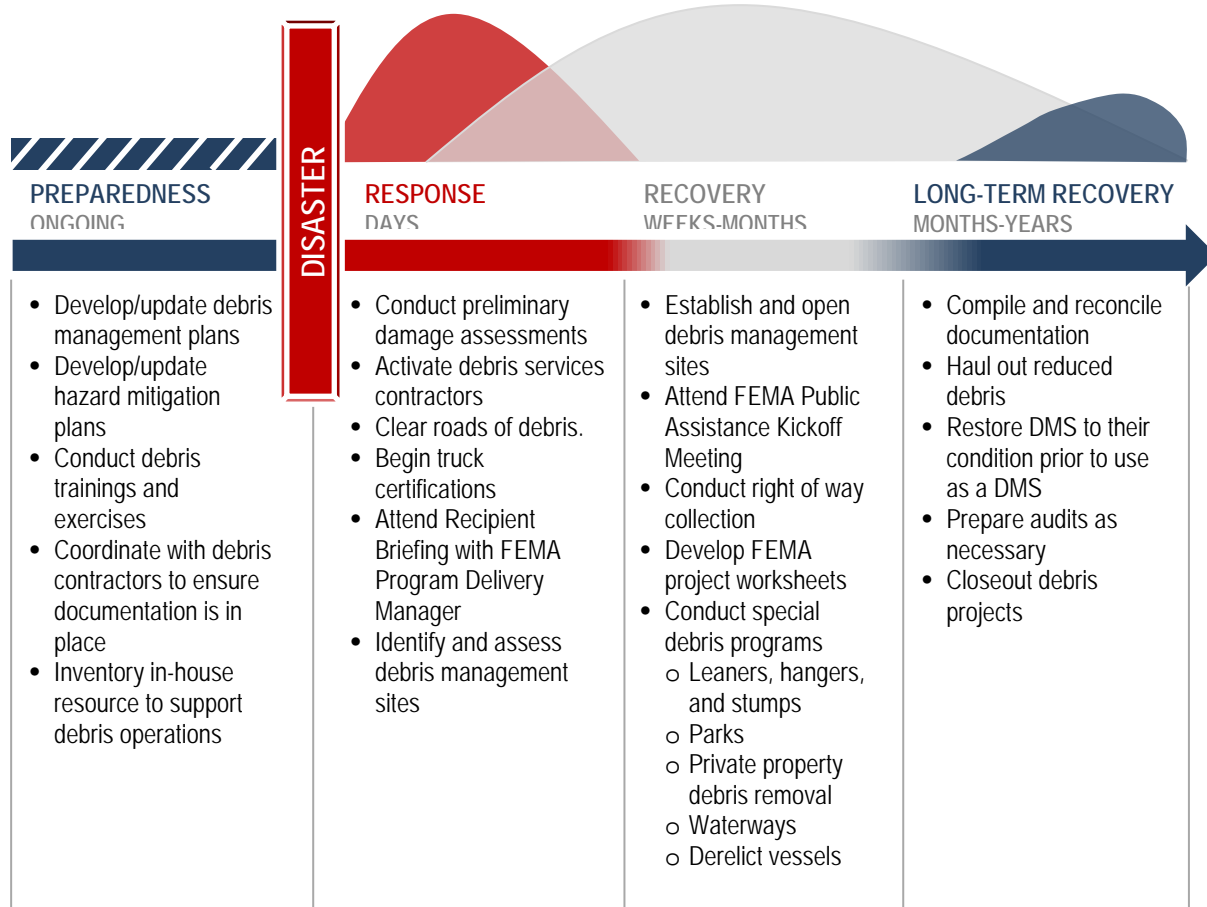
- Summarize the County's debris removal operations to date;
- Review debris and cost estimates for the County;
- Review any Disaster-Specific Guidance (DSG) documents issued by FEMA;
- Examine the County's debris removal plan;
- Provide contact information for all monitoring firm and debris removal contractors and key personnel; and
- Determine additional information the PAPDM will need to generate PWs for the County. In order for FEMA to generate a Category A, debris removal, and debris monitoring PW, it will require the following information:
 - Copy of the debris removal contractor contract(s);
 - Copy of the debris monitoring firm contract(s);
 - Information on the procurement process of the debris removal and monitoring contracts;

- Address (if available) and global positioning system (GPS) coordinates for all DMS;
- Debris volume and costs estimates (using USACE model and damage assessment reports);
- Monitoring cost estimate (based on budgeted labor hours); and
- Brief debris removal plan overview.

3.4.10 Public Information Post-Incident

A press release will be issued to various media sources and posted to the cities websites as well as the County's social media sites within the first 3 days following the debris-generating incident. The content of the press release will be to reassure and comfort the public that the cities are responding to the incident and has activated their monitoring firms and debris removal contractors to begin debris removal activities. Sample press releases are located in Appendix H.

Figure 3-1: Disaster Recovery Timeline



3.5 Post-Incident Recovery

For the purpose of debris management, the post-incident recovery phase is marked by the debris removal contractor collecting and reducing debris from the public ROW.

Concurrent to the commencement of ROW debris removal operations, the County should evaluate the need for contract debris removal on private property, parks, and waterways. As noted in the Disaster Recovery Timeline (Figure 3-1), these specialized debris removal operations typically do not begin until roughly 30–60 days following a debris-generating incident. Specialized debris removal operations are often governed by DSGs and require some level of FEMA pre-validation. However, if the County determines that there is an immediate and imminent threat to public health and safety, these programs can be expedited.

The following Recovery Checklists are critical in expediting and ensuring proper steps are taken during the debris removal process. The Post-Incident Recovery Checklists are also included in Appendix B. The Post-Incident Recovery Checklists are subdivided into the following time periods:

- 2 Days – 2 Weeks
- 2 Weeks – 1 Month
- 1 Month – 3 Months
- 3 Months – Project Completion

3.5.1 Post-Incident Recovery Checklist: 2 Days – 2 Weeks

- Open DMS.
- Prioritize roads/areas.
- Issue press release regarding segregation of debris.
- Begin ROW debris removal.
- Perform parks damage assessment.
- Begin environmental monitoring program of DMS.
- Coordinate with external agencies.
- Initiate discussions with FEMA.
- Obtain FEMA guidance for gated community and private property debris removal.

Open Debris Management Sites

DMS will begin operations. Monitoring towers will be located at the ingress and egress of the DMS. Monitoring towers will be high enough so that tower monitors can verify the contents of the debris removal trucks.

Prioritize Roads/Areas

After reviewing damage assessments and the concentration of debris within the cities, areas that sustained more extensive damage may need to be prioritized, subdivided into smaller work zones and recorded in the County's GIS data.

Issue Press Release Regarding Segregation of Debris

Issue second press release regarding segregation of vegetative, C&D and HHW.

Begin ROW Debris Removal

The County will direct the debris removal contractors to proceed with curbside collection. Curbside collection entails residents piling their disaster-related debris along the ROW. It is critical that residents segregate their debris in categories such as vegetative, C&D, HHW, and white goods. This will help prevent the contamination of debris loads and expedite the cleanup process. To assist the County in an "all-hazards approach" to debris removal efforts, the processes for HHW, and white goods debris removal are outlined below.

HHW Debris Removal

HHW includes gasoline cans, aerosol spray cans, paint, lawn chemicals, batteries, fire extinguishers, fluorescent lamps, household electronics, etc.

HHW removal is eligible for FEMA reimbursement if the debris is a result of the debris-generating incident and removed from publicly maintained property and roadways whose maintenance is the responsibility of the cities. HHW should be collected separately and disposed of or recycled at a properly permitted facility. Collection of HHW can be conducted internally or contracted out on a unit rate basis. The County will take the following actions regarding HHW removal:

- Communicate to County residents the eligibility of HHW following an incident. It is important that residents separate HHW from other debris, such as vegetative, C&D, etc., to ensure that HHW does not enter the debris stream at DMS locations.
- Decide whether to establish HHW drop-off sites to augment or replace HHW curbside collection. This helps ensure that HHW is properly disposed. Measures should still be taken jointly by the debris removal contractor and the monitoring firm to identify, segregate, and dispose of intermingled HHW at DMS locations.
- Interface with the TCEQ. Describe the HHW collection program and permitted facilities to be used for disposal or recycling.

White Goods Debris Removal

White goods include refrigerators, freezers, air conditioners, heat pumps, ovens, ranges, washing machines, clothes dryers, etc.

White goods debris removal is eligible for FEMA reimbursement if the debris is a result of the debris-generating incident and removed from publicly maintained property and roadways whose maintenance is the responsibility of the cities. White goods debris that contains ozone-depleting refrigerants, mercury, or compressor oils need to have such materials removed by a certified technician before recycling. All state and federal laws should be followed regarding the final

disposal of removed refrigerants, mercury, or compressor oils. Collection of white goods can be conducted internally or contracted out on a unit rate basis. The County will take the following actions regarding white goods removal:

- Communicate the eligibility of white goods to residents following an incident. It is important that residents separate white goods from other debris to ensure that white goods are not mixed with C&D or vegetative debris during collection.
- Interface with TCEQ. Describe the white goods collection program and permitted facilities to be used for disposal of recovered refrigerants, mercury, or compressor oils. Identify the processes to be used in processes white goods.

Vegetative Debris

Vegetative debris consists of whole trees, tree stumps, tree branches, tree trunks, and other leafy material. Depending on the size of the debris, the collection of vegetative debris may require the use of flatbed trucks, dump trucks, and grapple loaders.

Most vegetative debris consist of large piles of tree limbs and branches that are piled on the public ROW by the residents. The County will determine the number of times debris is collected before normal collection activities are resumed. The County will consult with FEMA regarding the number of passes that may be required to complete disaster debris removal.

Vegetative debris is bulky and consumes a significant volume of landfill space if buried. To minimize the use of landfill space, it is prudent to reduce the volume of vegetative debris before burying. Vegetative debris may be reduced by as much as 75 percent of its volume by mulching or grinding and as much as 90 percent of its volume through burning.

A hazardous tree or stump may be collected individually, while downed, or fallen debris is collected from rights-of-way or at a designated collection center. Tree and stump collection prices are typically based on the size of the tree or stump and charged by unit. Other fallen or downed material is usually billed by weight (tons) or volume (CYs).

Load Tickets

For the debris categories outlined above, pre-printed load tickets will be used as reimbursement documentation for the County. An example of a load ticket is located in Appendix K, Field Documents. The top portion of the ticket will be filled out by the collection monitor at the beginning of each load. The address field will be completed when the debris removal contractor has completed work. The collection monitor will also ensure the debris removal contractor is working within the scope of the contract with the County. The load ticket will then be given to the debris removal vehicle driver to turn in to the Disposal Monitor upon arrival at the DMS or final disposal site. The Disposal Monitor will complete the remaining portion of the load ticket. Load tickets may also be processed through electronic automated systems. The Disposal Monitor documents the amount of debris collected by making a judgment call reflecting the vehicle's fullness (typically on a percentage basis). The percentage documented for each debris removal vehicle is later applied to the calculated cubic yard capacity of the vehicle to determine the amount of debris collected. The load ticket process may also be automated using an Automated Debris Management System (ADMS).

Section 3

Perform Parks Damage Assessment

The Parks and Recreation Departments and monitoring firm must identify vegetative hazards that require removal within County parks. Current eligibility criteria include:

- Leaning trees 2 feet in diameter or greater;
- Hanging limbs 2 inches in diameter or greater; and
- Uprooted stumps 2 feet in diameter or greater.

From a FEMA reimbursement perspective, eligibility criteria for cut-work are extremely sensitive to the size and scale of the disaster. When surveying damages, it is extremely important for the cities and their monitoring firms and debris removal contractors to be fully cognizant of all DSG.

Begin Environmental Monitoring Program of DMS

Throughout the duration of the project, data should be collected for use in the remediation and close-out of the DMS. Collected data should be compared to previous data to establish any remediation actions necessary to return the site to its original state. The following items should be included in an environmental monitoring program:

- **Sketches/Photos of Site Operations** – During the course of the project, operations at the DMS may expand, condense, or shift. Changes to the site should be documented along with the locations of debris reduction activity. The sketches, photos, and documentation will assist in determining areas of concern that may need additional sampling and testing during site closure.
- **Documentation of Issues at the Site** – Meticulous records should be kept documenting issues such as petroleum spills, hydraulic spills, or the discovery of HHW within debris at the site. This documentation will assist in the remediation if the site.

Coordinate with External Agencies

The County will coordinate with Texas Department of Transportation (TxDOT), Brazoria County, and other relevant agencies to ensure all County road segments are moving forward with debris removal operations. TxDOT is responsible for emergency road clearing activities and first pass debris removal on all state and federal roads within the County. The County maintains an interlocal agreement for the removal of debris with the City of Richwood. A copy of the interlocal agreement can be found in Appendix O.

Initiate Discussions with FEMA

It is critical that the Debris Manager and the monitoring firm clearly communicate debris removal plans and operations with FEMA. Clear communication fosters a coordinated effort that enhances the transparency of the operation for auditors and ensures maximum FEMA reimbursement.

Obtain FEMA Guidance for Gated Community and Private Property Debris Removal

Eligibility of gated community and private property debris removal will be determined by FEMA on a case-by-case basis following an incident. Typically, the debris and devastation must be so widespread that debris removal from private property is a “public interest.” Under current PA

Program guidelines, the County must show that the private property debris constitutes an immediate threat to life, public health, or safety, or to the economic recovery of the community at large.

In order for private property debris removal to be eligible for reimbursement the County must submit a written request to the FEMA Program Delivery Manager (PDMG) before private property debris removal operations begin. The request will include the following information:

- **Immediate Threat Determination** – The County must provide documentation from the Texas DSHS, Brazoria County Environmental Health Department or equivalent public health authority that debris on private property is a threat to public health and safety.
- **Documentation of Legal Responsibility** – The County must demonstrate that it has the legal authority to enter private property and gated communities and accepts the responsibility to abate all hazards, regardless of whether, or not a federal disaster declaration is made.
- **Indemnification** – The Recipient must indemnify the Federal Government and its employees, agents, and contractors from any claims arising from the removal of debris from private property.

If private property debris removal is authorized and considered for the County, the following documentation will be required by FEMA:

- **Right-of-Entry and Hold Harmless Agreements** – The County will execute signed ROE and Hold Harmless Agreements (HHA) documents with private property owners holding the federal government harmless from any damages caused to private property. A sample ROE/HHA agreement is included in Appendix L. The County may execute ROE and HHA forms prior to a disaster under the condition that the ROE and HHA form do not reference a particular incident or disaster number. The sample ROE/HHA provides a stipulation that the property owner will report to the County any insurance settlements paid to the property owner for debris removal on the property that has been performed at government expense. This will aid the County in recouping the costs of debris removal from private property.
- **Photos** – It is in the interest of the County to photograph conditions of private property before and after debris removal is completed. The photos will assist in the verification of address and scope of work on the property.
- **Private Property Debris Removal Assessment** – The assessment will be a property-specific form to establish the scope of eligible work on the property. The assessment can be in the form of a map or work order as long as the scope of work can be clearly identified.
- **Documentation of Environmental and Historic Review** – Debris removal efforts on private property must comply with all review requirements under 44 CFR (specifically parts 9, Floodplain Management and Protection of Wetlands, and 10, Environmental Considerations).

3.6 Post-Incident Recovery Checklist: 2 Weeks – 1 Month

- Maintain and evaluate ROW cleanup.
- Begin ROW stump removal as necessary.

Section 3

- Open additional DMS as necessary.
- Continue daily meetings with FEMA.
- Begin debris removal from private property and gated communities.
- Communicate project close-out to residents via press release.

3.6.1 Maintain and Evaluate ROW Cleanup

Information on debris collection (vegetative, C&D, white goods, HHW, etc.) and completion progress will be documented by the monitoring firm and provided to the County on a daily basis. To ensure proper record keeping and reimbursement from all appropriate agencies, it is important for the cities to announce the completion of first pass.

3.6.2 Begin ROW Stump Removal as Necessary

Following initial ROW debris removal efforts, the County and monitoring firm may determine a significant threat remains to the public in the form of hazardous stumps along the ROW. Before ROW stump removal operations commence all applicable DSG criteria or FEMA Publication 104-009-2 for eligibility should be reviewed. FEMA's Recovery Policy for Hazardous Stump Extraction and Removal Eligibility is included in Appendix M. Also, as of the publication of this plan, FEMA Publication 104-009-2 defines a stump as hazardous if all of the following criteria are met:

- The stump has 50 percent or more of the root-ball exposed;
- The stump is greater than 2 feet or larger in diameter when measured 2 feet from the ground;
- The stump is located on a public ROW; and
- The stump poses an immediate threat to public health and safety.

3.6.3 Open Additional Debris Management Sites as Necessary

If the initial DMS are approaching maximum capacity, additional DMS may need to be prepared. The same procedures taken to open and monitor the initial DMS should be applied to any additional DMS the County may utilize.

3.6.4 Continue Daily Meetings with FEMA

It is critical that the County maintains strong communication with the assigned FEMA representatives. The daily meetings help to ensure maximum coordination and assist to expedite resolving any operational problems that may occur.

3.6.5 Begin Debris Removal from Private Property and Gated Communities

If approved, debris removal from private property and gated communities should begin.

3.6.6 Public Information Post-Incident Recovery

The project close-out press release should focus on clarifying any ineligible debris confusion and communicating a debris set-out deadline to minimize illegal dumping. Protocol for leaners/hangers and private property/gated community debris removal programs, if applicable, should be communicated at this time. Depending on the severity of the debris-generating incident, project close-out may be further away.

3.7 Post-Incident Recovery Checklist: 1 Month – 3 Months

- Maintain and evaluate ROW cleanup – vegetative and C&D.
- Begin ROW dangerous trees program.
- Initiate haul-out.
- Progress to weekly meetings with the FEMA.

3.7.1 Maintain and Evaluate ROW Cleanup – Vegetative and C&D

Information on debris collection and completion progress will be documented by the monitoring firms and provided to the County on a daily basis. During this period, the County will announce the completion of the second pass and establish a deadline for residents to set out debris on the ROW, as well as a deadline for the County’s debris removal contractor to complete third pass. In a smaller debris-generating incident, the second pass could be announced earlier.

3.7.2 Begin ROW Removal of Hazardous Limbs and Trees

A hazardous limbs and trees program should be initiated, if it is determined that a significant threat remains to the public in the form of leaning trees and hanging limbs along the ROW. To ensure maximum reimbursement, all threats must be identified and verified against DSG criteria for eligibility prior to the commencement of cut-work. It is important to note the County debris removal contractors may require lead time to transport specialty vehicles, equipment, and labor force to commence leaner/hanger work. Currently FEMA Publication 104-009-2 provides the following guidance on eligibility requirements for hazardous limbs, trees, and stumps.

Tree Removal – A damaged tree is considered hazardous and eligible if the tree has a diameter of 6 inches or greater measured 4.5 feet above ground level, and the tree:

- Has a split trunk;
- Has a broken canopy; or
- Is leaning at an angle greater than 30 degrees.

Broken Limb or Branch Removal – Broken limbs and branches are eligible for removal if they are 2 inches or larger in diameter (measured at the point of break) and pose an immediate threat. An example is a broken limb or branch hanging over improved property or public-use areas such as sidewalks, playgrounds, or trails. It is important to note that only the minimum cut necessary to

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remove the hazard is eligible for reimbursement. In addition, FEMA will not fund the removal of broken limbs or branches on private property unless the follow criteria are met:

- The limbs or branches extend over the public ROW;
- The limbs or branches pose an immediate threat; and
- The Recipient removes the hazard from the public ROW (without entering private property).

Unit Rate Tickets

Unit rate tickets will be used as reimbursement documentation for the leaners/hangers program. An example of a unit rate ticket is located in Appendix K. To ensure maximum reimbursement, debris monitors will use GPS devices, as part of the ADMS equipment, to document the GPS coordinates of tree or hanger removals and take digital photos of the work done.

3.7.3 Initiate Haul-Out

At this point in the post-incident recovery process, reduced debris from DMS will be hauled to a final disposal site or recycled through one of the markets listed in Appendix A. Generally, for final disposal purposes, the most environmentally responsible, and cost-effective method is for the County to recycle reduced debris. Any remaining reduced debris that cannot be recycled should be disposed of at permitted landfills with consideration to the cost structure of associated tipping fees.

It is important that the County and monitoring firm ensure the debris removal contractor attains proper disposal tipping fee information. Appendix K contains a sample haul-out ticket that will be used by the monitoring firm as reimbursement documentation for the County.

3.7.4 Progress to Weekly Meetings with the FEMA

Although strong communication with assigned FEMA representatives is still important, at this point in the debris removal operation, meetings can move to a weekly timeframe. The weekly meetings will still be critical in ensuring maximum coordination.

3.8 Recovery Checklist: 3 Months – Project Completion

- Complete all debris recovery activities.
- Identify ineligible debris on ROW.
- Complete the disposal of reduced debris.
- Close-out and remediate DMS.
- Conduct project close-out meetings with FEMA and external agencies.

3.8.1 Complete all Debris Recovery Activities

The debris removal contractors will identify and remove all remaining eligible debris piles.

Identify Ineligible Debris on ROW

Once ineligible debris on the ROW is identified, the cities should proceed in one of two ways:

- Hold individual homeowners responsible for the disposal of ineligible debris.
- Utilize internal equipment for disposal of the ineligible debris.
- Task the debris removal contractor with the removal of ineligible debris and incur the associated cost. This debris should be hauled directly to a final disposal landfill or transfer station to reduce associated handling costs.

Complete the Disposal of Reduced Debris

Before project closure, remaining reduced debris at DMS should be recycled or hauled to a local landfill for final disposal. See Appendix A.

Close-Out and Remediate Debris Management Sites

TCEQ must be contacted before final closure of the DMS to ensure all required actions are taken. Generally, DMS locations must be returned to their original environmental state. Restoration of the DMS includes removing all remnants of operations and the remediation of any contamination that may have occurred during operations. A final sample of environmental data should be collected to ensure the site is returned to its original state. Final closure of the DMS will require written notice to TCEQ. The results of any required environmental samples should be included with the written notice.

Conduct Project Close-Out Meetings with FEMA and External Agencies

Prior to the project close-out meeting, the County will receive detailed data from the monitoring firm regarding their debris removal operations. The County in conjunction with the monitoring firm will compile all contractor invoices, contracts, and other documentation supporting debris removal operations in preparation of the project close-out meeting.

Section 4

ENVIRONMENTAL CONSIDERATIONS AND OTHER REGULATORY REQUIREMENTS

The information described in this section identify the regulatory requirements and guidance for local governments engaging in debris cleanup operations. The County should review the regulatory information on an annual basis not only to familiarize themselves with the governing statutes, but to also identify any changes to the regulations and guidelines. The County will coordinate with Brazoria County, state, and federal officials to ensure compliance with environmental and other regulatory standards.

4.1 Federal Regulations and Guidance

4.1.1 National Environmental Policy Act (NEPA)

NEPA regulations can be found in CFR Parts 1500 – 1508. NEPA requires that FEMA consider the environmental impacts of proposed actions and reasonable alternatives to those actions. The U.S. Department of Homeland Security publishes NEPA requirements and provides a decision-making process that FEMA must follow to fund a project.

4.1.2 Resource Conservation and Recovery Act (RCRA)

RCRA governs the disposal of solid waste and hazardous waste. RCRA also provides planners with greater awareness of environmental considerations and regulations for dealing with disaster debris. Additional information about RCRA is at <http://www.epa.gov/rcra>.

4.1.3 National Historic Preservation Act (NHPA)

In conducting debris operations, the County must consider how such operations will affect historic properties. Historic properties include buildings or groups of buildings, structures, objects, landscapes, archeological sites as well as properties listed in or eligible for inclusion in the National Register of Historic Places. Section 106 of the NHPA requires FEMA to consider how a project might affect such properties.

4.1.4 Endangered Species Act

Projects must be examined to ensure they will not jeopardize the continued existence of any threatened or endangered species (listed species) and critical habitats. FEMA must consult with the U.S. Fish and Wildlife Service and the NOAA Fisheries to ensure the conservation of listed species.

4.1.5 Clean Water Act (CWA)

The Clean Water Act provides regulations for the discharges of pollutants in the waters of the United States. According to the CWA it is unlawful to discharge any pollutant from a specific

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source into navigable waters without the appropriate CWA permits from the U.S. Army Corps of Engineers or State Regulatory Agency.

4.1.6 Clean Air Act (CAA)

The CAA seeks to protect air quality through the reduction of smog and atmospheric pollution. Air compliance measures in debris management operations may include air monitoring and dust abatement.

4.1.7 National Emission Standard for Hazardous Air Pollutants (NESHAP)

Provides standards for demolition of structures containing asbestos as well as the disposal and reporting of asbestos. The Texas DSHS Asbestos Program is tasked with enforcing asbestos regulations in the State of Texas.

4.1.8 Executive Order 11990, Protection of Wetlands

Executive Order 11990, Protection of Wetlands, requires federal agencies to minimize or avoid activity that adversely affects wetlands and encourage the preservation and enhancement of the beneficial functions of wetlands.

4.1.9 Executive Order 12898, Environmental Justice

Executive Order 12898 requires federal agencies to identify and address any disproportionately high and adverse human health or environmental effects on minority and low-income populations as a result of their actions.

4.1.10 EPA Publication EPA A530-K-08-001, Planning for Natural Disaster Debris

The Planning for Natural Disaster Debris publication discusses management of debris from natural disasters such as hurricanes, earthquakes, tornadoes, floods, wildfires, and winter storms. The document is designed to assist planners in the beginning stages of the planning process or to help a planner revise an existing Debris Management Plan. It provides planners with greater awareness of environmental protectiveness when dealing with disaster debris.

Under the current federal system, FEMA coordinates response, and recovery efforts for all presidential declared disasters. FEMA provides guidance documents for local governments regarding disaster planning and response.

4.1.11 FEMA Publication FP 104-009-2 – PA Program and Policy Guide 2016

The Public Assistance Program and Policy Guide overviews FEMA PA Program protocols immediately following a disaster. The PA Program provides the basis for the federal/local cost-sharing program. This document describes entities eligible for reimbursement under the PA

ENVIRONMENTAL CONSIDERATIONS AND OTHER REGULATORY REQUIREMENTS

Program, documentation necessary to ensure reimbursement, and special considerations about which local governments should be aware to maximize eligible activities.

An electronic version of FEMA Publication 104-009-2 is available at <http://www.fema.gov/public-assistance-policy-and-guidance>

4.1.12 Disaster-Specific Guidance

DSG is a policy statement issued in response to a specific post-event situation or need in a state or region. Each DSG is issued a number and is generally referred to along with its numerical identification.

These guidance documents typically relate to authorization of private property cleanup, cleanup of stumps and payment for that, or notification of large projects. Staff should be aware of any new DSG issued by FEMA following an event.

4.2 State of Texas Regulatory and Technical Assistance

4.2.1 Texas Solid Waste Disposal Act

Texas Health and Safety Code, Title 5, Subtitle B, Chapter 361

The Texas Solid Waste Disposal Act outlines state regulations regarding the management of solid waste including accounting for hazardous wastes that are generated.

4.2.2 Texas Commission on Environmental Quality (TCEQ)

The TCEQ issues emergency permits for debris incineration and advice and assistance for debris disposal. Assistance is also provided to local jurisdictions on the potential environmental impacts of debris removal and disposal operations.

4.2.3 Texas Department of State Health Services (DSHS)

DSHS provides assistance regarding health and safety issues in debris removal and disposal operations. The Asbestos Program under DSHS is tasked with enforcing asbestos regulations in the State of Texas.

4.2.4 Texas Historical Commission (THC)

The THC is responsible for review of any historical issues pursuant to Title 36 of the Code of Federal Regulations (36 CFR) Part 800.12. They also conduct a review of post-disaster DMS plan applications. If any environmental or historical/archeological significance is found during operations, all work will cease until advised by FEMA EHP and given the approval to continue operations.

4.2.5 Texas Department of Transportation (TxDOT)

TxDOT is responsible for the design, construction, and maintenance of the State highway system. TxDOT acts as the lead agency for emergency roadway debris clearance, removal, and disposal efforts along state and federal highways.

4.2.6 Texas Animal Health Commission (TAHC)

The TAHC provides assistance to local jurisdictions regarding the disposition of dead animals following a disaster.

4.3 Other Relevant Regulations

The two primary directives developed by the federal government that provide for the authorization and use of federal funds to reimburse local governments for disaster-related expenses are the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the CFR – Title 44 Emergency Management and Assistance, and the SRIA of 2013. A brief summary of these laws is provided below.

4.3.1 Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act)

The Stafford Act provides the authorization for the PA Program. The fundamental provisions of the Stafford Act are as follows:

- Assigns FEMA the authority to administer federal disaster assistance;
- Defines the extent of coverage and eligibility criteria of the major disaster assistance programs;
- Authorizes grants to the states; and
- Defines the minimum federal cost-sharing levels.

4.3.2 Code of Federal Regulations (CFR): Title 44 – Emergency Management and Assistance

Procedural requirements for the PA Program operations are provided by 44 CFR. These regulations are designed to implement a statute based upon FEMA’s interpretation of the Stafford Act. They govern the PA Program and outline program procedures, eligibility, and funding.

4.3.3 Title 2 CFR Part 200

Title 2 CFR Part 200 establishes regulations regarding administrative requirements, cost principles, and audit requirements.

4.3.4 Sandy Recovery Improvement Act (SRIA) of 2013

The law authorizes changes to the way FEMA may deliver federal disaster assistance to survivors. Key provisions of SRIA are as follows:

- Provides substantially greater flexibility in use of federal funds and less administration burden if recipients accept grants based on fixed capped estimates, which may be provided by recipients' licensed engineer and validated by independent expert panel.
- Offers a package of cost share adjustments, reimbursement for force account, and retention of program from recycling to speed debris removal and encourage pre-disaster debris planning.
- Allows PA recipients for all disasters declared on or after October 30, 2012 an option to request binding arbitration for certain projects with an amount in dispute of over \$1 million after first appeal, instead of pursuing a second appeal under FEMA's PA Program.

Section 5 PLAN MAINTENANCE

For this plan to maintain viability, the plan will be updated annually, and personnel should be trained on the content prior to a disaster. Since FEMA updates debris operations program guidance throughout the year based on lessons learned from recent disasters, it is important to review the most recent guidance and incorporate those changes into the plan. This section explains the actions the County will take to ensure it is current and relevant.

5.1 Plan Review and Approval

The Engineering Department will conduct an annual review of the DDMP. The plan will be updated based on organizational changes, new policies and guidance, and lessons learned from actual debris incidents. Changes made to the plan will be noted on a plan changes log as needed.

5.2 Training for Personnel

Personnel must be trained to ensure they are prepared to fulfill their role in a debris-generating emergency. The County will institute the following training for personnel with responsibilities in debris management:

General

- Personnel will be trained in their specific roles and responsibilities.
- Personnel will be trained in the debris management incident command system to the appropriate level for their position.
- All personnel with debris management responsibilities will participate in a briefing on safety policies and procedures.
- Personnel with responsibility for preparing documentation for reimbursement will receive training on the FEMA PA Program.
- Personnel operating equipment will be trained to operate any equipment they are responsible for competently and safely.

Debris Managers

- Debris Managers should be trained in the regulatory requirements for debris operations including:
 - Health and safety
 - Environmental and historical preservation
 - Procurement
 - Federal disaster grant programs

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- Considerations for individuals with disabilities and access and functional needs
- Damage assessment for debris

Finance and Administration

- Finance and Administration staff will be trained in regulatory requirements for debris operations including:
 - Procurement
 - Federal disaster grant program
 - Documentation

5.3 Exercises

Exercises are essential to maintaining readiness and in determining the effectiveness of plans, personnel, and resources in responding to a debris-generating incident. Workshops and exercises will be conducted periodically to test the ability of the cities to coordinate resources for debris operations.

Following exercises, an after action report will be developed to document strengths and areas needing improvement. An improvement plan will be developed to list corrective actions, identify individuals or agencies responsible for completing the corrective actions, and establish a timeline for completion.

Section 6

ACRONYMS AND DEFINITIONS

44 CFR	Title 44 of the Code of Federal Regulations
ADMS	Automated Debris Management System
C&D Debris	Construction and Demolition Debris
CAA	Clean Air Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
CY	Cubic Yards
DDC	Disaster District Committee
DDMP	Disaster Debris Management Plan
DMOC	Debris Management Operations Center
DMS	Debris Management Site
DSG	Disaster-Specific Guidance
DSHS	Texas Department of State Health Services
EF	Enhanced Fujita
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
ER	Emergency Relief
EWP	Emergency Watershed Protection
FEMA	Federal Emergency Management Agency
FHWA-ER	Federal Highway Administration-Emergency Relief
GIS	Geographic Information Systems
GLO	Texas General Land Office
GPS	Global Positioning System
HAZMAT	Hazardous Materials
HHA	Hold Harmless Agreement
HHSC	Texas Health and Human Services Commission
HHW	Household Hazardous Waste
HUD	Housing and Urban Development
NEPA	National Environmental Policy Act
NESHAP	National Emission Standard for Hazardous Air Pollutant

ACRONYMS AND DEFINITIONS

NHPA	National Historic Preservation Act
NRCS	National Resource Conservation Service
NOAA	National Oceanic and Atmospheric Agency
PA	Public Assistance
PDMG	Public Assistance Program Delivery Manager
PW	Project Worksheets
PWERT	Public Works Emergency Response Team
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
ROE	Right-of-Entry
ROW	Right-of-Way
SRIA	Sandy Recovery Improvement Act
Stafford Act	Robert T. Stafford Disaster Relief and Emergency Assistance Act
STAR	State of Texas Assistance Request
State	The State of Texas
SWRCC	Southwest Regional Communications Center
TAHC	Texas Animal Health Commission
TCEQ	Texas Commission on Environmental Quality
TDEM	Texas Division of Emergency Management
THC	Texas Historical Commission
TxDOT	Texas Department of Transportation
USACE	United States Army Corps of Engineers

Recipient – State agency, local government, or eligible private nonprofit organization that intends on applying for FEMA PA grants.

Code of Federal Regulations: Title 44 – Emergency Management and Assistance – The Code of Federal Regulations – Title 44 Emergency Management and Assistance (44 CFR) provide procedural requirements for the PA Program operations. These regulations are designed to implement a statute based upon FEMA’s interpretation of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act). They govern the PA Program and outline program procedures, eligibility, and funding

Construction and Demolition (C&D) Debris – FEMA Publication 104-009-2 defines C&D debris as damaged components of buildings and structures such as lumber and wood, gypsum wallboard, glass, metal, roofing material, tile, carpeting, and floor coverings, window coverings, plastic pipe, concrete, fully cured asphalt, heating, ventilation, and air conditioning systems and their components, light fixtures, small consumer appliances, equipment, furnishings, and fixtures. Current eligibility criteria include:

- Debris must be located within a designated disaster area and be removed from an eligible recipient's improved property or ROW;
- Debris removal must be the legal responsibility of the recipient; and
- Debris must be a result of the major disaster incident.

Debris Removal Contractor – The debris removal contractor is contracted by the cities to remove and dispose of debris that is a result of a severe debris-generating incident.

Disaster-Specific Guidance (DSG) – DSG is a policy statement issued in response to a specific post-incident situation or need in a state or region. Each DSG is issued a number and is generally referred to along with their numerical identification.

FEMA Publication FP 104-009-2 – Public Assistance Program and Policy Guide – Combines all Public Assistance policy into a single volume and provides an overview of the PA Program implementation process with links to other publications and documents that provide additional process details. It provides a general overview of the FEMA PA Program protocol immediately following a disaster. The PA Program provides the basis for the federal/local cost-sharing program. This document specifically describes the entities eligible for reimbursement under the PA Program, the documentation necessary to ensure reimbursement and any special considerations that local governments should be aware of to maximize eligible activities.

Force Account Labor – The use of the County's own personnel and equipment.

Hazardous Limb – A limb is hazardous if it poses a significant threat to the public. The current eligibility requirements for hazardous limbs according to FEMA Publication FP 104-009-2 are:

- The limb is greater than two inches in diameter;
- The limb is still hanging in a tree and threatening a public-use area; and
- The limb is located on improved public property.

Hazardous Stump – A stump is defined as hazardous and eligible for reimbursement if all of the following criteria are met:

- The stump has 50 percent or more of the root-ball exposed;
- The stump is greater than 2 feet in diameter when measured 2 feet from the ground;
- The stump is located on a public ROW; and
- The stump poses an immediate threat to public health and safety.

Hazardous Tree – A tree is considered hazardous when the tree's present state is caused by a disaster, the tree poses a significant threat to the public and the tree is six inches in diameter or greater, measured 4.5 feet from the ground. The current eligibility requirements for leaning trees according to FEMA Publication 104-009-2 are:

- The tree has a broken canopy;
- The tree has a split trunk;
- The tree is leaning at an angle greater than 30 degrees.

Household Hazardous Waste (HHW) – The RCRA defines hazardous wastes as materials that are ignitable, reactive, toxic, or corrosive. Examples of HHW include items such as paints,

ACRONYMS AND DEFINITIONS

cleaners, pesticides, etc. Due to the nature of hazardous waste certified technicians must be used to handle, capture, recycle, reuse, and dispose of hazardous waste. The eligibility criteria for HHW are as follows:

- HHW must be located within a designated disaster area and be removed from an eligible recipient's improved property or ROW;
- HHW removal must be the legal responsibility of the recipient; and
- HHW must be a result of the major disaster incident.

Monitoring Firm – The monitoring firm is an organization under contract with the County to monitor debris removal operations. The monitoring firm ensures the debris removal contractor is working within the scope of work contracted by the County and documents debris removal operations.

Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) – Provides the authorization of the PA Program. The fundamental provisions of the Stafford Act are as follows:

- Assigns FEMA the authority to administer federal disaster assistance;
- Defines the extent of coverage and eligibility criteria of the major disaster assistance programs;
- Authorizes grants to the states; and
- Defines the minimum federal cost-sharing levels.

Sandy Recovery Improvement Act (SRIA) of 2013 – The law authorizes changes to the way FEMA may deliver federal disaster assistance to survivors. Key provisions of SRIA are as follows:

- Provides substantially greater flexibility in use of federal funds and less administration burden if recipients accept grants based on fixed capped estimates, which may be provided by recipients' licensed engineer and validated by independent expert panel.
- Offers a package of cost share adjustments, reimbursement for force account, and retention of program from recycling to speed debris removal and encourage pre-disaster debris planning.
- Allows PA recipients for all disasters declared on or after October 30, 2012 an option to request binding arbitration for certain projects with an amount in dispute of over \$1 million after first appeal, instead of pursuing a second appeal under FEMA's PA Program.

Vegetative Debris – As outlined in FEMA Publication 104-009-2, vegetative debris consists of whole trees, tree stumps, tree branches, tree trunks, and other leafy material. Vegetative debris will largely consist of mounds of tree limbs and branches piled along the public ROW by residents and volunteers. Current eligibility criteria include:

- Debris must be located within a designated disaster area and be removed from an eligible recipient's improved property or ROW;
- Debris removal must be the legal responsibility of the recipient; and
- Debris must be a result of a Presidentially declared major disaster incident.

White Goods – As outlined in FEMA Publication 104-009-2, white goods are defined as discarded household appliances such as refrigerators, freezers, air conditioners, heat pumps, ovens, ranges,

washing machines, clothes dryers, and water heaters. White goods can contain ozone-depleting refrigerants, mercury, or compressor oils that the federal CAA prohibits from being released into the atmosphere. The CAA specifies that only certified technicians can extract refrigerants from white goods before they can be recycled. The eligibility criteria for white goods are as follows:

- White goods must be located within a designated disaster area and be removed from an eligible recipient's improved property or ROW;
- White goods removal must be the legal responsibility of the recipient; and
- White goods must be a result of the major disaster incident.

Appendix A
CONTRACTOR, DISPOSAL, AND RECYCLING CONTACTS

**Table 1
Debris Hauling Firms**

Company Name	Company Contact	Phone	Email	Address
Crowder Gulf	Ashley Ramsay-Naile	800-992-6207	aramsay@crowdergulf.com	5629 Commerce Blvd East, Mobile, AL 36619
Ashbritt	Austin Office	512-732-9998	response@ashbritt.com	565 East Hillsboro Blvd Deerfield Beach, FL 33441

**Table 2
Debris Monitors**

Company Name	Company Contact	Phone	Email	Address
Tetra Tech	Simon Carlyle	407-803-2525	simon.carlyle@tetrattech.com	2301 Lucien Way Maitland, FL 32751

**Table 3
Final Disposal Locations**

Site Name	Type	Market	Operator	Location	Phone
Seabreeze Environmental Landfill	I	Municipal solid waste, non-hazardous waste, construction and demolition	WasteConnections of Texas	10310 FM 523 Angleton, TX 77516	979.864.4442 866.669.7834
Coastal Plains Recycling and Disposal Facility	I	Municipal solid waste, non-hazardous waste, construction and demolition	Waste Management	21000 East Hwy 6 Alvin, TX 77511	800.963.4776
Dixie Farm Road Landfill	IV	Construction and demolition	Hill Sand Company Inc	4649 Dixie Farm Rd, Pearland, TX 77581	281.482.1213
Fort Bend Regional Landfill	I	Municipal solid waste, non-hazardous waste, construction and demolition	WCA Waste	4115 Davis Estate Rd, Needville, TX 77461	979.793.4430

**Table 4
Recycling Resources**

Site Name	Material Streams Collected	Operator	Address	Phone
Brazoria County Recycling Center	Oil Based Paint, Paint Thinners and Strippers, Pool Chemicals, Household Chemicals, Cleaners, Lawn Chemicals, Pesticides, Aerosols, Motor Oil and Filters, Antifreeze, Cooking Oil, Flammable Liquids	Brazoria County	10310 FM 523, Angleton, TX 77515	281.489.2795

CONTRACTS, DISPOSAL AND RECYCLING RESOURCES

Site Name	Material Streams Collected	Operator	Address	Phone
Seabreeze Environmental Landfill	Newspapers, office paper, corrugated paper, cardboard, and packaging materials; milk, water, detergent and juice jugs; soft drink bottles; polystyrene food containers and cups, aluminum cans and foil; tin and steel cans; and small amounts of scrap metal.	WasteConnections of Texas	10310 FM 523 Angleton, TX 77516	979.864.4442 866.669.7834
Sienna Mulch	Mulch	Sienna Mulch	9615 FM 521 Rosharon, TX 77583	281.431.2130
CMC Recycling Clute	Metals, appliances	CMC Commercial Products	513 Moffet Clute, TX 77531	979.265.4642
Texas Best Recycling	Metals, batteries	Texas Best Recycling	19926 Hwy 35 Alvin, TX 77511	979.549.4175

Appendix B

DEBRIS MANAGEMENT CHECKLISTS

Normal Operations Checklist

- Update contact lists.
- Evaluate DMS.
- Review road list and road maps.
- Establish and maintain pre-positioned contracts.
- Review FEMA guidance.

Completed By: _____

Date Completed: _____

Pre-Incident Checklist

- Download most recent road list and relevant documents to a portable storage device.
- Alert key personnel and place monitoring firm and debris removal contractors on stand-by.
- Review plan with key personnel.
- Issue pre-event media press releases.

Completed By: _____

Date Completed: _____

Post-Incident Response Checklist

- Conduct damage assessment.
- Establish a DMOC
- Activate monitoring firm and debris removal contractors.
- Begin emergency roadway debris clearance.
- Begin truck certification.
- Seek permit from the Texas Commission for Environmental Quality (TCEQ) for DMS approval. Refer to Appendix L for application.
- Prepare DMS based on concentration of debris.
- Conduct meetings/briefings with key personnel.
- Review debris volume and collection cost assessment.
- Request contact information and meeting with FEMA Public Assistance Officer.
- Issue media press release.

Completed By: _____

Date Completed: _____

Post-Event Recovery Checklist: 2 Days – 2 Weeks

- Open DMS.
- Prioritize roads/areas.
- Issue second press release regarding segregation of debris.
- Begin ROW debris removal.
- Perform parks damage assessment.
- Begin environmental monitoring program of DMS.
- Coordinate with external agencies.
- Initiate discussions with FEMA.
- Obtain FEMA guidance for gated community and private property debris removal.

Completed By: _____

Date Completed: _____

Recovery Checklist: 2 Weeks – 1 Month

- Maintain and evaluate ROW cleanup.
- Begin ROW stump removal as necessary.
- Open additional DMS as necessary.
- Continue daily meetings with FEMA.
- Begin debris removal from private property and gated communities.
- Communicate project close-out to residents via press release.

Completed By: _____

Date Completed: _____

Recovery Checklist: 1 Month – 3 Months

- Maintain and evaluate ROW cleanup – vegetative and C&D.
- Begin ROW leaners and hangers program.
- Initiate haul-out.
- Progress to weekly meetings with the FEMA.

Completed By: _____

Date Completed: _____

Recovery Checklist: 3 Months – Project Completion

- Complete all debris recovery activities.
- Identify ineligible debris on ROW.
- Complete the disposal of reduced debris.
- Close-out and remediate DMS locations.
- Conduct project close-out meetings with FEMA and external agencies.

Completed By: _____

Date Completed: _____

Brazoria County, Texas

Cubic Yardage Estimate

Estimated Household	51,788
Storm Category	1
Vegetation Characteristic	Medium
Commercial/Industrial Density	Medium
Storm Precipitation Characteristic	Heavy

$Q = H (C)(V)(B)(S)$ where:

Q =	quantity of debris in cubic yards	=	210,000
H =	number of households	=	51,788
C =	storm category factor in cubic yards	=	2
V =	vegetation characteristic multiplier	=	1.30
B =	commercial/business/industrial multiplier	=	1.20
S =	storm precipitation characteristic multiplier	=	1.30

Clean Woody Debris	168,000
C&D Debris	42,000
Total Debris	210,000

Debris Storage Site Requirements

AC	One Acre	4,840.00	Square Yards (SY)
20	Foot Stack Height	6.67	Yards
	Volume Per Acre	32,267	CY/AC
	Total Debris Estimate	210,000	
	Debris Storage Requirement	6.51	AC
	Road and Buffer Factor	1.66	
	Estimated Storage Requirement	10.80	ACRES

Brazoria County, Texas

Cubic Yardage Estimate

Estiamted Household	51,788
Storm Category	2
Vegetation Characteristic	Medium
Commercial/Industrial Density	Medium
Storm Precipitation Characteristic	Heavy

Q = H (C)(V)(B)(S) where:

Q =	quantity of debris in cubic yards	=	840,000
H =	number of households	=	51,788
C =	storm category factor in cubic yards	=	8
V =	vegetation characteristic multiplier	=	1.30
B =	commercial/business/industrial multipl	=	1.20
S =	storm precipitation characteristic mult	=	1.30

Clean Woody Debris	672,000
C&D Debris	168,000
Total Debris	840,000

Debris Storage Site Requirements

AC	One Acre	4,840.00	Square Yards (SY)
20	Foot Stack Height	6.67	Yards
	Volume Per Acre	32,267	CY/AC
	Total Debris Estimate	840,000	
	Debris Storage Requirement	26.03	AC
	Road and Buffer Factor	1.66	
	Estimated Storage Requirem	43.21	ACRES

Brazoria County, Texas

Cubic Yardage Estimate

Estiamted Household	51,788
Storm Category	3
Vegetation Characteristic	Medium
Commercial/Industrial Density	Medium
Storm Precipitation Characteristic	Heavy

Q = H (C)(V)(B)(S) where:

Q =	quantity of debris in cubic yards	=	2,730,000
H =	number of households	=	51,788
C =	storm category factor in cubic yards	=	26
V =	vegetation characteristic multiplier	=	1.30
B =	commercial/business/industrial multiq	=	1.20
S =	storm precipitation characteristic mult	=	1.30

Clean Woody Debris	2,184,000
C&D Debris	546,000
Total Debris	2,730,000

Debris Storage Site Requirements

AC	One Acre	4,840.00	Square Yards (SY)
20	Foot Stack Height	6.67	Yards
	Volume Per Acre	32,267	CY/AC
	Total Debris Estimate	2,730,000	
	Debris Storage Requirement	84.61	AC
	Road and Buffer Factor	1.66	
	Estimated Storage Requirem	140.45	ACRES

Brazoria County, Texas

Cubic Yardage Estimate

Estiamted Household	51,788
Storm Category	4
Vegetation Characteristic	Medium
Commercial/Industrial Density	Medium
Storm Precipitation Characteristic	Heavy

Q = H (C)(V)(B)(S) where:

Q =	quantity of debris in cubic yards	=	5,250,000
H =	number of households	=	51,788
C =	storm category factor in cubic yards	=	50
V =	vegetation characteristic multiplier	=	1.30
B =	commercial/business/industrial multipl	=	1.20
S =	storm precipitation characteristic mult	=	1.30

Clean Woody Debris	4,200,000
C&D Debris	1,050,000
Total Debris	5,250,000

Debris Storage Site Requirements

AC	One Acre	4,840.00	Square Yards (SY)
20	Foot Stack Height	6.67	Yards
	Volume Per Acre	32,267	CY/AC
	Total Debris Estimate	5,250,000	
	Debris Storage Requirement	162.71	AC
	Road and Buffer Factor	1.66	
	Estimated Storage Requirem	270.09	ACRES

Brazoria County, Texas

Cubic Yardage Estimate

Estiamted Household	51,788
Storm Category	5
Vegetation Characteristic	Medium
Commercial/Industrial Density	Medium
Storm Precipitation Characteristic	Heavy

$Q = H (C)(V)(B)(S)$ where:

Q =	quantity of debris in cubic yards	=	8,400,000
H =	number of households	=	51,788
C =	storm category factor in cubic yards	=	80
V =	vegetation characteristic multiplier	=	1.30
B =	commercial/business/industrial multiq	=	1.20
S =	storm precipitation characteristic mult	=	1.30

Clean Woody Debris	6,720,000
C&D Debris	1,680,000
Total Debris	8,400,000

Debris Storage Site Requirements

AC	One Acre	4,840.00	Square Yards (SY)
20	Foot Stack Height	6.67	Yards
	Volume Per Acre	32,267	CY/AC
	Total Debris Estimate	8,400,000	
	Debris Storage Requirement	260.33	AC
	Road and Buffer Factor	1.66	
	Estimated Storage Requirem	432.15	ACRES

Appendix D
DEBRIS CONTRACTOR CHECKLIST AND GUIDELINES

The Disaster Debris Contract Checklist was designed to guide Brazoria County, Texas in contracting disaster debris services. The checklist provides a step-by-step process to procuring disaster debris services that complies with current federal standards and best practices. The checklist includes the steps to solicit bids, review proposals, and select an appropriate contractor. The checklist was developed using guidance set forth by the Federal Emergency Management Agency (FEMA) and the provisions of Title 2 Code of Federal Regulations (CFR) Part 200 General Procurement Standards.

Tabs A and B, attached to this document, provide additional details on procurement policies:

- Tab A: 2 CFR Parts 200.317 – 200.326
- Tab B: Checklist for Reviewing Procurements Under Grants by Non-Federal Entities (States, local and tribal governments, Institutions of Higher Education, Hospitals, and Private Non-Profit Organizations)

Table 1: Disaster Debris Contract Checklist

Task	Responsibility	Completion Date
Pre-Disaster Tasks		
Solicit a request for proposals for disaster debris services (see Debris Hauler Sample Request for Proposals (Appendix E) for specific contract provisions).		
The solicitation for prequalified contractors should include: <ul style="list-style-type: none"> ■ Adequately defined scope of work ■ All potential debris types ■ Anticipated haul distances ■ Potential size of debris events ■ Hourly labor, equipment and material price schedule ■ Performance bond requirements 		
Qualify bidders by requesting documentation of the following: <ul style="list-style-type: none"> ■ Licenses ■ Financial stability ■ Proof of insurance ■ Bonding capability ■ Description of related experience and capabilities including total verified cubic yards removed and processed ■ References including jurisdiction name, point of contact, email address and phone number ■ Description of health and safety plan including operation plan at debris management site(s). 		
Contractors that have been declared debarred by the Office of Federal Contract Compliance Programs (OFCCP) should not be considered. A complete list of federally disbarred contractors can be found in the System for Award Management (SAM) dataset at www.sam.gov .		

Task	Responsibility	Completion Date
<p>Check the status of prequalified contractors in the SAM database <u>at the time of the disaster.</u></p> <ul style="list-style-type: none"> ■ Go to the SAM Database at https://www.sam.gov/portal/public/SAM/. ■ Under the Search Records tab, enter a DUNS number, CAGE code or Business Name to search for the contractor you are interested in pre-qualifying. ■ Note any exclusions listed for the contractor that may prohibit federal assistance for debris services. ■ Print the screen with the results and file in records. 		
<p>Ensure compliance with the jurisdiction's procurement procedures.</p>		
<p>Ensure compliance with applicable state and local procurement laws and regulations.</p>		
<p>Ensure compliance with federal procurement laws and standards identified in 2 CFR 200 (see Tab A).</p>		
<p>Ensure competition (see the provisions in Section 200.319 Competition in Tab A for specific requirements regarding competition).</p>		
<p>Provide a clear and definitive scope of work.</p>		
<p>Develop a cost analysis to demonstrate cost reasonableness <u>for any contract or contract modification where price competition is lacking.</u></p>		
<p>Ensure opportunities for minority and women-owned businesses and firms whenever possible. Require prime contractors to utilize minority and women-owned businesses as scope allows per the provisions laid out in 2 CFR 200.</p>		
<p>Document the process and rationale the jurisdiction followed in making procurement decisions.</p>		
<p>The jurisdiction's legal counsel should conduct a review of the procurement process and any potential contracts to be awarded to ensure compliance with all federal, state, and local requirements.</p>		
<p>Establish procedures to address protests and disputes related to contract awards.</p>		
<p>Compile all documentation related to the procurement and file in a secure location that can be accessed for future review.</p>		

TAB A: 2 CFR 200 PROCUREMENT STANDARDS

PROCUREMENT STANDARDS

§200.317 Procurements by states.

When procuring property and services under a Federal award, a state must follow the same policies and procedures it uses for procurements from its non-Federal funds. The state will comply with §200.322 Procurement of recovered *materials* and ensure that every purchase order or other contract includes any clauses required by section §200.326 Contract provisions. All other non-Federal entities, including subrecipients of a state, will follow §§200.318 General procurement standards through 200.326 Contract provisions.

§200.318 General procurement standards.

(a) The non-Federal entity must use its own documented procurement procedures which reflect applicable State, local, and tribal laws and regulations, provided that the procurements conform to applicable Federal law and the standards identified in this part.

(b) Non-Federal entities must maintain oversight to ensure that contractors perform in accordance with the terms, conditions, and specifications of their contracts or purchase orders.

(c)(1) The non-Federal entity must maintain written standards of conduct covering conflicts of interest and governing the actions of its employees engaged in the selection, award and administration of contracts. No employee, officer, or agent may participate in the selection, award, or administration of a contract supported by a Federal award if he or she has a real or apparent conflict of interest. Such a conflict of interest would arise when the employee, officer, or agent, any member of his or her immediate family, his or her partner, or an organization which employs or is about to employ any of the parties indicated herein, has a financial or other interest in or a tangible personal benefit from a firm considered for a contract. The officers, employees, and agents of the non-Federal entity may neither solicit nor accept gratuities, favors, or anything of monetary value from contractors or parties to subcontracts. However, non-Federal entities may set standards for situations in which the financial interest is not substantial or the gift is an unsolicited item of nominal value. The standards of conduct must provide for disciplinary actions to be applied for violations of such standards by officers, employees, or agents of the non-Federal entity.

(2) If the non-Federal entity has a parent, affiliate, or subsidiary organization that is not a state, local government, or Indian tribe, the non-Federal entity must also maintain written standards of conduct covering organizational conflicts of interest. Organizational conflicts of interest means that because of relationships with a parent company, affiliate, or subsidiary organization, the non-Federal entity is unable or appears to be unable to be impartial in conducting a procurement action involving a related organization.

(d) The non-Federal entity's procedures must avoid acquisition of unnecessary or duplicative items. Consideration should be given to consolidating or breaking out procurements to obtain a more economical purchase. Where appropriate, an analysis will be made of lease versus purchase alternatives, and any other appropriate analysis to determine the most economical approach.

(e) To foster greater economy and efficiency, and in accordance with efforts to promote cost-effective use of shared services across the Federal Government, the non-Federal entity is encouraged to enter into state and local intergovernmental agreements or inter-entity agreements where appropriate for procurement or use of common or shared goods and services.

(f) The non-Federal entity is encouraged to use Federal excess and surplus property in lieu of purchasing new equipment and property whenever such use is feasible and reduces project costs.

(g) The non-Federal entity is encouraged to use value engineering clauses in contracts for construction projects of sufficient size to offer reasonable opportunities for cost reductions. Value engineering is a systematic and creative analysis of each contract item or task to ensure that its essential function is provided at the overall lower cost.

(h) The non-Federal entity must award contracts only to responsible contractors possessing the ability to perform successfully under the terms and conditions of a proposed procurement. Consideration will be given to such matters as contractor integrity, compliance with public policy, record of past performance, and financial and technical resources. See also §200.213 Suspension and debarment.

(i) The non-Federal entity must maintain records sufficient to detail the history of procurement. These records will include, but are not necessarily limited to the following: rationale for the method of procurement, selection of contract type, contractor selection or rejection, and the basis for the contract price.

(j)(1) The non-Federal entity may use a time and materials type contract only after a determination that no other contract is suitable and if the contract includes a ceiling price that the contractor exceeds at its own risk. Time and materials type contract means a contract whose cost to a non-Federal entity is the sum of:

(i) The actual cost of materials; and

(ii) Direct labor hours charged at fixed hourly rates that reflect wages, general and administrative expenses, and profit.

(2) Since this formula generates an open-ended contract price, a time-and-materials contract provides no positive profit incentive to the contractor for cost control or labor efficiency. Therefore, each contract must set a ceiling price that the contractor exceeds at its own risk. Further, the non-Federal entity awarding such a contract must assert a high degree of oversight in order to obtain reasonable assurance that the contractor is using efficient methods and effective cost controls.

(k) The non-Federal entity alone must be responsible, in accordance with good administrative practice and sound business judgment, for the settlement of all contractual and administrative issues arising out of procurements. These issues include, but are not limited to, source evaluation, protests, disputes, and claims. These standards do not relieve the non-Federal entity of any contractual responsibilities under its contracts. The Federal awarding agency will not substitute its judgment for that of the non-Federal entity unless the matter is primarily a Federal concern. Violations of law will be referred to the local, state, or Federal authority having proper jurisdiction.

[78 FR 78608, Dec. 26, 2013, as amended at 79 FR 75885, Dec. 19, 2014; 80 FR 43309, July 22, 2015]

§200.319 Competition.

(a) All procurement transactions must be conducted in a manner providing full and open competition consistent with the standards of this section. In order to ensure objective contractor performance and eliminate unfair competitive advantage, contractors that develop or draft specifications, requirements, statements of work, or invitations for bids or requests for proposals must be excluded from competing for such procurements. Some of the situations considered to be restrictive of competition include but are not limited to:

(1) Placing unreasonable requirements on firms in order for them to qualify to do business;

(2) Requiring unnecessary experience and excessive bonding;

(3) Noncompetitive pricing practices between firms or between affiliated companies;

(4) Noncompetitive contracts to consultants that are on retainer contracts;

(5) Organizational conflicts of interest;

(6) Specifying only a "brand name" product instead of allowing "an equal" product to be offered and describing the performance or other relevant requirements of the procurement; and

(7) Any arbitrary action in the procurement process.

(b) The non-Federal entity must conduct procurements in a manner that prohibits the use of statutorily or administratively imposed state, local, or tribal geographical preferences in the evaluation of bids or proposals, except in those cases where applicable Federal statutes expressly mandate or encourage geographic preference. Nothing in this section preempts state licensing laws. When contracting for architectural and engineering (A/E) services, geographic location may be a selection criterion provided its application leaves an appropriate number of qualified firms, given the nature and size of the project, to compete for the contract.

(c) The non-Federal entity must have written procedures for procurement transactions. These procedures must ensure that all solicitations:

(1) Incorporate a clear and accurate description of the technical requirements for the material, product, or service to be procured. Such description must not, in competitive procurements, contain features which unduly restrict competition. The description may include a statement of the qualitative nature of the material, product or service to be procured and, when necessary, must set forth those minimum essential characteristics and standards to which it must conform if it is to satisfy its intended use. Detailed product specifications should be avoided if at all possible. When it is impractical or uneconomical to make a clear and accurate description of the technical requirements, a "brand name or equivalent" description may be used as a means to define the performance or other salient requirements of procurement. The specific features of the named brand which must be met by offers must be clearly stated; and

(2) Identify all requirements which the offerors must fulfill and all other factors to be used in evaluating bids or proposals.

(d) The non-Federal entity must ensure that all prequalified lists of persons, firms, or products which are used in acquiring goods and services are current and include enough qualified sources to ensure maximum open and free competition. Also, the non-Federal entity must not preclude potential bidders from qualifying during the solicitation period.

[78 FR 78608, Dec. 26, 2013, as amended at 79 FR 75885, Dec. 19, 2014]

§200.320 Methods of procurement to be followed.

The non-Federal entity must use one of the following methods of procurement.

(a) Procurement by micro-purchases. Procurement by micro-purchase is the acquisition of supplies or services, the aggregate dollar amount of which does not exceed the micro-purchase threshold (\$200.67 Micro-purchase). To the extent practicable, the non-Federal entity must distribute micro-purchases equitably among qualified suppliers. Micro-purchases may be awarded without soliciting competitive quotations if the non-Federal entity considers the price to be reasonable.

(b) Procurement by small purchase procedures. Small purchase procedures are those relatively simple and informal procurement methods for securing services, supplies, or other property that do not cost more than the Simplified Acquisition Threshold. If small purchase procedures are used, price or rate quotations must be obtained from an adequate number of qualified sources.

(c) Procurement by sealed bids (formal advertising). Bids are publicly solicited and a firm fixed price contract (lump sum or unit price) is awarded to the responsible bidder whose bid, conforming with all the material terms and conditions of the invitation for bids, is the lowest in price. The sealed bid method is the preferred method for procuring construction, if the conditions in paragraph (c)(1) of this section apply.

(1) In order for sealed bidding to be feasible, the following conditions should be present:

- (i) A complete, adequate, and realistic specification or purchase description is available;
- (ii) Two or more responsible bidders are willing and able to compete effectively for the business; and
- (iii) The procurement lends itself to a firm fixed price contract and the selection of the successful bidder can be made principally on the basis of price.

(2) If sealed bids are used, the following requirements apply:

(i) Bids must be solicited from an adequate number of known suppliers, providing them sufficient response time prior to the date set for opening the bids, for local, and tribal governments, the invitation for bids must be publicly advertised;

(ii) The invitation for bids, which will include any specifications and pertinent attachments, must define the items or services in order for the bidder to properly respond;

(iii) All bids will be opened at the time and place prescribed in the invitation for bids, and for local and tribal governments, the bids must be opened publicly;

(iv) A firm fixed price contract award will be made in writing to the lowest responsive and responsible bidder. Where specified in bidding documents, factors such as discounts, transportation cost, and life cycle costs must be considered in determining which bid is lowest. Payment discounts will only be used to determine the low bid when prior experience indicates that such discounts are usually taken advantage of; and

(v) Any or all bids may be rejected if there is a sound documented reason.

(d) Procurement by competitive proposals. The technique of competitive proposals is normally conducted with more than one source submitting an offer, and either a fixed price or cost-reimbursement type contract is awarded. It is generally used when conditions are not appropriate for the use of sealed bids. If this method is used, the following requirements apply:

(1) Requests for proposals must be publicized and identify all evaluation factors and their relative importance. Any response to publicized requests for proposals must be considered to the maximum extent practical;

(2) Proposals must be solicited from an adequate number of qualified sources;

(3) The non-Federal entity must have a written method for conducting technical evaluations of the proposals received and for selecting recipients;

(4) Contracts must be awarded to the responsible firm whose proposal is most advantageous to the program, with price and other factors considered; and

(5) The non-Federal entity may use competitive proposal procedures for qualifications-based procurement of architectural/engineering (A/E) professional services whereby competitors' qualifications are evaluated and the most qualified competitor is selected, subject to negotiation of fair and reasonable compensation. The method, where price is not used as a selection factor, can only be used in procurement of A/E professional services. It cannot be used to purchase other types of services though A/E firms are a potential source to perform the proposed effort.

(e) [Reserved]

(f) Procurement by noncompetitive proposals. Procurement by noncompetitive proposals is procurement through solicitation of a proposal from only one source and may be used only when one or more of the following circumstances apply:

(1) The item is available only from a single source;

(2) The public exigency or emergency for the requirement will not permit a delay resulting from competitive solicitation;

(3) The Federal awarding agency or pass-through entity expressly authorizes noncompetitive proposals in response to a written request from the non-Federal entity; or

(4) After solicitation of a number of sources, competition is determined inadequate.

[78 FR 78608, Dec. 26, 2013, as amended at 79 FR 75885, Dec. 19, 2014; 80 FR 54409, Sept. 10, 2015]

§200.321 Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms.

(a) The non-Federal entity must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

(b) Affirmative steps must include:

(1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;

(2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;

(3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;

(4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises;

(5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce; and

(6) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs (1) through (5) of this section.

§200.322 Procurement of recovered materials.

A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

[78 FR 78608, Dec. 26, 2013, as amended at 79 FR 75885, Dec. 19, 2014]

§200.323 Contract cost and price.

(a) The non-Federal entity must perform a cost or price analysis in connection with every procurement action in excess of the Simplified Acquisition Threshold including contract modifications. The method and degree of analysis is dependent on the facts surrounding the particular procurement situation, but as a starting point, the non-Federal entity must make independent estimates before receiving bids or proposals.

(b) The non-Federal entity must negotiate profit as a separate element of the price for each contract in which there is no price competition and in all cases where cost analysis is performed. To establish a fair and reasonable profit, consideration must be given to the complexity of the work to be performed, the risk borne by the contractor, the contractor's investment, the amount of subcontracting, the quality of its record of past performance, and industry profit rates in the surrounding geographical area for similar work.

(c) Costs or prices based on estimated costs for contracts under the Federal award are allowable only to the extent that costs incurred or cost estimates included in negotiated prices would be allowable for the non-Federal entity under Subpart E—Cost Principles of this part. The non-Federal entity may reference its own cost principles that comply with the Federal cost principles.

(d) The cost plus a percentage of cost and percentage of construction cost methods of contracting must not be used.

§200.324 Federal awarding agency or pass-through entity review.

(a) The non-Federal entity must make available, upon request of the Federal awarding agency or pass-through entity, technical specifications on proposed procurements where the Federal awarding agency or pass-through entity believes such review is needed to ensure that the item or service specified is the one being proposed for acquisition. This review generally will take place prior to the time the specification is incorporated into a solicitation document. However, if the non-Federal entity desires to have the review accomplished after a solicitation has been developed, the Federal awarding agency or pass-through entity may still review the specifications, with such review usually limited to the technical aspects of the proposed purchase.

(b) The non-Federal entity must make available upon request, for the Federal awarding agency or pass-through entity pre-procurement review, procurement documents, such as requests for proposals or invitations for bids, or independent cost estimates, when:

(1) The non-Federal entity's procurement procedures or operation fails to comply with the procurement standards in this part;

(2) The procurement is expected to exceed the Simplified Acquisition Threshold and is to be awarded without competition or only one bid or offer is received in response to a solicitation;

(3) The procurement, which is expected to exceed the Simplified Acquisition Threshold, specifies a "brand name" product;

(4) The proposed contract is more than the Simplified Acquisition Threshold and is to be awarded to other than the apparent low bidder under a sealed bid procurement; or

(5) A proposed contract modification changes the scope of a contract or increases the contract amount by more than the Simplified Acquisition Threshold.

(c) The non-Federal entity is exempt from the pre-procurement review in paragraph (b) of this section if the Federal awarding agency or pass-through entity determines that its procurement systems comply with the standards of this part.

(1) The non-Federal entity may request that its procurement system be reviewed by the Federal awarding agency or pass-through entity to determine whether its system meets these standards in order for its system to be certified. Generally, these reviews must occur where there is continuous high-dollar funding, and third party contracts are awarded on a regular basis;

(2) The non-Federal entity may self-certify its procurement system. Such self-certification must not limit the Federal awarding agency's right to survey the system. Under a self-certification procedure, the Federal awarding agency may rely on written assurances from the non-Federal entity that it is complying with these standards. The non-Federal entity must cite specific policies, procedures, regulations, or standards as being in compliance with these requirements and have its system available for review.

§200.325 Bonding requirements.

For construction or facility improvement contracts or subcontracts exceeding the Simplified Acquisition Threshold, the Federal awarding agency or pass-through entity may accept the bonding policy and requirements of the non-Federal entity provided that the Federal awarding agency or pass-through entity has made a determination that the Federal interest is adequately protected. If such a determination has not been made, the minimum requirements must be as follows:

(a) A bid guarantee from each bidder equivalent to five percent of the bid price. The “bid guarantee” must consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of the bid, execute such contractual documents as may be required within the time specified.

(b) A performance bond on the part of the contractor for 100 percent of the contract price. A “performance bond” is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such contract.

(c) A payment bond on the part of the contractor for 100 percent of the contract price. A “payment bond” is one executed in connection with a contract to assure payment as required by law of all persons supplying labor and material in the execution of the work provided for in the contract.

§200.326 Contract provisions.

The non-Federal entity's contracts must contain the applicable provisions described in Appendix II to Part 200—Contract Provisions for non-Federal Entity Contracts Under Federal Awards.

TAB B: Checklist for Reviewing Procurements Under Grants by Non-Federal Entities (States, local and tribal governments, Institutions of Higher Education, Hospitals, and private non-profit organizations) – 2 CFR pt. 200

This checklist was created to assist FEMA recipients and subrecipients in complying with the federal requirements that procurements must meet in order for FEMA to reimburse eligible expenses. Importantly, this checklist is intended to provide general guidance only and does not provide a detailed explanation of the Federal procurement requirements – it is not intended to serve as legal advice and FEMA makes no guarantee that adherence to this checklist will result in full reimbursement of eligible expenses. To understand the requirements fully, the user should review the provisions of [2 C.F.R. § 200.317 – 326](#), which is the source of these requirements. FEMA's in – depth guidance on these provisions can be found in its *Supplement to the Public Assistance Field Manual*. In addition, the user may review FEMA's Field Manual, [Public Assistance Grantee and Subgrantee Procurement Requirements](#), which is available on the internet by searching for “FEMA Procurement Field Manual.” While the Field Manual was drafted to specifically address the Federal procurement standards that were in effect prior to 26 December 2014 ([44 C.F.R. § 13.36\(a\)-\(i\) – States, Local and Tribal Governments](#); and [2 C.F.R. § 215.40-48 – Institutions of Higher Education, Hospitals, and other Non-Profit Organizations](#)), many of the concepts are similar or identical in substance, and thus remains an excellent tool for navigating the current Federal procurement standards. If any questions arise, please contact your servicing attorney or legal counsel for assistance.

2 C.F.R. § 200.317 – 326 became effective on December 26, 2014. For disasters (and their associated projects) declared prior to that date, the relevant procurement standards can continue to be found in 44 C.F.R. § 13.36(a)-(i) (States, local and tribal governments) and 2 C.F.R. § 215.40-48 (Institutions of Higher Education, Hospitals, and Private Non-Profits).¹ As indicated above, while many of the concepts are similar or identical, there are some substantive differences between the old and the new standards. Accordingly, this checklist should not be used for procurements associated with declarations issued prior to 26 December 2014. Instead, see procurement standards Checklists 13.36 and 215.2

¹ This includes projects associated with declarations issued prior to 26 December 2014, regardless of project start date. For example, if a disaster was declared on 1 November 2014, but contracting for a project under that declaration did not begin until 1 April 2015, then a State (or state agency/instrumentality) would still utilize the old procurement standards found at 44 C.F.R. § 13.36(a); local and tribal governments would follow § 13.36(b)-(i); and Institutions of Higher Education, Hospitals, and Private Non-Profits would use 2 C.F.R. §§ 215.40-48.

Instructions: Each standard below is followed by a block for “Yes”, “No”, or in some cases, “Not applicable”. **Red font** is used to indicate the response which, if checked, indicates that the contract does not comply with federal requirements.

The term “non-Federal entity” (NFE) below refers to the entity that is conducting the procurement action (i.e., the state, local, or tribal government or private-non-profit entity).

1. Does the procurement comply with the State’s own procurement laws, rules, and procedures?
§200.317 **Yes** **No**
2. Does the procurement comply with the requirement to make maximum use of recovered/recycled materials? § 200.317, § 200.322. **Yes** **No** **N/A – work does not involve the use of materials (e.g., debris removal or other services)**

3. Does the contract include the following clauses?³

- a. *If the contract amount exceeds \$150,000⁴*, does it address **administrative, contractual, or legal remedies** in instances where contractors violate or breach contract terms, and provide for sanctions and penalties? **Yes** **No** **N/A**
- b. *If the contract amount exceeds \$10,000*, does it address **termination for cause and for convenience, including the manner by which it will be effected and the basis for settlement?** **Yes** **No** **N/A**
- c. *If the contract is for construction*, does it include the required **Equal Employment Opportunity clause?**⁵ **Yes** **No** **N/A**
- d. *For construction contracts exceeding \$2,000 awarded under a Federal grant*, does the contract include a **Davis-Bacon Act clause** and **Copeland “Anti-Kickback” Act clause**⁶ addressing prevailing wage rates? [Note that Public

² 2 C.F.R. §200.110 provides prospective applicants with the option of exercising a “grace period,” which allows the prospective applicant to continue to use the old procurement standards at 13.36 or 215 for an additional two (2) fiscal years beginning on the first fiscal year after 26 December 2014. The fiscal year is based upon the prospective applicant’s own fiscal year. In order to utilize this exception, the prospective applicant is required to affirmatively elect its use through the documentation of this decision in its contract records.

³ See [Appendix II of 2 CFR part 200](#). See also, PDAT Field Manual, section IV.H for a detailed discussion of these clauses. Sample clauses and templates can be found in the [Required Contract Clauses 2 CFR 200.326 and 2 CFR Part 200 Appendix II](#).

⁴ \$150,000 is the current dollar threshold for the simplified acquisition threshold, as authorized by 41 U.S.C. § 1908.

⁵ The EEO clause can be found at [41 C.F.R. § 60-1.4\(b\)](#).

⁶ The clause may read as follows:

Compliance with the Copeland “Anti-Kickback” Act

Assistance and Hazard Mitigation Grant Program contracts do NOT require these clauses.]

Yes No N/A

e. If the contract amount exceeds \$100,000 and involves the employment of mechanics or laborers, does the contract include a **Contract Work Hours and Safety Standards clause**?⁷ Yes No N/A

a. Rights to Inventions Made Under a Contract or Agreement.⁸ N/A

b. If the contract or subgrant amount exceeds \$150,000, does the contract include clauses addressing the **Clean Air Act and the Federal Water Pollution Control Act**?⁹ Yes No N/A

c. Does the contract include mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. § 6201)? Yes No

-
- (1) Contractor. The contractor shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into this contract.
 - (2) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clause above and such other clauses as the FEMA may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these contract clauses.
 - (3) Breach. A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a contractor and subcontractor as provided in 29 C.F.R. § 5.12.

⁷ Must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation.

⁸ As FEMA does not award grants or subgrants associated with research and development projects, this contract clause is inapplicable.

⁹ The clause may read as follows:

Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387), and will report violations to FEMA and the Regional Office of the Environmental Protection Agency (EPA).

i. Does the contract include a **Suspension and Debarment clause**?¹⁰ Yes No¹¹

e. Does the contract include an **Anti-Lobbying clause**?¹² Yes No

i. For contracts exceeding \$100,000, have bidders submitted an Anti-Lobbying Certification? Yes No N/A

f. Does the contract include a clause requiring the contractor to maximize use of **recovered/recycled materials**? Yes No N/A – work does not involve the use of materials (e.g., debris removal or other services)

If a State agency is awarding the contract, stop here. If the contract is being awarded by a local or tribal government or private nonprofit entity, continue with the checklist.



4. **General requirements**¹³

g. Does the procurement comply with the NFE's¹⁴ own procurement laws, rules, and procedures? §200.318(a) Yes No

h. Does the NFE maintain contract oversight to ensure that contractors perform in accordance with the terms, conditions, and specifications of their contracts or purchase orders? §200.318(b) Yes No

i. Does the NFE have - §200.318(c)(1):

i. Written standards of conduct covering conflicts of interest and governing the actions of its employees engaged in the selection, award and administration of contracts? Yes No

¹⁰ See, PDAT Manual, pps. 99-100 for sample text.

¹¹ A prospective contractor that is listed on the government-wide Excluded Parties List System in the System for Award Management (www.SAM.gov) as suspended or debarred, **CANNOT** be awarded a contract funded with Federal assistance.

¹² See PDAT Manual, pgs. 127-129. The clause may read substantially as follows:

Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352 (as amended). Contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

¹³ See, 2 C.F.R. § 200.318

¹⁴ Non-Federal Entity (NFE)

- ii. Any employee, officer, or agent participating in the selection, award, or administration of a contract supported by a Federal award that has an actual or apparent conflict of interest?¹⁵ Yes No
 - i. Any employee, officer, or agent that has solicited and/or accepted gratuities, favors, or anything of monetary value from contractors or parties to subcontracts?¹⁶ Yes No
 - ii. Written standards of conduct that provide for disciplinary actions to be applied for violations of such standards by officers, employees, or agents of the non-Federal entity. Yes No
- d. *If the non-Federal entity has a parent, affiliate, or subsidiary organization that is not a state, local government, or Indian tribe, does the non-Federal entity have written standards of conduct covering organizational conflicts of interest? § 200.318(c)(2)¹⁷* Yes No N/A
- e. The NFE must avoid acquisition of unnecessary or duplicative items. Has the NFE *considered* consolidating or breaking out procurements to obtain a more economical purchase? Where appropriate, has the NFE considered lease versus purchase alternatives? § 200.318(d) Yes No
- f. *Is the contract being awarded to a responsible contractor possessing the ability to perform successfully under the terms and conditions of the proposed procurement, giving consideration to such matters as contractor integrity, compliance with public policy, record of past performance, and financial and technical resources? § 200.318(h)* Yes No
- g. *Is the NFE keeping records sufficient to detail the history of the procurement, including, but not limited to, records documenting the rationale for the method of procurement, selection of contract type, contractor selection or rejection, and the basis for the contract price? § 200.318(i)* Yes No
- h. *Is the contract a time-and-materials contract?¹⁸ § 200.318(j)* Yes No

¹⁵ Such a conflict of interest would arise when the employee, officer, or agent, any member of his or her immediate family, his or her partner, or an organization which employs or is about to employ any of the parties indicated herein, has a financial or other interest in or a tangible personal benefit from a firm considered for a contract.

¹⁶ However, NFEs may set standards for situations in which the financial interest is not substantial or the gift is an unsolicited item of nominal value.

¹⁷ Organizational conflicts of interest means that because of relationships with a parent company, affiliate, or subsidiary organization, the NFE is unable or appears to be unable to be impartial in conducting a procurement action involving a related organization.

¹⁸ Time and materials type contract means a contract whose cost to a non-Federal entity is the sum of: (i) The actual cost of materials; and (ii) Direct labor hours charged at fixed hourly rates that reflect wages, general and administrative expenses, and profit. Because this formula generates an open-ended contract price, a time-and-materials contract provides no positive profit incentive to the contractor for cost control or labor efficiency.

iii. If so, has the NFE documented why no other contract is suitable?

Yes No

iv. Does the contract include a ceiling price that the contractor exceeds at its own risk?

Yes No

j. *Is the NFE alone* responsible, in accordance with good administrative practice and sound business judgment, for the settlement of all contractual and administrative issues arising out of procurements? §200.318(k) Yes No

j. *Encouraged*, but not required standards at § 200.318(e), (f), and (g).¹⁹ 5.

Competition:

a. All procurement transactions must be conducted in a manner providing **full and open competition** consistent with the standards of this section. *Does the procurement involve any of the following*²⁰ § 200.319(a):

v. Placing unreasonable requirements on firms in order for them to qualify to do business?

Yes No

vi. Requiring unnecessary experience and excessive bonding? Yes No

vii. Noncompetitive pricing practices between firms or between affiliated companies?²¹

Yes No

viii. Noncompetitive contracts to consultants that are on retainer contracts?

²² Yes No

Therefore, a time-and-materials contract must set a ceiling price that the contractor exceeds at its own risk. Further, the non-Federal entity awarding such a contract must assert a high degree of oversight in order to obtain reasonable assurance that the contractor is using efficient methods and effective cost controls. **[Note that FEMA previously reimbursed costs under a time-and-materials contract for only the first 70 hours of work performed. See, FEMA PA Guide (2007 ed.), pg. 53. However, FEMA's new Public Assistance Guide, published on 1 January 2016, has eliminated this requirement and replaced it with a reasonable period of time standard. Please engage your FEMA Public Assistance POC for additional information]**

¹⁹ §200.318(e) – to foster greater economy and efficiency, the NFE is encouraged to enter into state and local intergovernmental agreements or inter-entity agreements where appropriate for procurement or use of common or shared goods and services (this section provides the authority for state schedule and mutual aid agreements, for example); §200.318(f) – NFEs are encouraged to use Federal excess and surplus property in lieu of purchasing new equipment and property whenever such use is feasible and reduces project costs; and §200.318(g) – NFEs are encouraged to use value engineering clauses in contracts for construction projects (value engineering is a systematic and creative analysis of each contract item or task to encourage the contractor to develop more cost effective means to produce or procure requirements.).

²⁰ This list is non-exclusive and only serves as an example of some of the types of situations that are considered to be restrictive of competition.

²¹ For example, bid suppression or bid rigging.

²² For example, out-of-scope disaster work added to the consultant's work on retainer.

- V. Organizational conflicts of interest?²³ Yes No
- i. Specifying only a “brand name” product instead of allowing “an equal” product to be offered and describing the performance or other relevant requirements of the procurement? Yes No
- ii. Any arbitrary action in the procurement process? Yes No
- b. Was the contractor that is bidding on the contract also involved with developing or drafting the specifications, requirements, statement of work, invitation for bids or request for proposals? (If so, that contractor must be excluded from competing for such procurements) § 200.319(a) Yes No N/A
- c. *Does the contract include a state or local geographic preference for local contractors?*²⁴ § 200.319(b) Yes No
- d. Do the NFE’s written procurement procedures ensure that all solicitations comply with the following: § 200.319(c)
- ix. Incorporate a clear and accurate description of the technical requirements for the material, product, or service to be procured? § 200.319(c)(1) Yes No
- x. Identify all requirements which the offerors must fulfill and all other factors to be used in evaluating bids or proposals? § 200.319(c)(2) Yes No
- e. If the NFE is using a prequalified list of persons, firms, or products which are used in acquiring goods and services: § 200.319(d) E N/A
- xi. Is the list current? Yes No
- xii. Does the list include enough qualified sources to ensure maximum open and free competition? Yes No
- xiii. Were any potential bidders precluded from qualifying during the solicitation period?²⁵ Yes No

²³ See, fn 18.

²⁴ Geographic preferences are generally not allowed under FEMA grants. The only exception is that when contracting for architectural and engineering (A/E) services, geographic location may be a selection criterion provided its application leaves an appropriate number of qualified firms, given the nature and size of the project, to compete for the contract.

²⁵ Pre-qualified lists are NOT contracts. Accordingly, once the decision to solicit and award a contract is made, the NFE may issue the solicitation directly to the contractors on the pre-qualified list, but must also allow any interested contractor (not on the pre-qualified list) to submit its qualifications, and if deemed qualified, allow that contractor to submit a bid or proposal in response to the solicitation. Contract award will then be made to one of the contractors submitting a bid or proposal, IAW the evaluation/award criteria identified in the solicitation.

6. Method of Procurement

a. Is the NFE using one of the following acceptable methods of procurement? § 200.320

i. **Micro-purchase** (i.e., purchases below \$3,500, see, §200.67 Micro-purchases). § 200.320(a) **Yes** **No**

1. [Note: Micro-purchases may be awarded without soliciting competitive quotations if the non-Federal entity considers the price to be reasonable.]

2. To the extent practicable, is the NFE distributing micro-purchases equitably among qualified suppliers?

Yes **No** **N/A – not practicable**

ii. **Small purchase procedures** § 200.320(b) **Yes** **No**

3. [Note: Small purchase procedures are those relatively simple and informal procurement methods for securing services, supplies, or other property that do not cost more than the **lesser** of either (1) the federal small purchase threshold (i.e., \$150,000), or (2) whatever amount State or local procurement rules set as the small purchase threshold – *if more restrictive than the federal threshold*.]

4. Did the NFE obtain price or rate quotations from an adequate number of qualified sources?²⁶ **Yes** **No**

iii. **Sealed bids** § 200.320(c)²⁷ **Yes** **No**

5. [Note: Bids are publicly solicited and a firm fixed price contract (lump sum or unit price) is awarded to the responsible bidder whose bid, conforming with all the material terms and conditions of the invitation for bids, is the lowest in price. Sealed bidding is the preferred method for procuring construction]

6. Are *all* of the following conditions to use sealed bidding present? § 200.320(c)(1) **Yes** **No**

²⁶ FEMA has determined that for simplified purchase procedures, an adequate number of qualified sources is considered to be three (3). See, [FEMA Recovery Fact Sheet 9580.212 – Public Assistance Grant Contracting Frequently Asked Questions \(FAQ\)](#), FAC No. 3 and the PDAT Field Manual.

²⁷ Sealed bidding is generally used where price is the most important evaluation factor for the NFE. Accordingly, contract award under the sealed bidding method of procurement is made to the bidder submitting *the lowest priced, responsive and responsible bid*. “Responsive” refers to whether the bidder meets all the material requirements of the Invitation for Bid (IFB), while “Responsibility” is described at § 200.318(h).

- k. A complete, adequate, and realistic specification or purchase description is available **Yes** **No**
- l. Two or more responsible bidders are willing and able to compete effectively for the business **Yes** **No**
- m. The procurement lends itself to a firm fixed price contract and the selection of the successful bidder can be made principally on the basis of price **Yes** **No**

3. *If sealed bids are used*, the following requirements apply: § 200.320(c)(2)

- n. Did the NFE solicit bids from an adequate number²⁸ of known suppliers, providing them sufficient response time prior to the date set for opening the bids? **Yes** **No**
- o. If the NFE is a local or tribal government, was the invitation for bids publically advertised? **Yes** **No** **N/A**
- p. Did the invitation for bids include any specifications and pertinent attachments, and define the items or services in order for the bidder to properly respond? **Yes** **No**
- q. Did the NFE open all bids at the time and place prescribed in the invitation for bids? **Yes** **No**
- r. For local and tribal governments, were the bids opened publicly? **Yes** **No** **N/A**
- s. Did the NFE award a firm fixed price contract award in writing to the lowest responsive and responsible bidder? **Yes** **No**
- t. If any bids were rejected, was there a sound documented reason supporting the rejection? **Yes** **No** **N/A**

iv. **Procurement by competitive proposals**²⁹ § 200.320(d) **Yes** **No**

²⁸ Unlike, for simplified purchase procedures, FEMA has not defined an “adequate number” of known sources under the sealed bidding method. While left undefined, a NFE is likely to meet this requirement through the application of “full and open competition.” (See fn. 27)

²⁹ Whereas contract awards under sealed bidding are focused on selecting the lowest responsive responsible bid, NFEs under the competitive procurement method may prioritize non-price factors, such as technical capability or past performance, over price and therefore award a contract to a contractor whose proposal is more expensive but reflects a better overall value to the NFE (e.g. “best value” contracting).

4. [Note: The technique of competitive proposals is normally conducted with more than one source submitting an offer, and either a fixed price or cost-reimbursement type contract is awarded. It is generally used when conditions are not appropriate for the use of sealed bids.]
 5. Did the NFE publicize the Requests For Proposals (RFPs) and identify all evaluation factors and their relative importance? Yes No
 6. Did the NFE solicit proposals from an adequate number of qualified sources?³⁰ Yes No
 7. Did the NFE have a written method for conducting technical evaluations of the proposals received and for selecting recipients? Yes No
 8. Did the NFE award the contract to the responsible firm whose proposal is most advantageous to the program, with price and other factors considered? Yes No
 9. [Note regarding architectural/engineering (A/E) professional services: The NFE may use competitive proposal procedures for qualifications-based procurement of A/E professional services whereby competitors' qualifications are evaluated and the most qualified competitor is selected, subject to negotiation of fair and reasonable compensation. **The method, where price is not used as a selection factor, can only be used in procurement of A/E professional services. It cannot be used to purchase other types of services through A/E firms that are a potential source to perform the proposed effort.**]
- v. **Noncompetitive proposals** § 200.320(f)³¹ Yes No
10. [Note: Procurement by noncompetitive proposals is procurement through solicitation of a proposal from only one (or an improperly limited number of) source(s)]
 11. Do one or more of the following circumstances apply? Yes No

³⁰ Unlike, for simplified purchase procedures, FEMA has not defined an “adequate number” of qualified sources under the competitive procurement method. While left undefined, a NFE is likely to meet this requirement through the application of “full and open competition.”

³¹ § 200.320(e) is reserved.

- U. The item is available only from a single source **Yes** **No**
- V. The public exigency or emergency³² for the requirement will not permit a delay resulting from competitive solicitation **Yes** **No**
- W. The Federal awarding agency or pass-through entity expressly authorizes noncompetitive proposals in response to a written request from the non-Federal entity **Yes** **No**
- X. After solicitation of a number of sources, competition is determined inadequate.³³ **Yes** **No**

7. Contracting with Small and Minority Businesses, Women's Business Enterprises, and Labor Surplus Area Firms

a. Has the NFE taken the following affirmative steps³⁴ to assure that minority businesses, women's business enterprises, and labor surplus area firms are

used when possible?³⁵ § 200.321 **Yes** **No** **N/A (document)**

- i. Placing qualified small and minority businesses and women's business enterprises on solicitation lists? **Yes** **No** **N/A (document)**
- ii. Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources? **Yes** **No** **N/A – no potential sources (document)**
- i. Dividing total requirements, *when economically feasible*, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises?³⁶ **Yes** **No** **N/A – not economically feasible (document)**

³² For an explanation of what "emergency" and exigency" mean, see PDAT Field Manual, pg. 68.

³³ Before utilizing this exception, Applicants should review their solicitation and the publicizing of their solicitation to ensure that it was not inadvertently drafted in a manner to reduce or eliminate competition, which resulted in the receipt of one or no proposals. If this is found to be the case, the Applicant should revise the solicitation and re-publicize the solicitation in order to resolve the competitive concerns.

³⁴ The following affirmative steps are non-exclusive; while these steps must be taken, additional steps, as determined by the NFE, local, state, or tribal government regulations or procedures, may also be taken.

³⁵ Collectively referred to as "socioeconomic contractors" or "socioeconomic contracting," this requirement does not impose an obligation to set aside either the solicitation or award of a contract to these types of firms; this requirement only imposes an obligation to carry out and document the six identified affirmative steps. Failure to do so has been frequently identified as a justification to de-obligate funding by the Department of Homeland Security (DHS), Office of Inspector General (OIG).

iv. Establishing delivery schedules, *where the requirement permits*, which encourage participation by small and minority businesses, and women's business enterprises?
 Yes No N/A – the requirement does not permit (document)

xiv. Using the services and assistance, *as appropriate*, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce Yes No N/A – not appropriate (document)

xv. Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed above? Yes No N/A – no subcontracts will be let (document)

8. **Contract cost and price**³⁷

y. If the contract amount (including contract modifications) exceeds \$150,000, did the NFE perform a cost or price analysis? § 200.323(a) Yes No N/A

z. Did the NFE negotiate profit as a separate element of the price for each contract in which there is no price competition and in all cases where cost analysis is performed? § 200.323(b) Yes No N/A

aa. Is the contract a “cost plus a percentage of cost” or “percentage of construction cost” contract?³⁸ [Note: This form of contract is prohibited under the Federal procurement standards and is ineligible for FEMA reimbursement] Yes No

³⁶ This is not the same as breaking a single project down into smaller components in order to circumvent the micro-purchase or small purchase thresholds to utilize their streamlined acquisition procedures (e.g. “project splitting.”)

³⁷ See, [Pricing Guide for Recipients and Subrecipients Under the Uniform Rules](#) for guidance on cost or price analysis.

³⁸ This type of contract is separate and distinct from cost plus fixed fee, cost plus incentive fee, and cost plus award fee type contracts, which are permissible and used to incentivize contractors to perform to a higher standard of quality, lower cost, or faster performance. Cost plus percentage of cost contracts on the other hand provide none of these incentives; instead, there is a reverse incentive for the contractor to increase its costs as the higher its costs go, the more profit it earns, as its potential earnings are uncapped. The following characteristics are suggestive of a prohibited cost plus percentage of cost contract: (1) payment is on a predetermined percentage rate; (2) the predetermined percentage rate is applied to actual performance costs; (3) the contractor's entitlement is uncertain at the time of contracting; and (4) the contractor's entitlement increases commensurately with increased performance costs.

9. **Bonding requirements for construction or facility improvement contracts exceeding \$150,000**

i. [Note: For construction or facility improvement contracts or subcontracts exceeding the Simplified Acquisition Threshold (i.e., \$150,000), the Federal awarding agency or pass-through entity may accept the bonding policy and requirements of the non-Federal entity provided that the Federal awarding agency or pass-through entity has made a determination that the Federal interest is adequately protected.]

j. If such a determination (see above) has not been made, does the procurement include the following? Yes No N/A

i. A bid guarantee from each bidder equivalent to five percent of the bid price? Yes No N/A

1. The "bid guarantee" must consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of the bid, execute such contractual documents as may be required within the time specified.

ii. A performance bond on the part of the contractor for 100 percent of the contract price? Yes No N/A

1. A "performance bond" is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such contract.

iii. A payment bond on the part of the contractor for 100 percent of the contract price. Yes No N/A

1. A "payment bond" is one executed in connection with a contract to assure payment as required by law of all persons supplying labor and material in the execution of the work provided for in the contract.

END OF CHECKLIST

Appendix E
SAMPLE REQUEST FOR PROPOSAL FOR DISASTER
DEBRIS CLEARANCE AND REMOVAL SERVICES

**Request for Proposals
Disaster Debris Clearance and Removal Services**

RFP NUMBER: XXXXXX

Proposal Deadline:

Date
Time

Request for Proposals
for
Disaster Debris Clearance and Removal Services

Introduction

FEMA encourages municipalities to identify disaster debris clearance and removal service providers prior to an emergency. With this in mind, Brazoria County (County) wishes to contract with one or more firms to provide services related to collection, reduction, recycling, hazardous waste management, demolition, processing, hauling, and final disposition of disaster-related debris. If the County activates more than one firm after a disaster firms will be assigned clear territories (via dividing the County into grids) for their work to be performed and firms will need to contain their work to their assigned areas.

SECTION 1: PROPOSAL OUTLINE AND CONTENT

To simplify the review process and to obtain the maximum degree of comparability, the proposal must follow the outline set forth below and, at a minimum, contain the information requested. Proposers are encouraged to include additional relevant information. At Proposers discretion, brochures may accompany required proposal materials; however, brochures will not be considered as substitution for other written requirements.

1.1 Proposal Format

The proposal must be typewritten and the original clearly marked and signed in blue ink. Legibility, clarity, and completeness are important and essential. Proposals must include labels that identify the sections of the proposal.

1.2 Letter of Transmittal

The letter of transmittal should be limited to two (2) pages and should include:

- 1.2.1 A brief statement of the Proposer's understanding of the work to be done.
- 1.2.2 The names, titles, addresses, and telephone numbers of the individuals who are authorized to make representations on behalf of the Proposer.
- 1.2.3 A statement that (1) the person signing the transmittal letter is authorized to legally bind the Proposer, (2) the proposal shall remain firm for a period of 180 days from the date of receipt of best and final offers, and (3) the proposal will comply with the requirements of this Request for Proposal ("RFP").
- 1.2.4 A statement indicating which vendor, if multiple vendors are proposing jointly, intends to act as prime point of contact for proposal evaluation questions and the delivery and maintenance of the vendor's proposed offerings.

1.3 Title Page

The title page should include the RFP subject and RFP number, the name and address of the Proposer, and the date of the proposal submission.

1.4 Table of Contents

The contents should be identified by section, description, and page number.

1.5 Certificate of Registration

The Proposer must furnish a "Certificate of Registration" that identifies the Proposer is authorized to conduct business in the State of Texas prior to the awarding of the contract.

1.6 Capabilities and Related Experience

Please provide a description of your organization's related experience and capabilities including a list of all projects completed within the last 2 years to include client references for each. Each Proposer must also provide a list of **all** debris removal, reduction, and disposal operations in excess of 500,000 cubic yards within the last 10 years where the Proposer was the prime contractor and provide references for the communities where these operations took place. Each reference must include jurisdiction name, contact name, e-mail

address, phone number, and description of project. Proposers that do not meet these minimum qualifications will not be considered.

1.7 Qualifications of Key Personnel

Proposers must provide a listing of key personnel who would be assigned to the project, including their training (including FEMA courses/training completed), certifications, and years of experience. Proposers should also indicate which personnel will be primary contacts, which will be dedicated staff, and what role each staff member will play in execution of the contracted services.

1.8 Description of Work

Detailed requirements for describing the work to be performed, scope of services, and proposed costs are provided throughout this RFP.

1.9 Technical Proposal

Proposers should, at a minimum, provide the following information in the order listed below:

- 1.9.1 Proposer background, with specific detail regarding work on similar projects performed in excess of 500,000 cubic yards
- 1.9.2 Proposer technical experience regarding large-scale debris removal operations associated with tropical events, tornadoes, flooding, or other natural or manmade disasters
- 1.9.3 Organizational chart including proposed points of contact and a full-time project manager required to report to the County
- 1.9.4 Public information plan, including proposal of a Public Information Representative provided by the Proposer to interface with the County's Public Information Officer ("PIO")
- 1.9.5 Training (including FEMA courses/training) and professional experience (include all professional certifications) of proposed staff
- 1.9.6 A list of existing contracts, particularly those within the State of Texas
- 1.9.7 References from existing contracts and/or past clients (must include references from the successful completion of debris removal projects in excess of 500,000 cubic yards) within the past 10 years
- 1.9.8 A list of Sub-Contractors, including primary operating location(s)
- 1.9.9 A one to two-page company profile with a brief description of the firm, capabilities, experience, contact information, website, and additional resources
- 1.9.10 Detailed listing of Proposer's equipment and resources highlighting equipment directly owned by the proposer
- 1.9.11 A mobilization and operations plan
- 1.9.12 Construction drawings for Occupational Health and Safety Administration (OSHA)-compliant temporary inspection towers
- 1.9.13 Anti-collusion statement

- 1.9.14 Proposer's equipment and resource list – Proposers shall submit a list of on-site and off-site equipment that will be available at the collection site or facility. The list should include all fire prevention, safety, personal protective equipment (“PPE”), and other equipment that the Proposer determines suitable or necessary for the project.
- 1.9.15 Spill and Fire Prevention Plan – Proposers shall submit spill prevention and fire prevention plans tailored to on-site activities at the debris management site (“DMS”) or facility.
- 1.9.16 Contingency Plan – Proposers shall submit a format for a contingency plan and provide a description of notification procedures to the participants of on-site emergencies and evacuation of the participants in case of an emergency on site.
- 1.9.17 Employee Training Plan– Proposers shall submit a comprehensive training plan and detailed training outline for each position involved in debris removal and DMS(s) operations. Proposers should include copies of any training manuals.
- 1.9.18 Health and Safety Plan - Proposers shall submit information regarding their standard health and safety plan.
- 1.9.19 Description of Proposer's Safety Record – Proposers shall submit a listing of all warning notifications, violations, and/or citations received from pertinent federal and/or state agencies in the past three (3) years by the Proposer.
- 1.9.20 Third-Party Certification – Proposer shall submit a listing of all third-party certifications such as ISO 9000 Series, ISO 14000 Series, etc.

1.10 Safety

Proposer shall be solely responsible for maintaining safety at all work sites. Proposer shall take all reasonable steps to ensure safety for both workers and visitors to the site(s) to include traffic control. Proposer will also be solely responsible to ensure that all OSHA requirements are met and a safety officer assigned to the project for the duration of this contract.

1.11 Indemnification

In order to protect County from liabilities associated with on-site activities, transportation, and inherent Comprehensive Environmental Response Compensation and Liability Act (“CERCLA”) liabilities involving disposal, the Proposer should supply its own labor and transportation, and dispose of waste at only EPA-permitted disposal facilities. The Proposer must agree to assume generator status and be responsible for preparing and signing all manifests related to the County's household hazardous collection and/or disposal facility.

Proposer agrees to and shall defend, indemnify, and hold County, their employees, officers, and legal representatives (collectively, “County”) harmless for all claims, causes of action, liabilities, fines, and expenses (including, without limitation, attorney's fees, court costs, and all other defense costs and interest), for injury, death, damage, or loss to persons or property sustained in connection with or incidental to performance under this Agreement, including, without limitation, those caused by:

1. Proposer's and/or its agents', employees', officers', directors', or Proposers Sub-Contractors' actual or alleged negligence or intentional acts or omissions;

2. County's and Proposer's actual or alleged concurrent negligence, whether Proposer is immune from liability or not; and
3. County's and Proposer's actual or alleged strict products liability or strict statutory liability, whether Proposer is immune from liability or not.

Proposer shall defend, indemnify, and hold County harmless during the term of this Agreement and for four (4) years after this Agreement terminates. Proposer shall not indemnify County for County's sole negligence.

1.12 Release

Proposer, its predecessors, successors, and assigns hereby release, relinquish, and discharge County, its agents, employees, officers, and legal representatives from any liability arising out of County's sole and/or concurrent negligence and/or County's strict products liability or strict statutory liability for any injury, including death or damage to persons or property, where such damage is sustained in connection with or arising out of performance under this contract.

1.13 Insurance Requirements

Proposer shall obtain and maintain insurance coverage in effect during the term of this Agreement as set forth below and shall furnish certificates of insurance showing County as an Additional Insured, in duplicate form, prior to the beginning of the Agreement. Each policy, except those for Worker's Compensation and Employer's Liability, must (1) name County as Additional Insured parties on the original policy and all renewals or replacements, and (2) contain an endorsement that the policy is primary to any other insurance available to the Additional Insured with respect to claims arising under the Agreement. Proposer's failure to maintain the required insurance coverage at any time during the contract period may be grounds for County to suspend the contract and to withhold payment until insurance coverage is satisfactory. The issuer of any policy shall have a certificate of authority to transact insurance business in the State of Texas or have a Best's rating of at least A and a Best's Financial Size Category of Class VII or better, according to the most current edition of the Best's Key Rating Guide, Property-Casualty United States.

Standard insurance policies and minimum amounts required are as follows:

1. Commercial General Liability insurance for bodily and personal injury (including death) and property damage
 - a. Each occurrence not less than \$1,000,000
 - b. General aggregate not less than \$2,000,000
 - c. The coverage shall include (but not be limited to) personal injury liability, premises/operations, and products/completed operations
2. Worker's Compensation and Employer's Liability Insurance
 - a. Employers' Liability insurance of \$1,000,000 per occurrence
 - b. Worker's Compensation as required by statute
3. Automobile Liability (for vehicles Proposer uses in performing under the Agreement,

- including Employer's Owned, Non-Ownership, and Hired Auto Coverage) with broad pollution liability endorsement and MCS-90 endorsement
- a. Combined Single Limit of \$1,000,000 per occurrence
4. Environmental Impairment Liability and/or Pollution Liability
 - a. \$3,000,000 per occurrence or claim and \$3,000,000 aggregate
 5. Excess Liability
 - a. \$3,000,000 per occurrence and \$3,000,000 aggregate
 6. Other Insurance
 - a. If requested by County, Proposer shall furnish adequate evidence of Social Security and Unemployment Compensation Insurance, to the extent applicable to Proposer's operations under the Agreement.

Defense costs are excluded from the face amount of the policy. Aggregate limits are per 12-month policy period unless otherwise indicated.

All of the insurance required to be carried by the Proposer hereunder shall be by policies that require on their face, or by endorsement, that the insurance carrier waive any rights of subrogation to recover against County and shall give thirty (30) days written notice to County before they may be cancelled or materially changed. Within such thirty (30)-day period, Proposer covenants that it will provide other suitable policies in lieu of those about to be cancelled or materially modified, or non-renewed, so as to maintain in effect the coverage required under the provisions hereof. Failure or refusal of the Proposer to obtain and keep in force the above-required insurance coverage shall authorize County, at its option, to terminate the Agreement at once. Proposer shall give written notice to County within five (5) days of the date on which total claims by any party against Proposer reduce the aggregated amount of coverage below the amounts required by the Agreement.

Proposer shall pay all insurance premiums, and County shall not be obligated to pay any premiums. Proposer shall be responsible for and bear any claims or losses to the extent of any deductible amounts and waives any claim it may have for the same against County.

If any part of the work is sublet, similar insurance shall be provided by or in behalf of the Sub-Contractor to cover their operations, and evidence such as insurance, satisfactory to County shall be furnished by the Proposer. In the event a Sub-Contractor is unable to furnish insurance in the limits required under the Agreement, the Proposer shall endorse the Sub-Contractor as an Additional Insured on his policies excluding Worker's Compensation and Employer's Liability.

Only unaltered original insurance certificates endorsed by the underwriter are acceptable. Photocopies are unacceptable.

1.14 Financial Assurance

Proposer must submit the most current, unqualified, audited financial statement or SEC Form 10K for the proposing organization. Proposals submitted without the most current certified financial statement or U.S. Securities and Exchange Commission ("SEC") Form 10K shall be considered non-compliant with the RFP.

1.15 Performance Bonds

To ensure faithful performance, the Contractor shall provide to the County and maintain a Proposal Bond in the sum of \$500,000 for the duration of the Agreement. The Contractor's Proposal Bond shall be due upon signing of the Contract by the Contractor.

- (a) In the event the Contractor is notified by the County to commence disaster services in the form of a Notice to Proceed and Purchase Order ("PO"), the Contractor shall provide a Performance
- (b) and Payment Bond to the County within seven days. If the Performance and Payment Bond is not received within seven-days the Contractor shall forfeit their Proposal Bond.
- (c) The Performance and Payment Bond shall be in an amount at least equal to the estimated price of the work in the PO as determined by the County and in such form and with such securities are acceptable to the County. The County may require the Contractor to furnish other bonds, in such form and with such sureties as it may require. If the PO is increased by a change order, the Contractor shall be responsible to ensure that the Performance and Payment Bond has been amended accordingly and of copy of the amendment shall be provided to the County's Debris Manager. The maximum amount of any Bond shall not exceed 10 million dollars.
- (d) A Performance and Payment Bond shall be issued for each PO. Performance and Payment Bonds must be maintained until the PO has been completed and approved by the County. Upon the successful completion of PO work, the Performance and Payment Bonds shall be released by the County.
- (e) If the Surety on any bond furnished by the Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in the State of Texas or it ceases to meet the requirements imposed by the County, the Contractor shall within five (5) calendar days substitute another Bond and Surety, both of which shall be acceptable to the County.
- (f) If the Contractor cannot obtain another bond and surety within (5) calendar days, the County shall accept, and the Contractor shall provide an irrevocable letter of credit drawn on a Texas bank until the bond and surety can be obtained.

1.16 Liquidated Damages

Should the Contractor fail to complete requirements set forth in this scope of work, the County shall suffer damage. The amount of damage suffered by the County is difficult, if not impossible to determine at this time, therefore the Contractor shall pay the County, as liquidated damages, the following:

- (a) The Contractor shall pay the County, as liquidated damages, \$5,000.00 per calendar day of delay to mobilize in the County with the resources requested by the County, within seventy-two (72) hours of being issued a PO.
- (b) The Contractor shall pay the County, as liquidated damages, \$1,000.00 per load of disaster debris collected in the County that is not disposed of at a County approved DMS or County Designated Final Disposal Site. Application of liquidated damages does not

release the Contractor of all liability associated with hauling and depositing material to an unauthorized location.

- (c) The Contractor shall pay the County, as liquidated damages, \$100.00 per incident where the Contractor fails to sufficiently clean collection site(s) so that no loose leaves and small debris in excess of one-bushel basket remain, no debris is left on the road surface and no single piece of debris larger than six (6) inches remains on site. Application of liquidated damages does not release the Contractor from the responsibility of sufficiently cleaning collection site(s).
- (d) The Contractor shall pay the County, as liquidated damages, \$500.00 per incident where the Contractor fails to repair damages that are caused by the Contractor. Application of liquidated damages does not release the Contractor from the responsibility of resolving, repairing or paying for damages.
- (e) If Contractor personnel, including their subcontractors, are documented collecting debris from areas that are not listed in a PO (ie., private property, vacant lots, land clearing debris), then liquidated damages shall be assessed at \$1000.00 per incident. An incident shall entail each individual property as identified by a property identification number.
- (f) If Contractor personnel, including its subcontractors, leave their assigned area prior to completion of the work specified in the PO, "cherry pick" debris within their assigned area or collect debris from outside of their assigned area, then liquidated damages shall be assessed at \$1000.00 per occurrence. In the event of leaving an assigned area prior to completion of work specified in the PO, the liquidated damage shall be assessed at \$5000.00 per day until work has resumed in the assigned area.
- (g) At each vegetative debris management site, if grinding is selected as a volume reduction alternative, the Contractor shall be required to grind a minimum of 200-300 cubic yards per hour per grinder during operating hours. The Contractor and County may agree to a different rate if needed. The new established rate shall then be the performance standard for a specific PO. The minimum rate shall be achieved no later than the third calendar day after receipt of the mobilization PO. Liquidated damages shall be assessed at \$10,000.00 per calendar day for any day in which the minimum processing rate is not met, unless non-compliance is due to insufficient debris amounts being delivered to the site.
- (h) All work, including site restoration of debris management sites, prior to close-out shall be completed within 30 calendar days after receiving notice from the County that the last load of debris has been delivered, unless the County initiates additions or deletions to the agreement by written POs. Subsequent changes in completion times shall be equitably negotiated by both parties pursuant to applicable state and federal laws. Liquidated damages shall be assessed at \$2,000.00 per calendar day for any time over the maximum allowable time established.
- (i) All work for the collection of debris from public roads, rights-of-way and other areas as directed by the County in POs shall be completed on or before the recorded completion date. Liquidated damages shall be assessed at \$5000.00 per calendar day for any day in which the recorded completion date has not been achieved to the satisfaction of the County.
- (j) Failure of the Contractor to meet the required specifications listed in a PO or meet any deadline specified herein or listed in a PO shall result in liquidated damages as specified in each PO.

The amounts specified above are mutually agreed upon as reasonable and proper amount of damage the County should suffer by failure of the Contractor to complete requirements set forth in the scope of work.

1.17 Contract term

The initial contract term will be for five (5) years with an optional three (3) year and two (2) year extension allowing for a ten (10) year total contract term. Prices will be reviewed at each optional renewal and increased if necessary based on review of the consumer price index (“CPI”).

1.18 Invoice Schedule

The Proposer will invoice the County for work completed no more frequently than every two weeks.

1.19 Retainage

The County will hold a 10% retainage on all Proposer invoices until satisfactory completion of the project and resolution of all damages.

SECTION 2: TERMS AND DEFINITIONS

Definitions of key terms used in this RFP are provided below.

2.1 Approved Final Disposal Site

2.1.1 A final disposal site approved in writing by the County.

2.2 Authorized Representative

2.2.1 County employees and/or contracted individuals designated by the County or County debris manager.

2.3 Cleanup Crew

2.3.1 A group of individuals or an individual employed by Proposer to collect disaster debris.

2.4 Construction and Demolition (“C&D”) Debris

2.4.1 Federal Emergency Management Agency (“FEMA”) Publication 104-009-2, Public Assistance Program and Policy Guide, defines eligible C&D debris as damaged components of buildings and structures, such as lumber and wood, gypsum wallboard, glass, metal, roofing material, tile, carpeting and other floor coverings, window coverings, pipe, concrete, asphalt, equipment, furnishings, and fixtures. (Note: This definition of C&D debris is for disaster recovery purposes and is not the same definition commonly used in other solid waste documents.) Current eligibility criteria include the following:

- a. Debris must be located within a designated area and be removed from an eligible applicant’s improved property or right-of-way (“ROW”).
- b. Debris removal must be the legal responsibility of the applicant.
- c. Debris must be a result of a major disaster.

2.5 Debris

- 2.5.1 Items and materials broken, destroyed, or displaced by a natural or human-caused federally declared disaster. Examples of debris include but are not limited to trees, C&D debris, and personal property.

2.6 Debris Management Site (“DMS”)

- 2.6.1 A location to temporarily store, reduce, segregate, and/or process debris before it is hauled to a final disposal site. May also be referred to as a temporary debris management site (“TDMS”) or temporary debris storage and reduction site (“TDSRS”) or temporary debris staging and processing facility (“TDSPP”).

2.7 Debris Manager

- 2.7.1 The County will designate a debris manager, who will provide oversight for all phases of debris removal operations.

2.8 Debris Removal

- 2.8.1 Picking up debris and taking it to a DMS, composting facility, recycling facility, permitted landfill, or other reuse or end-use facility.

2.9 Demolition

- 2.9.1 The act or process of reducing a structure, as defined by the State of Texas or local code, to a collapsed state. It contrasts with deconstruction, which is the taking down of a building while carefully preserving valuable elements for reuse.

2.10 Description of Designated Area

- 2.10.1 The designated area for debris removal is bounded by County limits and includes all public ROWs, easements, parks, and debris staging areas within the areas of the County. The Proposer will remove debris from municipal roadways at the direction of the County. The County may also authorize the Proposer to remove debris from Non-County roadways or other areas as directed in writing by the County.
- 2.10.2 All debris identified by County shall be removed. Proposer shall make up to two complete passes through the County’s limits, removing all debris along each ROW. The County may or may not require the Proposer to perform a third pass. Partial removal of debris piles is strictly prohibited. The Proposer shall not move from one designated area to another designated area without prior approval from the County or its representative. Any eligible debris (such as fallen trees) that extends onto the ROW from private property shall be cut at the point where it enters the ROW, and the part of the debris that lies within the ROW shall be removed. The Proposer shall not enter onto private property during the performance of this contract unless specifically authorized in writing by the County.
- 2.10.3 Proposer shall deliver debris to DMS and final disposal sites that have been permitted to receive disaster debris and will adhere to all local, state, and federal regulations.
- 2.10.4 Debris shall be reasonably compacted into the hauling vehicle. No limbs or branches shall be allowed to protrude more than six (6) inches beyond the sides of the truck bed. Any debris extending above the top of the truck bed shall be secured in place to prevent it from falling off. Measures must be taken to prevent debris from blowing out of the hauling vehicle during transport to the disposal site.

- 2.10.5 All debris will be mechanically loaded. Hauling vehicles that are hand-loaded or that require mechanical assistance for dumping will not be permitted to dump at DMS(s), unless approved in advance by County.
- 2.10.6 Loose leaves and small debris in excess of one (1) bushel basket shall be removed within the designated area. No debris shall be left on the road surface. No single piece of debris larger than six (6) inches in any dimension shall be left on site. Hand crews and rakes will be required.
- 2.10.7 The Proposer will provide an on-site project manager to the County. The project manager shall provide the County with a telephone number at which the project manager can be reached throughout the project. The project manager will be expected to have daily meetings with County representatives. Daily meeting topics will include (but will not be limited to) volume of debris collected, completion progress, local coordination, and damage repairs. County may adjust the frequency of meetings. Proposer project manager must be available 24 hours-a-day, or as required by the County.
- 2.10.8 County does not warrant or guarantee the availability or use of any final disposal sites. Proposer must coordinate directly with owners of all final disposal sites. All final disposal sites must be approved in writing by County.
- 2.10.9 Proposer will remain legally responsible for the handling, reduction, and final haul-out and disposal of all reduced and unreduced debris from DMS sites. Payment for disposal costs (such as tipping fees) incurred by the Proposer at permitted disposal facilities, or other County-approved sites that meet local, state, and federal regulations for disposal, will be made at the cost incurred by the Proposer. The Proposer must furnish a copy of the invoice received by the disposal facility, all scale or load tickets issued by the disposal facility, and proof of Proposer payment to the disposal facility.
- 2.10.10 Proposer shall conduct the work so as not to interfere with the disaster response and recovery activities of federal, state, and local governments or agencies, or of any public utilities.
- 2.10.11 Proposer shall be capable of assembling, directing, and managing a workforce that can be fully operational in debris management operations in a maximum of seventy-two (72) hours or sooner, depending on the extent of the disaster. Operations must begin within seventy-two (72) hours of notification by the County. Depending on the category of the event, the County may request immediate mobilization.
- 2.10.12 Debris management activities reimbursed through federal disaster programs may occur in areas protected by the Endangered Species Act. For any project that requires a federal permit or receives federal funding is subject to Section 7 (see Section 2.13 Endangered Species Act). Proposer and County will comply with the findings of the Section 7 Endangered Species Act consultation, if applicable.

2.11 Disaster-Specific Guidance (“DSG”)

- 2.11.1 A policy statement issued in response to a specific post-event situation or need in a state or region. Each DSG is issued a number and is generally referred to by its numerical identification.

2.12 Eligible

2.12.1 Qualifying for and meeting the most current stipulated requirements (at the time the written Notice to Proceed is issued and executed by the County to the Proposer) of the FEMA Public Assistance Grant Program, FEMA Publication 104-009-2 (additional information below), and all current FEMA fact sheets, guidance documents, and DSGs. Eligible also includes meeting any changes in definition, rules, or requirements regarding debris removal reimbursement as stipulated by FEMA during the course of a debris removal project.

2.13 Endangered Species Act

2.13.1 Section 7 of the Endangered Species Act, *16 U.S.C. § 1536(a)(2)*, requires all federal agencies to consult with the National Marine Fisheries Service (“NMFS”) for marine and anadromous species, or the U.S. Fish and Wildlife Service (“FWS”) for fresh-water and wildlife, if they are proposing an action that may affect listed species or their designated habitat. “Action” is defined broadly to include funding, permitting, and other regulatory actions. (See *50 C.F.R. § 402.02*.)

2.13.2 Each federal agency is to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of a designated critical habitat. This is done through consultation. If such species may be present, the local government must conduct a biological assessment (“BA”) to analyze the potential effects of the project on listed species and critical habitat to establish and justify an effect determination (assistance and coordination may be available from the State of Texas, especially with transportation projects). The federal agency reviews the BA and, if it concludes that the project may adversely affect a listed species or its habitat, it prepares a biological opinion. The biological opinion may recommend reasonable and prudent alternatives to the proposed action to avoid jeopardizing or adversely modifying the habitat.

2.14 FEMA Publication 104-009-2 Public Assistance Program and Policy Guide

2.14.1 This publication is specifically dedicated to the rules, regulations, and policies associated with public assistance programs and the debris removal process. Familiarity with this publication and any revisions can help a local government limit the amount of non-reimbursable expenses. The Public Assistance Program and Policy Guide provides the framework for the debris removal process authorized by the Stafford Act, including the following:

- a. Eliminating immediate threats to lives, public health, and safety.
- b. Eliminating immediate threats of significant damage to improved public or private property.
- c. Ensuring the economic recovery of the affected community to the benefit of the community at large.

2.15 Grinding

2.15.1 Reduction of disaster-related vegetative debris through mechanical means into small pieces to be used as mulch or fuel. Grinding may also be referred to as chipping or mulching.

2.16 Hazardous Hanging Limbs

2.16.1 A limb that poses significant threat to the public. The current eligibility requirements for hazardous hangers according to FEMA Publication 104-009-2 are:

- a. The limbs or branches extend over the public ROW;
- b. The broken limbs or branches measure two inches or larger in diameter at the point of breakage; and
- c. The limbs or branches are still hanging in a tree and threatening a public use area, e.g. trails, sidewalks, golf cart path.

2.17 Hazardous Leaning Tree

2.17.1 A tree is considered hazardous if its condition was caused by the disaster; it is an immediate threat to lives, public health and safety, or improved property; it has a diameter of six (6) inches or greater measured 4.5 feet above ground level; and one or more of the following criteria are met (according to FEMA Publication 104-009-2):

- a. The tree has a split trunk.
- b. The tree has a broken canopy.
- c. The tree is leaning at an angle greater than thirty (30) degrees.

2.18 Hazardous Stump

2.18.1 A stump is defined as hazardous and eligible for reimbursement if all of the following criteria are met. The current eligibility requirements for hazardous hangers according to FEMA Publication 104-009-2 are:

- a. The stump has fifty (50) percent or more of the root ball exposed.
- b. The stump is 2 feet or larger in diameter when measured 2 feet from the ground.
- c. The stump is located on a public ROW.
- d. The stump poses an immediate threat to public health and safety.

Loose stumps (not attached to the ground) and stumps under two feet in diameter measured 2 feet from the ground and meeting the criteria 2.18.1 (a) (c) and (d) above will be removed as ROW Vegetative Debris as outlined in Section 3.2.

2.19 Historic Preservation

2.19.1 In certain instances, debris operations may occur in designated areas (for example, DMS locations or private property) that are subject to historical preservation rules and regulations.

2.20 Household Hazardous Waste (“HHW”)

2.20.1 The Resource Conservation and Recovery Act (“RCRA”) defines hazardous waste as materials that are ignitable, reactive, toxic, corrosive, or meet other listed criteria. Examples of eligible HHW include items such as paints, cleaners, pesticides, etc. The eligibility criteria for HHW are as follows:

- a. HHW must be located within a designated area and be removed from an

eligible applicant's improved property or ROW.

- b. HHW removal must be the legal responsibility of the applicant.
- c. HHW must be a result of a major disaster.

2.20.2 The collection of commercial disaster-related hazardous waste is generally not eligible for reimbursement. Commercial hazardous waste will only be collected by Proposer with written authorization by County. Hazardous waste must be disposed of in accordance with all rules and regulations of local, state, and federal regulatory agencies.

2.21 Monitor

2.21.1 Person that observes day-to-day operations of debris removal crews and provides documentation of contract line items as well as QA/QC of documentation completed in the field. FEMA sets forth guidelines for eligibility. Eligibility determinations are not complete until they are reviewed by QA/QC staff prior to the approval of invoices. Monitor and Proposer must work together to ensure eligible work is being performed meeting the County's expectations and contractual requirements and complying with all applicable federal, state, and local regulations. May also be referred to as a field inspector.

2.22 Personal Protective Equipment (PPE)

2.22.1 Equipment worn to minimize exposure to a variety of hazards.

2.23 Recycling

2.23.1 The recovery or use of wastes as a raw material for making products of the same or different nature as the original product.

2.24 Refrigerant

2.24.1 Ozone-depleting compound that must be removed from white goods or other refrigerant-containing items prior to recycling or disposal.

2.25 Right-of-Entry (ROE)

2.25.1 As used by FEMA, the document by which a property owner confers to the County or its Proposer or the U.S. Army Corps of Engineers the right to enter onto private property for a specific purpose without committing trespass.

2.26 Right-of-Way (ROW)

2.26.1 The portions of land over which facilities such as highways, railroads, or power lines are built. It includes land on both sides of the facility up to the private property line.

2.27 Scale/Weigh Station

2.27.1 A scale used to weigh trucks as they enter and leave a landfill. The difference in weight determines the tonnage dumped and a tipping fee is charged accordingly. It also may be used to determine the quantity of debris picked up and hauled.

2.28 Tipping Fee

2.28.1 A fee charged by landfills or other waste management facilities based on the weight or volume of debris dumped. May also be referred to as a disposal fee.

2.29 Used Electronics

2.29.1 End-of-life electronics (typically televisions, computers, and related components) that have been damaged by the disaster. May also be referred to as e-waste.

2.30 Vegetative Debris

2.30.1 Damaged and disturbed trees, tree limbs, bushes, shrubs, brush, untreated lumber, and wood products.

2.30.2 Remains of standing trees that are clearly damaged beyond salvage.

2.31 White Goods

2.31.1 As outlined in FEMA Publication 104-009-2, eligible white goods are defined as discarded household appliances such as refrigerators, freezers, air conditioners, heat pumps, ovens, ranges, washing machines, dryers, and water heaters. White goods can contain ozone-depleting refrigerants, mercury, or compressor oils that the federal Clean Air Act prohibits from being released into the atmosphere. The Clean Air Act specifies that only qualified technicians can extract refrigerants from white goods before they can be recycled. The eligibility criteria for white goods are as follows:

- a. White goods must be located within a designated area and be removed from an eligible applicant's improved property or ROW.
- b. White goods removal must be the legal responsibility of the applicant.
- c. White goods must be a result of a major disaster.

SECTION 3: SCOPE OF WORK AND RATE SCHEDULE ITEMS

Proposer shall have the capacity to manage a major workforce with multiple Sub-Contractors and to cover the expenses of a major recovery prior to being paid by County. Established management teams must be in place. Proposer shall have the resources to provide the equipment and personnel necessary to cover a disaster. Upon activation by the County, the Proposer must have the capability to have equipment and operators on site within 72 hours to respond to the incident. Proposer shall have experience in five (5) debris removal, reduction, and disposal operations in excess of 500,000 cubic yards within the past ten (10) years where the Proposer was the prime Proposer.

It shall be Proposer's responsibility to load, transport, reduce, and properly dispose of all disaster-generated debris once County issues a Notice to Proceed to Proposer, unless otherwise directed in writing by County. The County reserves the right to utilize one or more Proposer's to remove debris efficiently. The County also reserves the right to utilize different contractors for various elements including, but not limited to, emergency road clearance, right of way debris removal, and DMS management.

It shall be Proposer's responsibility to load and transport debris according to the production rate schedule below.

- a. Up to fifty thousand (50,000) cubic yards 10 calendar days from Notice to Proceed (NTP).
- b. Up to one hundred fifty thousand (150,000) cubic yards 15 calendar days from NTP.
- c. Up to two hundred fifty thousand (250,000) cubic yards 30 calendar days from NTP.
- d. Up to five hundred thousand (500,000) cubic yards 60 calendar days from NTP.
- e. Greater than five hundred thousand (500,000) cubic yards after 60 calendar days, one hundred fifty thousand (100,000) cubic yards every 15 calendar days thereafter.
- f. The ability to be fully operational for the reduction and disposal of debris within 72-hours of initial NTP.

Payment for disposal costs (such as tipping fees) incurred by Proposer at a County-approved final disposal site that meets local, state, and federal regulations for disposal will be reimbursed by County as a pass-through cost. Prior to reimbursement by the County, Proposer must furnish an invoice in hard copy and electronic formats, all scale or load tickets issued by the disposal facility, and proof of Proposer payment to the disposal facility.

The scope of work under this contract includes the following elements:

3.1 Emergency Road Clearance

Under this contract, work shall consist of all labor, equipment, fuel, and miscellaneous costs necessary to clear and remove debris from County roadways and waterways to make them passable immediately following a declared disaster. All roadways designated by the County shall be clear and passable within a reasonable amount of time as overseen by the County. What constitutes a reasonable period for emergency push operations will be defined by the County at the time of a notice to proceed. This may include roadways in municipalities within the County. Roadways will be cleared as directed by the County. The Proposer shall assist the County and its representatives in ensuring proper documentation of emergency road clearance activities by documenting the type of equipment and/or labor utilized (that is, certification), starting and ending times, and

zones/areas cleared. Services performed under this contract element will be compensated using a mutually agreed upon Hourly Labor and Equipment Price Schedule (Schedule 1).

3.2 ROW Vegetative Debris Removal

Under this contract, work shall consist of all labor, equipment, fuel, traffic control costs, toll costs, and other associated costs necessary to pick up and transport eligible disaster-related vegetative debris from the County ROW to a County-approved DMS or approved final disposal site in accordance with all federal, state, and local regulations.

- 3.2.1 Vegetative debris in the County ROW is defined as debris resulting from a hurricane or other natural or human-caused disaster, which has been or will be placed along public ROWs, easements, County parks, alleys, County debris staging areas, and other areas as designated by the County.
- 3.2.2 For the purposes of this contract, eligible vegetative debris that is piled in immediate proximity to the actual legal street ROW and that is accessible from the ROW line with loading equipment (that is, not behind a fence or other physical obstacle) will be deemed to be on the ROW, and is to be removed.
- 3.2.3 Proposer will remove vegetative debris as directed by the County.
- 3.2.4 All Eligible debris will be removed from each location before proceeding to the next location, unless otherwise directed by County or its authorized representative.
- 3.2.5 Proposer must provide traffic control as conditions require or as directed by the County.
- 3.2.6 Entry onto private property for the removal of Eligible vegetative debris will only be permitted when directed by the County or its authorized representative. County will provide specific ROE legal and operational procedures.

3.3 ROW C&D Debris Removal

Under this contract, work shall consist of all labor, equipment, fuel, traffic control costs, toll costs, and other associated costs necessary to pick up and transport eligible C&D debris from the County ROW to a County-approved DMS or final disposal site in accordance with all federal, state, and local regulations.

- 3.3.1 C&D debris in the County ROW is defined as disaster-generated debris that has been or will be placed along public ROW, easements, County parks, alleys, and County debris staging areas.
- 3.3.2 For the purposes of this contract, Eligible C&D debris that is piled in immediate proximity to the ROW and that is accessible from the ROW line with loading equipment (that is, not behind a fence or other physical obstacle) will be deemed to be on the ROW, and is to be removed.
- 3.3.3 Proposer will remove C&D debris from the ROW as directed by the County.
- 3.3.4 Once the debris removal vehicle has been issued a load ticket from the County's authorized representative, the debris removal vehicle will proceed immediately to a County-approved DMS or final disposal site as specified by the County. The debris removal vehicle will not collect additional debris once a load ticket has been issued.

- 3.3.5 All Eligible debris will be removed from each location before proceeding to the next location, unless otherwise directed by the County or its authorized representative.
- 3.3.6 Proposer must provide traffic control as conditions require or as directed by the County.
- 3.3.7 Entry onto private property for the removal of Eligible C&D debris will only be permitted when directed by the County or its authorized representative. County will provide specific ROE legal and operational procedures.
- 3.3.8 C&D debris must be monitored for the collection, complete haul, and delivery at the approved DMS or final disposal sites. County or authorized representative will obtain the original copy of the disposal or scale ticket showing the inbound and outbound collection vehicle weights.

3.4 Demolition, Removal, Transport, and Disposal of Non-RACM Structures

Under this contract, work shall consist of all labor, equipment, fuel, traffic control costs, toll costs, and other associated costs necessary to decommission, demolish, and dispose of eligible non-regulated asbestos-containing material (“non-RACM”) structures on private property within the jurisdictional limits of the County. Under this service, work will include asbestos-containing material (“ACM”) testing, decommissioning, structural demolition, debris removal, and site remediation. Further, eligible debris generated from the demolition of non-RACM structures, as well as scattered C&D debris on private property, will be transported to a County-approved final disposal site in accordance with all federal, state, and local regulations.

- 3.4.1 Removal and transportation of demolished structures and scattered C&D debris on private property will be performed as identified by the County.
- 3.4.2 Entry onto private property will only be permitted when directed by the County. County will provide specific ROE legal and operational procedures.
- 3.4.3 Proposer is required to strictly adhere to all local, state, and federal regulations (such as obtaining demolition permits) for the demolition, handling, and transportation of non-RACM structures.
- 3.4.4 Decommissioning consists of the removal and disposal of all HHW, used electronics, white goods, and scrap tires from a non-RACM structure at a properly sanctioned facility in accordance with all applicable federal, state, and local regulations.
- 3.4.5 Any structurally unsound and unsafe structures will be identified and presented to the County for direction regarding decommissioning.
- 3.4.6 Removal and transportation of eligible non-RACM demolished structures and eligible scattered C&D debris on private property will be performed as directed in writing by the County’s authorized representative.
- 3.4.7 Once the debris removal vehicle has been issued a load ticket from the County’s authorized representative, the debris removal vehicle will proceed immediately to a County-approved final disposal site. The debris removal vehicle will not collect additional debris once a load ticket has been issued.
- 3.4.8 Entry onto private property for the removal of eligible C&D debris will only be permitted when directed in writing by the County or its authorized representative. County will

provide specific ROE legal and operational procedures for private property debris removal programs if requested.

3.5 Demolition, Removal, Transport, and Disposal of RACM Structures

Under this contract, work shall consist of all labor, equipment, fuel, traffic control costs, toll costs, and other associated costs necessary to decommission, demolish, and dispose of eligible RACM structures on private property within the jurisdictional limits of the County. Under this service, work will include ACM testing, decommissioning, structural demolition, debris removal, and site remediation. Further, eligible debris generated from the demolition of structures, as well as eligible scattered C&D debris on private property, will be transported to a County-approved final disposal site in accordance with all federal, state, and local regulations.

- 3.5.1 Proposer is required to strictly adhere to all local, state, and federal regulatory requirements (such as obtaining demolition permits, burrito wrapping of debris, etc.) for the demolition, handling, and transportation of RACM structures.
- 3.5.2 Decommissioning consists of the removal and disposal of all HHW, e-waste, white goods, and scrap tires from an RACM structure at a properly sanctioned facility in accordance with all applicable local, state, and federal regulations.
- 3.5.3 Any structurally unsound and unsafe structures will be identified and presented to the County for direction regarding decommissioning.
- 3.5.4 Removal and transportation of eligible RACM demolished structures and eligible scattered C&D debris on private property will be performed as directed in writing by the County's authorized representative.
- 3.5.5 Once the debris removal vehicle has been issued a load ticket from the County's authorized representative, the debris removal vehicle will proceed immediately to a County-approved final disposal site that accepts RACM debris. The debris removal vehicle will not collect additional debris once a load ticket has been issued.
- 3.5.6 Entry onto private property for the removal of eligible C&D debris will only be permitted when directed in writing by the County or its authorized representative. County will provide specific ROE legal and operational procedures for private property debris removal programs if requested.

3.6 DMS Management and Operations

Under this contract, work shall consist of all labor, equipment, fuel, traffic control costs, toll costs, and other associated costs necessary to manage and operate DMS(s) for the acceptance, management, segregation, staging, and reduction of disaster debris. Reduction methods must be approved by the County prior to commencement of reduction activities. DMS layouts and ingress and egress plans must be approved by the County. County may provide Proposer with potential DMS(s). Proposer will be responsible for documenting the condition of the sites prior to their use as DMS(s), and for returning the DMS(s) to their original condition, abiding by all state and federal environmental regulatory requirements, and the following:

- a. If County DMS locations are identified, the Proposer will be provided with

the address, Global Positioning System (“GPS”) coordinates, and estimated acreage of each DMS.

- b. Based on the severity of the disaster, County may require Proposer to locate additional sites to be used as DMS(s). If private sites are identified to be leased, the Proposer may be tasked with executing the lease and could bill these costs to the County as a pass-through cost.
- c. The Proposer will be responsible for conducting pre-condition baseline underground water and soil sampling and testing of DMS as well as comparable closeout sampling and testing.
- d. DMS(s) operations and remediation must comply with all local, state, and federal safety and environmental standards. Proposer reduction, handling, disposal, and remediation operations must be approved in writing by the County.

County reserves the right to inspect the DMS(s), verify quantities, and review operations at any time.

- 3.6.1 Managing DMS location includes helping to obtain necessary local, state, and federal permits or approval and operating in accordance with all rules and regulations of local, state, and federal regulatory agencies, which may include but are not limited to the U.S. Environmental Protection Agency (“EPA”), Texas Commission on Environmental Quality (“TCEQ”), Texas Historical Commission, or other State and County agencies. Proposer shall also be responsible for all costs associated with third-party groundwater and soil testing.
- 3.6.2 Debris at the DMS(s) will be clearly segregated and managed independently by debris type (C&D, vegetative, white goods, and other scope of service items), program (ROW collection, private property debris removal, etc.), as outlined in Section 2.10 Description of Designated Area.
- 3.6.3 Proposer is responsible for maintaining the DMS(s) approach and interior road(s) for all weather conditions for the entire period of debris hauling, including provision of crushed concrete for any roads that require stabilization for ingress and egress.
- 3.6.4 Proposer is responsible for all associated costs necessary to provide DMS(s) traffic control (for example, traffic cones and staff with traffic flags).
- 3.6.5 Proposer is responsible for all associated costs necessary to provide DMS(s) dust control and erosion control (for example, an operational water truck, silt fencing, and other best management practices).
- 3.6.6 Proposer is responsible for providing twenty-four (24)-hour security at DMS(s).
- 3.6.7 Proposer will only permit Proposer vehicles and others specifically authorized by the County or its authorized representative on DMS locations.
- 3.6.8 Proposer is responsible for all associated costs necessary to provide DMS(s) utilities (for example, water, lighting, and portable toilets).

- 3.6.9 Proposer is responsible for all associated costs necessary to provide DMS(s) fire protection (for example, an operational water truck [sufficient and equipped for fire protection], fire breaks, and a site foreman).
- 3.6.10 Proposer is responsible for all associated costs necessary to provide qualified personnel, as well as lined containers or containment areas, for the segregation of visible HHW/contaminants that may be mixed with disaster debris. The cost associated with qualified personnel and lined containers/containment areas for HHW/contaminant segregation is reflected in this scope of work. The County will be responsible for disposing of HHW/contaminant material segregated and stored in lined containers at the DMS(s)
- 3.6.11 Proposer shall provide tower(s) from which the County or its authorized representative can make volumetric load calls. The tower provided by the Proposer will meet required minimum specifications, detailed in Section 3.20 Debris Site Tower Specifications.
- 3.6.12 Proposer is responsible for operating the DMS(s) in accordance with OSHA, EPA, and TCEQ guidelines.
- 3.6.13 Upon completion of haul-out activities, the Proposer shall restore the site to its original condition prior to site use at their own expense, abide by all local, state, and federal environmental regulatory requirements, and obtain a written release from the County or its authorized representative. Site remediation will include (but is not limited to) ensuring all debris, mulch, and other residual material is adequately removed, returning the original site grade and other physical features including sodding if necessary. Site remediation will also include returning all utilized sites to their original condition as verified through soil and groundwater samples. Site remediation will abide by all state and federal environmental regulatory requirements and is subject to final approval by the County and TCEQ. Site remediation does not include restoring fencing, concession stands, lighting, and other permanent structures that may have been demolished at the County's direction for DMS(s) operations.

3.7 DMS Management and Reduction by Grinding

Under this contract, work shall consist of all labor, equipment, fuel, and miscellaneous costs necessary to reduce disaster debris by grinding. Reduction methods are at the discretion of the County. Grinding must be approved by the County prior to commencement of reduction activities.

- 3.7.1 All unreduced disaster debris must be staged separately from reduced debris at the DMS(s).
- 3.7.2 Grinding activities must begin within seven days of the opening of the DMS with adequate equipment available to process the type of debris entering the site and prevent stockpiling of excess debris at the DMS.
- 3.7.3 Proposer must obtain County's approval to reduce C&D debris. If approved for reduction by the County, C&D debris must be reduced via grinding in order for the County to compensate the Proposer for reduction. Incineration, mauling or driving over of C&D are not acceptable methods of C&D reduction.

3.8 DMS Management and Reduction by Incineration

Under this contract, work shall consist of all labor, equipment, fuel, and miscellaneous

costs necessary to reduce disaster debris by incineration. Reduction methods (controlled open-air incineration and air curtain burning) are at the discretion of the County. Incineration must be approved by the County prior to commencement of reduction activities.

- 3.8.1 All unreduced disaster debris must be staged separately from reduced debris at the DMS(s).

3.9 Haul-Out of Reduced Debris from DMS to Final Disposal Site

Under this contract, work shall consist of all labor, equipment, fuel, traffic control costs, and associated costs necessary to load and transport reduced eligible material (such as ash, compacted C&D, or mulch) from a County-approved DMS(s) to a County-approved final disposal site in accordance with all local, state, and federal regulations.

- 3.9.1 All unreduced disaster debris must be transported to a final disposal site separately from reduced debris.
- 3.9.2 Proposer shall provide the name and address of each disposal site to be used along with the name and the telephone number of a responsible party for each site, prior to commencing the work.
- 3.9.3 Proposer shall not use any disposal site without the written consent of the County. All costs and fees associated with the disposal of debris shall be reviewed for reasonableness by the County prior to issuing any such authorization.
- 3.9.4 Proposer shall initiate and manage the execution of a written three-party agreement between the disposal site owner/operator, Proposer, and County for permission to post a County inspector at the site for verification of each load disposed.
- 3.9.5 Proposer shall provide a sufficient number of debris site towers and/or certified scales meeting County specifications to provide for the efficient delivery of waste streams without excessive wait times. The County shall decide what constitutes an excessive wait time. To the extent that the County determines that additional towers and/or scales are required, additional towers must be operational within forty-eight (48) hours of the County's request and certified scales must be operational within five (5) business days of the County's request.
- 3.9.6 At the completion of disposal operations, each disposal site will issue a written summary of the quantity, type, and origin of waste delivered.
- 3.9.7 Proposer shall not receive any payment from the County for haul-out or load tickets related to reduced or unreduced debris transported and disposed of at a final disposal site that was not approved by County.

3.10 Removal of Hazardous Leaning Trees and Hanging Limbs

Under this contract, work shall consist of all labor, equipment, fuel, traffic control costs, toll costs, and other associated costs necessary to remove all eligible hazardous leaning trees six (6) inches or greater in diameter, measured four and a half (4.5) feet from the base of the tree, and eligible hazardous hanging limbs two (2) inches or greater in diameter at the point of the break and in the County ROW. Further, debris generated from the removal of eligible hazardous leaning trees and eligible hazardous hanging limbs two (2) inches or greater in diameter at the point of the break and in the County ROW will be placed in the

safest possible location on the County ROW and subsequently removed in accordance with Section 3.2 of this RFP. Eligible hazardous leaning trees less than six (6) inches in diameter, measured four and a half (4.5) feet from the base of the tree, will be flush cut, loaded, and removed in accordance with Section 3.2 of this RFP. The County will not compensate the Proposer for cutting leaning trees less than six (6) inches in diameter on a unit rate basis. The collection of all eligible hazardous leaning trees and eligible hazardous hanging limbs must be performed on the same day as the cut work. If there is insufficient room for safe placement along the County ROW, then the Proposer must load the resulting debris as eligible hazardous leaning trees or eligible hazardous hanging limbs as they are removed.

3.10.1 Eligible hazardous leaning trees will be identified by the County or its authorized representative for removal. Removal and transportation of hazardous leaning trees six (6) inches or greater in diameter on the County ROW or private property will be performed as identified by the County or authorized representative. All disaster-specific eligibility guidelines regarding size and diameter of hazardous leaning trees will be communicated to the Proposer in writing by the County or authorized representative. For hazardous leaning trees to be removed and eligible for reimbursement, the tree must satisfy a minimum of one (1) of the following requirements:

- a. The tree has a broken canopy.
- b. The tree has a split trunk.
- c. The tree has fallen or been uprooted within a public use area.
- d. The tree is leaning at an angle greater than thirty (30) degrees.

3.10.2 Eligible hazardous hanging limbs will be identified by the County or its authorized representative for removal. Removal and placement of eligible hazardous hanging limbs two (2) inches or greater in diameter at the point of the break and on the County ROW or private property will be performed as identified by the County's authorized representative. All disaster-specific eligibility guidelines regarding size and diameter of limbs will be communicated to the Proposer in writing by the County's authorized representative. For hazardous hanging limbs to be removed and eligible for payment, the limb must satisfy all of the following requirements:

- a. The limb is two (2) inches or greater in diameter at the point of the break.
- b. The limb is still hanging in a tree and threatening a public use area.
- c. The limb is located on improved public property.

3.11 Removal of Hazardous Stumps

3.11.1 Under this contract, work shall consist of all labor, equipment, fuel, traffic control costs, toll costs, and other associated costs necessary to remove all hazardous uprooted stumps two (2) feet or greater in diameter, measured 2 feet from the base of the tree, in the County ROW. Any voids not backfilled immediately following hazardous stump removal must have measures taken in order to protect public health and safety. Further, debris generated from the removal of eligible hazardous uprooted stumps in the County ROW will be placed in the safest possible location on the ROW and subsequently removed in accordance with Section 3.2 of this RFP. Stumps measured two (2) feet from the base of the tree and less

than two (2) feet in diameter will be considered normal vegetative debris and will be removed in accordance with Section 3.2 of this RFP. County will not compensate Proposer for removing hazardous stumps less than two (2) feet in diameter on a unit rate basis and instead will be considered normal vegetative debris. The diameter of stumps less than two (2) feet will be converted into a cubic yardage volume based on the published FEMA Stump Conversion Table (see Attachment 1, FEMA Stump Conversion Table) and will be removed under the terms and conditions of Section 3.2 of this RFP.

3.11.2 Eligible hazardous stumps will be identified by the County for removal. Removal and transportation of hazardous uprooted stumps in the County ROW and private property will be performed as identified by the County. All disaster-specific eligibility guidelines regarding size and diameter of hazardous stumps will be communicated to Proposer in writing by the County. For hazardous stumps to be removed and eligible for reimbursement, the stump must satisfy the following requirements:

- a. Over fifty (50) percent of the tree crown is damaged or broken and heartwood is exposed.
- b. Fifty (50) percent or more of the root ball is exposed.
- c. The stump is on County ROW and poses an immediate threat to public health, safety, or welfare.

3.11.3 Stumps that are not attached to the ground will be considered normal vegetative debris and will be subject to removal under the terms and conditions of Section 3.2. Stumps with less than fifty (50) percent of the root ball exposed shall be flush cut to the ground. The stump portion of the tree will not be removed but the residual debris (that is, tree trunk) will be removed under the terms and conditions of Section 3.2. The cubic yard volume of the unattached stump will be based on the diameter conversion using the published FEMA Stump Conversion Table (see Attachment 1, FEMA Stump Conversion Table).

3.11.4 The County or its representative will measure and certify all stumps before removal.

3.11.5 Stumps shall only be collected after the County and the Proposer document and perform the following:

- a. Location – Determine that the uprooted stump is located on improved public property or a public ROW. Record and document the location using photography, map depiction, and specific descriptive notations.
- b. Size – Measure and record the diameter of the stump to be removed at the appropriate location.
- c. Marking – Eligible stumps will be marked and uniquely numbered with green paint. Ineligible stumps will be marked with red paint.
- d. Stump Worksheet – Hazardous Stump Worksheet provided by the monitoring firm(s) will be completed in full for each stump to capture the following information: (1) names and signatures of parties present; (2) physical location (street address, road cross streets, etc.); (3) stump number; (4) size of the stump; and (5) date of stump removal.

3.11.6 The unit stump price shall include (but not be limited to) stump extraction, stump cavity filling with compacted soils and installation of seed and/or sod, stump hauling, and stump reduction.

3.12 ROW White Goods Debris Removal

Under this contract, work shall consist of all labor, equipment, fuel, traffic control costs, toll costs, and other associated costs necessary for the collection of white goods from the ROW, removal of refrigerants, transportation to a County-approved DMS, decontamination, and transportation to the County's approved final disposal site.

3.12.1 White goods containing refrigerants must first have such refrigerants removed by the Proposer's qualified technicians prior to mechanical loading. White goods can be collected without first having refrigerants removed if the white goods are manually placed into a hauling vehicle with lifting equipment so that the elements containing refrigerants are not damaged.

3.12.2 The removal, transportation, and disposal of white goods includes obtaining all necessary local, state, and federal handling permits, and operating in accordance with all local, state, and federal regulatory agencies.

3.12.3 There are no disposal fees for residential white goods.

3.13 Used Electronics

Under this contract, work shall consist of all labor, equipment, fuel, traffic control costs, toll costs, and other associated costs necessary for the removal, transportation, and proper disposal of eligible used electronics from the ROW to the County-approved final disposal site. Eligible used electronics includes (but is not limited to) disaster-damaged televisions, computers, computer monitors, and microwaves in areas identified and approved by the County. Proposer shall recycle or dispose of all eligible used electronics in accordance with all local, state, and federal regulations.

3.14 Household Hazardous Waste Removal, Transport, and Disposal

Under this contract, work shall consist of all labor, equipment, fuel, traffic control costs, toll costs, and other associated costs necessary for the removal, transportation, and disposal of HHW.

3.14.1 The removal, transportation, and disposal of HHW includes obtaining all necessary local, state, and federal handling permits and operating in accordance with all local, state, and federal regulations.

3.14.2 The collection methods shall include collection vehicles supplied by the Proposer, which shall be capable of transporting HHW materials from the curb to the approved final disposal sites. All hazardous waste collection personnel shall wear Level D PPE and carry a means of communication (for example, cell phone or radio) for safety and operational purpose. Proposer personnel shall observe all applicable safety requirements for the handling of HHW in accordance with applicable regulations. All HHW shall be examined prior to collection to ensure it is free of other more serious contaminants, including polychlorinated biphenyls ("PCB"). Such serious and non-qualifying non-HHW waste shall be noted and scheduled for separate recovery by the County or Proposer as directed

by the County. Debris identified as HHW shall be collected and placed in poly bags for temporary storage during transport to the approved final disposal site.

3.14.3 Removal of HHW from DMS to approved final disposal site.

3.15 Abandoned Vessel and Vehicle Removal

Under this contract, work shall consist of all labor, equipment, fuel, traffic control costs, toll costs, and other associated costs necessary for the removal and haul-out of eligible vessels and vehicles in areas identified and approved by the County. The removed eligible vehicles will be hauled to a County-approved staging area and subsequently disposed of by the appropriate regulatory agency.

3.15.1 The removal, transportation, and disposal required for abandoned vessel and vehicle removal includes obtaining all necessary local, state, and federal handling permits and operating in accordance with all local, state, and federal regulations.

3.16 Animal Carcass Removal and Disposal

Under this contract, work shall consist of all labor, equipment, fuel, traffic control costs, toll costs, and other associated costs necessary for the removal, transportation, and lawful disposal of dead animal carcasses in areas identified and approved by the County to an approved final disposal site. The carcasses will be hauled to a County-approved staging area and subsequently disposed of by the appropriate regulatory agency.

3.16.1 The Proposer will coordinate activities with the appropriate local animal control agency.

3.16.2 The removal, transportation, and disposal of animal carcasses includes obtaining all necessary local, state, and federal handling permits and operating in accordance with all local, state, and federal regulations.

3.17 Other Debris Removal Work

Neither the Proposer nor any Sub-Contractor shall solicit work from private citizens or others to be performed in the designated work areas during the term of this Agreement. County reserves the right to require Proposer to dismiss or remove from the project any workers as the County sees necessary. Any debris removal vehicles dismissed from the project must have their issued placard removed and destroyed (additional information in Section 3.26 Documentation and Measurement).

3.18 Use of Local Resources

Proposer will be able to use their own Sub-Contractor resources to meet the obligations of the contract. FEMA encourages using local resources. The County will establish the extent to which Proposer must use local resources. It is expected that the awarded Proposer will encourage at least thirty (30) percent of Sub-Contractors are resources located within the disaster area, including but not limited to procuring supplies and equipment, awarding subcontracts, and employing workmen at the County's discretion. Proposer will provide a list of Sub-Contractors with proposal submission.

3.19 Working Hours

Working hours of this contract shall only be during daylight hours, Monday through Sunday, or as otherwise directed by the County. No work outside these hours shall be

allowed unless approved in advance by the County.

- 3.19.1 Proposer shall conduct debris removal operations that generate noise levels above that normally associated with routine traffic flow during daylight hours only. Work may be performed seven (7) days per week. Adjustments to work hours, as local conditions may dictate, shall be coordinated between the County and the Proposer. Unless otherwise directed, the Proposer must be capable of conducting volumetric reduction operations at DMS locations on a twenty-four-(24)-hour, seven-(7)-day-a-week basis.

3.20 Debris Site Tower Specifications

Proposer shall provide as many towers as designated by the County at each disposal site for the use of County representatives during their inspection of dumping operations.

- 3.20.1 If ingress and egress of the DMS(s) is of significant distance that the County or its authorized representative are unable to verify the entering and exiting trucks, Proposer may be required to provide a second tower.
- 3.20.2 The inspection platform of the tower shall be constructed at a minimum height of ten (10) feet from surrounding grade to finish floor level, have a minimum eight (8) feet by eight (8) feet of usable floor area, be covered by a roof with two (2) feet overhangs on all sides, and be provided with appropriate railings and a stairway. The platform shall be enclosed, starting from platform floor level and extending up four (4) feet on all four (4) sides. The expense incurred by the Proposer for the construction of towers is an overhead expense considered part of the Proposer's compensation under the terms and conditions of Section 5 Proposer Compensation.
- 3.20.3 Proposer shall provide a minimum of one (1) portable toilet at each dump site for the use of County authorized representatives during their inspection of dumping operations. The toilet shall be provided prior to start of any dumping operations and will be kept in a sanitary condition by the Proposer throughout dumping operations. The expense incurred by the Proposer for the operation of portable toilets is an overhead expense considered part of the Proposer's compensation under the terms and conditions of Section 5 Proposer Compensation.
- 3.20.4 Care shall be taken to place tower at a sufficient distance away from any reduction/dumping operations. If necessary, dumping operations may be temporarily suspended by the County due to unsuitable conditions at the tower.

3.21 Equipment

- 3.21.1 All trucks and other equipment must comply with all applicable local, state, and federal regulations. Any truck used to haul debris must be capable of rapidly unloading without the assistance of other equipment and must be equipped with a tailgate that will effectively contain the debris during transport and permit the truck to be filled to capacity.
- 3.21.2 Sideboards or other extensions to the bed are allowable provided they meet all applicable regulations, cover the front and both sides, and are constructed to withstand severe operating conditions. The sideboards are to be constructed of two (2)-inch by six (6)-inch boards or greater and not to extend more than two (2) feet above the metal bedsides. Trucks or equipment certified with sideboards must maintain such sideboards and keep them in

good repair. To ensure compliance, equipment will be inspected by the County or authorized representative prior to its use by Proposer.

- 3.21.3 Trucks or equipment designated for use under this contract shall not be used for any other work during the working hours of this contract. Proposer shall not solicit work from private citizens or others to be performed in the designated area during the period of this contract. Under no circumstances will Proposer mix debris hauled for others with debris hauled under this contract.
- 3.21.4 Debris shall be reasonably compacted into the hauling vehicle. Any debris extending above the top of the bed shall be secured in place to prevent it from falling off. Measures must be taken to prevent debris from blowing out of the hauling vehicle during transport to an approved DMS or an approved final disposal site.
- 3.21.5 Equipment used under this contract shall be rubber tired and sized properly to fit loading conditions. Excessively large equipment (100 cubic yards and up) and non-rubber tired equipment must be approved for use on the road by the County.
- 3.21.6 Hand-loaded vehicles are prohibited unless pre-authorized in writing by the County following the event. All hand-loaded vehicles will receive an automatic fifty (50) percent deduction for lack of compaction.
- 3.21.7 Proposer shall supply a list of all equipment owned by the proposer with their proposal submittal.

3.22 Traffic Control

- 3.22.1 Proposer shall mitigate the effects of their operations on local traffic to the fullest extent practical. The Proposer is responsible for establishing and maintaining appropriate traffic controls in all work areas, including DMS(s) and debris collection sites.
- 3.22.2 Proposer shall provide, erect, and maintain all necessary barricades, suitable and sufficient lights, danger signals, signs, and other traffic control devices at all Proposer work areas to ensure the safety of vehicular and pedestrian traffic.
- 3.22.3 Proposer shall provide qualified flag personnel where necessary to direct the traffic and shall take all necessary precautions to protect the designated area and the safety of the public.
- 3.22.4 All work shall comply with all applicable local, state, and federal regulations governing personnel, equipment, and workplace safety. Any notification of a deficiency in traffic control or other safety items shall be immediately corrected by Proposer. No further work shall take place until the deficiency is corrected. Neither the County nor the County's authorized representative shall sign any additional load or unit rate tickets until the safety item is corrected.
- 3.22.5 Highways, streets, or parts of the designated area closed to through traffic shall be protected by effective barricades, and obstructions shall be illuminated during the hours from sunset to sunrise. Suitable warning signs shall be provided by the Proposer to properly control and direct traffic.
- 3.22.6 All barricades, warning signs, lights, temporary signals, other protective devices, flag persons, and signaling devices shall meet the minimum requirements established in the

Manual on Uniform Traffic Control Devices for Streets and Highways, Part VI, prepared by the National Joint Committee on Uniform Traffic Control Devices and current at the time bids are received. Traffic control will conform to the State's most current roadway and traffic design standards and the Federal Highway Administration's ("FHWA") Manual on Uniform Traffic Control Devices ("MUTCD") for Streets and Highways. The foregoing requirements are to be considered as minimum and the Proposer's compliance shall in no way relieve the Proposer of final responsibility for providing adequate traffic control devices for the protection of the public and Proposer's employees throughout the designated area.

3.23 Damage to Public or Private Property

- 3.23.1 All items damaged as a result of Proposer or Sub-Contractor operations (for example, sidewalks, seating, curbs, pipes, drains, water mains, pavement, mail boxes, and turf) shall be repaired or replaced by the Proposer, at their expense, in a manner prescribed by and at the sole satisfaction of the County. Proposer will be responsible for any invoices submitted to the County (such as by utility companies or landowners) that are determined to be the result of damage done by the Proposer. The County reserves the right to pay any such invoices and deduct the cost from the Proposer's invoice. Repairs or receipt of repairs shall be completed and submitted to the County prior to submission of the Proposer's invoice for work accomplished. If the Proposer fails to repair any damaged property, the County may have the work performed and charge the Proposer.
- 3.23.2 The Proposer shall restore all disturbed areas to their original condition, including regrading, use of rye grass and permanent grass, and any other means necessary.
- 3.23.3 Proposer's failure to restore damage to public or private property to the satisfaction of the County will result in the County withholding retainage money in an amount sufficient to make necessary repairs.

3.24 Existing Utilities

- 3.24.1 Some trees and debris that are to be removed under this Agreement may be blocked or entangled with overhead power, telephone, and television cables. In this case, it shall be Proposer's responsibility to coordinate directly with the utility owners to arrange for the removal of the debris without damage to the overhead and underground utility lines. The Proposer shall pay all such costs to the utility company for any adjustments.
- 3.24.2 The Proposer shall make the necessary repairs or pay all costs incurred to repair damaged utilities, as determined by the affected utility company. Repairs to all municipal and privately owned water and sewer facilities shall be made by the Proposer.

3.25 Environmental Protection

- 3.25.1 All chemicals of whatever nature used during project construction or furnished for project operations must be state and federally certified. Their use and disposal of all residues shall strictly comply with instructions.
- 3.25.2 Proposer shall, at their own expense, ensure that noise and dust pollution is minimized to comply with all local, state, and federal regulations and the approval of the County. Proposer shall comply in a timely manner with all directions of the County regarding the use of a water truck or other approved dust abatement measures.

3.25.3 Proposer shall comply with all laws, rules, regulations, and ordinances regarding environmental protection.

3.26 Documentation and Measurement

3.26.1 Prior to beginning any work, the County or its authorized representative shall clearly number each truck or piece of equipment hauling or loading debris with a placard. All vehicles must be certified by the County or its authorized representative prior to debris collection. If a vehicle is working under multiple contracts or for multiple communities, it must be re-certified by a County authorized representative each time it returns to work from other contracts or communities.

3.26.2 Proposer is responsible for ensuring that all Sub-Contractors maintain valid driver's licenses and equipment legally fit for travel on the road.

3.26.3 Proposer shall designate one project manager. The project manager shall provide the County with a telephone number at which the project manager can be reached throughout the project.

3.26.4 It is the County's preference to use an electronic system for load tickets. An Automated Debris Management System ("ADMS") or paper load tickets will be provided by the County or its authorized representative for recording volumes of debris removal. If an ADMS is used a copy of the electronic ticket will be printed for the vehicle operator at the dump site. If paper tickets are to be used each load ticket shall consist of one (1) original and four (4) carbon-copy duplicates and will be distributed as follows:

- a. Load tickets will be issued by a County-authorized representative at the loading site. County will keep one (1) copy of the ticket, and give four (4) copies to the vehicle operator. Upon arrival at the dump site, the vehicle operator will give the four (4) copies to the County-authorized representative at the dump site. Trucks with less than full capacities will be adjusted down by visual inspection; the County-authorized representative present at the dump site will make this determination. The County-authorized representative will validate, enter the estimated debris quantity, and sign the load tickets. County will keep the original copy and the three (3) remaining duplicate copies will be returned to the vehicle operator for the Proposer's records.

3.26.5 Proposer shall give written notice of the location for work scheduled twenty-four (24) hours in advance to the County.

3.27 Ownership of Debris

All debris residing in the County ROW and County-provided DMS(s) as a result of the disaster shall be the property of the County until final disposal at a properly permitted disposal site. Proposer shall be responsible removing debris up to the point where debris can only be described as light litter and additional collection can be facilitated only by sweeping and raking. In addition to debris stored on the ROW as the result of road clearing, County will direct residents to place debris in segregated piles along the ROW, separated according to the waste category. There may be a need to perform some curbside separation of the different waste materials. Different waste materials will be collected in separate

vehicles and may require disposal at different locations, which will be approved by the County. Any items requiring disposal at special sites shall be required to be monitored for the collection, complete haul, and delivery at the approved special site with the monitor obtaining an original copy of the disposal ticket showing inbound and outbound collection vehicle weights.

- 3.27.1 All bagged and bundled waste and debris smaller than two (2) inches in diameter and shorter than two (2) feet in length are outside the scope of this contract unless specifically directed by the County. Collection of municipal solid waste (“MSW”) is outside the scope of this contract. All debris outside the scope of the contract handled by the Proposer shall become the property of the Proposer upon collection.
- 3.27.2 It is recognized that C&D debris might contain small amounts of asbestos, lead-based paints, treated wood, or similar materials. TCEQ may issue orders for the classification and disposition of all disaster debris. Based on the mandates of TCEQ and other applicable state and federal reimbursement agencies, the character and disposal of waste streams will be determined. The Proposer and County will establish a final disposal plan based on these mandates.

3.28 County Responsibilities

County responsibilities will vary depending on County needs and resources. The County, at a minimum, will be responsible for the following:

- a. Coordinating collection activities with the Proposer
- b. Completing the County service request form
- c. Identifying suitable DMS activities
- d. Promoting debris management activities
- e. Providing educational materials
- f. Submitting post-collection DMS(s) data reports to TCEQ
- g. Recruiting and coordinating volunteers
- h. Coordinating with local police, fire, emergency medical services (“EMS”), and other appropriate agencies
- i. Providing emergency contact information
- j. Executing the contract with selected Proposer(s)
- k. Issuing a written Notice to Proceed at the appropriate time

SECTION 4: EVALUATION AND SELECTION PROCESS

1. County will evaluate proposals using the following criteria:
 - a. **Proposal Requirements and Completeness of Proposal** **5 points**
 - b. **References, Experience, Reputation, and Compliance** **30 points**
 - Experience and reputation in managing debris removal and disposal projects within state and federal regulations and guidelines
 - Personnel experience and training
 - Financial stability
 - c. **Debris Management Services** **25 points**
 - Degree of County liability in proposed debris management methods
 - Breadth of service and number of contracts the Proposer can handle
 - Debris management methods and commitment to County debris management preferences
 - Availability of preferred disposal methods (for example, types of materials planned for reuse and recycling)
 - Ability to ensure debris is collected, sorted, transported safely, and reduced appropriately
 - Ability to serve a wide range of project types (for example, permanent facility, one-day event, and mobile collection unit) and community types (for example, rural, urban, and suburban)
 - d. **Responsiveness of Proposal** **20 points**
 - Demonstrated understanding of County and County needs
 - Demonstrated understanding of requirements of the RFP and contract
 - Quality of proposal and impressions of response as it relates to project
 - Additional services, ideas, or products that will benefit County
 - e. **Price** **20 points**
 - Reasonableness of Cost
2. An evaluation team will review all proposals received to determine the extent to which they comply with the requirements herein. The evaluation team may include representatives from local governments, County, or others with relevant expertise.
3. If a proposal fails to meet a material RFP requirement, the proposal may be rejected. A deviation is material to the extent that the proposal is not in substantial accord with the solicitation. Material deviations cannot be waived. Immaterial deviations may cause a bid to be rejected.
4. Proposals containing false or misleading statements may be rejected if the County regards the information as intentionally misleading regarding a requirement of the RFP.
5. During the evaluation process, County may require a Proposer representative to answer questions regarding the proposal. Proposer's failure to demonstrate that the claims made in the proposal are true may be sufficient cause for deeming a proposal non-responsive.

SECTION 5: CONTRACTOR COMPENSATION

Schedule 1

Hourly Labor, Equipment, and Material Price Schedule

(Scope of Service Item 1)

Equipment Type With Operator	Estimated Hours	Hourly Labor Rate	Total
Air Curtain Burner, Self-Contained System			
50' Bucket Truck			
Crash Truck w/Impact Attenuator			
Dozer, Tracked, D3 or Equivalent			
Dozer, Tracked, D4 or Equivalent			
Dozer, Tracked, D5 or Equivalent			
Dozer, Tracked, D8 or Equivalent			
Dump Truck, 16 +/- CY			
Dump Truck, 20 +/- CY			
Dump Truck, 38 +/- CY			
Generator, 5.5 kW, List kW Capacity			
Generator, 200 kW, List kW Capacity			
Generator, 2,500 kW, List kW Capacity			
Light Plant with Fuel and Support			
Grader w/12' Blade (Min. 30,000 LB)			
Hydraulic Excavator, 1.5 CY			
Hydraulic Excavator, 2.5 CY			
Knuckleboom Loader			
Lowboy Trailer w/Tractor			
Mobile Crane up to 15 Ton			
Pump, 95 HP (Minimum 25' Intake and 200' Discharge to Include Fuel and Support Personnel)			
Pump, 200 HP (Minimum 25' Intake and 200' Discharge to Include Fuel and Support Personnel)			
Pump, 650 HP (Minimum 25' Intake and 200' Discharge to Include Fuel and Support Personnel)			
Vac Truck (Mist Capacity), List Capacity			
Pickup Truck, 1 Ton			

Equipment Type With Operator	Estimated Hours	Hourly Labor Rate	Total
Skid-Steer Loader, 1,500 LB Operating Capacity (w/ utility grapple)			
Skid-Steer Loader, 2,500 LB Operating Capacity (w/ utility grapple)			
Compact Track Loader, 1,500 LB Operating Capacity (w/ utility grapple)			
Compact Track Loader, 2,500 LB Operating Capacity (w/ utility grapple)			
Tub Grinder, 800 to 1,000 HP			
Hydraulic Excavator, 1.5 CY (w/ thumb)			
Hydraulic Excavator, 2.5 CY (w/ thumb)			
Truck, Flatbed			
Articulated, Telescoping Scissor Lift for Tower, 15 HP/37 FT Lift			
Water Truck, 2500 Gal (Non-Potable, Dust Control and Pavement Maintenance)			
Wheel Loader, 3 CY, 152 HP			
Wheel Loader, 4.0 CY, 200 HP			
Wheel Loader-Backhoe, 1.5 CY, 95 HP			
Other – Please List			

Labor Category	Estimated Hours	Hourly Labor Rate	Hourly Labor Rate
Operations Manager w/Cell Phone and .5 Ton Pickup			
Crew Foreman w/Cell Phone and 1 Ton Equipment Truck w/Small Tools and Misc. Supplies in Support of Crew			
Tree Climber/Chainsaw and Gear			
Laborer w/Chain Saw			
Laborer w/Small Tools, Traffic Control, or Flag person			
Bonded and Certified Security Personnel			
Other – Please List			

Crew Category	Estimated Hours	Hourly Labor Rate	Total
Wheel Loader, 2.5 CY, 950 or Similar w/Operator, Foreman with Support Vehicle and Small Equipment, Laborer w/Chain Saw, and 2 Laborers w/Small Tools			
Other – Please List			

SCHEDULE 2 - UNIT RATE PRICE SCHEDULE

Reference to RFP Scope of Services Items 2 to 16. If a Proposer elects to "No Bid" individual service offerings, their proposal may be considered non-responsive by the County.

1 ROW Vegetative Debris Removal Work consists of the collection and transportation of eligible vegetative debris on the ROW or public property to County-approved DMS or County-approved final disposal site.	Estimated Quantity	\$ Per Cubic Yard	Total	\$ Per Ton (Alternate)
0 to 15.99 miles	75,000			
16 to 30.99 miles	120,000			
31 to 60.99 miles	50,000			
Greater than 61 miles	5,000			
2 ROW C&D Debris Removal Work consists of the collection and transportation of eligible C&D on the ROW or public property to County-approved DMS or County-approved final disposal site as approved by County.	Estimated Quantity	\$ Per Cubic Yard	Total	\$ Per Ton (Alternate)
0 to 15.99 miles	25,000			
16 to 30.99 miles	35,000			
31 to 60.99 miles	15,000			
Greater than 61 miles	1,000			

3	Demolition, Removal, Transport and Disposal of Non-RACM Structures Work consists of the decommissioning, demolition, and disposal of eligible Non-RACM structures on public or private property and hauling the resulting debris to County-approved final disposal site.	Estimated Quantity	\$ Per Cubic Yard	Total	\$ Per Ton (Alternate)
	0 to 15.99 miles	500			
	16 to 30.99 miles	500			
	31 to 60.99 miles	200			
	Greater than 61 miles	100			
4	Demolition, Removal, Transport and Disposal of RACM Structures Work consists of the decommissioning, demolition, and disposal of eligible RACM structures on public or private property and hauling the resulting debris to a County-approved final disposal site.	Estimated Quantity	\$ Per Cubic Yard	Total	\$ Per Ton (Alternate)
	0 to 15.99 miles	500			
	16 to 30.99 miles	500			
	31 to 60.99 miles	200			
	Greater than 61 miles	100			

<p>5 DMS Management and Operations Work consists of managing and operating DMS for acceptance of eligible vegetative disaster-related debris. The costs associated with acquiring, preparing, leasing, renting, operating, and remediating land used as DMS is reflected in this bid.</p>	Estimated Quantity	\$ Per Cubic Yard	Total	\$ Per Ton (Alternate)
	200,000			
<p>6 DMS Management and Reduction by Grinding Work consists of managing and operating DMS for acceptance and reduction of eligible vegetative disaster-related debris through grinding. The costs associated with acquiring, preparing, leasing, renting, operating, and remediating land used as DMS is reflected in this bid.</p>	Estimated Quantity	\$ Per Cubic Yard	Total	\$ Per Ton (Alternate)
	175,000			
<p>7 DMS Management and Reduction by Air Curtain Incineration Work consists of managing and operating DMS for acceptance and reduction of eligible vegetative disaster-related debris through air curtain incinerators. The costs associated with acquiring, preparing, leasing, renting, operating, and remediating land used as DMS is reflected in this bid.</p>	Estimated Quantity	\$ Per Cubic Yard	Total	\$ Per Ton (Alternate)
	25,000			
<p>8 Haul-Out of Reduced Debris to County-Approved Final Disposal Site Work consists of loading and transporting reduced eligible disaster-related debris at County-approved DMS to County-designated final disposal site.</p>	Estimated Quantity	\$ Per Cubic Yard	Total	\$ Per Ton (Alternate)
	0 to 15.99 miles	10,000		
	16 to 30.99 miles	15,000		
	31 to 60.99 miles	25,000		
	Greater than 61 miles	20,000		
<p>9 Removal of Hazardous Trees and Limbs</p>			Total	

Work consists of removing eligible hazardous trees or limbs and placing them on the safest possible location on the County ROW for collection under the terms and conditions of Scope of Services Item 2, Vegetative Debris Removal.

	Estimated Quantity	\$ Per Tree		
6-inch to 12.99-inch diameter	1,500			
13-inch to 24.99-inch diameter	1,000			
25-inch to 36.99-inch diameter	750			
37-inch to 48.99-inch diameter	300			
49-inch and larger diameter	100			
Hanger Removal (per Tree)	3,000			

SCHEDULE 2 - UNIT RATE PRICE SCHEDULE CONTINUED

10 Removal of Hazardous Stumps Work consists of removing eligible hazardous stumps and transporting resulting debris from the ROW to an County approved DMS. Rate includes removal, backfill of stump hole, reduction, and final disposal. Stumps under 24" in diameter shall be paid at the Proposer's contracted rate for vegetative debris removal using the FEMA stump conversion table.	Estimated Quantity	\$ Per Stump	Total
24.0-inch to 36.99-inch diameter	500		
37-inch to 48.99-inch diameter	250		
49-inch and larger diameter	50		
11 ROW White Goods Debris Removal Work consists of the removal of eligible white goods from the ROW to County-approved DMS site or County-approved facility for recycling. Proposer shall be responsible for recovering/disposing refrigerants as required by law, as well as unit decontamination in a contained area. Proposer shall also be responsible for the transportation of eligible white goods from the County-approved DMS to County-approved facility for recycling.	Estimated Quantity	\$ Per Unit	Total
Refrigerators and freezers requiring refrigerant recovery and decontamination	250		
Washers, dryers, stoves, ovens, AC units, and hot water heaters	500		
12 Used Electronics Removal Work consists of the recovery and disposal of disaster-damaged televisions, computers, computer monitors, and microwaves unless otherwise specified in writing by the County.	Estimated Quantity	\$ Per Unit	Total
	250		

13 Household Hazardous Waste Removal, Transport, and Disposal Work consists of the collection, transportation, and disposal of HHW from the ROW to an County-approved permitted hazardous waste facility or MSW Type I landfill.	Estimated Quantity	\$ Per Pound	Total	
	10,000			
14 Abandoned Vehicle Removal Work consists of the removal and transport of eligible abandoned vehicles.	Estimated Quantity	\$ Per Unit	Total	
<div style="text-align: right;">Passenger Car</div>	50			
<div style="text-align: right;">Single Axle</div>	25			
<div style="text-align: right;">Double Axle</div>	25			
15 Abandoned Vessel Removal Work consists of the removal and transport of eligible abandoned vessels.	Estimated Quantity	\$ Per Unit	Total	
<div style="text-align: right;">Vessels less than 20 linear feet</div>	75			
<div style="text-align: right;">Vessels 21 linear feet and greater</div>	50			
16 Dead Animal Carcasses Work consists of the recovery and disposal of dead animal carcasses.	Estimated Quantity	\$ Per Pound	Total	
	50			
Total	\$ _____			

Appendix F
SAMPLE MEMORANDUMS OF AGREEMENT

THE STATE OF TEXAS
COUNTY OF BRAZORIA

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INTERLOCAL AGREEMENT CONCERNING
ASSISTANCE WITH REMOVAL OF STORM DEBRIS

This agreement is made at Angleton, Brazoria County, Texas between BRAZORIA COUNTY, TEXAS acting through its Commissioner’s Court (hereinafter “County”), and CITY OF SWEENY, TEXAS, acting through its Mayor (hereinafter “City”).

PREAMBLE

WHEREAS, Tex. Gov. Code Section 791.011, the Interlocal Cooperation Act, provides that any local government may contract with another local government to perform governmental functions and services; and

WHEREAS, the Interlocal Cooperation Act Section 791.003 states that “governmental functions and services” means any function or service including the general area of public health and welfare which is of mutual concern to the contracting parties; and

WHEREAS, the Interlocal Cooperation Act Section 791.012 recognizes that the authority of County to perform a contractual service for City includes the authority of County to apply the rules, regulations, and orders of County; and

WHEREAS, the County of Brazoria on the 24th day of August, 2017 declared a local disaster pursuant to the Texas Government Code 418.108 for flooding occurring within Brazoria County. Said Declaration was extended on August 31, 2017; and

WHEREAS, the County suffered widespread and severe property damage resulting from the flooding; and

WHEREAS, the debris from the widespread and severe property damage (also referred to as “debris”) now litter public property, public rights-of-way, public easements, and public roadways; and

WHEREAS, the County Judge of Brazoria County, has determined that extraordinary measures must be taken to remove and dispose of this debris so as to alleviate the suffering of people, for the safety of the public and to restore all property littered with debris; and

WHEREAS, the County wishes to utilize property belonging to the City for expeditious removal of debris from right of ways and easements throughout the County. Said use is subject to and defined below.

WHEREAS, the parties have determined that the implementation of this Contract is in the interest of and for the public health, safety, and welfare of the public; and

WHEREAS, the parties have determined that they are authorized to enter into this contract pursuant to law and their general powers to contract.

NOW THEREFORE, THE COUNTY AND CITY agree as follows:

1. The Permitted Use of the property shall be for Stockpiling and Reduction of debris which may include “Construction and Demolition” and “Green” or vegetative debris.
2. Each party verifies that they are complying with the requirements of the Texas Government Code §791.011.
3. County agrees to
 - a. Use the Property located at 1507 CR 372, Sweeny, Texas (“Property”) for the Permitted Use stated above beginning immediately and ending after all debris from the storm has been disposed of in the landfill.
 - b. Accept the Property in their present condition “AS IS,” the Property being currently suitable for the Permitted Use.
 - c. Obey all applicable laws relating to the use, condition, and occupancy of the Property.
 - d. Obtain and pay for all utility services used by County and not provided by City.
 - e. Allow City to enter the Property to perform City’s obligations and inspect the Property,
 - f. Vacate the Property when all debris has been removed to the landfill;
 - g. Return the Property to the condition it was in prior to the County’s use.

4. County agrees not to
 - a. Use the Property for any purpose other than the Permitted Use.
 - b. Create a nuisance.
 - c. Use the Property in any way that would increase insurance premiums or void insurance on the Property.
 - d. Change City's lock system.
 - e. Assign this lease or sublease any portion of the Property without City's written consent.
5. City agrees to
 - a. Allow County use the Property as set out above.
6. City agrees not to
 - a. Interfere with County's possession of the Property as long as County is not in default.
7. City and County agree to the following:
 - a. Alterations. Any physical additions or improvements to the Property made by County will become the property of City. City may require that County, at the end of the Agreement and at County's expense, remove any physical additions and improvements, repair any alterations, and restore the Property to the condition existing at the commencement of this agreement, normal wear excepted.

SIGNED this the ____ day of _____, 2017.

BRAZORIA COUNTY, TEXAS

CITY OF SWEENEY, TEXAS

By: L. M. "Matt" Sebesta, Jr .
Brazoria County Judge

By: _____,
Mayor

ATTEST:

Attest: _____
City Clerk

BAR X PROPERTY OWNERS DEBRIS MANAGEMENT SITE LEASE AGREEMENT

Lease

Basic Terms

Date: 9/29/17

Landlord: Bar X Property Owners Association

Landlord's Address: 1169 Bar X Trail, Angleton, TX 77515

Tenant: BRAZORIA COUNTY, TEXAS

Tenant's Address: Suite 408A, 111 East Locust, Angleton, Texas 77515

Premises

Approximate square feet: 214,661.023 SF (4.9 ac) - See Exhibit "A"

Street address/suite: 375 Sunset Trail (CR 968 B) - Bar X Reserve D

City, state, zip: Angleton Texas 77515

Term (months): Six months

Commencement Date: October 1, 2017

Termination Date: March 31, 2018

Base Rent (monthly): \$0.00

Permitted Use: Stockpiling and Reduction of debris which may include "Construction and Demolition" and "Green" or vegetative debris.

Definitions

"Essential Services" means utility connections reasonably necessary for occupancy of the Premises for the Permitted Use.

"Injury" means (a) harm to or impairment or loss of property or its use, (b) harm to or death of a person, or (c) "personal and advertising injury" as defined in the form of liability insurance Tenant is required to maintain.

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“Landlord” means Landlord and its agents, employees, invitees, licensees, or visitors.

“Lienholder” means the holder of a deed of trust covering the Premises.

“Rent” means Base Rent plus any other amounts of money payable by Tenant to Landlord.

“Tenant” means Tenant and its agents, contractors, employees, invitees, licensees, or visitors.

Clauses and Covenants

A. Tenant agrees to—

1. Lease the Premises for the entire Term beginning on the Commencement Date and ending on the Termination Date.
2. Accept the Premises in their present condition “AS IS,” the Premises being currently suitable for the Permitted Use.
3. Obey (a) all applicable laws relating to the use, condition, and occupancy of the Premises and Building and (b) any requirements imposed by utility companies serving or insurance companies covering the Premises.
4. Pay monthly, in advance, on the first day of the month, the Base Rent to Landlord at Landlord’s Address.
5. Pay a late charge of 5 percent of any Rent not received by Landlord by the tenth day after it is due.
6. Obtain and pay for all utility services used by Tenant and not provided by Landlord.
7. Pay Tenant’s Pro Rata Share of any utility services provided by Landlord.
8. Allow Landlord to enter the Premises to perform Landlord’s obligations, inspect the Premises, and show the Premises to prospective purchasers or tenants.
9. Repair, replace, and maintain any part of the Premises that Landlord is not obligated to repair, replace, or maintain, normal wear excepted.
10. Submit in writing to Landlord any request for repairs, replacement, and maintenance that are the obligations of Landlord.
11. If requested, deliver to Landlord a financing statement perfecting the security interest created by this lease.
12. Vacate the Premises on the last day of the Term.

13. INDEMNIFY, DEFEND, AND HOLD LANDLORD AND LIENHOLDER HARMLESS FROM ANY INJURY (AND ANY RESULTING OR RELATED CLAIM, ACTION, LOSS, LIABILITY, OR REASONABLE EXPENSE, INCLUDING ATTORNEY'S FEES AND OTHER FEES AND COURT AND OTHER COSTS) OCCURRING IN ANY PORTION OF THE PREMISES, TO THE EXTENT ALLOWED BY LAW.

B. Tenant agrees not to—

1. Use the Premises for any purpose other than the Permitted Use.
2. Create a nuisance.
3. Permit any waste.
4. Use the Premises in any way that would increase insurance premiums or void insurance on the Premises.
5. Change Landlord's lock system.
6. Alter the Premises.
7. Allow a lien to be placed on the Premises.
8. Assign this lease or sublease any portion of the Premises without Landlord's written consent.

C. Landlord agrees to—

1. Lease to Tenant the Premises for the entire Term beginning on the Commencement Date and ending on the Termination Date.
2. Provide the Essential Services.
3. Repair, replace, and maintain the (a) roof, (b) foundation, and (c) structural soundness of the exterior walls, excluding windows and doors.
4. Return the Security Deposit to Tenant, less itemized deductions, if any, within sixty days after the last day of the Term.

D. Landlord agrees not to—

1. Interfere with Tenant's possession of the Premises as long as Tenant is not in default.
2. Unreasonably withhold consent to a proposed assignment or sublease.

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E. Landlord and Tenant agree to the following:

1. *Alterations.* Any physical additions or improvements to the Premises made by Tenant will become the property of Landlord. Landlord may require that Tenant, at the end of the Term and at Tenant's expense, remove any physical additions and improvements, repair any alterations, and restore the Premises to the condition existing at the Commencement Date, normal wear excepted.

2. *Abatement.* Tenant's covenant to pay Rent and Landlord's covenants are independent. Except as otherwise provided, Tenant will not be entitled to abate Rent for any reason.

3. *Insurance.* Tenant and Landlord will maintain the respective insurance coverages described in the attached Insurance Addendum.

4. *Release of Claims/Subrogation.* LANDLORD AND TENANT RELEASE EACH OTHER AND LIENHOLDER FROM ALL CLAIMS OR LIABILITIES FOR DAMAGE TO THE PREMISES, DAMAGE TO OR LOSS OF PERSONAL PROPERTY WITHIN THE PREMISES, AND LOSS OF BUSINESS OR REVENUES THAT ARE COVERED BY THE RELEASING PARTY'S PROPERTY INSURANCE OR THAT WOULD HAVE BEEN COVERED BY THE REQUIRED INSURANCE IF THE PARTY FAILS TO MAINTAIN THE PROPERTY COVERAGES REQUIRED BY THIS LEASE. THE PARTY INCURRING THE DAMAGE OR LOSS WILL BE RESPONSIBLE FOR ANY DEDUCTIBLE OR SELF-INSURED RETENTION UNDER ITS PROPERTY INSURANCE. LANDLORD AND TENANT WILL NOTIFY THE ISSUING PROPERTY INSURANCE COMPANIES OF THE RELEASE SET FORTH IN THIS PARAGRAPH AND WILL HAVE THE PROPERTY INSURANCE POLICIES ENDORSED, IF NECESSARY, TO PREVENT INVALIDATION OF COVERAGE. THIS RELEASE WILL NOT APPLY IF IT INVALIDATES THE PROPERTY INSURANCE COVERAGE OF THE RELEASING PARTY. **THE RELEASE IN THIS PARAGRAPH WILL APPLY EVEN IF THE DAMAGE OR LOSS IS CAUSED IN WHOLE OR IN PART BY THE ORDINARY NEGLIGENCE OR STRICT LIABILITY OF THE RELEASED PARTY BUT WILL NOT APPLY TO THE EXTENT THE DAMAGE OR LOSS IS CAUSED BY THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF THE RELEASED PARTY.**

5. *Casualty/Total or Partial Destruction*

- a. If the Premises are damaged by casualty and can be restored within ninety days, Landlord will, at its expense, restore the roof, foundation, and structural soundness of the exterior walls of the Premises and any leasehold improvements within the Premises that are not within Tenant's Rebuilding Obligations to substantially the same condition that existed before the casualty and Tenant will, at its expense, replace any of its damaged furniture, fixtures, and personal property and restore any leasehold improvements that are within Tenant's Rebuilding Obligations. If Landlord fails to complete the portion of the restoration for which Landlord is responsible within ninety days from the date of written notification by Tenant to Landlord of the casualty, Tenant may terminate this lease by written notice to Landlord before Landlord completes Landlord's restoration obligations.

-
- b. If Landlord cannot complete the portion of the restoration for which Landlord is responsible within ninety days, Landlord has an option to restore the Premises. If Landlord chooses not to restore, this lease will terminate. If Landlord chooses to restore, Landlord will notify Tenant in writing of the estimated time to restore and give Tenant an option to terminate this lease by notifying Landlord in writing within ten days from receipt of Landlord's estimate. If Tenant does not notify Landlord timely of Tenant's election to terminate this lease, the lease will continue and Landlord will restore the Premises as provided in a. above.
 - c. To the extent the Premises are untenable after the casualty, the Rent will be adjusted as may be fair and reasonable.

6. *Condemnation/Substantial or Partial Taking*

- a. If the Premises cannot be used for the purposes contemplated by this lease because of condemnation or purchase in lieu of condemnation, this lease will terminate.
- b. If there is a condemnation or purchase in lieu of condemnation and this lease is not terminated, Landlord will, at Landlord's expense, restore the Premises, and the Rent payable during the unexpired portion of the Term will be adjusted as may be fair and reasonable.
- c. Tenant will have no claim to the condemnation award or proceeds in lieu of condemnation.

7. *Uniform Commercial Code.* Tenant grants Landlord a security interest in Tenant's personal property now or subsequently located on the Premises. This lease is a security agreement under the Uniform Commercial Code.

8. *Default by Landlord/Events.* Defaults by Landlord are failing to comply with any provision of this lease within thirty days after written notice and failing to provide Essential Services to Tenant within ten days after written notice.

9. *Default by Landlord/Tenant's Remedies.* Tenant's remedies for Landlord's default are to sue for damages and, if Landlord does not provide an Essential Service for thirty days after default, terminate this lease.

10. *Default by Tenant/Events.* Defaults by Tenant are (a) failing to pay timely Rent, (b) abandoning or vacating a substantial portion of the Premises, and (c) failing to comply within ten days after written notice with any provision of this lease other than the defaults set forth in (a) and (b) above.

11. *Default by Tenant/Landlord's Remedies.* Landlord's remedies for Tenant's default are to (a) enter and take possession of the Premises, after which Landlord may relet the Premises

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on behalf of Tenant and receive the rent directly by reason of the reletting, and Tenant agrees to reimburse Landlord for any expenditures made in order to relet; (b) enter the Premises and perform Tenant's obligations; and (c) terminate this lease by written notice and sue for damages. Landlord may enter and take possession of the Premises by self-help, by picking or changing locks if necessary, and may lock out Tenant or any other person who may be occupying the Premises, until the default is cured, without being liable for damages.

12. *Default/Waiver/Mitigation.* It is not a waiver of default if the nondefaulting party fails to declare immediately a default or delays in taking any action. Pursuit of any remedies set forth in this lease does not preclude pursuit of other remedies in this lease or provided by applicable law. Landlord and Tenant have a duty to mitigate damages.

13. *Security Deposit.* If Tenant defaults, Landlord may use the Security Deposit to pay arrears of Rent, to repair any damage or injury, or to pay any expense or liability incurred by Landlord as a result of the default.

14. *Holdover.* If Tenant does not vacate the Premises following termination of this lease, Tenant will become a tenant at will and must vacate the Premises on receipt of notice from Landlord. No holding over by Tenant, whether with or without the consent of Landlord, will extend the Term.

15. *Alternative Dispute Resolution.* Landlord and Tenant agree to mediate in good faith before filing a suit for damages.

16. *Attorney's Fees.* If either party retains an attorney to enforce this lease, the party prevailing in litigation is entitled to recover reasonable attorney's fees and other fees and court and other costs.

17. *Venue.* Exclusive venue is in the county in which the Premises are located.

18. *Entire Agreement.* This lease [**include if applicable:** , together with the attached exhibits and riders,] is the entire agreement of the parties, and there are no oral representations, warranties, agreements, or promises pertaining to this lease or to any expressly mentioned exhibits and riders not incorporated in writing in this lease.

19. *Amendment of Lease.* This lease may be amended only by an instrument in writing signed by Landlord and Tenant.

20. *Limitation of Warranties.* THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY, OF FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY OTHER KIND ARISING OUT OF THIS LEASE, AND THERE ARE NO WARRANTIES THAT EXTEND BEYOND THOSE EXPRESSLY STATED IN THIS LEASE.

21. *Notices.* Any notice required or permitted under this lease must be in writing. Any notice required by this lease will be deemed to be delivered (whether actually received or not) when deposited with the United States Postal Service, postage prepaid, certified mail, return

receipt requested, and addressed to the intended recipient at the address shown in this lease. Notice may also be given by regular mail, personal delivery, courier delivery, facsimile transmission, or other commercially reasonable means and will be effective when actually received. Any address for notice may be changed by written notice delivered as provided herein.

- 22. *Abandoned Property.* Landlord may retain, destroy, or dispose of any property left on the Premises at the end of the Term.
- 23. *Termination at Will.* Either party may, for any reason, terminate this lease with thirty days written notice to the other party

LANDLORD

ENTITY: _____
NAME: _____
TITLE: _____
DATE: _____

TENANT

BRAZORIA COUNTY, TEXAS
L.M. Matt Sebesta, Jr
County Judge
DATE: _____

Appendix F

THE STATE OF TEXAS §
 §
COUNTY OF BRAZORIA §

INTERLOCAL AGREEMENT CONCERNING
ASSISTANCE WITH REMOVAL OF STORM DEBRIS

This agreement is made at Angleton, Brazoria County, Texas between BRAZORIA COUNTY, TEXAS acting through its Commissioner’s Court (hereinafter “County”), and CITY OF RICHWOOD, TEXAS, acting through its Mayor (hereinafter “City”).

PREAMBLE

WHEREAS, Tex. Gov. Code Section 791.011, the Interlocal Cooperation Act, provides that any local government may contract with another local government to perform governmental functions and services; and

WHEREAS, the Interlocal Cooperation Act Section 791.003 states that “governmental functions and services” means any function or service including the general area of public health and welfare which is of mutual concern to the contracting parties; and

WHEREAS, the Interlocal Cooperation Act Section 791.012 recognizes that the authority of County to perform a contractual service for City includes the authority of County to apply the rules, regulations, and orders of County; and

WHEREAS, the County of Brazoria on the 24th day of August, 2017 declared a local disaster pursuant to the Texas Government Code 418.108 for flooding occurring within Brazoria County. Said Declaration was extended on August 31, 2017; and

WHEREAS, the County suffered widespread and severe property damage resulting from the flooding; and

WHEREAS, the debris from the widespread and severe property damage (also referred to as “debris”) now litter public property, public rights-of-way, public easements, and public roadways; and

WHEREAS, the County Judge of Brazoria County, has determined that extraordinary measures must be taken to remove and dispose of this debris so as to alleviate the suffering of people, for the safety of the public and to restore all property littered with debris; and

WHEREAS, the City is a small community and without the necessary resources to remove and dispose of this debris so as to alleviate the suffering of people, for the safety of the public and to restore all property littered with debris; and

WHEREAS, the parties have determined that the implementation of this Contract is in the interest of and for the public health, safety, and welfare of their residents; and

WHEREAS, the parties have determined that they are authorized to enter into this contract pursuant to law and their general powers to contract.

NOW THEREFORE, THE COUNTY AND CITY agree as follows:

- 1.1 The County, through its employees and/or agents, will remove the storm debris from the City’s rights-of-way, public easements and public roadways.
- 1.2 The City will be responsible to County for all costs associated with the removal of the debris;
- 1.3 The County will provide a statement of costs to the City in order for the City to seek reimbursement from FEMA. However, failure to obtain FEMA reimbursement does not relieve City of the costs incurred by County.

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1.4 Each party verifies that they are complying with the requirements of the Texas Government Code §791.011.

SIGNED this the _____ day of _____, 2017.

BRAZORIA COUNTY, TEXAS

CITY, TEXAS

By: L. M. "Matt" Sebesta, Jr.
Brazoria County Judge

By: _____,
Mayor

ATTEST:

Attest: _____
City Clerk

Appendix G
HEALTH AND SAFETY STRATEGY

Health and Safety Strategy

Purpose

The purpose of this health and safety strategy is to supplement existing safety guidelines for Brazoria County, Texas regarding debris removal activities. These are recommended baseline safety provisions. Ultimately, health and safety are the responsibility of the contracted parties involved in debris removal activities. This document will outline some of the general steps necessary to provide a safe work environment for monitoring firm and debris removal contractors' employees. In addition, this document will identify some representative work hazards and the appropriate measures to reduce risk of injury.

1.0 Dissemination of Information

The monitoring firm and debris removal contractors' project managers will be provided with this document and will be expected to disseminate the information and guidelines to their respective personnel. A copy of the document should be available for consultation. In addition, elements of the document will be reviewed from periodically during the project to increase worker awareness.

2.0 Compliance

The monitoring firm and debris removal contractors' project managers are responsible for health and safety compliance of their respective personnel and subcontractors. Any crews or individuals that are not compliant shall be suspended from debris removal activities until the situation is remedied. Frequent offenders of safety policies and procedures will be dismissed from the project entirely.

3.0 Job Hazard Assessment

Though debris removal activities are fairly similar among events, assessing the particular hazards of each disaster is an important part of maintaining health and safety for the debris removal workers. At a minimum, the following areas of focus should be considered as part of job hazard assessment:

- **Disaster Debris** – Disasters that result in property damage typically generate large quantities of debris which must be collected and transported for disposal. The type of debris varies depending on the characteristics of the region (e.g., terrain, climate, dwelling and building types, population, etc.) and the debris-generating event (e.g. type, event strength, duration, etc.). In addition, the disaster debris produces a host of uneven surfaces, which must be negotiated.
- **Debris Removal** – Often the removal of disaster debris involves working with splintered, sharp edges of vegetative or construction material debris. Many disasters involve heavy rains or flooding. Consequently, disaster debris is damp and heavier than usual. As weights increase, so does the risk of injury.

- **Removal Equipment** – In most disasters, debris must be removed from the public right-of-way (ROW) to provide access for emergency vehicles and subsequent recovery efforts. Debris collection and removal requires the use of heavy equipment and power tools to trim, separate and clear disaster debris.
- **Traffic Safety** – The ROW is located primarily on publicly-maintained roads. As a result, much of the debris removal process takes place in traffic of varying levels of congestion. In addition, disasters often damage road signs, challenging safety on the road.
- **Wildlife Awareness** – Disasters are traumatic events for people as well as wildlife. Displaced animals, reptiles and insects pose a hazard to debris removal workers.
- **Debris Disposal** – After disaster debris is collected it is often transported to a Debris Management Site (DMS). Upon entry to a DMS, the monitoring firm will assess the volume of disaster debris being transported. The collection vehicle will then dispose of the disaster debris and the debris will be reduced either through a grinding operation or incineration. The DMS is a common area for injury. Response and recovery workers in this environment are more likely to be exposed to falling debris, heavy construction traffic, noise levels, dust and airborne particles from the reduction process.
- **Climate** – Debris-generating disasters often occur in areas or seasons with extreme weather conditions. The effects of temperature and humidity on physical labor must be monitored, and proper work-rest intervals must be assessed.

4.0 Administrative and Engineering Controls

The use of administrative and engineering controls can greatly reduce the threats to public health and safety in debris removal activities. Some common administrative and engineering controls used in the debris removal process are:

Collection Operations

- Conduct debris removal operations during daylight hours only.
- Limit cleanup operations to one side of the road at a time.
- Limit collection work under overhead lines.
- Inspect piles before using heavy equipment to remove them to ensure that there are no hazardous obstructions.
- Make sure that all collection vehicles have properly functioning lights, horns and backup alarms.
- Load collection vehicles properly (not overloaded or unbalanced).
- Cover and secure loads, if necessary.
- When monitoring the collection process, stay alert in traffic and use safe driving techniques.

Power Tools

- Inspect all power tools before use.

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- Do not use damaged or defective equipment.
- Use power tools for their intended purpose.
- Avoid using power tools in wet areas.

Debris Reducing Machinery (Grinders/Wood Chippers)

- Do not wear loose-fitting clothing.
- Follow the manufacturer's guidelines and safety instructions.
- Guard the feed and discharge ports.
- Do not open access doors while equipment is running.
- Always chock the trailer wheels to restrict rolling.
- Maintain safe distances.
- Never reach into operating equipment.
- Use lock out/tag out protocol when maintaining equipment.

DMS/Disposal Operations

- Use jersey barriers and cones to properly mark traffic patterns.
- Use proper flagging techniques for directing traffic.
- Monitor towers must not exit into traffic and should have hand and guard rails to reduce trips and falls.
- Monitor towers must have properly constructed access stairways with proper treads and risers and proper ascent angle (4:1 height/width ratio).
- Monitor towers must be surrounded by jersey barriers which protect the tower and monitors from being struck by inbound or outbound collection vehicles.
- Monitor towers should be located upwind from dust- and particulate generating activities.
- A water truck should spray the site daily to control airborne dust and debris.

5.0 Personal Protective Equipment

Personal Protective Equipment (PPE) is the last resort to providing a safe working environment for workers. PPE does not eliminate or even reduce hazards as administrative and engineering controls do. PPE works to reduce the risk of injury by creating a protective barrier between the individuals and work place hazards.

Proper use of PPE includes using PPE for its intended purpose. For example, using the wrong type of respirator might expose the worker to carcinogenic particulates. Properly fitting the equipment to the user may require examination by a medical professional. PPE that does not fit well will not provide maximum protection and will decrease the likelihood of the individual continuing to use the equipment. In addition, improper use may result in serious injury or death. The proper use of the equipment is outlined in detail in the manufacturer's instructions.

The following PPE may be applicable in standard ROW, Right-of-Entry (ROE), and vegetative and construction & demolition debris removal activities:

- **Head Protection** – Equipment designed to provide protection for an individual's head against hazards such as falling objects or the possibility of striking one's head against low

hanging objects. PPE used to protect the head must comply with ANSI Z89.1-1986, “American National Standard for Personnel Protection – Protective Headwear for Industrial Workers – Requirements.”

- **Foot Protection** – Equipment designed to provide protection for an individual’s feet and toes against hazards such as falling or rolling objects, objects that may pierce the sole or upper section of the foot, etc. PPE used to protect the feet and toes must comply with ANSI Z-41-1991, “American National Standard for Personal Protection – Protective Footwear.”
- **Hand Protection** – Equipment designed to provide protection for an individual’s hands against hazards such as sharp or abrasive surfaces. The proper hand protection necessary is dependent upon the situation and characteristics of the gloves. For instance, specific gloves would be used for protection against electrical hazards while the same gloves may not be appropriate in dealing with sharp or abrasive surfaces.
- **Vision/Face Protection** – Equipment designed to provide protection for an individual’s eyes or face against hazards such as flying objects. PPE used to protect eyes and face must comply with ANSI Z87.1-1989, “American National Standard Practice for Occupational and Educational Eye and Face Protection.” Again, the proper eye/face protection necessary is dependent upon the situation and characteristics of the equipment. For instance, eye and face protection used by individuals who are welding may not be appropriate for individuals operating a wood chipper.
- **Hearing Protection** – Equipment designed to provide protection for an individual’s hearing against prolonged exposure to high noise levels. According to OSHA, the permissible level of sound is an average of 90 decibels over the course of an eight (8) hour work day. Above the sound exposure level, hearing protection is required. PPE used to protect hearing must comply with ANSI S3.19-1974, “American National Standard Practice for Personal Protection – Hearing Protection.”
- **Respiratory Protection** – Equipment designed to provide protection for an individual’s respiratory system against breathing air contaminated with hazardous gases, vapors, airborne particles, etc. PPE used to protect the respiratory system must comply with ANSI Z88.2-1992. In addition, the use of respiratory protection requires a qualitative fit test and, in some cases, a pulmonary fit test by a licensed medical professional.

6.0 PPE Debris Removal Activity

PPE requirements are made based upon the results of the job hazards assessment. The following list of PPE is organized by debris removal activity and is meant to be a representative list. Specific PPE requirements vary from location to location. In general, individuals involved in the debris removal process should personally monitor water consumption to avoid dehydration and use appropriate skin protection (breathable clothes, light colors, sunscreen, etc.). Ultimately, the selection of PPE is the responsibility of the monitoring firm and debris removal contractors’ project managers.

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Debris Collection Monitoring

The hazards of disaster debris collection monitoring include, but are not limited to: struck by vehicles, falls or trips on uneven surfaces, cuts, abrasions or punctures from vegetative or C&D sharps. PPE requirements include:

- Reflective vest;
- Foot protection (rugged shoes or boots, steel toe and shank if required); and
- Long pants.

Debris Disposal Monitoring

The hazards of disaster debris disposal monitoring include but are not limited to: struck by or caught in/between vehicles, falls or trips on stairs or uneven surfaces, cuts, abrasions or punctures from vegetative or C&D sharps and struck by falling disaster debris. Monitor towers must be equipped with a first aid kit. PPE requirements include:

- Reflective vest;
- Foot protection (rugged shoes or boots, steel toe if required);
- Long pants; and
- Hard Hat.

Debris Removal

The hazards of disaster debris removal include, but are not limited to: struck by vehicles, falls or trips on uneven surfaces, cuts, abrasions or punctures from vegetative or C&D sharps and airborne debris. In addition, PPE requirements include:

- Reflective vest
- Vision and hearing protection
- Foot protection (rugged shoes or boots, steel toe and shank if required)
- Long pants

Debris Disposal and Reduction

The hazards of disaster debris disposal and reduction include but are not limited to: struck by or caught in/between vehicles, falls or trips on uneven surfaces, cuts, abrasions or punctures from vegetative or C&D sharps, struck by falling disaster debris and airborne particles. PPE requirements include:

- Reflective Vest
- Foot protection (rugged shoes or boots, steel toe if required)
- Vision and hearing protection
- Long pants
- Hard hat

Debris Cutting and Trim Work

The hazards of disaster debris cutting and trimming work include but are not limited to: struck by or caught in/between vehicles, falls or trips on uneven surfaces, cuts, abrasions or punctures from power tools, vegetative or C&D sharps, struck by falling disaster debris and airborne particles. PPE requirements include:

- Reflective vest
- Hand and foot protection (rugged shoes or boots, steel toe if required)
- Vision and hearing protection
- Long pants
- Gloves
- Hard hat

For additional information regarding health and safety requirements, please contact your supervisor or the Brazoria County Engineering Department at 979-864-1265.

Appendix H
SAMPLE PUBLIC INFORMATION MESSAGES

For Immediate Release (Approximately 48-72 Hours Prior to Incident)

Brazoria County, Texas – The potential for dangerous conditions is eminent for Brazoria County and its residents. In anticipation of a likely large debris-generating **TYPE OF INCIDENT**, residents are asked to secure or store all yard items that may become damaging projectiles. Brazoria County is prepared and has a plan in place to immediately respond following the incident. Once dangerous conditions subside, and roads have been cleared of obstructions, residents should bring any debris to the public right-of-way for removal.

The public right-of-way is the area of residential property that extends from the street to the sidewalk, ditch, utility pole or easement. Residents should separate clean, vegetative debris (woody debris such as limbs and shrubbery) from construction and demolition debris. Do not mix hazardous material, such as paint cans, aerosol sprays, batteries, or appliances with construction and demolition debris. Household garbage, tires or roof shingles cannot be combined with any storm debris.

Do not place debris near water meter vault, fire hydrant or any other above-ground utility. Only debris placed on the public right-of-way will be eligible for collection until further notice.

If all debris is not picked up during the initial pass, residents should continue to push remaining debris to the public right-of-way for collection on subsequent passes. Residential debris drop-off locations may be available within Brazoria County. Check the Brazoria County Web site at **INSERT WEB SITE, INSERT SOCIAL MEDIA SITE(S)** for the location of these sites and the hours of operation or call **INSERT NUMBER**. All reconstruction debris (debris resulting from rebuilding) is the responsibility of the homeowner. Those items must be dropped off at the **INSERT LOCATION**.

Brazoria County residents are encouraged to stay indoors until the danger has passed. Please tune into local news channels for updated weather information.

#####

For Immediate Release (Approximately 0-72 Hours Following Incident)

Brazoria County – Brazoria County is beginning its recovery process in the wake of **INSERT INCIDENT**. Residents are asked to place any storm-generated debris on the public right-of-way.

The public right-of-way is the area of residential property that extends from the street to the sidewalk, ditch, utility pole or easement. Keep vegetative debris (woody debris such as limbs and shrubbery) separated from construction and demolition debris, as they will be collected separately. Bagged debris should not be placed on the public right-of-way, only loose debris will be collected. Any household hazardous waste, roof shingles or tires resulting from **INSERT INCIDENT**, may be eligible for removal and should be separated at the curb.

Do not place near water meter vault, fire hydrant or any other above-ground utility. Only debris placed on the public right-of-way will be eligible for collection until further notice.

If all debris is not picked up during the initial pass, please continue to push remaining debris to the right-of-way for collection on subsequent passes. Household garbage collection will resume to its normal schedule on **INSERT DATE AND TIME**. Please check the Brazoria County Web site at

INSERT WEB SITE, INSERT SOCIAL MEDIA SITE(S) for additional information and updates on the debris removal process.

For more information, please call Brazoria County's debris hotline at **INSERT NUMBER**.

####

For Immediate Release (72 Hours Prior to Final Pass of Debris Removal)

Brazoria County. – Final preparations are being made for the third and potentially final pass for debris removal in the wake of **INSERT INCIDENT**.

Brazoria County residents should have all storm-generated debris in front of their homes on the public right-of-way (the area of residential property that extends from the street to the sidewalk, ditch, utility pole or easement) no later than **INSERT DATE** to be eligible for pick-up.

Brazoria County will not be able to guarantee that debris placed on the public right-of-way after the specified deadline will be removed.

Residents should continue to separate vegetative debris (woody debris such as limbs and shrubbery) and construction and demolition debris. Do not place debris near water meter vault, fire hydrant or any other above-ground utility. Hazardous household chemicals such as paint cans and batteries may be deposited at the **INSERT LOCATION**.

You can follow the debris removal efforts in your neighborhood and the rest of the County by going to the Brazoria County Web site at **INSERT WEB SITE, INSERT SOCIAL MEDIA SITE(S)**, or by calling **INSERT NUMBER**.

####

Separating Debris Graphic

Separating Your Debris

Debris should be placed curbside, without blocking the roadway or storm drains.

NO PICKUP ZONE
Any debris placed from the sidewalk toward your property will not be picked up.

DEBRIS SEPARATION
Separate debris into the six categories shown below.

DO NOT STACK OR LEAN
Placing debris near or on trees, poles, or other structures makes removal difficult. This includes fire hydrants and meters.

UNSURE WHERE TO PLACE DEBRIS?
If you don't have a sidewalk, ditch, or utility line in front of your house, place debris at the edge of your property before the curb.

Normal Household Trash
Normal household trash and bagged debris of any kind will not be picked up with disaster debris. You should continue to follow your normal garbage removal schedule.

VEGETATIVE DEBRIS

- Leaves (do not put in bags)
- Logs
- Plants
- Tree branches

CONSTRUCTION & DEMOLITION DEBRIS

- Building materials
- Carpet
- Drywall
- Furniture
- Lumber
- Mattresses
- Plumbing

APPLIANCES & WHITE GOODS

- Air conditioners
- Dishwashers
- Freezers
- Refrigerators
- Stoves
- Washers, dryers
- Water heaters

ELECTRONICS

- Computers
- Radios
- Stereos
- Televisions
- Other devices with a cord

HOUSEHOLD HAZARDOUS WASTE

- Cleaning supplies
- Batteries
- Lawn chemicals
- Oils
- Oil-based paints and stains
- Pesticides

For more information contact:

Appendix I

PRIORITY ROADS MAP AND LIST

A map showing the priority roads for emergency road clearance purposes is attached as well as a list of the priority 1 through 3 roads. An expandable map and a more extensive list of priority roads, including priority 4 through 9 roads, is maintained by the Brazoria County Engineering Department.

Table I-1: Brazoria County Roads Priority 1 Through 3

Full_Name	Alias1	Alias2	RoadClass	Local_UID	Priority
COBIA LN			LOCAL	1	1
CR 477	PARKS RD		LOCAL	1	1
CR 498	DAILY RD		LOCAL	1	1
CR 787	RESERVOIR RD		LOCAL	1	1
E SH 332			MAJOR	1	1
LP 419			LOCAL	1	1
N GORDON ST	N LOOP 409		MAJOR	1	1
N LOOP 274			MAJOR	1	1
N LOOP 274	N VELASCO ST		MAJOR	1	1
N VELASCO ST	N LOOP 274		MAJOR	1	1
PLEASANT VALLEY DR			LOCAL	1	1
S GORDON ST	LP 409		MAJOR	1	1
S LOOP 274			MAJOR	1	1
SH 288	NOLAN RYAN EXPY		FREEWAY	1	1
SH 288B			MAJOR	1	1
SH 35			MAJOR	1	1
SH 36			MAJOR	1	1
VALLEY VISTA DR			RAMP	1	1
W CEMETERY RD			LOCAL	1	1
W SH 332			MAJOR	1	1
W SH 6			MAJOR	1	1
BROADWAY ST	FM 518		MAJOR	2	2
CULLEN PKWY	FM 865		MAJOR	2	2
DICKINSON RD	FM 517		MAJOR	2	2
E 2ND ST	FM 1459		MAJOR	2	2
E 7TH ST	FM 1459		MAJOR	2	2
E FM 1462			LOCAL	2	2
FM 1128	MASTERS RD		MAJOR	2	2
FM 1301			MAJOR	2	2
FM 1459			MAJOR	2	2
FM 1462			MAJOR	2	2
FM 1495			MAJOR	2	2
FM 1495	NAVIGATION BLVD		MAJOR	2	2
FM 2004			FRONTAGE	2	2
FM 2234	SHADOW CREEK PKWY		MAJOR	2	2
FM 2403			MAJOR	2	2
FM 2611			MAJOR	2	2
FM 2852			MAJOR	2	2
FM 2917			MAJOR	2	2
FM 2918			MAJOR	2	2
FM 517	DICKINSON RD		MAJOR	2	2
FM 521			MAJOR	1	2
FM 522			MAJOR	2	2
FM 523			MAJOR	2	2

Full_Name	Alias1	Alias2	RoadClass	Local_UID	Priority
FM 524			MAJOR	2	2
FM 524	N MAIN ST		MAJOR	2	2
FM 528			MAJOR	2	2
FM 655			MAJOR	2	2
MANVEL RD	FM 1128		MAJOR	2	2
MASTERS RD	FM 1128		MAJOR	2	2
N 13TH ST	FM 2852		LOCAL	6	2
N MAIN ST	FM 524		MAJOR	2	2
N MCKINNEY ST	FM 1459		MAJOR	2	2
NAVIGATION BLVD	FM 1495		MAJOR	2	2
OLD FM 524			PRIVATE	8	2
OYSTER CREEK BND	OLD FM 523		LOCAL	6	2
S JOHNSON ST	FM 2403		MAJOR	2	2
S MAIN ST	FM 524		MAJOR	2	2
S MARKET ST			MAJOR	6	2
SPUR 28			MAJOR	3	2
W FM 1462			MAJOR	2	2
ACORN DR			LOCAL	5	3
AIRLINE RD NO 1	CR 62		LOCAL	5	3
AIRLINE RD NO 2	FCR 63		PRIVATE	7	3
AIRLINE RD S			LOCAL	5	3
AIRLINE RD W	CR 55		LOCAL	7	3
AIRLINE RD W			PRIVATE	7	3
ALAMO ST	TRAVIS ST		LOCAL	5	3
AMY LN	CR 574C		LOCAL	4	3
ANCHOR RD	CR 44		LOCAL	5	3
ANDERSON RD			PRIVATE	7	3
ANGLETON DANBURY RD	CR 171		LOCAL	5	3
BAILEY RD			LOCAL	6	3
BARRY ROSE RD			LOCAL	5	3
BISCAYNE BAY DR			LOCAL	6	3
BISSELL RD	FCR 190		LOCAL	5	3
BLUE WATER HWY	FCR 257		LOCAL	6	3
BRAZOS RIVER RD	CR 400		LOCAL	5	3
BRISTER PKWY	FCR 121		LOCAL	5	3
BROADWAY ST			LOCAL	6	3
BROADWAY ST	FCR 92		LOCAL	6	3
BULLARD RD	FCR 81		PRIVATE	7	3
BUSINESS CENTER DR			LOCAL	6	3
BUSINESS CENTER DR	MORRIS RD		LOCAL	6	3
BYPASS 35 S	N LOOP 35		LOCAL	1	3
CACTUS RD			PRIVATE	7	3
CALHOUN ST	FCR 171		LOCAL	6	3
CALLAWAY DR			LOCAL	5	3

Full_Name	Alias1	Alias2	RoadClass	Local_UID	Priority
CANNA LN			LOCAL	5	3
CANNON RD	CR 51		LOCAL	5	3
CANNON RD	FCR 51		LOCAL	5	3
CARDINAL DR	HEIGHTS MANVEL RD	CR 149	LOCAL	5	3
CEDAR RAPIDS PKWY	FCR 57		LOCAL	5	3
CEDAR RD			LOCAL	6	3
CEMETERY RD			LOCAL	5	3
CEMETERY RD	FCR 96		LOCAL	5	3
CENTER WAY			LOCAL	6	3
CHARLOTTE ST			LOCAL	5	3
CHESTNUT RD	FCR 142		LOCAL	5	3
CHOATE DR			LOCAL	8	3
CHOCOLATE AIRLINE RD	FCR 566		LOCAL	5	3
CHOCOLATE BAYOU RD	FCR 385		LOCAL	5	3
CIRCLE WAY			LOCAL	5	3
CLARK RD			LOCAL	6	3
CLIFFORD ST			LOCAL	5	3
CLUTTER RD	CR 168		PRIVATE	7	3
COLLEGE DR			LOCAL	6	3
COLONY LOOP	FCR 380		LOCAL	5	3
COUNTRY PLACE PKWY	FCR 94		LOCAL	6	3
CR 100	MCKEEVER RD		LOCAL	4	3
CR 100	HASKINS RD		LOCAL	4	3
CR 101	BAILEY RD		LOCAL	4	3
CR 101	CR 101		LOCAL	4	3
CR 103	HARKEY RD		LOCAL	4	3
CR 104	MCLEAN RD		LOCAL	4	3
CR 115	WELLS DR		LOCAL	4	3
CR 121	BRISTER RD		LOCAL	4	3
CR 128	HASTINGS CANNON RD		LOCAL	4	3
CR 129	DONALDSON RD		LOCAL	4	3
CR 130	BROWN RD NO 1		LOCAL	4	3
CR 130	PENNYWAYNE LN		LOCAL	4	3
CR 131	RUSTIC LN		LOCAL	4	3
CR 136	E LAKEVIEW DR		LOCAL	4	3
CR 138	ELTON RD		LOCAL	4	3
CR 142	CHESTNUT RD N		LOCAL	4	3
CR 143	PEARLAND SITES RD		LOCAL	4	3
CR 143A	WHITE WING DR		LOCAL	4	3
CR 144	HERRING RD		LOCAL	4	3
CR 145	ALVIN HEIGHTS RD		LOCAL	4	3
CR 146	SHROEDER LN		LOCAL	4	3
CR 149	HEIGHTS MANVEL RD		LOCAL	4	3
CR 15	DAMON GIN RD		LOCAL	4	3

Full_Name	Alias1	Alias2	RoadClass	Local_UID	Priority
CR 155	FIVE POINT RD		LOCAL	4	3
CR 160	STUART RD		LOCAL	4	3
CR 164	STUART RD		LOCAL	4	3
CR 168	CLUTTER RD		LOCAL	4	3
CR 169	MUSTANGCHOCOLATEBAYOU RD		LOCAL	4	3
CR 17	NASH COW CREEK RD		LOCAL	4	3
CR 171	DANBURY LIVERPOOL RD		LOCAL	4	3
CR 171	ANGLETON DANBURY RD		LOCAL	4	3
CR 171	ANGLETON DANBURY RD		LOCAL	4	3
CR 172	PARKER SCHOOL RD		LOCAL	5	3
CR 175	WELLS DR		LOCAL	4	3
CR 175	WELLS		LOCAL	4	3
CR 179	DAVIS BEND RD		LOCAL	4	3
CR 18	RYCADE RD		LOCAL	4	3
CR 180	DAVIS RD		LOCAL	4	3
CR 181	FAIRVIEW RD		LOCAL	5	3
CR 182	WEST RD		LOCAL	4	3
CR 185	PARKER DAVIS SCHOOL RD		LOCAL	4	3
CR 190	OAK ST		LOCAL	4	3
CR 190	CR 190		LOCAL	4	3
CR 190	ALVIN MANVEL RD		LOCAL	4	3
CR 190	OLD MANVEL RD		LOCAL	4	3
CR 191	PARKER STRINGTOWN RD		LOCAL	4	3
CR 192	LIVERPOOL SPUR RD		LOCAL	4	3
CR 2	SULPHUR DITCH RD		LOCAL	4	3
CR 203	LIVERPOOLHOSKINSMOUND RD		LOCAL	4	3
CR 208	PELTIER RD		LOCAL	4	3
CR 208	HOSKINS MOUND RD		LOCAL	4	3
CR 208	HOSKINS MOUND RD		LOCAL	4	3
CR 210	DANBURY ANGLETON RD		LOCAL	4	3
CR 212	ADAMS RD		LOCAL	4	3
CR 213	KING RD		LOCAL	4	3
CR 213	KIBER RD		LOCAL	4	3
CR 213	E KIBER ST		LOCAL	4	3
CR 219	E PHILLIPS RD		LOCAL	4	3
CR 219	W PHILLIPS RD		LOCAL	4	3
CR 220	CR 220A		LOCAL	4	3
CR 220	COALE RD		LOCAL	4	3
CR 220B	AIRPORT RD		LOCAL	4	3
CR 223	BIG SLOUGH RD		LOCAL	4	3
CR 226	STRATTON RIDGE RD		LOCAL	4	3
CR 227	HOSKINS MOUND RD		LOCAL	4	3
CR 23	RHODES SCHOOL RD		LOCAL	4	3
CR 242A	LEVEE RD		LOCAL	4	3
CR 244	ALLHANDS RD		LOCAL	4	3

Full_Name	Alias1	Alias2	RoadClass	Local_UID	Priority
CR 25	NASH RD		LOCAL	4	3
CR 257	BLUE WATER HIGHWAY		LOCAL	4	3
CR 264T	STOCKWELL		LOCAL	4	3
CR 266	HUEPERS ST		LOCAL	4	3
CR 27	TINSLEY RD		LOCAL	4	3
CR 281	HEIGHTS HASTINGS RD		LOCAL	4	3
CR 281	CORNETT RD		LOCAL	4	3
CR 282	CR 282		LOCAL	4	3
CR 283	BLUM RD		LOCAL	4	3
CR 288	S FRONT ST		LOCAL	4	3
CR 288	CR 288		LOCAL	4	3
CR 289	TRINITY VALLEY		LOCAL	4	3
CR 290	RETRIEVE RD		LOCAL	4	3
CR 3	THREE RD		LOCAL	4	3
CR 30	SIMS DR		LOCAL	4	3
CR 30	SIMS RD		LOCAL	4	3
CR 304	PEACH POINT RD		LOCAL	4	3
CR 306	CHURCHILL RD		LOCAL	4	3
CR 308	SEAY RD		LOCAL	4	3
CR 31	ANCHOR OYSTER CREEK RD		LOCAL	4	3
CR 310	HINKLE FERRY RD		LOCAL	4	3
CR 310	HINKLER FERRY RD		LOCAL	4	3
CR 311	HINKLES FERRY CHURCHILL RD		LOCAL	4	3
CR 316	STRATTON PLACE RD		LOCAL	4	3
CR 321	BOONE RD		LOCAL	4	3
CR 322	HASIMA RD		LOCAL	4	3
CR 323	HASIMA RD		LOCAL	4	3
CR 326	SWINKLE RD		LOCAL	4	3
CR 33	GARRETT RD		LOCAL	4	3
CR 33	DANBURY LOOP W.		LOCAL	4	3
CR 332	E ASHLEY WILSON RD		LOCAL	4	3
CR 332	CHENAULT RD		LOCAL	4	3
CR 334	CARBON BLACK RD		LOCAL	4	3
CR 34	HARRIS RESERVOIR RD		LOCAL	4	3
CR 340	CARR RD		LOCAL	4	3
CR 340	GALAZNIK RD		LOCAL	4	3
CR 344	EL BERNARDO RD		LOCAL	4	3
CR 351	BEERS ST		LOCAL	4	3
CR 353	BLACKS FERRY RD		LOCAL	4	3
CR 354	PAYNE RD		LOCAL	4	3
CR 357	DENSON RD		LOCAL	4	3
CR 359	BLACKS FERRY RD		LOCAL	4	3
CR 367	WASHINGTON AVE		LOCAL	4	3
CR 38	MAYS RD		LOCAL	4	3
CR 383	KARSTEN RD		LOCAL	4	3

Full_Name	Alias1	Alias2	RoadClass	Local_UID	Priority
CR 391	STEVENSON RD		LOCAL	4	3
CR 392	DAVIS BEND RD		LOCAL	4	3
CR 397	BELCHER DR		LOCAL	4	3
CR 4	DAMON WEST COLUMBIA RD		LOCAL	4	3
CR 400	BRAZOS RIVER RD		LOCAL	4	3
CR 418	SHAW RD		LOCAL	4	3
CR 42	SANDY POINT RD		LOCAL	5	3
CR 422	FLORA RD		LOCAL	4	3
CR 428	JAMISON RD		LOCAL	4	3
CR 43	DARRINGTON RD		LOCAL	5	3
CR 44	ANCHOR RD		LOCAL	4	3
CR 44	ANCHOR ST		LOCAL	4	3
CR 440	OAKLEIGH DR		LOCAL	4	3
CR 443	E HOSPITAL RD		LOCAL	4	3
CR 45	CHENANGO SCHOOL RD		LOCAL	4	3
CR 450	JACKSON SETTLEMENT RD		LOCAL	4	3
CR 456	GEORGE BURKE RD		LOCAL	4	3
CR 456	GEORGE BUKE RD		LOCAL	4	3
CR 46	FLORES BAYOU BRIDGE RD		LOCAL	4	3
CR 46	NOVAK RD		LOCAL	4	3
CR 47	W DANBURY LOOP		LOCAL	4	3
CR 48	AIRLINE RD		LOCAL	5	3
CR 48	AIRLINE RD N		LOCAL	4	3
CR 48	AIRLINE RD S		LOCAL	4	3
CR 48	SOUTH AIRLINE RD		LOCAL	4	3
CR 48	AIRLINE RD SOUTH		LOCAL	4	3
CR 489	CR 489		LOCAL	4	3
CR 48A	WINDSONG DR		LOCAL	4	3
CR 49	FLORES BAYOU BRIDGE RD		LOCAL	4	3
CR 5	DAMON SCHOOL RD		LOCAL	4	3
CR 505	HARDWICK RD		LOCAL	4	3
CR 51	CANNON RD		LOCAL	5	3
CR 52	BURNS RD		LOCAL	4	3
CR 525	WISCH WAY		LOCAL	4	3
CR 53	SANDY POINT RD NO 1		LOCAL	4	3
CR 532	CRAIG RD		LOCAL	4	3
CR 538	S COUNTRY ACRES DR		LOCAL	4	3
CR 538C	COUNTRY ACRES DR		LOCAL	4	3
CR 543	CR 543		LOCAL	4	3
CR 55	AIRLINE RD W		LOCAL	4	3
CR 56	FORT BEND COUNTY RD		LOCAL	4	3
CR 564	WOODFIN RD		LOCAL	4	3
CR 57	JULIFF MANVEL RD		LOCAL	4	3
CR 570	SANDY POINT SCHOOL RD		LOCAL	4	3
CR 58	POST RD		LOCAL	4	3
CR 580	MEADOWOOD LN		LOCAL	4	3

Full_Name	Alias1	Alias2	RoadClass	Local_UID	Priority
CR 588	EDWARD LN		LOCAL	4	3
CR 60	SCHOVAJSA RD		LOCAL	4	3
CR 607	PATTEN RD		LOCAL	4	3
CR 608	SIX O EIGHT RD		LOCAL	4	3
CR 61	SANDY POINT LP		LOCAL	4	3
CR 63	AIRLINE RD NO 2		LOCAL	4	3
CR 64	AIRLINE RD NO 3		LOCAL	4	3
CR 64	CR 64		PRIVATE	4	3
CR 64 EXT	AIRLINE RD NO 3		LOCAL	4	3
CR 640	WRUCK RD		LOCAL	4	3
CR 645	MITCHELL RD		LOCAL	4	3
CR 648P	MORGAN RD		LOCAL	4	3
CR 65	IOWA SCHOOL RD		LOCAL	4	3
CR 67	MANVEL SANDY POINT RD		LOCAL	4	3
CR 683	PIN OAK DR		LOCAL	4	3
CR 69	HANSELMAN RD		LOCAL	4	3
CR 690	LEVEE RD		LOCAL	4	3
CR 705	OLD SH 35		LOCAL	4	3
CR 713P	CHINA GROVE DR		LOCAL	4	3
CR 719	TOVERA RD		LOCAL	4	3
CR 723	QUINTANA RD		LOCAL	5	3
CR 728B	SHAMROCK CT		LOCAL	4	3
CR 740	SUMMERS RD		LOCAL	4	3
CR 758	DUKE RD		LOCAL	4	3
CR 771	LIVE OAK CIR		LOCAL	4	3
CR 772	ANDERSON RD		LOCAL	4	3
CR 8	STOCKWELL RD		LOCAL	4	3
CR 80	COLONY LOOP RD		LOCAL	4	3
CR 809	CHAFIN RD		LOCAL	4	3
CR 810A	PLANTATION DR		LOCAL	4	3
CR 820	NICKLOS RD		LOCAL	4	3
CR 829A	WILLIAMS ST		LOCAL	4	3
CR 829A	WILLIAMS RD		LOCAL	4	3
CR 84	CROIX PKWY		LOCAL	4	3
CR 841	CR 841		LOCAL	4	3
CR 858	WILLIAMS RD		LOCAL	4	3
CR 879	AMIE LN		LOCAL	4	3
CR 89	CHOCOLATE BAYOU RD		LOCAL	4	3
CR 894	KINCADE RD		LOCAL	4	3
CR 90	SOUTHWYCK BLVD		LOCAL	4	3
CR 90	CR 90		LOCAL	4	3
CR 90	HOOKS RD		LOCAL	4	3
CR 90	DEL BELLO RD		LOCAL	4	3
CR 928B	ROMAN LN		LOCAL	4	3
CR 937	OLINWOOD DR		LOCAL	4	3
CR 94	CR 94		LOCAL	4	3

Full_Name	Alias1	Alias2	RoadClass	Local_UID	Priority
CR 94	SMITH RANCH RD		LOCAL	4	3
CR 94 S	SMITH RANCH RD		LOCAL	4	3
CR 941	CR 941		LOCAL	4	3
CR 956	CR 956		LOCAL	4	3
CR 99	PEARLAND SITES RD		LOCAL	4	3
CULLEN PKWY	OLD CHOCOLATE BAYOU RD		LOCAL	5	3
CULLEN PKWY			LOCAL	6	3
DAVENPORT PKWY	FCR 64		LOCAL	5	3
DAVIS BEND RD			LOCAL	6	3
DEL BELLO RD	FCR 90		LOCAL	6	3
DEL BELLO SPUR			LOCAL	5	3
DILLING ST			LOCAL	5	3
DIXIE FARM RD	FCR 126		LOCAL	6	3
DOGWOOD AVE			LOCAL	5	3
DOHERTY RANCH RD			PRIVATE	7	3
DUBUQUE PKWY	FCR 63		LOCAL	5	3
DUKE RD	CR 758		LOCAL	5	3
E 2ND ST	E SECOND ST		LOCAL	6	3
E ADOUE ST			LOCAL	6	3
E BRAZOSWOOD DR	BRYAN ST		LOCAL	6	3
E BURNETT ST			LOCAL	5	3
E CEDAR ST			LOCAL	6	3
E CLEAR LAKE LOOP			LOCAL	6	3
E CR 341	E HENDERSON RD		LOCAL	4	3
E FLOODGATE RD			LOCAL	5	3
E FLOODGATE RD	FCR 242A		LOCAL	5	3
E HENDERSON RD	FCR 341		LOCAL	5	3
E HENDERSON RD	CR 341		PRIVATE	7	3
E KIBER ST			LOCAL	6	3
E KIBER ST	FCR 213		LOCAL	6	3
E KIBER ST	CR 213		LOCAL	4	3
E MAIN ST			LOCAL	6	3
E PHILLIPS RD			LOCAL	5	3
E PLANTATION DR			LOCAL	6	3
E PURSLEY BLVD	FCR 80		LOCAL	5	3
E SOUTH ST			LOCAL	6	3
E WALNUT ST			LOCAL	5	3
EMERALD BAY DR			LOCAL	5	3
EVAN DR	CR 184C		LOCAL	4	3
FCR 941			PRIVATE	7	3
FITE	FCR 91		LOCAL	6	3
FITE RD			LOCAL	5	3
FITE RD	FCR 408		LOCAL	5	3
FITE RD	FCR 91		LOCAL	5	3

Full_Name	Alias1	Alias2	RoadClass	Local_UID	Priority
FLORA RD	CR 422		PRIVATE	7	3
FLORES BAYOU BRIDGE RD			PRIVATE	7	3
FORT VELASCO DR			LOCAL	6	3
GALAZNIK RD	CR 340		LOCAL	5	3
GALVESTON AVE N			LOCAL	5	3
GALVESTON AVE S			LOCAL	5	3
GEORGE BURKE RD			PRIVATE	7	3
GRAND BLVD N			LOCAL	5	3
GRAND BLVD S			LOCAL	5	3
HALFMOON BAY DR			LOCAL	6	3
HALIK RD			LOCAL	5	3
HARGETT ST			LOCAL	6	3
HARKEY RD	FCR 103		LOCAL	5	3
HASIMA RD	CR 323		PRIVATE	7	3
HASKINS RD	CR 100		PRIVATE	7	3
HATFIELD RD	EIKER		LOCAL	6	3
HATFIELD RD			LOCAL	6	3
HEATH ST	FCR 171		LOCAL	6	3
HEIGHTS MANVEL RD	FCR 149		LOCAL	5	3
HILLHOUSE RD	FCR 542		LOCAL	5	3
HOOKS RD			LOCAL	5	3
HUGHES RANCH RD	FCR 403		LOCAL	6	3
INDUSTRIAL DR			LOCAL	5	3
IOWA COLONY BLVD	AIRLINE RD N		LOCAL	4	3
IOWA COLONY BLVD	FCR 48		LOCAL	6	3
IOWA COLONY BLVD	OLD AIRLINE RD		LOCAL	6	3
IOWA COLONY BLVD	FCR 65		LOCAL	6	3
IOWA LN			LOCAL	5	3
IOWA LN	CR 82		LOCAL	5	3
JOHN LIZER RD			LOCAL	5	3
JORDAN RD			LOCAL	6	3
JORDAN RD	FCR 73		LOCAL	6	3
KARSTEN RD	CR 383		LOCAL	5	3
KINGS DR			LOCAL	5	3
KINGSLEY DR			LOCAL	6	3
KIRBY DR			LOCAL	6	3
KIRBY DR	CR 111		LOCAL	4	3
KIRCHNER RD			LOCAL	5	3
KNAPP RD			LOCAL	5	3
KOST RD			LOCAL	6	3
LAKE RD			LOCAL	6	3

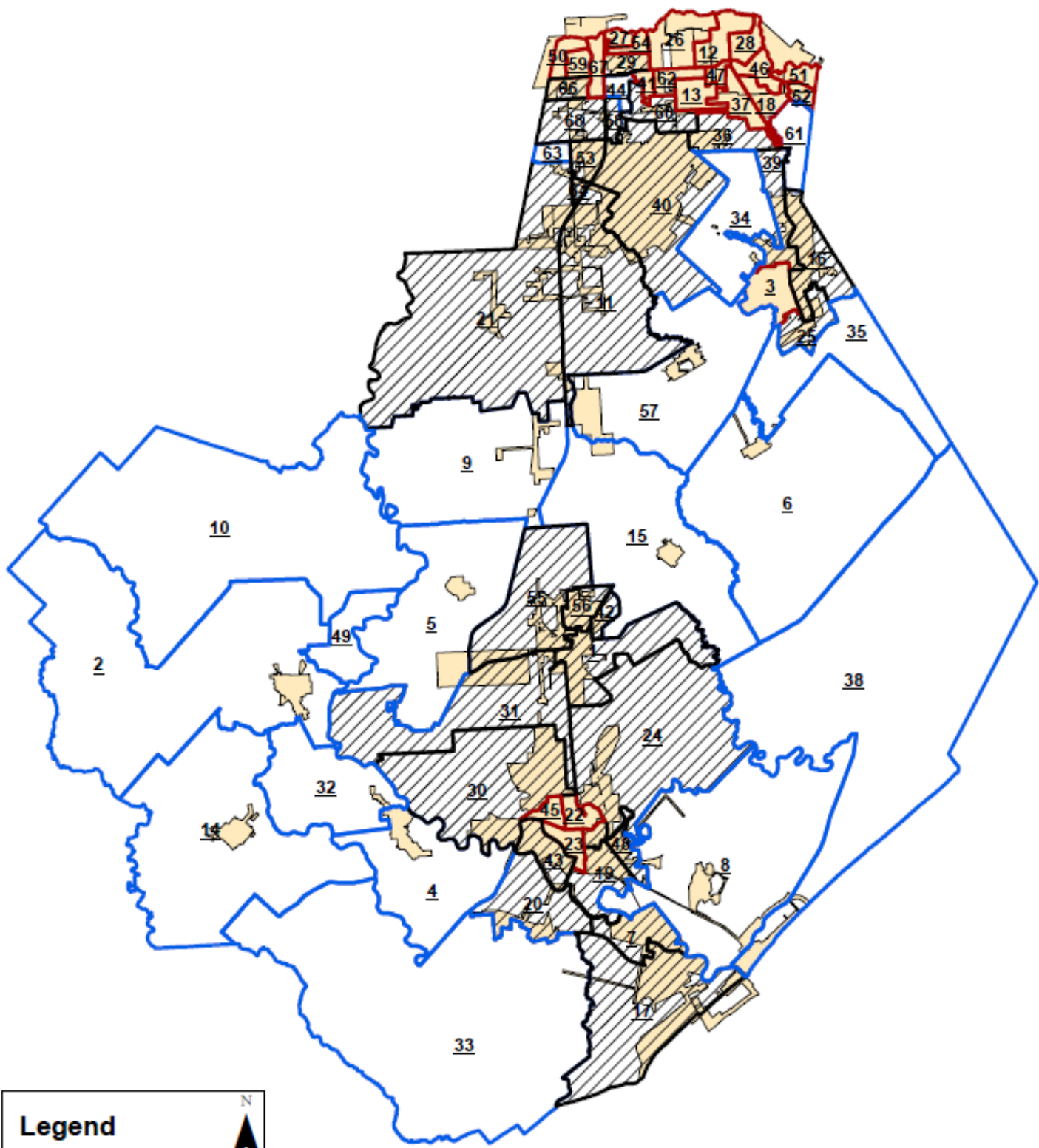
Full_Name	Alias1	Alias2	RoadClass	Local_UID	Priority
LAMAR ST			LOCAL	5	3
LEWIS LN			LOCAL	5	3
LIBERTY DR			LOCAL	5	3
LOST CREEK			PRIVATE	7	3
LOVERS LN			LOCAL	5	3
LP 409	N GORDON ST		MAJOR	1	3
MAGNOLIA PKWY		FCR 648R	LOCAL	5	3
MAGNOLIA PKWY	CR 59		LOCAL	4	3
MAGNOLIA PKWY	CR 648R		LOCAL	4	3
MAGNOLIA ST			LOCAL	5	3
MAIN ST	LIVERPOOL SPUR RD		LOCAL	6	3
MAIN ST			LOCAL	6	3
MAIN ST	FCR 192		LOCAL	6	3
MARKHAM LN			LOCAL	8	3
MARSHA LN	FCR 883A		LOCAL	5	3
MASTERS RD			LOCAL	6	3
MATTHEW DR	CR 184D		LOCAL	4	3
MCCOY RD			LOCAL	5	3
MCHARD RD	FCR 106		LOCAL	5	3
MCHARD RD	FCR 106A		LOCAL	6	3
MCHARD RD			LOCAL	6	3
MCLEAN RD			LOCAL	6	3
MCLEAN RD	FCR 104		LOCAL	6	3
MEDICAL CENTER DR			LOCAL	5	3
MEDICAL DR			LOCAL	5	3
MEMORIAL HERMANN DR			LOCAL	5	3
MERIDIANA PKWY	PETERS RD		LOCAL	5	3
MERIDIANA PKWY	CR 56	FORT BEND COUNTY RD	LOCAL	4	3
MERIDIANA PKWY	FCR 56		LOCAL	5	3
MILLER RANCH RD	FCR 93		LOCAL	6	3
MOORE			PRIVATE	7	3
MORGAN RD	FCR 648P		LOCAL	5	3
MORRIS RD	FCR 566		LOCAL	5	3
MOYLE RANCH RD			PRIVATE	7	3
MUSTANG CROSSING BLVD			LOCAL	5	3
MUSTANG RD			LOCAL	6	3
MUSTANG RD	CR 158		LOCAL	4	3
MYKAWA RD			LOCAL	6	3
N 13TH ST			LOCAL	6	3
N CLEAR LAKE LOOP			LOCAL	6	3
N DIXIE DR			LOCAL	6	3
N DOWNING RD			LOCAL	6	3

Full_Name	Alias1	Alias2	RoadClass	Local_UID	Priority
N GULF PRAIRIE DR	N PEACH POINT RD		LOCAL	6	3
N LAZY LN			LOCAL	6	3
N LIVE OAK DR			LOCAL	5	3
N VALDERAS ST			LOCAL	6	3
N VALDERAS ST	CR 48		LOCAL	4	3
N VELASCO BLVD			LOCAL	6	3
N YAUPON ST			LOCAL	6	3
NIKLOS RD			PRIVATE	7	3
NORTHFORK DR	FCR 648		LOCAL	5	3
NORTHFORK DR	CR 648		LOCAL	4	3
OAK DR			LOCAL	6	3
OAK DR S			LOCAL	6	3
ODAY RD			LOCAL	5	3
OILER DR			LOCAL	6	3
OILFIELD RD	FCR 98		LOCAL	5	3
OLD ALVIN RD			LOCAL	6	3
OLD ANGLETON RD	FCR 288		LOCAL	6	3
OLD ANGLETON RD	CR 288		LOCAL	4	3
OLD MASSEY RANCH RD	CR 100		LOCAL	4	3
OLD PLANTATION RD			PRIVATE	7	3
OLD SURFSIDE RD	FCR 229		LOCAL	5	3
OLD SURFSIDE RD	CR 229		LOCAL	4	3
OLEANDER ST			LOCAL	5	3
ORANGE ST E			LOCAL	6	3
ORANGE ST W			LOCAL	6	3
OYSTER CREEK DR			LOCAL	6	3
PARKER DAVIS SCHOOL RD	CR 185		LOCAL	5	3
PARKER DAVIS SCHOOL RD			PRIVATE	7	3
PARKER SCHOOL RD			LOCAL	5	3
PATTEN RD	CR 607		LOCAL	5	3
PATTERSON RD	FCR 88		LOCAL	5	3
PEARLAND PKWY			LOCAL	6	3
PEARSON RD			LOCAL	5	3
PENNY WAYNE LN	CR 130		PRIVATE	7	3
PLANTATION DR	CR 810A		LOCAL	4	3
PLANTATION DR	CR 810		LOCAL	4	3
PURSLEY BLVD	FCR 67		LOCAL	5	3
REED BLVD			LOCAL	5	3
REFLECTION BAY DR			LOCAL	6	3
REGENTS BAY DR			LOCAL	6	3
RODEO PALMS PKWY			LOCAL	5	3

Full_Name	Alias1	Alias2	RoadClass	Local_UID	Priority
ROSHARON RD			LOCAL	5	3
ROWAN BURTON DR			LOCAL	5	3
ROY RD	FCR 105		LOCAL	5	3
RUSTIC LN	FCR 131		LOCAL	5	3
S CLEAR LAKE LOOP			LOCAL	6	3
S DIXIE DR			LOCAL	6	3
S DOWNING RD	FCR 543		LOCAL	6	3
S FRONT ST			LOCAL	5	3
S FRONT ST	CR 288		LOCAL	5	3
S GULF BLVD			LOCAL	6	3
S JOHNSON ST			LOCAL	6	3
S LAZY LN			LOCAL	6	3
S MAIN ST			LOCAL	6	3
S SUMMER LN	CR 574		LOCAL	4	3
S VELASCO BLVD			LOCAL	6	3
S WALKER ST	CR 290		LOCAL	5	3
S WALKER ST			LOCAL	6	3
S YAUPON ST			LOCAL	6	3
SAN BERNARD DR			LOCAL	8	3
SAN BERNARD ST			LOCAL	5	3
SANDY POINT RD NO 1			PRIVATE	7	3
SAPPHIRE BAY DR			LOCAL	5	3
SAVANNAH PKWY	CR 714A		LOCAL	4	3
SAVANNAH PLANTATION DR			LOCAL	5	3
SHROEDER LN	CR 146		PRIVATE	7	3
SILVERLAKE BLVD	HOOKS RD		LOCAL	5	3
SIX O EIGHT RD	CR 608		PRIVATE	7	3
SMITH RANCH RD	FCR 94		LOCAL	6	3
SONIA LN	CR 464		LOCAL	4	3
SOUTHERN TRAILS DR			LOCAL	6	3
SOUTHWYCK PKWY	CR 66		LOCAL	4	3
SPRINGFIELD AVE			LOCAL	5	3
STEELE RD			LOCAL	5	3
STEVENSON RD	FCR 391		LOCAL	5	3
STONE RD N	FCR 561		LOCAL	5	3
STRATFORD HALL DR			LOCAL	5	3
STRATTON RIDGE RD	FCR 226		LOCAL	6	3
SUBURBAN GARDEN RD	FCR 109	GARDEN RD	LOCAL	5	3
SULPHUR DITCH RD			PRIVATE	7	3
SYCAMORE ST			LOCAL	6	3




Full_Name	Alias1	Alias2	RoadClass	Local_UID	Priority
THAT WAY			LOCAL	6	3
THIS WAY			LOCAL	6	3
TIFFANY LN	CR 544		LOCAL	4	3
TRINITY BAY DR			LOCAL	5	3
TWIN LAKES DR			LOCAL	8	3
TWIN LAKES DR	CR 647A		LOCAL	4	3
UZZELL RD			LOCAL	6	3
VETERANS DR			LOCAL	6	3
VETERANS DR	FCR 143		LOCAL	6	3
VICTORY LN			LOCAL	5	3
W 2ND ST	W SECOND ST		LOCAL	6	3
W ASHLEY WILSON RD			LOCAL	6	3
W BRAZOS AVE			LOCAL	6	3
W BRAZOSWOOD DR			LOCAL	6	3
W CEDAR ST			LOCAL	6	3
W CLEAR LAKE LOOP			LOCAL	6	3
W CR 341	W HENDERSON RD		LOCAL	4	3
W CR 359	BLACKS FERRY RD		LOCAL	4	3
W HENDERSON RD	FCR 341		LOCAL	5	3
W KIBER ST			LOCAL	5	3
W PHILLIPS RD			LOCAL	5	3
W PLANTATION DR			LOCAL	6	3
W SEALY ST			LOCAL	5	3
W SOUTH ST			LOCAL	6	3
W WALNUT ST			LOCAL	5	3
WALNUT ST			LOCAL	6	3
WARREN ST			LOCAL	6	3
WASHINGTON AVE	CR 367		LOCAL	5	3
WELLS DR	FCR 115		LOCAL	5	3
WEST OAKS BLVD			LOCAL	5	3
WESTMINISTER DR			LOCAL	5	3
WHEELER DR			LOCAL	5	3
WICKWILLOW LN	CR 435		LOCAL	5	3
WILLIAMS RD	CR 829A		PRIVATE	7	3
WILLOW DR			LOCAL	6	3
WINDWARD BAY DR			LOCAL	5	3
WOODY RD			LOCAL	5	3
WRUCK RD			PRIVATE	7	3
YOST RD			LOCAL	5	3

Appendix J
DEBRIS ZONE MAP



Legend

DDMP Zones

-  DDMP Zones
-  overlaps city limits
-  within city limits



Appendix K FIELD DOCUMENTS

[Force Account Labor Summary Record](#)¹

[Force Account Equipment Summary Record](#)²

Load Ticket

Debris Haul Out Ticket

Disposal Monitoring Log

Truck Certification Form and Instructions

¹ Force Account Labor Summary Record – FF90-123 can be found at <https://www.fema.gov/media-library/assets/documents/10588>

² Force Account Equipment Summary Record can be found at <https://www.fema.gov/media-library/assets/documents/10608>

DEPARTMENT OF HOMELAND SECURITY FEDERAL EMERGENCY MANAGEMENT AGENCY FORCE ACCOUNT LABOR SUMMARY RECORD		PAGE <input type="text"/> OF <input type="text"/>	O.M.B. No. 1660-0017 Expires December 31, 2011
APPLICANT	PA ID NO.	PROJECT NO.	DISASTER
LOCATION/SITE		CATEGORY	PERIOD COVERING
DESCRIPTION OF WORK PERFORMED			

	DATES AND HOURS WORKED EACH WEEK							COSTS				
	DATE							TOTAL HOURS	HOURLY RATE	BENEFIT RATE/HR	TOTAL HOURLY RATE	TOTAL COSTS
NAME	REG.											
JOB TITLE	O.T.											
NAME	REG.											
JOB TITLE	O.T.											
NAME	REG.											
JOB TITLE	O.T.											
NAME	REG.											
JOB TITLE	O.T.											
TOTAL COSTS FOR FORCE ACCOUNT LABOR REGULAR TIME												\$
TOTAL COST FOR FORCE ACCOUNT LABOR OVERTIME												\$

I CERTIFY THAT THE INFORMATION ABOVE WAS OBTAINED FROM PAYROLL RECORDS, INVOICES, OR OTHER DOCUMENTS THAT ARE AVAILABLE FOR AUDIT.

CERTIFIED	DATE


DEPARTMENT OF HOMELAND SECURITY FEDERAL EMERGENCY MANAGEMENT AGENCY FORCE ACCOUNT EQUIPMENT SUMMARY RECORD		PAGE ____ OF ____	O.M.B. No. 1660-0017 Expires October 31, 2008							
APPLICANT	PROJECT NO.	DISASTER								
LOCATION/SITE	CATEGORY	PERIOD COVERING								
DESCRIPTION OF WORK PERFORMED										
TYPE OF EQUIPMENT		DATES AND HOURS USED EACH DAY				COSTS				
INDICATE SIZE, CAPACITY, HORSEPOWER, MAKE AND MODEL AS APPROPRIATE	EQUIPMENT CODE NUMBER	OPERATOR'S NAME	DATE	HOURS	HOURS	HOURS	HOURS	TOTAL HOURS	EQUIPMENT RATE	TOTAL COST
GRAND TOTAL										
I CERTIFY THAT THE ABOVE INFORMATION WAS OBTAINED FROM PAYROL RECORDS, INVOICES, OR OTHER DOCUMENTS THAT ARE AVAILABLE FOR AUDIT.										
CERTIFIED								TITLE		DATE

Print Form

Appendix K

Load Ticket		Ticket No. 0012345	
Municipality (Applicant)		Prime Contractor	
		Sub-Contractor	
Truck Information			
Truck No		Capacity	
Truck Driver (print legibly)			
Loading Information			
Loading	Time	Date	Inspector/Monitor
Location (Address or Cross Streets)			
When Using GPS Coordinates use Decimal Degrees (N xx.xxxxx)			
N		W	
Unloading Information			
Debris Classification		Estimated %, CYs, or Actual Weight	
<input type="checkbox"/> Vegetation <input type="checkbox"/> C&D <input type="checkbox"/> White Goods <input type="checkbox"/> HHW <input type="checkbox"/> Other* See Below			
Unloading	Time	Date	Inspector/Monitor
DMS Name and Location			
*Other Debris Explanation		Original: Applicant Copy 1: _____ Copy 2: _____ Copy 3: _____	

Appendix K

 TETRA TECH		UNIT RATE TICKET #	
Applicant:		Disaster #	
Programs <input type="checkbox"/> Parks <input type="checkbox"/> Right-of-Entry <input type="checkbox"/> Time & Materials <input type="checkbox"/> ROW Lean/Hanger <input type="checkbox"/> Stumps <input type="checkbox"/> _____			
Contractor:		Crew #:	
Survey Item #:		GPS: N: W:	
House #:	Street Name:		Zone #:
Parcel #:		ROE #:	
Contract Rate Code 1 3 5 7 9 2 4 6 8 Other: _____			
Contract Rate Sub-Code A C E G I B D F H Other: _____			
Unit Count:		Measurement:	
Start Time:	A P	End Time:	A P Date:
Monitor Name (print):		I.D. #	
Contractor Name (print):		I.D. #	
Notes:			
White - Applicant Green and Yellow - Contractor Pink - Crew Chief Gold - Site Copy			
©2015 Tetra Tech, Inc All Rights Reserved			

Truck Information

Make

Year

Color

License

--	--	--	--

Truck Measurements

Performed By: _____

Date: _____

Volume Calculated By: _____

Date: _____

Both Checked By: _____

Date: _____

Driver Information

Name: _____

Address: _____

Phone Number: _____

Owner Information

Name: _____

Address: _____

Phone Number: _____

Truck Identification: _____

Truck Capacity: _____



Photo

Truck Certification Form Calculation Instructions

Instructions to take the necessary dimensions of corner wedge (refer to Figure B-6):

“a”: Along the side of the bed, measure the distance from the point where the rounded part of the bed starts, to the front corner of the bed.

“b”: Equal to “a.”

“c” and “d”: Along the side of the bed, mark the point where the rounded part of the bed starts, and along the front of the bed, also mark the point where the rounded part of the bed ends. Run a string between the two points and measure the distance between them; half of that distance is “c” and half of the distance is “d” (“c” and “d” are equal).

“e”: Measure the distance from the mid-point of the string that was stretched from the side to the front of the bed in the previous step to the rounded part of the bed.

Extra trailer: The volume calculations for the extra trailer would be simply length x width x height if the extra trailer has a rectangular bed. However, if the extra trailer also has round corners at the front, the volume calculation would be the same as explained above.

Instructions to take the necessary dimensions of round bottom truck (refer to Figure B-6):

“a”: The width of the bed.

“b”: The depth of the vertical portion (the side) of the bed.

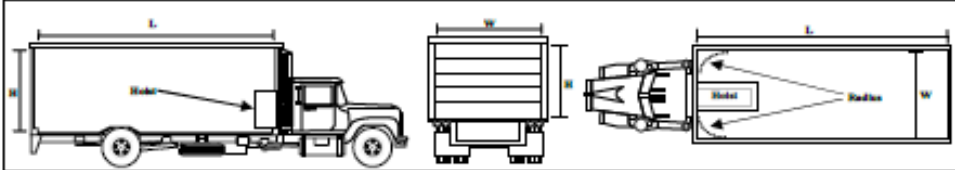
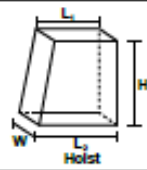
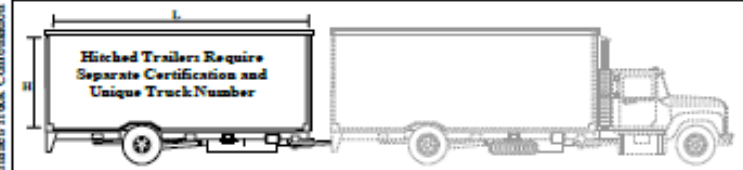
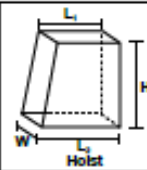
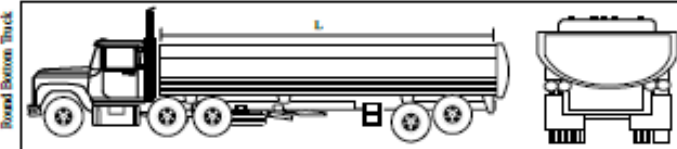
“c” and “d”: Both are equal to half the width of the bed.

“e”: Run a string between the lower ends of the vertical portions of the bed (the sides), and measure the distance from the mid-point of the string to the bottom of the bed.

NOTE: All dimensions used in the above formulas must be in feet, with inches converted to fractions of feet, using the following conversions (for example, 8 feet, 5 inches should be written as 8.42 feet):

1 inch = .08 foot	7 inches = .58 foot
2 inches = .17 foot	8 inches = .67 foot
3 inches = .25 foot	9 inches = .75 foot
4 inches = .33 foot	10 inches = .83 foot
5 inches = .42 foot	11 inches = .92 foot
6 inches = .50 foot	

Appendix K

DUMP TRUCK			
Measurements			
Truck Measurements	Length (L) = <input style="width: 80px;" type="text"/>	Width (W) ft = <input style="width: 80px;" type="text"/>	Height (H) ft = <input style="width: 80px;" type="text"/>
Hoist Measurement	Length ₁ (L ₁) ft = <input style="width: 80px;" type="text"/>	Width _H (W _H) ft = <input style="width: 80px;" type="text"/>	Height _H (H _H) ft = <input style="width: 80px;" type="text"/>
Radius	Radius ft = <input style="width: 80px;" type="text"/>	Height (H) = <input style="width: 80px;" type="text"/>	
Calculations			
Bed Volume (Basic)	$(L \times W \times H) / 27 =$ <input style="width: 80px;" type="text"/>	+ <input style="width: 80px;" type="text"/>	Cubic Yards
Hoist Volume	$((L_1 + L_2) / 2) \times W_H \times H_H =$ <input style="width: 80px;" type="text"/>	- <input style="width: 80px;" type="text"/>	
Radius Volume	$(3.14 \times R^2 \times H) / 27 =$ <input style="width: 80px;" type="text"/>	- <input style="width: 80px;" type="text"/>	
Total =	<input style="width: 160px;" type="text"/>		
Truck Measurements			
EXTRA TRAILER			
Measurements			
Truck Measurements (Basic)	Length (L) = <input style="width: 80px;" type="text"/>	Width (W) ft = <input style="width: 80px;" type="text"/>	Height (H) ft = <input style="width: 80px;" type="text"/>
Hoist Measurement	Length ₁ (L ₁) ft = <input style="width: 80px;" type="text"/>	Width _H (W _H) ft = <input style="width: 80px;" type="text"/>	Height _H (H _H) ft = <input style="width: 80px;" type="text"/>
Radius	Radius ft = <input style="width: 80px;" type="text"/>	Height (H) = <input style="width: 80px;" type="text"/>	
Calculations			
Bed Volume (Basic)	$(L \times W \times H) / 27 =$ <input style="width: 80px;" type="text"/>	+ <input style="width: 80px;" type="text"/>	Cubic Yards
Hoist Volume	$((L_1 + L_2) / 2) \times W_H \times H_H =$ <input style="width: 80px;" type="text"/>	- <input style="width: 80px;" type="text"/>	
Radius Volume	$(3.14 \times R^2 \times H) / 27 =$ <input style="width: 80px;" type="text"/>	- <input style="width: 80px;" type="text"/>	
Total =	<input style="width: 160px;" type="text"/>		
Trailer/Truck Combination			
<p>Hitched Trailers Require Separate Certification and Unique Truck Number</p>			
ROUND BOTTOM TRUCK			
Measurements			
Truck Measurements	Length (L) ft = <input style="width: 80px;" type="text"/>	Diameter (D) ft = <input style="width: 80px;" type="text"/>	
Calculations			
Approx. Volume $(3.14 \times (D/2)^2 \times L) / 27 =$ <input style="width: 80px;" type="text"/>			cyd (round bottom portion only)
Round Bottom Truck			Cubic Yards

Appendix L
SAMPLE RIGHT-OF-ENTRY AGREEMENT

Appendix L

THE STATE OF TEXAS
COUNTY OF BRAZORIA

§
§
§

KNOW ALL MEN BY THESE PRESENTS:

RELEASE

That I (we), _____, the undersigned, of Brazoria County, Texas, on behalf of ourselves, our heirs, executors, administrators and assigns, owning real property located at (address) _____, Brazoria County, Texas, hereby give permission to Brazoria County, its officers, agents, servants and employees, their successors, heirs and assigns, and any and all persons, firms or corporations, their agents, servants and employees, to remove the debris from my/our property as a result of _____.

I (We) further release and hold harmless the County of Brazoria, its officers, agents, servants and employees, their successors, heirs and assigns, and any and all persons, firms or corporations, their agents, servants and/or employees who enter said tracts of land and who enter said private roads and/or public right-of-ways from all claims, present and future, known and/or unknown, in any manner arising out of the removal of the debris and/or in any manner arising out of trucks traveling on and over private roads and/or public right-of-ways as a result of _____. This release is intended to and does cover any and all other damages whether or not contemplated at the present time and includes undeveloped and unknown claims for damages existing at this time or that may exist at any time in the future.

I (We) have read and understand that this is a full and complete release of all claims, known or unknown, and I (We) understand that I (We), upon execution of this document present no further claim, right, action or demand for any other claim of any kind

SAMPLE RIGHT-OF-ENTRY AGREEMENT

or character arising out of or connected with the removal of the debris. I (We) agree to indemnify and hold harmless the said Brazoria County, its officers, agents, servants and employees, their heirs and assigns, and their successors in office and any and all persons, firms or corporations, their agents, servants and/or employees from any and all claims urged by us, our heirs, executors, administrators or assigns at any time in the future, such indemnity including by way of illustration, and not limitation, the cost, expenses of investigation, an amount equal to any recovery, if any, and attorney's fees.

EXECUTED this _____ day of _____, 20_____.

Print Name: _____
Address: _____

Print Name: _____
Address: _____

Appendix M
HAZARDOUS STUMP EXTRACTION AND REMOVAL
ELIGIBILITY

Appendix M

FEMA Public Assistance Program and Policy Guide FP 104-009-2 Section VI. A. c. Stump Removal

(c) Stump Removal

For stumps that have 50 percent or more of the root-ball exposed, removal of the stump and filling the root-ball hole are eligible. If grinding a stump in-place is less costly than extraction, grinding the stump in-place is eligible.

Stump removal in areas with known or high potential for archeological resources usually requires that FEMA further evaluate and consult with the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO). If the Applicant discovers any potential archeological resources during stump removal, the Applicant must immediately cease work and notify FEMA.

Contracted Stump Removal

FEMA only reimburses contracted costs charged on a per-stump basis if:

- The stump is 2 feet or larger in diameter measured 2 feet above the ground; and
- Extraction is required as part of the removal.

The Applicant needs to ensure the price for stump removal includes extraction, transport, disposal, and filling the root-ball hole.

For stumps that have less than 50 percent of the root-ball exposed, FEMA only provides PA funding to flush cut the item at ground level and dispose of the cut portion based on volume or weight. Grinding any residual stump is not eligible.

For stumps smaller than 2 feet in diameter, or for stumps of any size that do not require extraction, FEMA only provides PA funding based on volume or weight as removal of these stumps does not require special equipment. If the Applicant claims reimbursement of these stumps on a per stump basis, FEMA limits PA funding based on a unit price for volume or tons, calculated using the Stump Conversion Table (Located on the following pages of this Attachment).

If the Applicant incurs additional costs in picking up stumps 2 feet or larger in diameter that the contractor did not extract, it should complete the Hazardous Stump Worksheet ((Located on the following pages of this Attachment) and present documentation to substantiate the costs as reasonable based on the equipment required to perform the work.

(d) Documentation Requirements

The Applicant must provide all of the following documentation to support the eligibility of removing tree limbs, branches, stumps, or trees that are still in place:

- Specifics of the immediate threat with the U.S. National Grid (USNG) location and photograph or video documentation that establishes the item is on public property;
- Diameter of each item removed (measurement must be 2 feet up the trunk from the ground for stumps and 4.5 feet up for trees);

HAZARDOUS STUMP EXTRACTION AND REMOVAL ELIGIBILITY

- Quantity of material to fill root-ball holes; and
- Equipment used to perform the work.

STUMP CONVERSION TABLE

Diameter to Volume Capacity

FEMA quantifies the amount of cubic yards of debris for each size of stump based on the following formula:

$[(\text{Stump Diameter}^2 \times 0.7854) \times \text{Stump Length}] + [(\text{Root-Ball Diameter}^2 \times 0.7854) \times \text{Root-Ball Height}] \div 46,656$

- 0.7854 is one-fourth Pi and is a constant. 46,656 is used to convert cubic inches to cubic yards and is a constant.

The formula used to calculate the cubic yardage used the following factors, based upon findings in the field:

- Stump diameter measured 2 feet up from the ground
- Stump diameter to root-ball diameter ratio of 1:3.6
- Root-ball height of 31 inches

See the conversion chart on the following page.

Appendix M

Stump Diameter(Inches)	Debris Volume (Cubic Yards)	Stump Diameter(Inches)	Debris Volume (Cubic Yards)
6	0.3	46	15.2
7	0.4	47	15.8
8	0.5	48	16.5
9	0.6	49	17.2
10	0.7	50	17.9
11	0.9	51	18.6
12	1	52	19.4
13	1.2	53	20.1
14	1.4	54	20.9
15	1.6	55	21.7
16	1.8	56	22.5
17	2.1	57	23.3
18	2.3	58	24.1
19	2.6	59	24.9
20	2.9	60	25.8
21	3.2	61	26.7
22	3.5	62	27.6
23	3.8	63	28.4
24	4.1	64	29.4
25	4.5	65	30.3
26	4.8	66	31.2
27	5.2	67	32.2
28	5.6	68	33.1
29	6	69	34.1
30	6.5	70	35.1
31	6.9	71	36.1
32	7.3	72	37.2
33	7.8	73	38.2
34	8.3	74	39.2
35	8.8	75	40.3
36	9.3	76	41.4
37	9.8	77	42.5
38	10.3	78	43.6
39	10.9	79	44.7
40	11.5	80	45.9
41	12	81	47
42	12.6	82	48.2
43	13.3	83	49.4
44	13.9	84	50.6
45	14.5		

HAZARDOUS STUMP EXTRACTION AND REMOVAL ELIGIBILITY

Hazardous Stump Worksheet

Applicant: _____ Date: _____

Applicant Representative: _____ Signature: _____

FEMA Representative (if available): _____ Signature: _____

State Representative (if available): _____ Signature: _____

	Physical Location (i.e., Street address, road, cross streets, etc.)	Description of Facility (ROW, Park, City Hall, etc.)	Hazard		GPS (decimal degrees, 00.000000)		Tree Size (Diameter)	Eligible		Fill For Debris Stumps CY	Comments (See attached sketch, photo, etc.)
			Yes	No	Latitude (N)	Longitude (W)		Yes	No		
1											
2											
3											
4											
5											
6											
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9											
10											

**Appendix N
EQUIPMENT LIST**

Dump and Lift Trucks			
No	Quantity	Asset Description	Assigned to:
1	10	Dump trucks – 14-yard	Precinct 1
2	18	Dump trucks – 14-yard	Precinct 2
3	13	Dump trucks – 14-yard	Precinct 3
4	2	Grapple trucks	Precinct 3
5	14	Dump trucks – 14-yard	Precinct 4

Loaders/Tractors/Bulldozers/Excavators			
No	Quantity	Asset Description	Assigned To
1	4	Gradall Excavators	Precinct 1
2	1	Skid steer loader	Precinct 1
3	6	Gradall Excavators	Precinct 2
4	1	Rubber tire backhoe	Precinct 2
5	2	Skid steer loaders	Precinct 2
6	4	Gradall Excavators	Precinct 3
7	2	Backhoes	Precinct 3
8	1	Skid steer loader	Precinct 3
9	3	Gradall Excavators	Precinct 4
10	2	Skid steer loaders	Precinct 4

Other			
No	Quantity	Asset Description	Assigned To
1	5	Chainsaws	Precinct 1
2	2	Pole saws	Precinct 1
3	8	Chainsaws	Precinct 2
4	4	Chainsaws	Precinct 3