



# Genesee County Land Bank Authority Neighborhood Stabilization Program 2

Request for Proposals–Environmental Abatement &  
Disposal of Asbestos and Hazardous Materials on  
Residential/Commercial Structures in the City of  
Flint.

BID NUMBER: #LB: 11-009

DUE DATE: April 7, 2011 at 3:00 pm EST

As part of the Michigan NSP2 Consortium, a partnership between:

Michigan State Housing Development Authority (MSHDA)

The City of Flint

Genesee County Land Bank Authority (GCLBA)



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## REQUEST FOR PROPOSALS

# REQUEST FOR PROPOSALS–ENVIRONMENTAL ABATEMENT & DISPOSAL OF ASBESTOS AND HAZARDOUS MATERIALS ON RESIDENTIAL/COMMERCIAL STRUCTURES IN THE CITY OF FLINT.

## INTRODUCTION

### A. Overview

This Request for Proposals (“RFP”) is being issued by Genesee County Land Bank Authority (GCLBA) in its capacity as manager of the Neighborhood Stabilization Program 2 (NSP2). GCLBA invites the submission of proposals from contractors experience and licensed to conduct the abatement and disposal asbestos and other hazardous materials.

Qualified environmental abatement contractors may submit bids for the proposal/scope of work defined in this RFP. The proposal will be scored on the evaluation criteria set forth in this RFP. The GCLBA anticipates entering into a contract for the scope of work set forth herein.

Addendums to this RFP can be found at [www.thelandbank.org](http://www.thelandbank.org) under the tab current bids. Please check any updates to this proposal.

Companies with demonstrated experience in the scopes of work defined in this RFP and with an interest in making their services available to GCLBA are invited to respond to this RFP. “Respondents” means the companies or individuals that submit proposals in response to this RFP. The Respondent shall be financially solvent and each of its members if a joint venture, its employees, agents or sub-consultants of any tier shall be competent to perform the services required under this RFP document.

GCLBA is seeking to encourage participation by respondents who are MBE/WBE or Section 3 business enterprises.

Nothing in this RFP shall be construed to create any legal obligation on the part of GCLBA or any respondents. GCLBA reserves the right, in its sole discretion, to amend, suspend, terminate, or reissue this RFP in whole or in part, at any stage. In no event shall GCLBA be liable to respondents for any cost or damages incurred in

connection with the RFP process, including but not limited to, any and all costs of preparing a response to this RFP or any other costs incurred in reliance on this RFP. No respondent shall be entitled to repayment from GCLBA for any costs, expenses or fees related to this RFP. All supporting documentation submitted in response to this RFP will become the property of the GCLBA. Respondents may also withdraw their interest in the RFP, in writing, at any point in time as more information becomes known.

Each proposer must submit one copy of their 2011 CERTIFICATE TO DO BUSINESS WITH GENESEE COUNTY. The Land Bank follows Genesee County Office of Equity and Diversity policies and procedures for procurement process. For further information on this requirement, contact the Genesee County Office of Equity and Diversity, 1101 Beach Street, Room 343, Flint, Michigan 48502, phone (810) 257-3028; fax (810) 768-7943.

Each respondent is responsible for labeling the exterior of the sealed envelope containing the proposal response with the proposal number, proposal name, proposal due date and time and your firm's name. Late proposals will not be accepted. The proposal request number and due date for this Bid is:

PROPOSAL REQUEST NUMBER: #LB 11-009

DUE DATE: Monday, April 7, 2011 @ 3:00 pm EST

All inquiries relating to this RFP should be directed to Lucille James, Demolition Program Coordinator, Genesee County Land Bank, 452 S. Saginaw Street, 2<sup>nd</sup> Floor, Flint, Michigan 48502; (810) 257-3088 ext. 529 or [ljames@thelandbank.org](mailto:ljames@thelandbank.org).

No proposal may be withdrawn for a period of thirty (30) days after submission. Proposals offering less than thirty (30) days for acceptance by the Genesee County Land Bank from the date set for opening will be considered non-responsive and will be rejected.

The GCLBA reserves the right to reject any or all proposals and to waive irregularities or informalities as may be deemed in the GCLBA's interest. The GCLBA may choose to enter into multiple contracts for the same scope of services to ensure that there is enough capacity within the NSP 2 program.

## **B. Time of Completion**

Any agreement awarded pursuant to this RFP solicitation shall be in accordance with the scope of work and compensation as outlined below, and, within a mutually agreed upon expedited timeframe.

## **C. Term of Contract**

Any agreement awarded pursuant to this RFP solicitation shall be for a contract period ending February 10, 2013, with the possibility of an extension.

## **D. Background**

Under the Recovery Act, Congress established the Neighborhood Stabilization Program 2 (NSP2) to stabilize neighborhoods whose viability is negatively affected by properties that have been foreclosed upon and abandoned. NSP2 provides grants to states, local governments, nonprofits and a consortium of public and or private nonprofit entities on a competitive basis.

The Michigan NSP2 Consortium received \$223,875,339. The Michigan State Housing Development Authority (MSHDA), as lead applicant, 12 city governments, and eight county land banks will work together to remove blight, address vacancy and foreclosures, and reposition neighborhoods in targeted NSP2-eligible census tracts. MSHDA allocated \$201,487,805 to place properties back in productive use and \$22,387,534 in administrative fund for MSHDA, Cities and Lands Banks to share.

The City of Flint received \$15,772,344 and the GCLBA received \$10,710,994 for a total award amount of \$26,483,338 to assist the targeted census tracts in the City of Flint.

## E. Federal Regulations

Award recipients implementing the Michigan NSP2 Consortium must follow the Community Development Block Grant (CDBG) Program rules and regulations, unless stated otherwise in the May 4, 2009 of the Federal Register Notice [Docket No. FR-5321-N-01] regarding [Title XII of Division A of the American Recovery and Reinvestment Act of 2009](#), which is posted on

[http://www.hud.gov/offices/cpd/communitydevelopment/programs/neighborhoodspg/pdf/nsp2\\_nofa.pdf](http://www.hud.gov/offices/cpd/communitydevelopment/programs/neighborhoodspg/pdf/nsp2_nofa.pdf)

Respondents are strongly encouraged to read these regulations prior to submitting their response to this RFP. All NSP2 funds must be spent on specific eligible activities no later than February 10, 2013 and 50% of NSP2 funds must be spent no later than February 10, 2012.

## PROFESSIONAL SERVICE REQUIREMENTS

### A. Scopes of Work

GCLBA seeks sealed proposals from qualified respondents to provide the scope of services described below on residential/commercial structures located in targeted neighborhoods and census tracts in the City of Flint. *See Appendix A – NSP2 Boundaries and Map.* Nearly all of the targeted neighborhoods and census tracts contain abandoned and derelict residential/commercial structures.

Applicants can respond to the proposal/ scope of services described below (See Appendix D for full scope of work):

#### **Summary of Scope of Work:**

**Abatement and disposal of environmentally hazardous materials from Residential/Commercial Structures**

During the program period, which ends February 10, 2013, GCLBA anticipates up to 370 hazardous material and/or asbestos abatement and disposal across the respective NSP2 areas. Further, GCLBA anticipates multiple requests within a short timeframe.

The purpose of the abatement and disposal is to properly remove environmental hazardous materials/waste concerns associated with the building, or within close proximity to the building, that may require removal and disposal, or other consideration, before a structure is renovated, demolished or deconstructed.

1. Structures have been identified for the presence of hazardous materials/waste including but not limited to one or more of:
  - Asbestos
  - Paint (Latex/Oil Base)
  - Pesticides/Herbicides
  - Fluorescent Light Bulbs
  - Fluorescent Light Fixture Ballasts
  - Mercury Switches
  - Fuels/Solvents/Oils
  - Underground Storage Tanks
  - Aboveground Storage Tanks
  - Refrigerators/Air Conditioners/Freezers
  - Chemicals

These materials shall be properly removed from the property, packed, and disposed of by current regulations.

2. The pre-demolition inspection will document the presence of each material/waste identified, the location and quantity of each material/waste. All materials identified during inspections have been clearly marked with fluorescent spray paint and where possible, moved to a central location that is also marked by spray paint.
3. A summary of the inspection work has been included with these bid documents and lists the type of each material/waste identified, the location within the property, and the quantity of each material waste.
4. For those sites listed on the inspection summary which contain “unknown” materials, the Contractor is required to perform characterization test(s) and properly dispose of the material.

The Contractor is responsible for providing the appropriate packaging to transport the materials/wastes from each site in accordance with all applicable state and federal laws.

1. All materials/wastes must be segregated and packaged according to the applicable hazardous class (i.e., flammables, corrosives, etc.) before leaving an individual site. Materials may be combined (lab packed) from site to site according to hazard class.

2. The Contractor is responsible for preparing the proper shipping papers necessary to transport the materials from each individual site at the time the materials leave the site.
3. If it is necessary for the Contractor to store the materials/wastes overnight to facilitate lab packing, the materials can only be stored at a licensed transfer, storage or disposal facility.
4. The shipping papers will be carried at all times by the transports when moving the materials/wastes on public roadways.
5. The Contractor will conform to all necessary vehicles placarding when transporting materials.
6. The Contractor will maintain separate inventory sheet (trip log) for each property that hazardous materials/wastes are removed in accordance with the Michigan Department of Environmental Quality Operation Memo 121-3, Revised part 121 Consolidated Manifest Management Procedures. The records must indicate the property address, type and quantity of materials/waste removed.

The properties that will be identified have been found to contain potentially environmentally hazardous material as provided by the hazardous materials inspector. The contractor will be required to remove and dispose of such materials as directed by GCLBA or its representative. These items are to be removed and disposed by a licensed contractor familiar with the proper procedures. These materials are required to be characterized and placed with like materials in clearly marked 55 gallon drum and disposed of properly prior to any site demolition work. Contractor shall supply Authority with a copy of all landfill and disposal receipts, manifests and other documentation.

Upon completion of the abatement and disposal of the hazardous materials the contractor shall submit the following documents to the GCLBA:

Hazardous Materials:

Upon completion of the material/waste collection and disposal the Contractor will provide a separate Inventory Sheet for each property that materials/wastes were removed.

The Inventory Sheet will be supported by the following paperwork (as applicable to the individual property).

- A copy of the disposal manifest and/or shipping papers used to dispose of materials/wastes from each disposal/recycling facility.
- A copy of the Freon recovery certificate signed and certified by the licensed Freon recovery professional.
- A copy of the scrap metal receipt for AST/USTs.

Hazardous Asbestos Materials:

1. Landfill records for record purposes indicating receipt and acceptance of hazardous asbestos materials by a landfill facility licensed to accept such wastes.

2. Contractor shall supply Authority with a copy of all landfill and disposal receipts, manifests and other documentation.

## **B. Additional Requirements**

This project will comply with all codes, standards, regulations, and workers' safety rules that are administered by federal agencies (EPA, OSHA, and DOT), state agencies (MIOSHA, MDNRE, and DCH), and any other local regulations and standards that may apply.

Proposals shall be responsible for compliance with the following additional requirements:

1. CERTIFICATE TO DO BUSINESS WITH GENESEE COUNTY FOR 2011
2. OSHA 29 CFR 1926- Construction Industry Standards
3. 29 CFR 1926.62- Construction Industry Lead
4. 29 CFR 1910.1001, 19326.1101 & 1915.1001 – Procedures of Occupational Exposure to Asbestos
5. 29 CFR 1910.1200 – Hazard Communication
6. 40 CFR Part 261- EPA Regulations
7. HUD Title X parts 1012-1013
8. Federal Labor Standards and Provisions
9. Equal Opportunity Clause
10. Section 3 Clause
11. HUD Contract and Subcontract Activity
12. Copeland Anti-kickback Act
13. Resource Conservation and Recovery Act (RCRA)
14. And other Regulations Referenced throughout this document and attachments

## **EVALUATION CRITERIA AND SCORING**

In evaluating responses to this Request for Proposal, GCLBA will take into consideration the experience, capacity, and costs that are being proposed by the Respondent. The following Evaluation Criteria will be considered in reviewing submittals:

The GCLBA will evaluate the qualifications received and identify the submittal that is the most responsive, responsible and offers the best service to the GCLBA. The GCLBA will consider cost of services, consultant qualifications, financial viability,

project references, and experience with comparable projects. Specifically, each Qualifications package will be reviewed based on the following selection criteria:

**Proposal/ Evaluation Criteria for Scope of Work:**

**Abatement and disposal of environmentally hazardous materials from Residential/Commercial Structures**

1. Pricing Proposal (20 points)

Pricing proposals that are in the highest cost 1/3 of proposals	5 Points
Pricing proposals that are in the middle cost 1/3 of proposals	10 Points
Pricing proposals that are in the lowest cost 1/3 of proposals	20 Points

2. Specialized experience in Neighborhood Stabilization Program and working with Land Banks (20 points)

Neighborhood Stabilization Program (NSP) Experience	5 Points
Tax Foreclosed /Land Bank Experience	10 Points
Both NSP and Tax Foreclosed/ Land Bank Experience	20 Points

3. Experience in providing abatement and disposal of environmental hazardous material services. (15 points)

One (1) to four (4) year of experience in completing abatement and disposal services of environmentally hazardous materials.	2 Points
Five (5) to nine (9) years of experience in completing abatement and disposal services of environmentally hazardous materials.	5 Points
Ten (10) to fourteen (14) years of experience in completing abatement and disposal services of environmentally hazardous materials.	10 Points
Greater than fifteen (15) years of experience in completing abatement and disposal services of environmentally hazardous materials.	15 Points

4. Capacity. Number of accurately completed inspections and reports that the firm could provide to the GCLBA in less than three weeks (15 points)

Demonstrated capacity and experience to complete up to ten (10) abatement and disposals	5 Points
Demonstrated capacity and experience to complete up to fifteen (15) abatement and disposal	10 Points
Demonstrated capacity and experience to complete more than twenty-five (25) abatement and disposal	15 Points

5. Demonstrated Understanding of the Land Bank’s NSP 2 needs as described in the respondents scope of work (15 points)

## SUBMITTAL REQUIREMENTS

RFP responses must be submitted both via hard copy. Each respondent shall submit one (1) original and two (2) copies of the following documents in a clear, legible, 12 point font, and 8.5 by 11 inch format. Responses not submitted via hard copy will not be considered. Respondents are advised to adhere to the Submittal Requirements. Failure to comply with the instructions of this RFP will be cause for rejection of submittals.

GCLBA reserves the right to seek additional information to clarify responses to this RFP. Each response must include the following:

### A. Letter of Interest

Please submit a Cover Letter of Interest on your firms letterhead signed by a duly authorized officer or representative of the Respondent, not to exceed two pages in length. The Letter of Interest must also include the following information:

1. The principal place of business and the contact person, title, telephone/fax numbers and email address.
2. A brief summary of the qualifications of the Respondent and team. Please ensure you are including information for GCLBA to assess your qualifications in regards to the scoring criteria set forth in this RFP.
3. Description of organization (i.e. Corporation, Limited Liability Company, or Joint Venture).
4. The names and business addresses of all Principals of the Respondent. For purposes of this RFP “Principals” shall mean persons possessing an ownership interest in the Respondent.
  - If the Respondent is a partially owned or fully-owned subsidiary of another organization, identify the parent organization and describe the nature and

extent of the parent organization's approval rights, if any, over the activities of the Respondent.

- If the Respondent is a partially owned or fully-owned subsidiary of another organization, identify the parent organization and describe the nature and extent of the parent organization's approval rights, if any, over the activities of the Respondent.
5. The Certification attached hereto at the end of this RFP and incorporated herein by reference must be signed by Respondent and attached to the Letter of Interest

## B. Threshold Requirements

These documents must be submitted and acceptable before GCLBA will review the Experience and Capacity proposal:

1. Certificate of Good Standing (Corporation) or Certificate of Existence (Limited Liability Company) issued by the Michigan Secretary of State (If Respondent is a joint venture, a Certificate of Good Standing or Certificate of Existence, as applicable, must be submitted for each entity comprising the joint venture.)
2. Evidence of Insurance: Commercial General Liability with limits not less than \$2,000,000; Workers Compensation and Employers Liability with limits not less than \$500,000; Automobile Liability with limits not less than \$1,000,000 per occurrence; and, Professional Liability with limits not less than \$1,000,000 and Pollution Liability: Total limit excess of \$1,000,000 per occurrence.
3. Evidence of Financial Stability: All Respondents shall include their most recent financial statements with the proposal response. This information will assist and GCLBA in determining the Respondent's financial condition. GCLBA is seeking this information to ensure that the proposer's have the financial stability and wherewithal to assure good faith performance.
4. Conflict of Interest Statement & Supporting Documentation: Respondent shall disclose any professional or personal financial interests that may be a conflict of interest in representing the GCLBA. In addition, all Respondents shall further disclose arrangement to derive additional compensation from various investment and reinvestment products, including financial contracts.
5. 2011 Certificate to do Business with Genesee County (If you do not have a Certificate at the time of submission, include a letter indicating the date your company's equity & diversity plan was submitted to the Genesee County Office of Equity & Diversity for review.)
6. Staff certifications in 8-hour OSHA HAZWOPER
7. State of Michigan Asbestos Abatement Contractor License
8. Successful bidder shall be required to furnish a Performance Bond in the amount equal to one hundred percent (100%) of the contracted bid list.
9. Certification Form Note (attached)

## C. Main Proposal

Please provide the following information:

1. Clearly identify which sub-proposal(s) you are submitting your proposal for.

Sub-Proposal 1: Inspection of Environmentally Hazardous Materials from Residential and Commercial Structures

Sub-Proposal 2: Inspection for Lead Containing materials

Sub-Proposal 3: Environmental Site Assessments

2. Experience and capacity to implement scope of work described in Scope of Services. Please ensure you are including information for GCLBA to assess your qualifications in regards to the scoring criteria set forth in this RFP.
3. Familiarity with the GCLBA and basic understanding of programs (see [www.thelandbank.org](http://www.thelandbank.org) for more information) including previous experience with NSP activities.
4. The qualification of assigned project staff and subcontracts, including (a) relevant professional and educational experience, (b) identification of specific staff individuals with experience managing hazardous materials inspection projects, and (c) identification of state certified laboratories who will participate in the project. (d) Past projects will be reviewed to determine if the respondent has successfully completed projects similar in nature and scope. Respondents should provide narrative examples of three (3) projects that are similar in nature to projects described in the RFP.
5. Capacity to complete multiple inspections on a weekly basis. (See RFP scoring criteria)
6. Pricing proposal. The contractor should provide a fixed price fee schedule including unit rates to the GCLBA for all work and services provided. (See Appendix B)
7. Reporting format to facilitate use of information collected to complete demolition, rehab or deconstruction.
8. Respondents should state whether they are an MBE/WBE or Section 3 business enterprise. If so, please provide a copy of a current MBE/WBE certification letter.

## SELECTION PROCESS

The Selection Committee comprised of GCLBA staff will review qualifications in accordance with the evaluation criteria set forth herein and Michigan NSP2 Consortium objectives and policies. Proposals that are submitted timely and comply with the mandatory requirements of the RFP will be evaluated in accordance with the terms of the RFP. Any contract resulting from this RFP will not necessarily be awarded

to the vendor with the lowest price. Instead, contract shall be awarded to vendor whose proposal received the most points in accordance with criteria set forth in RFP.

## QUESTIONS

Questions regarding this RFP should be submitted in writing via email to [ljames@thelandbank.org](mailto:ljames@thelandbank.org).

## SUBMITTAL DUE DATE

Responses to this RFP are due by 3:00 pm on April 7, 2011. Each Respondent is responsible for labeling the exterior of the sealed envelope containing the proposal response with the proposal number, proposal name, proposal due date and time, and your firm's name. Hard copies must be delivered to:

Lucille James  
Genesee County Land Bank Authority  
452 S. Saginaw St. 2<sup>nd</sup> Floor  
Flint, MI 48502

## CERTIFICATION FORM NOTE

THIS PAGE MUST BE COMPLETED AND INCLUDED WITH THE SUBMITTAL CERTIFICATION

The undersigned hereby certifies, on behalf of the Respondent named in this Certification (the "Respondent"), that the information provided in this RFP submittal to GCLBA is accurate and complete and I am duly authorized to submit same. I hereby certify that the Respondent has reviewed this RFP in its entirety and accepts its terms and conditions.

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(Name of Respondent)

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(Signature of Authorized Representative)

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(Typed Name of Authorized Representative)

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(Title)

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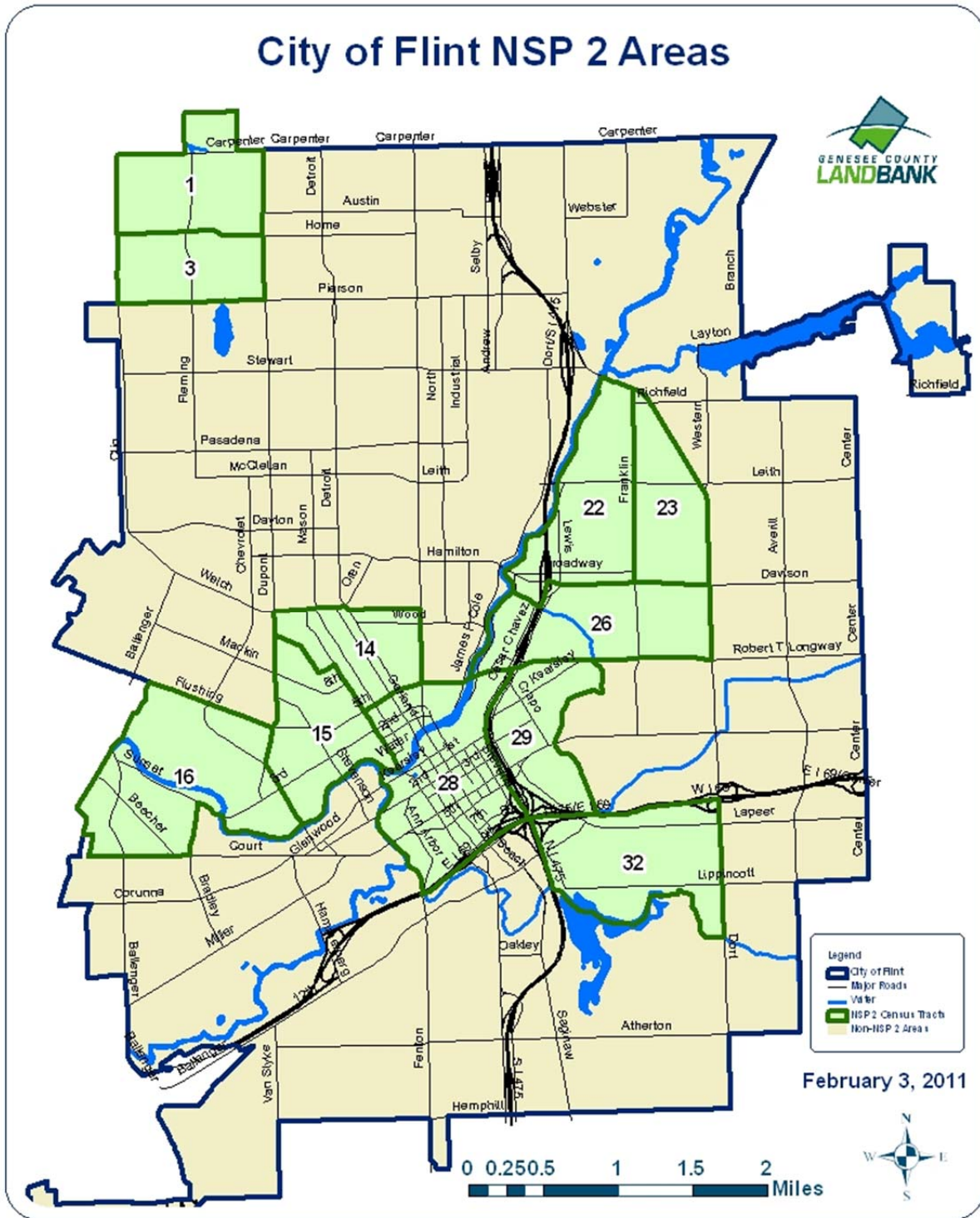
(Date)

## RFP SUBMITTAL REQUIREMENTS CHECKLIST

Please provide Checklist with response to RFP

- Letter of Interest
- Certification Form Note
- Certificate of Good Standing (Corporation) or Certificate of Existence (Limited Liability Company) issued by the Michigan Secretary of State (If Respondent is a joint venture, a Certificate of Good Standing or Certificate of Existence, as applicable, must be submitted for each entity comprising the joint venture.)
- Evidence of Insurance
- 2011 Certificate to do Business with Genesee County
- State License and or Certification
- Evidence of Financial Stability
- References
- Conflict of Interest Statement & Supporting Documentation
- Description of Company
- Capacity of Company
- Pricing Proposal
- MBE/WBE, Local Hiring, HUD Section 3, if applicable
- RFP Submittal Requirements Checklist

### APPENDIX A: MAP AND BOUNDARIES OF NSP2 TARGET AREA



APPENDIX B:  
UNIT RATE PRICE FOR ENVIRONMENT ABATEMENT AND DISPOSAL OF ASBESTOS AND  
HAZARDOUS MATERIALS FROM RESIDENTIAL / COMMERCIAL STRUCTURES IN THE CITY OF FLINT

<b>Asbestos Unit Rate Schedule</b>			
<b>Bidders must provide a unit rate price for:</b>			
<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Unit Price</b>
1	Sprayed-on Fireproofing	Square Foot	
2	Hard Wall/Ceiling Plaster (all layers, metal or wood lathe)	Square Foot	
3	Soft/Decorative Plaster (all layers, including substrate if necessary)	Square Foot	
4	Popcorn or Sprayed-on Ceiling or Wall Texture (all layers, including substrate if necessary)	Square Foot	
5	Drywall/Mud Compound	Square Foot	
6	Thermal System Insulation (TSI) Straight Pipe < 6" diameter	Linear Foot	
7	Thermal System Insulation (TSI) Straight Pipe > 6" to 12" diameter	Linear Foot	
8	Thermal System Insulation (TSI) Straight Pipe > 12" diameter	Linear Foot	
9	TSI Mud Fitting < 6" diameter	Each	
10	TSI Mud Fitting > 6 – 12" diameter	Each	
11	TSI Mud Fitting > 12" diameter	Each	
12	Duct Insulation (cloth or paper)	Square Foot	
13	Duct Insulation (fiberglass with ACM seam mud)	Square Foot	
14	Undercoated Sink	Each	
15	Fire Door	Each	
16	Floor Tile Only (any size)	Square Foot	
17	Floor Tile and Mastic (any size, any mastic type)	Square Foot	
18	Linoleum/Resilient Sheeting	Square Foot	
19	Linoleum/Resilient Sheeting and Mastic (any type)	Square Foot	
20	Window with associated caulk and/or glazing (any size including frame)	Each	
21	Furnace, boiler, or tank insulation (mud and jacket)	Square Foot	
22	Transite (Panels, Siding or Board)	Square Foot	
23	Fireproof Panels	Square Foot	

APPENDIX B:  
UNIT RATE PRICE FOR ENVIRONMENT ABATEMENT AND DISPOSAL OF ASBESTOS AND  
HAZARDOUS MATERIALS FROM RESIDENTIAL / COMMERCIAL STRUCTURES IN THE CITY OF FLINT

24	Asphalt Brick Siding (e.g., Insul-Brick, Brick-Kote, etc.)	Square Foot	
25	Electrical Panel	Each	
26	Glued-on ceiling tiles (any size) and glue pods	Square Foot	
27	Construction Adhesives/other glue pods	Square Foot	
28	Cove Base	Square Foot	
29	Vermiculite Insulation	Cubic Yard	
30	Miscellaneous Asbestos Debris (any type, total quantity)	Cubic Foot	
31	Cementitious Materials	Square Foot	
32	Roofing/Flashing/Tar (any type)	Square Foot	
33	Light Fixture Heat Shields	Each	
34	Foundation, wall or block caulk	Linear Foot	

<b>Hazardous Material Unit Rate Schedule</b>			
<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Unit Price</b>
35	PCB or other ballasts	Each	
36	Fluorescent light tubes, >4'	Each	
37	Fluorescent light tubes, 4' or less	Each	
38	Mercury thermostats or switches	Each	
39	Misc household chemical containers	Each	
40	CFC (refrigerator, freezer, any size)	Each	
41	CFC A/C unit (window or whole house)	Each	

APPENDIX B:  
UNIT RATE PRICE FOR ENVIRONMENT ABATEMENT AND DISPOSAL OF ASBESTOS AND  
HAZARDOUS MATERIALS FROM RESIDENTIAL / COMMERCIAL STRUCTURES IN THE CITY OF FLINT

42	Household Oil filled equipment	Each	
43	Gas cylinders (any size and type including, but not limited to: propane, oxygen, acetylene, etc.)	Each	
44	High pressure light fixtures (sodium, mercury vapor, etc.)	Each	
45	Heating Oil	Gallon	
46	Miscellaneous Aerosol Containers	Each	
47	Car/vehicle battery	Each	
48	Bicycle tires	Each	
49	Automobile or truck tires	Each	
50	Television, microwave, computer monitor	Each	
51	Smoke detector	Each	
52	Paint cans (latex, oil, etc. any size)	Each	
53	Vehicles/boats	Each	

APPENDIX B:  
UNIT RATE PRICE FOR ENVIRONMENT ABATEMENT AND DISPOSAL OF ASBESTOS AND  
HAZARDOUS MATERIALS FROM RESIDENTIAL / COMMERCIAL STRUCTURES IN THE CITY OF FLINT

54	Lawn mowers/snow blowers (or other small engine item)	Each	
55	Automobile engine	Each	
56	Vehicle gas tank	Each	
57	Gas cans (6-gallons or less)	Each	
58	Empty 55-gallon drums	Each	
59	55-gallon drum with liquid	Each	
60	15-gallon drum with liquid	Each	
61	250 gallon fuel/heating oil tank, not including oil	Each	
62	Ethylene glycol (one gallon)	Each	
63	Fire extinguishers	Each	
64	Leaf blowers/weed whackers	Each	
65	Load, transport and dispose of non-hazardous contaminated soils	Cubic Yard	

APPENDIX B:  
 UNIT RATE PRICE FOR ENVIRONMENT ABATEMENT AND DISPOSAL OF ASBESTOS AND  
 HAZARDOUS MATERIALS FROM RESIDENTIAL / COMMERCIAL STRUCTURES IN THE CITY OF FLINT

66	Unknown waste material characterization (TCLP)	Per Waste Stream	
67	Unknown waste disposal	Per gal	

<b>Mobilization Material Unit Rate Schedule</b>			
Item No.	Description	Unit	Unit Price
68	Mobilization	Per Property	

If Bidder is aware of additional Unit Prices not described above, Bidder may provide a description and pricing of items in following table:

<b>Additional Material Unit Rate Schedule</b>			
Item No.	Description	Unit	Unit Price
69	Pumping of Water	Per hour	
70	Third Party Air Clearance	Per house	

APPENDIX C – Scope of Work for Residential/Commercial  
Environmental Abatement & Disposal:

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## SECTION 1 – SUMMARY OF WORK

### RESIDENTIAL/COMMERCIAL ENVIRONMENTAL ABATEMENT AND DISPOSAL

#### 1.0 PROJECT/SITE CONDITIONS

##### A. General requirements

The work covered by this section includes the abatement and disposal of asbestos and potentially environmentally hazardous material located on selected tax-reverted residential/commercial properties owned by Genesee County and Land Bank or other local municipality. The purpose of the abatement and disposal is to properly remove asbestos and environmental hazardous materials/waste concerns associated with the residential/commercial properties prior to the structures being demolished or rehabilitated.

##### B. Responsibility

It shall be the responsibility of the Contractor to review the specifications; the conditions, and the relative difficulty thereof, which are present and that may affect results of the environmental abatement measures.

##### C. Knowledgeable Person

It shall be the Contractor's responsibility to assure that the abatement measures and disposal of material is supervised by individuals certified and knowledgeable on the State of Michigan and local regulations in such endeavors. Such persons shall comply with the appropriate Federal, State, and local regulations that mandate work practices and shall be capable of performing the work under this contract.

##### D. Supplying Necessary Items

The Contractor shall be responsible for supplying all labor, material, equipment, services, insurance, bonds and all incidentals which are necessary or required to perform the Work in accordance with applicable regulations and these specifications.

##### E. Liability

The Contractor shall assume full responsibility and liability for the compliance with all Federal, State, regional and local regulations pertaining to work practices, confined spaces, hauling, disposal and protection of workers, visitors to the site. This shall include Hazard Communication to workers and visitors of the work site (29 CFR 1926.59).

Furnish Certificates of Insurance which specifically set forth evidence of all coverage required of the Contractor and Sub-Contractor(s) prior to commencement of work. Certificates shall be sent to the Genesee County Land Bank, 452 S. Saginaw St., Second Floor Flint, MI 48502. Furnish to the GCLBA copies of all endorsements that are subsequently issued amending coverage or limits.

#### 2.0 DESCRIPTION OF WORK

The Work covered by this section includes the abatement and disposal of asbestos containing material and environmentally hazardous material/wastes located on residential/commercial properties scheduled for demolition or rehabilitation in the City of Flint.

## SUMMARY OF WORK

### A. Hazardous Materials/Waste Disposal

- 1) Contractors will be authorized by the GCLBA to proceed on the removal and disposal of environmentally hazardous materials from specific residential/commercial structures.
- 2) Each residential/commercial building has been surveyed and inspected for the presence of hazardous materials/waste including but not limited to one or more of:
  - Asbestos Containing Building Materials
  - Paint (Latex/Oil Base)
  - Pesticides/Herbicides
  - Fluorescent Light Bulbs
  - Fluorescent Light Fixture Ballasts
  - Mercury Switches
  - Fuels/Solvents/Oils
  - Underground Storage Tanks
  - Aboveground Storage Tanks
  - Refrigerators/Air Conditioners/Freezers
  - Chemicals

The Contractor shall properly remove, pack, and dispose of these in accordance with all applicable current regulations.

- 3) A site specific Pre-Demolition Inspection/Hazardous Materials Survey will be prepared by others for each structure.
- 4) The Pre-Demolition Inspection/Hazardous Materials Survey will document the presence of each material/waste identified, the location and quantity of each material/waste. All materials identified during inspections have been clearly marked with fluorescent spray paint and where possible, moved to a central location that is also marked by spray paint.
- 5) A copy of the Hazardous Materials Survey and summary of identified materials will be supplied at the time Contractor is authorized to proceed with the removal and disposal of environmentally hazardous materials from specific residential/commercial structures. The survey will list the type of each material/waste identified, the location within the property, and the quantity of each material.
- 6) Following authorized to proceed and receipt of the Pre-Demolition Inspection/Hazardous Materials Survey, Contractor is encouraged to inspect the site of the proposed work. Prior to proceeding on the authorized work, Contractor may visit each of the listed sites to arrive at a clear understanding of the conditions under which the work is to be done and to make their own determination as to the amount of asbestos and/or hazardous materials to be removed from the sites. Contractor will be held responsible to have compared the premises with the hazardous materials survey, drawings, specifications, or other provided items, and to have satisfied himself as to all conditions affecting the execution of the work.
- 7) Contractor shall remove all asbestos, hazardous materials, and other materials banned from landfill disposal, regardless of the estimated quantities provided in the Hazardous Materials Survey Report.
- 8) No payment adjustments in excess of the quantities identified in the hazardous materials survey shall be made by the GCLBA without prior written authorization. Deviations from the hazardous materials survey shall be submitted to the Demolition Program Coordinator: Genesee County Land Bank, 452 South Saginaw Street, Flint, Michigan 48502, (810) 257-3088.

- 9) Contractor shall also establish and obtain prior written authorization for abatement and disposal of asbestos and hazardous materials not included in Unit Rate Schedule. Prior written authorization is required for payment of items not included in unit rate schedule.
- 10) For those sites listed on the inspection summary which contain “unknown” materials, the Contractor is required to perform characterization test(s) and properly dispose of the material in accordance with Unit Rate Schedule.
- 11) A summary of hazardous materials within each structure will also be provided in an electronic spreadsheet. Following abatement and removal, Contractor shall provide to GCLBA all actual quantities on a per unit basis. Contractor shall submit the inventory of actual quantities removed in hardcopy and electronic format. Reporting formats shall be provided by the GCLBA.
- 12) Contractor shall submit invoices on a per unit basis. Invoices formats shall be pre-approved by the GCLBA.

### 3.0 HAZARDOUS MATERIAL/WASTE COLLECTION AND DISPOSAL

- A. The Contractor is responsible for providing the appropriate packaging to transport the materials/wastes from each site in accordance with all applicable state and federal laws.
- B. All materials/wastes must be segregated and packaged according to the applicable hazardous class (i.e., flammables, corrosives, etc.) before leaving an individual site. Materials may be combined (lab packed) from site to site according to hazard class.
- C. The Contractor is responsible for preparing the proper shipping papers necessary to transport the materials from each individual site at the time the materials leave the site.
- D. If it is necessary for the Contractor to store the materials/wastes overnight to facilitate lab packing, the materials can only be stored at a licensed transfer, storage or disposal facility.
- E. The shipping papers will be carried at all times by the transporter when moving the materials/wastes on public roadways.
- F. The Contractor will conform to all necessary vehicles placarding when transporting materials.
- G. The Contractor will maintain a separate inventory sheet (trip log) for each property that hazardous materials/wastes are removed in accordance with the Michigan Department of Environmental Quality Operation Memo 121-3, Revised part 121 Consolidated Manifest Management Procedures. The records must indicate the property address, type and quantity of materials/waste removed.

### 4.0 TECHNICAL

#### A. DESCRIPTION

##### Environmentally Hazardous Material Removal and Disposal

1. It shall be the responsibility of Contractor to remove and dispose of material identified in the pre-demolition inspection/hazardous materials survey of structures as being environmentally hazardous. Contractor shall remove all asbestos, hazardous materials, and other materials banned from landfill disposal, regardless of the estimated quantities provided in the Hazardous Materials Survey Report. Adjustments shall be included in the final total quantity reported by the Contractor; however, no payment adjustments in excess of the quantities identified in the hazardous materials survey shall be made by the GCLBA without prior written authorization.

## B. SUMMARY

This section includes the following:

1. Removal and disposal of potentially environmentally hazardous material.

## C. SUBMITTALS

1. Upon completion of the material/waste collection and disposal the Contractor will provide a separate Inventory Sheet for each property that materials/wastes were removed. Asbestos and hazardous materials removed must be itemized for each structure on a per unit basis.

The Inventory Sheet will be supported by the following paperwork (as applicable to the individual property).

- A copy of the disposal manifest and/or shipping papers used to dispose of materials/wastes from each disposal/recycling facility.
  - A copy of the CFC recovery certificate signed and certified by the licensed CFC recovery professional.
  - A copy of the scrap metal receipt for AST/USTs and other metals.
2. Landfill records for record purposes indicating receipt and acceptance of asbestos materials by a landfill facility licensed to accept such wastes.
  3. Contractor shall supply GCLBA with a copy of all landfill, recycling, weight tickets, disposal receipts, manifests and other documentation relating to the removal and disposal of asbestos and hazardous materials from the properties.

## D. HAZARDOUS CONDITIONS:

1. The Contractor will be authorized to perform work at properties identified to contain potentially environmentally hazardous material as provided by the pre-demolition inspector. The contractor will be required to remove and dispose of such materials as directed by the GCLBA.
2. The pre-demolition inspection will have identified potentially environmentally hazardous material. These items may include but not be limited to the following: flammables, fuels/waste oils, thinners/paints/solvents; underground storage tanks; pesticides; mercury switches, aerosol cans, fluorescent light bulbs, etc... These items are to be removed and disposed by a licensed contractor familiar with the proper procedures. These materials are required to be characterized and placed with like materials in clearly marked 55 gallon drums or other containers and disposed of properly prior to any site demolition work.
3. Contractor shall supply GCLBA with a copy of all landfill, recycling, weight tickets, disposal receipts, manifests and other documentation relating to the removal and disposal of asbestos and hazardous materials from the properties.

## E. CERTIFICATION OF PROPERTY

1. Contractor shall notify owner/owner's representative in writing when each specific listed property has been mitigated of potentially environmentally hazardous material within 24 hours of completion of said work.

## F. POLLUTION CONTROLS

1. Under the authority of Section 112 of the Clean Air Act, as amended, 42 U.S. C. 1857 (C-7), the Administrator of the United States Environmental Protection Agency (EPA) promulgated National Emission Standards for Hazardous Air Pollutants on April 6, 1973, (38 F.R. 8820) Asbestos was designated a hazardous air pollutant, and standards were set for its use, and to control asbestos emissions. It was determined that one significant source of asbestos emissions was the demolition of certain buildings and structures.

Additionally, contractors are required under authority of Section 114 (a) to follow EPA personnel (or other authorized regulatory personnel) to freely enter any of your facilities or demolition sites, to review any records, inspect any demolition method, and sample or observe any omissions.

All demolition operations conducted by Contractor are to be in compliance with applicable provisions of Section 112 of the Act and 40 C.F.R. Section 61.22(d).

In addition, Section 113(c)(1) of the Act (42 U.S.C. 1857 C-8(c)(1)), provides that any person who knowingly fails or refuses to comply with any such order shall be punished by a fine of not more than \$25,000 per day of violation, or by imprisonment for not more than one year, or by both.

Finally, Section 113(c)(2) of the Act (42 U.S.C. 1857 C-8(c)(2)), provides that any person who knowingly makes any false statement in any report required under the Act shall be punished, upon conviction, by a fine of not more than \$10,000 or by imprisonment for not more than six months, or by both.

2. Use water mist, temporary enclosures, and other suitable methods to limit the spread of dust and dirt. Comply with governing environmental protection regulations.

Do not create hazardous or objectionable conditions, such as ice, flooding, and pollution, when using water.

3. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
4. Clean adjacent buildings and improvements of dust, dirt and debris caused by demolition operations. Return adjacent areas to condition existing before start of demolition.
5. Contractor shall limit hours of operation to Monday through Friday during the hours of 7:00 a.m. to 6:00 p.m. Special hours of operation outside the normal hours must be approved by the GCLBA. Contractor shall limit noise pollution at all times to prevent objectionable conditions.

## SECTION 2- ASBESTOS ABATEMENT & DISPOSAL SCOPE OF WORK

### PART 1 General

#### 1.01 SECTION INCLUDES

A. Removal and disposal requirements for asbestos containing materials (ACM). It is recommended that the contractor review and consider the recommendations reported in the Pre-Demolition Inspection/Hazardous Materials Survey when performing asbestos abatement and general building demolition activities.

#### 1.02 REFERENCE STANDARDS

The publications listed below form a part of this Section to the extent referenced. The publications are referenced in the text by basic designation only.

- A. American Society for Testing and Materials (ASTM)
  - 1. ASTM E 736 (1986) Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members.
  - 2. ASTM 1368 (1990) Visual Inspection of Asbestos Abatement Projects.
- B. Code of Federal Regulations (CFR)
  - 1. CFR 29 Part 1926/1910 Construction Industry Occupational Safety and Health Standards.
  - 2. CFR 40 Part 61 National Emissions Standards for Hazardous Air Pollutants.
  - 3. CFR 40 Part 260 General Regulations for Hazardous Waste Management.
  - 4. CFR 40 Part 263 Standards Applicable to Transporters of Hazardous Waste.
  - 5. CFR 40 Part 763 Asbestos.
  - 6. CFR 49 CFR 171 Department of Transportation Regulations to Stipulate Requirements for Containers and Procedure for Shipment of Hazardous Waste.
- C. National Fire Protection Association (NFPA)
  - 1. NFPA 10 (1988) Portable Fire Extinguishers.
  - 2. NFPA 70 B (1990) Recommended Practice for Electrical Equipment Maintenance.
  - 3. NFPA 90A (1989) Installation of Air Conditioning and Ventilating Systems.
  - 4. NFPA 101 (1988) Safety to Life from Fire in Buildings and Structures.
  - 5. NFPA 90A (1989) Installation of Air Conditioning and Ventilating Systems.
- D. National Institute of Occupational Safety and Health (NIOSH)
  - 1. NIOSH -01 Manual of analytical Methods
- E. State of Michigan
  - 1. P.A. Act 451, Michigan Natural Resources and Environmental Protection Act
  - 2. MIOSHA Act 154 General Industry and Construction (as amended) Safety Standards.
- F. United States Environmental Protection Agency (U.S. EPA)
  - 1. U.S. EPA SW-846, Test Methods for Evaluating Solid Waste.

#### 1.03 MEASUREMENT

##### A. Removal and Disposal of ACM

The removal and disposal of ACM will be a unit rate pay item. Estimated quantities of ACM will be provided in the Pre-Demolition Inspection/Hazardous Materials Survey.

#### 1.04 PAYMENT

##### A. Removal and Disposal of ACM

All acceptably completed work as required under this Section for the removal and disposal of ACM found

on site will be paid as a unit rate as bid and authorized.

#### 1.05 DEFINITIONS

##### A. Friable Asbestos Containing Material

As defined in 40 CFR Part 61, Subpart M, any material containing more than 1 percent asbestos as determined using the method specified in 40 CFR Part 763, Appendix A, Subpart F, Section 1, Polarized Light Microscopy, that when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.

##### B. Nonfriable Asbestos Containing Material

As defined in 40 CFR Part 61, Subpart M, any material containing more than 1 percent asbestos as determined using the method specified in 40 CFR Part 763, Appendix A, Subpart F, Section 1, Polarized Light Microscopy, that, when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure.

##### C. Category I Nonfriable Asbestos Containing Material

As defined in 40 CFR Part 61, Subpart M, asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos as determined using the method specified in 40 CFR Part 763, Appendix A, Subpart F, Section 1, Polarized Light Microscopy, that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

##### D. Category II Nonfriable Asbestos Containing Material

As defined in 40 CFR Part 61, Subpart M, any material, except Category I nonfriable ACM, containing more than 1 percent asbestos as determined using the methods specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy, that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

##### E. Asbestos Regulated Work Area

An area contained and controlled where asbestos containing materials (ACM) operations are performed and isolated by physical boundaries to prevent the spread of ACM and control access to authorized persons. Containment may consist of full containment area, single or double bulkhead containment area, mini-containment area, modified containment, glove bag, or other techniques. An outdoor regulated work area is not isolated within a containment enclosure, but is otherwise secured by means of physical barriers, boundary warning tape, and signage, etc., to control access by unauthorized persons.

##### F. Time-Weighted Average

The Time Weighted Average (TWA) is an average of airborne concentration of fibers (longer than 5 micrometers) per cubic centimeter of air based on an 8-hour exposure duration, which represents the employee's 8-hour workday as defined in Appendix A of 29 CFR Part 1926, Section 1926.1101.

##### G. Amended Water

Water containing a wetting agent or surfactant with a surface tension of at least 29 dynes per square centimeter when tested in accordance with ASTM D 1331.

##### H. Adequately Wet

As defined in 40 CFR Part 61, Subpart M, sufficiently mix or penetrate with liquid to prevent the release of particulates from the source material. Continue wetting asbestos-containing material (ACM) if visible emissions are encountered during abatement activities. When uncertainties arise, continue wetting material until uncertainties diminish.

##### I. Competent Person

As defined in 29 CFR Part 1926, should be experienced in administering and supervising asbestos abatement projects. A competent person should be familiar with safe and reasonable work practices, abatement methods, protective measures for personnel, inspection of asbestos abatement work areas, evaluating the adequacy of containment barriers, placement and operation of local exhaust systems, waste containment and disposal procedures, decontamination units, and site health and safety health requirements. The designated "competent person" will be responsible for compliance with applicable local State, and Federal requirements and for enforcing the site-specific Health and Safety Plan (HASp).

## 1.07 SUBMITTALS

### A. Work Plan

Before proceeding with any removal and disposal work, submit a work plan that includes the procedures proposed for the accomplishment of all specified activities. The procedures shall provide for safe conduct of the work, careful removal and disposition of asbestos-containing materials, and property protection. The procedures shall provide a detailed description of the methods and equipment to be used for each operation, and the sequence of operations. The work plan shall be based on work experience, and the guidance provided in this specification.

### B. Health and Safety Plan

Submit a Health and Safety Plan (HASP) before beginning removal or disposal activities. Include in the HASP required personal protective equipment, respiratory protection, asbestos regulated work area controls, and hazard communication program. Refer to Section 00100 for other HASP requirements.

### C. Qualifications

Submit adequate information to conclude the qualifications of the Contractor, on-site supervisors, workers, all subcontractors, and the independent testing laboratory performing asbestos abatement activities are properly trained in safety procedures associated with handling asbestos-containing materials. Specify the staff organization to include subcontractors used for this project. Include qualifications and certifications of the designated “competent person.”

### D. Air Sampling Results

Conduct fiber counting for air quality during each sampling event. Provide results within 24 hours of completion of each sampling event. Notify the GCLBA immediately if any airborne levels of asbestos fibers are encountered above levels established in the HASP. Provide a table including sampling results within 10 working days of the date of collection. Provide a signature of the authorized representative of testing laboratory.

### G. Manifests

Submit waste documentation for all shipments removed from the property. Waste disposal manifests will be signed by the GCLBA-appointed representative.

## 1.08 REGULATORY REQUIREMENTS

### A. Permits

Obtain all necessary permits and licenses for asbestos abatement activities. Provide all required pre-abatement notifications. Notify the State of Michigan, Michigan Department of Energy, Labor & Economic Growth, local agencies, and the GCLBA in writing at least 10 calendar days before beginning abatement activities. Where applicable, notify the Michigan Department of Environmental Quality in writing at least 10 business days before beginning abatement activities. Conduct all abatement activities in accordance with 40 CFR Part 61, Subpart M, state and local requirements to include the mandatory “Notification of Intent to Renovate/Demolish” form and other required notification documents.

### B. Health and Safety Compliance

Comply with all applicable laws, ordinances, rules, regulations, whether stated or omitted from bidding documents. While conducting all handling, storing, transporting, and disposing activities for asbestos waste materials, comply with the applicable requirements of 29 CFR Part 1910, 29 CFR Part 1926, 40 CFR Part 61, Subpart A, and 40 CFR Part 61, Subpart M, NFPA 10, NFPA 70, NFPA 90A, NFPA 101. In case of a discrepancy between the requirements of this specification, applicable laws, rules, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirement as determined by the GCLBA or GCLBA’s Representative shall apply.

#### 1. Air Monitoring

a. Conduct personal air sampling as defined by the previously noted regulations.

Monitoring for of airborne asbestos fibers and lead dusts. Adhere to all permit and regulatory requirements for air quality.

2. Respiratory Protection Program

a. Establish and implement a respiratory protection program in accordance with 29 CFR 1926, Section 1926.1101, 29 CFR Part 1910, Section 1910.134. Include medical monitoring, employee training, procedures for respirator use, respirator fit-testing, routine inspection, and storage. Select and use respirators in accordance with manufacturers' recommendations, Mine Safety and Health Administration, and the National Institute for Occupational Safety and Health requirements for use in environments containing airborne asbestos fibers.

3. Training

a. All employees working directly with asbestos-containing material and wastes must have successfully completed a course of asbestos training as specified by United States Environmental Protection Agency (EPA) requirements at 40 CFR Part 763, Subpart E, Appendix C, within 1 year prior to conducting asbestos abatement activities. Each worker must successfully complete the "Worker" course, and on-site supervisors and technical support personnel must successfully complete the "Contractor/Supervisor" course.

4. Medical Monitoring

a. Conduct medical monitoring requirements as described in 29 CFR Part 1926, Section 1926.1101 and the requirements of the Contractor's Health and Safety Plan found.

5. Personal Protective Equipment

a. Provide personnel working in asbestos environments with whole body protection as specified in Section 01110, Health, Safety, and Emergency Response. Single-use coveralls shall be disposed as asbestos-contaminated waste upon exiting from the asbestos regulated work area.

1.09 PROJECT CONDITIONS

Site summaries and Pre-Demolition Inspection/Hazardous Materials Survey will be provided to Contractor at the time Contractor is authorized to proceed with abatement and disposal.

PART 2 PRODUCTS

2.01 MATERIALS

A Wetting Agent

1. Amended Water

a. Comply with ASTM D 1331.

2. Removal Encapsulant

a. Provide a removal or penetrating encapsulant when conducting asbestos abatement activities that require a longer removal time or are subject to rapid evaporation of amended water. The removal encapsulant shall be capable of wetting the ACM and retarding fiber release during disturbance of the ACM equal to or greater than provided by amended water.

- B. Strippable Coating  
Provide additional incidental items necessary to complete specified activities.
- C. Prefabricated Decontamination Unit(s)  
Provide additional incidental items necessary to complete specified activities.
- D. Chemical encapsulant  
Provide additional incidental items necessary to complete specified activities.
- E. Chemical encasement materials  
Provide additional incidental items necessary to complete specified activities.
- F. Material Safety Data Sheets (for all chemicals proposed)  
Provide additional incidental items necessary to complete specified activities.
- G. Sheet Plastic  
Provide sheet plastic as specified herein and in the largest size necessary to minimize seams. Comply with ASTM D 4397 and NFPA 701.
- H. Other items  
Provide additional incidental items necessary to complete specified activities.

2.02 EQUIPMENT

- A. High efficiency filtered local exhaust equipment
- B. Vacuum equipment
- C. Pressure differential monitor
- D. Air monitoring equipment  
Provide appropriate air monitoring equipment to evaluate concentrations of airborne asbestos fibers and comply with applicable regulations.
- E. Respirators  
Provide respirators as specified in Part 1.08.B.2 of this Section
- F. Glove Bag  
Provide glove bags that comply with 29 CFR Part 1926.
- G. Duct Tape  
Provide industrial grade duct tape in 2 inch and 3 inch widths, suitable for bonding sheet plastic and disposal containers specified herein.
- H. Leak-Tight Containers  
Provide leak-tight disposal containers and bags for asbestos-containing materials and generated wastes as specified herein. All disposal containers shall be either pre-labeled or affixed with OSHA warning label, as specified in 29 CFR Part 1926.

2.03 SOURCE QUALITY CONTROL

Encapsulants shall conform to USEPA requirements, shall contain no toxic or hazardous substances or solvent, and shall meet the following requirements:

A. Requirements and Corresponding Test Standards for All Encapsulants		
Requirement		Test Standard
Flame Spread – 25, Smoke Emission – 50	ASTM E 84	

Combustion Toxicity  
Zero Mortality  
Life Expectancy – 20 years  
Permeability – Minimum 0.4 perms

University of Pittsburg Protocol  
University of Pittsburg Protocol  
ASTM C 732 (Accelerated Aging Test)  
ASTM E 96

B. Additional Requirements and Corresponding Test Standards for Bridging Encapsulant  
Requirement

Cohesion/Adhesion Test – 50 pounds of force/foot  
Fire Resistant  
Impact Resistance – Minimum 43 in/lb  
Flexibility – no rupture or cracking

Test Standard  
ASTM E 736  
ASTM E 119  
ASTM D 2794 (Gardner Impact Test)  
ASTM D 522 (Mandrel Bend Test)

C. Additional Requirements and Corresponding Test Standards for Penetrating Encapsulant  
Requirement

Cohesion/Adhesion Test – 50 pounds of force/foot  
Fire Resistant  
Impact Resistance – Minimum 43 in/lb  
Flexibility – no rupture or cracking

Test Standard  
ASTM E 736  
ASTM E 119  
ASTM D 2794 (Gardner Impact Test)  
ASTM D 522 (Mandrel Bend Test)

D. Additional Requirements and Corresponding Test Standards for Bridging Encapsulant  
Requirement

Cohesion/Adhesion Test – 50 pounds of force/foot  
Fire Resistant  
Impact Resistance – Minimum 43 in/lb  
Flexibility – no rupture or cracking

Test Standard  
ASTM E 736  
ASTM E 119  
ASTM D 2794 (Gardner Impact Test)  
ASTM D 522 (Mandrel Bend Test)

E. Additional Requirement and Corresponding Test Standards for Lock-Down Encapsulant

Requirement  
Fire Resistant  
Bond Strength

Test Standard  
ASTM E 119  
ASTM E 736

## PART 3 EXECUTION

### 3.01 GENERAL

Remove and dispose asbestos-containing material to a licensed recycle facility. Obtain all required permits and approval documents. Provide approved containers, vehicles, equipment, labor, signs, placards, labels, manifests, and other documents necessary for accomplishing the work including materials necessary for spill cleanup from removal operations. Coordinate any additional sampling that may be necessary with GCLBA.

#### A. Safety Guidelines

Personnel working inside and in the general vicinity of the cleanup area shall be trained and made thoroughly familiar with the safety precautions, procedures, and equipment required for controlling the potential hazards associated with this work. Personnel shall use proper protection and safety equipment during work in and around the asbestos regulated work area.

#### B. Controls

Areas where asbestos abatement activities are conducted should be adequately secured as specified herein.

Perform work in accordance with the requirements and specifications and take direction only from the GCLBA for this contract. Any other party that proposes to give direction to the contractor shall be immediately referred to the GCLBA.

#### C. Routine Cleaning

1. Package all loose asbestos-containing materials and debris and remove from the work area to

- the load-out area.
2. Vacuum work areas with HEPA vacuum or other high volume HEPA-filtered transfer equipment.
  3. Inspect and maintain polyethylene and PVC in work and high traffic areas.
  4. If air sample results exceed prescribed level, wipe clean containment and decontamination areas.

### 3.02 ABATEMENT PROCEDURES

#### A. Methods

Determine and implement the most efficient asbestos abatement method in conformance with this specification and applicable regulations. Employ proper handling procedures in accordance with 29 CFR Part 1926 and 40 CFR Part 61, Subpart M, and the requirements specified herein. Abatement techniques and items identified shall be detailed in the Work Plan including but not limited to details of construction materials, equipment, and handling procedures, and necessary safety precautions.

#### B. Revised Quantities

Before the Asbestos containing materials and/or contaminated debris has been removed, verify the previously submitted quantity estimates of other asbestos-containing materials and notify the GCLBA of any changes in the quantities. No payment adjustments in excess of the quantities identified in the hazardous materials survey shall be made by the GCLBA without prior written authorization.

#### C. Air Monitoring

Perform sampling and analysis for airborne concentration of asbestos fibers in accordance with 29 CFR Part 1926 Section 1926.1101, the air monitoring plan, and as specified herein. Collect personal air monitoring samples to represent the work activities for each shift, or a minimum of two, whichever is greater. Results of the personal samples shall be posted at the job site and made available to the GCLBA as specified herein. The Contractor shall maintain a fiber concentration inside enclosed containment regulated work area equal to or less than 0.1 f/cc expressed as an 8 hour, TWA during asbestos abatement. If fiber concentration rises above 0.1 f/cc, the Contractor will examine work procedures to determine the cause and work to implement corrective actions.

Workers shall not be exposed to an airborne fiber concentration in excess of 1.0 f/cc, as average over a sampling period of 30 minutes. If either an environmental concentration of 1.0 f/cc expressed as an 8-hour TWA or a personal excursion concentration of 1.0 f/cc expressed as a 30-minute sample occur inside the enclosed work area, stop work immediately, notify the GCLBA, and implement additional engineering controls and work practice controls to reduce airborne fiber levels below prescribed limits in the work area.

Conduct personal sampling required by 29 CFR Part 1926 Section 1926.1101, in accordance with the NIOSH Method 7400, Phase Contrast Microscopy (PCM).

Per regulation, environmental and perimeter air monitoring outside of regulated containment areas shall not exceed clearance levels contained in 40 CFR part 763, subpart E, which is 0.01 f/cc or no more than background levels representing the same area before the asbestos work began.

For final clearance samples, the Contractor will conduct sampling at a sufficient velocity and time to collect a sample volume necessary to establish the limit of detection of the method used at 0.01 f/cc or background levels, whichever is higher. Background, environmental, quality assurance and final air clearance samples will be collected and analyzed according to NIOSH Method 7400 methodology.

##### 1. Routine Air Sampling

Provide personal sampling as indicated in 29 CFR Part 1926 Section 1926.1101, state and local requirements, and in accordance with the air monitoring plan. Conduct air sampling at least once during every shift, close to the work in the containment area, outside the

clean room entrance to the containment area, inside the clean room, outside the load-out unit exit, and at the exhaust discharge point of the local exhaust system.

2. Sampling After Final Clean-Up (Clearance Sampling)

Prior to conducting final air clearance monitoring, conduct a final visual inspection with the Engineer. Final clearance air monitoring shall not begin until acceptance of this final cleaning by the Engineer. Comply with the sampling and analytical methods provided in NIOSH-01 Method 7400 (PCM) with optional confirmation of results by NIOSH-01 Method 7402 (TEM).

3. Failure to Meet Air Quality Requirements

If clearance sampling results fail to meet the final clean-up requirements, reclean, resample, and reanalyze until final clean-up requirements are met. Costs associated with additional samples, cleaning, and inspections will be paid by the Contractor.

D. Additional Bulk Asbestos Sampling

Bulk asbestos sampling and polarized light microscopy analysis (PLM) has been conducted for various materials located throughout the site. During debris removal, previously unidentified potential asbestos-containing material may be encountered, requiring bulk sampling and analysis. Additional bulk sample analyses as required under this Section shall be paid by the Contractor. Perform bulk sampling as required or as specified by the GCLBA. Employ a laboratory for testing and analysis, which routinely provides analytical services acceptable to Michigan Department of Environmental Quality and EPA.

E. Asbestos Abatement

Collect and place in sealed, leak-tight containers all asbestos waste, scrap, debris, bags, containers, equipment, and asbestos contaminated personal protective equipment. Use 6-mil, double wrapped polyethylene sheets, sealed fiberboard boxes, or other approved containers. Waste within the containers must be wetted in case the container is damaged. Affix a warning label and a Department of Transportation (DOT) label on each bag. Dispose waste material at an approved, licensed asbestos landfill. For temporary storage, keep sealed impermeable containers in asbestos waste load-out unit or in a storage/transportation conveyance (dumpsters or roll-off boxes) in a manner as acceptable by the GCLBA. Procedure for hauling and disposal asbestos-containing material shall comply with 40 CFR Part 61, Subpart M, state, regional, and local standards and specifications.

F. Waste Records

Provide final completed copies of the Waste Shipment Record for shipments of all waste material as specified in 40 CFR Part 61, Subpart M, and other required state waste manifest shipment records within 10 days of project completion.

G. Final Cleaning

Abate asbestos by collecting, packing, and storing all gross contamination in accordance with all references and specifications. Once cleaning has been completed, conduct a visual pre-inspection of the cleaned area. A final air monitoring event will be performed to verify adequacy of clean-up. Re-cleaning and follow-up inspections shall be at the Contractor's expense. Upon completion of the final cleaning, conduct a final visual inspection of the cleaned area. Document the results. If the GCLBA or GCLBA's Representative determines that the abatement area does not meet final cleaning requirements, re-clean as necessary and conduct additional follow-up inspection with the GCLBA.

H. Lock Down Encapsulant

In areas where friable ACM was removed, after clean-up of gross contamination, and final visual inspection, but before removing plastic barriers, apply a post removal (lockdown) encapsulant to floor, walls, ceilings, and other surfaces in the removal area. When work was limited to glove bags only apply encapsulate to item within glove bag.

END OF SECTION

## SECTION 3 – PCB CONTAINING EQUIPMENT REMOVAL

### **PART 1           General**

#### 1.01   SECTION INCLUDES

- A.     Removal and disposal requirements for PCB ballasts. PCB containing light ballasts and other electrical equipment may be present at the subject property.

#### 1.02   REFERENCE STANDARDS

The publications listed below form a part of this Section to the extent referenced. The publications are referenced in the text by basic designation only.

- A.     American Petroleum Institute (API)
  - 1.     APR Rp 2003, Protection Against Ignitions Arising out of Static, Lightning and Stray Currents.
  - 2.     API Publ 2015, Safe Entry and Cleaning Petroleum Storage Tanks.
  - 3.     API Publ 2217, Guidelines for Confined space Work in the Petroleum Industry.
  - 4.     API Publ 2219, Safe Operation of Vacuum Trucks in Petroleum Service.
- B.     Code of Federal Regulations (CFR)
  - 1.     CFR 29 CFR 1910.146 OSHA - Permit Required Confined Spaces.
  - 2.     CFR 29 CFR 1926/1910 Construction Industry Occupational Safety and Health Standards.
  - 3.     CFR 40 CFR 260 General Regulations for Hazardous Waste Management.
  - 4.     CFR 40 CFR Part 261 Identification and Listing of Hazardous Waste.
  - 5.     CFR 40 CFR Part 262 Standards Applicable to Generators of Hazardous Waste.
  - 6.     CFR 40 CFR Part 263 Standards Applicable to Transporters of Hazardous Waste.
  - 7.     CFR 40 CFR Part 264 Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.
  - 8.     CFR 40 CFR Part 265 Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.
  - 9.     CFR 49 CFR 171 Department of Transportation Regulations to Stipulate Requirements for Containers and Procedure for Shipment of Hazardous Waste.
  - 10.    CFR 40 CFR Part 761 Polychlorinated Biphenyls (PCB) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions.
- C.     National Fire Protection Association (NFPA)
  - 1.     NFPA 30 (1990) Flammable and Combustible Liquids Code.
  - 2.     NFPA 70 B (1990) Recommended Practice for Electrical Equipment Maintenance.
  - 3.     NFPA 325M (1991) Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids.
  - 4.     NFPA 327 (1987) Standard Procedures for Cleaning or Safeguarding Small Tanks and Containers.
- D.     National Institute of Occupational Safety and Health (NIOSH)
  - 1.     NIOSH 80-106 Criteria for a Recommended Standard for Working in Confined Spaces.
- E.     State of Michigan
  - 1.     P.A. Act 451, Michigan Natural Resources and Environmental Protection Act
  - 2.     MIOSHA Act 154 General Industry and Construction (as amended) Safety Standards.
- F.     United States Environmental Protection Agency (U.S. EPA)
  - 1.     U.S. EPA SW-846, Test Methods for Evaluating Solid Waste.

#### 1.03   MEASUREMENT

- A.     Removal and Disposal of PCB-containing Light Ballasts and Equipment  
The removal and disposal of containerized PCB-containing light ballasts will be a unit rate pay item. Estimated quantities of PCB-containing Light Ballasts and Equipment are included the Pre-Demolition Inspection/Hazardous Materials Survey.

#### 1.04   PAYMENT

- A.     Removal and Disposal of PCB-containing Light Ballasts  
All acceptably completed work as required under this Section for the removal and disposal of containerized PCB-containing light ballasts found on site will be paid as the lump sum cost as bid.

## 1.05 SUBMITTALS

### A. Work Plan

Before proceeding with any removal and disposal work, submit a work plan that includes the procedures proposed for the accomplishment of the removal and disposal work. The procedures shall provide for safe conduct of the work; careful removal and disposition of solid materials and liquid wastes; and property protection. The procedures shall provide a detailed description of the methods and equipment to be used for each operation, and the sequence of operations. The work plan shall be based on work experience, and the guidance provided in this specification.

### B. Health and Safety Plan

Before proceeding with any removal and disposal work, submit a site-specific health and safety plan (HASP) that includes the necessary precautions and safety procedures proposed for the accomplishment of the removal and disposal work. Include detailed information regarding temporary controls, including lock-out/tag-out procedures, and hazardous material handling. The HASP shall be based on applicable regulations, work experience, and the guidance provided in this specification.

### C. Copies of all analyses performed for disposal.

### D. Copies of all waste analyses or waste profile sheets.

### E. Copies of all certifications of final disposal signed by the responsible disposal facility official.

### F. Information on who sampled, analyzed, transported, and accepted all wastes encountered.

### G. Information describing the sample method, rationale, results, and chain-of-custody documentation for all testing.

### F. Copies of all disposal manifests, bills of lading, load tickets, and other transportation documentation.

### G. Notice of Acceptance

After removing and disposing drums and small containers from the project site, submit the name and location of the properly licensed disposal facility and a copy of the written agreement from the disposal facility agreeing to accept contaminated materials for disposal. This documentation shall include manifests with quantities. The documentation is due 10 days after removal from the site.

### H. Disposal Documents

Provide copies of all licenses, certificates, permits, agreements, manifests, chain of custody records, weigh tickets, meter recordings, delivery tickets, and receipts required or issued for material disposal. Provide a list of the equipment used, the methods used, and the disposal areas and facilities used for disposing ballasts. Provide a copy of the results of tests performed to comply with the requirements of each disposal facility.

### I. Manifests

Submit a copy of the official manifest for each shipment of contaminated materials including, but not limited to, ballast contents and ballast carcasses evidencing delivery of the material to the approved licensed disposal facility. All manifests shall be in accordance with the requirements of 40 CFR, Part 262, 40 CFR, Part 761, Section 23 and State and local regulations. Manifests shall be signed by the GCLBA or authorized official.

## 1.07 REGULATORY REQUIREMENTS

### A. Statutes and Regulations

PCB-containing liquid removal, transportation, and disposal work shall be carried out in accordance with 29 CFR, Part 1910 and 1926, State of Michigan Act 64, Act 641, Act 307 and Act 136 wherever applicable. Hazardous material shall be transported in accordance with 40 CFR Part 263 to disposal facilities that

operate in accordance with 40 CFR Part 264 and 40 CFR Part 265. Obtain all licenses, permits, certifications, receipts, etc., as required by such laws, regulations, codes, and ordinances.

**B. General**

All health and safety regulations relating to the removal, transportation, and disposal of ballasts available in 29 CFR, Parts 1926 and 1910 shall be complied with at all times. All pertinent regulations such as 29 CFR Parts 1910 and 1926 and 40 CFR 260, 261, 262, 263, 264, 761 and applicable state and local regulations shall be followed for storing, containing, and handling drums and small containers and for maintaining equipment for handling materials.

**C. Protection of Employees and Visitors**

Address the work in a manner such that its employees and site visitors will not be subjected to hazardous and unsafe conditions. Comply with all safety precautions, as required by 29 CFR Parts 1926 and 1910 and NFPA 329. Conduct and document the appropriate level of electrical lock-out/tag-out procedures.

**D. Toxicity Considerations**

Exercise care to minimize exposure to PCB-containing material and petroleum compounds when present during the handling of PCB-containing materials.

**E. Flammability and Combustibility Considerations**

Flammable and combustible vapors are likely to accumulate in work areas. Exercise caution by observing the following precautions: (a) eliminate all potential sources of ignition within the area; (b) prevent the discharge of static electricity during venting of flammable and combustible vapors; and (c) prevent the accumulation of vapors at ground level. Refer to API Publication 2015, 2015A and Recommended Practice 2003 for precautionary measures to follow during vapor evacuation activities. All open flame and spark-producing equipment is to be shut down and all electrical equipment must be explosion proof in compliance with NFPA 70B Class I, Division I, Group D or otherwise approved for use in potentially explosive atmospheres.

**PART 2 PRODUCTS**

**2.01 GENERAL**

Provide incidental equipment and materials necessary to complete specified activities, including, but not limited to, provision of drums for PCB-containing ballasts, and any scaffolding, cranes, or lifting equipment necessary to reach the areas for removal.

**PART 3 EXECUTION**

**3.01 GENERAL**

Disconnect or have disconnected power from ballasts and equipment being removed. Remove and containerize all PCB-containing light ballasts and equipment and dispose of properly. Obtain all required permits and approval documents. Provide approved containers, vehicles, equipment, labor, signs, placards, labels, manifests, and other documents necessary for accomplishing the work including materials necessary for spill cleanup for material from removal operations. Coordinate and pay for any additional sampling that may be necessary. Remove all PCB containing equipment discovered during abatement activities. No payment adjustments in excess of the quantities identified in the hazardous materials survey shall be made by the GCLBA without prior written authorization.

**A. Safety Guidelines**

Personnel working inside and in the general vicinity of the cleanup area shall be trained and made thoroughly familiar with the safety precautions, procedures, and equipment required for controlling the potential hazards associated with this work. Personnel shall use proper protection and safety equipment during work in and around the ballast, as specified in API Publication 2217, AP RP 1604, and in the site-specific health and safety plans. Proper guidelines regarding safety precautions shall be required for

handling all other items.

- B. Control of the Work  
Perform work in accordance with the requirements and specifications and take direction only from the Engineer or On-site Representative for this contract. Any other party that proposes to give direction to the contractor shall be immediately referred to Engineer or On-Site Representative. Perform control measures as specified in Section 01570.

### 3.02 CONTENTS VERIFICATION

- A. Sampling and Analytical Testing  
A Pre-Demolition Inspection/Hazardous Materials Survey will be provided for each structure. In general, the survey activities include an identification of the general location and quantity of mechanical and/or electrical equipment that may contain PCBs.

Any additional testing necessary is the responsibility of the Contractor. If necessary, the Contractor shall collect samples to the extent required by the approved off-site disposal facility receiving the material. All analytical testing as required under this section shall be paid for by the Contractor and is incidental to the Contract. Meet all regulatory requirements, including chain-of-custody documentation. Provide testing results to the GCLBA.

### 3.03 EXAMINATION

Selected contractors will be authorized to proceed on the removal and disposal of environmentally hazardous materials from specific residential/commercial structures. A site specific hazardous material survey will be prepared by others for each structure and will be provided to the contractor at the time of authorization. The Contractor is encouraged to inspect the site of the proposed work, at the time of authorization to proceed on the removal and disposal of environmentally hazardous materials from specific residential/commercial structures. Prior to proceeding on the authorized work Contractor may visit each of the listed sites to arrive at a clear understanding of the conditions under which the work is to be done and to make their own determination as to the amount of hazardous materials to be removed from the sites. Contractor will be held responsible to have compared the premises with the hazardous materials survey, drawings, specifications, or other provided items, and to have satisfied himself as to all conditions affecting the execution of the work. No payment adjustments in excess of the quantities identified in the hazardous materials survey shall be made by the GCLBA without prior written authorization.

### 3.05 DISPOSAL REQUIREMENTS

- A. General  
Materials requiring disposal shall become the property of the Contractor. Dispose light ballasts at a facility licensed to receive, clean, recycle, and dispose PCB-containing electrical equipment. Dispose all wastes in accordance with all local, State, and Federal solid and liquid waste laws and regulations, including those for hazardous waste, when applicable, as well as the Resource Conservation and Recovery Act (RCRA), and conditions specified herein. These services shall include all necessary personnel, labor, transportation, packaging, manifesting or completing waste profile sheets, equipment, and reports. Provide all disposal and recycle information to the GCLBA.
- B. Records  
Maintain disposal and recycle records for all waste determinations, including (1) appropriate results of analyses performed, (2) sample locations, (3) substances detected, (4) time of collection, and (5) other pertinent data as required by 40 CFR Part 280, Section 74 and 40 CFR Part 262 Subpart D. Record and make available information regarding method of transportation, method of treatment, method of disposal, quantities of waste, the names and addresses of each transporter, and the disposal or reclamation facility. Prepare and maintain copies and originals of disposal manifests, waste analyses or waste profile sheets, and certifications of final treatment/disposal signed by the responsible disposal facility official. Following contract completion, the records shall become the property of the GCLBA.

C. Hazardous/Special Waste Manifests

U.S. EPA waste generator's identification number for the site may be required due to the nature of the materials to be disposed. Work with the generator to obtain this or other generator identification numbers. For hazardous and non-hazardous contaminated liquid waste, utilize a State of Michigan approved manifest system in conformance with the requirements identified in 40 CFR Part 262, 40 CFR Part 263 and 40 CFR Part 761.

The manifests shall comply with all of the provisions of the transportation and disposal regulations. Prepare manifests for each load and obtain the appropriate identification numbers and signatures. The designated representative of the GCLBA will sign all hazardous and non-hazardous waste manifests.

Before waste transportation, all of the established pre-transport requirements shall be met. The wastes shall be transported by a certified waste hauler (i.e., the hauler must have an appropriate State waste identification number) in approved containers. All transporters must sign the appropriate portions of the manifest and must comply with all of the provisions established in the applicable regulations. Hazardous waste manifests must be signed by the generator.

Provide the GCLBA with manifests, certificates, and other such evidence as may be required by local, State, and Federal regulations, to demonstrate that waste materials of all types were properly transported to, received at, and disposed at approved disposal facilities. After delivery of the load, provide a copy of the manifest to the GCLBA.

D. Documentation of Treatment and Disposal

Dispose hazardous wastes at an approved treatment, storage, or disposal facility. The disposal facility will maintain U.S. EPA or appropriate State permits and waste treatment identification numbers and will comply with all of the provisions of the disposal regulations. Documentation of acceptance of special waste by a facility legally permitted to treat or dispose those materials shall be furnished to the GCLBA following the delivery of those materials to the facility.

3.06 SPILLS

A. Spill Responsibility

The Contractor is responsible for cleaning up all the leaks and spills from decommissioning operations, drums, or other containers that occur because of the Contractor's negligence. Immediate containment actions shall be taken as necessary to minimize the effect to natural surroundings. Notify the GCLBA and appropriate governmental authorities of the incident. Cleanup shall be in accordance with applicable local, State, and Federal laws and regulations at no additional cost to the GCLBA.

END OF SECTION

## SECTION 4 – RECYCLING OF CFCs

### PART 1 GENERAL

#### 1.1 GENERAL

- A. Contractor shall furnish all labor, material, equipment and incidentals required to remove, handle, transport and recycle residual refrigerants (assumed to be CFCs) contained in air conditioning units, refrigerators, drinking fountains, or other similar devices.
- B. Contractor shall submit to the GCLBA a copy of the applicable Contractor license for CFC removal and handling.
- C. Upon removal of CFCs from each unit, Contractor shall label each unit to indicate the refrigerant has been recovered.
- D. Contractor shall provide record documents in accordance with 40 CFR 82 verifying the removal procedures and amounts recovered.

### PART 2 PRODUCTS

#### 2.1 CONTAINERS AND LABELS

- A. Cylinders for CFC removal, storage, and transportation shall be provided to the Contractor by a licensed recycling facility.
- B. Contractor shall provide labels that indicate that the refrigerant materials have been evacuated.

### PART 3 EXECUTION

#### 3.1 GENERAL

- A. Contractor shall identify the locations of all equipment at the Site that are believed to contain refrigerants and shall disconnect all utility services.
- B. Using a method acceptable to the licensed recycling facility, Contractor shall evacuate each unit of all refrigerants and containerize the materials for recycling.
- C. Contractor shall ensure that the CFC containing units are de-pressurized and free of all refrigerants. This may be accomplished by subsequent flushing with pressurized nitrogen or another acceptable method.
- D. Contractor shall transport all cylinders containing CFCs in accordance with the applicable DOT regulations.
- E. Contractor shall record and provide to GCLBA documentation of devices evaluated, procedures used, amounts recovered and other information as required by 40 CFR 82 upon completion of removal activities.

ENDOF SECTION

## SECTION 5 – ABATEMENT OF REGULATED MISCELLANEOUS MATERIALS

### PART 1 GENERAL

#### 1.1 GENERAL

- A. Contractor shall furnish all labor, material, equipment, packaging, sampling, and testing, and incidentals required to remove/abate, transport and dispose/recycle all substances regulated under Federal, State and local statutes and land ban restrictions. These substances may include but are not limited to idem listed in the Unit Rate Bid Schedule.
- B. The quantities of hazardous and/or regulated materials are provided in the Hazardous Materials Survey. Contractor will be authorized to proceed on the removal and disposal of environmentally hazardous materials from specific residential/commercial structures. A site specific hazardous material survey will be prepared by others for each structure and will be provided to the contractor at the time of authorization. The Contractor is encouraged to inspect the site of the proposed work, at the time of authorization to proceed on the removal and disposal of environmentally hazardous materials from specific residential/commercial structures. Prior to proceeding on the authorized work Contractor may visit each of the listed sites to arrive at a clear understanding of the conditions under which the work is to be done and to make their own determination as to the amount of hazardous materials to be removed from the sites. Contractor will be held responsible to have compared the premises with the hazardous materials survey, drawings, specifications, or other provided items, and to have satisfied himself as to all conditions affecting the execution of the work. No payment adjustments in excess of the quantities identified in the hazardous materials survey shall be made by the GCLBA without prior written authorization.
- C. Contractor shall be aware that the buildings may contain lead based paint and as such the potential for exposure exists. Contractor shall handle lead based paint in accordance with all federal, state, and local regulations.
- D. The Michigan Occupational Safety and Health Administration (MIOSHA) provides protection and regulations for the safety and health of workers. The Department of Community Health provides for the health of workers (517) 373-3500.
  - 1. Contractor shall post any applicable State and/or Federal government regulations at the job sites in prominent locations.
  - 2. Contractor shall be responsible for training their workers in safe work practices and in proper removal methods when coming in contact with hazardous materials.
- E. Applicable Regulations (include but are not limited to):
  - 1. RCRA, 1976 -Resource Conservation and Recovery Act: This federal statute regulates generation, transportation, treatment, storage or disposal of hazardous wastes nationally.
  - 2. Part 111, Act 451, 1994 -Michigan's Hazardous Waste Management Act: This statute regulates generation, transportation, treatment, storage and disposal of hazardous wastes in Michigan.
  - 3. Part 121, Act 451, 1994 -Liquid Industrial Waste Act: This statute regulates the transportation of liquid industrial wastes in Michigan. This includes non-hazardous

liquids and hazardous liquids, which are not subject to management under RCRA or Part 111, Act 451, 1994.

4. Toxic Substances Control Act (TSCA), 1976. This statute regulates the generation, transportation, storage, and disposal of PCB wastes.

F. To use an off-site hazardous waste disposal facility, the Contractor must use the Uniform Hazardous Waste Manifest (shipping paper).

1. Hazardous wastes may not be disposed of in sanitary landfills used for solid waste.

2. Hazardous waste manifests shall be signed by the GCLBA or designated representative.

G. Federal, State and local laws and regulations may apply to the storage, handling, and disposal of hazardous materials and wastes generated at the Site. The list below includes the regulations that are most frequently encountered.

<b>Topic</b>	<b><u>Agency and Telephone Number</u></b>
Small quantity hazardous waste management, including hazardous waste stored in tanks	Waste and Hazardous Materials Div., MDNRE (517) 335-2690 in Lansing, or District Office
Liquid industrial waste disposal (hazardous and non-hazardous)	Certified County Health Department Waste and Hazardous Materials Div., MDNRE (517) 335-2690 in Lansing, or District Office
Disposal of hazardous waste into municipal sanitary sewers	Contact the superintendent of your wastewater treatment plant for permission
Discharges to surface water such as through a drain pipe or wastewater discharge	Water Division, MDNRE (517) 335-2690 in Lansing, or District Office
Discharges to groundwater, including septic systems	Waste and Hazardous Materials Div., MDNRE (517) 335-2690 in Lansing, or District Office
Pollution Incident Prevention Plans (PIPP)	Waste and Hazardous Materials Div., MDNRE (517) 335-2690 in Lansing, or District Office
Hazard Communication (for chemicals in the work place)	Michigan Department of Consumer and Industry Services (517) 373-1820
Burning of waste oil and other discharges to the air	Air Quality Div., MDNRE (517) 373-7023 in Lansing, or District Office
Registration of underground fuel storage tanks	Waste and Hazardous Materials Div., MDNRE (517) 335-2690 in Lansing, or District Office
Installation, Inventory, testing & other requirements for above ground and underground storage tanks (for flammable and combustible)	Waste and Hazardous Materials Div., MDNRE (517) 335-2690 in Lansing, or District Office
Local fire prevention regulations and codes (including chemical storage requirements)	Local fire chief or fire marshal
Building and outdoor storage	Local government building or zoning official requirements (including setbacks)

**PART 2 PRODUCTS**

**2.1 PACKAGING AND CONTAINERIZATION MATERIALS**

A. Packaging and containerization materials shall include but not be limited to the following:

1. Lab packing requirements per licensed disposal or recycling facility.

2. Fiberboard barrels
3. DOT approved removable head drums; roll-off boxes or equivalent
4. Drum labels and marking which conform to 29 CFR 1926.58 K and all other Federal, State and local regulations
5. Spill prevention countermeasure materials and control products consistent with 49 CFR 173 and Contractor approved SPCC plan.
6. Sampling equipment and containers consistent with standard sampling technique

### **PART 3 EXECUTION**

#### **3.1 REMOVAL OF CHEMICAL FIRE EXTINGUISHERS**

- A. Chemical fire extinguishers may be present at the Site. Contractor shall be responsible for the removal, proper handling, and disposal of all chemical fire extinguishers.
- B. Contractor shall properly collect, label and stage all chemical fire extinguishers throughout the Site. All chemical fire extinguishers shall be recycled or disposed at a licensed facility. Chemical fire extinguishers shall be transported in a manner that minimizes the potential for discharge.

#### **3.2 REMOVAL OF MERCURY DEVICES**

- A. High intensity discharge lamps and fluorescent light bulbs that may contain mercury are present either in fixtures or stored in bulk. The approximate locations of these lamps/bulbs will be identified in the Hazardous Materials Survey Report. Contractor shall remove all lamps/bulbs regardless of the estimated quantities provided in the Hazardous Materials Survey Report.
  1. Many light fixtures and/or associated components may be suitable for recycling or resale. Contractor is encouraged to account for recycling or resale of such fixtures in its bid, if feasible.
  2. Contractor shall be responsible for the removal of all regulated lamps and bulbs from the associated lighting fixtures. All lamps and bulbs shall be carefully removed from the fixtures and placed in appropriate sized containers equipped with dividers.
  3. All containers intended for off-site recycling shall be either shrink-wrapped or placed in a secure crate to avoid accidental breakage. All containers shall be labeled as hazardous waste in accordance with applicable MDOT regulations.
  4. Contractor must use all precautions when handling lamps to avoid accidental breakage. Should accidental breakage of lamps occur, then the lamp debris shall be collected and placed in segregated reinforced drums or similar containers pending disposal.
  5. Light ballasts containing PCBs shall be managed in accordance with applicable regulations and appropriate sections of this Bid Document.

- B. Mercury switches and thermometers are present at the Site as indicated in the Hazardous Materials Survey Report, Contractor shall be responsible for the removal, transport and recycling or disposal of all mercury containing devices.

### 3.3 REMOVAL OF NON-HAZARDOUS EQUIPMENT OIL

- A. Oil-filled blowers, compressors, hydraulic hoists, and motors may be present at the site. The approximate locations of this oil filled equipment will be identified in the Hazardous Materials Survey Report. Contractor shall remove all oil filled equipment regardless of the estimated quantities provided in the Hazardous Materials Survey Report
- B. Contractor shall drain all free flowing oil from each oil-filled unit. All oil shall be drained into appropriate storage containers, consolidated, and staged on-site with appropriate labeling pending transport and disposition to a licensed reclamation facility.
- C. Upon removal of all free-flowing oil, equipment will be released by the GCLBA for disposition/recycling.

### 3.4 REMOVAL OF MISCELLANEOUS CHEMICALS, CONTAINERS, AND LIQUIDS

- A. Liquid filled containers, miscellaneous chemicals, and other hazardous materials banned from landfill disposal are present at the site. The approximate locations of these materials will be identified in the Hazardous Materials Survey Report. Contractor shall remove all liquid filled containers, miscellaneous chemicals, and other hazardous materials banned from landfill disposal, regardless of the estimated quantities provided in the Hazardous Materials Survey Report.
- B. Contractor shall remove all liquid filled containers, miscellaneous chemicals, and other hazardous materials banned from landfill disposal. All materials shall be staged on-site with appropriate labeling pending transport and disposition to a licensed reclamation/disposal facility.

### 3.5 TRANSPORTATION

- A. Contractor shall evaluate all materials associated with the activities to designate materials classification for transportation purposes.
- B. Contractor shall package all hazardous materials for transportation and storage in accordance with 49 CFR 172.101 and applicable sections of 49 CFR 173. In addition, the Contractor shall comply with any packaging requirements identified by the licensed disposal or recycling facilities used for waste disposition during this project.
- C. Contractor shall label and mark all hazardous materials packaged and temporarily staged for subsequent off-site transport. Hazardous materials that have been specifically prepared for off-site transport shall be labeled in accordance with 40 CFR 172.101 and 49 CFR 173 Subparts D and E. Contractor shall provide all labels.
- D. Contractor shall ensure that the transporter has applied all appropriate placards to the transport vehicle according to the requirements outlined in 49 CFR 172.101 and 49 CFR Subpart F and all applicable MDOT/DOT regulations. The Contractor or transporter shall provide all such placards.
- E. Contractor shall submit the manifest to the GCLBA for review prior to signature by the GCLBA or designated representative and prior to removal of any material.

**END OF SECTION**