LOOK FOR ALL CITY OF DEARBORN'S REQUEST FOR BIDS & PROPOSALS ON-LINE AT THE MITN SITE, on: www.govbids.com

**STATEMENT OF "NO-BID"**

BID SOLICITATION FOR: Demolition of Wards Auto Service Center & Garden Shop
BID DUE DATE: December 28, 2005

IMPORTANT: If you DO NOT intend to bid on this commodity or service, please complete and return this form immediately. You may fax this form to (313) 943-2420 or mail it to City of Dearborn, Finance Department, Purchasing Division, 4500 Maple – 3rd Floor, Dearborn, Michigan 48126. By submitting this form, you will assist us in evaluating all responses, improve our bid solicitation process, and to maintain a positive relationship with you.

_____ Product specifications are geared toward a manufacturer or brand name that we do not represent.

_____ Specifications are unclear (explain below)

_____ We are unable to meet specifications.

_____ Insufficient time to respond.

_____ Our schedule would not permit us to perform.

_____ We are unable to meet bond requirements.

_____ We are unable to meet insurance requirements.

_____ We are unable/unwilling to meet bid deposit requirements.

_____ We do not offer this type of product or service (If so, you may wish to reconsider the commodities for which you have indicated on your registration with MITN).

_____ Other (Please explain under remarks below)

_____ The following additions/modifications are recommended for your specifications.

REMARKS:

_____

_____

_____

_____

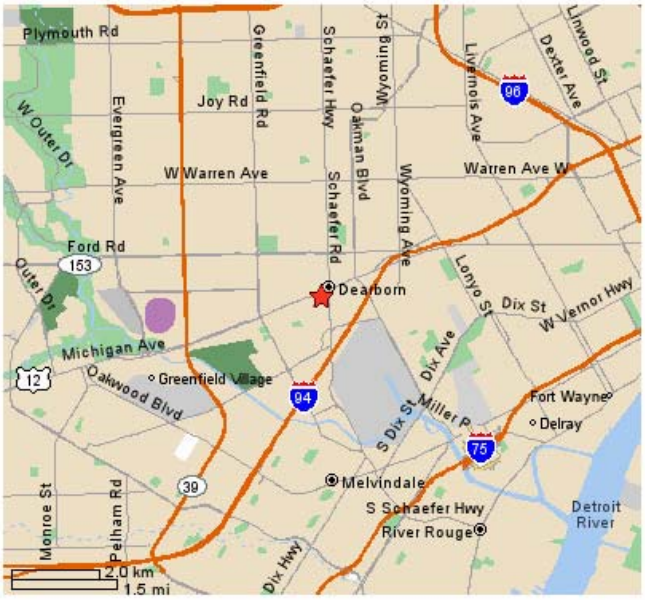
Signature: _____

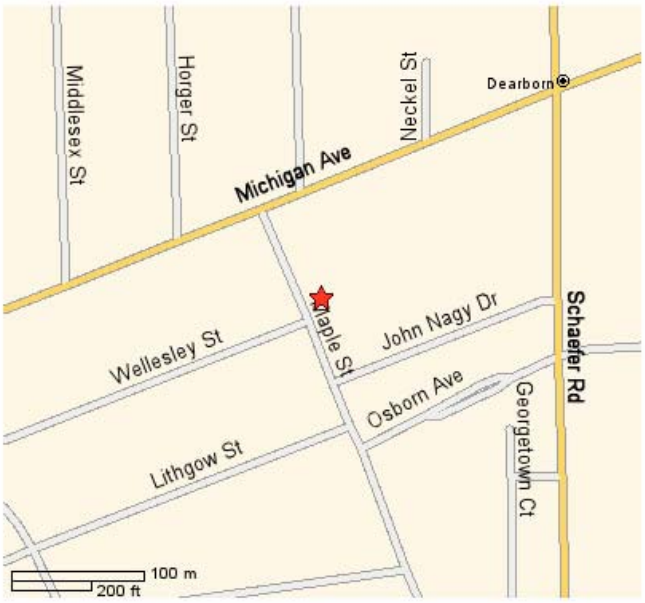
Name: _____ Title: _____

Firm Name: _____

Phone: _____ Fax: _____

FINANCE/PURCHASING OFFICE
CITY HALL, WEST WING, 3RD LEVEL
4500 MAPLE
DEARBORN MI 48126
(313) 943-2375




FROM THE NORTH OR SOUTH: TAKE SOUTHFIELD (M39) TO MICHIGAN AVENUE EAST. GO TO MAPLE (3RD LIGHT PAST GREENFIELD). TURN RIGHT (SOUTH) TO JOHN NAGY DRIVE. TURN LEFT ON JOHN NAGY DRIVE. PARKING LOT ON RIGHT AND PARKING RAMP ON LEFT.

FROM THE EAST: TAKE I94 WEST TO MICHIGAN AVENUE WEST. TURN LEFT ON SCHAEFER. TURN RIGHT (SOUTH) TO JOHN NAGY DRIVE. TURN RIGHT ONTO JOHN NAGY DRIVE. PARKING RAMP ON RIGHT, PARKING LOT ON LEFT.

FROM THE WEST: TAKE I94 EAST TO SOUTHFIELD (M39) NORTH TO MICHIGAN AVENUE EAST. GO TO MAPLE (3RD LIGHT PAST GREENFIELD). TURN RIGHT (SOUTH) TO JOHN NAGY DRIVE. TURN LEFT ON JOHN NAGY DRIVE. PARKING LOT ON RIGHT AND PARKING RAMP ON LEFT.

**CITY OF DEARBORN**
ADVERTISEMENT
FOR
DEMOLITION OF WARDS AUTO SERVICE
CENTER AND GARDEN SHOP
13551 MICHIGAN AVENUE
DEARBORN, MICHIGAN 48126

Sealed bids will be received by the City of Dearborn, at the Office of the Purchasing Agent, 4500 Maple – 3rd Floor, Dearborn, Michigan 48126, up to and including Wednesday, December 28, 2005 at 2:00 p.m. (Eastern Time Zone).

Sealed bids will be publicly opened and read aloud at 2:15 p.m. (Eastern Time Zone) of the same day in the Office of the Purchasing Agent. Individuals with disabilities who require special accommodations, auxiliary aids or services to attend or participate in this bid opening should contact (313) 943-2375. Reasonable advance notice is required.

**A mandatory pre-bid meeting and walk-through will be held on Wednesday, December 21, 2005 at 10:00 a.m. (Eastern Time Zone) at the Economic & Community Development Department Conference Room, located on the third floor of City Hall East Wing at 13615 Michigan Avenue, Dearborn, Michigan. ALL QUALIFIED BIDDERS ARE REQUIRED TO ATTEND.**

Specifications, Form of Proposal and Instructions to Bidders are now on file and available on www.govbids.com or in the Office of the Purchasing Agent.

Only firm sealed bids which are in strict conformance with the specifications will be considered. A certified check, cashier's check or bid bond (**COMPANY CHECK OR MONEY ORDER WILL NOT BE ACCEPTABLE**) in the amount of 5% of the bid must accompany the proposal. Failure to provide the correct bid deposit may result in the bid being rejected.

The City reserves the right to reject any or all bids.

Karen Karasinski
Acting Purchasing Agent

PROPOSAL
FOR
DEMOLITION OF WARDS AUTO SERVICE
CENTER AND GARDEN SHOP

To the City Council
City of Dearborn, Michigan

The undersigned, as bidder, declares that he has familiarized himself with the product/service desired and has carefully examined the Advertisement for Bids, Form of Proposal, Specifications, Instructions to Bidders and Contract, which he understands and accepts as sufficient for the purpose and agrees that he will contract with the City of Dearborn to properly furnish all equipment, materials and labor and perform all work as required by and in strict accordance with the specifications and plans as follows:

Bid Schedule-Basic Scope of Work

| Item # | Description | Estimated Quantities | Unit | Unit Price | Unit Price Total |
|---|---|---|---|---|---|
| 1 | Site specific health and safety plan | 1 | Lump Sum | | |
| 2 | Mobilization and Demobilization | 1 | Lump Sum | | |
| 3 | Removal and disposal of PCB containing lighting system ballasts | 265 | Each | | |
| 4 | Removal and disposal of PCB containing transformer | 1 | Each | | |
| 5 | Removal and disposal of hydraulic oil from automotive hoists | 18 | Each | | |
| 6a | Removal and disposal of asbestos containing floor tile and mastics | 3,418 | Square Feet | | |
| 6b | Removal and disposal of asbestos containing ceiling plaster | 130 | Square Feet | | |
| 6c | Removal and disposal of asbestos piping insulation | 1,054 | Linear feet | | |
| 6d | Removal and disposal of asbestos containing shingles | 4,200 | Square feet | | |
| 6e | Removal and disposal of roofing systems | 32,000 | Square feet | | |
| 6f | Removal and disposal of contaminated groundwater from Auto Center Basement ( characteristically “Non Hazardous Groundwater) | To be Determined | Gallons | | |
| 7 | Removal and disposal of CFC containing refrigerants | 1 | Each | | |
| 8 | Removal and disposal of Auto Service Center building structure, foundations and basement | 1 | Lump sum | | |

| | | | | | |
|---|---|---|---|---|---|
| 9 | Removal and disposal of contaminated soil ( characteristically Non Hazardous Material) | 500 | Cubic yards | | |
| 10 | Backfill and compact within 2 ½ inches of the sidewalk elevation and rear asphalt elevation using 22A gravel. Cap with crushed aggregate allowing for positive drainage | To be determined | Cubic yards | | |
| 11 | After Securing Main Building, Removal and disposal of Garden Center building structure consisting of three walls, concrete slab and foundations | 1 | Lump sum | | |
| 12 | Backfill and compact within 2 ½ inches of the sidewalk elevation and rear asphalt elevation using 22A gravel. Cap with crushed aggregate allowing for positive drainage | To be determined | Cubic yards | | |

Basic Scope of Work Total_____

| Bid Schedule-Alternates | | | | | |
|---|---|---|---|---|---|
| Item # | Description | Estimated Quantities | Unit | Unit Price | Unit Price Total |
| Alt 1 | Removal and disposal of subsurface utility components | 1 | Lump sum | | |
| Alt 2 | Removal and abandonment of two ground waste monitoring wells | 2 | Each | | |

Alternate Total_____

Grand Total_____

**Price Discrepancy:**

The price shall be given in words and figures and in case of discrepancy the amount stated in words shall govern. In case of error in extension, unit price will govern.

**References with Key Personnel:**

Please list three references where your company has provided similar products and/or services. Include references, which involve key personnel who would handle the work at Dearborn.

Company Name Contact Person Telephone Number

1. _____
2. _____
3. _____

**Credit Terms:**

Terms: 2 percent discount if paid within 10 days, net 30 days. Credit period to run from receipt of goods and invoice in proper form. Cash discount for prompt payment WILL NOT be taken into account in determining the low bidder. Any exceptions to this must be listed below by the bidder.

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**Bid Deposit:**

Accompanying this proposal is a certified check, a cashier's check or a bid bond (**COMPANY CHECK OR MONEY ORDER WILL NOT BE ACCEPTABLE**) in the amount of 5% of the bid payable to the City of Dearborn. Failure to provide the correct bid deposit may result in the bid being rejected. If the undersigned is the successful bidder and fails to execute the contract within ten (10) days after the contract is delivered for signatures it is agreed the bid deposit will be forfeited to the City of Dearborn.

In submitting this sealed bid it is understood that the right is reserved by the City of Dearborn to reject any or all bids. It is agreed that this bid may not be withdrawn for sixty (60) days from the opening. Bids which are withdrawn will result in forfeiture of the bid deposit.

**Signature:**

Bidder will identify business entity as individual or if doing business under assumed name, indicate assumed name, partnership (naming partners), corporation, foreign or domestic (naming principal officers), and indicate official capacity of person executing proposal and bid.

Firm Name (Corporation, Partnership or Assumed Name)

Firm Address (Street) (City) (State) (Zip Code) (County)

Firm Phone Number Firm Fax Number

E-mail Address

Name of Principal Officer(s) Title

Name of Partnership/Owners Title

Name of Person Executing Bid (Please Print) Title

Signature of Person Executing Bid Date

By signing this page, you are acknowledging that you have received this document via www.govbids.com or through the City of Dearborn Purchasing Division.

**FIVE COPIES (ONE SIGNED ORIGINAL AND FOUR COPIES) OF THIS PROPOSAL MUST BE SUBMITTED TO THE CITY OF DEARBORN PURCHASING DIVISION, 4500 MAPLE – 3RD FLOOR, DEARBORN, MICHIGAN 48126**

**PLEASE STAPLE CERTIFIED OR CASHIER'S CHECK HERE**

**ALL CITY OF DEARBORN REQUESTS FOR BIDS, QUOTES AND PROPOSALS ARE AVAILABLE AT WWW.GOVBIDS.COM**

# CITY OF DEARBORN
# DEMOLITION SPECIFICATIONS

The information in these specifications supersede any in the attached General Demolition Specifications.

The City of Dearborn is seeking bids from qualified Demolition, Asbestos and Hazardous Materials Abatement firms for the demolition of the former Wards Auto Service Center and Garden Shop at 13551 Michigan Avenue, Dearborn, Michigan 48126.

A mandatory building walk-through is scheduled December 21, 2005 at 10:00 am. Any firm wishing to submit a bid for consideration must attend the walk- through. An Environmental Specialist contracted by the City of Dearborn will be on-site during the walk-through.

## BUILDINGS DESCRIPTION

The Garden Shop was built 1957 and is approximately 3,964 square feet of floor area. The building is constructed with a steel frame and roof with a glass and masonry knee wall on a concrete slab. The Auto Service Center was built in 1964 and is approximately 11,467 with a 10,947 square foot basement. It is a one story free standing structure of masonry block, brick and steel. The qualified demolition, asbestos and hazardous materials abatement contractor must coordinate with appropriate entities and observe all due diligence

Note: Required asbestos abatement procedures are to be adhered to during all demolition activities.

## ABATEMENT/DEMOLITION SEQUENCE

Demolish and remove buildings located at 13551 Michigan Ave, City of Dearborn, Mi. formerly known as the Ward's property. These buildings consist of a stand alone Auto Service Center and former Garden Shop. Costs are to be itemized on the bid sheet. Work activities shall be conducted in the following manner;

1. Abate Hazardous Materials and PCB-containing equipment in accordance with the abatement specifications prepared by AKT-Peerless Environmental Services and included as part of the contract document as Attachment 1

   a. The removal of Asbestos-Containing Materials (ACMs) that is located throughout the interior and exterior areas of the former Montgomery Ward Garden and Auto Service Center buildings. All work is to be performed in accordance with applicable USEPA, OSHA, and State of Michigan requirements as specified in Section 13281.
   b. The removal and disposal of polychlorinated biphenyl (PCB) containing wastes/lighting system ballasts as specified in Section 13282.

c. The removal and disposal of hoist hydraulic fluids, CFC refrigerants, mercury switches and thermostats, and miscellaneous containers as specified in Sections 13282, 13284, and 13285.
e. Demolition and disposal of the former garden center including foundations.
g. Special working conditions are indicated in Attachment One Section 00830.

2. Cut the roof loose and lower it into the buildings
3. Bring the exterior walls of each building down into the interior of the building and clear away
4.Clear out the full interior of the building
5. Implement steps to secure main building access by using existing door and frame from Auto Service Center.
6. Reclamation of the site will be accomplished in the following manner;

a. Remove and clear slab and footings.
b. Remove any contaminated soils and liquids. Back fill basement of Auto Service Center and Garden Shop slab area according to consultant's specifications and the conditions in paragraph nine.

9. Level each site to 2 ½ inches of the sidewalk elevation and rear asphalt elevation using 22A gravel. Cap with 2 ½ inches crushed aggregate allowing for positive drainage to front or rear of property.

SPECIAL CONDITIONS:
Apply for State of Michigan Abatement Permit upon the City's notification to proceed.

The contractor must certify the capability of commencing work within 2 days from approval of state abatement permit.

The entire project must be complete within 30 days from start.

Obtain demolition permit from the City of Dearborn (fees may be waived by the City)

Provide written disconnect clearance for all utilities (gas, electric and City water) prior to job commencement. All water, sewer and gas lines must be properly capped and overhead service cables must be removed. Sewer line must be disconnected and grouted at the main City sewer. City inspection required.

Install 8' high construction barrier at front and rear of the demolition site to protect the work area and to assure that a safe distance is maintained between public areas and the work area.

The qualified demolition Asbestos Abatement contractor must coordinate with appropriate entities and observe all due diligence, so as to ensure adequate precautionary measures are taken to protect all adjacent abutting buildings, public accesses, rights-of-way, and other adjoining public and private areas.

Schedule all City inspections as required

Take special precautions to ensure that any unlabeled transformers and lighting ballasts are identified and disposed of properly, due to the possible content of PCB's and/or any hazardous liquids. Per attached AKT Peerless specifications Attachment One, Section 13282.

ASBESTOS

An asbestos evaluation was performed September 12th, 13th, 30th and October 4th . The results are recorded in a report dated October 14, 2005, by AKT Peerless Environmental Services. Project # 3701 F Asbestos was found in the buildings. Enclosed with these specifications is a copy of the Conclusions and Recommendations from the report at beginning of Attachment One. A copy of the complete report is available at the office of the Economic and Community Development Department. In accordance with current U.S.E.P.A. 40

CFR Part 61 of the Federal Register, National Emissions Standards for Hazardous Air Pollutants (NESHAP) revision; final rule effective 11/20/90, the results of the asbestos evaluation are needed in conjunction with building demolition. Asbestos abatement specification documents must be included with any competitive bid package that includes the removal of asbestos. The documents include, but are not limited to, a description of procedure for: preparation of work areas, removal of ACBW (asbestos containing building materials); clean-up of ACBM debris, visual observation and verification of removal and clean up, and monitoring air for fiber concentration before, during and after ACBM removal.

OTHER HAZARDOUS MATERIALS

A subsurface Investigation report (Phase II Environmental Assessment-AKT Peerless Project Number 3701F- April 28, 2005) has been conducted. This report identifies specific chemicals present in test wells placed at or near the Auto Service Center and Garden Shop. The chemicals identified and locations of test wells containing these chemicals are shown in Attachment Two. The complete report is available in the City of Dearborn Economic and Community Development office.

NO EXPLOSIVES OR BURNING ALLOWED

**Add or Delete Items:**

The City reserves the right to add or delete any of the items listed in this proposal.

# CITY OF DEARBORN
# GENERAL DEMOLITION SPECIFICATIONS

## General:

All applicable requirements of the Bid Proposal, Instructions to Bidders, Specifications, and General Demolition Specifications are all parts of the Contract Documents and Building Permits shall form parts of this specification.

## Scope of Work:

Contractor is to supply all labor, materials, necessary tools, equipment, and all utility and transportation services necessary to perform and complete in a workmanlike manner all of the work covered by the demolition permit. This includes compliance with all applicable sections of the Dearborn Building Code, Traffic Ordinance and other related ordinances.

The complete removal of asbestos per State and Federal requirements.
The complete removal of all floors, walls, footings, foundations and any other below grade structures.

Backfilling of the area and all areas below grade and must obtain 95% compaction on deep footing holes resulting from the demolition with clean fill with a minimum of 4” of 22-A gravel or equivalent.

Erect necessary barricades, fences, etc. to protect adjacent public and private property including buildings, pavement, sidewalk, utility poles and parking area per Building Code, and applicable City Codes and Ordinances.

Proper control of pedestrian and vehicular traffic, including proper barricades and flashing blinker lights.

Complete restoration or replacement of damaged private and public property.
Removal and disposal of demolished and/or disassembled materials. This includes all debris on the site even though it is not part of the structures or their contents.

## Special Precautions:

The adjacent building, structures or property and all public property are to be adequately protected against damage from any cause. Adequate precautions must be taken to insure that the main structure is secured during and after demolition of the existing addition.

Contractor is to take whatever precautions are necessary to prevent movement or settlement of adjacent buildings. When necessary, this may include bracing, shoring, fencing, underpinning if necessary, or other protection. The Contractor shall be liable for any damages or movement of buildings on the property.

The Contractor shall be responsible for damage to City or private property resulting from the demolition of the building or removal of equipment or debris from the site.

Any public walks, pavement or curbs, etc. which are damaged as a result of the demolition activities shall be replaced at the Contractor's expense.

Contractor shall be responsible for replacing damaged City sidewalks, streets, etc... per all requirements of the City engineering department and contractors must obtain all necessary permits and inspections at the contractor's expense. Building and Safety Department is to be notified in advance of any existing broken concrete.

Any questions concerning the condition of the site, utility turnoffs or starting dates should be directed to The Building and Safety Department at 943-2152 during normal business hours.

Schedule:

The successful bidder shall complete all work as specified, within forty-five (45) days of receipt of a Purchase Order and notification that utilities are removed unless other items have been specified by the Building and Safety Department.

License and Permit:

Contractor is to obtain all necessary permits and/or licenses required for demolition work in the City of Dearborn.

Vendors may submit a response to a request for bid for demolitions without being currently licensed with the Building & Safety Department as a demolition contractor. Once quotations are received, the Purchasing Division will contact the apparent low vendor. The vendor will have 7 (seven) calendar days to obtain a license from Building & Safety Department if they are not currently licensed. If at the end of the seven days the vendor is not licensed, they will be considered non-responsive and the next low vendor will be contacted by Purchasing.

A demolition permit must be applied for and obtained from the Dearborn Department of Building and Safety prior to starting any work.

The application for demolition permit must include proof of disconnection of all utilities, proof of ownership and authorization by owner for the demolition and name and license number of the demolition contractor.

Demolition of Buildings:

Prior to commencement of work the contractor must contact the Building & Safety Department for a pre-inspection of the site to determine the condition of the City sidewalks/concrete and locations of the fencing to protect site during demolition.

Work shall be carried out in strict accordance with the Dearborn Building Code and Traffic Ordinance. Traffic on public streets, alleys and sidewalks shall not be obstructed unless legally permitted, in which case operations shall be conducted with a minimum of interference as directed by the Department of Public Works.

When necessary, keep work wetted to prevent excessive dust, and resulting nuisance. Provide water and water hoses where required.

The Contractor shall proceed with the demolition in a systematic manner, from the top of the structure to the ground. All building sewers, storm and sanitary, shall be capped as directed by the Plumbing Inspector. The minimum work involved in capping sewers shall be the excavation and exposure of the sewer lead at the property line, cutting through the vitrified clay pipe, and bulk heading the next undamaged downstream pipe section. This work must be inspected by the Plumbing Inspector before backfilling.

Unless specifically permitted otherwise in writing as a part of the demolition permit, all footings, foundations, floor slabs, posts, concrete work, masonry or other below grade portions of the building or structure are to be completely removed from the demolition site; the site is to be inspected by the inspector prior to any backfilling.

Foundation shall be removed completely unless otherwise specified.

Prior to placement of fill materials, ensure that areas to be filled are free of standing water, materials, organic matter, trash and debris.

Upon completion of all work, removal of all materials and debris, and inspection approvals, the site is to be backfilled with clean fill dirt with a minimum of 4” of 22-A gravel and rough graded to the grade as established by the Engineering Division. Contractor shall not remove existing soil unless otherwise directed. The Contractor shall have the cleared site inspected before backfilling by the Building and Safety Department.

No trash or debris shall remain after completion of demolition. Clean site to include removing all small trees (less than on foot in diameter) bushes etc from property. Seed after grading per detailed specifications, hand-thrown and protected with straw covering.

<u>Utilities:</u>

Prior to demolition, Contractor shall check with the Economic Development Department on the status of all utilities. If utilities have yet to be disconnected the Contactor shall notify all utility companies having service connection within the buildings and property, such as water, electric, gas, sewer or other connections. Contractor shall obtain a release from utility companies stating that their respective service connections such as meters, regulators, etc., have been removed and/or sealed and plugged in a safe manner. Electric lines shall be deactivated prior to starting any demolition work.

Contractor (or however you denominate them) shall execute any and all indemnification agreements required by any utility company prior to performing any demolition work or pulling a demolition permit.

Condition of Premises:

The buildings are currently unoccupied. The Contractor shall accept the premises as found at the time of bidding and shall dispose of all furniture, appliances and miscellaneous refuse on the property at the time of demolition.

The City assumes no responsibility for the actual condition of the structures to be demolished.

Variations within the structures may occur by City removal and salvage operations prior to the start of demolition work.

Site Inspection:

All bidders shall visit the site and make their own determination of work to be performed. Failure to visit the site and note existing conditions at the time of bidding will not be allowed as a reason for reimbursement of additional work encountered.

Workers' Compensation:

Vendor shall maintain Workers' compensation insurance as required by the Laws of the State of Michigan.

## Insurance Requirements

A. Commercial General Liability Coverage:

Commercial General Liability Coverage including products/completed operations, contractual liability, and personal injury. This insurance shall be on a commercial insurance, occurrence form. The certificate must contain, as an endorsement, the following language: "The City of Dearborn, Michigan, its elected officials, officers, employees, boards, commissions, authorities, voluntary associations, and any other units operating under the jurisdiction of the City and within appointment of its operating budget including the City of Dearborn are named as additional insured and said coverage shall be considered to be the primary coverage rather than any policies and insurance or self-insurance retention owned or maintained by the City of Dearborn". The limit amount for this insurance shall be not less than $1,000,000 per occurrence and $2,000,000 aggregate.

B. Workers Compensation Coverage:

At a minimum, Workers Compensation Insurance as required by State of Michigan law, Michigan statutory coverage. Employers Liability limits of $500,000 each accident, $500,000 disease policy limit and $500,000 disease each employee.

C. Automobile Liability Coverage:

The Automobile Liability Coverage shall cover all owned, non-owned, and hired automobiles with a limit of not less than $1,000,000 combined single limit each accident.

D. The insurance carrier must have an A.M. Best Company rating of A-, VII or better.

E. A certificate of insurance must be received in the Purchasing Office of the City of Dearborn within ten (10) calendar days of receiving Notice of Award and no less than five (5) days prior to commencement of work.

F. Cancellation clause of insurance shall identify not less than thirty (30) days.

G. The City reserves the right to require complete, certified copies of all required insurance policies at any time.

**Insurance/Performance Bond:**

A performance bond in the amount of 100% of the contract amount shall be required of the successful contractor.

**Site Inspection:**

Before submitting a bid, each bidder shall make all investigations and examinations necessary to ascertain all site conditions and requirements affecting the full performance of the contract and to verify any representations made by the City of Dearborn upon which the bidder will rely. If the bidder receives an award as a result of its bid submission, failure to have made such investigations and examinations will in no way relieve the bidder from its obligation to comply in every detail with all provisions and requirements of the contract documents, nor will a plea of ignorance of such conditions and requirements be accepted as a basis for any claim whatsoever by the contractor for additional compensation.

**Award of Contract:**

Low Responsible Bidder.

This contract will be awarded to the low responsible and responsive (meeting specifications) bid.

**Right to Request Additional Information:**

The City reserves the right to request any additional information it deems necessary from firms responding to this request for bids after bids have been received.

**Qualifications of Bidders:**

The bidder may be required before the award of any contract to show to the complete satisfaction of the City of Dearborn that it has the necessary facilities, ability, and financial resources to provide the service specified therein in a satisfactory manner. The bidder may also be required to give a past history and references in order to satisfy the City of Dearborn in regard to the bidder's qualifications. The City of Dearborn may make reasonable investigations deemed necessary and proper to determine the ability of the bidder to perform the work, and the bidder shall furnish to the City of Dearborn all information for this purpose that may be requested. The City of Dearborn reserves the right to reject any bid if the evidence submitted by, or investigation of, the bidder fails to satisfy the City of Dearborn that the bidder is properly qualified to carry out the obligations of the contract and to complete the work described therein. Evaluation of the bidder's qualifications shall include:

1. The ability, capacity, skill, and financial resources to perform the work or provide the service required.
2. The ability of the bidder to perform the work or provide the service promptly or within the time specified, without delay or interference.
3. The character, integrity, reputation, judgment, experience, and efficiency of the bidder.
4. The quality of performance of previous contracts or services.

**Permits/Fee Waived:**

Contractor shall secure all necessary permits from the Building and Safety Department and the cost for these shall be waived.

**Non-Discrimination Clause:**

The bidder agrees not to discriminate against any employee or applicant for employment, to be employed in the performance of such contract, with respect to hire, tenure, terms, conditions or privileges, of employment, or any matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, or marital status. Breach of this covenant may be regarded as material breach of the contract as provided for in Act 220 and Act 453 of the Public Acts of 1976, as amended, entitled “Michigan Handicapper’s Civil Rights Act” and the Michigan Elliott Larson Civil Rights Act.” The bidder further agrees to require similar provisions from any subcontractors, or suppliers.

GENERAL TERMS AND CONDITIONS

**Contact for Inquiries:**

Interested bidders may review pertinent information regarding this request and make specific inquiries regarding the submission of bids by contacting the following representative:

Debbie Lerini
City of Dearborn
Finance Department
Purchasing Division
4500 Maple – 3rd Floor
Dearborn, Michigan 48126
(313) 943-2375

For Technical issues:

Steve Guile
City of Dearborn
Economic & Community Development
13615 Michigan Avenue
Dearborn, Michigan 48126
(313) 943-2180 Extension 7

**Errors or Omissions:**

Bidders are not permitted to take advantage of any errors or omissions in the specifications since full instructions will be given should they be called to the attention of the Purchasing Division not less than five working days before bids are due.

**Legal Conditions:**

The contractor agrees to abide by all State, County and Local Laws and Regulations.

**Hold Harmless:**

To the fullest extent permitted by law, the Contractor/Vendor shall indemnify, defend, and hold harmless the City of Dearborn, its officers, agents, employees, elected, and appointed officials, and volunteers from and against any and all claims, losses or liability, including attorney's fees, arising from injury or death to persons or damage to property occasioned by any act, omission, or failure of the Contractor/Vendor and any of its officers, agents, employees, and volunteers in satisfying the terms required by this contract.

**Informalities and Irregularities:**

The City of Dearborn has the right to waive minor defects or variations of a bid from the exact requirements of the specifications that do not affect the price, quality, quantity, delivery, or performance time of the services being procured. If insufficient information is submitted by a bidder for the City of Dearborn to properly evaluate the bid, the City of Dearborn has the right to require such additional information as it may deem necessary after the time set for receipt of bids, provided that the information requested does not change the price, quality, quantity, delivery, or performance time of the services being procured.
(Information requested may include, for example, a copy of business or professional licenses or a work schedule.)

**Nonconforming Terms and Conditions:**

A bid/proposal response that includes terms and conditions that do not conform to the terms and conditions in the bid document may be subject to rejection as non-responsive. The City of Dearborn reserves the right to permit the bidder to withdraw nonconforming terms and conditions from its bid/proposal response prior to award of a contract and/or issuance of a purchase order.

All terms and conditions of this bid/proposal specification will be made a part of any resulting contract. Any additional terms and conditions proposed by your firm must be included in your bid/proposal response. Additional terms may be considered non-responsive and subject the bid document to rejection.

**Site Cleanup:**

The Contractor shall include the cost for and be responsible for cleanup and removal of the site debris, rubbish and identifiable material.

**Protection of Public:**

The Contractor must barricade the work area and post signs indicating areas where precaution must be taken.

**Assignment of Contract:**

Contractor shall not assign the contract or any part thereof to any person, firm, corporation or company unless such assignment is approved in writing by the Purchasing Agent. The contract shall not be assignable unless the proposed assignee is acceptable to the City. Such acceptance shall be at the sole discretion of the City upon request of the contractor. If such assignment is acceptable to the City, any and all independent contractors and subcontractors shall abide by all terms and conditions set forth in the original bid specification insurance requirements.

**No Reimbursement for Bid Costs:**

The City will not pay for any information solicited or obtained. Further, the City will not be liable for any costs incurred in bid preparation, presentation or contract negotiation.

**Failure to Comply:**

For failure to deliver in accordance with specifications, the City may cancel the contract or any part thereof and purchase on the open market, charging any additional cost to the contractor.

**Execution of Contract:**

When the contract has been signed by the awarded vendor, the Corporation Counsel and the Mayor, the contract is then considered a fully executed contract. Upon receiving an executed contract, the contractor may then provide the product or service. Prior to receiving a fully executed contract, work is not authorized to commence.

**Retainage:**

The Owner may retain out of each progress payment a "retainage" equal to ten percent (10%) of that payment. Retainage will be paid upon final completion and acceptance of the work in accordance with applicable paragraphs of Article 9 of the General Conditions. Upon mutual agreement of the Owner, the Architect and Contractor, payment in full may be made to Subcontractors whose work is fully completed during early stages of the Project.

**Termination for Default**

The contract shall remain in force for the full period specified and until the City of Dearborn determines that all requirements and conditions have been satisfactorily met and the City of Dearborn has accepted the work. Thereafter, applicable provisions of the contract shall remain in force until the City of Dearborn has determined that the contractor has met all requirements and conditions such as guarantees and warranties that relate to the work following the contract term. The City of Dearborn shall have the right to terminate the contract sooner if the City of Dearborn determines that the contractor has failed to perform satisfactorily the work required, as determined by the City of Dearborn. In the event the City of Dearborn decides to terminate the contract for failure to perform satisfactorily, the City of Dearborn shall give to the contractor at least fifteen (15) days written notice before the termination takes effect. The fifteen-day period will begin upon the mailing of notice by the City of Dearborn.

If the contractor fails to cure the default within the fifteen (15) days specified in the notice and the contract is terminated for failure to provide satisfactory performance, the contractor shall be entitled to receive compensation for all reasonable, allocable, and allowable contract services satisfactorily performed by the contractor up to the date of termination that were accepted by the City of Dearborn prior to termination. In the event the City of Dearborn terminates the contract because of the default of the contractor, the contractor shall be liable for all excess costs that the City of Dearborn is required to expend to complete the work covered by the contract.

After receipt of a notice of termination, except as otherwise directed, the contractor shall stop work on the date of receipt of the notice of termination or other date specified in the notice; place no further orders or subcontracts for materials, services, or facilities except as necessary for completion of such portion of the work not terminated; terminate all vendors and subcontracts; and settle all outstanding liabilities and claims.

**Bid Distribution:**

Important Notice – The City of Dearborn officially distributes bidding documents from the MITN site at www.govbids.com or through the Purchasing Division Office. Copies of bidding documents obtained from ***any*** other source are NOT considered official copies and may contain errors and/or omissions. Only those vendors who obtain bidding documents from either the MITN Site on www.govbids.com or the Purchasing Division Office are guaranteed to receive addendum information, if such information is issued.

If you have obtained this document from a source other than the MITN Site at www.govbids.com or the City of Dearborn Purchasing Division Office, it is strongly recommended that you obtain an official copy.

You may obtain an official copy of all Requests for Bids, Quotes and Proposals, etc… by registering on the MITN Site at www.govbids.com.

**Bid Deposit:**

A certified check, a cashier's check or a bid bond **(COMPANY CHECK OR MONEY ORDER WILL NOT BE ACCEPTABLE)** in the amount of 5% of the bid payable to the City of Dearborn must be submitted with the bid. Failure to provide the correct bid deposit may result in the bid being rejected. If the undersigned is the successful bidder and fails to execute the contract within ten (10) days after the contract is delivered for signatures, it is agreed the bid deposit will be forfeited to the City of Dearborn.

In submitting this sealed bid it is understood that the right is reserved by the City of Dearborn to reject any or all bids. It is agreed that this bid may not be withdrawn for sixty (60) days from the opening. Bids which are withdrawn will result in forfeiture of the bid deposit.

The bid deposit of all except the two (2) lowest bidders will be returned within 72 hours after opening of bids. The bid deposit of the second low bidder will be returned within 48 hours after the Dearborn City Council has awarded a contract. The bid deposit of the successful bidder will be returned within 48 hours after same has executed the contract.

**Sealed Bids:**

**Five copies (one signed original and four copies) of this proposal must be submitted to the City of Dearborn Purchasing Division, 4500 Maple – 3rd Floor, Dearborn, Michigan 48126.**

In submitting a sealed bid, the outside of the envelope must include company name and name of bid - Sealed bid for "Demolition of Wards Auto Service Center & Garden Shop".

# - SAMPLE -
# CITY OF DEARBORN
# CONTRACT

F AGREEMENT, made and entered into this day of 2005,
een the City of Dearborn, Wayne County, Michigan, and , of the
City of , County of State of
WITNESSETH:

In consideration of the mutual promises of the parties hereto, IT IS AGREED:

1. That all copies of the attached proposals, specifications, plans, general conditions, instructions to bidders, and the attached bonds shall be and they are hereby made a part of this agreement and contract.

2. That under penalty of bonds attached, shall furnish all labor, materials and appliances necessary and does covenant to do all the work in accordance with the above referred to, in a manner, time and place, all and singular as therein set forth.

3. The City of Dearborn hereby agrees and promises to pay to the sum provided in the attached proposal, namely in the all in the time and manner provided.

4. For the faithful performances of all and singular of the stipulations, terms, covenants and conditions of this agreement, the parties respectively bind themselves, their heirs, successors, personal representatives and assigns.

IN WITNESS WHEREOF, said parties have set their hands and seals, on the day and year first written above.

**C I T Y O F D E A R B O R N**

Authorized by Council Resolution No. _____

_____
Mayor Michael A. Guido for the City of Dearborn Date

IN THE PRESENCE OF

| **APPROVED:** |
|---|
| **DATE:** |
| |
| **CORPORATION COUNSEL** |

_____ By_____
Signature (designate official capacity)

_____ Its_____
Print Name (designate official capacity)

# Attachment One

# Hazardous Materials Removal Procedures and Specifications

Questions should be directed to:

AKT Peerless Environmental Services Inc.
Alan Kneale Jr. CHMM
22725 Orchard Lake Rd.
Farmington Michigan, 48336
(248) 615-1333 extension 242

# PART 1 GENERAL

1.01 RELATED WORK SPECIFIED ELSEWHERE

A. Section 02074 - Hazardous Contaminated Materials

B. Section 02221 - Backfilling, and Compaction

1.02 SUBMITTALS

Submit the following in accordance with Section 01110, "Safety, Health, and Emergency Response".

A. Equipment Decontamination Procedures

1. Equipment decontamination procedures shall be submitted as part of the Work Plan identified in Section 02021, "Decontamination of Equipment" and shall detail all equipment and procedures proposed for decontamination of equipment used in contaminated areas. At a minimum, the decontamination procedures shall include:

2. Proposed water supply source and method.

3. Proposed washing equipment and procedures.

4. Proposed decontamination procedures.

5. Decontamination pad plan.

1.03 CONTRACTOR RESPONSIBILITY

A. Provide and maintain equipment required for decontaminating and maintaining decontaminating pad and all other facilities and equipment included in the equipment decontamination system. Decontaminate all equipment requiring decontamination, as specified in Paragraph: 3.01 Need for Decontamination.

B. Water Supply Provide an acceptable supply of decontamination water, ensuring that a minimum of 500 gallons of decontamination water is always available at the site.

# PART 2 PRODUCTS

2.01 MISCELLANEOUS EQUIPMENT

Provide all scrub brushes or other equipment necessary to remove contaminated material from the equipment. Dispose all miscellaneous equipment in accordance with applicable or appropriate and relevant disposal regulations for contaminated materials.

# PART 3 EXECUTION

3.01 NEED FOR DECONTAMINATION

All equipment within the Exclusion Zone, as defined in Section 01110, " Safety, Health, and Emergency Response " require decontamination to avoid spreading contamination into uncontaminated areas. The entire portion of each property contained within contaminated exposure units will be considered contaminated. All Contractor materials, equipment, and facilities shall be decontaminated, and inspected and approved by the Engineer prior to removal from the dump boundary. Decontaminate all remaining improvements within the Exclusion Zone. All small tools and other materials for which decontamination is difficult or uncertain shall be packaged and disposed of by the Contractor in accordance with applicable or appropriate and relevant disposal regulations for contaminated materials. Examples of such equipment or materials are personal protective equipment, rope, lumber, plastic, etc.

3.02 EXTENT OF DECONTAMINATION

All equipment requiring decontamination, as defined in Paragraph: “Need for Decontamination”, shall be washed to the extent that visible contamination is removed from the equipment. Any vehicles exiting the exclusion zone shall be washed to the extent that visible soil is removed from the vehicle body and undercarriage and no visible tracking of soil onto public roads occurs, as verified by the Engineer.

3.03 CERTIFICATES OF DECONTAMINATION

Provide a certificate of decontamination for all equipment and materials removed from the project site as described by Section 01110, " Safety, Health, and Emergency Response ". Provide a copy of each decontamination certificate to the Engineer and maintain the original certificate at the Contractor's office.

3.04 DECONTAMINATION PROCEDURES

A. Schedule Construction activities to avoid spreading of contamination into uncontaminated areas. If possible, schedule work so that contaminated media are addressed first, leaving the facility sufficiently clean so that subsequent work can be performed with less potential of spreading of contamination and reduced requirements for decontamination.

B. Decontaminate equipment to avoid spreading contamination onto previously uncontaminated equipment. Rinse small equipment with potable water, wash with a solution of Alconox or other approved non-phosphate detergent and water, and rinse with potable water. Submit Alternative decontamination procedures and methods to the Engineer prior to implementation. Perform decontamination at a specially designated decontamination area as authorized by the Engineer, and determined at the commencement of construction activities.

3.05 STORAGE AND DISPOSAL OF DECONTAMINATION FLUIDS

Decontamination fluids shall be disposed of onsite, at a location determined by the Engineer.

**--End of Section--**

# DEMOLITION

## PART 1 GENERAL

### 1.1 WORK INCLUDED

A. All work item numbers included in Section 00410, Bid Schedule.

### 1.2 SUBMITTALS

A. Work Plan; OA

Prior to proceeding with the demolition, removal and disposal work, the Contractor shall submit a work plan which includes the means, methods and procedures proposed for the accomplishment of the removal and disposal work. The means, methods and procedures shall provide for safe conduct of the work; careful removal and disposition of buildings and structures, and solid materials and wastes; and protection of property that is to remain undisturbed. The procedures shall provide a detailed description of the methods and equipment to be used for each operation, and the sequence of operations. The name and location of disposal facilities for all removed materials shall be submitted in the Work Plan. The work plan shall be based on work experience, and the guidance provided in this specification. The cost of work plan preparation is incidental to the project.

C. Inspection Reports

The Contractor shall provide a copy of the records of inspections and tests, as well as records of any corrective action taken to address any problems encountered.

D. Disposal Documents

The Contractor shall provide copies of all licenses, certifications, permits, agreements, manifests, chain of custody records, weigh tickets, meter recordings, delivery tickets, and receipts required or issued for the disposal of materials, the methods used, and the disposal areas and facilities. The Contractor shall also provide a copy of the results of tests performed to comply with the requirements of each disposal facility.

E. Manifests

The Contractor shall submit a copy of the official manifest for each shipment of removed materials including, but not limited to, building and structure debris, concrete and brick debris, and miscellaneous site debris and solid wastes evidencing delivery of the material to an approved licensed disposal facility. All manifests shall be in accordance with the requirements of all the applicable federal, state and local regulations. Manifests shall be signed by the City of Dearborn or the City of Dearborn's Representative.

### 1.3 PROJECT/SITE CONDITIONS

The Contractor shall carefully coordinate the work in this Section with all other work. The work shall be complied with OSHA regulations and other applicable safety requirements.

A. Electrical Disconnection

The Contractor shall verify that on site electrical wiring entering all structures to be demolished or in close enough proximity to be damaged by the demolition operations shall be disconnected and/or de-energized prior to proceeding with demolition operations. The Contractor shall coordinate with the local electrical utility company for any necessary relocation of utilities and be responsible for any associated fees or expenses.

B. Water Disconnection

The Contractor shall verify that on site water lines entering all structures or in close enough proximity to be damaged by the demolition operations shall be disconnected and/or capped prior to proceeding with demolition operations.

C. Sewer Disconnection

The Contractor shall locate and bulkhead all sewer connections from the building structure prior to proceeding to demolition. The work shall be performed between the roadway and curb line of city sewer in accordance with the City Wastewater and Sewerage Standard. Permits shall be obtained from the City of Dearborn and any damage or removal of sidewalk or curbs shall be repaired or repaired.

D. Gas Disconnection

The Contractor shall verify that on site gas lines/mains entering all structures or in close enough proximity to be damaged as a result of the demolition operations shall be disconnected and/or capped prior to proceeding with demolition operations. The Contractor shall coordinate with the local electrical utility company for any necessary relocation of utilities and be responsible for any associated fees or expenses.

E. Telephone and Cable Disconnection

The Contractor shall verify that on site gas lines/mains entering all structures or in close enough proximity to be damaged as a result of the demolition operations shall be disconnected and/or capped prior to proceeding with demolition operations. The Contractor shall coordinate with the local telephone and cable companies for any necessary relocation of utilities and be responsible for any associated fees or expenses.

1.4 GENERAL REQUIREMENTS

A. The work includes demolition and removal of resulting rubbish and debris. Rubbish and debris shall be removed from the property daily, unless otherwise directed, to avoid accumulation at the demolition site. Materials that cannot be removed daily shall be stored in areas as specified by the Engineer. In the interest of safety the work shall be performed with regard to the protection of personnel and property.

B. Dust Control and Air Monitoring

The Contractor shall take all necessary means and procedures to control dust and avoid airborne dust from impacting the surrounding properties as a result of his demolition operations.

C. Protection of Personnel

During the demolition work the Contractor shall be continuously evaluate the conditions of the items being demolished and take immediate action to protect all personnel working in and around the demolition site. No area, section, or component of floors, walls, or other structural elements will be allowed to be left standing without sufficient bracing, shoring, or lateral supporting to prevent collapse or failure while personnel perform other work in the immediate area. The Contractor shall ensure that no elements determined to be unstable are left unsupported and shall be responsible for placing and securing bracing, shoring, or lateral supports as may be required as a result of any cutting, removal, or demolition work performed under this contract.

D. Protection of Existing Work

Before beginning any demolition and removal work, the Contractor shall carefully survey the existing work and examine the drawings and specifications to determine the extent of work.

E. Ownership

The Contractor shall have claim to any items or components of items to be demolished as well as debris. The Contractor shall be responsible for the removal and disposal of materials and debris in a fashion that complies with all local, State and Federal Codes and Regulations. Ownership of items and materials to be removed by the Contractor does not transfer to the Contractor until such items and materials are physically removed from the site.

F. Sequencing and Scheduling

Contractor shall perform work in such a way so that any asbestos or contaminated materials discovered on site, or as specified by the Engineer shall be removed or cleaned-up prior to demolition or debris removal to protect the safety and health of all personnel. Contaminated liquids accumulated in the building basements shall be removed prior to demolition of building.

G. Burning and Explosive

Burning waste and debris materials and the use of explosive at this site are prohibited.

1.5 PERMITS

The permits described here cover the general description of the permits called for demolition. The permits described below are not necessarily all of the permits required for completion of this project.

A. Demolition Permit

The Contractor shall be responsible for obtaining a Demolition permit from the City of Alma Building Department. In addition, a permit shall be obtained from the City Engineering Department to perform the demolition work in right-of way. The Contractor is responsible for all permit fees.

B NESHAP Notification of Intent to Demolish

The Contractor shall be responsible for filling and for the fee involved with submitting and obtaining an Intent to demolish permit from the Wayne County Health Department. The notification shall describe the demolition tasks to be conducted and the quantities of asbestos containing materials specified for abatement.

# PART 2 PRODUCTS (NOT USED)

**PART 3 EXECUTION (NOT USED)**

3.1 DUST CONTROL

A. The Contractor shall employ all necessary engineering controls and misting operations to prevent emission of dust and migration of airborne materials off site from impacting surrounding properties.

B. Constant watering for the site is required to prevent dust emission during the demolition and removal operations. The water for dust control may be available for use from the fire hydrants located in the area. The Contractor shall verify with city for water availability and pay for the use of the city water. The Contractor shall pay costs for installation and removal of any temporary connections including necessary safety devices and controls. Use of the city water shall not disrupt or interfere with operations of the surrounding property owners. Use of water shall not result in or create hazardous or objectionable conditions such as ice, flooding, pollution and electrical shock.

C. If the Contractor wants temporarily to stockpile any demolition debris and pulverized concrete materials that may generate dust at the site, the stockpiles shall be covered with a 10 mil plastic sheet.

3.2 DEMOLITION AND REMOVAL

A. Buildings and Structures

The Contractor shall demolish and remove all buildings and structures as specified in Part 1.1. The building floor slabs, AST concrete slabs, and concrete slabs shall be demolished and removed to the base of concrete. The Contractor shall excavate or remove any building foundations, basement walls, retaining walls, pit walls, and vault walls and restore the site to grade. Flooring constructed of wood, wood blocks, or brick shall be removed and disposed of. All components or elements of structures, buildings, vaults, pits settling and basins to remain shall be removed. Debris located or contained within basements, reservoirs, pits or voids shall be removed. Debris piles shall be removed and disposed of in their entirety to existing grade. Debris piles encountered on the top of concrete surfaces shall be removed in their entirety. Removal of structural steel and reinforcing steel from concrete is incidental to the project.

B. Utilities

Underground utility lines such as for water, sewer and gas as well as conduit extending above grade shall be cut off at grade or at top of surface to remain and plugged with leak-proof devices. Below ground utilities shall remain in place. The Contractor shall identify any active utilities on the site and be responsible for the protection of workers and deactivation of powered utilities as necessary for the safe conduct of work.

The Contractor shall locate and bulkhead all sewer connections from the property prior to proceeding with demolition operations

C. Hazardous Contaminated Materials

The removal and disposal of hazardous contaminated materials unearthed as a result of the demolition activities shall be handled as specified in Section 02074. Any other potentially hazardous or contaminated materials not specified which are unearthed during the demolition and removal operations shall immediately be brought to the attention of the Engineer.

All demolition and removal work shall be performed in compliance with the OSHA Interim Final Rule, 29 CFR 1926.62, on Lead Exposure in Construction published in the Federal Register. Analytical data prepared by AKT Peerless Environmental (AKT Peerless) for random paint samples taken from demolished building materials is enclosed in the Hazardous Materials Survey.

Care must be taken to prevent the mixture of non-hazardous debris and waste materials with regulated hazardous materials. Non-hazardous materials must also be prevented from coming in contact with materials identified as being hazardous, so as to prevent increasing the volume of hazardous materials (by contact).

D. Asbestos Containing Materials

The removal and disposal of friable asbestos materials, as specified in Section 13281 “ASBESTOS ABATEMENT”, shall be completed prior to beginning demolition work of structures containing asbestos materials.

E. PCB Contaminated Materials

The Contractor shall remove, segregate from other material, and dispose of PCB contaminated materials. The PCB contamination for the waste materials is greater than the Toxic Substance Control Act (TSCA) criterion (refer to Section 13282), requiring that this material be handled as a TSCA waste. The removal and disposal of PCB contaminated material shall be completed prior to beginning of demolition work.

The PCB contaminated concrete shall be removed in full thickness of slab, segregated from other debris, and disposed of in a licensed TSCA landfill. The selected, licensed TSCA disposal facility shall be approved by the Engineer.

All handling, and disposal, waste manifesting, and recording requirements, as set forth in 40 CFR 761 – Polychlorinated Biphenyl (PCB) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions and as specified in Section 13282, shall be followed.

F. Utility Pole

The Contractor shall identify and locate the utility company who owns the overhead utility pole located on the property. The Contractor shall contact the utility company to arrange for the removal of the overhead utility pole and connecting wires located on the property. The Contractor shall be responsible for all costs of removal of the overhead pole and connecting wires if either Contractor or the utility company performs the works.

3.3 RECYCLING

The Contractor has the option to recycle any non-contaminated material found or demolished on site in order to reduce his/her costs or project duration. Although the materials are not limited, it is recommended that only steel and concrete be recycled. Concrete to be recycled can be stockpiled on site and eventually removed. Concrete to be used for backfill materials can be stockpiled on site and eventually pulverized, as specified by Engineer. Steel separated from demolition rubble may be recycled and becomes the property of the Contractor. The Contractor will not be allowed to abate on site any lead paint found on the steel unless appropriate procedures and federal, state and local codes or regulations are followed. Any material stockpiled for recycling shall be removed from the site prior to the contract end date and/or site restoration.

3.3 CONSTRUCTION WATER

Water used in demolition operations to control the emission of airborne dust shall be in accordance with all Federal, State and local codes and regulations. Water used for the removal of asbestos materials shall be collected and processed in accordance with specific Federal and State requirements with respective to the asbestos abatement.

3.3 DISPOSAL

The buildings, structures and debris piles required to be demolished and removed and all miscellaneous inert debris, waste and unsatisfactory materials resulting from this work shall be removed from the site, unless otherwise specified or directed by Engineer, upon removal shall become property of the Contractor. All disposals shall conform to Federal, State and local requirements. All removed materials shall be documented by manifests and disposal facility tickets with copies given to the Engineer 48 hours after removal from the site.

3.5 QUALITY CONTROL

The Contractor shall establish and maintain a quality control system for contract requirements and maintain records of its quality control for all operations performed, including, but not limiting to, to following:

- Electrical, gas and water disconnection verified.
- Dust Control.
- Noise and vibration control.
- Demolition, removal and cleanup.
- Disposal.
- Observance of safety regulations.
- Observance of environmental regulations.

END OF SECTION

SECTION 02074
HAZARDOUS CONTAMINATED MATERIAL

## PART 1 GENERAL

### 1.1 DESCRIPTION

A. Building Components (e.g. electrical equipment boxes and lighting system fixtures) may contain hazardous materials. In addition, other areas such as the building basement may contain hazardous contaminated materials. The hazardous material may include lead-based paint, asbestos, PCB, or mercury contaminated materials. The hazardous materials shall be removed and disposed to a hazardous waste facility prior to demolition of the building structures.

B. The removal and disposal of hazardous contaminated materials shall follow the procedures described in Section 01120 – Hazardous Material Project Procedures.

### 1.2 SUBMITTALS

The following shall be submitted in accordance with Section 01300 Submittals:

A. Work Plan

The Contractor shall submit a work plan including the procedures proposed for the accomplishment of removal and disposal of hazardous materials prior to proceeding with any removal and disposal work. The work plan shall provide a detailed description of the methods and equipment to be used for each operation (such as sampling, staging, etc.), health and safety plan, confined space entry, and sequence of operations.

No work at the site, with the exception of site inspection and mobilization, shall be performed until the Work Plan is approved. The cost of work plan preparation is incidental to the project. No adjustment for time or money will be made for resubmittals required as a result of noncompliance.

B. Disposal Documents

The Contractor shall submit a report summarizing all activities state in this section including a copy of the records of inspections and tests, as well as all analytical results for disposal of hazardous contaminated materials.

The Contractor shall provide copies of all licenses, certifications, permits, agreements, manifests, chain of custody records, weigh tickets, meter recordings, delivery tickets, and receipts required or issued for the disposal of materials, the methods used, and the disposal areas and facilities. The Contractor shall also provide a copy of the results of tests performed to comply with the requirements of each disposal facility.

E. Manifests

The Contractor shall submit a copy of the official manifest for each shipment of removed hazardous materials to an approved licensed disposal facility. All manifests shall be in accordance with the requirements of all the applicable federal, state and local regulations. Manifests shall be signed by the City of Dearborn or the City of Dearborn's Representative.

1.3 SAMPLING AND ANALYTICAL TESTING

A. All analytical testing and sampling as required under this Section to identified hazardous materials shall be performed by a National Environmental Laboratory Accreditation Program (NELAP) certified laboratory and any sample shipping costs shall be paid for by the Contractor and is incidental to the Contract. Sampling as required or as specified by the Engineer shall be performed by the Contractor or Contractor's person. It is Contractor's responsibility to submit all samples in a timely fashion to the laboratory. The Contractor shall allow five days turnaround time for results.

The sampling and testing requirements for hazardous contaminated material disposal shall be the Contractor's responsibility.

1.4 REGULATORY REQUIREMENTS

A. The Contractor shall comply with all applicable Federal, State and local regulatory requirements related to the work summarized in this Section.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION**

3.1 GENERAL

A. Preparation

The Contractor shall be responsible for obtaining all required permits, including confined space entry permit. The Contractor shall provide approved containers, vehicles, equipment, labor, labels, and manifests and other documents necessary for accomplishment of the work.

B. Safety Guidelines

1. All work associated with hazardous materials shall be performed at appropriate Personal Protection Level as defined by OSHA. In the event of unknown hazardous material is identified at the site, the work shall be performed in at least Level B protection as defined by OHSA.

2. Personnel working inside the site shall be trained and made thoroughly familiar with the safety precautions, procedures, and equipment required for controlling the potential hazards associated with this work.

C. Control of Work

The Contractor shall perform work in accordance with the requirements of the drawings and specifications and shall take direction only from the Engineer for this contract. Any other party that proposes to give direction to the Contractor shall be immediately referred to the Engineer.

3.2 PROTECTION

A. As part of the overall Health and Safety Plan the Contractor shall continuously monitor air quality at the site. If total organic vapor levels as measured using an OVA or HNU exceed 10 ppm and airborne dust levels as measured using real-time MiniRam exceed 10 ppm, the Contractor shall stop operations until levels are below 10 ppm for at least ten (10) minutes. In addition, the oxygen level shall be monitored if removal operation of hazardous material is in the confined space. The Contractor may use stricter standards for working under such conditions.

3.3 REMOVAL AND DISPOSAL

In the event that unidentified hazardous contaminated material is discovered on site, the Engineer shall be notified immediately.

A. General

The Contractor shall provide all labor, materials, equipment, transportation, packaging, sampling and testing, and incidentals required to perform removal and disposal of hazardous contaminated materials. The hazardous contaminated materials shall be handled in accordance with all applicable RCRA and Michigan regulations.

B. Hazardous Contaminated Materials

All hazardous contaminated materials shall be removed from the project site and disposed of in an approved licensed facility. The Contractor shall provide the Engineer with manifests, certificates and other such evidence as may be required by Federal, state, and local regulations, to show that waste materials of all types were properly transported to, received at and disposed of in approved disposal facilities.

In the event that small containers, drums, or storage containers of hazardous contaminated material are discovered on site, the Contractor shall inspect if the containers and drums of hazardous materials are broken, leaked or deformed. The leaked or broken containers of hazardous materials shall be overpacked and hazardous contents shall be removed to new drums. Any small containers of waste shall be packaged to meet all applicable DOT requirements. Based on the analytical results provided by the Engineer, the Contractor shall categorize the drums by content and disposal compatibility. The Contractor shall perform compatibility test so compatible waste can be segregated in the interim storage area without risk of fire or explosion.

3.3 DISPOSAL

A Disposal of hazardous contaminated materials shall be in accordance with all Local, State, and Federal solid and hazardous waste laws and regulations, including Resource Conservation and Recovery Act (RCRA), Michigan Act 64, Act 136, and Act 451 and conditions specified herein.

**END OF SECTION**

SECTION 02075
CONTAMINATED SOIL

PART 1 GENERAL

1.1 DESCRIPTION

A. Excavation, removal and disposal of grossly contaminated soil as determined by the City of Dearborn /Engineer.

B. The Contractor shall characterize for disposal all excavated contaminated soil. For purposes of this bid, contaminated soils have been considered to be non-hazardous with disposal at a Type II Landfill.

1.2 SUBMITTALS

A. The following shall be submitted in accordance with SECTION 01300 SUBMITTAL PROCEDURES:

B. The Contractor shall submit all analytical results for excavated soil disposal of.

PART 2 PRODUCTS

2.1 BACKFILL MATERIAL

Refer to Section 02221 Backfilling.

PART 3 EXECUTION

3.1 GENERAL

Grossly contaminated soils shall be excavated based on the field observation. The excavation and removal of any contaminated soils shall be performed as directed by the Engineer.

3.2 EXCAVATION, REMOVAL AND DISPOSAL

A. Preparation

1. The Contractor shall contact the Miss Dig and other applicable local utility companies/authorities for utility identification a minimum of three working days prior to any excavations. The Contractor shall comply with 1974 PA 53, as amended, MCL 460-701 et seq., and all other laws concerning underground utilities.

2. The Contractor shall take extreme care during the site activities to prevent cross contamination. Adequate measures shall be taken to remove water from these areas.

B. Protection

1. The Contractor shall provide, secure, temporary fence to block each excavation at the end of each work day. Excavations should be checked each day for adequacy of protection. Cost is incident to the project.

2. Grade excavation perimeter to prevent surface water run-off into excavation.

3. Protect the public and underground utilities from hazards related to the excavation activities.

C. Excavation and Removal

1. The Engineer shall monitor the excavation visually and olfacturily, as well as with a photoionization detector (PID) or frame ionization detector (FID). If the any volatile organic carbons are detected above background levels, or if the Engineer detects any contamination through visual or olfactory senses then this will constitute "contaminated soil." This monitoring will be performed for Engineer's information, the Contractor shall provide for its own monitoring requirements.

2. The Contractor shall backfill the excavation in accordance to Section 02221, as directed by Engineer.

3. Excavated contaminated soil shall be stored separately from those materials believed to be clean. All contaminated soils shall be handled in a manner such that further contamination of areas outside of the storage area is prohibited. Any further site contamination due to the Contractor's negligence to control such contamination shall be corrected at the Contractor's expense. Stockpiles shall be sloped to minimize creeping or sloughing of the soils and shall clearly mark the contaminated and uncontaminated stockpiles.

4. The excavated contaminated soil shall be temporarily stockpiled on a plastic (10 mil minimum thickness) resistant to petroleum products, with a 3-ft-wide, soil-free perimeter of plastic around the stockpiles as a minimum. The stockpile shall also be completely covered with a double layer of the plastic anchored securely to protect the stockpile against wind and precipitation. Diking or other measures shall be used to prevent surface runoff from flowing onto the liners on which the soil is placed. Where several sheets of plastic are necessary to cover or lie on the stockpiles, the edges shall overlap a minimum of 2 feet. Once the stockpile has been covered, the soil-free perimeter of the liner shall be secured with concrete blocks. The Contractor, under the direction of the Engineer, shall daily inspect the liners and covers for defects and damage. Should any tears, defects, or other damages be found, the Contractor shall replace or repair the damaged plastic sheets at no additional cost to the City of Dearborn.

D. Disposal

1. Disposal of contaminated soil shall be in accordance with all Local, State, and Federal solid and hazardous waste laws and regulations, including Resource Conservation and Recovery Act (RCRA), and conditions specified herein.

2. The Contractor shall collect analyze samples of excavated contaminated soil for disposal parameters. Sampling and analysis of excavated soil shall be performed per Section 3.3 Soil Examination, Testing and Analysis.

3.3 SOIL EXAMINATION, TESTING AND ANALYSIS

A. General

Confirmatory sampling and analysis for the excavated areas are the Engineer's responsibility. The soil sampling and testing will be performed by the Engineer.

B. Excavated Contaminated Soil

Sampling and analysis necessary for disposal and/or waste characterization of the excavated contaminated soil is the Contractor's responsibility. Sampling locations, number and specific procedures shall be as required by the disposal facility and the State of Michigan. The cost associated with sampling and analysis shall be incidental to the work.

**END OF SECTION**

SECTION 02080
OFFSITE TRANSPORTATION AND DISPOSAL

**PART 1 GENERAL**

1.1 WORK INCLUDED

A. Insure that all vehicles entering and leaving the site comply with all safety requirements and licensing requirements of the local, state and federal regulations.

B. Prepare vehicles to prevent spillage or contamination.

C. Inspect vehicles before leaving the site.

D. Transport equipment to and from the site.

E. Transport liquids, sludge and other hazardous or non-hazardous materials from the site to an approved facility.

1.2 SUBMITTALS

A. Submit the names of the disposal facilities to the Engineer for approval at least a week before the disposal operation is conducted.

B. Submit the transportation routes to the selected solid and liquid disposal facilities to the Engineer for approval.

C. Submit a Spill Contingency Plan for transportation of solids and liquid. The Plan shall address all the potential hazards, necessary actions to follow in case of spills and emergency phone numbers enroute.

D. Submit copies of all manifests and bill of lading to Engineer.

E. Submit a plan to decontaminate the vehicle wheels. This procedures could be identified in the overall decontamination plan.

1.3 PROJECT RECORD DOCUMENTATION

A. Record weight, volume and character of material disposed.

B. Provide documentation that measuring devices used, are certified by the appropriate state inspection agency.

C. The Contractor shall provide to the Engineer written documentation and records verifying receipt and the quantity received of each load at the disposal facility and verification of proper disposal. Copies of the actual receipt must be provided.

D. The Contractor shall prepare and maintain accurate manifests or bill of lading for each batch of the waste materials being transported and disposed of. The Contractor is responsible for obtaining the City of Dearborn or the City of Dearborn's Representative's signatures on manifests for transportation and disposal purposes.

E. All the materials shall be sampled and analyzed in accordance with the disposal requirements as directed by the Engineer. The testing parameters shall be determined based on the potential for presence of the respective contaminants.

**PART 2 PRODUCTS**

2.1 EQUIPMENT

A. The Contractor shall provide equipment, personnel and facilities necessary to handle and load materials for transport.

**PART 3 EXECUTION**

3.1 GENERAL

A. Transportation and disposal of all hazardous materials shall comply with the regulations as specified in the Section 01120-HAZARDOUS MATERIAL PROJECT PROCEDURES.

3.2 LOADING AND HAULING

A. Inspect haul vehicles for soil adhesion to wheels and under carriage. These soils shall be removed and properly handled by the Contractor before leaving site. The decontamination procedures shall be carried out at the decontamination zone. All the vehicles shall be approved by the Engineer before leaving the site.

B. At a minimum, provide wheel wash down using high pressure water and steam. All rinse waters are to be collected for temporary storage prior to disposal. The Contractor will sample collected rinse waters to ensure proper disposal. Contractor shall be responsible for the disposal and any associated testing.

C. No transport vehicles shall be allowed to leave the site which are leaking or spilling materials.

D. All transport vehicles shall be in strict conformance with all the applicable federal, state and local laws.

E. The Contractor shall keep accurate records for the following information: Type and quantity of materials and liquids removed from the site, and analytical testing results. Engineer approval is required before any liquid or material leaves the site.

F. The Contractor shall provide the Engineer with copies of the above records, all permits required, manifests, waste hauling permits, and necessary affidavit regarding the waste materials, including liquid disposal.

G. All transport vehicles shall be cleaned before filling with waste material.

H. Prior to transportation, all of the established pretransporation requirements shall be met.

I. The waste shall be transported by a certified waste hauler in approved containers.

3.3 DISPOSAL

A. All disposal shall conform to Federal, State and local government regulations.

B. For hazardous or non-hazardous contaminated wastes the Contractor shall utilize a State of Michigan approved manifest system so that the waste can be tracked from generation to ultimate disposal. The manifest shall comply with all of the provisions of the transportation and disposal regulations. All transporters must sign the appropriate portions of the manifest and must comply with all of the provisions established in the applicable regulations. Contaminated waste manifests must be signed by the City of Dearborn or the City of Dearborn's designee.

C. Contaminated materials shall be disposed of at an approved licensed disposal facility.

D. Arrangements for disposal shall be performed by the Contractor.

3.4 SPILLS

A. The Contractor is responsible for cleaning up all the leaks, spills from containers and other items on site or off site that occur because of the Contractor's negligence. Immediate containment actions shall be taken as necessary to minimize the effect of any spill or leak. The Contractor shall notify the Engineer and appropriate governmental authorities of the incident. Cleanup shall be in accordance with applicable Federal, State, and local laws and regulations at no additional cost to the City of Dearborn.

**END OF SECTION**

# PART 1 General

1.01 SECTION INCLUDES

A. Procedures for handling, removing, and disposing drums and small containers and drum and container contents.

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. API Publ 1628, Guide to Assessment and Remediation of Underground Petroleum Releases.
2. APR Rp 2003, Protection Against Ignitions Arising out of Static, Lightning and Stray Currents.
3. API Publ 2219, Safe Operation of Vacuum Trucks in Petroleum Service.

B. Code of Federal Regulations (CFR)

1. CFR 29 CFR 1926/1910 Construction Industry Occupational Safety and Health Standards.
2. CFR 40 CFR 260 General Regulations for Hazardous Waste Management.
3. CFR 40 CFR Part 261 Identification and Listing of Hazardous Waste.
4. CFR 40 CFR Part 262 Standards Applicable to Generators of Hazardous Waste.
5. CFR 40 CFR Part 263 Standards Applicable to Transporters of Hazardous Waste.
6. CFR 40 CFR Part 264 Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.
7. CFR 40 CFR Part 265 Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.
8. CFR 49 CFR 171 Department of Transportation Regulations to Stipulate Requirements for Containers and Procedure for Shipment of Hazardous Waste.
9. 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. 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.

E. United States Environmental Protection Agency (U.S. EPA)

1. U.S. EPA SW-846, Test Methods for Evaluating Solid Waste.

1.03 MEASUREMENT

A. Non-Hazardous Material

The removal and disposal of non-hazardous contents from tanks, drums, and small containers found on site during demolition or as specified by the On-Site Representative, but excluding liquid agents used for cleaning, will be measured for payment by the U.S. gallon. Disposal costs associated with discarding the original container should be included in the bid.

B. Hazardous Material

The removal and disposal of hazardous contents from tanks, drums and small containers found on site during demolition or as specified by the On-Site Representative, but excluding liquid agents used for cleaning, will be measured for payment by the U.S. gallon. Disposal costs associated with discarding the original container should be included in the bid.

1.04 PAYMENT

A. Non-Hazardous Material

All acceptably completed work as required under this Section for the removal and disposal of drums and small containers found on site during demolition including rinsing and cleaning and transfer of contents for disposal will be paid at the Contract Unit Price per U.S. gallon for the payment item, “Drum and Small Container Removal; Non-Hazardous Material” (refer to Section 00410). Removal and disposal of all drum and small container contents, including all necessary waste characterization, shall be included under the drum and small container removal and disposal line item price for non-hazardous material. Disposal shall be made at an appropriate facility, licensed to accept material encountered at the property. Bids should include costs associated with drum and container disposal. When possible, like materials can be bulked to decrease transportation costs. This item includes sampling necessary for disposal approval and completing necessary profile information.

B. Hazardous Material

All acceptably completed work as required under this Section for the removal and disposal of drums and small containers found on site during demolition including rinsing and cleaning and transfer of contents for disposal will be paid at the Contract Unit Price per U.S. gallon for the payment item, “Drum and Small Container Removal; Hazardous Material” (refer to Section 00410). Removal and disposal of all drum and small container contents, including all necessary waste characterization, shall be included under the drum and small container removal and disposal line item price for hazardous material. Disposal shall be made at an appropriate facility, licensed to accept material encountered at the property. Bids should include costs associated with drum and container disposal. When possible, like materials can be bulked to decrease transportation costs. This item includes sampling necessary for disposal approval and completing necessary profile information.

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. The work plan shall be based on guidance provided in the references mentioned in Part 1.03 of this Section.

B. Drums and Small Containers

After removing and disposing drums and small containers from the project site, submit the name and location of the properly licensed disposal facility or facilities if necessary, and a copy of the written agreement from the disposal facility(s) agreeing to accept contaminated and uncontaminated materials for disposal. This documentation shall include manifests with quantities agreed by the On-Site Representative. The documentation is due 10 days after removal from the site.

C. Drums and Small Containers Report

Provide as applicable, in a three ring binder, the following information within 14 days of completion of the project.

1. A cover letter signed by a responsible company official certifying that all services involved have been performed in accordance with the terms and conditions of this contract.
2. Copies of all analyses performed for disposal.
3. Copies of all waste analyses or waste profile sheets.
4. Copies of all certifications of final disposal signed by the responsible disposal facility official.
5. Information on who sampled, analyzed, transported, and accepted all wastes encountered.
6. Information describing the sample method and rationale and chain-of-custody documentation for all testing.
7. Copies of all disposal manifests, bills-of-laiding, load tickets and other transportation documentation.

D. 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 drums, small containers, contents, and associated rinse water. Provide a copy of the results of tests performed to comply with the requirements of each disposal facility.

E. Manifests

Submit a copy of the official manifest for each shipment of contaminated materials including, but not limited to, surface runoff, drum and small container contents, expended cleaning liquids, structural components, drums and small containers 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 State-appointed representative.

1.06 REGULATORY REQUIREMENTS

A. Statutes and Regulations

Drums and small containers 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. All licenses, permits, certifications, receipts, etc., shall be obtained as required by such laws, regulations, codes, and ordinances.

B. General

All health and safety regulations relating to the removal, transportation, and disposal of drums and small containers 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.

D. Toxicity Considerations

Exercise care to minimize exposure to volatile organics, lead-based paint, asbestos-containing material, and toxic metals when present during the handling of used tanks or drums. Refer to API Publication 1604, Paragraph 1.3 for recommended health precautions for tanks.

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) present 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 are 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 MATERIALS AND EQUIPMENT

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. Equipment conducting Work must be in good, functioning condition.

# PART 3 EXECUTION

3.01 GENERAL

Remove and dispose all drums, small containers, and contents at an approved recycle or disposal 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 for material from removal operations. Coordinate any additional sampling that may be necessary.

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 tanks as specified in API Publication 2217, AP RP 1604, and in their health and safety plans. Proper guidelines regarding safety precautions shall be required for handling all other items. For further Health and Safety requirements, refer to Section 01110.

B. Control of the Work

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

3.02 CONTENTS VERIFICATION

A. Sampling and Analytical Testing

If testing beyond the data provided in Appendix A is required, 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. The analysis shall require a 5 working day completion time from the date of sample receipt at the laboratory. Meet all regulatory requirements, including manifesting. Follow quality control measures as outlined in Section 01450, Quality Control.

3.03 EXAMINATION

A. Sampling and Testing Requirements of Others

Collect samples of all container contents as required by the approved disposal facility for the material to be disposed. Perform all testing as described in Subpart 3.02.A. All documentation regarding the sampling and analysis such as sample locations, rationale, chain-of-custody, test results, etc., shall be maintained by the Contractor. Provide a copy of all such test reports to the On-Site Representative prior to removal of container contents.

## 3.04 DRUM AND SMALL CONTAINER PREPARATION AND REMOVAL

### A. Drum and Small Container Staging Pad

Before handling drums and small containers, construct a staging pad to minimize the threat of releasing flammable, hazardous, toxic, or otherwise harmful substances to the atmosphere, land surface, waterways, or any other portion of the environment. Construct the staging pad large enough to provide access to each drum and container temporarily stored on the pad.

Construct the drum staging pad with bermed sides to prevent runoff of potentially hazardous materials. Construct the drum staging pad with a sump to collect spilled material and rinsates. Dispose sump liquid and rinsates as describe in Section 3.05. The estimated quantities and sizes of containers are listed in AKT Peerless's Hazardous Material Survey Project Number: 4934F-2-194 dated October 20, 2004. A summary of this report is included in Appendix A.

### B. Removal of Drum and Small Container Contents

Remove any existing water, fuel, other fluids, and residues from abandoned drums and small containers in a safe and proper manor. If solid material can be reasonably classified as debris or general refuse, dispose material accordingly.

Overpack or transfer liquid contents of dilapidated drums and containers into new containers before staging for characterization. Remove liquids and residues by using explosion-proof or air-driven pumps. Pump motors and suction hoses must be properly grounded to prevent electrostatic ignition hazards. It may be necessary to use a hand pump to remove the last few inches of liquid from the bottom of a drum. If a vacuum truck is used for removal of liquids or residues, the area of operation for the vacuum truck must be vapor-free. The truck shall be located upwind from the staging area and outside the path of probable vapor travel. The vacuum pump exhaust gases shall be discharged through a hose of adequate size and length downwind of the truck and tank area. See API Publication 2219 for vacuum truck operation and safety practices.

Steam and/or detergent solvent solutions may be used to aid in cleaning provided they are disposed as drum contents and do not introduce hazardous substances. Residues on the interior of drums and small containers shall be removed to the degree of cleanliness required by applicable regulations and the requirements of tank and piping disposal facilities.

Conduct all removal activities in compliance with the U.S. Clean Air and Clean Water Acts. Describe the proposed cleaning method in the work plan.

### C. Drum and Small Container Removal

After contents and vapors have been removed from drums and small containers, cap all accessible holes. The cleaned drums shall be crushed and disposed at an approved licensed facility.

3.05 DISPOSAL REQUIREMENTS

A. General

Materials requiring removal shall become the property of the Contractor. Dispose removed drums and small containers at a properly licensed disposal facility. 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. Liquids removed from drums and small containers shall be recycled to the greatest degree practicable. Maintain all disposal and recycling information for review by the On-Site Representative.

B. Drum and Small Container Disposal

1. Regulatory Prerequisites

a. All drums, small containers, and other waste materials shall be removed from the project site and disposed at a properly licensed facility. Tank liquids, fuels, residues and cleaning liquids shall be transported off-site to properly licensed disposal facilities.

b. Consult 40 CFR 761 for regulations on removal and disposal of hazardous residues that may be present. Consult 29 CFR Parts 1910 and 1926 for safety precautions while handling chemicals, 49 CFR Part 171 through 178 and the other newly promulgated DOT regulations (HM181 standards) for shipment of hazardous materials. Before disposal of abandoned drums and small containers, check current Federal, State, and local regulations to determine special procedures or preparations that may apply.

2. Timeliness

a. Remove drums and containers from the site as promptly as possible after cleaning and evacuating contents. If a drum remains at the site overnight or longer, additional vapors may be released from any liquid absorbed in the tank walls or residues remaining in the tank.

3. Transporting

a. If transporting material in drums, secure drums on a truck for transportation to the disposal or recycle facility. Drums in poor or dilapidated condition must be overpacked or contents must be transferred to new drums prior to transportation. Transport drums and contents in accordance with all applicable local, State, and Federal regulations.

b. The transporting of liquids and residues from a tank shall be by properly licensed industrial liquid waste transporters. Provide the On-Site Representative with manifests, certificates and other such evidence as may be required by Federal, State, and local regulations, to show that waste materials of all types were properly transported to, received at and disposed of in approved disposal facilities. After delivery of the load, provide a copy of the manifest to the On-Site Representative.

C. 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 the following documents:

1. Disposal manifests.
2. Waste analyses or waste profile sheets.
3. Certifications of final treatment/disposal signed by the responsible disposal facility official.

Following contract completion, the records shall become the property of the State.

D. 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 State-appointed representative will sign all hazardous and non-hazardous waste manifests on behalf of the waste generator.

Before waste transportation, all of the established pre-transport requirements shall be met. The wastes shall be transported by a certified waste transporter (i.e., the transporter 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 (State-appointed representative, Project Manager, or designated representative).

Provide the On-Site Representative with manifests, certificates, and other such evidence as may be required by Federal, State, and local 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 On-Site Representative.

E. 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. Provide documentation of acceptance of special waste by a facility legally permitted to treat or dispose those materials to the On-Site Representative 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 drums, small containers, or other items 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 On-Site Representative and appropriate governmental authorities of the incident. Cleanup shall be in accordance with applicable Federal, State, and local laws and regulations and the Contractor's spill and emergency response plan at no additional cost to the City of Dearborn or AKT Peerless Environmental Services.

## PART 1 GENERAL

### 1.1 REFERENCES

The following publication of the issue listed below forms a part of this specification to the extent referenced. The publication is referred to in the text by basic designation only.

MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT)

| | |
|---|---|
| MDOT | Standard Specifications for Construction, 1996 Edition |

AGRICULTURAL MARKETING SERVICE (AMS)

| | |
|---|---|
| AMS-01 | (Amended thru: August, 1988) Federal Seed Act Regulations (Part 201-202) |

### 1.2 SUBMITTALS

#### 1.2.1 Work Plan

Prior to proceeding with the work required in this Section, the Contractor shall submit a work plan that fully describes the means, method and procedures to be used for placement of ground cover.

## PART 2 PRODUCTS

### 2.1 SOIL MATERIALS

Imported fill material approved by Owner and specified herein. Imported fill for surface soil removal shall be topsoil. Imported fill for basement excavations shall be a granular material meeting MDOT Class II requirements. For backfilling operations, use only soil certified from a clean source. If backfill is not certified as uncontaminated, additional laboratory analyses will be necessary at the expense of the Contractor

### 2.2 EQUIPMENT

Transport materials using well-maintained and operating vehicles. Once on site, transporting vehicles shall stay on designated haul roads and shall at no time endanger improvements by rutting, overloading, or pumping.

### 2.3 SOURCE QUALITY CONTROL

Perform necessary construction testing on each type of on-site or imported soil used as compacted fill material. Necessary testing may include (1) Moisture and Density Relationship: ASTM D 1557, (2) Mechanical Analysis: AASHTO T 88, and (3) Plasticity Index: ASTM D 4318. Provide adequate documentation or sampling that the backfill is not contaminated.

## PART 3 EXECUTION

### 3.1 DISPOSAL

The materials required to be removed and disposed of and all waste, excess and unsatisfactory materials resulting from work required under this Section shall be removed from the site, unless otherwise specified or directed, and upon removal shall become the property of the Contractor. All disposal shall conform to local, state and EPA requirements.

## 3.2 TURF PROTECTION, MAINTENANCE AND REPAIR

The areas which are seeded shall be protected, maintained and repaired after completion of the work and establishment period of the turf is accepted by the Engineer. The Turf Establishment Period for establishing a healthy stand of turf shall begin on the first day of work under this contract and shall end three (3) months after the last day of turfing operations required by this contracts. Written calendar time period shall be furnished to the Engineer for the Turf Establishment Period.

### 3.2.1 Grading

All soil surfaces shall be rough graded so as to leave no ruts, pits, piles or ridges and sloped as level to surrounding sidewalk or bordering property grade as the site permits.

## 3.4 QUALITY CONTROL

The Contractor shall establish and maintain a quality control system for all operations performed under this Section to assure compliance with contract requirements and maintain records of its quality control for all operations performed, including, but not limited to, the following:

a. Observance of safety regulations

b. Quality of materials

c. Protection, maintenance and repair

**SECTION 02221**
**BACKFILLING AND COMPACTION**

## PART 1GENERAL

### 1.1 REFERENCES

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

| | |
|---|---|
| ASTM D 1556 | (1990) Density and Unit Weight of Soil in Place by the Sand-Cone Method |
| ASTM D 1557 | (1991) Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/cu. Ft. (2,700 Kn-m/cu.m.)) |

### 1.2 DEFINITIONS

A. Degree of Compaction

Degree of compaction required is expressed as a percentage of the maximum density obtained by the test procedure presented in ASTM D 1557 abbreviated hereinafter as percent laboratory maximum density.

## PART 2PRODUCTS

### 2.1 MATERIALS

A. Satisfactory Materials

Satisfactory materials include –materials classified in ASTM D 2487 as GW, GP, SW, or and shall be free of trash, debris, roots or other organic matter, or stones larger than 3 inches in any dimension. Uncontaminated excavated concrete can be used as backfill materials if these materials are cleaned and crushed to meet the standard.

B. Unsatisfactory Materials

Unsatisfactory materials include materials classified in ASTM D 2487 as Pt, OH, OL, and any other materials not defined as satisfactory.

## PART 3 EXECUTION

### 3.1 BACKFILLING

#### A. Engineering Fill

Satisfactory materials shall be used in bringing backfill to the lines and grades indicated for filling pits and excavated areas. Satisfactory materials shall be placed in horizontal layers not exceeding 8 inches in loose thickness, or 6 inches when hand-operated compactors are used. After placing, each layer shall be plowed, disked, or otherwise broken up, moistened or aerated as necessary, thoroughly mixed and compacted as specified. Backfilling shall not begin until all pits are cleaned of trash and debris. Backfill shall be brought to indicated finish grade and shall include backfill for pits. Backfill shall not be placed in wet or frozen areas. Each layer of backfill shall be compacted to not less than the 95 percent of the maximum dry density.

Engineering backfill shall be brought up to adjacent finished grade minus the depth of any required topsoil.

#### B. Top Fill

See Section 2138 Surface Restoration.

### 3.2 TESTING

Testing shall be the responsibility of the Contractor and shall be performed at no additional cost to the Owner. Testing shall be performed by an approved commercial testing laboratory or may be performed by the Contractor subject to approval. Compaction testing for fill material shall be in accordance with ASTM D 1557-Modified Proctor.

### 3.3PROTECTION

Settlement or washing that occurs in backfilled areas prior to acceptance of the work shall be repaired and grades re-established to the required elevation slopes.

SECTION 02000
SITE PREPARATION

**PART 1 GENERAL**

1.1 SITE PLAN

A. The Contractor shall prepare a site plan indicating the proposed location and dimensions of any area to be used for material stockpiles, employee and/or vehicle/equipment parking/storage, the number of trailers to be used, avenues of ingress/egress to the fenced construction area, vehicle and personnel decontamination units and primary roadways within the site used in the remediation. Any areas anticipated for use as access roads or which may have to be graveled to prevent the tracking of mud shall also be identified and permission gained from the Project Manager, City, County and MDOT as necessary. In addition, the Contractor shall identify the location, size and type of vehicle and personnel decontamination units.

B. Identification of Employees

The Contractor shall be responsible for furnishing to each employee and for requiring each employee engaged on the work to display identification. Identification shall be kept on site during periods when an employee is not engaged in work. Contractor and subcontractor personnel shall wear identifying markings on hard hats clearly identifying the company for whom the employee works.

C. Employee Parking

Contractor employee parking shall not interfere with the progress of work. Vehicles leaving the construction site that become contaminated while within the construction site or vehicles specified by the Engineer shall pass through the vehicle decontamination unit.

1.2 AVAILABILITY AND USE OF UTILITY SERVICES

A. The Contractor shall furnish and install all temporary facilities and controls required by the Work, shall remove them from the City of Dearborn property upon completion of the Work, and shall restore the grounds and existing facilities to their original condition.

B. Payment and Utility Services

The Contractor shall arrange for such utilities as required. The amount of each utility service consumed shall be charged to or paid for by the Contractor. The Contractor shall carefully conserve any utilities.

C. Meters and Temporary Connections

The Contractor, at its expense and in a manner satisfactory to the Engineer, shall provide and maintain necessary temporary connections, distribution lines, meters and meter bases required to measure the amount of each utility used for the purpose of determining charges unless this service is provided by the local utility company. The Contractor shall notify the local utility company in writing at least five (or as required by the respective utility company) working days before final electrical connection is desired so that a utilities contract can be established. Under no circumstances shall the Contractor make the final electrical connection on his own.

SECTION 02000
SITE PREPARATION

D. Final Meter Reading

Before completion of the work and final acceptance of the work, the Contractor shall notify the Engineer, in writing, five working days before termination is desired. The Contractor shall take a final meter reading and provide it to the local utility company so that service can be disconnected. The Contractor shall coordinate with the Engineer and the utility company for disconnecting the services. The Contractor shall then remove, in coordination with the utility company, all the temporary distribution lines, meters, meter base(s), and associated material. The Contractor shall pay all outstanding utility bills before final acceptance of the work.

E. Sanitation

The Contractor shall provide and maintain within the construction area minimum field-type sanitary facilities approved by the Engineer. The sanitation facilities shall be per applicable federal, state and local regulatory requirements.

F. Telephone/Facsimile

The Contractor shall make arrangements and pay all costs for telephone/facsimile facilities desired.

1.3 PROJECT SIGNING

A. Bulletin Board

Immediately upon beginning of work, the Contractor shall provide a weatherproof plexi-glass covered bulletin board not less than 915 by 1220 mm (36 by 48 inches) in size for displaying the Equal Employment Opportunity poster, and other information approved by the Engineer. The bulletin board shall be located at the project site in a conspicuous place easily accessible to all employees as approved by the Engineer. Legible copies of the aforementioned data shall be displayed until work is completed. Upon completion of work the bulletin board shall be removed by and remain the property of the Contractor.

B. Project and Safety Signs

The requirements for the signs, their content, and location shall be as shown on the drawings. The signs shall be erected within 15 days after receipt of the notice to proceed. The data required by the safety sign shall be corrected daily, with light colored metallic or non-metallic numerals. Upon completion of the project, the signs shall be removed from the site.

1.4 BARRIER AND ENCLOSURES

A. The Contractor shall furnish, install, and maintain as long as necessary adequate barriers, warning signs, or lights at all dangerous points throughout the Work for protection of property, workers, and the public. The Contractor shall remove such material when deemed no longer required. The Contractor shall hold the City of Dearborn harmless from damage or claims arising out of any injury or damage that may be sustained by any person or persons as a result of the Work under the Contract.

B. Temporary Fence: The Contractor shall entirely enclose the Contract area by means of woven wire or snow fence having a minimum height of four feet. Gates shall be provided at all points of access. Gates shall be closed and secured in place at all times when Work under the Contract is not in progress. The fence shall be removed and grounds restored to original condition upon completion of the Work.

C. Street Barricades: The Contractor shall erect, and maintain all street barricades, signal lights and lane change markers during periods that traffic lanes are closed for operations. There shall be full compliance with rules and ordinances respecting such street barricading and the devices shall be removed when the hazard is no longer present.

1.5 DECONTAMINATION

A. The Contractor shall provide, operate and maintain decontamination units for personnel, equipment and vehicles at the project site as approved by the Engineer. The decontamination unit shall serve to remove, to the best extent possible, contaminated soil and materials from equipment and vehicles before they exit the site.

B. All vehicles that come in contact with contaminated material and/or as specified by the Engineer shall pass through the decontamination unit. Soils or contaminants shall be removed and properly handled by the Contractor. At a minimum, the Contractor shall provide wheel and under carriage wash using high-pressure water or steam. The rinse waters used in the operation shall be collected and stored, sampled and disposed of based on the analytical results of the testing coordinated by the Contractor. All the related costs are incidental to the project.

1.6 DUST CONTROL AND AIR MONITORING

A. The Contractor shall provide necessary engineering controls to prevent emission of aerosol dust and migration of airborne materials off site from contaminating surrounding properties. Air monitoring shall be performed to ensure the airborne dust level shall not exceed the regulatory limit. At no time, the concentration of aerosol dust resulted from the Contractor activity shall exceed the 10 $mg/M^3$ for more 5 minutes during the soil removal activities.

1.7 PROTECTION AND MAINTENANCE OF TRAFFIC

A. During the project, the Contractor shall maintain and protect traffic on all affected roads during the construction period. Measures for the protection and diversion of traffic, including the provision of watchman and flagmen, erection of barricades, placing of lights around and in front of equipment and the work, and the erection and maintenance of adequate warning, danger, and direction signs, shall be as required by the State and local authorities having jurisdiction. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with public traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

The Contractor shall minimize public road impacts from construction operations. If non-contaminated soil is being trucked onto public roads, Contractor shall arrange for and supply a street-sweeper/cleaner to maintain the public road. The cleaning operation shall be conducted as required and determined by the Engineer. Related street-cleaning operations are incidental to the project.

B. Barricades

The Contractor shall erect and maintain temporary barricades to limit public access to the construction areas. Such barricades shall be required whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Barricades shall be securely placed, clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.

1.8 CONTRACTOR'S TEMPORARY FACILITIES

A. Maintenance of Construction Area

Fencing shall be kept in a state of good repair and proper alignment. Should the Contractor elect to traverse with construction equipment or other vehicles grassed or unpaved areas which are not established roadways, such areas shall be covered with a layer of gravel as necessary to prevent rutting and the tracking of mud onto paved or established roadways; gravel gradation shall be at the Contractor's discretion.

B. Security Provisions

The Contractor shall be responsible for the security of its own equipment; in addition, the Contractor shall notify the appropriate law enforcement agency requesting periodic security checks of the temporary project field office and surrounding area. Other security items, such as lighting, shall be the responsibility of the Contractor including all fees.

C. Storage Facilities

The Contractor shall be responsible for providing and maintaining storage facilities for decontamination water, storm water and other water generated and/or collected on site; and other project related materials and items.

1.9 CLEANUP

A. Construction debris, waste materials, packaging material created by the Contractor and the like shall be removed from the work site daily. Any dirt or mud that is tracked onto paved or surfaced roadways shall be cleaned away. Uncontaminated or decontaminated materials resulting from tank removal activities, which are salvageable, may be stored at the site with Owner's approval. Stored material not in trailers, whether new or salvaged, shall be neatly stacked when stored.

1.10 RESTORATION

A. Upon completion of the project and after removal of trailers, materials, and equipment from within the construction fenced area; the Contractor shall restore impacts to the site caused by the demolition and removal work.

**PART 2 PRODUCTS (Not Used)**

**PART 3 EXECUTION (Not Used)**

SECTION 02315
EXCAVATION, BACKFILL AND COMPACTION

# PART 1 GENERAL

1.01 RELATED WORK SPECIFIED ELSEWHERE

A. Section 02021 - Equipment Decontamination Procedures

1.02 REFERENCES

A. Conduct excavation, backfill, and compaction work in accordance with all Federal, State, and local requirements, as well as industry standards, including 29 CFR Part 126, Department of Labor, Occupational Safety and Health Administration Standards - Excavations.

B. The publications listed below form a part of this specification to the extent referenced. Where referenced in the text, the publications are referred to by the basic designation only.

1. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

| | |
|---|---|
| ASTM C 117 | Test Method for Material Finer Than No. 200 Sieve in Mineral Aggregates by Washing |
| ASTM C 136 | Sieve Analysis of Fine and Coarse Aggregates |
| ASTM D 1556 | Standard Test Method for Density of Soil in Place by the Sand-Cone Method |
| ASTM D 1557 | 1978 (R 1990) Moisture Density Relations of Soils and Soils-Aggregate Mixtures Using 10-lb (4.54-kg) Rammer and 18-in. (457-mm) Drop |
| ASTM D 2167 | 1994 Test Method for Density and Unit Weight of Soil in place by the Rubber Balloon Method |
| ASTM D 2487 | Classification of Soils for Engineering Purposes |
| ASTM D 2922 | (R 1990) Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth) |
| ASTM D 3017 | Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth) |

2. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)

| | |
|---|---|
| T27-88 | 1988 Standard Specifications for Transportation Materials and Methods of Sampling and Testing "Sieve Analysis of Fine and Coarse Aggregate" |

3. Other References

a. Michigan Department of Transportation (MDOT), 1990. "1990 Standard Specifications for Construction", Lansing, Michigan; referred to herein as Standards.

b. MDOT, “Michigan Design Manual, Road Design”, Volume 3, August 26, 1994.

1.03 DESCRIPTION

A. This work shall consist of excavation of soils located at shallow depths underneath the former Automotive Service Center basement (if encountered).

B. Do not use onsite soil for backfill. Backfill material shall be from approved, off-site sources.

1.04 SUBMITTALS

Submit the following in accordance with Section 01300, “Submittals”.

A. Field test reports to be submitted during construction as specified in the Field Quality Control paragraph in this Section.

1. Grain-size analysis (ASTM C-136) results, including percent passing information for each sieve designation and grain size curve.

1.05 QUALITY ASSURANCE

A. Codes and Standards: Perform excavation work in compliance with applicable requirements of governing authorities having jurisdiction.

B. Testing and Inspection Service: The Contractor shall employ a geotechnical testing laboratory acceptable to the Engineer to perform soil testing service for quality control testing.

1.06 JOB CONDITIONS

A. Existing Utilities: Locate existing underground utilities in the areas of work. If utilities are to remain in place, provide adequate means of protection during earthwork operations.

B. Should uncharted, or incorrectly charted, piping or other utilities, drums, cans, etc. be encountered during excavation, consult the Owner and the Engineer immediately for directions. Owner is not responsible for any drum characterization and removal without written authorization to the Contractor. See General Conditions for further direction.

C. Cooperate with the owner and utility companies in keeping respective services and facilities in operation. Repair damaged utilities immediately to satisfaction of utility owner. Do not interrupt existing utilities serving others, except when permitted in writing by the Owner, and then only after acceptable temporary utility services have been provided. Coordinate with utility companies for shut-off of services if lines are active.

D. Protection of Persons and Property: Barricade open excavations (deeper than 1 foot) by fencing and warning signs. Maintain fencing and warning signs until areas are backfilled to grade. Protect structures, utilities, sidewalks, pavements, curbing, and other facilities which are to remain from damage caused by settlement, lateral movement, undermining, washout, increased traffic load, and other hazards created by earthwork operations.

E. All excavations shall be conducted using required OSHA safety standards by providing adequate bracing or shoring or sloping excavation side slopes at safe grades.

# PART 2 PRODUCTS

2.01 SOIL MATERIALS

Imported fill material approved by Owner and specified herein. Imported fill for surface soil removal shall be topsoil. Imported fill for basement excavations shall be a granular material meeting MDOT Class II requirements. For backfilling operations, use only soil certified from a clean source. If backfill is not certified as uncontaminated, additional laboratory analyses will be necessary at the expense of the Contractor

2.02 EQUIPMENT

Transport materials using well-maintained and operating vehicles. Once on site, transporting vehicles shall stay on designated haul roads and shall at no time endanger improvements by rutting, overloading, or pumping.

2.03 SOURCE QUALITY CONTROL

Perform necessary construction testing on each type of on-site or imported soil used as compacted fill material. Necessary testing may include (1) Moisture and Density Relationship: ASTM D 1557, (2) Mechanical Analysis: AASHTO T 88, and (3) Plasticity Index: ASTM D 4318. Provide adequate documentation or sampling that the backfill is not contaminated.

# PART 3 EXECUTION

3.01 SAFETY

A. Examine the areas and conditions under which excavating, filling, and grading are to be performed and notify the Engineer in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in an acceptable manner.

B. Barricades

1. Use traffic barricades with flashing lights where driver or pedestrian safety may be jeopardized. In areas that are left open overnight, provide adequate barricades to prevent the unauthorized entrance into the work area.

2. Barricade and clearly mark any entrance or exit to a work area where the safety of any person entering or exiting the area may be jeopardized. The barricade exit shall have a minimum warning that reads "DANGER-AUTHORIZED PERSONNEL ONLY." Prior to the start of Work, contact the local Fire Marshal and other local authorities for the requirements of barricading any work area, all costs associated with installing and removing the barricades are incidental to this contract.

C. Utilities

1. Verify all locations of structures, substructures, and utilities prior to the start of construction.

2. The locations of all underground utilities and structures must be marked prior to the beginning of Work. Utility and subsurface markings shall be in a manner that will allow equipment operators and other personnel a clear view of the utility locations.

3. Coordinate with the Owner and utility authorities for the appropriate utility services to be turned off before exploratory excavation is started.

4. Disconnect utilities as necessary to complete the work. The Contractor shall protect all substructures and utilities encountered in the excavation from any distress.

5. Any damage to existing utilities caused by Contractor's efforts will be repaired at no cost to the owner.

6. Contact the affected utility as soon as any damage is discovered.

7. The utility shall make the determination as to who is to make the necessary repairs.

SECTION 02315

EXCAVATION, BACKFILL AND COMPACTION

D. Excavation

1. Slope and stabilize all excavations in compliance with local codes and ordinances having jurisdiction, OSHA requirements, or standard AGC practice. Shore and brace where sloping is not possible because of space restrictions or stability of material excavated. Maintain sides and slopes of excavations in a safe condition until completion of backfill activities.

2. Obtain all construction-related permits, as necessary.

3. Divert clean surface water runoff away from excavations to the maximum extent practical.

4. Install orange or yellow fluorescent warning tape shall be installed at least 20 feet in all directions from the perimeter of the excavations.

5. Once an excavation has begun, do not permit smoking or any open flames within 50 feet of the excavation.

6. If drums or 5-gallon cans are encountered, notify the Owner and Engineer immediately. See General Conditions for further direction.

3.02 SHORING AND BRACING

Provide all materials necessary for shoring and bracing, such as trench boxes, sheet piling, uprights, stringers and cross-braces, in good serviceable condition, when necessary. Establish requirements for excavation shoring and bracing to comply with local codes and authorities having jurisdiction. Maintain shoring and bracing in excavations regardless of time period excavations will be open. Carry down shoring and bracing as excavation progresses. Shoring and bracing shall be designed by an Engineer specializing in geotechnical engineering and licensed to practice in the State of Michigan. Additional engineering costs the responsibility of the Contractor are incidental to the Contract.

3.03 MATERIAL STORAGE

Stockpile excavated materials where directed. Place, grade, and shape stockpiles for proper drainage. Locate and retain soil materials away from edge of excavations. Dispose of excess soil material and waste materials as herein specified

3.04 BACKFILL AND FILL

A. Place acceptable soil material in uniform layers to the required elevations. Completely fill below-grade areas and voids resulting from trench excavations.

B. Backfill excavations and subsurface holes as promptly as work permits, but not until completion of the following:

1. Acceptance by the Engineer and QC Manager.

2. Inspection and acceptance of the Installer.

3. Removal of shoring and bracing, and backfilling of voids with satisfactory materials.

4. Removal of trash and debris.

5. Approval of geotechincal engineer.

C. Concrete, masonry demolition debris or any other sharp edged material will not be allowed for use as fill material.

D. Placement and Compaction:

1. Place backfill and fill materials in layers not more than 8”.

2. Roller Compaction is required.

3.05 GRADING AND COMPACTION

A. Grading: Uniformly grade areas above the excavations within limits of grading under this Section, including adjacent transition areas, in accordance with the final grading. Smooth finished surface to blend into existing grade

B. Compaction: Uniformly place fill materials used for filling and grading all areas in lifts or layers not to exceed 8-inches loose measure. Compact soil to 95 percent of maximum density, in accordance with ASTM 1557 at moisture content of not less than 1 percent below and not more than 3 percent above optimum moisture content.

3.06 MAINTENANCE

A. Protection of Graded Areas: Protect newly graded areas from traffic and erosion. Keep free of trash and debris. Repair and re-establish grades in settled, eroded, and rutted areas to prevent ponding and promote positive drainage.

B. Reconditioning Compacted Areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, re-shape, and compact to required density prior to further construction.

3.07 DISPOSAL OF EXCESS AND WASTE MATERIALS

A. Removal from site: Trash and debris. And properly dispose of it off site.

B. Disposal onsite: Removed waste materials and soils from excavations shall be transported and properly disposed.

# SECTION 13285
# REGULATED ABATEMENT OF MISCELLANEOUS MATERIALS

**PART** 1 **GENERAL**

1.1 GENERAL

A. SUBCONTRACTOR 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:

1. Chemical Fire Extinguishers

2. Mercury Devices (i.e., switches, thermostats, vapor lamps) ..

3. Non-hazardous Liquids and Equipment / Fuel Oil

4. Regulated Batteries

B. The quantities of hazardous and/or regulated materials are provided in the Bid Schedule.

C. SUBCONTRACTOR shall be aware that the buildings contain lead based paint and as such the potential for exposure exists. SUBCONTRACTOR 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 Consumer and Industry Services provides for the safety of workers. The Department of Community Health provides for the health of workers (517) 373-3500.

1. SUBCONTRACTOR shall post anyapplicable State and/or Federal government regulations at the job sites in prominent locations.

2. SUBCONTRACTOR shall be responsible for training their workers in safe work practices and in proper removal methods when coming in contact with hazardous materials

SECTION 13285

REGULATED ABATEMENT OF MISCELLANEOUS MATERIALS

E. Applicable Regulations:

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 ofPCB wastes.

5. The list provided in Section 01410 includes the regulations that. are most frequently encountered:

F. To use an off-site hazardous waste disposal facility, the SUBCONTRACTOR 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 ENGINEER.

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 and provided in Section 01410 includes the regulations that are most frequently encountered.

| **Topic** | **Agency and Telephone Number** |
|---|---|
| Small quantity hazardous waste management, including hazardous waste stored in tanks. | Waste and Hazardous Materials Div., MDEQ (517) 335-2690 in Lansing, or District Office Certified County Health Dept. |
| Liquid industrial waste disposal (hazardous and non-hazardous) | Waste and Hazardous Materials Div., MDEQ ( 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, MDEQ (517) 373-1949 in Lansing, or District Office |
| Discharges to groundwater, Including septic systems, or Material | Waste and Hazardous Materials Div., MDEQ |
| Including septic systems, or Material permits | (517) 335-2690 in Lansing, or District storage Office |

| | |
|---|---|
| Pollution Incident Prevention Plans (PIPP Plans) | Waste and Hazardous Materials Div ., MDEQ (517) 335-2690 in Lansing, or District Office |
| Hazard Communication (for chemicals in the work place) | Standard Safety and Regulation Bureau of Michigan Michigan Department of Consumer and Industry Services (517) 373-1820 |
| Burning of waste oil and other discharges to the air | Air Quality Div., MDEQ (517) 373-7023 in Lansing, or District Office |
| Registration of underground fuel storage tanks | Waste and Hazardous Materials Div., MDEQ (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., MDEQ (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 requirements (including setbacks) | Local government building or zoning official |

**PART 2 PRODUCTS**

2.1 PACKAGING AND CONTAINERIZATION MATERIALS

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

I. Lab packing requirements per ENGINEER-approved 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 SUBCONTRACTOR'S 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. SUBCONTRACTOR shall be responsible for the removal, proper handling and disposal of all chemical fire extinguishers.

B. SUBCONTRACTOR shall properly collect, label and stage all chemical fire extinguishers throughout the Site. All chemical fire extinguishers shall be recycled or disposed at an ENGINEER-approved facility. Chemical fire extinguishers shall be transported in a manner which minimizes the potential for discharge.

3.2 REMOV AL 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 are identified in the Asbestos / Hazardous Materials Survey Report. SUBCONTRACTOR shall remove all lamps/bulbs regardless of the estimated quantities provided in the Asbestos / Hazardous Materials Survey Report.

I. Many light fixtures and/or associated components may be suitable for recycling or resale. SUBCONTRACTOR is encouraged to account for recycling or resale of such fixtures in its bid, if feasible.

2. SUBCONTRACTOR 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. SUBCONTRACTOR 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 Section 02113 of this Bid Document.

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

3.3 REMOV AL OF NON-HAZARDOUS EQUIPMENT OIL

A. Numerous oil-filled blowers, compressors, and motors are present at the site.

B. SUBCONTRACTOR 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 an ENGINEER approved reclamation facility .

C. Upon removal of all free-flowing oil, equipment will be released by the ENGINEER for disposition.

3.4 TRANSPORTATION

A. SUBCONTRACTOR shall evaluate all materials associated with demolition activities to designate materials classification for transportation purposes.

B. SUBCONTRACTOR shall package all hazardous materials for transportation and storage in accordance with 49 CFR 172.101 and applicable sections of49 CFR 173. In addition, the SUBCONTRACTOR shall comply with any packaging requirements identified by the ENGINEER-approved disposal or recycling facilities used for waste disposition during this project.

C. SUBCONTRACTOR 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. SUBCONTRACTOR shall provide all labels.

D. SUBCONTRACTOR 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 regulations. The SUBCONTRACTOR or transporter shall provide all such placards.

E. SUBCONTRACTOR shall submit the manifest to the ENGINEER for review prior to signature by the SUBCONTRACTOR and ENGINEER and prior to removal of any material-

**-END OF SECTION-**

SECTION 13282

PCB-CONTAINING EQUIPMENT REMOVAL

# PART 1 General

1.01 SECTION INCLUDES

A. Removal and disposal of 265 PCB containing lighting system ballasts and switch boxes.

B. Removal and disposal of hydraulic fluid from 18 basement-mounted automotive lift units.

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 Switch Boxes

The removal and disposal of containerized PCB-containing light ballasts, associated connections, and switch boxes found on site, as specified by the On-Site Representative, will be measured for payment per each drum removed and disposed.

1.04 PAYMENT

A. Removal and Disposal of PCB-containing Light Ballasts and Switch Boxes

All acceptably completed work as required under this Section for the removal and disposal of containerized PCB-containing light ballasts, associated components, and switch boxes found on site will be paid per each drum removed and disposed of from the site.

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 include procedures specified in this Section and in Section 01340, Health, Safety, and Emergency Response.

C. Decommissioning Report

Provide as applicable, in a three ring binder, the following information within 14 days of completion of the project:

1. A cover letter signed by a responsible company official certifying that all services involved have been performed in accordance with the terms and conditions of this contract.
2. A narrative report briefly describing the tasks conducted, including:
    a. Conditions of the material before storage.
    b. Any visible evidence of leaks or stained soils.
    c. Results of vapor monitoring readings.
    d. Actions taken including quantities of materials treated or removed.
3. Copies of all analyses performed for disposal.
4. Copies of all waste analyses or waste profile sheets.
5. Copies of all certifications of final disposal signed by the responsible disposal facility official.
6. Information on who sampled, analyzed, transported, and accepted all wastes encountered.
7. Information describing the sample method and rationale and chain-of-custody documentation for all testing.
8. Copies of all disposal manifests, bills-of-laiding, load tickets and other transportation documentation.

D. 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 agreed by the On-Site Representative. The documentation is due 10 days after removal from the site.

E. 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, switch boxes, contents, and associated rinsates. Provide a copy of the results of tests performed to comply with the requirements of each disposal facility.

F. Manifests

Submit a copy of the official manifest for each shipment of contaminated materials including, but not limited to, surface runoff, ballast contents, expended cleaning liquids, structural components, 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 On-Site Representative.

SECTION 13282

PCB-CONTAINING EQUIPMENT REMOVAL

Section 23 and State and local regulations. Manifests shall be signed by the On-Site Representative.

1.06 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 and switch box contents 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) present 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.

SECTION 13282
PCB-CONTAINING EQUIPMENT REMOVAL

# 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 or lifting equipment necessary to reach the areas for removal.

# PART 3 EXECUTION

3.01 GENERAL

Disconnect or have disconnected power from ballasts and switch boxes being removed. Remove and containerize all PCB-containing light ballasts 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.

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 and switch boxes, 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. For further Health and Safety requirements, refer to Section 01340.

B. Control of the Work

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

3.02 CONTENTS VERIFICATION

A. Sampling and Analytical Testing

On December 23, 2004, AKT Peerless Environmental Consultants conducted an inspection of the facility to identify the existence of mechanical or electrical system components that may contain PCBs and/or mercury containing components. No dismantling of mechanical or electrical system components was performed as part of this survey. In addition, no destructive sampling of building systems suspected of containing either PCBs or mercury components was performed. In general, the survey activities centered on identification of the general location and quantity of mechanical and/or electrical equipment that may contain PCB or mercury components.

During the survey, AKT Peerless identified approximately 153 light ballasts with 306 fluorescent light bulbs.

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. The analysis shall require a 5 working day completion time from the date of sample receipt at the laboratory. Meet all regulatory requirements, including

chain-of-custody documentation. Follow quality control measures as outlined in Section 01450, Quality Control.

3.03 EXAMINATION

A. Sampling and Testing Requirements of Others

Collect samples of all container contents as required by the approved disposal facility for the material to be disposed. Perform all testing as described in Subpart 3.02.A. All documentation regarding the sampling and analysis such as sample locations, rationale, chain-of-custody, test results, etc., shall be maintained by the Contractor. A copy of all such test reports shall be furnished to the On-Site Representative prior to removal of ballasts and switch boxes.

3.05 DISPOSAL REQUIREMENTS

A. General

Materials requiring disposal shall become the property of the Contractor. Dispose light ballasts and switch boxes 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. Maintain all disposal and recycle information for review by the On-Site Representative.

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 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 State.

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 State representative will sign all hazardous and non-hazardous waste manifests on behalf of the waste generator.

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 (On-Site Representative, Project Manager, or designated representative).

Provide the On-Site Representative 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 On-Site Representative.

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 On-Site Representative 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 On-Site Representative 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 City of Dearborn.

# SECTION 13284
# RECYCLING OF REFRIGERANTS AND CHLOROFLUOROCARBONS (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, drinking fountains, or other similar devices.

B. CONTRACTOR shall submit to the ENGINEER 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 the ENGINEER-approved 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 which are believed to contain refrigerants and shall disconnect all utility services.

B. Using a method acceptable to the ENGINEER-approved 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 ENGINEER documentation of devices evaluated, procedures used, amounts

recovered and other information as required by 40 CFR 82 upon completion of removal activities.

**END OF SECTION-**

SECTION 13281
ABESTOS ABATEMENT

# PART 1 General

1.01 SECTION INCLUDES

A. Thermal Systems Insulation

Asbestos Containing Thermal Systems Insulation consisting of thermal system insulation and duct joint insulation has been identified throughout the Former Montgomery Ward Automotive Service Center and the garden center portion of the adjacent Montgomery ward retail building. Based on the results of the hazardous material survey, 1,054 linear feet of asbestos containing pipe insulation was identified on-site.

B. Miscellaneous Materials

Asbestos containing floor tiles and associated mastics, ceiling plaster has been identified throughout the office areas of the former Montgomery Ward Automotive Service Center and the garden center portion of the adjacent Montgomery ward retail building. Based on the results of the hazardous material survey, 3,418 square feet of floor tile and associated mastics were identified on-site.

Asbestos containing roofing materials has been identified on various sections of the building roof. Based on the results of the hazardous material survey, approximately 32,000 square feet of flat roofing materials and approximately 4,200 square feet of asbestos containing shingles were identified on-site.

C. Surfacing Materials

Asbestos containing surfacing materials has been identified in the building. Based on the results of the hazardous material survey, approximately 130 square feet of surfacing materials was identified on-site.

Additional information regarding ACM as identified in the buildings at the site is discussed in detail in AKT Peerless' Hazardous Material Survey dated October 7, 2005. It is recommended that the contractor review and consider the recommendations reported in this survey when performing asbestos abatement and general building demolition activities.

1.02 RELATED SECTIONS

A. Section 02074 – Hazardous Contaminated Materials

1.03 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.

1.04 MEASUREMENT

A. Thermal Systems Insulation

The removal and disposal of friable asbestos, asbestos material, and asbestos debris from piping in the former Montgomery Ward buildings as detailed in AKT Peerless' Hazardous Materials Survey dated October 7, 2005, or as specified by the On-Site Representative, will be measured for payment by the U.S. linear or square foot.

B. Miscellaneous Materials

The removal and disposal of miscellaneous asbestos containing materials in the former Montgomery Ward buildings as detailed in AKT Peerless' Hazardous Materials Survey dated October 7, 2005, or as specified by the On-Site Representative, will be measured for payment by the U.S square foot.

C. Roofing Materials

The removal and disposal of friable asbestos, asbestos material, and asbestos debris from roofing materials present in the former Montgomery Ward buildinga as detailed in AKT Peerless' Hazardous Materials Survey dated October 7, 2005, or as specified by the On-Site Representative, will be measured for payment by the U.S square foot.

1.05 PAYMENT

A. Removal of Asbestos Containing Materials

All acceptably completed work as required under this Section for the labor, materials, and incidentals necessary for removal and disposal of asbestos containing materials as specified by the On-Site Representative will be paid for at the contract unit price per U.S. square or linear foot for the payment item "Asbestos Abatement."

1.06 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 1926.58.

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 Sate, 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 site-specific 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 01340 for other HASP requirements.

C. Asbestos Abatement Plan

Submit a site-specific Asbestos Abatement Plan that includes methods utilized (1) to determine the necessary extent of asbestos removal work within structures and the debris piles and (2) for removal and disposal of asbestos and surfactant impacted water. Include contact name and telephone number for the licensed disposal facility and waste hauler used for removal, treatment, and disposal of the wastewater unsuitable to discharge into the sanitary sewer. Provide a copy of the approval notice from the disposal facility agreeing to accept the impounded water for disposal. Include a configuration map that displays the asbestos regulated work area, containment areas, and entrances and exits.

D. 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.”

E. Materials

Submit a list of data for all materials and equipment used during abatement activities. Include brand name, model, capacity, performance characteristics, and other pertinent information. Submit any test results and certificates from the manufacturer for equipment and materials substantiating compliance with performance requirements of these specifications. Provide Material Safety Data Sheets (MSDS) for all chemicals to be used on site.

F. 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 On-Site Representative immediately if any airborne levels of asbestos fibers are encountered above levels established in the HASP. Provide a table including sampling results within 5 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 State-appointed representative.

1.08 REGULATORY REQUIREMENTS

A. Permits

Obtain all necessary permits and licenses for asbestos abatement activities. Notify the Michigan Department of Public Health, local agencies, and the On-Site Representative in writing at least 10 calendar 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 Demolition and Renovation Record" form and other required notification documents.

B. Health and Safety Compliance

Comply with all applicable laws, ordinances, rules, regulations, and specifications described in this Section and Section 01340, Health and Safety. 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 On-Site 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 01340, 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

On December 21, 2004, AKT Peerless Environmental Consultants, Inc., conducted an asbestos survey at the property. The results of the asbestos survey and on-site conditions are summarized in AKT Peerless' Hazardous Materials Survey, dated January 3, 2005 (Project No. 4452F-3-194).

# 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. The On-Site Representative will conduct air monitoring along the property boundaries.

E. Respirators

Provide respirators as specified in Part 1.07.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 | University of Pittsburg Protocol |
| Zero Mortality | University of Pittsburg Protocol |
| Life Expectancy – 20 years | ASTM C 732 (Accelerated Aging Test) |
| Permeability – Minimum 0.4 perms | ASTM E 96 |

B. Additional Requirements and Corresponding Test Standards for Bridging Encapsulant

| Requirement | Test Standard |
|---|---|
| Cohesion/Adhesion Test – 50 pounds of force/foot | ASTM E 736 |
| Fire Resistant | ASTM E 119 |
| Impact Resistance – Minimum 43 in/lb | ASTM D 2794 (Gardner Impact Test) |
| Flexibility – no rupture or cracking | ASTM D 522 (Mandrel Bend Test) |

C. Additional Requirements and Corresponding Test Standards for Penetrating Encapsulant

| Requirement | Test Standard |
|---|---|
| Cohesion/Adhesion Test – 50 pounds of force/foot | ASTM E 736 |
| Fire Resistant | ASTM E 119 |
| Impact Resistance – Minimum 43 in/lb | ASTM D 2794 (Gardner Impact Test) |
| Flexibility – no rupture or cracking | ASTM D 522 (Mandrel Bend Test) |

D. Additional Requirements and Corresponding Test Standards for Bridging Encapsulant

| Requirement | Test Standard |
|---|---|
| Cohesion/Adhesion Test – 50 pounds of force/foot | ASTM E 736 |
| Fire Resistant – | ASTM E 119 |
| Impact Resistance – Minimum 43 in/lb | ASTM D 2794 (Gardner Impact Test) |
| Flexibility – no rupture or cracking | ASTM D 522 (Mandrel Bend Test) |

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

| Requirement | Test Standard |
|---|---|
| Fire Resistant | ASTM E 119 |
| Bond Strength | ASTM E 736 |

# PART 3 EXECUTION

3.01 GENERAL

Remove and dispose asbestos-containing material at an approved 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.

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 and in Section 01570.

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

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. 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 Asbestos Abatement Plan including but not limited to details of construction materials, equipment, and handling procedures, and necessary safety precautions.

B. Revised Quantities

Before the contaminated debris has been removed, verify the previously submitted quantity estimates of other asbestos-containing materials and notify the On-Site Representative of any changes in the quantities and obtain the On-Site Representative’s approval for revised estimates.

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 for at least 25 percent of the workers in 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 On-Site Representative as specified herein. The Contractor shall maintain a fiber concentration inside enclosed containment regulated work area equal to or less than 0.1 flcc expressed as an 8 hour, TWA during asbestos abatement. If fiber concentration rises above 0.1 flcc, the On-Site Representative will examine work procedures to determine the cause.

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 On-Site Representative, and implement additional engineering controls and work practice controls to reduce airborne fiber levels below prescribed limits in the work area. Do not restart until authorized by the On-Site Representative.

Conduct personal sampling required by 29 CFR Part 1926 Section 1926.1101, in accordance with the NIOSH-01 Method 7400, Phase Contract Microscopy (PCM). Maintain employee exposure reports. Use NIOSH-Ol Method 7402 Transmission Electron Microscopy (TEM) for environmental quality control and final air clearance.

For environmental and final clearance samples, the On-Site Representative 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 0.005 f/cc. Asbestos fiber concentration confirmation of the total fiber concentration results of environmental, quality assurance and final air clearance samples, collected and analyzed by NIOSH-Ol Method 7400; may be conducted. Confirmation analysis shall be carried out using transmission electron microscopy in accordance with NIOSH-01 Method 7402. When such confirmation is conducted, it shall be from the same sample filter used for the NIOSH-01 Method 7400 PCM analysis.

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 On-Site Representative. Final clearance air monitoring shall not begin until acceptance of this final cleaning by the On-Site Representative. 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 associate 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 at the cost per sample submitted for laboratory analyses. Perform bulk sampling as required or as specified by the On-Site Representative. Employ a laboratory for testing and analysis, which routinely provides analytical services acceptable to Michigan Department of Environmental Quality.

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 accepted by and in an area as assigned by the On-Site Representative. 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 3 days of delivery to the landfill.

G. Final Cleaning

Abated 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. Recleaning 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 with the On-Site Representative. Document the results. If the On-Site Representative determines that the abatement area does not meet final cleaning requirements, reclean as necessary and conduct additional follow-up inspection with the On-Site Representative.

H. Lock Down Encapsulant

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.

--End of Section –

# Attachment Two

# Other Hazardous Materials Identification and Location

Questions should be directed to:

AKT Peerless Environmental Services Inc.
Alan Kneale Jr. CHMM
22725 Orchard Lake Rd.
Farmington Michigan, 48336
(248) 615-1333 extension 242

The results of the laboratory analyses of the soil samples that exceed relevant MDEQ criteria are summarized in the table below:

The results of the laboratory analyses of the soil samples that exceed relevant

| Parameter | •MDEQ Criteria Exceeded | Sample Identification. | Maximum Concentration (ug/kg) |
|---|---|---|---|
| Tetrachloroethylene | Residential and Commercial IV Drinking Water Protection Criteria Residential and Commercial IV Surface Water Interface Protection Criteria | SB-6 | 1,300 |
| Trichloroethylene | Residential and Commercial IV Drinking Water Protection Criteria | SB-3, SB-8 | 1,200 |
| Methylene Chloride | Residential and Commercial IV Drinking Water Protection Criteria | SB-3 | 460 |

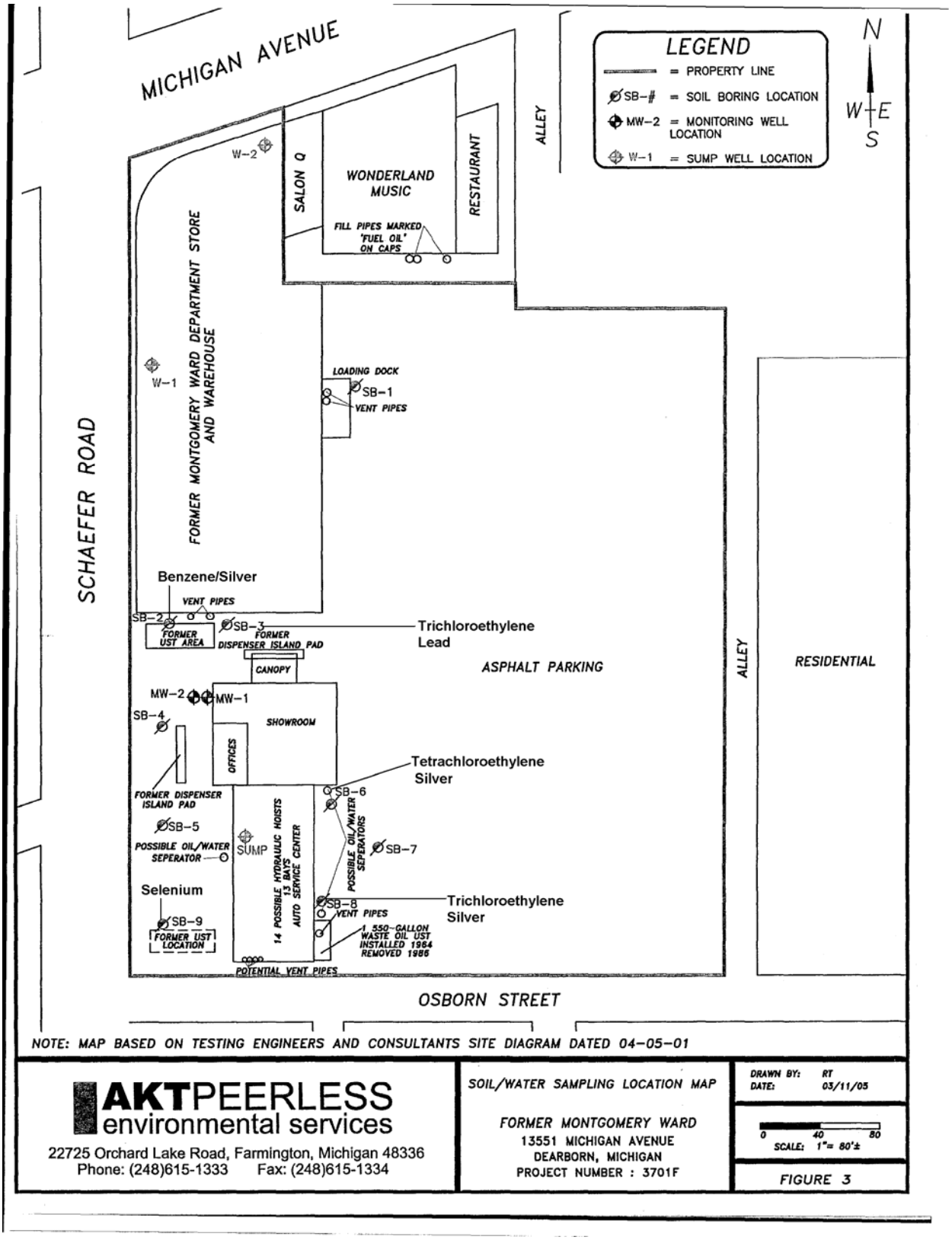
MD

EQ criteria are summarized in the table below:

The results of the laboratory analyses of the geo-probe groundwater samples that exceed relevant MDEQ criteria are summarized in the table below:

| Parameter | MDEQ Criteria Exceeded | Sample Identification | Maximum Concentration (ug/ml) |
|---|---|---|---|
| Benzene | Residential and Commercial IV Drinking Water Protection Criteria | SB-2 | 9.5 |
| Lead | Residential and Commercial IV Drinking Water Protection Criteria | SB-3 | 31 |
| Selenium | Residential Surface Water Interface Protection Criteria | SB-9 | 7.8 |
| Silver | Residential Surface | SB-2, SB-6, | 13 |

| | | | |
|---|---|---|---|
| | Water Interface Protection Criteria | SB-9 | |




Former Montgomery Ward Automotive Service Center
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Dearborn, Michigan