

MoDOT Bid for Asbestos Removal Exhibit C

Location and Facility Description

Former Greyhound Maintenance Facility
MoDOT Parcel 533
1515 North 11th Street
St. Louis, MO 63106

The facility consists of four interconnected structures constructed at different times. The structures are identified as follows:

- Cass Avenue Garage
- 11th Street Garage
- Stockroom
- Service Bays

ACM Removal from Structures

Asbestos Containing Materials (ACM's) are located throughout the former Greyhound structures as itemized in Exhibit B, Asbestos Survey Report. All ACM's within the buildings shall be removed prior to demolition of the structures by another contractor.

Underground Steam Line

1. TriGen Steam Utility Company has a 6" steam line crossing the former Greyhound parcel from west to east between Hadley Street and 11th Street (see plans for location). The line is buried underground in a concrete encasement and passes under the concrete parking slabs east and west of the building. An abandoned underground portion of the line passes under the floor slab between the 11th Street and Cass Avenue garages while an above ground portion is attached to the walls and roof of the 11th Street Garage.
2. The above ground portion attached to the building was tested and does not have ACM's. A portion of the abandoned steam line passing under the building's boiler room is exposed under a steel access panel. The exposed portion under the boiler room was tested and is ACM.
3. Since access to the TriGen ACM steam lines is restricted, the lines will remain in place and be removed by others when the building is demolished. The contractor will not be responsible for any steam line ACM removal work.

Third Party Air Monitoring

MoDOT will utilize Third Party Air Monitoring for this work.

Asbestos Removal Specifications

All asbestos removal work shall be in accordance with Section 202.40.4 of the Missouri Standard Specifications as follows:

202.40.4 Removal of Asbestos Containing Material. Unless designated otherwise, the Commission will test all buildings or structures to be removed for ACM. Testing of buildings will be limited to ACM. Buildings will not be tested for other substances. The Commission disclaims any representation that the buildings are hazard-free. If ACM is present in a building or structure, the ACM shall be removed and disposed of by the contractor in accordance with the contract documents. All regulated asbestos containing material (RACM), as defined in [Sec 202.40.4.5](#), and Category I nonfriable ACM on concrete shall be removed from the buildings prior to demolition or salvage. Category II nonfriable ACM that does not have a high probability of becoming crumbled, pulverized or reduced to powder in the course of demolition, and Category I nonfriable ACM, except floor tile or sheeting on concrete, may remain in the building during demolition. All building demolition material, including the Category II nonfriable ACM and Category I nonfriable ACM, shall be disposed of in a licensed landfill. The contractor shall not crumble, pulverize or reduce to powder Category II nonfriable ACM and shall not cut, grind, sand, abrade or render the Category I nonfriable ACM friable during demolition and transportation to the licensed landfill. If the contractor elects to remove and dispose of Category II nonfriable ACM and Category I nonfriable ACM prior to demolition, disposal shall be performed properly and at the contractor's expense.

202.40.4.1 Asbestos Identification and Testing. Suspect ACM will be sampled and tested by MoDOT. The results of the testing for friable and nonfriable ACM requiring removal will be made available to the contractor or included within the contract documents. For those buildings with unknown quantities at the time of award, results of testing for friable and nonfriable ACM requiring removal will be provided with the notice to remove.

202.40.4.2 Licensing and Permits. The contractor performing friable asbestos abatement in accordance with the regulations shall be registered with MDNR and certified as an asbestos contractor with the agency. Before beginning work on any parcel, the contractor shall provide the engineer with copies of all permits, licenses and certifications in accordance with local, state, or federal agencies.

202.40.4.3 Notification and Reporting. The contractor shall provide all information regarding asbestos abatement to the EPA, OSHA, MDNR and local agencies in accordance with applicable regulations concerning asbestos removal work. Notification shall be provided by the contractor to all applicable regulating agencies for all asbestos removal before removal and demolition begins. The contractor shall obtain any necessary authorization for the work from all applicable federal, state and local agencies. The contractor shall provide copies of all reports and authorization information to the engineer prior to beginning work on the project.

202.40.4.4 On-Site Supervisor. The contractor shall provide a trained supervisor to remain on site during all ACM removal work in accordance with EPA regulations. The contractor shall provide evidence of the supervisor's training to the engineer before any work begins.

202.40.4.5 Regulated Asbestos Containing Material and Category I Nonfriable Asbestos Containing Material on Concrete. The contractor shall remove, transfer and dispose of RACM and Category I nonfriable ACM (floor tile and sheeting on concrete) specified in the contract. The following material will be considered RACM:

- (a) Friable asbestos material.
- (b) Category I nonfriable ACM that has become friable.
- (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading.
- (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized or reduced to powder by the forces expected to act on the material in the course of demolition.

202.40.4.6 Unidentified Asbestos. If the contractor encounters suspect ACM not previously identified in the contract, the contractor shall immediately notify the engineer in accordance with the contract requirements. The engineer will have the suspect material sampled and tested, and the contractor shall not remove the additional suspect ACM until directed by the engineer.

202.40.4.7 No Salvage Permitted. No salvage of items containing asbestos material will be permitted.

202.40.4.8 Airborne Asbestos Particle Testing. The contractor shall monitor and test for airborne asbestos particles during working hours within the area of the property or fence line. The contractor shall conduct operations to keep airborne particles beyond this area within the established regulation limits. The contractor shall furnish the engineer copies of correspondence, test results, recommendations and other information to document contractor's compliance with the following requirements:

(a) When asbestos removal is completed, all work shall be inspected by the contractor for the presence of asbestos debris. Removal and cleaning shall continue until air monitoring clearance testing indicates the level of airborne fibers meets required levels. The engineer shall be notified when sampling is started. The contractor shall provide documentation to the engineer within 24 hours after the sampling has been completed that the level of airborne fibers meets required levels.

(b) For asbestos abatement projects requiring third party air monitoring as determined by the engineer, the contractor shall cooperate and coordinate with the engineer and the third party air sampler designated by the engineer to perform the third party air sampling. The contractor shall provide to the engineer a minimum of 48 hours notice of the time when the services of the third party air sampler will be required as a result of the contractor's work. The contractor shall arrange work so as not to interfere with the third party air sampler's ability to conduct the necessary air sampling. The contractor and the third party air sampler shall work cooperatively with the engineer in a sequence such that air sampling shall be conducted in a proper and timely manner by the third party air sampler with minimal interruption to any other party.

202.40.4.9 Disposal. All RACM and Category I nonfriable ACM shall be disposed of within seven days of removal from the building or structure. All RACM and ACM shall be disposed in accordance with applicable EPA, OSHA, MDNR and local agencies' regulations.

202.40.4.9.1 The contractor shall identify or mark hauling vehicles used to transport asbestos waste during loading, transporting and unloading in accordance with applicable regulations for transporting asbestos waste. The waste shall be transported in enclosed roll-offs or dumpsters, vehicles that have completely enclosed cargo areas, or a four-sided cargo area that shall be completely covered with two layers of 6-mil (0.15 mm) thick plastic sheeting or equivalent covering while the waste is being transported.

202.40.4.9.2 The contractor shall provide a Waste Shipment Record to the waste site owner or operator at the time the waste is delivered to the waste disposal site. A copy of the Waste Shipment Record shall be provided to the engineer.

Incidental Demolition and Removal for ACM Removal

1. The Asbestos Survey Report describes the type and location of ACM's in the buildings and structures. Some ACM's which require removal prior to demolition of the building may be located beneath non-asbestos materials, located within walls, located within multiple layers of floor coverings, or otherwise require removal of some portion of the existing building or structure to gain access to the ACM.

2. All demolition work required to remove non-asbestos materials to gain access to ACM's for proper removal will be considered incidental to the work and be considered included in the contract unit price for removal of the specified ACM.

Working Hours

Working hours shall be Monday thru Friday, 8:00 AM to 5:00 PM unless other hours are approved by the engineer.

Utilities and Security

1. The buildings no longer have water service so the contractor will need to furnish any water required to perform the work. The buildings have electric service for security lighting and for garage door openers, so MoDOT will furnish electricity as required to perform the work at no cost to the contractor.
2. No security for the building will be provided by MoDOT. All costs to secure the contractor's tools, equipment, and supplies are solely the responsibility of the contractor.

Changes in the Work

1. When necessary to satisfactorily complete the project, the Missouri Department of Transportation (MoDOT) reserves the right to change quantities or make other changes for which there are no provisions included in the contract.
2. If the work does not involve a significant change in the quantity (either up or down) of an established contract item, then the contractor shall complete the work as necessary and payment will be made at the established contract unit prices.
3. A significant change is defined as an increase in excess of 125% or decrease below 75% of the original contract quantity on a major item of work. A major item of work is defined as any contract item with an original value in excess of 10% of the original contract amount.
4. If the work involves a significant change in the quantity of a major item then an equitable adjustment may be made to that item's unit price. Either MoDOT or the contractor may request that such an adjustment be made and the contractor shall furnish such information needed to establish the equitable price adjustment. Such adjustment will be determined based on the contractor's actual costs to perform the work, excluding any anticipated profits from work not performed. This determination will be consistent with the contractor's other proven costs to perform the contract work, as shown in the contractor's bid computations and project cost records.
5. If the change involves an item for which no price is established in the contract then an equitable adjustment will be agreed to by both MoDOT and the contractor prior to performance of the work. Such adjustment will be determined based on the contractor's actual costs to perform the work. If a basis cannot be agreed upon, then an adjustment will be made in such amount as MoDOT may determine to be fair and equitable.

Required Documents for Final Payment

This is a checklist of required documents that must be submitted before final acceptance or payment for MoDOT demolition and asbestos abatement work. Some documents are not applicable for all projects if that type of work is not performed.

Prior to Work

- List of all contractor and subcontractor contact names and phone numbers.
- Contractor shall contact MoDOT inspector before any work is done on site. Any work performed prior to notification and approval by MoDOT will not be accepted or paid for.

Asbestos Related Documents

- Schedule of proposed work.
- MDNR Asbestos Project Notification (or St. Louis City or St. Louis County as applicable).
Note: MoDOT requires Asbestos Project Notification for every asbestos abatement project regardless of whether the structure has below regulated asbestos quantities to be removed.
- MDNR Asbestos Notification Amendments (or St. Louis City or St. Louis County as applicable).
- MDNR Asbestos Post Notification (or St. Louis City or St. Louis County as applicable).
- MDNR Asbestos Contractor Registration Certificate.
- MDNR Asbestos Supervisor and Worker Licenses and Training Certificates.
- Final measurement of asbestos materials actually removed from parcel.
- Background and Personal Air Monitoring Reports.
- Final Clearance Air Monitoring Reports for Friable Asbestos Removal.
- Asbestos Waste Manifest to verify proper disposal of asbestos.

Miscellaneous Documents

- Notarized Weekly Payroll Affidavit documentation for Prime and Sub-Contractors from start to finish of project showing compliance with Prevailing Wages.
- Subcontractor Request/Approval and Subcontractor Insurance Documentation.
- Lien Waiver from all Material Suppliers.

Summary of ACM Removal Quantities –Refer to Exhibit B Asbestos Report for Location

Type of ACM To Be Removed	Quantity
Cass Avenue Garage	
Category II NF Transite Siding	113 Sq Ft
Category I NF Asphalt Felt Material	225 Sq Ft
Category II NF Caulking on Windows	64 Lin Ft
Category II NF Caulking on Brick/Metal	739 Lin Ft
Friable TSI Elbow (Pipe #2)	10 Lin Ft
11th Street Garage	
Category II NF Caulking on Brick	144 Lin Ft
Friable TSI Mud (Pipe #1)	118 Lin Ft
Friable TSI Hangers and Mud (Pipe #2)	79 Lin Ft
Friable TSI Mud (Pipe #3)	37 Lin Ft
Friable TSI Elbow (Pipe #4)	4 Lin Ft
Friable TSI Elbows & Fittings (Pipe #2 & 4)	20 Lin Ft
Friable TSI Elbow, Joints, & Hanger (Pipe #6)	10 Lin Ft
Category I NF Floor Tile (Brown)	218 Sq Ft
Friable Surfacing Material	262 Sq Ft
Friable TSI Tape (Pipe #1)	77 Lin Ft
Friable TSI Mud (Pipe #1)	37 Lin Ft
Friable TSI Mud (Pipe #2)	8 Lin Ft
Friable TSI Hanger & Joint (Pipe #2)	3 Lin Ft
Category II NF Floor Tile (Tan)	192 Sq Ft
Stockroom	
Friable TSI Tape (Pipe #1)	77 Lin Ft
Friable TSI Mud (Pipe #1)	37 Lin Ft
Friable TSI Mud (Pipe #2)	8 Lin Ft
Friable TSI Hanger & Joint (Pipe #2)	3 Lin Ft
Category I NF Floor Tile (Tan)	192 Sq Ft
Service Lane	
Friable TSI Elbow (Air Handler)	2 Lin Ft
Category II NF Lightweight Concrete Pads	38 Sq Ft
Friable TSI Mud (Pipe #4)	21 Lin Ft
Friable TSI Mud (Pipe #5)	24 Lin Ft
Friable TSI Mud (Pipe #9)	23 Lin Ft
Category I NF Floor Tile & Mastic (White)	3184 Sq Ft
Category I NF Mastic (Under white floor tile)	533 Sq Ft
Category I NF Mastic (Under rose floor tile)	13 Sq Ft
Friable Surfacing Material	218 Sq Ft
Friable Ceiling Light Fixture Insulation	2 Sq Ft