Maryland Stadium Authority

Request for Proposals - OCD-001

On-Call Demolition Services

Project C.O.R.E

(Creating Opportunities for Renewal and Enterprise)

Issue Date: July 14, 2017

Minority Business Enterprises are Encouraged to Respond to this Solicitation

KEY INFORMATION SUMMARY SHEET

MARYLAND STADIUM AUTHORITY

Project C.O.R.E

Request for Proposals
On-Call Demolition Services

RFP Issue Date:	**July 14, 2017**
Project Location:	**Multiple locations within Baltimore City**
Procurement Officer:	**Christopher Deremeik** **Maryland Stadium Authority** **351 West Camden Street, Suite 500** **Baltimore, Maryland 21201** **Office Phone: (410) 223-4157** **e-mail:** cderemeik@mdstad.com
Procurement Method:	**Competitive Sealed Proposals**
Pre-Proposal Conference:	**July 26, 2017 at 10:00 a.m. (See Attachment L for Instructions)**
Proposals are to be sent to:	**Procurement Officer**
Closing Date and Time:	**August 14, 2017 at 11:00 a.m.**

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ATTACHMENTS

SECTION 1

GENERAL INFORMATION

1.1 Summary Statement

The Maryland Stadium Authority ("MSA") is soliciting proposals from qualified firms to provide On-Call Demolition Services related to Project C.O.R.E. or Creating Opportunity for Renewal and Enterprise. Under the terms outlined in a Memorandum of Understanding ("MOU") negotiated between MSA, the Baltimore City Department of Housing and Community Development (the "City") and the Maryland Department of Housing and Community Development (the "Department"), the MSA will oversee up to $75 million in demolition and stabilization of blighted properties throughout Baltimore City (the "Program").

This RFP will serve as the basis for establishing on-call contractors to provide these services. MSA anticipates awarding contracts to two (2) contractors at the conclusion of this procurement. Please refer to Section 4.4 for further details.

1.2 Abbreviations and Definitions

For purposes of this RFP, the following abbreviations and terms have the meanings indicated below:

a) **City** –The Baltimore City Department of Housing and Community Development.

b) **COMAR** – Code of Maryland Regulations (available at www.dsd.state.md.us).

c) **Contract** –The contract or agreement entered into between MSA and the selected Offeror responding to this RFP. The Contract will include all general MSA terms and conditions, and will incorporate the entire RFP, including any amendments/addenda, and all or indicated portions of the selected Offeror's proposal. A sample contract is attached hereto as **Attachment G.**

d) **Contract Manager** – The MSA representative for this Contract that is primarily responsible for Contract administration functions, including issuing written direction, compliance with terms and conditions, monitoring this Contract to ensure compliance with the terms and conditions of the Contract and to assist the PM in achieving on budget/on time/on target (e.g., within scope) completion of the Contract requirements. MSA may change the Contract manager at any time by written notice to the Contractor.

e) **Contractor** – The Offeror selected under the requirements and procedures contained in this RFP.

f) **Department** – The Maryland Department of Housing and Community Development (DHCD).

g) **eMM** – eMaryland Marketplace (https://emaryland.buyspeed.com).

h) **Local Time** – Time in the Eastern Time Zone as observed by the State.

i) **MBE** – Minority Business Enterprise certified by the Maryland Department of Transportation (MDOT).

j) **MOU** – The Memorandum of Understanding entered into between the MSA, the City and the Department. The MOU is included in this RFP as **Attachment H** for informational purposes only. Among other things, it outlines the roles, rights, responsibilities, and efforts of the parties to engage the local community with regards to training, employment, and contracting objectives.

k) **MSA** – Maryland Stadium Authority (available at www.mdstad.com).

l) **MSA Business Hours** – 8:30 A.M. to 5:00 P.M., local time, Monday through Friday, excluding State holidays.

m) **MSA Procurement Policies** – MSA procurement policies and procedures (www.mdstad.com/contracting).

n) **Notice To Proceed (NTP)** – A formal notification issued by the Procurement Officer that directs the Contractor to perform work and establishes the date on which the work is to commence on a Project.

o) **Offeror** – An entity that submits a Proposal in response to this RFP.

p) **Procurement Officer (PO)** – The MSA representative responsible for this RFP. MSA may change the Procurement Officer at any time and will provide by written notice to the Offerors of any such change.

q) **Program** –The demolition and stabilization of blighted properties located throughout Baltimore City as part of Project C.O.R.E.

r) **Project C.O.R.E.** – Project C.O.R.E. or Creating Opportunities for Renewal and Enterprise. Information concerning Project C.O.R.E. can be obtained at: http://dhcd.maryland.gov/ProjectCORE/Pages/default.aspx.

s) **Project Manager (PM)** – The MSA representative that is primarily responsible for monitoring the daily activities of a contract and providing technical assistance to the Contractor.

t) **Proposal** – The technical and financial responses to this RFP.

u) **RFP** – Request for Proposals.

v) **Selection Committee** – The representatives of MSA, City and the Department responsible for selecting the Contractor.

w) **State** – The State of Maryland.

1.3 Contract Type

The contract that results from this RFP will be a fixed fee/unit price contract subject to

a Not- To-Exceed (NTE) ceiling amount that shall not be exceeded without the necessary contract modification.

1.4 Contract Duration

The term of the Contract will be for a period of three (3) years with a one (1) year renewal option.

1.5 Procurement Officer

The sole point-of-contact for purposes of this RFP is the Procurement Officer listed below:

Christopher Deremeik
Maryland Stadium Authority
351 West Camden Street, Suite 500
Baltimore, Maryland 21201
Telephone: 410-223-4157
Email: cderemeik@mdstad.com

MSA may change the Procurement Officer at any time and will provide written notice to the Offerors. In the absence of the Procurement Officer, all correspondence shall also be directed to the Contract and Project Manager.

1.6 Contract and Project Manager

The Contract and Project Manager is:

Al Tyler
Assistant Vice President
Maryland Stadium Authority
351 West Camden Street, Suite 500
Baltimore, Maryland 21201
Telephone: 410-223-4141
Email: atyler@mdstad.com

MSA may change the Project Manager and Contract Manager at any time by written notice to the Contractor.

1.7 Pre-Proposal Conference and Site Visit

A Pre-Proposal Conference will be held on **July 26, 2017 beginning at 10:00 a.m. (Local Time).** See **Attachment L** for further details and instructions.

1.8 e-Maryland Marketplace

In order to receive a contract award, a vendor must be registered on eMM. Registration is free. Go here to register: https://emaryland.buyspeed.com. Click on "Registration" to begin the process and follow the prompts.

1.9 Questions

Questions may be submitted **by e-mail** to the Procurement Officer. All questions are to be submitted via email no later than **12:00 pm (Local Time) on July 31, 2017** to the Procurement Officer. Based on the availability of time to research and communicate an answer, the Procurement Officer will decide whether an answer can be given before the proposal closing date. Answers to all substantive questions that have not previously been answered, and are not clearly specific to the requestor, will be responded via addendum.

1.10 Proposal Closing Date

Proposals must be received by the Procurement Officer, at the address listed in Section 1.5 and the Key Information Summary Sheet, **no later than 11:00 am (Local Time) Monday, August 14, 2017**, in order to be considered.

Requests for extension of this date or time will not be granted. Offerors mailing Proposals should allow sufficient mail delivery time to ensure timely receipt by the Procurement Officer. Proposals received by the Procurement Officer after the deadline will not be considered. Proposals may not be submitted by e-mail or facsimile. Proposals will not be opened publicly.

1.11 Duration of Offer

Proposals submitted in response to this RFP are irrevocable for **180 days** following the closing date for proposals. This period may be extended at the Procurement Officer's request only with the Offeror's written agreement.

1.12 Revisions to the RFP

If it becomes necessary to revise this RFP before the closing date for proposals, amendments will be provided to all prospective Offerors that were sent this RFP. Amendments made after the closing date for proposals will be sent only to those Offerors who submitted a responsive and timely proposal.

Acknowledgment of the receipt of all amendments to this RFP issued before the proposal closing date must accompany the Offeror's Proposal as identified in Section 4. Acknowledgement of the receipt of amendments to the RFP issued after the proposal closing date shall be in the manner specified in the amendment notice. Failure to acknowledge receipt of amendments does not relieve the Offeror from complying with all terms of any such amendment.

Any amendments or revisions to the RFP will be made available on the MSA's website and e-Maryland Marketplace.

1.13 Minority Business Enterprises

A minimum overall MBE subcontract participation goal of thirty percent (30%) has been established for this Contract. Sub-goals do not apply to this procurement. All Subcontractors named by the Offeror as part of their MBE Participation Schedule must be certified with the Maryland Department of Transportation (MDOT). Offerors' submissions must also include the MBE Subcontractor's MDOT certification number as well as the North American Industry Classification System (NAICS) product

and service description to be performed.

The forms (with instructions) that are required for submissions in response to subsequent RFPs are attached hereto as **Attachment D**. For information on certified MBE firms, the directory is available at http://mdot.state.md.us. Select the MBE Program label at the left side of the website. The most current and up- to-date information on MBEs is available at this website. The Governor's Officeof Minority Affairs has issued a Q&A regarding counting participation by MBE primes. Information is available by selecting this link:
http://goma.maryland.gov/Documents/MBE_Toolkit/MBEPrimeRegulation_QA.pdf

1.14 Cancellations; Discussions

MSA reserves the right to cancel this RFP, to accept or reject any and all proposals, in whole or in part, received in response to this RFP, to waive or permit cure of minor irregularities, and to conduct discussions with any or all qualified or potentially qualified Offerors in any manner necessary to serve the best interests of MSA and City Schools. This may be followed by submission of Offeror-revised Proposals and best and final offers (BAFO). MSA also reserves the right, in its sole discretion, to award a contract based upon written proposals received, without prior discussions or negotiations.

1.15 Incurred Expenses; Economy of Preparation

MSA and/or City Schools will not be responsible for any costs incurred by an Offeror in preparing and submitting a proposal, in making an oral presentation, in providing a demonstration or in performing any other activities relative to this RFP. Proposals should be prepared simply and economically, providing a straightforward, concise description of how the Offeror proposes to meet the requirements of this RFP.

1.16 Protests/Disputes

Any protest or dispute related to this RFP will be subject to Section 10 of MSA's Procurement Policies and Procedures and the relevant provisions of the Contract. MSA's Procurement Policies are available for review on MSA's website at www.mdstad.com/contracting or may be obtained by contactingthe Procurement Officer.

1.17 Access to Public Records Act Notice

An Offeror should give specific attention to the clear identification of those portions of the Proposal that it considers confidential, proprietary commercial information or trade secrets, and provide written justification why such materials, upon request, should not be disclosed by the State under the Public Information Act, Title 4 of the General Provisions Article of the Annotated Code of Maryland.

Offerors are advised that, upon request for this information from a third party, the Procurement Officer is required to make an independent determination whether the information may be disclosed.

1.18 Offeror Responsibilities

The Contractor shall be responsible for all products and services required by this RFP. Subcontractors must be identified, and a complete description of their roles relative to the Proposal must be included in the Proposal. The Contractor retains responsibility for all work to be performed by and any deliverable submitted by a subcontractor. If an Offeror that seeks to perform or provide the services required by this RFP is the subsidiary of another entity, all information submitted by the Offeror such as, but not limited to, references and financial reports, shall pertain exclusively to the Offeror, unless the parent organization will guarantee the performance of the subsidiary. If applicable, the Offeror's proposal must contain an explicit statement that the parent organization will guarantee the performance of the subsidiary.

1.19 Patents, Copyrights, and Intellectual Property

a) If the Contractor furnishes any design, device, material, process, or other item, that is covered by a patent or copyright or that is proprietary to or a trade secret of another, it shall obtain the necessary permission or license to permit the MSA, the City or the Department to use such item.

b) The Contractor will defend or settle, at its own expense, any claim or suit against the MSA, the City or the Department alleging that any such item furnished by the Contractor infringes any patent, trademark, copyright, or trade secret. If a third party claims that a product infringes that party's patent, trademark, copyright, or trade secret, the Contractor will defend the MSA, the City or the Department against that claim at the Contractor's expense and will pay all damages, costs, and attorneys fees that a court finally awards, provided the MSA, the City or the Department: (i) promptly notifies the Contractor in writing of the claim; and (ii) allows the Contractor to control, and cooperates with the Contractor in, the defense and any related settlement negotiations. The obligations of this paragraph are in addition to those stated in the next paragraph.

c) If any products furnished by the Contractor become, or in the Contractor's opinion are likely to become, the subject of a claim of Infringement, the Contractor will, at its option and expense: (i) procure for MSA, the City or the Department the right to continue using the applicable item; (ii) replace the product with a non-infringing product substantially complying with the item's specifications; or (iii) modify the item so that it becomes non-infringing and performs in a substantially similar manner to the original item.

1.20 Non-Availability of Funding

If the General Assembly fails to appropriate funds or if funds are not otherwise made available for continued performance for any fiscal period of a contract succeeding the first fiscal period, the contract shall be canceled automatically as of the beginning of the fiscal year for which funds were not appropriated or otherwise made available; provided, however, that this will not affect the rights of the Contractor and the MSA, the City, and the Department, under any termination clause in the contract. The effect of termination of the contract hereunder will be to discharge the Contractor and the

MSA, the City, and the Department from future performance of the contract, but not from their rights and obligations existing at the time of termination. The Contractor shall be reimbursed for the reasonable value of any nonrecurring costs incurred but not amortized in the price of the contract. The MSA, the City or the Department shall notify the Contractor as soon as it has knowledge that funds may not be available for the continuation of the contract for each succeeding fiscal period beyond the first.

1.21 Financial Disclosure

The Contractor shall comply with Section 13-221 of the State Finance and Procurement Article of the Annotated Code of Maryland, which requires that every person that enters into contracts, leases, or other agreements with the State or its agencies during a calendar year under which the business is to receive in the aggregate, $100,000 or more, shall, within 30 days after the aggregate value of these contracts, leases or other agreements reaches $100,000, file with the Secretary of the State of Maryland certain specified information to include disclosure of beneficial ownership of the business.

1.22 Non-Exclusive Use

Neither this RFP nor any resulting Contract shall be construed to require MSA and or City/Department to use any Offeror or exclusively use the Contractor for the services described in this RFP. The MSA, the City or the Department reserves the right to obtain services of any nature from other sources when it is in the best interest of the MSA, the City or the Department to do so and without notice to any party. The MSA, the City or the Department makes no guarantees that it will purchase any products or services from the Contractor resulting from this RFP.

1.23 Sustainability Policies

MSA is committed to procuring all supplies, services, maintenance, construction, and architect-engineer services in a manner consistent with the promotion of sound environmental practices. All goods and services provided in response to this solicitation shall conform to those environmental standards.

1.24 Payments by Electronic Fund Transfer

By submitting a response to this RFP, the Offeror agrees to accept payments by electronic funds transfer (EFT). The MSA will provide the required EFT forms to the awarded Contractor.

1.25 Confidentiality

Subject to the Maryland Public Information Act and any other applicable laws, all confidential or proprietary information and documentation relating to either party to a Contract resulting from this RFP (including without limitation any information or data stored within the Contractor's computer systems) shall be held in absolute confidence by the other party. Each party shall, however, be permitted to disclose relevant confidential information to its officers, agents, and employees to the extent that such disclosure is necessary for the performance of their duties under the Contract, provided that the data may be collected, used, disclosed, stored, and disseminated

only as provided by and consistent with the law. The provisions of this section shall not apply to information that (a) is lawfully in the public domain; (b) has been independently developed by the other party without violation of the Contract; (c) was already in the possession of such party; (d) was supplied to such party by a third-party lawfully in possession thereof and legally permitted to further disclose the information; or (e) such party is required to disclose by law.

1.26 Loss of Data

In the event of loss of any MSA, the City or the Department data or records where such loss is due to the intentional act or omission or negligence of the Contractor or any of its subcontractors or agents, the Contractor shall be responsible for recreating such lost data in the manner and on the schedule set by the Procurement Officer. The Contractor shall ensure that all data is backed up and recoverable by the Contractor.

1.27 Non-Hiring of Employees

No official or employee of the State, as defined in State Government Article, § 15-102, Annotated Code of Maryland, whose duties as such official or employee include matters relating to or affecting the subject matter of this procurement, shall, during the pendency and term of a resulting Contract, and while serving as an official or employee of the State, become or be an employee of the Contractor or any entity that is a subcontractor on said Contract.

1.28 Nondiscrimination in Employment

The Contractor agrees: (a) not to discriminate in any manner against an employee or applicant for employment because of race, color, religion, creed, age, sex, marital status, sexual orientation, national origin, ancestry, or disability of a qualified individual with a disability; (b) to include a provision similar to that contained in subsection (a) above in any subcontract except a subcontract for standard commercial supplies or raw materials; and (c) to post, and to cause subcontractors to post, in conspicuous places available to employees and applicants for employment, notices setting forth the substance of this clause.

1.29 Contingent Fee Prohibition

The Contractor warrants that it has not employed or retained any person, partnership, corporation, or other entity, other than a bona fide employee, bona fide agent, bona fide salesperson or commercial selling agency working for the Contractor, to solicit or secure a Contract, and that it has not paid or agreed to pay any person, partnership, corporation, or other entity, other than a bona fide employee, bona fide agent, bona fide salesperson or commercial selling agency, any fee or other consideration contingent on the making of a Contract.

1.30 Political Contribution Disclosure

The Contractor shall comply with Election Law Article, §§14-101 to 14-108, Annotated Code of Maryland, which requires that every person that enters into contracts, leases, or other agreements with the State, a county, or an incorporated municipality, or their agencies, during a calendar year in which the person receives in the aggregate $100,000 or more, shall file with the State Board of Elections a

statement disclosing contributions in excess of $500 made during the reporting period to a candidate for elective office in any primary or general election. The statement shall be filed with the State Board of Elections:
(1) before a purchase or execution of a lease or contract by the State, a county, an incorporated municipality, or their agencies, and shall cover the preceding two calendar years; and (2) if the contribution is made after the execution of a lease or contract, then twice a year, throughout the contract term, on: (a) February 5, to cover the 6-month period ending January 31; and (b) August 5, to cover the 6-month period ending July 31.

1.31 Proposal Security

The following proposal security requirements are to be included with the Proposer's response to the RFP. Failure to comply with these requirements will render the Proposer's response unacceptable.

a) The Proposer shall furnish (include with the Financial Proposal) a Bid/Proposal Bond Form issued by a surety company licensed to issue bonds in the State of Maryland. The bond must be in an amount not less than five percent (5%) of the total amount of the Financial Proposal.
b) A certified check or cash escrow may be accepted in lieu of a proposal bond. If approved by the Attorney General, a proposer may furnish a person bond, property bond, or bank or savings & Loan association's letter of credit on certain designated funds in the face amount required for the proposal bond. Approval shall be granted only upon determination that the alternative form of security offered affords protection to the MSA, equivalent to a corporate surety bond.
c) Should the Proposer to whom the Contract is awarded fail to be unable to execute the Contract, for any reason, within ten (10) days after notification of award, then an amount equal to the difference between the accepted price and that of the Proposer to whom the award subsequently is made shall be paid to MSA not as a penalty but as liquidated damages.

1.32 Certified Payrolls

The Contractor shall be responsible for submission of Certified Payroll Reports to the MSA within five (5) business days of the end of each payroll period.

1.33 Contract Affidavit

Offerors are advised that if a contract is awarded as a result of this RFP, the successful Offeror will be required to complete a Contract Affidavit. A copy of the Affidavit is included for informational purposes as **Attachment c** of this RFP. This Affidavit must be provided within 5 business days after notification of proposed contract award.

1.34 MBE and Prevailing Wage Compliance System

As part of MSA's commitment to assist firms in complying with legal and contractual requirements, MSA maintains a web-based MBE and prevailing wage compliance system. The system was designed to provide various work-flow automation features that improve the project reporting process. This system will monitor contract compliance for all Program contracts. The Prime firm, its first tier consultants and all MBE participation

subconsultants awarded contracts will be required to use the web-based system to submit project information including, but not limited to, certification of payments made and received and certified payroll records (if the contract includes prevailing wage and/or workforce development requirements). MSA may require additional information related to the contract to be provided electronically through the system at any time before, during, or after contract award.

SECTION 2

OFFEROR'S QUALIFICATIONS

The following minimum qualification must be met in order to be considered for this RFP:

a) The Offeror shall be a firm experienced with providing demolition services on properties containing hazardous material as a prime contractor for programs or projects similar in size and scope to that described in the RFP;
b) The Offeror shall have significant experience participating in all phases of construction including pre-construction (procurement, submittal review, etc.); construction (contract administration and enforcement, scheduling, budgeting, etc.); and, post-construction (close out documentation, final reporting, etc.);
c) The Offeror shall have experienced personnel available to manage multiple projects in various stages of construction simultaneously and to support the overall Program; and,
d) The Offeror shall have a minimum of five (5) years experience providing prime contracting services on demolition projects.

SECTION 3

PURPOSE AND SCOPE OF WORK

3.1 Purpose

As identified in Section 1.1, MSA is soliciting proposals from Prime Contractors to provide On-Call Demolition Services for Project C.O.R.E. (Creating Opportunities for Renewal and Enterprise). Under the terms outlined in a Memorandum of Understanding (**Attachment H**) negotiated between MSA, The Baltimore City Department of Housing and Community Development and the Maryland Department of Housing and Community Development, the MSA will oversee demolition of blighted structures throughout Baltimore City.

3.2 Scope of Work – Requirements

The scope of work is attached hereto as **Attachment E.**

The Contractor will be expected to work closely with MSA and the Environmental Consultant, as defined by the Project Manual (**Attachment J**), as appropriate throughout all phases of the Project. MSA reserves the right to add or delete scope in a manner necessary to serve the best interests of MSA. MSA reserves the right to proceed with all or a partial portion of the scope of work at any point throughout the project.

3.3 Contractor's Work Force

Contractor shall provide a work force sufficient to complete the work as it is specified. Contractor shall report without delay any damage to any equipment or property and shall be held responsible for the repair and/or replacement of any such damage caused by his/her crew or equipment.

3.4 Working Hours

Regular working hours shall mean between 7:00 a.m. and 5:00 p.m. Monday through Friday, MSA holidays and weekends excluded.

3.5 Coordination/Planning

All work must be conducted in a manner which meets the approval of MSA. There may be meetings on-site between the Contractor and Program Manager to certify the accomplishment of work. Any specific problem area which does not meet the contract requirements set forth herein shall be called to the attention of the Contractor along with the action required to satisfy the requirements.

MSA reserve the right to perform similar work by MSA forces or other contractual means in the immediate vicinity or adjacent to the work being performed by the Contractor.

3.6 Contractor's Use of Premises

The Contractor shall confine operations at the site to the areas permitted under the Contract. Portions of the site beyond areas on which work is indicated are not to be disturbed. The Contractor shall conform to site rules and regulations affecting work

while engaged in contract work.

3.7 Cleaning

The Contractor shall maintain the work areas clean of debris at all times. The Contractor shall maintain the work areas clean of debris in accordance with the requirements outlined in the Project Manual.

3.8 Safety

The Contractor shall take all necessary precautions for the safety of employees on the work crew to prevent accidents or injury to persons on, about, or adjacent to the premises where the work is being performed. All work to be done in accordance with all applicable laws and codes.

3.9 Insurance Requirements

Upon Contract award, the insurance requirements are as follows:

a) Commercial General Liability Insurance

The Contractor shall obtain and maintain, from and after the date of the Contract, insurance coverage for general liability claims (including, but not limited to, claims for bodily injury and property damage, including loss of use) arising from the operations of the Contractor, subcontractors, and suppliers that satisfies the following requirements:

1. Commercial General Liability ("CGL") insurance to be provided through the use of ISO Coverage Form CG-00-01-1001 or its equivalent.

2. Minimum coverage limits of: $1,000,000 as a per occurrence limit; $2,000,000 as a general aggregate limit (applied separately to claims arising from the Contractor's performance under the Contract); and $2,000,000 as a products/completed operations limit.

3. MSA, State of Maryland, City of Baltimore, the City and the Department shall be added as Additional Insured's by additional insured endorsements ISO CG-20-10 and CG-20-37 or their equivalents. As Additional Insureds, MSA, State of Maryland, City of Baltimore, City and the Department shall have coverage for liability arising out of the Contractor's ongoing and completed operations performed for MSA, the City or the Department.

4. The CGL insurance policy shall include waivers of subrogation in favor of MSA, the City and the Department.

5. The CGL insurance policy shall be primary and noncontributory with respect to the coverage afforded to MSA, the City and the Department.

6. The CGL insurance policy shall not contain any exclusion for: X, C and/or U hazards; third party actions over claims; or punitive damages.

7. The CGL insurance policy shall include Blanket Written Contractual Liability covering all contractual liabilities and indemnities assumed by the Contractor pursuant to the Contract.

8. The CGL insurance policy shall also include the following extensions:

   i. The general aggregate limit shall apply separately to the Contract;

   ii. Premises/Operations;

   iii. Actions of Independent Contractors, subcontractors and subcontractors;

   iv. Products/Completed Operations to be maintained for at least two (2) years after the expiration or termination of the Contract;

   v. Personal injury liability including coverage for offenses related to employment and for offenses assumed under the Contract (including deletion of any standard employment and/or contractual exclusions if contained in the personal injury coverage section); and

   vi. If a Project encroaches within fifty (50) feet of the centerline of a railroad, the CGL insurance policy shall include ISO Endorsement CG- 24-17 or its equivalent prior to the Contractor beginning any work on such Project.

b) Automobile Liability

The Contractor shall obtain and maintain, from and after the date of the Contract, insurance coverage for third party legal liability claims arising from bodily injury and/or damage to property of others resulting from the ownership, maintenance, or use of any motor vehicle (whether owned, hired, or not owned), both on-site and off-site. Such Business Automobile Liability ("BAL") insurance shall also include coverage against uninsured motorists and automobile contractual liability. The BAL insurance shall satisfy the following requirements:

1. Minimum $1,000,000 combined single limit on coverage.

2. The BAL insurance policy shall include waivers of subrogation in favor of MSA, the City and the Department.

3. The BAL insurance policy shall name MSA, State of Maryland, the City, City of Baltimore, and the Department as Additional Insureds.

4. If a Project encroaches within fifty (50) feet of the centerline of a railroad, the BAL insurance policy shall include ISO Endorsement CA-20-70 or its equivalent prior to the Contractor beginning any work on such Project.

c) Workers Compensation and Employers Liability

The Contractor shall obtain and maintain, from and after the date of the Contract,

insurance coverage for claims arising from Workers Compensation statutes and from Employer's Liability or other third party legal liability claims arising from bodily injury, disease, or death of the Contractor's employees. Such insurance shall satisfy the following requirements:

1. The Contractor shall provide Workers Compensation coverage for all employees and require that its subcontractors provide Workers Compensation coverage for all their employees in accordance with the statutory requirements of the jurisdiction in which the work is being performed.

2. The policy shall provide for both Workers Compensation coverage ("Part A") and Employers Liability coverage ("Part B").

3. The minimum limits of coverage for Part A (Workers Compensation) shall be in accordance with the statutory requirements of the jurisdiction in which the work is being performed. The minimum limits of coverage for Part B (Employers Liability) shall be $1,000,000 for each accident, $1,000,000 for each employee, and a $1,000,000 aggregate policy limit for disease.

4. Part B (Employers Liability) of such insurance policy shall include waivers of subrogation in favor of MSA, State of Maryland, City of Baltimore, the City and the Department. These parties shall also be named as Additional Insureds with respect to Part B (Employers Liability).

d) Excess Liability / Umbrella Liability

The Contractor shall obtain and maintain, from and after the date of the Contract, insurance coverage for third party legal liability claims against the Contractor that exceed the per occurrence or general aggregate limits of the CGL insurance policy, the BAL insurance policy, and Part B (Employer's Liability) of the Workers' Compensation and Employer's Liability insurance policy. Such excess/umbrella insurance shall satisfy the following requirements:

1. Unless otherwise specified by the Procurement Officer, the required minimum coverage limits for such insurance is $1,000,000 per occurrence.

2. MSA, State of Maryland, City of Baltimore, the City and the Department shall be named as Additional Insureds with respect to such excess/umbrella liability insurance.

3. The excess/umbrella liability insurance policy shall include waivers of subrogation in favor of MSA, State of Maryland, City of Baltimore, the City and the Department.

4. The excess/umbrella liability insurance shall be primary and noncontributory with respect to the coverage afforded to MSA, State of Maryland, City of Baltimore, the City, and the Department.

e) Additional insurance requirements

1. The amount of insurance coverage specified herein shall be the minimum amount of insurance available to satisfy claims. The Contractor shall purchase and maintain such insurance with a minimum of the limits of liability as specified herein, as otherwise specified by the Procurement Officer with respect to a particular Project, or as required by law, whichever is greatest.

2. A policy is not acceptable if it allows the costs associated with investigating, managing, or defending against any claim or any other costs incurred by the insured or the insurer to be deducted from the policy limits.

3. Required insurance shall be purchased from and maintained with a company or companies lawfully authorized to do business in the State of Maryland. Insurance companies providing coverage as required herein shall have an AM Best rating of A-VII or better. All policies must be on a primary basis. All policies, except Professional Liability and Workers' Compensation, shall name MSA, State of Maryland, City of Baltimore, the City and the Department as "Additional Insured."

4. Contractor shall be responsible for the maintenance of this insurance regardless of whether the work is performed directly by Contractor, by any subcontractor, by any person employed by the Contractor or any subcontractor, or by anyone for whose acts the Contractor may be liable.

5. The Contractor agrees, for itself and for its insurers, that neither Contractor nor its insurers may raise or use in the adjustment of claims or in the defense of suits against MSA, State of Maryland, City of Baltimore, the City, and the Department, any immunity from or limitation of liability for torts (including under the Maryland Tort Claims Act and/or the Maryland Local Government Tort Claims Act) unless requested by MSA.

6. MSA prefers that all liability insurance policies (whether for professional liability, commercial general liability, business automobile liability, excess and/or umbrella liability, employer liability, or otherwise) be written on an "occurrence basis." However, if any liability insurance policy is on a "claims made" basis, the insurance must be maintained for a period of no less than ten (10) years after the end of the term of the Contract and the retroactive date must be listed as prior to or on the date on which the Contract is executed. If the policy is scheduled to be cancelled, not renewed, or not replaced prior to the expiration of such ten (10) year period, then prior to such cancellation, nonrenewal, or non- replacement, the Contractor must purchase an Extended Reporting Coverage (Tail) to cover the exposures past the cancellation, termination, or expiration date, as applicable.

3.10 Payment and Performance Bond

Contractor shall obtain a 100% performance and payment bond from a surety company acceptable to the MSA. The Payment and Performance Bond shall be executed using a form approved by the MSA.

3.11 Invoicing

The Contractor shall submit monthly invoices after completion of the work.

3.12 Schedule

The scope of work is to be completed in a timeline as agreed upon by the MSA and the Contractor.

SECTION 4

PROPOSAL SUBMISSION & REQUIREMENTS

4.1 Submission – General Requirements

Offerors will submit Proposals in two separate volumes: Volume I – Technical Proposal and Volume II – Financial Proposal. Each volume shall be labeled as follows: "**Project C.O.R.E. - Request for Proposals – On-Call Demolition Services - Volume [I or II].**"

Each Offeror is required to submit a sealed package clearly labeled for the respective "Volume" and tendered to the attention of the Procurement Officer at the address listed in Section 1.5 of this RFP. **An electronic submission (formatted as a pdf file in a flash drive) and five (5) copies of each Volume are to be submitted.** ***NOTE: The Technical and Financial Proposals are to be provided on two separate, clearly labeled flash drives.*** All pages of the Proposal volume must be consecutively numbered from beginning (Page 1) to end (Page "x"). The final page of each Volume shall state "Final Page".

Offerors shall submit both Volumes by the closing date set forth in Key Information Summary Sheet, as revised by any addendum. Upon receipt of submissions, the Selection Committee will review the Offerors' technical Proposals. Firms deemed as meeting all requirements will be ranked and, based on the achieved rankings; selected firms will then be "short listed". The Selection Committee will then review the financial proposals from the "short listed" firms.

NOTE: Offerors must respond to all requirements identified in the RFP. Offerors who fail to do so may be found non-responsive and deemed not reasonably susceptible of being selected for award.

4.2 Volume I – Technical Proposal

This section provides specific instructions for submission of the Offeror's Technical Proposal. The Technical Proposal shall include:

a) Transmittal Letter

A transmittal letter must be included in the Technical Proposal. The purpose of this letter is to transmit the proposal to the Procurement Officer. The transmittal letter should be brief (no more than 2 pages), and signed by an individual who is authorized to commit the Offeror to the services and requirements as stated in this RFP. The letter shall identify the firm's name, address, contact person, current EMR Rating and any exceptions the Offeror has taken to the requirements of this RFP and attachments, acknowledge the receipt of any amendments/addenda associated with this RFP, and identify the tax identification number of the "prime" Offeror.

b) Title Page and Table Of Contents

The Technical Proposal shall begin with a title page bearing the name and address of the Offeror, two points of contact information (including e-mail address), and the

name of this RFP. A table of contents for the proposal should follow the title page. Information that is claimed to be confidential shall be clearly identified. **Unless there is a compelling case, an entire proposal should not be labeled confidential**; only those portions that can reasonably be shown to be proprietary or confidential should be so labeled.

c) Executive Summary

The Offeror shall condense and highlight the contents of the Technical Proposal in a separate section entitle "Executive Summary". The summary shall identify any exceptions the Offeror has taken to the requirements of this RFP and attachments, acknowledge the receipt of any amendments / addenda associated with this RF, and identify the tax identification number of the "prime" Offeror. The Executive Summary shall not exceed 2 pages.

Warning: Exceptions to terms and conditions, including those included in the Sample Contract (See Attachment G) may result in having the proposal deemed unacceptable or classified as not reasonably susceptible of being selected for award. If an Offeror takes no exception, the Executive Summary should so state.

d) Offeror Experience and Qualifications

Section 2 (Offeror Qualifications) and Section 3 (Purpose and Scope of Work) of this RFP, provide Offerors with information on the desired outcome of this solicitation.

At a minimum the following is to be included in this section:

1. **Corporate Qualifications**

   a. Provide a completed Corporate Profile Form included in **Attachment M**.

   b. Insurance: Provide proof of insurance certifying the Offeror's ability to comply with the insurance requirements contained in Sections 1.43 and 1.44 as well as the Contract attached hereto in **Attachment G**.

   c. Bonding: Provide a letter from the Offeror's Bonding Company certifying the Offeror's ability to comply with the bonding requirements contained in Section 1.40 as well as the Contract Attached hereto in **Attachment G**.

   Joint Ventures: Offerors shall also identify any joint ventures at the time of submission, if any, and the roles these relationships will have in the performance of a Contract. Upon MSA's request, Offerors shall make available within 24 hours the joint venture scope of work documents and/or agreement. Offerors shall not submit any information regarding sub-consultants.

2. **Experience and Past Performance**

   a. Submit five (5) project examples that demonstrate the Offeror's relevant experience with similar projects. Projects shall have achieved Substantial Completion within the past ten (10) years. The project examples shall include a clear and concise project description including a statement on the project's relevance to this project, the role of the Offeror, the project construction cost, the project size (SF / or # of properties), the project delivery method, the project completion date, any of the proposed Key Personnel who were involved in the project including their role and responsibilities; and contact information for a representative of the Owner of the project. Project examples are to be submitted on the Project Example Forms provided under **Attachment N**.

3. **Key Personnel**

   a. Organizational Chart

      i. Provide an Organizational Chart identifying Key Personnel that will be assigned to the Project should the Proposer be selected as the successful Contractor.

   b. Resumes

      i. Provide resumes for the following Key Personnel proposed to be assigned project. Resumes must be provided for the Project Executive, Project Manager (who will be directly responsible for management of the work over multiple locations), and at least two Field Superintendents. Note: Only one Project Executive and one Project Manager are to be identified. Resumes are to be submitted on the Key Personnel Resume Form provided under **Attachment O.**
      ii. Include all required information regarding Key Personnel with each individual's resume. Information included elsewhere in the Proposal may not be considered in the evaluation of Key Personnel.
      iii. Within each resume, include the following information about each individual:
         a. Educational background, including degree (s) received.
         b. Work experience with the Offeror, including duration of employment, with dates, and position(s) held.
         c. Work experience with prior employers, including duration of employment, with dates, and position(s) held.
         d. Project experience, preferably on one or more of the projects submitted in response to the "Experience and Past Performance" paragraph in this section, with

emphasis on projects similar in size and nature to this Project. Indicate if project experience is with the Offeror or with a prior employer. Provide a brief description of each project, including the project delivery method, project type, building type, building size, and project construction cost. Indicate the individual's specific role on each project listed in the resume. Include the exact period the individual performed the specific role in the (month and year), even if the role was performed for the entire project. If the specific role was performed for a particular part or aspect of the project, provide details.

4. **Subcontractors**

   a. Provide names of all subcontractors and work that they will be performing on for the Project. Please identify if the firms are MBE certified by MDOT.

5. **Understanding of Protocols and Scope of Work**

   a. Provide a brief narrative highlighting the Offeror's understanding of the Protocols and Scope of Work. The narrative should detail the measures that the Offeror will take to ensure Protocols are properly adhered to and demonstrated the anticipated typical sequence associated with a half/full block demolition scenarios.

6. **Economic Benefit**

   a. Provide a narrative describing the economic benefit that will accrue to the Maryland economy as a direct or indirect result of the performance of the Contracts. Do not include any details of the Offeror's Financial Proposal in this section.

   b. The following factors are to be considered: the estimated percentage of contract dollars recycled back into Maryland's economy in support of the Contract through the use of Maryland sub-contractors, suppliers and Joint Venture partners. Be as specific as possible. Include a breakdown of the expenditures in this category.

   c. Estimate the percentage of Subcontractor/Supplier dollars committed to Maryland small business and MBE certified firms. (These are also included under the category above.)

   Note: MSA reserves the right to require, during proposal evaluation, that the Offeror provide a copy of its most current Annual Report or audited Statement of Financial Condition to include a Balance Sheet, Income Statement and Cash Flow

Statement or other acceptable financial information. These documents may be relied upon in any selection determination.

e) Required Submissions

Offerors must submit the following items in the Technical Proposal:

1. A completed Bid/Proposal Affidavit **(Attachment A)**;
2. A completed Conflict of Interest Information/Affidavit and Disclosure (**Attachment B**);
3. Verification from the Offeror's insurance carrier / provider identifying deductible amount and coverage limits for Commercial General Liability, Excess/Umbrella , Automobile, and Worker's Comp/Employer Liability;
4. Transmittal Letter with requested information:
5. Corporate Profile – Using **Attachment M**;
6. Project Experience - Using **Attachment N;**
7. Key Personnel Resumes – Using **Attachment O**;
8. List of Subcontractors and the work they will be performing;
9. Protocol and Scope of Work Understanding Narrative;
10. Economic Benefit Narrative.

Failure to submit any of the above listed requirements may result in the Offeror's proposal being found non-responsive and deemed not susceptible for award recommendation.

4.3 Volume II - Financial Proposal

This section provides specific instructions for submission of the Offeror's Financial Proposal. The Financial Proposal shall include:

a) Required Submissions

Offerors must submit the following items in the Financial Proposal:

1. Pricing Form attached hereto as **Attachment F.** Please note that all clarifications of the scope must be included in the Transmittal letter included in the Technical Proposal. Pricing forms that include any qualification or clarification will be rejected.

2. An accurately completed and signed MBE Form D1 – "MBE Utilization and Fair Solicitation Affidavit and MBE Participation Schedule." Per COMAR regulation 21.11.03.09.C(5), failure to include and or accurately complete this form shall result in a determination that the proposal is not susceptible for award.

SECTION 5

EVALUATION CRITERIA AND SELECTION PROCEDURE

5.1 Evaluation Criteria

Evaluation of the Proposals will be performed by the Selection Committee and will be based on the criteria set forth below. The Technical Proposal will be worth 30% of the overall score. The Financial Proposal will be worth 70% of the overall score.

5.2 Technical Criteria

The criteria used to rate the Technical Proposal is listed below in descending order of importance:

a. Firm history and relevant prior experience;
b. Key personnel similar relevant experience;
c. Protocol understanding and approach narrative;
d. Economic benefit.

5.3 Financial Criteria

All Offerors will be given a score based on their evaluated financial proposal. The lowest evaluated financial proposal will receive the maximum score of 70 points. The score for the other financial proposals will be determined on a pro-rata basis compared to the lowest evaluated financial proposal. Financial evaluation will be based upon the base scope of work as identified on the Pricing Form (**Attachment F**). The MSA reserves the right to negotiate final pricing based upon changes resulting from the information provided in Environmental Reports.

5.4 Reciprocal Preference

Although Maryland law does not authorize procuring agencies to favor resident Offeror in awarding procurement contracts, many other states do grant their resident businesses preferences over Maryland contractors. Therefore, as described in COMAR 21.05.01.04, a resident business preference may be given if: a responsible Offeror whose headquarters, principal base of operations, or principal site that will primarily provide the services required by this RFP is in another state submits the most advantageous offer; the other state gives a preference to its residents through law, policy, or practice; and the preference does not conflict with a federal law or grant affecting the Contract. The preference given will be identical to the preference that the other state, through law, policy, or practice gives to its residents.

5.5 General Selection Process

a) Submissions will be reviewed by a selection committee comprised of representatives of MSA, the City and the Department.
b) The Contract will be awarded in accordance with the competitive sealed proposals process under Section 3(C) of MSA's Procurement Policies.
c) Prior to award of a contract pursuant to this RFP, MSA may require any or all Offerors to submit such additional information bearing upon the Offeror's ability to perform the contract as MSA may deem appropriate. MSA may also consider any information otherwise available concerning the financial, technical and other qualifications or abilities of the Offeror.
d) MSA may hold discussions with any or all Offerors judged reasonably susceptible of being selected for award, or potentially so. MSA also reserves the right to develop a short-list of Offerors deemed most qualified based upon their Technical Proposals and conduct discussions with only the short-listed Offerors. However, MSA also reserves the right to make an award without holding discussions. Whether or not discussions are held, MSA may determine an Offeror to be not responsible or not reasonably susceptible of being selected for award, in its sole and absolute discretion, at any time after the initial closing date for receipt of proposals and the review of those proposals.

5.6 Award Determination

Upon completion of all evaluations, discussions and negotiations, and reference checks, the Procurement Officer will recommend award of the contracts to the two most responsible Offerors whose proposals are determined to be the most advantageous to MSA, the City and the Department considering technical evaluation factors and price factors as set forth in this RFP. The awards are subject to approval by the MSA Board.

The Offeror determined to have submitted the Proposal that is most advantageous to MSA will be identified as the Primary Awardee. The Offeror determined to have submitted the Proposal that is second most advantageous to MSA will identified as the Secondary Awardee.

The Primary Awardee who has labor, material, equipment, etc. available at the time MSA needs services shall be assigned at the time needed, the work will be awarded to the Secondary Awardee.

MSA reserves the right to make additional contract awards at any time if deemed necessary.

5.7 Contracts

The Contract will be managed and held by MSA.

ATTACHMENTS

ATTACHMENT A
BID/PROPOSAL AFFIDAVIT

ATTACHMENT - Bid/Proposal Affidavit

A. AUTHORIZED REPRESENTATIVE

I HEREBY AFFIRM THAT:

I am the (title) _____ and the duly authorized representative of (business) _____ and that I possess the legal authority to make this Affidavit on behalf of myself and the business for which I am acting.

B. CERTIFICATION REGARDING COMMERCIAL NONDISCRIMINATION

The undersigned bidder hereby certifies and agrees that the following information is correct: In preparing its bid on this project, the bidder has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not engaged in "discrimination" as defined in §19-103 of the State Finance and Procurement Article of the Annotated Code of Maryland. "Discrimination" means any disadvantage, difference, distinction, or preference in the solicitation, selection, hiring, or commercial treatment of a vendor, subcontractor, or commercial customer on the basis of race, color, religion, ancestry, or national origin, sex, age, marital status, sexual orientation, or on the basis of disability or any otherwise unlawful use of characteristics regarding the vendor's, supplier's, or commercial customer's employees or owners. "Discrimination" also includes retaliating against any person or other entity for reporting any incident of "discrimination". Without limiting any other provision of the solicitation on this project, it is understood that, if the certification is false, such false certification constitutes grounds for the State to reject the bid submitted by the bidder on this project, and terminate any contract awarded based on the bid. As part of its bid or proposal, the bidder herewith submits a list of all instances within the past 4 years where there has been a final adjudicated determination in a legal or administrative proceeding in the State of Maryland that the bidder discriminated against subcontractors, vendors, suppliers, or commercial customers, and a description of the status or resolution of that determination, including any remedial action taken. Bidder agrees to comply in all respects with the State's Commercial Nondiscrimination Policy as described under Title 19 of the State Finance and Procurement Article of the Annotated Code of Maryland.

B-1. Certification Regarding Minority Business Enterprises.

The undersigned bidder hereby certifies and agrees that it has fully complied with the State Minority Business Enterprise Law, State Finance and Procurement Article, §14-308(a)(2), Annotated Code of Maryland, which provides that, except as otherwise provided by law, a Contractor may not identify a certified minority business enterprise in a bid or proposal and:

(1) Fail to request, receive, or otherwise obtain authorization from the certified minority business enterprise to identify the certified minority proposal;

(2) Fail to notify the certified minority business enterprise before execution of the contract of its inclusion in the bid or proposal;

(3) Fail to use the certified minority business enterprise in the performance of the contract; or

(4) Pay the certified minority business enterprise solely for the use of its name in the bid or proposal.

Without limiting any other provision of the solicitation on this project, it is understood that if the certification is false, such false certification constitutes grounds for the State to reject the bid submitted by the bidder on this project, and terminate any contract awarded based on the bid.

C. AFFIRMATION REGARDING BRIBERY CONVICTIONS

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business (as is defined in Section 16-101(b) of the State Finance and Procurement Article of the Annotated Code of Maryland), or any of its officers, directors, partners, controlling stockholders, or any of its employees directly involved in the business's contracting activities including obtaining or performing contracts with public bodies has been convicted of, or has had probation before judgment imposed pursuant to Criminal Procedure Article, §6-220, Annotated Code of Maryland, or has pleaded nolo contendere to a charge of, bribery, attempted bribery, or conspiracy to bribe in violation of Maryland law, or of the law of any other state or federal law, except as follows (indicate the reasons why the affirmation cannot be given and list any conviction, plea, or imposition of probation before judgment with the date, court, official or administrative body, the sentence or disposition, the name(s) of person(s) involved, and their current positions and responsibilities with the business):

_____

_____

_____

D. AFFIRMATION REGARDING OTHER CONVICTIONS

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business, or any of its officers, directors, partners, controlling stockholders, or any of its employees directly involved in the business's contracting activities including obtaining or performing contracts with public bodies, has:

(1) Been convicted under state or federal statute of:

(a) A criminal offense incident to obtaining, attempting to obtain, or performing a public or private contract; or

(b) Fraud, embezzlement, theft, forgery, falsification or destruction of records or receiving stolen property;

(2) Been convicted of any criminal violation of a state or federal antitrust statute;

(3) Been convicted under the provisions of Title 18 of the United States Code for violation of the Racketeer Influenced and Corrupt Organization Act, 18 U.S.C. §1961 et seq., or the Mail Fraud Act, 18 U.S.C. §1341 et seq., for acts in connection with the submission of bids or proposals for a public or private contract;

(4) Been convicted of a violation of the State Minority Business Enterprise Law, §14-308 of the State Finance and Procurement Article of the Annotated Code of Maryland;

(5) Been convicted of a violation of §11-205.1 of the State Finance and Procurement Article of the Annotated Code of Maryland;

(6) Been convicted of conspiracy to commit any act or omission that would constitute grounds for conviction or liability under any law or statute described in subsections (1)—(5) above;

(7) Been found civilly liable under a state or federal antitrust statute for acts or omissions in connection with the submission of bids or proposals for a public or private contract;

(8) Been found in a final adjudicated decision to have violated the Commercial Nondiscrimination Policy under Title 19 of the State Finance and Procurement Article of the Annotated Code of Maryland with regard to a public or private contract; or

(9) Admitted in writing or under oath, during the course of an official investigation or other proceedings, acts or omissions that would constitute grounds for conviction or liability under any law or statute described in §§B and C and subsections D(1)—(8) above, except as follows (indicate reasons why the affirmations cannot be given, and list any conviction, plea, or imposition of probation before judgment with the date, court, official or administrative body, the sentence or disposition, the name(s) of the person(s) involved and their current positions and responsibilities with the business, and the status of any debarment):

_____

_____

_____

E. AFFIRMATION REGARDING DEBARMENT

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business, or any of its officers, directors, partners, controlling stockholders, or any of its employees directly involved in the business's contracting activities, including obtaining or performing contracts with public bodies, has ever been suspended or debarred (including being issued a limited denial of participation) by any public entity, except as follows (list each debarment or suspension providing the dates of the suspension or debarment, the name of the public entity and the status of the proceedings, the name(s) of the person(s) involved and their current positions and responsibilities with the business, the grounds of the debarment or suspension, and the details of each person's involvement in any activity that formed the grounds of the debarment or suspension).

_____

_____

_____

F. AFFIRMATION REGARDING DEBARMENT OF RELATED ENTITIES

I FURTHER AFFIRM THAT:

(1) The business was not established and it does not operate in a manner designed to evade the application of or defeat the purpose of debarment pursuant to Sections 16-101, et seq., of the State Finance and Procurement Article of the Annotated Code of Maryland; and

(2) The business is not a successor, assignee, subsidiary, or affiliate of a suspended or debarred business, except as follows (you must indicate the reasons why the affirmations cannot be given without qualification):

_____

_____

_____

G. SUB-CONTRACT AFFIRMATION

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business, has knowingly entered into a contract with a public body under which a person debarred or suspended under Title 16 of the State Finance and Procurement Article of the Annotated Code of Maryland will provide, directly or indirectly, supplies, services, architectural services, construction related services, leases of real property, or construction.

H. AFFIRMATION REGARDING COLLUSION

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business has:

(1) Agreed, conspired, connived, or colluded to produce a deceptive show of competition in the compilation of the accompanying bid or offer that is being submitted;

(2) In any manner, directly or indirectly, entered into any agreement of any kind to fix the bid price or price proposal of the bidder or offeror or of any competitor, or otherwise taken any action in restraint of free competitive bidding in connection with the contract for which the accompanying bid or offer is submitted.

I. FINANCIAL DISCLOSURE AFFIRMATION

I FURTHER AFFIRM THAT:

I am aware of, and the above business will comply with, the provisions of Section 13-221 of the State Finance and Procurement Article of the Annotated Code of Maryland, which require that every business that enters into contracts, leases, or other agreements with the State of Maryland or its agencies during a calendar year under which the business is to receive in the aggregate $100,000 or more shall, within 30 days of the time when the aggregate value of the contracts, leases, or other agreements reaches $100,000, file with the Secretary of State of Maryland certain specified information to include disclosure of beneficial ownership of the business.

J. POLITICAL CONTRIBUTION DISCLOSURE AFFIRMATION

I FURTHER AFFIRM THAT:

I am aware of, and the above business will comply with, Election Law Article, §§14-101—14-108, Annotated Code of Maryland, which requires that every person that enters into contracts, leases, or other

agreements with the State of Maryland, including its agencies or a political subdivision of the State, during a calendar year in which the person receives in the aggregate $100,000 or more shall file with the State Board of Elections a statement disclosing contributions in excess of $500 made during the reporting period to a candidate for elective office in any primary or general election.

K. DRUG AND ALCOHOL FREE WORKPLACE

(Applicable to all contracts unless the contract is for a law enforcement agency and the agency head or the agency head's designee has determined that application of COMAR 21.11.08 and this certification would be inappropriate in connection with the law enforcement agency's undercover operations.)

I CERTIFY THAT:

(1) Terms defined in COMAR 21.11.08 shall have the same meanings when used in this certification.

(2) By submission of its bid or offer, the business, if other than an individual, certifies and agrees that, with respect to its employees to be employed under a contract resulting from this solicitation, the business shall:

(a) Maintain a workplace free of drug and alcohol abuse during the term of the contract;

(b) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of drugs, and the abuse of drugs or alcohol is prohibited in the business' workplace and specifying the actions that will be taken against employees for violation of these prohibitions;

(c) Prohibit its employees from working under the influence of drugs or alcohol;

(d) Not hire or assign to work on the contract anyone whom the business knows, or in the exercise of due diligence should know, currently abuses drugs or alcohol and is not actively engaged in a bona fide drug or alcohol abuse assistance or rehabilitation program;

(e) Promptly inform the appropriate law enforcement agency of every drug-related crime that occurs in its workplace if the business has observed the violation or otherwise has reliable information that a violation has occurred;

(f) Establish drug and alcohol abuse awareness programs to inform its employees about:

(i) The dangers of drug and alcohol abuse in the workplace;

(ii) The business' policy of maintaining a drug and alcohol free workplace;

(iii) Any available drug and alcohol counseling, rehabilitation, and employee assistance programs; and

(iv) The penalties that may be imposed upon employees who abuse drugs and alcohol in the workplace;

(g) Provide all employees engaged in the performance of the contract with a copy of the statement required by §K(2)(b), above;

(h) Notify its employees in the statement required by §K(2)(b), above, that as a condition of continued employment on the contract, the employee shall:

(i) Abide by the terms of the statement; and

(ii) Notify the employer of any criminal drug or alcohol abuse conviction for an offense occurring in the workplace not later than 5 days after a conviction;

(i) Notify the procurement officer within 10 days after receiving notice under §K(2)(h)(ii), above, or otherwise receiving actual notice of a conviction;

(j) Within 30 days after receiving notice under §K(2)(h)(ii), above, or otherwise receiving actual notice of a conviction, impose either of the following sanctions or remedial measures on any employee who is convicted of a drug or alcohol abuse offense occurring in the workplace:

(i) Take appropriate personnel action against an employee, up to and including termination; or

(ii) Require an employee to satisfactorily participate in a bona fide drug or alcohol abuse assistance or rehabilitation program; and

(k) Make a good faith effort to maintain a drug and alcohol free workplace through implementation of §K(2)(a)—(j), above.

(3) If the business is an individual, the individual shall certify and agree as set forth in §K(4), below, that the individual shall not engage in the unlawful manufacture, distribution, dispensing, possession, or use of drugs or the abuse of drugs or alcohol in the performance of the contract.

(4) I acknowledge and agree that:

(a) The award of the contract is conditional upon compliance with COMAR 21.11.08 and this certification;

(b) The violation of the provisions of COMAR 21.11.08 or this certification shall be cause to suspend payments under, or terminate the contract for default under COMAR 21.07.01.11 or 21.07.03.15, as applicable; and

(c) The violation of the provisions of COMAR 21.11.08 or this certification in connection with the contract may, in the exercise of the discretion of the Board of Public Works, result in suspension and debarment of the business under COMAR 21.08.03.

L. CERTIFICATION OF CORPORATION REGISTRATION AND TAX PAYMENT

I FURTHER AFFIRM THAT:

(1) The business named above is a (domestic ___) (foreign ___) corporation registered in accordance with the Corporations and Associations Article, Annotated Code of Maryland, and that it is in good standing and has filed all of its annual reports, together with filing fees, with the Maryland State Department of Assessments and Taxation, and that the name and address of its resident agent filed with the State Department of Assessments and Taxation is:

Name: _____ Address: _____
(If not applicable, so state). _____

(2) Except as validly contested, the business has paid, or has arranged for payment of, all taxes due the State of Maryland and has filed all required returns and reports with the Comptroller of the Treasury, the State Department of Assessments and Taxation, and the Department of Labor, Licensing, and

regulation, as applicable, and will have paid all withholding taxes due the State of Maryland prior to final settlement.

M. CONTINGENT FEES

I FURTHER AFFIRM THAT:

The business has not employed or retained any person, partnership, corporation, or other entity, other than a bona fide employee, bona fide agent, bona fide salesperson, or commercial selling agency working for the business, to solicit or secure the Contract, and that the business has not paid or agreed to pay any person, partnership, corporation, or other entity, other than a bona fide employee, bona fide agent, bona fide salesperson, or commercial selling agency, any fee or any other consideration contingent on the making of the Contract.

N. Repealed.

O. ACKNOWLEDGEMENT

I ACKNOWLEDGE THAT this Affidavit is to be furnished to the Procurement Officer and may be distributed to units of: (1) the State of Maryland; (2) counties or other subdivisions of the State of Maryland; (3) other states; and (4) the federal government. I further acknowledge that this Affidavit is subject to applicable laws of the United States and the State of Maryland, both criminal and civil, and that nothing in this Affidavit or any contract resulting from the submission of this bid or proposal shall be construed to supersede, amend, modify or waive, on behalf of the State of Maryland, or any unit of the State of Maryland having jurisdiction, the exercise of any statutory right or remedy conferred by the Constitution and the laws of Maryland with respect to any misrepresentation made or any violation of the obligations, terms and covenants undertaken by the above business with respect to (1) this Affidavit, (2) the contract, and (3) other Affidavits comprising part of the contract.

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THIS AFFIDAVIT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

Date: _____ By: _____

(Authorized Representative and Affiant)

ATTACHMENT B
CONFLICT OF INTEREST INFORMATION/AFFIDAVIT AND DISCLOSURE

CONFLICT OF INTEREST AFFIDAVIT/DISCLOSURE

A. "Conflict of Interest" means that because of other activities or relationships with other persons, a person is unable or potentially unable to render impartial assistance or advice to the State, or the person's objectivity in performing the contract work is or might be otherwise impaired, or a person has an unfair competitive advantage."

B. "Person" has the meaning stated in COMAR 21.01.02.01B (64) and includes a Bidder, Contractor, consultant, or subcontractor or subconsultant at any tier, and also includes an employee or agent of any of them if the employee or agent has or will have the authority to control or supervise all or a portion of the work for which a bid or offer is made.

C. The Bidder warrants that, except as disclosed in §D, below, there are no relevant facts or circumstances now giving rise or which could, in the future, give rise to a conflict of interest.

D. The following facts or circumstances give rise or could in the future give rise to a conflict of interest (explain in detail—attach additional sheets if necessary).

E. The Bidder agrees that if an actual or potential conflict of interest arises after the date of this affidavit, the Bidder shall immediately make a full disclosure in writing to the Procurement Officer of all relevant facts and circumstances. This disclosure shall include a description of actions, which the Bidder has taken and proposes to take to avoid, mitigate, or neutralize the actual or potential conflict of interest. If the Contract has been awarded and performance of the Contract has begun, the Contractor shall continue performance until notified by the Procurement Officer of any contrary action to be taken.

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THIS AFFIDAVIT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

Date: _____ By:_____

(Authorized Representative and Affiant)

ATTACHMENT C
CONTRACT AFFIDAVIT

CONTRACT AFFIDAVIT

A. AUTHORITY

I HEREBY AFFIRM THAT:

I, (print name) _____ possess the legal authority to make this Affidavit.

B. CERTIFICATION OF REGISTRATION OR QUALIFICATION WITH THE STATE DEPARTMENT OF ASSESSMENTS AND TAXATION

I FURTHER AFFIRM THAT:

_____ is a (check applicable items):

(1) Corporation – ___ domestic or ___ foreign;

(2) Limited Liability Company – ___ domestic or ___ foreign;

(3) Partnership – ___ domestic or ___ foreign;

(4) Statutory Trust – ___ domestic or ___ foreign;

(5) ___ Sole Proprietorship

and is registered or qualified as required under Maryland Law.

I further affirm that the above business is in good standing both in Maryland and (IF APPLICABLE) in the jurisdiction where it is presently organized, and has filed all of its annual reports, together with filing fees, with the Maryland State Department of Assessments and Taxation.

The Department ID given to the above business by the State Department of Assessments and Taxation is:

_____

The name and address of its resident agent (IF APPLICABLE) filed with the State Department of Assessments and Taxation is:

(Print name) _____

(Print address) _____

_____

and that if it does business under a trade name, it has filed a certificate with the State Department of Assessments and Taxation that correctly identifies the true name and address of the principal or owner as:

Name and Department ID Number: _____

Address: _____.

C. FINANCIAL DISCLOSURE AFFIRMATION

I FURTHER AFFIRM THAT:

I am aware of, and the above business will comply with, the provisions of State Finance and Procurement Article §13-221, Annotated Code of Maryland, which require that every business that enters into contracts, leases, or other agreements with the State of Maryland or its agencies during a calendar year under which the business is to receive in the aggregate $100,000 or more shall, within 30 days of the time when the aggregate value of the contracts, leases, or other agreements reaches $100,000, file with the Secretary of State of Maryland certain specified information to include disclosure of beneficial ownership of the business.

D. POLITICAL CONTRIBUTION DISCLOSURE AFFIRMATION

I FURTHER AFFIRM THAT:

I am aware of, and the above business will comply with, Subtitle 1 of Title 14 of the Election Law Article of the Annotated Code of Maryland and all regulations promulgated by the State Board of Elections pursuant thereto, which provisions require that every person that enters into contracts, leases, or other agreements with the State, a county, or an incorporated municipality, or their agencies, during a calendar year in which the person receives the specified aggregate amount or more, shall file with the State Board of Elections statements disclosing certain contributions at specified times.

E. DRUG AND ALCOHOL FREE WORKPLACE

I CERTIFY THAT:

(1) Terms defined in COMAR 21.11.08 shall have the same meanings when used in this certification.

(2) By submission of its bid or offer, the business, if other than an individual, certifies and agrees that, with respect to its employees to be employed under a contract resulting from this solicitation, the business shall:

(a) Maintain a workplace free of drug and alcohol abuse during the term of the contract;

(b) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of drugs, and the abuse of drugs or alcohol is prohibited in the business' workplace and specifying the actions that will be taken against employees for violation of these prohibitions;

(c) Prohibit its employees from working under the influence of drugs or alcohol;

(d) Not hire or assign to work on the contract anyone who the business knows, or in the exercise of due diligence should know, currently abuses drugs or alcohol and is not actively engaged in a bona fide drug or alcohol abuse assistance or rehabilitation program;

(e) Promptly inform the appropriate law enforcement agency of every drug-related crime that occurs in its workplace if the business has observed the violation or otherwise has reliable information that a violation has occurred;

(f) Establish drug and alcohol abuse awareness programs to inform its employees about:

(i) The dangers of drug and alcohol abuse in the workplace;

(ii) The business's policy of maintaining a drug and alcohol free workplace;

(iii) Any available drug and alcohol counseling, rehabilitation, and employee assistance programs; and

(iv) The penalties that may be imposed upon employees who abuse drugs and alcohol in the workplace;

(g) Provide all employees engaged in the performance of the contract with a copy of the statement required by §E(2)(b) of this affidavit;

(h) In the statement required by §E(2)(b) of this affidavit, notify its employees that as a condition of continued employment on the contract, the employee shall:

(i) Abide by the terms of the statement; and

(ii) Notify the employer of any criminal drug or alcohol abuse conviction for an offense occurring in the workplace not later than 5 days after a conviction;

(i) Notify the procurement officer within 10 days after receiving notice under §E(2)(h)(ii) of this affidavit or otherwise receiving actual notice of a conviction;

(j) Within 30 days after receiving notice under §E(2)(h)(ii) of this affidavit or otherwise receiving actual notice of a conviction, impose either of the

following sanctions or remedial measures on any employee who is convicted of a drug or alcohol abuse offense occurring in the workplace:

(i) Take appropriate personnel action against an employee, up to and including termination; or

(ii) Require an employee to satisfactorily participate in a bona fide drug or alcohol abuse assistance or rehabilitation program; and

(k) Make a good faith effort to maintain a drug and alcohol free workplace through implementation of §E(2)(a) through (j) of this affidavit.

(3) If the business is an individual, the individual shall certify and agree, as set forth in §E(4) of this affidavit, that the individual shall not engage in the unlawful manufacture, distribution, dispensing, possession, or use of drugs or the abuse of drugs or alcohol in the performance of the contract.

(4) I acknowledge and agree that:

(a) The award of the contract is conditional upon compliance with COMAR 21.11.08 and this certification;

(b) The violation of the provisions of COMAR 21.11.08 or this certification shall be cause to suspend payments under, or terminate the contract for default under COMAR 21.07.01.11 or 21.07.03.15, as applicable; and

(c) The violation of the provisions of COMAR 21.11.08 or this certification in connection with the contract may, in the exercise of the discretion of the Board of Public Works, result in suspension and debarment of the business under COMAR 21.08.03.

F. CERTAIN AFFIRMATIONS VALID

I FURTHER AFFIRM THAT:

To the best of my knowledge, information, and belief, each of the affirmations, certifications, or acknowledgements contained in that certain Bid/Proposal Affidavit dated _____, 20___ , and executed by me for the purpose of obtaining the contract to which this Exhibit is attached remains true and correct in all respects as if made as of the date of this Contract Affidavit and as if fully set forth herein.

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THIS AFFIDAVIT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

Date:_____ By:

_____
(printed name of Authorized Representative and affiant)

_____
(signature of Authorized Representative and affiant

ATTACHMENT D
MBE FORMS

MBE ATTACHMENT D-1A:
MBE UTILIZATION AND FAIR SOLICITATION AFFIDAVIT
& MBE PARTICIPATION SCHEDULE

INSTRUCTIONS

PLEASE READ BEFORE COMPLETING THIS DOCUMENT

This form includes Instructions and the MBE Utilization and Fair Solicitation Affidavit & MBE Participation Schedule which must be submitted with the bid/proposal. If the bidder/offeror fails to accurately complete and submit this Affidavit and Schedule with the bid or proposal as required, the Procurement Officer shall deem the bid non-responsive or shall determine that the proposal is not reasonably susceptible of being selected for award.

1. Contractor shall structure its procedures for the performance of the work required in this Contract to attempt to achieve the minority business enterprise (MBE) subcontractor participation goal stated in the Invitation for Bids or Request for Proposals. Contractor agrees to exercise good faith efforts to carry out the requirements set forth in these Instructions, as authorized by the Code of Maryland Regulations (COMAR) 21.11.03.

2. MBE Goals and Subgoals: Please review the solicitation for information regarding the Contract's MBE overall participation goals and subgoals. After satisfying the requirements for any established subgoals, the Contractor is encouraged to use a diverse group of subcontractors and suppliers from any/all of the various MBE classifications to meet the remainder of the overall MBE participation goal.

3. MBE means a minority business enterprise that is certified by the Maryland Department of Transportation ("MDOT"). Only MBEs certified by MDOT may be counted for purposes of achieving the MBE participation goals. In order to be counted for purposes of achieving the MBE participation goals, the MBE firm, including a MBE prime, must be MDOT-certified for the services, materials or supplies that it is committed to perform on the MBE Participation Schedule.

4. Please refer to the MDOT MBE Directory at www.mdot.state.md.us to determine if a firm is certified with the appropriate North American Industry Classification System ("NAICS") Code **and** the product/services description (specific product that a firm is certified to provide or specific areas of work that a firm is certified to perform). For more general information about NAICS, please visit www.naics.com. Only those specific products and/or services for which a firm is certified in the MDOT Directory can be used for purposes of achieving the MBE participation goals. **WARNING:** If the firm's NAICS Code is in **graduated status**, such services/products **may not be counted** for purposes of achieving the MBE participation goals. A NAICS Code is in the graduated status if the term "Graduated" follows the Code in the MDOT MBE Directory.

5. **NOTE: New Guidelines Regarding MBE Prime Self-Performance.** Please note that when a certified MBE firm participates as a prime contractor on a Contract, a procurement agency may count the distinct, clearly defined portion of the work of the Contract that the certified MBE firm performs with its own workforce toward fulfilling up to, but no more than, fifty-percent (50%) of the MBE participation goal (overall), including up to one hundred percent (100%) of not more than one of the MBE participation subgoals, if any, established for the Contract.

- ✓ In order to receive credit for self-performance, an MBE prime must be certified in the appropriate NAICS code to do the work and must list its firm in the MBE Participation Schedule, including the certification category under which the MBE prime is self-performing and include information regarding the work it will self-perform.
- ✓ For the remaining portion of the overall goal and the remaining subgoals, the MBE prime must also identify on the MBE Participation Schedule the other certified MBE subcontractors used to meet those goals or request a waiver.
- ✓ These guidelines apply to the work performed by the MBE Prime that can be counted for purposes of meeting the MBE participation goals. These requirements do not affect the MBE Prime's ability to self-perform a greater portion of the work in excess of what is counted for purposes of meeting the MBE participation goals.
- ✓ Please note that the requirements to meet the MBE participation overall goal and subgoals are distinct and separate. If the contract has subgoals, regardless of MBE Prime's ability to self-perform up to 50% of the overall goal (including up to 100% of any subgoal), the MBE Prime must either commit to other MBEs for each of any remaining subgoals or request a waiver. As set forth in Attachment 1-B Waiver Guidance, the MBE Prime's ability to self-perform certain portions of the work of the Contract will not be deemed a substitute for the good faith efforts to meet any remaining subgoal or the balance of the overall goal.
- ✓ In certain instances where the percentages allocated to MBE participation subgoals add up to more than 50% of the overall goal, the portion of self-performed work that an MBE Prime may count toward the overall goal may be limited to less than 50%. Please refer to GOMA's website (www.goma.maryland.gov) for the MBE Prime Regulations Q&A for illustrative examples.

6. Subject to items 1 through 5 above, when a certified MBE performs as a participant in a joint venture, a procurement agency may count a portion of the total dollar value of the contract equal to the distinct, clearly-defined portion of the work of the contract that the certified MBE performs with its own forces toward fulfilling the contract goal, and not more than one of the contract subgoals, if any.

7. As set forth in COMAR 21.11.03.12-1, once the Contract work begins, the work performed by a certified MBE firm, including an MBE prime, can only be counted towards the MBE participation goal(s) if the MBE firm is performing a commercially useful function on the Contract. Please refer to COMAR 21.11.03.12-1 for more information regarding these requirements.

8. If you have any questions as to whether a firm is certified to perform the specific services or provide specific products, please contact MDOT's Office of Minority Business Enterprise at 1-800-544-6056 or via email to mbe@mdot.state.md.us sufficiently prior to the submission due date.

9. Worksheet: The percentage of MBE participation, calculated using the percentage amounts for all of the MBE firms listed on the Participation Schedule MUST at least equal the MBE participation goal **and** subgoals (if applicable) set forth in the solicitation. If a bidder/offeror is unable to achieve the MBE participation goal and/or any subgoals (if applicable), the bidder/offeror must request a waiver in Item 1 of the MBE Utilization and Fair Solicitation Affidavit (Attachment D-1A) or the bid will be deemed not responsive, or the proposal determined to be not susceptible of being selected for award. You may wish to use the Subgoal summary below to assist in calculating the percentages and confirm that you have met the applicable MBE participation goal and subgoals, if any.

Subgoals (if applicable)

Total African American MBE Participation:	_____%
Total Asian American MBE Participation:	_____%
Total Hispanic American MBE Participation:	_____%
Total Women-Owned MBE Participation:	_____%

Overall Goal

Total MBE Participation (include all categories):	_____%

MBE UTILIZATION AND FAIR SOLICITATION AFFIDAVIT & MBE PARTICIPATION SCHEDULE

This MBE Utilization and Fair Solicitation Affidavit and MBE Participation Schedule must be completed in its entirety and included with the bid/proposal. If the bidder/offeror fails to accurately complete and submit this Affidavit and Schedule with the bid or proposal as required, the Procurement Officer shall deem the bid non-responsive or shall determine that the proposal is not reasonably susceptible of being selected for award.

In connection with the bid/proposal submitted in response to Solicitation No. Project CORE OCD-001, I affirm the following:

1. MBE Participation (PLEASE CHECK ONLY ONE)

☐ I acknowledge and intend to meet IN FULL both the overall certified Minority Business Enterprise (MBE) participation goal of 30% percent and all of the following subgoals:

N/A percent for African American-owned MBE firms

N/A percent for Hispanic American-owned MBE firms

N/A percent for Asian American-owned MBE firms

N/A percent for Women-owned MBE firms

Therefore, I am not seeking a waiver pursuant to COMAR 21.11.03.11. I acknowledge that by checking the above box and agreeing to meet the stated goal and subgoal(s), if any, I must complete the MBE Participation Schedule (Item 4 below) in order to be considered for award.

OR

☐ I conclude that I am unable to achieve the MBE participation goal and/or subgoals. I hereby request a waiver, in whole or in part, of the overall goal and/or subgoals. I acknowledge that by checking this box and requesting a partial waiver of the stated goal and/or one or more of the stated subgoal(s) if any, I must complete the MBE Participation Schedule (Item 4 below) for the portion of the goal and/or subgoal(s) if any, for which I am not seeking a waiver, in order to be considered for award.

2. Additional MBE Documentation

I understand that if I am notified that I am the apparent awardee or as requested by the Procurement Officer, I must submit the following documentation within 10 Working days of receiving notice of the potential award or from the date of conditional award (per COMAR 21.11.03.10), whichever is earlier:

(a) Good Faith Efforts Documentation to Support Waiver Request (Attachment D-1C)

(b) Outreach Efforts Compliance Statement (Attachment D-2);

(c) MBE Subcontractor/MBE Prime Project Participation Statement (Attachments D-3A and 3B);

(d) Any other documentation, including additional waiver documentation if applicable, required by the Procurement Officer to ascertain bidder or offeror responsibility in connection with the certified MBE participation goal and subgoals, if any.

I understand that if I fail to return each completed document within the required time, the Procurement Officer may determine that I am not responsible and therefore not eligible for contract award. If the contract has already been awarded, the award is voidable.

3. Information Provided to MBE firms

In the solicitation of subcontract quotations or offers, MBE firms were provided not less than the same information and amount of time to respond as were non-MBE firms.

4. MBE Participation Schedule

Set forth below are the (i) certified MBEs I intend to use, (ii) the percentage of the total Contract amount allocated to each MBE for this project and, (iii) the items of work each MBE will provide under the Contract. I have confirmed with the MDOT database that the MBE firms identified below (including any self-performing MBE prime firms) are performing work activities for which they are MDOT certified.

Prime Contractor	Project Description	Project/Contract Number
	Project CORE On-Call Demolition Services	RFP OCD-001

LIST INFORMATION FOR EACH CERTIFIED MBE FIRM YOU AGREE TO USE TO ACHIEVE THE MBE PARTICIPATION GOAL AND SUBGOALS, IF ANY. MBE PRIMES: PLEASE COMPLETE BOTH SECTIONS A AND B BELOW.

SECTION A: For MBE Prime Contractors ONLY (including MBE Primes in a Joint Venture)

MBE Prime Firm Name:_____ MBE Certification Number: _____ (If dually certified, check only one box.) ☐ African American-Owned ☐ Hispanic American- Owned ☐ Asian American-Owned ☐ Women-Owned ☐ Other MBE Classification	Percentage of total Contract Value to be performed with own forces and counted towards the MBE overall participation goal (up to 50% of the overall goal): _____% Percentage of total Contract Value to be performed with own forces and counted towards the subgoal, if any, for my MBE classification (up to 100% of not more than one subgoal): _____% Description of the Work to be performed with MBE prime's own forces: _____ _____

SECTION B: For all Contractors (including MBE Primes and MBE Primes in a Joint Venture)

MBE Firm Name:_____ MBE Certification Number: _____ (If dually certified, check only one box.) ☐ African American-Owned ☐ Hispanic American- Owned ☐ Asian American-Owned ☐ Women-Owned ☐ Other MBE Classification	Percentage of Total Contract to be performed by this MBE: _____% Description of the Work to be Performed: _____ _____ _____ _____
MBE Firm Name:_____ MBE Certification Number: _____ (If dually certified, check only one box.) ☐ African American-Owned ☐ Hispanic American- Owned ☐ Asian American-Owned ☐ Women-Owned ☐ Other MBE Classification	Percentage of Total Contract to be performed by this MBE: _____% Description of the Work to be Performed: _____ _____ _____ _____
MBE Firm Name:_____ MBE Certification Number: _____ (If dually certified, check only one box.) ☐ African American-Owned ☐ Hispanic American- Owned ☐ Asian American-Owned ☐ Women-Owned ☐ Other MBE Classification	Percentage of Total Contract to be provided by this MBE: _____% Description of the Work to be Performed: _____ _____ _____ _____

MBE Firm Name:_____ MBE Certification Number: _____ (If dually certified, check only one box.) ☐ African American-Owned ☐ Hispanic American- Owned ☐ Asian American-Owned ☐ Women-Owned ☐ Other MBE Classification	Percentage of Total Contract to be performed by this MBE: _____% Description of the Work to be Performed: _____ _____ _____ _____
MBE Firm Name:_____ MBE Certification Number: _____ (If dually certified, check only one box.) ☐ African American-Owned ☐ Hispanic American- Owned ☐ Asian American-Owned ☐ Women-Owned ☐ Other MBE Classification	Percentage of Total Contract to be provided by this MBE: _____% Description of the Work to be Performed: _____ _____ _____ _____
MBE Firm Name:_____ MBE Certification Number: _____ (If dually certified, check only one box.) ☐ African American-Owned ☐ Hispanic American- Owned ☐ Asian American-Owned ☐ Women-Owned ☐ Other MBE Classification	Percentage of Total Contract to be provided by this MBE: _____% Description of the Work to be Performed: _____ _____ _____ _____

CONTINUE ON SEPARATE PAGE IF NEEDED

I solemnly affirm under the penalties of perjury that: (i) I have reviewed the instructions for the MBE Utilization & Fair Solicitation Affidavit and MBE Schedule, and (ii) the information contained in the MBE Utilization & Fair Solicitation Affidavit and MBE Schedule is true to the best of my knowledge, information and belief.

_____ _____

Bidder/Offeror Name
(PLEASE PRINT OR TYPE)

Signature of Authorized Representative

_____ _____

Address

Printed Name and Title

_____ _____

City, State and Zip Code

Date

SUBMIT THIS AFFIDAVIT WITH BID/PROPOSAL

MBE ATTACHMENT D-1B
WAIVER GUIDANCE

GUIDANCE FOR DOCUMENTING GOOD FAITH EFFORTS TO MEET MBE PARTICIPATION GOALS

In order to show that it has made good faith efforts to meet the Minority Business Enterprise (MBE) participation goal (including any MBE subgoals) on a contract, the bidder/offeror must either (1) meet the MBE Goal(s) and document its commitments for participation of MBE Firms, or (2) when it does not meet the MBE Goal(s), document its Good Faith Efforts to meet the goal(s).

I. Definitions

MBE Goal(s) – "MBE Goal(s)" refers to the MBE participation goal and MBE participation subgoal(s).

Good Faith Efforts – The "Good Faith Efforts" requirement means that when requesting a waiver, the bidder/offeror must demonstrate that it took all necessary and reasonable steps to achieve the MBE Goal(s), which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient MBE participation, even if those steps were not fully successful. Whether a bidder/offeror that requests a waiver made adequate good faith efforts will be determined by considering the quality, quantity, and intensity of the different kinds of efforts that the bidder/offeror has made. The efforts employed by the bidder/offeror should be those that one could reasonably expect a bidder/offeror to take if the bidder/offeror were actively and aggressively trying to obtain MBE participation sufficient to meet the MBE contract goal and subgoals. Mere *pro forma* efforts are not good faith efforts to meet the MBE contract requirements. The determination concerning the sufficiency of the bidder's/offeror's good faith efforts is a judgment call; meeting quantitative formulas is not required.

Identified Firms – "Identified Firms" means a list of the MBEs identified by the procuring agency during the goal setting process and listed in the procurement as available to perform the Identified Items of Work. It also may include additional MBEs identified by the bidder/offeror as available to perform the Identified Items of Work, such as MBEs certified or granted an expansion of services after the procurement was issued. If the procurement does not include a list of Identified Firms, this term refers to all of the MBE Firms (if State-funded) the bidder/offeror identified as available to perform the Identified Items of Work and should include all appropriately certified firms that are reasonably identifiable.

Identified Items of Work – "Identified Items of Work" means the bid items identified by the procuring agency during the goal setting process and listed in the procurement as possible items of work for performance by MBE Firms. It also may include additional portions of items of work the bidder/offeror identified for performance by MBE Firms to increase the likelihood that the MBE Goal(s) will be achieved. If the procurement does not include a list of Identified Items of Work, this term refers to all of the items of work the bidder/offeror identified as possible items of work for performance by MBE Firms and should include all reasonably identifiable work opportunities.

MBE Firms – "MBE Firms" refers to a firm certified by the Maryland Department of Transportation ("MDOT") under COMAR 21.11.03. Only MDOT-certified MBE Firms can participate in the State's MBE Program.

II. Types of Actions Agency will Consider

The bidder/offeror is responsible for making relevant portions of the work available to MBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available MBE subcontractors and suppliers, so as to facilitate MBE participation. The following is a list of types of actions the procuring agency will consider as part of the bidder's/offeror's Good Faith Efforts when the bidder/offeror fails to meet the MBE Goal(s). This list is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

A. Identify Bid Items as Work for MBE Firms

1. Identified Items of Work in Procurements

(a) Certain procurements will include a list of bid items identified during the goal setting process as possible work for performance by MBE Firms. If the procurement provides a list of Identified Items of Work, the bidder/offeror shall make all reasonable efforts to solicit quotes from MBE Firms to perform that work.

(b) Bidders/Offerors may, and are encouraged to, select additional items of work to be performed by MBE Firms to increase the likelihood that the MBE Goal(s) will be achieved.

2. Identified Items of Work by Bidders/Offerors

(a) When the procurement does not include a list of Identified Items of Work or for additional Identified Items of Work, bidders/offerors should reasonably identify sufficient items of work to be performed by MBE Firms.

(b) Where appropriate, bidders/offerors should break out contract work items into economically feasible units to facilitate MBE participation, rather than perform these work items with their own forces. The ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder/offeror of the responsibility to make Good Faith Efforts.

B. Identify MBE Firms to Solicit

1. MBE Firms Identified in Procurements

(a) Certain procurements will include a list of the MBE Firms identified during the goal setting process as available to perform the items of work. If the procurement provides a list of Identified MBE Firms, the bidder/offeror shall make all reasonable efforts to solicit those MBE firms.

(b) Bidders/offerors may, and are encouraged to, search the MBE Directory to identify additional MBEs who may be available to perform the items of work, such as MBEs certified or granted an expansion of services after the solicitation was issued.

2. MBE Firms Identified by Bidders/Offerors

(a) When the procurement does not include a list of Identified MBE Firms, bidders/offerors should reasonably identify the MBE Firms that are available to perform the Identified Items of Work.

(b) Any MBE Firms identified as available by the bidder/offeror should be certified to perform the Identified Items of Work.

C. Solicit MBEs

1. Solicit all Identified Firms for all Identified Items of Work by providing written notice. The bidder/offeror should:

(a) provide the written solicitation at least 10 days prior to bid opening to allow sufficient time for the MBE Firms to respond;

(b) send the written solicitation by first-class mail, facsimile, or email using contact information in the MBE Directory, unless the bidder/offeror has a valid basis for using different contact information; and

(c) provide adequate information about the plans, specifications, anticipated time schedule for portions of the work to be performed by the MBE, and other requirements of the contract to assist MBE Firms in responding. (This information may be provided by including hard copies in the written solicitation or by electronic means as described in C.3 below.)

2. "All" Identified Firms includes the MBEs listed in the procurement and any MBE Firms you identify as potentially available to perform the Identified Items of Work, but it does not include MBE Firms who are no longer certified to perform the work as of the date the bidder/offeror provides written solicitations.

3. "Electronic Means" includes, for example, information provided *via* a website or file transfer protocol (FTP) site containing the plans, specifications, and other requirements of the contract. If an interested MBE cannot access the information provided by electronic means, the bidder/offeror must make the information available in a manner that is accessible to the interested MBE.

4. Follow up on initial written solicitations by contacting MBEs to determine if they are interested. The follow up contact may be made:

(a) by telephone using the contact information in the MBE Directory, unless the bidder/offeror has a valid basis for using different contact information; or

(b) in writing *via* a method that differs from the method used for the initial written solicitation.

5. In addition to the written solicitation set forth in C.1 and the follow up required in C.4, use all other reasonable and available means to solicit the interest of MBE Firms certified to perform the work of the contract. Examples of other means include:

(a) attending any pre-bid meetings at which MBE Firms could be informed of contracting and subcontracting opportunities; and

(b) if recommended by the procurement, advertising with or effectively using the services of at least two minority focused entities or media, including trade associations, minority/women community organizations, minority/women contractors' groups, and local, state, and federal minority/women business assistance offices listed on the MDOT Office of Minority Business Enterprise website.

D. Negotiate With Interested MBE Firms

Bidders/Offerors must negotiate in good faith with interested MBE Firms.

1. Evidence of negotiation includes, without limitation, the following:

(a) the names, addresses, and telephone numbers of MBE Firms that were considered;

(b) a description of the information provided regarding the plans and specifications for the work selected for subcontracting and the means used to provide that information; and

(c) evidence as to why additional agreements could not be reached for MBE Firms to perform the work.

2. A bidder/offeror using good business judgment would consider a number of factors in negotiating with subcontractors, including MBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration.

3. The fact that there may be some additional costs involved in finding and using MBE Firms is not in itself sufficient reason for a bidder's/offeror's failure to meet the contract MBE goal(s), as long as such costs are reasonable. Factors to take into consideration when determining whether a MBE Firm's quote is excessive or unreasonable include, without limitation, the following:

(a) the dollar difference between the MBE subcontractor's quote and the average of the other subcontractors' quotes received by the bidder/offeror;

(b) the percentage difference between the MBE subcontractor's quote and the average of the other subcontractors' quotes received by the bidder/offeror;

(c) the percentage that the MBE subcontractor's quote represents of the overall contract amount;

(d) the number of MBE firms that the bidder/offeror solicited for that portion of the work;

(e) whether the work described in the MBE and Non-MBE subcontractor quotes (or portions thereof) submitted for review is the same or comparable; and

(f) the number of quotes received by the bidder/offeror for that portion of the work.

4. The above factors are not intended to be mandatory, exclusive, or exhaustive, and other evidence of an excessive or unreasonable price may be relevant.

5. The bidder/offeror may not use its price for self-performing work as a basis for rejecting a MBE Firm's quote as excessive or unreasonable.

6. The "average of the other subcontractors' quotes received" by the bidder/offeror refers to the average of the quotes received from all subcontractors. Bidder/offeror should attempt to receive quotes from at least three subcontractors, including one quote from a MBE and one quote from a Non-MBE.

7. A bidder/offeror shall not reject a MBE Firm as unqualified without sound reasons based on a thorough investigation of the firm's capabilities. For each certified MBE that is rejected as unqualified or that placed a subcontract quotation or offer that the bidder/offeror concludes is not acceptable, the bidder/offeror must provide a written detailed statement listing the reasons for this conclusion. The bidder/offeror also must document the steps taken to verify the capabilities of the MBE and Non-MBE Firms quoting similar work.

(a) The factors to take into consideration when assessing the capabilities of a MBE Firm, include, but are not limited to the following: financial capability, physical capacity to perform, available personnel and equipment, existing workload, experience performing the type of work, conduct and performance in previous contracts, and ability to meet reasonable contract requirements.

(b) The MBE Firm's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the efforts to meet the project goal.

E. Assisting Interested MBE Firms

When appropriate under the circumstances, the decision-maker will consider whether the bidder/offeror:

1. made reasonable efforts to assist interested MBE Firms in obtaining the bonding, lines of credit, or insurance required by the procuring agency or the bidder/offeror; and

2. made reasonable efforts to assist interested MBE Firms in obtaining necessary equipment, supplies, materials, or related assistance or services.

III. Other Considerations

In making a determination of Good Faith Efforts the decision-maker may consider engineering estimates, catalogue prices, general market availability and availability of certified MBE Firms in the area in which the work is to be performed, other bids or offers and subcontract bids or offers substantiating significant variances between certified MBE and Non-MBE costs of participation, and their impact on the overall cost of the contract to the State and any other relevant factors.

The decision-maker may take into account whether a bidder/offeror decided to self-perform subcontract work with its own forces, especially where the self-performed work is Identified Items of Work in the procurement. The decision-maker also may take into account the performance of other bidders/offerors in meeting the contract. For example, when the apparent successful bidder/offeror fails to meet the contract goal, but others meet it, this reasonably raises the question of whether, with additional reasonable efforts, the apparent successful bidder/offeror could have met the goal. If the apparent successful bidder/offeror fails to meet the goal, but meets or exceeds the average MBE participation obtained by other bidders/offerors, this, when viewed in conjunction with other factors, could be evidence of the apparent successful bidder/offeror having made Good Faith Efforts.

IV. Documenting Good Faith Efforts

At a minimum, a bidder/offeror seeking a waiver of the MBE Goal(s) or a portion thereof must provide written documentation of its Good Faith Efforts, in accordance with COMAR 21.11.03.11, within 10 business days after receiving notice that it is the apparent awardee. The written documentation shall include the following:

A. Items of Work (Complete Good Faith Efforts Documentation Attachment 1-C, Part 1)

A detailed statement of the efforts made to select portions of the work proposed to be performed by certified MBE Firms in order to increase the likelihood of achieving the stated MBE Goal(s).

B. Outreach/Solicitation/Negotiation

1. The record of the bidder's/offeror's compliance with the outreach efforts prescribed by COMAR 21.11.03.09C(2)(a). **(Complete Outreach Efforts Compliance Statement – Attachment 2).**

2. A detailed statement of the efforts made to contact and negotiate with MBE Firms including:

(a) the names, addresses, and telephone numbers of the MBE Firms who were contacted, with the dates and manner of contacts (letter, fax, email, telephone, etc.) **(Complete Good Faith Efforts Attachment 1-C- Part 2, and submit letters, fax cover sheets, emails, etc. documenting solicitations)**; and

(b) a description of the information provided to MBE Firms regarding the plans, specifications, and anticipated time schedule for portions of the work to be performed and the means used to provide that information.

C. Rejected MBE Firms (Complete Good Faith Efforts Attachment 1-C, Part 3)

1. For each MBE Firm that the bidder/offeror concludes is not acceptable or qualified, a detailed statement of the reasons for the bidder's/offeror's conclusion, including the steps taken to verify the capabilities of the MBE and Non-MBE Firms quoting similar work.

2. For each certified MBE Firm that the bidder/offeror concludes has provided an excessive or unreasonable price, a detailed statement of the reasons for the bidder's/offeror's conclusion, including the quotes received from all MBE and Non-MBE firms bidding on the same or comparable work. **(Include copies of all quotes received.)**

3. A list of MBE Firms contacted but found to be unavailable. This list should be accompanied by a MBE Unavailability Certificate (see Exhibit A to this Part 1) signed by the MBE contractor or a statement from the bidder/offeror that the MBE contractor refused to sign the MBE Unavailability Certificate.

D. Other Documentation

1. Submit any other documentation requested by the Procurement Officer to ascertain the bidder's/offeror's Good Faith Efforts.

2. Submit any other documentation the bidder/offeror believes will help the Procurement Officer ascertain its Good Faith Efforts.

Exhibit A

MBE Subcontractor Unavailability Certificate

1. It is hereby certified that the firm of _____
(Name of Minority firm)

located at _____
(Number) (Street)

_____
(City) (State) (Zip)

was offered an opportunity to bid on Solicitation No. _____

in _____ County by _____
(Name of Prime Contractor's Firm)

****

2. _____ (Minority Firm), is either unavailable for the

work/service or unable to prepare a bid for this project for the following reason(s):

_____

_____

_____

_____ _____ _____
Signature of Minority Firm's MBE Representative **Title** **Date**

_____ _____

MDOT Certification # Telephone #

3. To be completed by the prime contractor if Section 2 of this form is not completed by the minority firm.

To the best of my knowledge and belief, said Certified Minority Business Enterprise is either unavailable for the work/service for this project, is unable to prepare a bid, or did not respond to a request for a price proposal and has not completed the above portion of this submittal.

_____ _____ _____
Signature of Prime Contractor Title Date

MBE ATTACHMENT D-1C

GOOD FAITH EFFORTS DOCUMENTATION TO SUPPORT WAIVER REQUEST

PAGE __ OF ____

Prime Contractor	Project Description	Solicitation Number
	Project CORE On-Call Demolition Services	RFP OCD-001

PARTS 1, 2, AND 3 MUST BE INCLUDED WITH THIS CERTIFICATE ALONG WITH ALL DOCUMENTS SUPPORTING YOUR WAIVER REQUEST.

I affirm that I have reviewed Attachment D-1B, Waiver Guidance. I further affirm under penalties of perjury that the contents of Parts 1, 2, and 3 of this Attachment D-1C Good Faith Efforts Documentation Form are true to the best of my knowledge, information, and belief.

_____	_____
Company Name	Signature of Representative
_____	_____
Address	Printed Name and Title
_____	_____
City, State and Zip Code	Date

GOOD FAITH EFFORTS DOCUMENTATION
TO SUPPORT WAIVER REQUEST

PART 1 – IDENTIFIED ITEMS OF WORK BIDDER/OFFEROR MADE AVAILABLE TO MBE FIRMS

PAGE __ OF ___

Prime Contractor	Project Description	Solicitation Number
	Project CORE On-Call Demolition Services	RFP OCD-001

Identify those items of work that the bidder/offeror made available to MBE Firms. This includes, where appropriate, those items the bidder/offeror identified and determined to subdivide into economically feasible units to facilitate the MBE participation. For each item listed, show the anticipated percentage of the total contract amount. It is the bidder's/offeror's responsibility to demonstrate that sufficient work to meet the goal was made available to MBE Firms, and the total percentage of the items of work identified for MBE participation equals or exceeds the percentage MBE goal set for the procurement. Note: If the procurement includes a list of bid items identified during the goal setting process as possible items of work for performance by MBE Firms, the bidder/offeror should make all of those items of work available to MBE Firms or explain why that item was not made available. If the bidder/offeror selects additional items of work to make available to MBE Firms, those additional items should also be included below.

Identified Items of Work	Was this work listed in the procurement?	Does bidder/offeror normally self-perform this work?	Was this work made available to MBE Firms? If no, explain why?
	□ Yes □ No	□ Yes □ No	□ Yes □ No
	□ Yes □ No	□ Yes □ No	□ Yes □ No
	□ Yes □ No	□ Yes □ No	□ Yes □ No
	□ Yes □ No	□ Yes □ No	□ Yes □ No
	□ Yes □ No	□ Yes □ No	□ Yes □ No
	□ Yes □ No	□ Yes □ No	□ Yes □ No
	□ Yes □ No	□ Yes □ No	□ Yes □ No
	□ Yes □ No	□ Yes □ No	□ Yes □ No
	□ Yes □ No	□ Yes □ No	□ Yes □ No
	□ Yes □ No	□ Yes □ No	□ Yes □ No

☐Please check if Additional Sheets are attached.

GOOD FAITH EFFORTS DOCUMENTATION
TO SUPPORT WAIVER REQUEST
PART 2 – IDENTIFIED MBE FIRMS AND RECORD OF SOLICITATIONS

PAGE __ OF ____

Prime Contractor	Project Description	Solicitation Number
	Project CORE On-Call Demolition Services	RFP OCD-001

Identify the MBE Firms solicited to provide quotes for the Identified Items of Work made available for MBE participation. Include the name of the MBE Firm solicited, items of work for which bids/quotes were solicited, date and manner of initial and follow-up solicitations, whether the MBE provided a quote, and whether the MBE is being used to meet the MBE participation goal. MBE Firms used to meet the participation goal must be included on the MBE Participation Schedule. Note: If the procurement includes a list of the MBE Firms identified during the goal setting process as potentially available to perform the items of work, the bidder/offeror should solicit all of those MBE Firms or explain why a specific MBE was not solicited. If the bidder/offeror identifies additional MBE Firms who may be available to perform Identified Items of Work, those additional MBE Firms should also be included below. Copies of all written solicitations and documentation of follow-up calls to MBE Firms must be attached to this form. This list should be accompanied by a Minority Contractor Unavailability Certificate signed by the MBE contractor or a statement from the bidder/offeror that the MBE contractor refused to sign the Minority Contractor Unavailability Certificate (see Exhibit A to MBE Attachment 1-B). If the bidder/offeror used a Non-MBE or is self-performing the identified items of work, Part 3 must be completed.

Name of Identified MBE Firm & MBE Classification	Describe Item of Work Solicited	Initial Solicitation Date & Method	Follow-up Solicitation Date & Method	Details for Follow-up Calls	Quote Rec'd	Quote Used	Reason Quote Rejected
Firm Name: _____ **MBE Classification (Check only if requesting waiver of MBE subgoal.)** ☐ African American-Owned ☐ Hispanic American-Owned ☐ Asian American-Owned ☐ Women-Owned ☐ Other MBE Classification _____		Date: □ Mail □ Facsimile □ Email	Date: □ Phone □ Mail □ Facsimile □ Email	Time of Call: Spoke With: □ Left Message	□ Yes □ No	□ Yes □ No	□ Used Other MBE □ Used Non-MBE □ Self-performing
Firm Name: _____ **MBE Classification (Check only if requesting waiver of MBE subgoal.)** ☐ African American-Owned ☐ Hispanic American-Owned ☐ Asian American-Owned ☐ Women-Owned ☐ Other MBE Classification _____		Date: □ Mail □ Facsimile □ Email	Date: □ Phone □ Mail □ Facsimile □ Email	Time of Call: Spoke With: □ Left Message	□ Yes □ No	□ Yes □ No	□ Used Other MBE □ Used Non-MBE □ Self-performing

☐Please check if Additional Sheets are attached.

GOOD FAITH EFFORTS DOCUMENTATION
TO SUPPORT WAIVER REQUEST

PART 3 – ADDITIONAL INFORMATION REGARDING REJECTED MBE QUOTES

PAGE ___ OF ____

Prime Contractor	Project Description	Solicitation Number
	Project CORE On-Call Demolition Services	RFP OCD-001

This form must be completed if Part 2 indicates that a MBE quote was rejected because the bidder/offeror is using a Non-MBE or is self-performing the Identified Items of Work. Provide the Identified Items Work, indicate whether the work will be self-performed or performed by a Non-MBE, and if applicable, state the name of the Non-MBE. Also include the names of all MBE and Non-MBE Firms that provided a quote and the amount of each quote.

Describe Identified Items of Work Not Being Performed by MBE (Include spec/section number from bid)	Self-performing or Using Non-MBE (Provide name)	Amount of Non-MBE Quote	Name of Other Firms who Provided Quotes & Whether MBE or Non-MBE	Amount Quoted	Indicate Reason Why MBE Quote Rejected & Briefly Explain
	□ Self-performing □ Using Non-MBE _____	$_____	_____ □ MBE □ Non-MBE	$_____	□ Price □ Capabilities □ Other
	□ Self-performing □ Using Non-MBE _____	$_____	_____ □ MBE □ Non- MBE	$_____	□ Price □ Capabilities □ Other
	□ Self-performing □ Using Non-MBE _____	$_____	_____ □ MBE □ Non- MBE	$_____	□ Price □ Capabilities □ Other
	□ Self-performing □ Using Non- MBE _____	$_____	_____ □ MBE □ Non- MBE	$_____	□ Price □ Capabilities □ Other
	□ Self-performing □ Using Non- MBE _____	$_____	_____ □ MBE □ Non- MBE	$_____	□ Price □ Capabilities □ Other
	□ Self-performing □ Using Non- MBE _____	$_____	_____ □ MBE □ Non- MBE	$_____	□ Price □ Capabilities □ Other

☐Please check if Additional Sheets are attached.

MBE Attachment D - 2
OUTREACH EFFORTS COMPLIANCE STATEMENT

Complete and submit this form within 10 working days of notification of apparent award or actual award, whichever is earlier.

In conjunction with the bid/proposal submitted in response to Solicitation No. Project CORE OCD-001, I state the following:

1. Bidder/Offeror identified subcontracting opportunities in these specific work categories:
_____
_____
_____

2. Attached to this form are copies of written solicitations (with bidding/proposal instructions) used to solicit certified MBE firms for these subcontract opportunities.

3. Bidder/Offeror made the following attempts to personally contact the solicited MDOT-certified MBE firms: _____
_____
_____
_____

4. **Please Check One:**

☐ This project does not involve bonding requirements.

☐ Bidder/Offeror assisted MDOT-certified MBE firms to fulfill or seek waiver of bonding requirements. (DESCRIBE EFFORTS): _____
_____
_____

5. **Please Check One:**

☐ Bidder/Offeror did attend the pre-bid/pre-proposal conference.

☐ No pre-bid/pre-proposal meeting/conference was held.

☐ Bidder/Offeror did not attend the pre-bid/pre-proposal conference.

_____	_____
Company Name	Signature of Representative
_____	_____
Address	Printed Name and Title
_____	_____
City, State and Zip Code	Date

MBE Attachment D-3A
MBE SUBCONTRACTOR PROJECT PARTICIPATION CERTIFICATION

PLEASE COMPLETE AND SUBMIT ONE FORM FOR EACH CERTIFIED MBE FIRM LISTED ON THE MBE PARTICIPATION SCHEDULE (ATTACHMENT D-1A) WITHIN 10 WORKING DAYS OF NOTIFICATION OF APPARENT AWARD. IF THE BIDDER/OFFEROR FAILS TO RETURN THIS AFFIDAVIT WITHIN THE REQUIRED TIME, THE PROCUREMENT OFFICER MAY DETERMINE THAT THE BIDDER/OFFEROR IS NOT RESPONSIBLE AND THEREFORE NOT ELIGIBLE FOR CONTRACT AWARD.

Provided that _____ (Prime Contractor's Name) is awarded the State contract in conjunction with Solicitation No. Project CORE OCD-001, such Prime Contractor intends to enter into a subcontract with _____(Subcontractor's Name) committing to participation by the MBE firm _____ (MBE Name) with MDOT Certification Number _____ which will receive at least $_____ which equals to___% of the Total Contract Amount for performing the following products/services for the Contract:

NAICS CODE	WORK ITEM, SPECIFICATION NUMBER, LINE ITEMS OR WORK CATEGORIES (IF APPLICABLE)	DESCRIPTION OF SPECIFIC PRODUCTS AND/OR SERVICES

Each of the Contractor and Subcontractor acknowledges that, for purposes of determining the accuracy of the information provided herein, the Procurement Officer may request additional information, including, without limitation, copies of the subcontract agreements and quotes. Each of the Contractor and Subcontractor solemnly affirms under the penalties of perjury that: (i) the information provided in this MBE Subcontractor Project Participation Affidavit is true to the best of its knowledge, information and belief, and (ii) has fully complied with the State Minority Business Enterprise law, State Finance and Procurement Article §14-308(a)(2), Annotated Code of Maryland which provides that, except as otherwise provided by law, a contractor may not identify a certified minority business enterprise in a Bid/Proposal and:

(1) fail to request, receive, or otherwise obtain authorization from the certified minority business enterprise to identify the certified Minority Business Enterprise in its Bid/Proposal;

(2) fail to notify the certified Minority Business Enterprise before execution of the Contract of its inclusion of the Bid/Proposal;

(3) fail to use the certified Minority Business Enterprise in the performance of the Contract; or

(4) pay the certified Minority Business Enterprise solely for the use of its name in the Bid/Proposal.

PRIME CONTRACTOR	**SUBCONTRACTOR**
Signature of Representative:	Signature of Representative:
_____	_____
Printed Name and Title:_____	Printed Name and Title:_____
_____	_____
Firm's Name: _____	Firm's Name: _____
Federal Identification Number: _____	Federal Identification Number: _____
Address: _____	Address: _____
_____	_____
Telephone: _____	Telephone: _____
Date: _____	Date: _____

MBE Attachment D-3B
MBE PRIME - PROJECT PARTICIPATION CERTIFICATION

PLEASE COMPLETE AND SUBMIT THIS FORM TO ATTEST EACH SPECIFIC ITEM OF WORK THAT YOUR MBE FIRM HAS LISTED ON THE MBE PARTICIPATION SCHEDULE (ATTACHMENT D-1A) FOR PURPOSES OF MEETING THE MBE PARTICIPATION GOALS. THIS FORM MUST BE SUBMITTED WITHIN 10 WORKING DAYS OF NOTIFICATION OF APPARENT AWARD. IF THE BIDDER/OFFEROR FAILS TO RETURN THIS AFFIDAVIT WITHIN THE REQUIRED TIME, THE PROCUREMENT OFFICER MAY DETERMINE THAT THE BIDDER/OFFEROR IS NOT RESPONSIBLE AND THEREFORE NOT ELIGIBLE FOR CONTRACT AWARD.

Provided that _____ (Prime Contractor's Name) with Certification Number _____ is awarded the State contract in conjunction with Solicitation No. Project OCD-001, such MBE Prime Contractor intends to perform with its own forces at least $_____ which equals to___% of the Total Contract Amount for performing the following products/services for the Contract:

NAICS CODE	WORK ITEM, SPECIFICATION NUMBER, LINE ITEMS OR WORK CATEGORIES (IF APPLICABLE). FOR CONSTRUCTION PROJECTS, GENERAL CONDITIONS MUST BE LISTED SEPARATELY.	DESCRIPTION OF SPECIFIC PRODUCTS AND/OR SERVICES	VALUE OF THE WORK

MBE PRIME CONTRACTOR

Signature of Representative:

_____

Printed Name and Title:_____

_____

Firm's Name: _____

Federal Identification Number: _____

Address: _____

_____

Telephone: _____

Date: _____

MBE Attachment D-4A

Maryland Stadium Authority
Minority Business Enterprise Participation
Prime Contractor Paid/Unpaid MBE Invoice Report

Report #: _____ Reporting Period (Month/Year): _____ **Prime Contractor: Report is due to the MBE Liaison by the 10th of the month following the month the services were provided.** **Note: Please number reports in sequence.**	Contract #: _____ Contracting Unit: _____ Contract Amount: _____ MBE Subcontract Amt: _____ Project Begin Date: _____ Project End Date: _____ Services Provided: _____

Prime Contractor:	Contact Person:	
Address:		
City:	State:	ZIP:
Phone:	Fax:	E-mail:
MBE Subcontractor Name:	Contact Person:	
Phone:	Fax:	
Subcontractor Services Provided:		

List all payments made to MBE subcontractor named above during this reporting period:		**List dates and amounts of any outstanding invoices:**	
Invoice#	**Amount**	**Invoice #**	**Amount**
1.		**1.**	
2.		**2.**	
3.		**3.**	
4.		**4.**	
Total Dollars Paid: $_____		**Total Dollars Unpaid: $_____**	

- If more than one MBE subcontractor is used for this contract, you must use separate 1-4A forms for each subcontractor.
- Information regarding payments that the MBE prime will use for purposes of meeting the MBE participation goals must be reported separately in Attachment 1-4B
- Return one copy (hard or electronic) of this form to the Compliance Coordinator at the following address.

Signature: _____ Date: _____
(Required)

- **Return one copy (hard or electronic) of this form to the following addresses (electronic copy with signature and date is preferred):**

Lisa M. Johnson, Compliance Coordinator
Maryland Stadium Authority
Capital Projects Development Group
351 W. Camden Street, Suite 500
Baltimore, MD 21201
ljohnson@mdstad.com
410-223-4117

MBE Attachment D-4B
Maryland Stadium Authority
Minority Business Enterprise Participation
MBE Prime Contractor Report

MBE Prime Contractor: Certification Number: Report #: _____ Reporting Period (Month/Year): _____ **MBE Prime Contractor: Report is due to the MBE Liaison by the 10th of the month following the month the services were provided.** **Note: Please number reports in sequence.**	Contract #: _____ Contracting Unit: _____ Contract Amount: _____ Total Value of the Work to the Self-Performed for purposes of Meeting the MBE participation goal/subgoals: _____ Project Begin Date: _____ Project End Date: _____

Contact Person:		
Address:		
City:	State:	ZIP:
Phone:	Fax:	E-mail:

Invoice Number	Value of the Work	NAICS Code	Description of the Work

Signature: _____ Date: _____
(Required)
Print Name: _____ Title: _____

- **Return one copy (hard or electronic) of this form to the following addresses (electronic copy with signature and date is preferred):**

Lisa M. Johnson, Compliance Officer
Maryland Stadium Authority
Capital Projects Development Group
351 W. Camden Street, Suite 500
Baltimore, MD 21201
ljohnson@mdstad.com
410-223-4117

MBE ATTACHMENT D-5

Minority Business Enterprise Participation

Subcontractor Paid/Unpaid MBE Invoice Report

Report#: ____ Reporting Period (Month/Year): _____ **Report is due by the 10th of the month following the month the services were performed.**	Contract # Contracting Unit: MBE Subcontract Amount: Project Begin Date: Project End Date: Services Provided:

MBE Subcontractor Name:		
MDOT Certification #:		
Contact Person:	E-mail:	
Address:		
City:	State:	ZIP:
Phone:	Fax:	

Subcontractor Services Provided:

List all payments received from Prime Contractor during reporting period indicated above.	**List dates and amounts of any unpaid invoices over 30 days old.**
Invoice Amt **Date**	**Invoice Amt** **Date**
1.	**1.**
2.	**2.**
3.	**3.**
Total Dollars Paid: $_____	**Total Dollars Unpaid: $_____**

Prime Contractor: Contact Person:

Signature: _____ Date: _____
(Required)

Print Name: _____ Title: _____

- **Return one copy (hard or electronic) of this form to the following addresses (electronic copy with signature and date is preferred):**

Lisa M. Johnson, Compliance Officer
Maryland Stadium Authority
Capital Projects Development Group
351 W. Camden Street, Suite 500
Baltimore, MD 21201
ljohnson@mdstad.com
410-223-4117

ATTACHMENT E
SCOPE OF WORK

Scope of Work

1. Responsible for coordinating with the City for procurement of all necessary permits required to complete abatement, demolition and site stabilization operations. Permit documentation includes but is not limited to DPW Worksheets (for Sediment & Erosion Controls), ROW permitting applications, hydrant permits, demolition permits. Permits will be issued at no cost; however, Contractors will be responsible for completing/submitting the proper applications.
2. Contractor is responsible for providing all required submittals in accordance with the Contract Documents.
3. Responsible for providing a detailed project CPM schedule that incorporates major items of work. This includes but is not limited to submittal documentation, fencing/S&E documentation, rodenticide, mobilization, abatement (as applicable), demolition and hauling, site stabilization, sidewalk replacement, demobilization and closeout activities.
4. Responsible for participation in training sessions as required by the Contract Documents. This includes but is not limited to participation in community-focused demolition protocol and lead/asbestos based MDE training.
5. Responsible for ensuring that all onsite personnel have the proper licenses/training/certifications as required by the contract documents. Contractor is to maintain a master list of all personnel that highlights certification/licensing status with respective expiration dates. The master list will be shared with the MSA as a submittal and will be updated on a weekly basis.
6. Responsible for conducting Pre-work Inspections. This includes documentation of existing conditions, discussing identified hazardous materials and the anticipated method for abatement/handling/disposal, and performing TCLP sampling to verify waste stream acceptance. Note that TCLP sampling for Waste Stream verification is to be performed under the guidance of the CIH. TCLP sampling must be coordinated with MSA to ensure environmental consultant is present to witness testing.
7. Responsible for posting of site signage. This includes but is not limited to posting the Public Notice of Demolition prior to commencing demolition as well as furnishing and installing the Project Construction Sign.
8. Responsible for identifying the “Project Superintendent” who will be responsible for daily oversight of all onsite activities. The Project Superintendent will be responsible for overseeing the dust suppression mitigation and any other environmentally sensitive activities. The dedicated “Project Superintendent” is required to be onsite to oversee all work performed on site (including work performed by subcontractors).
9. Responsible for creating and submitting a Waste Management Plan per the Contract Documents; inclusive of a site logistics plan, list of anticipated waste streams and the expected disposal methods.
10. Responsible for confirming that utilities have been cut, capped and made safe (by others) prior to beginning demolition activities in accordance with the Contract Documents. In the event active utilities are discovered, the Contractor is responsible for notifying MSA. The Contractor is not responsible for performing any utility cut-off services.
11. Complete rodenticide of all interior and exterior areas of the properties to be demolished in accordance with the Contract Documents.
12. Complete installation, maintenance and removal of site security measures in accordance with the Contract Documents. This includes but is not limited to any required security fencing, barriers and signage. Security fencing must be at least

eight (8) feet high and is to be covered with a windscreen as outlined in the contract documents. Windscreen and fencing is to be maintained in a presentable fashion at all times. Note that windscreen at each location is to be uniform in color and free of holes.

13. Complete installation, maintenance and removal of S&E controls in accordance with the contract documents. S&E controls are required around the entire site perimeter. Contractor is responsible for providing necessary inspection notifications prior to commencing any demolition work.
14. Perform hazardous / regulated materials abatement services in accordance with the Contract Documents. The contractor is responsible for performing work under the supervision of a certified Industrial Hygienist. Note that Hazardous materials identification and associated testing services will be performed by an independent environmental consultant under a separate contract. The findings of this investigation will be presented to the Contractor in report form. Contractors will be responsible for providing site specific work plans addressing abatement / hazardous material removal and disposal plan for each location prior to commencing work, providing necessary agency notifications, performing the abatement and disposal services and the submission of proper documentation of all completed work.
15. All demolition and debris removal operations are to be performed in accordance with the Contract Documents.
16. Building demolition services are to include the razing and removal of the complete building structure inclusive of basement foundations in accordance with the contract documents. Note that demolition and debris removal operations are to be performed via the use of a bucket-claw loader or similar controlled demolition device in accordance with the Contract Documents.
17. Responsible for performing site grading and stabilization services in accordance with the Contract Documents. This includes the protection of mature trees, removal of "weed trees", removal and hauling of excavated soils, backfilling of open excavations via use of clean fill, final site grading and seeding / stabilization operations in accordance with the Contract Documents. The Contractor will be required to apply seed uniformly with a hydroseeder. The use of a cyclone seed frill or cultipacker seeder will not be allowed. The Contractor is responsible for watering and site maintenance as required to ensure mature vegetative growth.
18. Responsible for the removal and replacement of the existing side-walks adjacent to properties being demolished in accordance with Contract Documents. Sidewalk replacement is to be performed in accordance with the most current City of Baltimore Specifications and details.
19. Responsible for providing any required notifications and close-out documentation to the appropriate local authorities or agencies.
20. Responsible for proper documentation of all work completed. Each location is to be documented and tracked separately.
21. Contractor is responsible for submission of daily reporting for each location. At a minimum, daily reports are to include:
    a. Location identification.
    b. Weather summary.
    c. A description of work performed.
    d. Documentation of labor force including names, company name, work classifications and hours worked for each individual onsite.
    e. Logs for all materials entering / leaving the site. Logs are to be reconciled with the onsite Environmental Consultant at the end of each work day. The Contractor's Field Superintendent and Environmental Consultant are to initial the reconciled logs at the end of each day to confirm agreement.

f. Identification of any onsite equipment (including idle equipment).
g. Identification of any site visitors.
h. Summary of any issues / accidents.
i. Photos documenting the work.

22. Contractor will be responsible for using the MSA's Contract Management System. A user license will be provided at the time of contract award.
23. Responsible for conformance with all local, state and federal laws.

ATTACHMENT F
PRICING FORM

ATTACHMENT F
Pricing Form
On Call Demolition Services - Project C.O.R.E

Summary Page

Proposing Firm Name: _____

Proposal Date: _____

Authorized Signature: _____

Printed Name and Title: _____

FEIN: _____

The Pricing Form shall contain all price information in the format specified on these pages. Complete the Pricing Form only as provided in the Pricing Form Instructions. Unless otherwise indicated, do not amend, alter or leave blank any items on the Pricing Form. Failure to adhere to any of these instructions may result in the proposal being determined not susceptible for award and rejected by the MSA.

The Offer or agrees to furnish all supervision, labor, materials, travel, insurance, equipment and services necessary to complete the work as indicated in this RFP, in accordance with the specifications detailed herein and all other contract documents for the prices shown below. The Offer or hereby declares to have carefully examined the specifications and has carefully examined the Contract Documents and has accepted all terms and conditions outlined in the specifications.

Line Item	Cost
TOTAL EXTENDED COST UP1 - UP12 (Base Unit Pricing)	
TOTAL EXTENDED COST H1 - H23 (Hazardous Unit Pricing)	
SUBTOTAL EXTENDED COST (BASE AND HAZARDOUS)	
OWNERS' CONTINGENCY (10% to be used at owner's discretion)	
TOTAL COST	

NOTES:

1. All Pricing Form prices are to be fully loaded prices that include all costs/expenses associated with the provision of services as required by the RFP. The Pricing Form price shall include, but is not limited to, all: labor, profit/overhead, general operating, administrative, and all other expenses and costs necessary to perform the work set forth in the solicitation. No other amounts will be paid to the Consultant. If labor rates are requested, those amounts shall be fully-loaded rates; no overtime amounts will be paid.

2. Unless indicated elsewhere in the RFP, sample amounts used for calculations on the Pricing Form are typically estimates for evaluation purposes only. Unless stated otherwise in the RFP, the MSA does not guarantee a minimum or maximum number of units or usage in the performance of this contract.

3. The rates indicated on this Pricing Form will be fixed for the duration of the contract.

ATTACHMENT F
Pricing Form
On-Call Demolition Services RFP
Base Unit Prices

The Pricing Form shall contain all price information in the format specified on these pages. Complete the Pricing Form only as provided in the Pricing Form Instructions. Unless otherwise indicated, do not amend, alter or leave blank any items on the Pricing Form. Failure to adhere to any of these instructions may result in the proposal being determined not susceptible for award and rejected by the MSA.

The Offer or agrees to furnish all supervision, labor, materials, travel, insurance, equipment and services necessary to complete the work as indicated in this RFP, in accordance with the specifications detailed herein and all other contract documents for the prices shown below. The Offer or hereby declares to have carefully examined the specifications and has carefully examined the Contract Documents and has accepted all terms and conditions outlined in the specifications.

I. Base Unit Pricing

	Property Size	Description	Per Property Unit Cost	Est. # of Properties	Extended Cost
UP1	2 Story Brick Rowhouse - Half or Whole Block Locations with run of 1-5 properties	Cost per property to complete demolition, debris removal, backfill, topsoil, seeding and concrete sidewalk replacement. Note that unit price includes all equipment, labor and materials necessary to fully perform the work. This includes any and all costs associated with performing the onsite work as well as required documentation (submittals, project signage, daily reporting, MBE reporting, etc.), bonds, insurance, etc. This unit cost is a per property cost for half or whole block scenarios where 1-5 two-story rowhouses are released. No hazardous abatement is included in this unit price.		100	
UP2	2 Story Brick Rowhouse - Half or Whole Block Locations with run of 6-10 properties	Cost per property to complete demolition, debris removal, backfill, topsoil, seeding and concrete sidewalk replacement. Note that unit price includes all equipment, labor and materials necessary to fully perform the work. This includes any and all costs associated with performing the onsite work as well as required documentation (submittals, project signage, daily reporting, MBE reporting, etc.), bonds, insurance, etc. This unit cost is a per property cost for half or whole block scenarios where 6-10 two-story rowhouses are released. No hazardous abatement is included in this unit price.		250	
UP3	2 Story Brick Rowhouse - Half or Whole Block Locations with run of 11-15 properties	Cost per property to complete demolition, debris removal, backfill, topsoil, seeding and concrete sidewalk replacement. Note that unit price includes all equipment, labor and materials necessary to fully perform the work. This includes any and all costs associated with performing the onsite work as well as required documentation (submittals, project signage, daily reporting, MBE reporting, etc.), bonds, insurance, etc. This unit cost is a per property cost for half or whole block scenarios where 11-15 two-story rowhouses are released. No hazardous abatement is included in this unit price.		100	

UP 4	2 Story Brick Rowhouse - Half or Whole Block Locations with run of 16 or more properties	Cost per property to complete demolition, debris removal, backfill, topsoil, seeding and concrete sidewalk replacement. Note that unit price includes all equipment, labor and materials necessary to fully perform the work. This includes any and all costs associated with performing the onsite work as well as required documentation (submittals, project signage, daily reporting, MBE reporting, etc.), bonds, insurance, etc. This unit cost is a per property cost for half or whole block scenarios where 16 or more two-story rowhouses are released. No hazardous abatement is included in this unit price.		150	
UP5	3 Story Brick Rowhouse - Half or Whole Block Locations with run of 1-5 properties	Cost per property to complete demolition, debris removal, backfill, topsoil, seeding and concrete sidewalk replacement. Note that unit price includes all equipment, labor and materials necessary to fully perform the work. This includes any and all costs associated with performing the onsite work as well as required documentation (submittals, project signage, daily reporting, MBE reporting, etc.), bonds, insurance, etc. This unit cost is a per property cost for half or whole block scenarios where 1-5 three-story rowhouses are released. No hazardous abatement is included in this unit price.		50	
UP6	3 Story Brick Rowhouse - Half or Whole Block Locations with run of 6-10 properties	Cost per property to complete demolition, debris removal, backfill, topsoil, seeding and concrete sidewalk replacement. Note that unit price includes all equipment, labor and materials necessary to fully perform the work. This includes any and all costs associated with performing the onsite work as well as required documentation (submittals, project signage, daily reporting, MBE reporting, etc.), bonds, insurance, etc. This unit cost is a per property cost for half or whole block scenarios where 6-10 three-story rowhouses are released. No hazardous abatement is included in this unit price.		75	
UP7	3 Story Brick Rowhouse - Half or Whole Block Locations with run of 11-15 properties	Cost per property to complete demolition, debris removal, backfill, topsoil, seeding and concrete sidewalk replacement. Note that unit price includes all equipment, labor and materials necessary to fully perform the work. This includes any and all costs associated with performing the onsite work as well as required documentation (submittals, project signage, daily reporting, MBE reporting, etc.), bonds, insurance, etc. This unit cost is a per property cost for half or whole block scenarios where 11-15 three-story rowhouses are released. No hazardous abatement is included in this unit price.		50	
UP 8	3 Story Brick Rowhouse - Half or Whole Block Locations with run of 16 or more properties	Cost per property to complete demolition, debris removal, backfill, topsoil, seeding and concrete sidewalk replacement. Note that unit price includes all equipment, labor and materials necessary to fully perform the work. This includes any and all costs associated with performing the onsite work as well as required documentation (submittals, project signage, daily reporting, MBE reporting, etc.), bonds, insurance, etc. This unit cost is a per property cost for half or whole block scenarios where 16 or more two-story rowhouses are released. No hazardous abatement is included in this unit price.		40	

UP9	2 Story Wood Framed Duplex (Double Unit)	Cost per property to complete demolition, debris removal, backfill, topsoil, seeding and concrete sidewalk replacement. Note that unit price includes all equipment, labor and materials necessary to fully perform the work. This includes any and all costs associated with performing the onsite work as well as required documentation (submittals, project signage, daily reporting, MBE reporting, etc.), bonds, insurance, etc. . This unit cost is to provide neccessary services for the entire two-story wood framed duplex.		5	
UP 10	3 Story Wood Framed Duplex (Double Unit)	Cost per property to complete demolition, debris removal, backfill, topsoil, seeding and concrete sidewalk replacement. Note that unit price includes all equipment, labor and materials necessary to fully perform the work. This includes any and all costs associated with performing the onsite work as well as required documentation (submittals, project signage, daily reporting, MBE reporting, etc.), bonds, insurance, etc. . This unit cost is to provide neccessary services for the entire three-story wood framed duplex.		5	
UP11	Cost per LF of 8' Driven Post Security Fencing / Sediment Erosion Controls	Cost per linear foot of driven post security fencing with chain link fencing, windscreen, gates for site access. Sediment erosion controls (silt fence) is to be incorporated into the security fence installation and pricing. Note that unit price includes all equipment, labor and materials necessary to fully perform the work. This includes any and all costs associated with performing the onsite work as well as required documentation.		29,000	
UP12	Utility Capping	Cost to cut/cap water service lines at the street. Note that unit price includes all equipment, labor and materials necessary to fully perform the work. This includes any and all costs associated with performing the onsite work (sawcutting, excavation, pipe work, fill, paving replacement) as well as required documentation, bonds, insurance, etc. .		50	
UP13	Additional cost to install SOD in lieu of grass (SF).	Additional cost per square foot to install SOD in lieu of grass.			
UP14	Additional per property cost to salvage 6 pallets of brick per unit.	Additional cost to salvage 6 pallets of brick. This includes brick sorting, palletizing and documention. Documention includes recording of ownership transfer. Note that only non-painted brick is eligible for salvage. Unit cost is a per property add.			
UP15	Additional per property cost to salvage1,200 Board Feet of lumber per unit.	Additional cost to salvage 1,200 board feet of lumber. This includes lumber removal and documention. Documention includes recording of ownership transfer. Note that only non-painted lumber is eligible for salvage. Unit cost is a per property add.			
Total Extended Cost for UP 1 - UP11					

Signer's Initials _____

ATTACHMENT F
Pricing Form
On-Call Demolition Services RFP
Hazardous Unit Prices

The Pricing Form shall contain all price information in the format specified on these pages. Complete the Pricing Form only as provided in the Pricing Form Instructions. Unless otherwise indicated, do not amend, alter or leave blank any items on the Pricing Form. Failure to adhere to any of these instructions may result in the proposal being determined not susceptible for award and rejected by the MSA.

The Offer or agrees to furnish all supervision, labor, materials, travel, insurance, equipment and services necessary to complete the work as indicated in this RFP, in accordance with the specifications detailed herein and all other contract documents for the prices shown below. The Offer or hereby declares to have carefully examined the specifications and has carefully examined the Contract Documents and has accepted all terms and conditions outlined in the specifications.

II. Hazardous Unit Pricing

	Hazardous Item	Description	Unit	Unit Cost	Estimated Quanties	Extended Cost
H1	Category I - Non Friable Roofing (SF)	Cost per square foot to remove, package and dispose of Category I - Non Friable Roofing Materials.	$/SF		165,000	
H2	Category I - Non Friable Flashing (Roof/Chimney)	Cost per linear foot to remove, package and dispose of Category I - Non Friable Roof/Chimney Flashing.	$/LF		4,000	
H3	Category I - Non Friable Asebestos Floor Tile (SF)	Cost per square foot to remove, package and dispose of Category I - Non Friable Asbestos Floor Tile.	$/SF		35,000	
H4	Category I - Non Friable Rolled Flooring (SF)	Cost per square foot to remove, package and dispose of Category I - Non Friable Rolled Flooring.	$/SF		See H3	
H5	Category I - Non Friable Mastic (SF)	Cost per square foot to remove, package and dispose of Category I - Non Friable Mastic.	$/SF		See H3	
H6	Category I- Non Friable Window Glazing (LF)	Cost per inear foot to remove, package and dispose of Category I - Non Friable Window Glazing.	$/LF		10,000	
H7	Category I - Non Friable Door Caulk (LF)	Cost per inear foot to remove, package and dispose of Category I - Non Friable Door Caulk.	$/LF		2,000	
H8	Category II - Non Friable Transite Shingle (SF)	Cost per square foot to abate Category II - Non Friable Transite Shingles. This includes but is not limited to proper removal, handling, packaging, disposal and documentation of Category II - Non Friable Transite Shingles.	$/SF		25,000	
H9	Category II - Non Friable Joint Compound (SF)	Cost per square foot to abate Category II - Non Friable Joint Compound. This includes but is not limited to proper removal, handling, packaging, disposal and documentation of Category II - Non Friable Joint Compound.	$/SF		100,000	
H10	Category II - Window Glazing / Door Caulk	Caulk. This includes but is not limited to proper removal, handling, packaging, disposal and documentation of Category II - Non Friable Window Glazing/Door Caulk.	$/LF		5,000	
H11	RACM - Plaster / Drywall / Joint Compound (SF)	Cost per square foot to abate RACM Plaster/Drywall/Joint Compound. This includes but is not limited to proper removal, handling, packaging, disposal and documentation of RACM Plaster/Drywall/Joint Compound.	$/SF		100,000	

H12	Full Unit Friable - 2 Story Brick	Cost per unit to remove an entire unit as friable. This includes but is not limited to proper removal, handling, packaging, disposal and documentation of the unit as RACM. Note that full friable unit removal is not limited to the interior of the building and includes the exterior facing of the building and the foundation.	$/property		40	
H13	Full Unit Friable - 3 Story Brick	Cost per unit to remove an entire unit as friable. This includes but is not limited to proper removal, handling, packaging, disposal and documentation of the unit as RACM. Note that full friable unit removal is not limited to the interior of the building and includes the exterior facing of the building and the foundation.	$/property		40	
H14	Full Unit Friable - Wooden Fame Duplex	Cost per unit to remove an entire unit as friable. This includes but is not limited to proper removal, handling, packaging, disposal and documentation of the unit as RACM. Note that full friable unit removal is not limited to the interior of the building and includes the exterior facing of the building and the foundation. The entire duplex is classified as a single unit as opposed to two units.	$/property		5	
H15	Storage Tank Oil / Sludge Removal	Cost to properly remove/pump out unused fuel and sludge from existing above ground storage tanks. Unit price includes proper handling, disposal and required documentation. Work is to be performed in accordance with the Maryland Department of the Environment regulations.	$/gallon		7,500	
H16	Storage Tank Disposal	Cost for storage tank removal, disposal and documentation. Cost does not include pumping/sludge removal and disposal cost which are covered under UP#15. Work is to be performed in accordance with the Maryland Department of the Environment regulations.	$/ea		30	
H17	Ballast	Per unit cost for ballast abatement. This includes but is not limited to proper removal, handling, packaging, disposal and documentation of ballast.	$/ea		50	
H18	Florescent Lights	Per unit cost for florescent light removal. This includes but is not limited to proper removal, handling, packaging, disposal and documentation of florescent lighting.	$/ea		100	
H19	Tires	Unit cost demolition prices should assume up to 3 tires per property. This unit cost is for removal, handling, disposal and documentation of additional tires.	$/ea		100	
H20	Refrigerator	Cost per unit to properly remove, handle and dispose of refigerant. Cost of refridgerator removal and diposal include in base unit cost.	$/ea		100	
H21	AC Units	Cost per unit to properly remove, handle and dispose of air conditioning unit. Cost of air conditioner removal and diposal include in base unit cost.	$/ea		50	
H22	Thermostat	Unit cost demolition prices should assume up to 2 thermostats per property. This unit cost is for removal, handling, disposal and documentation of additional thermostats.	$/ea		825	
H23	Smoke Alarms	Unit cost demolition prices should assume up to 3 smoke detectors per property. This unit cost is for removal, handling, disposal and documentation of additional smoke detectors.	$/ea		825	

Signer's Initials _____

ATTACHMENT G
SAMPLE CONTRACT

ATTACHMENT H
MEMORANDUM OF UNDERSTANDING

MEMORANDUM OF UNDERSTANDING
FOR DEMOLITION AND STABILIZATION

THIS MEMORANDUM OF UNDERSTANDING for Demolition and Stabilization (this "Agreement"), effective as of the date executed by the last of the three parties identified herein (the "Effective Date"), is by and between the Mayor and City Council of Baltimore, a municipal corporation of the State of Maryland, acting by and through the Baltimore City Department of Housing and Community Development (the "City"), the Maryland Department of Housing and Community Development (the "Department"), a principal department of the State of Maryland (the "State"), and the Maryland Stadium Authority (the "Authority"), a body corporate and politic and an instrumentality of the State. The City, the Department, and the Authority may each be referred to individually as a "Party," or collectively referred to as the "Parties," in this Agreement.

WHEREAS, there are thousands of parcels of real property in Baltimore City upon which exist abandoned, derelict, and dilapidated buildings (such parcels of real property are hereinafter referred to as the "Blighted Properties"). The Blighted Properties pose health and safety hazards and negatively affect Baltimore neighborhoods.

WHEREAS, addressing the problem of Blighted Properties is a key goal of "Project CORE," or Creating Opportunities for Renewal and Enterprise, a joint City-State initiative to devote significant resources to the transformation and redevelopment of Baltimore City, while providing workforce development and jobs creation.

WHEREAS, the Department and the City desire to improve the Blighted Properties in a safe and efficient manner in order to enhance the quality of life in the City's neighborhoods, promote safety, and revitalize the City by (i) demolishing structures on the Blighted Properties and converting the remaining open parcels into gardens, parks, other green amenities, or redevelopment opportunities, or by (ii) stabilizing structures on the Blighted Properties to prevent further deterioration and to eliminate their blighting influence.

WHEREAS, the Authority has experience and expertise in managing complex urban construction projects on behalf of the State and its political subdivisions, and pursuant to Md. Code Ann., Econ. Dev. Art. §10-622(a), the Authority is authorized to enter into

intergovernmental agreements to facilitate such development projects for the State and its political subdivisions.

WHEREAS, pursuant to Md. Code Ann., Econ. Dev. Art. §10-622 (d), the Authority shall not expend any of its own funds in connection with the work to be performed pursuant to this Agreement.

NOW THEREFORE, in consideration of the promises and obligations set forth herein, and for other good and valuable consideration, the City, the Department, and the Authority agree as follows:

1. **Recitals**. The above recitals are made a part of this Agreement.

2. **Term**. Unless otherwise agreed in writing by the Parties or terminated in accordance with Sections 7.7 or 12 below, this Agreement shall begin on the Effective Date and shall terminate on June 30, 2019 (the "Term"), in a manner consistent with Section 7.6. The first fiscal year under this Agreement will end on June 30, 2016, and each successive fiscal year thereafter will begin on July 1 and end on June 30.

3. **Relationship of the Parties.**

3.1 **Funding.** The Department and the City are responsible for funding One Hundred Percent (100%) of the Project Costs, as defined herein. The Authority shall not expend any of its own funds for Project Costs.

3.2 **Public Relations.** The Parties share the common goal of supporting Project CORE and improving Baltimore City neighborhoods through the Demolition or Stabilization of the structures on the Blighted Properties, and they agree to cooperate in the preparation and release of all publicity, ceremonial events, and media coverage in connection with this Agreement and the work to be performed hereunder.

3.3 **Authority as Agent.** The Authority will act as the agent of the State in procuring, coordinating, and managing the Work under this Agreement.

3.4 **Lien Rights.** To the extent permitted by law, the Authority and the Department will cooperate with the City's future efforts to assess liens against any privately-owned Approved Blighted Properties related to demolition expenses.

4. **Definitions.**

4.1 "Approved Blighted Properties" means those Blighted Properties that have been designated by the Department, in consultation with the City, for Demolition or Stabilization, as described in Section 5.3.

4.2 "Building Official" means the Commissioner of the Baltimore City Department of Housing and Community Development or his or her authorized representative, as defined in Baltimore City Revised Code § 103.1.

4.3 "Demolition" means razing or demolishing the structure(s) on a Blighted Property, and removal of the debris resulting from the razing or demolishing, as defined in Baltimore City Revised Code § 202.2.16. Demolition may also be accomplished through Deconstruction.

4.4 "Deconstruction" means the Demolition (as defined in Section 4.3) of structure(s) by the dismantlement of components thereof for re-use, repurposing, recycling, and waste management, as well as the removal of the components or any resulting debris from a Blighted Property.

4.5 "Notice to Proceed" means formal, written notification, executed by a representative of the City, to the Authority with a copy to the Department, in accordance with Section 5.4.

4.6 "Project Costs" means all direct and indirect costs and expenses resulting from or related to the performance of the Work under this Agreement. Project Costs may include, but are not limited to, payments to contractors, consultants, or other third parties for work performed, costs of equipment and materials, certain reimbursement costs approved by the Department related to relocation expenses, and administrative costs of the Authority in managing and overseeing the Work. Project Costs shall include, and the Authority shall be reimbursed for, ordinary overhead and actual costs, salary, and benefits of the Authority's staff in proportion to the time expended on the Work. All Project Costs shall be paid by the Department.

4.7 "Stabilization" means all work of any kind, not amounting to rehabilitation, that is needed or required to be performed by the Building Official, to make a structure on a Blighted Property safe and secure, to prevent its further deterioration, and to eliminate its blighting influence, as defined in Baltimore City Revised Code §202.2.53.

4.8 "Work" means the procurement, preparation, coordination, management, and performance of Demolition or Stabilization undertaken in response to a Notice to Proceed from the City. Work will be performed in accordance with industry standards. The Authority will develop guidelines and procedures (the "Guidelines") for the implementation of the Work, providing the City and the Department with the opportunity to review and comment on the Guidelines.

5. Obligations of the City, Representations, Warranties, and Services.

5.1 **Representations and Warranties.** The City represents and warrants that it shall possess full and final legal authority to proceed with the Demolition or Stabilization of any structure on an Approved Blighted Property that it identifies in a Notice to Proceed under this Agreement. The City further represents and warrants that (a) its right to proceed with Demolition or Stabilization, as requested in a Notice to Proceed, shall not be restricted, limited, or in any way affected by any liens, encumbrances, title issues, rights, or other interests, related to an Approved Blighted Property identified in a Notice to Proceed or any structure thereon, and that (b) with respect to an Approved Blighted Property identified in a Notice to Proceed, all persons residing therein have been relocated by the City in accordance with the terms of the federal Uniform Relocation and Real Property Acquisition Act, to the extent applicable. The City shall provide the Authority with any and all permits, authorizations, approvals, consents, certifications, judgments, orders, Notices to Proceed, documentation, or any other information of any kind, to support and confirm the City's fulfillment of the representations and warranties set forth herein. To the extent that any squatters or other individuals should return to reside in an Approved Blighted Property, the Authority shall not begin or continue any work under a Notice to Proceed, unless or until the City has removed those individuals from the Approved Blighted Property.

5.2. **In-Kind Services**. The City shall obtain, at its own expense, all necessary information, permits, authorizations, approvals, and any other prerequisites, whether

administrative, legal, or governmental, that are required for the Authority to proceed lawfully with any Demolition or Stabilization (collectively, the "In-Kind Services"). In-Kind Services shall include, but are not limited to:

(a) Ordinary overhead, administrative costs, and actual costs, including salaries of the City's staff in proportion to the time expended on the In-Kind and Relocation Services, to the extent not otherwise reimbursed;

(b) Completion of all required building inspections related to the Approved Blighted Properties;

(c) Delivery of all required notices to adjoining property owners of planned Demolition or Stabilization;

(d) Discontinuing or permanently shutting-off all utility services to an Approved Blighted Property, and ensuring that any utility apparatus or equipment, such as underground storage tanks ("UST"), have been properly removed or shut-off and approved for abandonment-in-place, provided, however, if despite the City's best efforts, a UST is discovered after demolition begins, the Authority will stop work, notify the City of the unforeseen condition, and the City's contractors will remove the UST;

(e) Obtaining and posting any and all required on-site notices and signage for the Work;

(f) Obtaining any and all permits from the Building Official or other City authorities, in a timely manner, that may be required to proceed with and close-out the Work;

(g) Obtaining any additional administrative, legal, or governmental approvals required as a result of any special conditions or circumstances applicable to an Approved Blighted Property. Such conditions may include, but shall not be limited to, the location of a Blighted Property along shorelines, waterways, or within the Chesapeake Bay Critical Areas, the designation of a Blighted Property as a

landmark of historical or architectural significance, or the location of a Blighted Property within or adjacent to an area that is designated for preservation;

(h) Securing fully executed right-of-entry agreements that may be necessary for the performance of the Work;

(i) Acquiring legal title or rights to proceed with the Work;

(j) Payment of any and all costs or expenses of acquisition in connection with an Approved Blighted Property;

(k) Payment of the value of a new "Housing Choice" voucher issued to a relocated lawful occupant of an Approved Blighted Property, to the extent not included as a relocation cost;

(l) Any other act or approval required by law as a prerequisite to the performance of Demolition or Stabilization on an Approved Blighted Property;

(m) Land planning services relating to an Approved Blighted Property beginning on the date that the property is designated as an Approved Blighted Property and continuing for a rolling period of twenty-four (24) months following the date of substantial completion of the Work thereon; and

(n) Performance of fencing, mowing, trimming, and maintenance of resulting open parcels after Demolition and continuing for a rolling period of twenty-four (24) months following the date of substantial completion of the Work on each Approved Blighted Property.

5.3 **Identification of Properties for Demolition or Stabilization**. The Department will select, in consultation with the City, Blighted Properties for Demolition or Stabilization under this Agreement, in the manner that follows.

5.3.1 The City has provided to the Department a list of Blighted Properties for Demolition or Stabilization (the "Initial Blighted Properties"). The list of Initial Blighted Properties is attached as **Exhibit A**.

5.3.2 Beginning with the Initial Blighted Properties, and thereafter on an annual list for which quarterly updates will be provided, the City will provide to the Department a list of concentrated Blighted Properties for which it recommends Demolition or Stabilization. The list of blighted Properties will be created at an annual stakeholder meeting hosted by the City that will include, among others, the Department. The Department may designate, in concurrence with the City, Blighted Properties to be included on the list of Blighted Properties. The list shall include Blighted Properties in half- or whole- block tracts or otherwise targeted to result in enhancing the quality of life in the City's neighborhoods and revitalizing the City. Targeted demolitions shall not require the construction of a new wall or the alteration, repair, or modification of an existing wall at a contiguous property. The Department shall select from the list, in consultation with the City, those properties for which Demolition or Stabilization shall proceed ("Approved Blighted Properties"), consistent with Section 10.1. Upon the Department's selection of Approved Blighted Properties, the City will commence In-Kind Services for those properties.

5.3.3 The City's annual list of Blighted Properties will be provided to the Department, with a copy to the Authority, on or before July 1 of each successive fiscal year of the Term. Any quarterly amendments to the annual list shall be provided to the Department, with a copy to the Authority, on or before the 15th day after the close of each quarter of each successive fiscal year of the Term.

5.4 **Notice to Proceed.** Upon the City's completion of all In-Kind Services (except for those set forth in Subsections 5.2 (m) and (n) above) for Approved Blighted Properties, the City shall provide a Notice to Proceed to the Authority, executed by a representative of the City, with a copy to the Department, identifying the Approved Blighted Properties to which the Notice to Proceed applies and certifying, representing and warranting that the City has satisfied all of its obligations set forth in Sections 5.1 and 5.2 (except for those set forth in Subsections 5.2(m) and (n) above) with respect to the properties identified therein. For each Approved Blighted Property, the City shall (i) provide the minimum supporting documentation to be required under the Guidelines, and (ii) designate whether Demolition or Stabilization should be performed.

5.4.1 The Authority and the Department shall have the right to review and approve each Notice to Proceed and to request that the City provide supplemental information.

The Authority may refuse to proceed with the Work on an Approved Blighted Property, if in the reasonable judgment of the Authority or the Department, the City has not satisfied its obligations under this Agreement with respect to any Approved Blighted Property.

5.4.2 Within thirty (30) days of the Effective Date of this Agreement, the City shall provide the Authority, with a copy to the Department, the first Notice to Proceed, identifying the Approved Blighted Properties for which the City has fulfilled all of its obligations under this Agreement and certifying, representing, and warranting that the City has satisfied all of its obligations set forth in Sections 5.1 and 5.2 (except for those set forth in Subsections 5.2 (m) and (n) above).

5.4.3 Thereafter, as In-Kind Services are completed for Approved Blighted Properties that are clustered to result in the equivalent of half- or whole-block tracts or otherwise targeted to enhance the quality of life in the City's neighborhoods and revitalize the City, the City shall provide the Authority, with a copy to the Department, a Notice to Proceed, identifying those Approved Blighted Properties for which the City has fulfilled all of its obligations under this Agreement, and certifying, representing, and warranting that the City has satisfied all of its obligations set forth in Sections 5.1 and Section 5.2 (except for those set forth in Subsections 5.2(m) and (n) above).

5.5 **Post-Work Maintenance.** Once the Authority notifies the City that the Authority has completed the Work on an Approved Blighted Property, the City shall: (a) For City-owned property, assume full responsibility for the maintenance and upkeep thereof, in compliance with any and all federal, State, and local laws and regulations; and (b) For both City-owned and privately-owned properties, assume responsibility for the maintenance and upkeep thereof, in compliance with the International Property Maintenance Code, as amended by the Building, Fire, and Related Codes of Baltimore City for a period of thirty (30) years or until such earlier date on which the property is redeveloped, sold, or otherwise conveyed to a third party.

6. Obligations of the Authority, Performance of Work.

6.1 Upon receipt of a Notice to Proceed, the Authority will commence Work on the Approved Blighted Properties identified in the Notice to Proceed, provided that (i) the City has satisfied all of its obligations to provide In-Kind Services in connection with those Approved

Blighted Properties and (ii) there are sufficient funds from the Department available to the Authority for the performance of the Work.

6.2 The Authority will manage the procurement process for all of the Work in accordance with the Authority's Procurement Policies and Procedures to achieve the best overall value in connection with the Work. In performance of the Work, the Authority shall:

(a) Act and make decisions on behalf of the City in procuring, coordinating, and managing the Work;

(b) Designate a project manager for the Work;

(c) Employ any contractors and consultants that the Authority determines to be appropriate or necessary to complete the Work;

(d) Cause any contractors and consultants to procure and maintain all necessary licenses and permits for performance of the Work;

(e) Cause any contractors and consultants to perform all parts of the Work in compliance with applicable federal, State, and local laws;

(f) Cause any contractors and consultants to procure and maintain all necessary insurance required by law and to provide adequate risk coverage for the Authority, the Department, and the City;

(g) Cause any contractors and consultants to obtain and maintain payment and performance bonds, as appropriate;

(h) Cause any contractors and consultants to provide, in a form reasonably satisfactory to the Department, a binding written obligation to defend, indemnify, and hold harmless the Authority, the City, and the Department and each of their officials, employees, and agents from and against any and all claims, demands, actions, suits, damages, liabilities, losses, settlements, judgments, costs, expenses, and proceedings of any kind whatsoever and costs of any kind or type (including but not limited to reasonable attorney's and expert's fees and costs), arising directly or indirectly from the contractor's or consultant's activities, or those of its subcontractors, sub-consultants, employees, and invitees, in connection with the

Work, except for any liability or responsibility arising from the intentional misconduct or gross negligence of the Authority, the City, or the Department. All amounts due thereunder shall be payable on demand;

(i) Provide quarterly status reports to the Department and the City, tracking the progress of the Work, which will include a narrative of Work completed in that quarter, before- and after- photographs, and any other information reasonably requested by the Department or the City. Quarterly status reports will be provided within thirty (30) days after the close of the applicable quarter;

(j) Provide the Department and the City with copies of all appropriate supporting documents for all invoices paid by the Authority in connection with the Work, which documentation shall include certification that the Work for which payment has been made is complete; and

(k) Reimburse actual relocation expenses incurred from and after the Effective Date that are approved by the Department and that were required by the federal Uniform Relocation and Real Property Acquisition Act.

6.3 Upon the completion of the Work on an Approved Blighted Property, the Authority will leave the property as follows: Where Demolition has been performed, the remaining open parcel shall be backfilled, graded, and seeded, consistent with parts (b) through (d) of **Exhibit B** to this Agreement. Where Stabilization has been completed, the remaining structure(s) on the property shall be left stable and secure.

7. Funding Obligations of City and Department

7.1 Minimum Commitments for 1st Fiscal Year.

(a) The Department commits SEVEN MILLION ONE HUNDRED THOUSAND DOLLARS ($7,100,000) to the Authority to be used to pay for Project Costs during the first fiscal year of the Term. Within twenty (20) business days of the Effective Date of this Agreement, the Department shall transfer to the Authority an initial amount of TWO MILLION ONE HUNDRED THOUSAND DOLLARS ($2,100,000) ("Startup Funds") to be used to pay for Project Costs during the first fiscal year of the Term.

(b) Once the balance of Startup Funds (not committed by the Authority for any portion of the Work) is reduced to Five Hundred Thousand Dollars ($500,000), the Authority may issue Purchase Orders to the Department. Each Purchase Order shall identify what Project Costs will be paid with the funds requested through the Purchase Order, including identification of the Approved Blighted Properties upon which Work will be performed. Within twenty (20) business days after receipt of a Purchase Order, the Department will transfer to the Authority those additional funds required to pay the Project Costs identified in the Purchase Order.

(c) Within twenty (20) business days of the Effective Date of this Agreement, the City shall deliver to the Department a written statement committing to provide In-Kind Services having a documented cash value of ONE MILLION SEVEN HUNDRED SEVENTY-FIVE THOUSAND DOLLARS ($1, 775,000) over the first fiscal year of the Term. For the first fiscal year, In-Kind Services will also include the following, with respect to the Approved Blighted Properties listed on **Exhibit A**, as approved by the Department: (i) those services listed in Section 5.2(a) through (l) incurred prior to the Effective Date, and (ii) relocation costs incurred prior to the Effective Date.

7.2 **Minimum Commitments for Succeeding Fiscal Years.** Provided that the City satisfies its commitment to provide the In-Kind Services as set forth in Section 7.1(c) above, then for each succeeding fiscal year of the Term ("Succeeding Fiscal Year"), the following shall occur:

(a) Subject to appropriations, and in accordance with Section 7.7 below, the Department commits an additional SEVEN MILLION ONE HUNDRED THOUSAND DOLLARS ($7,100,000) to the Authority per each Succeeding Fiscal Year.

(b) For each Succeeding Fiscal Year, the Authority may issue Purchase Orders to the Department. Each Purchase Order shall identify what Project Costs will be paid with the funds requested through the Purchase Order, including identification of the Approved Blighted Properties upon which Work will be performed. Within (20) business days after receipt of a Purchase Order, the Department will transfer to the Authority those additional funds required to pay the Project Costs identified in the Purchase Order. Project Costs in any Succeeding Fiscal

Year will be paid first from any funds previously disbursed to the Authority, in excess of Five Hundred Thousand Dollars ($500,000), which have not been previously committed by the Authority for any portion of the Work in accordance with Section 7.6.

(c) Subject to appropriations, within twenty (20) business days of the start of each Succeeding Fiscal Year, the City shall deliver to the Department a written statement committing to provide In-Kind Services having a documented cash value of ONE MILLION SEVEN HUNDRED SEVENTY-FIVE THOUSAND DOLLARS ($1,775,000) over that fiscal year of the Term, subject to amendment as provided in Section 7.3.

7.3 **Increased Commitments to be Proportional.**

The Department may increase its commitment of monetary funding for the Work for any Succeeding Fiscal Year without requiring an amendment to this Agreement, provided that the City agrees to match the increase by providing the Department with a written statement committing to increase its contribution of In-Kind Services so that for every dollar ($1.00) committed by the Department, the City will contribute twenty-five cents ($.25) of In-Kind Services. If commitments are increased for any Succeeding Fiscal Year, the City will amend its written statement pursuant to Section 7.2 (c).

7.4 **Maximum Annual Commitments.**

For any Succeeding Fiscal Year, the total commitment of monetary funds shall not exceed Twenty-Five Million Dollars ($25,000,000) from the Department and documented In-Kind Services with a cash value of Six Million Two Hundred Fifty Thousand Dollars ($6,250,000) from the City.

7.5 **Quarterly Reporting of In-Kind Services.**

On a quarterly basis, the City shall document and report to the Department, with a copy to the Authority, the performance of In-Kind Services that it has provided for the preceding quarter. Transactions relating to the In-Kind Services provided by the City are subject to audit by the Department and documents and records related thereto are subject to review in accordance with Section 9 of this Agreement.

7.6 **Monetary Funds to Carry-Over.**

7.6.1 If at the end of any fiscal year of the Term, the Authority has monetary funds in excess of Five Hundred Thousand Dollars ($500,000) from the Department, which are not committed to a portion of the Work, the Authority may continue to use such funds for the payment of Project Costs, and the commitments of monetary funds from the Department and In-Kind Services from the City for the next fiscal year shall not be reduced or affected thereby. Any funds that are uncommitted and remaining from any prior fiscal year will carry over to the next fiscal year but must be committed to Project Costs prior to the commitment of any funds for the next fiscal year.

7.6.2 Funds are committed by the Department under this Agreement when properties are designated as Approved Blighted Properties pursuant to Section 5.3.2. Any funds not so committed at the end of the Term of this Agreement will revert to the Department.

7.6.3 Any funds not spent within thirty-six (36) months after conclusion of all Work under this Agreement will revert to the Department.

7.7 **Subject to appropriation.**

(a) Funding for any fiscal year after the first fiscal year of the Term will be subject to budget constraints and legislative approvals. In any Succeeding Fiscal Year, if funds are not appropriated or otherwise made available to the Department or to the City in the amounts and for the purposes set forth in this Agreement, then this Agreement shall be automatically terminated, without any action required, and this Agreement shall terminate as of the beginning of the first day of the fiscal year for which the minimum funding identified in Section 7.2 is either not appropriated or not available for any other reason.

(b) In the event of the termination of this Agreement pursuant to Section 7.7(a), the Authority shall have the right to complete any portion of the Work and to pay any Project Costs for which funding was provided prior to the failure to appropriate.

8. **Authority's Receipt and Use of Funds.**

8.1 **Authority as Grantee.** Subject to any required approval by the Board of Public Works, the Authority is a Grantee of funds from the Department and this Agreement constitutes a grant agreement between the Department and the Authority.

8.2 **Quarterly Accounting Reports.** Within thirty (30) days after the end of each quarter, the Authority will provide a Quarterly Accounting Report to the Department and the City, setting forth an accounting of Project Costs with supporting documentation.

8.3 **Annual Limits.** The Authority shall not commit any Project Costs that exceed the total funding held by the Authority under Section 7 of this Agreement.

8.4 **Necessary Costs.** All labor and costs incurred by the Authority shall be necessary to the Work described in this Agreement and shall constitute usual and customary charges in the applicable industry.

9. **Records**.

9.1 The Authority will maintain accurate financial records and records of all services performed under this Agreement. Upon reasonable notice, the Department and the City shall have the right to inspect all such records. The Authority shall make the records, and its administrative offices, personnel, consultants, or volunteers who are involved in the Work available to the Department and the City upon request. All financial, programmatic and other records of the Authority associated with the Work on any Approved Blighted Property shall be maintained by the Authority for a period of three (3) years after final payment for the Work on such Approved Blighted Property or any applicable statute of limitations, whichever is longer, except in cases where unresolved audit questions may require retention of some or all of said records for a longer period, as determined by the Department or the City. The Authority will turn over all records that may be required to be retained beyond the three (3) year period identified in this Section to the Department for maintenance and storage.

9.2 The City will maintain accurate records of all expenses, information, permits, authorizations, approvals, and all other documentation relating to any prerequisites to the Work or In-Kind Services. Upon reasonable notice, the Department and the Authority shall have the right

to inspect all such records. The City shall make the records, and its administrative offices, personnel, consultants, or volunteers who are involved in the prerequisites to the Work or In-Kind Services available to the Department and the Authority upon request. The records shall be maintained for a period of three (3) years after final payment for the Work or any applicable statute of limitations, whichever is longer, except in cases where unresolved audit questions may require retention of some or all of said records for a longer period, as determined by the Department or the Authority. The City will turn over all records that may be required to be retained beyond the three (3) year period identified in this Section to the Department for maintenance and storage.

10. **Liability**.

10.1 The City assumes sole liability for the selection and recommendation of Blighted Properties for Demolition or Stabilization, for the representations and warranties set forth in Section 5 above, and for performance of the In-Kind Services and Post-Work Maintenance, as required under this Agreement.

10.2 The City shall defend, indemnify, and hold harmless the Department and the Authority, and each of their officials, employees and agents, from and against any and all claims, demands, actions, suits, damages, liabilities, losses, settlements, judgments, costs, expenses, and proceedings of any kind whatsoever (including but not limited to reasonable attorney's and expert's fees and costs), whether or not involving a third-party claim, that are caused by, relate to, or arise from any breach of this Agreement or any direct or indirect, willful or negligent, act or omission by the City, its officials, employees or agents, in connection with the subject of this Agreement, unless such claims arise from or are the sole result of intentional misconduct or gross negligence of the party seeking to enforce this right to indemnification. The City's obligation to defend, indemnify, and hold harmless, the Department and the Authority shall survive the termination of this Agreement. Amounts due hereunder shall be payable on demand.

10.3 The Authority assumes sole responsibility for the Work to be performed under this Agreement.

10. 4 Nothing provided in this Agreement shall be construed as a waiver of the any Tort Claims Acts and related funding provisions or the defense of governmental immunity by the Parties as to any third-party.

10.5 It is hereby stipulated and agreed between the Parties that with respect to any tort claim or action arising out of any services performed under or pursuant to this Agreement, each Party shall only be liable for payment of that portion of any and all liability, costs, expenses, demands, settlements, or judgments resulting from the negligence, actions or omissions of its own agents, officers and employees, except for claims as otherwise specifically described in Section 10.2. In any action or claim arising out of any services performed under or pursuant to this Agreement, except for claims as otherwise specifically described in Section 10.2, each Party shall assume the defense of itself, its own officers, agents or employees in accordance with the Maryland Tort Claims Act, Md. Code Ann., State Gov't Art., §12-101, *et seq*. and the Maryland Local Government Tort Claims Act, Md. Code Ann., Cts. & Jud. Proc. § 5-301, *et seq*., as the case may be.

10.6 Each of the Parties shall immediately notify the other Parties of any claim or suit made or filed against them or their subcontractors regarding any matter resulting from or relating to their obligations under this Agreement and will cooperate, assist, and consult with the other Parties in the defense or investigation of any claim, suit, or action made or filed against any of the Parties relating to the obligations of such Party under this Agreement.

11. **Compliance with Laws**.

Each Party to this Agreement hereby represents and warrants that it shall comply with all federal, State and local laws, regulations, and ordinances applicable to its activities and obligations under this Agreement.

12. **Early Termination.**

12.1 If a Party fails to fulfill any or all of its obligations under this Agreement properly and on time, or otherwise violates any provision of this Agreement, any non-defaulting Party may terminate this Agreement by giving thirty (30) days prior written notice of such default to each other Party. The non-defaulting Parties shall allow thirty (30) days for a defaulting Party to

cure said default. If the default is not cured within the thirty (30) day cure period, a non-defaulting Party may terminate this Agreement without further notice. The thirty (30) day notice shall specify the acts or omissions relied upon for termination.

12.2 The Department may terminate this Agreement for convenience upon sixty (60) days' notice to the other Parties.

12.3 Notwithstanding Sections 12.1 and 12.2 of this Agreement, no Party shall be relieved of any liability to the other for damages sustained by another Party by virtue of any breach of the Agreement. In the event of a default, any Party may at any time proceed to protect and enforce all rights available to it under any relevant guidelines or regulations, at law or in equity, or by any other appropriate proceedings, which rights and remedies shall survive the termination of this Agreement. All representations, warranties, and indemnification provisions of this Agreement shall survive expiration or any termination of this Agreement.

13. Notices.

All notices required under this Agreement shall be made in writing, delivered by first-class mail (with a courtesy copy by e-mail), and deemed received three (3) days after mailing. All notices shall be directed as follows:

If for the City, to:

Michael Braverman, Deputy Commissioner
Baltimore City Department of Housing and Community Development
417 E. Fayette Street
Baltimore, MD 21202

With courtesy e-mail to: michael.braverman@baltimorecity.gov

If for the Department, to:

Anthony J. Mohan, Counsel
Maryland Department of Housing and Community Development
7800 Harkins Road
Lanham, MD 20706

With courtesy e-mail to: tony.mohan@maryland.gov

If for the Authority, to:

Gary A. McGuigan
Senior Vice President
Maryland Stadium Authority
The Warehouse at Camden Yards
333 West Camden Street, Suite 500
Baltimore, MD 21201-2435

With courtesy e-mail to: gmcguigan@mdstad.com

14. **Applicable Law**. This Agreement shall be construed and enforced in accordance with the laws of the State of Maryland.

15. **Certifications**.

15.1 The Parties agree to not discriminate in any manner against any employee or applicant for employment because of race, color, religion, creed, age, sex, familial status, marital status, national origin, ancestry, or physical or mental disability or any other characteristic forbidden as a basis for discrimination by applicable laws. The Parties agree to comply with other non-discrimination provisions of federal and State law.

15.2 The Baltimore City Department of Housing and Community Development is an agency of Baltimore City and is authorized to act in connection with the matters described in this Agreement. This Agreement has been duly authorized, executed, and delivered in such manner and form as to comply with all applicable laws to make this Agreement the valid and legally binding act and agreement of the Mayor and City Council of Baltimore, subject to the approval of the Board of Estimates for Baltimore City.

16. **Drug and Alcohol Free Workplace**. The Parties warrant that they shall comply with the State's policy concerning drug and alcohol free workplaces as set forth in COMAR 01.01.1989.18 and 21.11.08, and shall remain in compliance throughout the Term of this Agreement.

17. **Entire Agreement**. This Agreement, together with any exhibits attached hereto and incorporated by reference, represents the complete, total and final understanding of the City, the Department, and the Authority, and no other understanding or representations oral or written, regarding the subject matter of this Agreement shall be deemed to exist or bind the Parties at the time of the execution.

18. **No Waiver**. The failure to insist in any one or more instances upon a Party's strict performance of any of its obligations under this Agreement shall be limited to that particular instance, and shall not be deemed or construed as a waiver or relinquishment of the right to require and enforce the future performance of such obligations.

19. **Severability**. If any term, covenant, or condition of this Agreement is found by a court of competent jurisdiction to be void or unenforceable, then that provision shall be deemed to be deleted and the remaining provisions of this Agreement shall be construed without such provision, and shall, nevertheless, remain in full force and effect as long as the essential terms of this Agreement remain valid, legal, reasonable, and enforceable.

20. **Amendments**. Except as set forth in Section 7.3 above, this Agreement may not be changed, altered, or modified except by written agreement executed by the Parties. Except for any specific provision of this Agreement which is amended in accordance with this Section, this Agreement remains in full force and effect after any such amendment.

21. **Miscellaneous**.

21.1 This Agreement shall not be assignable or transferable without the prior written consent of the Parties.

21.2 Section headings and subheadings in this Agreement are used for convenience only and shall not control or affect the meaning or construction of any provision of this Agreement.

21.3 This Agreement is for the exclusive benefit of the City, the Department, and the Authority. No other person or entity shall have rights under or be deemed a beneficiary of this Agreement.

21.4 This Agreement may be executed in counterparts; all such executed counterparts shall be deemed one agreement. Signatures of the Parties, transmitted by facsimile or by electronic mail printable in tangible form to the other Party, shall be as effective as an original signature delivered by the signing Party.

22. **Exhibits**.

The following Exhibits attached hereto are an integral part of this Agreement and are incorporated herein by reference:

Exhibit A: List of Initial Blighted Properties

Exhibit B: Demolition Specifications

[SIGNATURES ON FOLLOWING PAGES]

Attest:

Custodian of the City Seal

Alternate

Mayor and City Council of Baltimore

By: _____

Paul Graziano, Commissioner
Department of Housing and
Community Development

APPROVED BY THE BOARD OF
ESTIMATES

FEB 10 2015

CLERK DATE

Approved for form and legal sufficiency
this 3rd day of Feb, 2016

Mark Dewire, Chief Solicitor

Maryland Department of Housing and Community Development

2/10/16
Date

By: Kenneth C. Holt
Kenneth C. Holt, Secretary

Approved for form and legal sufficiency
this 10th day of February, 2016:

Assistant Attorney General

Maryland Stadium Authority

Date

By: _____
Michael J. Frenz, Executive Director

Approved for form and legal sufficiency
this ____ day of _____, 2016

Assistant Attorney General

Maryland Department of Housing and Community Development

_____
Date

By: _____
Kenneth C. Holt, Secretary

Approved for form and legal sufficiency
this ____ day of _____, 2016:

_____
Assistant Attorney General

Maryland Stadium Authority

2/10/16
Date

By: _____
Michael J. Frenz, Executive Director

Approved for form and legal sufficiency
this 10th day of February, 2016

_____
Assistant Attorney General

Exhibit A: List of Initial Blighted Properties for Demolition, Deconstruction, or Stabilization

Address	Count Property	Expected Release Quarter
1344 -1356 N CALHOUN ST	5	FY16 Q4
2105 - 2109 HERBERT ST	3	FY16 Q4
604-612 BAKER ST	5	FY16 Q4
536 -558 BAKER ST	12	FY16 Q4
1100 - 1106 N PATTERSON PARK AVE	4	FY16 Q4
1308-1326 ARGYLE AVE	10	FY16 Q4
635-637/1340-1342 W LAFAYETTE/ARGYLE	4	FY16 Q4
1813 - 1819 DOVER ST	4	FY16 Q4
3208 - 3210 ELGIN AVE	2	FY16 Q4
4116 - 4118 HAYWARD AVE	2	FY16 Q4
4402 - 4404 SAINT GEORGES AVE	2	FY16 Q4
2704 - 2710 BOARMAN AVE	4	FY16 Q4
2228-2244 E NORTH AVE	9	FY17 Q1
1304 - 1324 N WASHINGTON ST	11	FY17 Q1
1328 - 1350 N WASHINGTON ST	11	FY17 Q1
236-238 S CALHOUN	2	FY17 Q1
1501 - 1507 E FEDERAL ST	4	FY17 Q1
1717-1725 N CHAPEL	5	FY17 Q1
1714-1722 N CHAPEL ST	5	FY17 Q1
1739 - 1751 N CHESTER ST	7	FY17 Q1
2402 - 2406 VONDERHORST LANE	3	FY17 Q1
2023 - 2027 HERBERT ST	3	FY17 Q1
2101 - 2113 BOOTH ST	7	FY17 Q1
22-26 S PAYSON ST	3	FY17 Q1
2843 - 2853 PROSPECT ST	6	FY17 Q1
301-307 S CATHERINE ST	4	FY17 Q1
304-308 STINSON ST	3	FY17 Q1
317-319 TYRONE ST	2	FY17 Q1
4108 - 4110 HAYWARD AVE	2	FY17 Q1
4423 - 4425 WRENWOOD AVE	2	FY17 Q1
2228 - 2234 ETTING ST	4	FY17 Q1
5414 - 5416 DENMORE AVE	2	FY17 Q1
GARAGES AT SEQUOIA AND ELLAMONT	8	FY17 Q1
1575 - 1563 ABBOTSTON ST	7	FY17 Q1
4402 - 4414 DAYTONA AVE	7	FY17 Q2
1931-1933 N PATTERSON PARK AVE	2	FY17 Q2
2021-2041 E BIDDLE	11	FY17 Q2
1627-1637 W FAYETTE	6	FY17 Q2
2501 - 2507 EMERSON ST	4	FY17 Q2
2531 - 2535 EMERSON ST	3	FY17 Q2
2203 - 2213 HENNEMAN AVE	6	FY17 Q2
2217 - 2235 HENNEMAN AVE	10	FY17 Q2
1100 - 1110 APPLETON ST	6	FY17 Q2
1400-1404 MCHENRY	3	FY17 Q2
1404 - 1406 WHITELOCK ST	2	FY17 Q2
213-231 N BRUCE ST	10	FY17 Q2
2510-2512 DULANY ST	2	FY17 Q2
2611 - 2621 HAFER ST	6	FY17 Q2
2700 - 2710 KENNEDY AVE	6	FY17 Q2
2758-2770 FENWICK AVE	7	FY17 Q2
615-629 N FRANKLINTOWN ROAD	8	FY17 Q2
806-824 N BRADFORD ST	10	FY17 Q2
106-116 S CALVERTON ROAD	6	FY17 Q2
1100 - 1122 N MILTON AVE	12	FY17 Q2
1818 - 1846 DIVISION ST	15	FY17 Q2
1904 - 1924 HERBERT ST	11	FY17 Q2
2205 - 2211 MCELDERRY ST	4	FY17 Q2
320 - 330 S FRANKLINTOWN ROAD	6	FY17 Q2
554 - 572 PRESSTMAN ST	10	FY17 Q2
4303 - 4319 PARK HEIGHTS AVE	9	FY17 Q2
1408 - 1410 N GAY ST	2	FY17 Q2
1424 - 1432 N GAY ST	5	FY17 Q2
2102 - 2138 HERBERT ST	19	FY17 Q2
	375	

EXHIBIT B

Demolition Specifications

(a). All buildings or structures shall be razed in strict accordance with applicable sections of the "Baltimore City Building, Fire and Related Codes 2015" (or subsequent editions). As directed by the City, buildings and structures included in this Contract shall be completely razed and disposed of (above and below existing grade – including foundation walls, footers, basement floors, etc.).

(b). Exterior perimeter walls abutting public sidewalks, streets and alleys shall be razed to the level of the required finished grade to prevent undermining of adjacent paved areas. Basements, depressed areaways, cellarways, etc., and other exposed areas below finished grade shall be cleared of debris after which they shall be backfilled according to the following regulations.

The Contractor may use crushed construction debris and other fill to backfill the below-grade areas up to 18 inches below grade. The top 18 inches of soil shall consist of 12 inches of clean earth or approved backfill, topped with 4 inches of topsoil and 2 inches of compost. Approved backfill shall not contain any decomposable organic material, rocks larger than 1 inch, concrete, brick, wood, metal, rubbish, or other foreign material. The Contractor shall provide an affidavit to the Project Supervisor affirming that the fill conforms to the above guidelines.

Proper fill compact methods shall be performed. When performing backfilling operations during periods of prolonged wet or dry conditions, the Contractor shall provide adequate measures for surface drainage or ground water and moisture control of the soils (i.e. wetting or drying, scarify and disking) so as to place and compact the soil within the moisture content range of its optimum water content. The Contractor shall systematically backfill to allow maximum time for natural settlement. The Contractor shall not backfill over-porous, wet, frozen, or spongy sub-grade surfaces.

(c). Finish grade shall be generally construed as uniform sloping planes meeting the surfaces of abutting streets, alleys, sidewalks, walls, open area and abutting properties, etc. properly graded to insure adequate surface drainage.

(d). Immediately after the completion of razing operations, the disturbed area shall be vegetated with permanent seeding as follows:

(1) Seedbed Preparation: Contractor will furnish compost and topsoil from a single source per type of material throughout the seedbed preparation. The area to be seeded shall receive 4 inches of topsoil. In addition, the area to be seeded shall be amended with another 2 inches of compost. Compost shall be incorporated into the top 6 inches of soil using ripping tools or other appropriate equipment; use of rotary tillers is prohibited. The Contractor shall use light weight equipment for final grading to ensure compost and topsoil do not become compacted.

(2) Seeding Application (Hydroseed/Hydro-mulch acceptable)

Spring Seeding Season (March 1 to May 31):
Apply 3 lbs. per 1,000 square feet (130 lbs. per acre) Zoysiagrass (as per recommended cultivars, University of Maryland Turfgrass Technical Update TT-77), plus 1 lb. per 3,000 square feet (13 lbs. per acre) White Clover.

Summer Seeding Season (June 1 to August 31):
Apply the same as Spring Season. Re-seed in the Fall season with Hard Fescue and White Clover.

Fall Seeding Season (September 1 to October 31):
Apply 3 lbs. per 1000 square feet (130 lbs. per acre) Hard Fescue (as per recommended cultivars, University of Maryland Turfgrass Technical Update TT-77), plus 1 lb. per 3,000 square feet (13 lbs. per acre) White Clover.

Winter Seeding Season (November 1 to February 28):
Apply the same as Fall Season plus 22 lbs. per acre of Rye Grain.

When requested by the Project Supervisor, the following alternative seed mix may be applied during any of the above seasons: Maryland State Highway Administration (SHA) Turfgrass Mixture (Pure Seed): 50% Houndog 5 Tall Fescue, 45% Bingo Tall Fescue & 5 Raven Kentucky Bluegrass (all 90% germination)

Seed shall be applied uniformly with a cyclone seeded drill, cultipacker seeder or hydroseeder (slurry includes seeds and fertilizer, recommended on steep slopes only) on a moist, firm seedbed. Maximum seed depth should be ½" when using methods other than the hydroseeder method. If soil moisture is deficient to support adequate growth, irrigation should be employed until vegetation is firmly established.

(3) Topsoil:
- Shall be sourced from a clean borrow source or supplier. Contractor shall provide an affidavit as proof of source.
- Conforming to ASTM D 5268 topsoil
- pH range – 5.5 to 7
- Free of roots, rocks larger than ½ inch, backfill, debris, large weeds and foreign matter (including any construction rubble, or other manmade items).
- Contain minimum of 4 percent and maximum of 25 percent organic matter.

(4) Compost shall be classified as General Use Compost:

<u>Compost (observed characteristics)</u>
Color: Brown to black
Particle size: Less than ½ inch
Particle composition: Free of sub-soil, large stones, earth clods, sticks, stumps, clay lumps, roots, or other objectionable material
Odor: may not have an objectionable odor

Weeds: Free of noxious weeds (including Quack-grass rhizomes, Elytrigia repens, and the nut-like tubers of nutsedge, Cyperus esculentus)

Compost (Laboratory test characteristics)

Moisture content: 30 to 55%
Organic content: Greater than 30%
Ash content: Less than 70%
Carbon to nitrogen ratio: Below or equal to 30:1
Nitrogen: 0.5 to 3.0%
Phosphorus: Greater than 0.2%
pH: 6.0 to 8.0
Metals: Refer to Maryland State Agriculture & Federal Agency regulations for General Use Compost

(5) Mulching:

- Mulch shall be approved small grain straw or approved hydro-mulch.
- Mulch shall be un-chopped, un-rotted, small grain straw applied at a rate of 70 to 90 lbs. per 1,000 square feet.
- Mulch materials shall be relatively free of all kinds of weeds and shall be free of prohibited noxious weeds: Canada Thistle, Johnson-grass and Quack-grass.
- Spread mulch mechanically or uniformly by hand.
- Mulch anchoring shall be accomplished immediately after mulch placement to minimize loss by wind or water. This may be done by one of the following methods: Mulch anchoring tool, tracking, mulch netting, liquid mulch binders, wood cellulose fiber or peg and twine.

ATTACHMENT I
PROJECT MANUAL

PROJECT MANUAL

for

Project C.O.R.E

Creating Opportunities for Renewal and Enterprise

June 22, 2016

A JOINT PROJECT BETWEEN

Project Manual for Project C.O.R.E.
Creating Opportunities for Renewal and Enterprise

Prepared for the Maryland Stadium Authority by:

Rummel, Klepper and Kahl, LLP.
81 Mosher Street
Baltimore, MD 21217

Project Manual

I. Preamble
II. Lead Roles, Responsibilities and Authority
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Project C.O.R.E. Work Execution Protocols

Technical Document

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Section 01043	Project Coordination (Hazmat)
Section 01091	Definitions and Standards (Hazmat)
Section 01092	Code and Regulations (Haazmat)
Section 01410	Air Monitoring
Section 01503	Temporary Facilities and Controls
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I. PREAMBLE

The Maryland Stadium Authority entered into an MOU agreement for Demolition and Stabilization with the Baltimore City Department of Housing and Community Development and the Maryland Department of Housing and Community Development. As part of the agreement, the MSA will be responsible for the management of up to seventy-five million dollars ($75,000,000) of demolition associated with the removal of blighted properties within Baltimore City.

This document was prepared for the Maryland Stadium Authority to serve as the technical basis for the execution of the abatement, deconstruction, demolition and site stabilization services.

II. LEAD ROLES, RESPONSIBILITIES AND AUTHORITY

The Maryland Stadium Authority

The Maryland Stadium Authority retains ultimate authority over the management of all Project CORE related tasks and will contract directly with both the Environmental Services / Testing and Inspection Consultant and the Deconstruction and Demolition Contractor.

The Environmental Services / Testing and Inspection Consultant

The Environmental Services/Testing and Inspection Consultant (Environmental Consultant) will be responsible for performing environmental site assessments to identify asbestos, lead and other hazardous materials, providing recommendations for the disposal of the identified hazardous materials, identifying materials that may be targeted for deconstruction/salvage/recycling and preparing and submitting a report highlighting the findings. The Consultant will then be responsible for the on-site oversight of the environmental remediation activities that are to be performed by the Contractor to ensure that proper protocols are followed and public safety is maintained.

The Environmental Consultant is responsible for conducting independent 3rd party testing and inspection services. This includes performance of air monitoring testing services associated with dust mitigation protocols, water testing, soil testing and concrete testing services.

The Environmental Consultant will also serve as the MSA's on-site "Environmental Compliance Officer". In this role, the Environmental Services Consultant will be responsible for monitoring and enforcing the project protocols and have authority to order the Contractor to stop work in the event that protocols are not adhered to or action levels are exceeded.

The Consultant is not responsible for employee safety environmental testing required by local and federal agencies. As noted below, the Contractor will still be responsible for performing testing services associated with employee/worker safety.

The Contractor

The Contractor will be the party responsible for the management and execution of the abatement, deconstruction and demolition of identified properties. The Contractor's Field Superintendent will serve as the on-site supervisor and is responsible for ensuring project protocols are adhered to and

work is completed in a safe manner. The Contractor will be responsible for providing its own independent Industrial Hygienist to monitor the safety of the employees completing the work. Additionally, the Contractor will be required to work cooperatively with the MSA's Environmental Consultant.

See matrix of services which further clarifies the above outlined information:

Task	Environmental Consultant	Contractor / Contractor's Industrial Hygienist
Conduct Site Assessment, Hazmat Surveys and generate corresponding report / documentation.	✓	
Conduct pre-abatement / pre-demolition meetings to review HASP and demolition operations.	✓	Participate in meetings
Responsible for all employee safety testing and monitoring services as required by local, state and federal agencies.		✓
Performance of hazardous / regulated materials abatement services inclusive of any waste removal, hauling and documentation.		✓
Performance of deconstruction, demolition and site stabilization services inclusive of debris / salvageable materials removal and documentation .		✓
Confirm abatement / remediation has been successfully completed in accordance with protocols.	✓	
Establish ambient background dust levels using dust fall monitoring.	✓	
Conduct dust monitoring via dust fall method at 50' and 100' from point of demolition.	✓	
Serve as the MSA's onsite "Environmental Compliance Officer" during the abatement, deconstruction, demolition and debris removal process. Responsible for enforcement of the dust suppression protocols during demolition and debris removal operations.	✓	
Monitor and enforce weather related protocols inclusive of wind speed and cold weather restrictions.	✓	
Conduct independent onsite testing and inspection services inclusive of geotechnical, soils/compaction, water and concrete testing and inspection services.	✓	Coordinate with Environmental Consultant

III. REQUIREMENTS

A. For Abatement, Salvage, Deconstruction, and Demolition Contractors:

1. Contractor(s) will be required to participate in a one-half day training session on this community-focused demolition protocol.

2. Contractor(s) will be required to hold all necessary demolition, asbestos and lead hazard reduction certifications. All supervisors, including Field Superintendent and the Prime Contractor’s Project Manager must attend a 4-day MDE certified project manager lead training, and all workers must attend a MDE certified 2-day lead training.

3. Contractor(s) will be required to remain in compliance with all HUD, Maryland Occupational Safety and Health Administration (hereafter, "MOSH"), MDE demolition or relevant lead safety standards at all times.

Project CORE

Work Execution Protocols

A. The work to be performed under this contract shall include, but not be limited to, all labor, services, material, tools, parts, equipment, transportation, fuels, maintenance and repairs etc. necessary and incidental to properly perform the demolition of building structures, repairs to the existing structures and related work.

B. The Contractor shall furnish all tools, labor, materials, machinery, equipment and incidental work to perform and complete the work required for this contract, all in accordance with these specifications and applicable sections of the "Baltimore City Building, Fire and Related Codes 2015"or the latest version thereof.

I. GENERAL PROTOCOLS

A. MSA makes no representation and assumes no responsibility for the condition of any building or structure thereon and the contents thereof in the condition in which they may be when released to them for demolition.

1. All damages or losses whatsoever (whether by reason of fire, theft, breakage or other happenings) shall be at the sole risk of the Contractor.

2. No such damages or loss shall relieve the Contractor from any obligation under this contract, nor shall the Contractor have any claim against MSA for any damage or loss to any building or structure to the Contractor.

3. MSA will take all reasonable steps necessary to release structures to the Contractor as soon as practicable after they are vacated but assumes no liability whatsoever for any loss or damage caused by any delay in the release of structures for demolition.

B. Debris removal is to begin no later than 48 hours from the start of demolition operations and is to be completed no later than 14 days from completion of demolition operations.

1. Subject to the approval of the MSA, the Contractor will be allowed to separate and store onsite materials that are to be salvaged, provided that all of such materials are arranged thereon in a neat and orderly manner and further provided that the storing of such materials will not create a nuisance or interfere with progress of the work under this contract, or the work of others, or affect in any way, the Contractor's responsibility in carrying out all of the terms and conditions under this contract.

2. All waste, whether salvage or debris, must be removed from the site no later than 14-calendar days from demolition completion.

C. MSA reserves the right to cause the same to be removed from the site at the expense of the Contractor.

D. From the commencement of the Work until the final completion of the Work, the Contractor shall ensure that no building or structure is left in a precarious, dangerous, or compromised

condition at any time.

E. Once the Contractor initiates demolition operations, on a single structure or on a group of structures, the Contractor shall complete the entire demolition of these structures without interruption. Hours of work are to be in accordance with “Baltimore City Building, Fire and Related Codes 2015"or the latest version thereof. Interruptions for any reason other than these shall first be approved in writing by MSA.

F. The Contractor shall take all proper precautions at all times to protect vehicular and pedestrian traffic from any damage or injury which may be caused, either directly or indirectly, by the work under the contract.

1. Such precautions shall include, but not be limited to, the erection and maintenance of fences, barricades, railings, guards, scaffolding, signs, coverings, lights, etc., or any other precaution reasonably required by MSA to satisfy its reasonable concerns for the safety of citizens.

2. If at any time MSA determines that the Contractor has not taken proper precautions, the Contractor shall, at no additional costs to MSA, install and maintain any and all additional protections as may be directed by MSA.

G. The Contractor shall not, under any circumstances, burn any materials or have fires on the site at any time.

H. The Contractor is absolutely prohibited from using dynamite or any other explosives in any of the work or operations covered in these specifications.

I. The Contractor shall conduct all of its operations so as to prevent the raising of excessive dust and dirt. During the demolition operations, the work shall be kept thoroughly wetted down. The Contractor shall, at its own cost and expense, provide water lines for this purpose and it shall furnish all connections that may be required.

1. The Contractor shall advise MSA how it proposes to keep the work properly wetted down and the Contractor shall receive approval of its proposal in this regard from MSA before proceeding with demolition work. Upon completion of the work, all temporary water lines installed by the Contractor shall be removed by the Contractor at its own cost and expense.

2. At a minimum, the Contractor is required to use two (2) fire hoses with a minimum diameter of two (2) inches for wetting during the demolition operations with one hose directed at the point of demolition and one directed below the point of demolition where the debris hits the ground.. The Contractor will be responsible for providing additional hoses as may be required to sufficiently mitigate dust emissions.

3. The Contractor will be responsible for maintaining adequate wetting of the debris pile to control dust emissions.

4. The Contractor is required to apply water during the debris loading and removal process. At a minimum the Contractor is responsible for wetting of the debris pile and point of load-out by directing a hose at bucket at debris removal. Wetting is to be achieved via the use of fire hosing with a minimum diameter of 2”.

J. The Contractor shall ensure that a competent Field Superintendent is present on the job at all times during the operations. The Contractor's Field Superintendent must be fluent in the English language and accessible via cell phone at all times. The Field Superintendent will be responsible for monitoring jobsite safety and compliance with the project protocols and will be required to work cooperatively with the MSA's Environmental Consultant.

K. The Contractor shall take the necessary measures to protect and secure the premises of the demolition area at all times.

1. At a minimum, Contractor is required to provide driven post with chain link fencing or other substantial safety barriers. Safety barriers are to have a minimum height of eight (8') feet and include a wind-screen cover.

(a) The security measures are to extend to the curb lines at the front and sides of the properties and to the property line at the rear of the structures being demolished.

L. The Contractor shall comply with local noise ordinances and permissible work hours as identified the contract documents.

M. No demolition operations that require wetting will be permitted when temperatures fall below 32 degrees Fahrenheit for a period of time that could create a public icing hazard.

N. Demolition operations are to stop when sustained winds reach fifteen miles per hour (15 MPH).

O. The Contractor and its employees are to include Project C.O.R.E. imaging on project signage and employee safety vests. Project C.O.R.E. imaging will be provided to the Contractor in electronic formatting.

P. All work is subject to the field decision by the MSA or the Environmental Compliance Officer.

II. AIR, DUST AND SOIL MONITORING

A. MSA will retain an independent, certified third party environmental services/testing and inspection consultant to monitor potential dust emissions through air, dust and soil sampling.

B. As appropriate, air and dust monitoring samples will be collected:

(i) Prior to demolition activities;

(ii) During demolition;

(iii) During debris removal; and

(iv) Following final debris removal and final site cleaning.

III. CONDITIONS TO BE MET

A. The Contractor shall procure all necessary permits, including the razing permit, without cost to

MSA unless noted otherwise.

1. The Contractor shall comply with all laws and ordinances of the City of Baltimore and the State of Maryland relating to the work.

2. The Contractor shall confirm the abandonment of the utility services to the structures to be razed and MSA shall bear the costs thereof.

B. The Contractor shall exercise all care to ascertain in the utility services for the structure or structures that he is to demolish are disconnected.

1. The City of Baltimore will secure abandonment of utilities and bear the cost thereof. Prior to commencing work, the Contractor will certify that utility services for properties have been disconnected.

2. In the event any of the utility services are not cut off, capped, or disconnected, the Contractor shall not perform any work and disturb same and will report to MSA.

C. The Contractor shall ensure that existing utility services such as drains, sewers, water lines, gas lines, electrical feeders, telephone wires, etc., or any of their adjuncts, are completely safeguarded, and the Contractor shall conduct its operations accordingly.

1. If Contractor damages any such utilities, the Contractor shall, at its sole cost and expense, carefully repair the utilities as required by the Department of Public Works and Utility Companies having jurisdiction.

2. Any damages incurred by the City and/or the Utility Companies shall be paid for by the Contractor.

D. The Contractor shall keep all sidewalks, streets, and alleys open at all times where specified except as otherwise directed by MSA and adequate means shall be employed to protect pedestrian and vehicular traffic.

1. Once the structures are released to the Contractor for razing, and continuing for the term of the contract, it shall be the responsibility of the Contractor to remove and clear from the foot pavements fronting the structures snow, ice, and debris.

2. Snow shall be removed and cleared away as required by Baltimore City Ordinance.

3. Debris shall be removed and cleared from the streets, alleys and sidewalks by the end of each working day.

4. Rodenticide

(a) Prior to commencing abatement, deconstruction and demolition operations, the Contractor shall rodenticide all interior and exterior areas of the property or properties to be demolished.

(i) Rodenticiding shall be performed by a business certified and licensed by the Maryland State Department of Agriculture and approved by the MSA.

(ii) Standard baiting procedures will be followed, including the filling and re-inspection of rat burrows.

(iii) The business performing such service shall strictly adhere and comply with all requirements on the labels of chemicals used, in addition to other State and Federal regulations.

(iv) Signs shall be posted on the property twenty-four (24) hours prior to the treatment, and the Contractor shall notify the MSA at the same time that the signs are posted.

(v) A certificate indicating fulfillment of all these requirements shall be furnished to MSA at the time the razing permit application is received.

5. Erosion and Sediment Control

(a) The Contractor shall adhere to the Standards and Specifications for Soil and Erosion Sediment Control as approved and adopted by the Maryland Department of the Environment, Sediment and Storm Water Administration, as well as the provisions of the Baltimore City.

(b) Erosion and Sediment Control Manual and as required by the contract document for each Project-specific RFP.

(i) These documents are available for examination at the office of Baltimore City Environmental Services, 1002 Abel Wolman Municipal Building, 200 N. Holliday Street, Baltimore, Maryland 21202.

6. Deconstruction

(a) Salvage of components known to or suspected of containing lead or any other hazardous materials is strictly forbidden.

(b) The Contractor shall provide for and ensure that demolition debris is placed in dumpsters.

(i) Prior to the placement of debris in dumpsters, Contractor shall determine whether any debris is a controlled hazardous substance (as defined by the Maryland Department of Environment) or otherwise poses hazards that warrant segregating such debris for disposal at an appropriate facility as required by law.

(ii) The Contractor shall classify all demolition debris in accordance with the definition of "Demolition Debris" found in COMAR 26.04.07.13 as follows:

(1) "Acceptable Demolition Debris" means debris which does not contain lead, asbestos or any other hazardous materials associated with the razing of buildings, roads, bridges, and other structures including structural steel, concrete, bricks (excluding refractory type), lumber, plaster and plasterboard, insulation material, cement, shingles and roofing material, floor and wall tile, asphalt, pipes and wires, and other items physically attached to the structure, including appliances if they have been or will be compacted to their smallest practical volume.

(2) "Unacceptable Demolition Debris" includes industrial waste or byproducts, any waste materials contained within a structure on the grounds of the structure being demolished that are not physically part of the structure, or which are comprised of or contain materials that pose an undue risk to public health or the environment.

(iii) It is the intention of MSA to recycle as much of the Acceptable Demolition Debris as feasible. The Contractor, therefore, may be required to source separate certain materials that have recycling potential.

(1) These items include structural steel, concrete, bricks (excluding refractory type), lumber, plaster and plasterboard, insulation material, cement, shingles and roofing material, floor and wall tile, asphalt, pipes and wires, and other items physically attached to the structure, including appliances.

(iv) Upon placement into the dumpster (or other storage unit), the Contractor shall be deemed the generator of, and shall take title to, such debris, including any controlled hazardous substances.

(1) The Contractor shall cover all dumpsters with impermeable plastic after placement of debris therein and shall ensure that all dumpsters remain covered when not in use.

(2) Full dumpsters shall be removed promptly from the site and transported to the selected disposal site. Prior to removal from the site, the Contractor shall wet debris in the dumpster and verify that the impermeable plastic cover is properly secured for over-the-road transportation.

(c) The Contractor shall arrange truck routes to haul away debris using MSA approved routes to the MSA approved disposal site with due care given to minimize noise, traffic, and other adverse impacts on residential communities.

(i) Waste materials shall undergo proper classification prior to removal from the site.

(1) Disposal of all waste materials shall be at facilities approved by MSA and properly certified to handle the disposal of general construction waste and/or hazardous waste.

(2) The Contractor is responsible for the tracking and documentation of all waste materials using the forms provided herein.

(d) The Contractor shall leave in place all windowsills, window stools, window frames, window casings, doors, door casings, doorframes, baseboards, chair railings, and banisters that are known to contain lead-based paint as defined under COMAR 26.16.02.B.(3) and all other applicable law.

(e) The Contractor shall not remove floors or walls without appropriate structural safety measures in place to prevent building collapse.

IV. CONDITIONS

A. All deconstruction work shall be performed by the Contractor strictly in accordance with all applicable HUD, EPA, MDE and Baltimore City lead hazard reduction standards as well as any applicable MOSH standards.

B. The Contractor shall notify MDE of all deconstruction/hazard reduction work

C. The Contractor shall post warning signs and contain the work area as necessary to reduce lead dust contamination prior to the start of lead hazard work, in keeping with MDE lead hazard reduction standards.

1. The Contractor shall wet all surfaces on the property scheduled to be deconstructed prior to their removal.

2. Contractor shall contain the property to reduce any exterior dust emissions -including the covering of the exterior windows and other affected components with 6-mil plastic.

D. All of Contractor's supervisory personnel shall be trained and certified as Demolition Supervisor and Lead Abatement Supervisors as accredited by the Maryland Department of the Environment.

E. All of Contractor's workers shall be trained and certified as Lead Hazard Reduction Workers as accredited by MDE, EPA and OSHA, and as otherwise required by applicable law.

F. All of Contractor's workers using Lifts shall receive appropriate training on operation of the Lift.

1. Asbestos Containing Materials

(a) Contractor, during the Deconstruction phase, shall be responsible for the removal and disposal of all asbestos containing materials within the limits of the project.

(i) Removal of asbestos containing materials must be completed by personnel appropriately trained and accredited in asbestos abatement and in accordance with all applicable federal, state and local regulations.

(b) This shall be accomplished prior to the releasing the site to the Contractor for demolition. However, if asbestos containing materials are discovered by the Contractor before or during its razing operations, the Contractor shall immediately cease operations and inform MSA of its finding.

(i) MSA will arrange verification of the existence of asbestos containing material and if confirmed, have it properly removed and disposed of.

(ii) The Contractor will not be eligible for delay claims during this phase of the operation.

2. Hazardous Materials

(a) Contractor, during the Deconstruction phase, will be responsible for the removal and disposal of all hazardous materials within the limits of the project.

(i) The handling, removal and disposal of hazardous materials must be completed by personnel properly certified according to all applicable federal, state and local regulations.

(ii) Contractor will use personnel with all required credentials to handle hazardous materials.

(1) The project site will be released to the Contractor for demolition. However, if suspected hazardous materials are discovered by the Contractor before or during its razing operations, the Contractor shall immediately cease operations and inform MSA of its finding.

(2) Contractor will then immediately notify Maryland Department of the Environment and any other applicable governmental entities.

(3) If required by law or by MSA's directive, made in its sole and absolute discretion, Contractor shall request an analysis of the substance in question.

(4) Contractor will timely deliver to MSA a report of the analysis. The associated costs of the analysis and report shall be reimbursed to the Contractor by MSA.

(5) The Contractor will not be eligible for delay claims during this phase of the operation.

3. Demolition

(a) All buildings or structures shall be razed in strict accordance with applicable sections of the "Baltimore City Building, Fire and Related Codes 2015" or the latest revision thereof.

(i) As directed by MSA, buildings and structures included in this Contract shall be completely razed and disposed of (above and below existing grade - including foundation walls, footers, basement floors, all subsurface utilities, and sidewalks as indicated, etc.).

(b) All ancillary structures on the property shall be removed, including without limitation, storage facilities, garages, shacks, pet facilities, fencing, and other such structures. Furnace pits, elevator pits, hydraulic lifts, machinery foundations and all like structures shall also be removed and the resulting voids shall be backfilled as described in Paragraph.

(c) Finish grade shall be generally construed as uniform sloping planes meeting the surfaces of abutting streets, alleys, sidewalks, walls, open area and abutting properties, etc. properly graded to insure adequate surface drainage.

(d) The Contractor shall not remove or damage any trees, shrubs, streets, or alley pavements, public walks or curbs outside of the work area unless they are identified for removal in the specifications.

(i) Likewise, the Contractor shall not remove or damage any property constituting a part of any utility system such as poles, light standards, conduits, gas mains, sewers, steam or water pipes, fire hydrants, fire alarm boxes, police call boxes, meters, transformers, etc., whether owned by City of Baltimore or by a private utility company.

(ii) In the event the Contractor damages any such utilities or paving, the Contractor shall, at its own cost and expense, restore such utility or paving to a condition equal to that which existed before the damage was done.

(e) The Contractor shall clean out all basements, areas, yards, etc. by removing all debris and rubbish, together with all equipment such as boilers, furnaces, piping, fixtures, etc.

(f) The Contractor shall also remove all driveways, walks, wells, curbs, gates, fences, clothes poles, framework of any description, pavement, steps, and other material embedded in and appearing on or projecting above the surface of the ground within the work area.

(g) The Contractor shall not close or obstruct streets adjacent to demolition areas unless it shall first have obtained all necessary permits to do so. The Contractor shall exercise all due care during demolition operations to ensure that debris is not allowed to fall where it will or may endanger pedestrian and vehicular traffic.

(h) The Contractor shall take special care and precaution not to disturb or damage private property. Should any private property be damaged as a result of the Contractor's operations, it shall, at its own cost and expense, restore such private property to a condition equivalent to the existed before the damage was done, all to the satisfaction of MSA.

(i) The Contractor shall not operate equipment such as cranes, power shovels, bulldozers, etc., in streets and alleys abutting the limits of the demolition area.

(i) Any deviation or exception to this requirement requires the written approval of MSA and then only after the Contractor has obtained necessary permits.

(ii) All such equipment shall be operated from within the demolition area.

(iii) All demolition is to be performed in a controlled manner via the use of bucket / loader claw.

(1) The use of heavy weights suspend by a cable from a boom or hoist is strictly forbidden.

(2) Mechanical equipment may be used to demolish structures provided that such equipment is operated within the property lines and special care is taken by the Contractor to ensure that debris is not allowed to fall on the streets, alleys and sidewalks which are used by the public.

(j) The Contractor will, prior to submitting its proposal, familiarize itself with all of the details pertaining to the work.

(i) Contractor will have no claim for extra compensation or any other claim because of misunderstandings, misinterpretations, or lack of information relative to these matters.

(ii) Contractor will be allowed to conduct a pre-bid site investigation.

(iii) Contractor will have no claim for extra compensation or any other claim because of misunderstandings, misinterpretations, or lack of information relative to these matters.

(k) The Contractor shall do all propping, bracing, etc., of walls, etc., for each property in the manner that is necessary to safeguard the public or others.

(l) The Contractor will take every precaution to guard against any movement or settlement of adjacent buildings or structures and shall provide and place, at its own expense, any bracing or shoring necessary or proper in connection therewith; and will be solely responsible for the safety and support of such buildings damage or injury caused thereby or resulting there from.

(i) If at any time, the safety of any adjacent building or structure appears to be endangered, the Contractor will immediately cease operations, notify MSA and, at its own expense, take all proper means to support such building or structure.

(ii) The Contractor will not resume operations until permission has been secured in writing from MSA.

(iii) If MSA considers additional bracing or shoring is necessary to safeguard and prevent any such movement or settlement, the Contractor shall promptly provide and place, at its own expense, any such bracing or shoring upon the directive of MSA.

(iv) If the Contractor fails to comply promptly with MSA's order, such bracing and shoring may be placed by MSA and back charged to the Contractor.

(m) The Contractor shall take every precaution to guard against the movement, settlement or collapse of any sidewalks, alleys, or passage adjoining the property. If the Contractor causes any such damage, it shall promptly repair such damage at its sole expense when directed to do so by MSA.

(n) The Contract shall perform the work of demolishing the buildings or structures in a manner that will ensure that adjacent buildings or properties will not sustain any damage from falling debris or other causes, and the work shall be done in a manner so as not to interfere with the use of adjacent buildings or structures or the free and safe passage to and from them.

(o) Masonry walls shall be demolished in small sections.

(p) The Contractor will remove all of its property from the demolished area before the completion of the project and before the project will be considered completed.

(q) It is possible that there may be historical or antique items such as, but not limited to, papers, plaques, books, documents, records, coins, utensils, and so forth, in the structures being demolished.

(i) MSA shall be the judge as to whether or not such materials or items are of historical or antique value.

(ii) The Contractor shall be responsible for the delivery of any such material to MSA, and shall become the property of MSA.

(iii) In addition, prior to razing operations, MSA reserves the right to remove and salvage antique architectural features which are part of the structures being demolished such as, but not limited to, cornices, fireplace mantles and trim molding, stair balusters, banisters and handrails, stained-glass windows, doors and doorframes, etc.

(r) The Contractor shall maintain the streets cleaned of any litter or debris resulting from its operations.

(i) At a minimum the Contractor is responsible for performing street sweeping on a weekly basis and upon completion of the demolition and debris removal process.

(ii) The Contractor is responsible for additional street sweepings as may be needed to maintain debris free roadways around the project.

(s) Prior to commencement of demolition, the Contractor shall secure the perimeter of the demolition site for site containment and security, and to prevent entry and vandalism.

4. Work Area Control

(a) This required work of the Contractor is intended to define the boundaries of the site and indicate that the interior is a work zone that is not open to the public, and includes taking each of the following mandatory steps:

(i) At a minimum, erect driven post with chain link fencing or other substantial

barriers with a minimum height of eight (8') feet around the perimeter of the demolition site to prevent access. Barriers are to be covered with wind screens.

(ii) Ensure no squatters are in the structure prior to and throughout the demolition operations.

(iii) Provide monitoring to control site access and ensure the safety of pedestrians and vehicles during active demolition process. -

V. DEMOLITION DEBRIS REMOVAL

A. Debris removal is to begin no later than 48-hours from the start of demolition operations and is to be completed no later than 14-days from completion of demolition operations.

B. At the approval of the MSA the Contractor may be allowed to separate and store onsite materials that are to be salvaged by the Contractor, provided that all of such materials are arranged thereon in a neat and orderly manner, as directed by MSA and subject to its approval and further provided that the storing of such materials will not create a nuisance or interfere with progress of the work under this contract, or the work of others, or affect in any way, the Contractor's responsibility in carrying out all of the terms and conditions under this contract.

C. All waste, whether salvage or debris, must be removed from the site no later than 14-calendar days from demolition completion.

(a) Roll-off bins and dump trucks shall not be parked in front of occupied houses during debris removal. At the conclusion of the razing of the structure(s), the contractor will:

(i) Provide effective wetting during debris removal, i.e. while moving debris to dumpsters, truck or container, debris will be regularly wetted to reduce dust emissions.

(ii) At a minimum the Contractor is responsible for wetting of the debris pile and point of load-out by directing a hose at bucket during debris removal.

(iii) Wetting is to be achieved via the use of fire hosing with a minimum diameter of 2".

(iv) Dumpsters will also receive regular wetting to reduce dust emissions.

(v) During the wetting down phase of any demolition the contractor will ensure that adequate runoff procedures are implemented.

(b) Provide removal and hauling of demolition debris utilizing tightly sealed, secure and non-permeable coverings on trucks and dumpsters.

(c) Ensure disposal of demolition debris to MSA and EPA approved lined landfill.

VI. LANDSCAPING, GREENING AND MAINTENANCE OF LOTS

A. The Contractor will be responsible for backfilling of all excavations with approved clean fill.

B. The Contractor will be responsible for site grading and preparing of site to receive seeding / site stabilization.

C. The Contractor will be responsible for seeding and associated watering/maintenance to ensure mature vegetative growth.

TECHNICAL DOCUMENT

for

Project C.O.R.E

Creating Opportunities for Renewal and Enterprise

June 22, 2016

A JOINT PROJECT BETWEEN

TABLE OF CONTENTS

SECTION 01013 - SUMMARY OF WORK (HAZMAT)

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. The work of the Contract and related requirements and conditions that have an impact on the project include:

Section 01013 - Summary of the Work

Section 01043 - Project Coordination

Section 01091 - Definitions and Standards

Section 01092 - Codes and Regulations

Section 01410 - Air Monitoring

Section 01503 - Temporary Facilities and Controls

Section 01513 - Pressure Differential and Air Circulation System

Section 01526 - Temporary Enclosures

Section 01560 - Worker Protection (HAZMAT)

Section 01562 - Respiratory Protection (HAZMAT)

Section 01563 - Decontamination Units

Section 01711 - Project Decontamination

Section 01714 - Work Area Clearance (HAZMAT)

Section 01732 - Selective Demolition (Deconstruction)

Section 02081 - Removal of Asbestos-Containing Materials

Section 02084 - Disposal of Asbestos-Containing Waste Material

Section 02085 - Removal and Disposal of Material Containing Lead

Section 02086 - Hazardous Waste Management

Section 02221 - Building Demolition

Section 02230 - Site Clearing

Section 02300 – Earthwork

B. The work in summary consists of:

1. The safe and efficient demolition and site clearance of blocks, or partial blocks, of properties located within the City of Baltimore, Maryland. As part of this contract, sub-tasks will include:

    a. Asbestos-Containing Materials (ACM): Work included under this contract involves the abatement and control of asbestos-containing materials from properties. The work shall be conducted to support the demolition of the buildings located on the subject site.

        i. Estimates of the quantity of materials to be removed are identified in the Site-Specific Asbestos Containing Material (ACM), Lead-Based Paint and Hazardous Material Survey included in the Project Specific RFP's; however, it shall be the responsibility of the Contractor to estimate quantities to his own satisfaction prior to submitting a bid. If the Contractor bids for this work, this shall indicate acceptance of the Scope of Work that includes removal of all described materials, regardless of quantity.

    b. Lead-Based Paint: Work included under this contract involves the abatement, control and disposal of lead-based paint from properties. The work shall be conducted to support the demolition of the buildings located on the subject site.

        i. Estimates of the quantity of materials to be removed are identified in the Site-Specific Asbestos Containing Material (ACM), Lead-Based Paint and Hazardous Material Survey included in the Project Specific RFP's; however, it shall be the responsibility of the Contractor to estimate quantities to his own satisfaction prior to submitting a bid. If the Contractor bids for this work, this shall indicate acceptance of the Scope of Work that includes removal of all described materials, regardless of quantity.

    c. PCBs, Mercury-Containing Waste and other Universal Waste or potentially hazardous materials: Work included under this contract involves the removal and disposal of polychlorinated biphenyls (PCBs), mercury containing waste materials and other universal or regulated wastes, such as lead batteries, unused hazardous products and/or potential hazardous wastes from properties. The following waste products are designated by MSA as non-salvageable and require specialized handling and disposal:

        i. Waste Type A: PCB waste.

            1. PCB-containing systems

        ii. Waste Type B: Mercury-containing waste.

            1. Mercury-vapor lamps, mercury containing thermostats

        iii. Waste Type C: Universal and hazardous waste.

            1. Nickel-cadmium batteries, lead-acid batteries
            2. Pesticides, herbicides and rodenticides
            3. Above-ground Storage Tanks (ASTs)
            4. Chlorofluorocarbon containing systems
            5. Fluorescent bulbs and light fixtures
            6. Unidentified chemical mixtures
            7. Any material that contains lead, asbestos, etc.

The work shall be conducted to support the demolition of the buildings located on the subject site.

Estimates of the quantity of materials to be removed are identified in the Site-Specific Asbestos Containing Material (ACM), Lead-Based Paint and Hazardous Material Survey included in the Project Specific RFP's; however, it shall be the responsibility of the Contractor to estimate quantities to his own satisfaction prior to submitting a bid. If the Contractor bids for this work, this shall indicate acceptance of the Scope of Work that includes removal of all described materials, regardless of quantity.

1.02 CONTRACTOR USE OF PREMISES

A. The Contractor shall limit his use of the premises to the work indicated.

B. Confine operations at the site to the areas permitted under the Contract.

C. Portions of the site beyond areas in which work is indicated are not to be disturbed. Conform to site rules and regulations affecting work while engaged in project demolition.

D. Do not unreasonably encumber the site with materials/equipment storage. Confine stockpiling of materials and location of trailers and dumpsters to the areas directed by MSA's representative or the Environmental Consultant.

   1. Contractor is solely responsible for site security for unsecured equipment or materials left on-site overnight.

   2. Contractor is responsible for securing the site and all waste material during the demolition process to prevent mobilization of asbestos containing material, lead-based paint dust or other potentially hazardous materials into the community or surrounding environment.

E. Maintain existing building in a safe, secure, and weather-tight condition throughout the demolition period.

F. Take all precautions necessary to protect the building, workers and visitors during the construction period.

G. Smoking or open flames will not be permitted within the building enclosure or on the premises; comply with National Fire Protection Association (NFPA) 101.

H. Contractor must furnish portable toilet facilities for personnel, and maintain such facilities in a clean, sanitary manner.

I. The Contractor shall be responsible for temporary lines connected to a water source and the removal of the temporary lines at the conclusion of the job. All connections shall conform with applicable provisions of the plumbing code as well as trade practices. Contractor shall be responsible for obtaining any and all required permits.

   Contractor shall furnish all necessary equipment for provision of hot water during the duration of the project.

J. The Contractor shall provide all necessary temporary electrical service for completion of the project, including the installation of generators, electrical lines, and subpanel units using a licensed electrician. This work shall be coordinated with MSA's designated representative. The Contractor shall remove temporary electrical service at the end of the project. All electrical lines, devices, and work shall conform with applicable local electrical codes.

K. Control of Access: Unauthorized personnel shall be prohibited from entering or remaining in the work area at all times during hazard abatement work. Authorized personnel include:

   1. MSA's representatives.

2. Environmental Consultant (s)
3. Contractor employees.
4. Regulatory authorities' designees.

1.03 OCCUPANCY

A. The property will not be occupied during demolition.

1.04 SUBMITTALS

A. Plan of Action, including a task-specific Health and Safety Plan.
B. Pre-work inspection report, including video and photographs.
C. All items on the Submittal Checklist provided below.

SUBMITTAL CHECKLIST - ABATEMENT

The submittals required from the Contractor include, but are not limited to the following (submittal does not apply if Section is not included in this Specification):

Section 01013 - Summary of Work

Before Start of Work:

Plan of Action

Pre-Construction Inspection

Section 01043 - Project Coordination

Before Start of Work:

Contingency Plans

Telephone Numbers

Notifications sent to other entities at the work site.

Notifications sent to emergency service agencies.

Resume of general superintendent.

Accreditation of general superintendent

Periodically During Work:

Daily Logs

Event Reports

Accident Reports

Discovered Condition Reports

Section 01092 - Codes, Regulations, and Standards

Before Start of Work:

State of Maryland and local regulations

Licenses

Notifications

Permits

Disposal regulations for out of state disposal

Section 01410 - Air Monitoring

Before Start of Work:

Asbestos and lead dust monitoring plans

Mitigation and containment plans, including Safety Data Sheets (SDSs) and MDE approval for any chemical dust suppressants

Notifications under EPA 40 CFR 50 - National Ambient Air Quality Standards (NAAQS) for Particulate Matter

Stop work action levels

Implementation schedule

After Commencement of Work:

Daily site perimeter and worker breathing zone air monitoring results

Dust monitoring summary reports

Section 01503 - Temporary Facilities

Before Start of Work:

Scaffolding

Hot water heater

Decontamination unit sub-panel

Ground fault circuit interrupters (GFCI)

Lamps and light fixtures

Temporary heating and cooling units

Self-contained toilet units - product data, sub-contractor

First aid supplies

Fire extinguishers - product data, location schedule

Section 01513 - Pressure Differential & Air Circulation System

Before Start of Work:

Pressure differential/air circulation system design

HEPA filtered fan units: Product data

Monitoring equipment: Product data

Auxiliary generator: Product data

Power switch: Product data

Auxiliary power system: Shop drawing

After Commencement of Work:

Pressure differential monitoring results summary

Section 01526 - Temporary Enclosures

Before Start of Work:

Strippable Coatings: Product data, Test report on ASTM E84 test, Manufacturer's installation instructions, safety data sheet(s)

Spray Cement: Product data, Manufacturer's installation instructions, safety data sheet(s)

Sheet Plastic: Test reports on NFPA 701 test

After Commencement of Work:

Initial and daily barrier inspections using smoke tubes and other appropriate procedures

Section 01560 - Worker Protection - HAZMAT

Before Start of Work:

AHERA Accredited Training Certificate: for each worker1000

Maryland Licensure for Abatement: firm and each worker

Maryland and EPA lead-based paint removal certification: for each worker

Documentation of Training for Other Hazards: for each worker.

Maryland and Local License: for each worker.

Historical Airborne Fiber Data.

Report from Medical Examination: for each worker.

Certificates of Worker's Acknowledgment: for each worker

Section 01562 - Respiratory Protection - HAZMAT

Before Start of Work:

Product Data

NIOSH Certifications

Type "C" System Diagram & Operating Instructions

Respiratory Protection Program

Historical Airborne Fiber Exposure Data

Fit Test Documentation: for each worker using respiratory protection

After Commencement of Work:

Weekly air monitoring data from personal sampling summary

Section 01563 - Decontamination Units

Before Start of Work:

Personnel Decontamination Unit: Shop drawing

Filters: Product data

Signs: Samples

Section 01711 - Project Decontamination

Submittal Items as listed in Section 01711

Section 01714 - Work Area Clearance (HAZMAT)

Before Start of Work:

Clearance testing and monitoring plan

Clearance action levels

After Commencement of Work:

Testing and monitoring data summary

Section 01732 - Selective Demolition (Deconstruction)

Before Start of Work:

Hazardous material containment and abatement plan for salvage material

Task specific health and safety plan for salvage workers

Documentation of Training for Other Hazards: for each worker

Maryland and Local License: for each worker

Report from Medical Examination: for each worker

Certificates of Worker's Acknowledgment: for each worker

Section 02081 - Removal of Asbestos-Containing Materials

Before Start of Work:

Asbestos removal and monitoring plan

Task specific health and safety plan

EPA, MDE and City of Baltimore project notifications

Certificates: Contractor certification for licensed asbestos abatement,

Contractor EPA certification and MDE accreditation for Asbestos Abatement Supervisor,

Contractor EPA certification and MDE accreditation for proposed abatement workers,

Laboratory accreditation certificates (National Voluntary Laboratory Accreditation Program (NVLAP) or equivalent),

Contractor certifications for training, medical surveillance and respiratory fit test, as appropriate, for on-site workers

Surfactant: Product data, safety data sheet and MDE approval for use

Removal Encapsulant: Product data, safety data sheet and MDE approval for use

Section 02084 - Disposal of Asbestos-Containing Waste Material

Before Start of Work:

Asbestos disposal and monitoring plan

Task specific health and safety plan

Waste Hauler State/State of MD License

MDE Certified Waste Hauler License

Permitting and licensure of designated hazardous waste landfill

Landfill Contact Person and Telephone Number

Chain of Custody Form

Waste Manifest Form

Disposal Bag: Samples

Labels: Samples

After Commencement of Work:

On a weekly basis: copies of manifests and disposal site receipts, weekly safety meeting minutes, etc.

SUBMITTAL CHECKLIST - LEAD

The submittals required from the Contractor include, but are not limited to the following (submittal does not apply if Section is not included in this Specification):

Section 02085 - Removal and Disposal of Material Containing Lead

Submittal items as listed in Section 02085

SUBMITTAL CHECKLIST – HAZARDOUS WASTE

The submittals required from the Contractor include, but are not limited to the following (submittal does not apply if Section is not included in this Specification):

Section 02086 - Hazardous Waste Management

Submittal items as listed in Section 02086 - Hazardous Waste Management and Section 02221 - Building Demolition

Before Start of Work:

Environmental Consultant Asbestos Containing Material (ACM), Lead-Based Paint and Hazardous Material Survey

Contractor fugitive dust and demolition debris containment and monitoring plan

Contractor task specific health and safety plan

After Commencement of Work:

Weekly compliance reports

Section 02230 - Site Clearing

Before Start of Work:

Site management and temporary control plan

Section 02300 - Earthwork

Before Start of Work:

Materials management plan

1.05 SPECIAL REQUIREMENTS

A. All Contractor personnel involved in activities related to the abatement of hazardous waste materials during this project must possess valid training certificates and licensing according to the requirements of all appropriate federal, state and local regulations. Evidence of training must be made available to the Environmental Consultant upon request and copies must be maintained on the project site **at all times.**

B. Each accredited person involved in asbestos, lead-based paint or other hazardous material abatement activities must possess a valid Maryland Photo Identification Card on the job site **at all times**.

C. Proper respiratory protection must be used **at all times** by all Contractor personnel when there is any possibility of disturbance of asbestos-containing materials, lead-painted materials or any other hazardous material which may lead to dust levels above OSHA's permissible exposure limit for that material.

D. The Contractor must provide the services of a Certified Industrial Hygienist (CIH). The Contractor will oversee all asbestos, lead-based paint or other hazardous material abatement activities throughout the duration of the project including, but not limited to, all pre and post abatement inspections, air sampling, and project monitoring activities.

E. Any Addendum (a) to this Specification issued prior to the bid due date are incorporated by reference and carry the same force. Where an Addendum may conflict with the original requirements, the Addendum shall prevail.

F. Phase Contrast Microscopy (PCM) analytical methods will be used to determine if the work area meets asbestos exposure levels set-forth in these specifications. Clearance levels will be established utilizing PCM sampling and analytical methods as set forth in the AHERA regulation 40 CFR Part 763 Appendix A. The sampling and analytical methods are further described in Sections 01410 and 01714. The work area shall also achieve clearance-using PCM via NIOSH 7400 Method. If clearance is not achieved, the area shall be re-cleaned and re-tested until such time that the area meets the clearance requirements of Section 01714.

G. During non-working hours, the work area shall be secured by locking the entrance to the work areas.

H. Friable asbestos work areas will be placed under negative pressure in accordance with Section 01513. A pressure differential equal to or greater than 0.02 inches of water relative to adjacent areas, or the equivalent of four air changes per hour will be maintained at all times. At least one negative air pressure device shall be installed as a back-up unit.

I. Minimum respiratory protection for this project shall be half-face air purifying respirators approved in accordance with requirements of 29 CFR 1926.1101.

J. All contaminated metal items specified for removal and disposal are to be double bagged and placed into fiber drums for disposal as asbestos-containing waste.

K. The Contractor shall install a ground fault circuit interrupter (GFCI) sub-panel adjacent to the electrical panel or outside the work area. If the sub-panel is installed within the work area the sub-panel shall be installed in a manner such that electrical components are elevated a minimum of 12" above the floor. The Contractor shall construct a barrier made of 2' x 4' lumber and two (2) layers of polyethylene sheeting to prevent water contact with the sub-panel. Other temporary electrical power sources must be approved by MSA's representative.

L. The Contractor shall assume full responsibility and liability for the compliance with all standards, licensing requirements and patented systems pertaining to asbestos abatement, work practices, hauling, disposal, protection of workers, protection of visitors to the work site, and persons occupying areas adjacent to the work site. The Contractor shall hold harmless and indemnify MSA and MSA's representatives of any liability as a result of patent infringements, failure to comply with applicable standards, and licensing requirements on the part of the Contractor and the Contractor's employees and subcontractors.

M. The Contractor must provide the following temporary utilities for each floor per building for the duration of the project:

(3) ABC Fire Extinguishers

Electrical Sub-panel (as may be necessary to complete work)

Temporary Lighting in Work Area

Two (2) Battery Powered Fire Alarms/Detectors

N. Plywood barriers are to be erected at all entranceways to the work areas that will not be used by the Contractor.

O. The Contractor shall ensure that water service to the shower and other outlets within the work area are turned off while the Contractor is not performing work.

P. A negative pressure differential of greater than -0.02 inches of H_2O relative to outside pressure is required for this project in accordance with OSHA's construction standard (29 CFR 1926.1101). A stop work will be issued if the pressure differential falls below -0.01 inches H_2O.

Q. The Certified Industrial Hygienist shall perform a pre-abatement inspection prior to the initiation of work. The Contractor is responsible to correct deficiencies noted by the CIH prior to beginning work. After successful completion of the pre-abatement inspection, the CIH will provide the Contractor a signed and dated written "AUTHORIZATION TO COMMENCE".

R. The following is the sequence of major events for the project. As this sequence of events is not complete, the Contractor is instructed to thoroughly read this specification for other requirements not listed below.

Conduct pre-abatement inspection

Installation of electrical sub-panel or other source of grounded temporary power source

Installation of critical barriers

Installation of floor & wall sheeting (2 layers of polyethylene sheet on each); installation of ceiling sheeting (1 layer of polyethylene sheet)

Installation of HEPA filtration devices

Installation of decontamination chamber

Installation of pressure differential monitor

Conduct abatement mitigation system inspection

Gross material removal

Fine cleaning

Final visual inspection

Clearance air testing

Tear down

1.06 QUALIFICATIONS

Submit the following before start of any asbestos, lead-based paint or other hazardous material abatement work.

A. Licenses and Qualifications: MSA reserves the right to make and be the final determination of the Contractor's qualifications for work. Requirements for the qualified Contractor include the following;

1. Contractor shall submit the following documentation with an accompanying statement notarized and signed (by a principle of the company) verifying accuracy and truth of information.

   a. General Qualifications of the Contractor shall include documentation of successful completion of at least three (3) abatement projects of similar size, dollar value, scope, and complexity. Include air monitoring data from an independent monitoring firm demonstrating compliance with OSHA airborne hazardous particulate concentrations during the work.

   b. Reference names, telephone numbers, and addresses of MSA representatives for the above referenced three (3) abatement projects.

   c. Names of Contractor's Qualified Representatives who shall be qualified officials of the company, and shall have complete authority to speak for and make commitments for the Contractor including name, title, length of service, verified training records, specific experience (including size and dollar value) of individual projects previously supervised.

2. Submit evidence of full compliance with medical surveillance and respiratory protection provisions of existing regulations; this shall include copies of written respiratory protection and medical surveillance programs.

3. Contractor shall submit the following statement notarized and signed (by a principle of the company) verifying accuracy and truth of the following information;

   a. Description of any asbestos abatement, or other environmental remediation projects which have been prematurely terminated, including the circumstances surrounding such termination.

   b. List of any contractual penalties which the Contractor has incurred for breach or non-compliance with Contract Specifications on previous projects, such as overruns of completion time leading to liquidated damages.

c. List of any citations levied against the Contractor by any governmental entity for violations related to lead-based paint abatement, asbestos abatement, or other environmental remediation work including the name and location of the project, date(s) of violation(s), and allegation resolution.

d. Description of all legal proceeding, lawsuits or claims which have been filed or levied against the Contractor or any of his past or present employees for lead-based paint abatement, asbestos abatement, or other environmental remediation related activities.

4. Acknowledgment of any of the above circumstances will not necessarily result in automatic disqualification.

1.07 PRODUCT DATA

A. Collect Product Data into a single submittal. Product Data includes printed information such as manufacturer's installation instructions, catalog cuts, standard wiring diagrams and performance curves.

B. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products, some of which are not required, mark copies to indicate the applicable information.

C. Submit 2 copies of each required submittal. MSA will retain one, and will return the second marked with action taken and corrections or modifications required.

1.08 MISCELLANEOUS SUBMITTALS

A. Process safety data sheets as "product data".

B. Classify each inspection and test report as being either "shop drawings" or "product data" depending on whether the report is specially prepared for the project, or a standard publication of workmanship control testing at the point of production. Process inspection and test reports accordingly.

C. Where submittal of a copy of standards is indicated, and except where copies of standards are specified as an integral part of a "Product Data" submittal, submit a single copy of standards for use by MSA’s representative.

1.09 MSA'S REPRESENTATIVE'S ACTION

A. Except for submittals for record, information or similar purposes, where action and return is required or requested, MSA’s representative will review each submittal, mark to indicate action taken, and return promptly.

B. Compliance with specified characteristics is the Contractor’s responsibility.

C. MSA’s representative will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be appropriately marked to indicate the action taken.

1.10 PRODUCT MATERIALS, EQUIPMENT – DELIVERY, STORAGE & HANDLING

A. Deliver, store and handle products in accordance with the manufacturer's recommendations, using means and methods that will prevent damage, deterioration and loss, including theft.

B. Schedule delivery to minimize long-term storage at the site and overcrowding of construction spaces.

C. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other losses.

D. Deliver products to the site in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.

E. Inspect products upon delivery to ensure compliance with the Contract Documents, and to ensure that products are undamaged and properly protected.

F. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.

G. Store heavy materials away from the project structure in a manner that will not endanger the supporting construction.

H. Store products subject to damage by the elements above ground, under cover in a weather tight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

1.11 QUALITY ASSURANCE

A. To the fullest extent possible, provide products of the same generic kind, from a single source, for each unit of work.

B. Compatibility of products is a basic requirement of product selection.

C. When the Contractor is given the option of selecting between two or more products for use on the project, the product selected must be compatible with other products previously selected, even if the products previously selected were also Contractor options.

PART 2 - PRODUCTS

2.01 GENERAL PRODUCT COMPLIANCE

A. Requirements for individual products are indicated in the contract documents; compliance with these requirements is in itself a contract requirement.

B. Where some particular product or device is specified by brand name or manufacturer it is to be considered a standard.

C. Fire resistant materials including polyethylene and plywood shall be used unless MSA’s representative approves other materials. Specific approval is required for spray poly.

D. The use of tear-off disposal bags is not allowed.

E. If approved equal, items of other manufacturer than those mentioned may be used, unless specifically noted otherwise for purposes of standardization.

F. Any method or material substitution must receive the written approval of the MSA’s representative.

2.02 SUBSTITUTIONS

A. The Contractor’s request for a substitution will be received and considered when extensive revisions to the contract documents are not required, and one or more of the following conditions are met.

B. Request is directly related to an "or equal" clause or similar language in the contract documents.

C. Specified product or method cannot be provided within the Contract time. However, the request will not be considered if the product or method cannot be provided as a result of the Contractor’s failure to pursue the work promptly or to coordinate the various activities properly.

D. Specified product or method cannot receive necessary approval by a governing authority, and the requested substitution can be approved.

E. Substantial advantage is considered by MSA to offer cost, time, energy conservation or other considerations of merit, after deducting of offsetting responsibilities MSA may be required to bear.

F. Specified product or method cannot be provided in a manner which is compatible with other materials of the work, and where the Contractor certifies that the substitution will overcome the incompatibility.

G. Specified product or method cannot be properly coordinated with other materials in the work, and where the Contractor certifies that the proposed substitution can be properly coordinated.

H. Specified product or method cannot receive a warranty as required by the contract documents and where the Contractor certifies that the proposed substitution includes the required warranty.

I. Requests for changes in the products, materials, equipment and methods of construction required by the contract documents are considered requests for "substitutions", and are subject to the requirements specified herein. Following are not considered as substitutions:

   1. Revisions to the contract documents, where requested by MSA’s representative are considered as "changes" not substitutions.

   2. Specified Contractor options on products and construction methods included in the contract documents are not subject to the requirements for substitutions as herein specified.

   3. Except as otherwise provided in the contract documents, the Contractor’s determination of and compliance with governing regulations and orders as issued by governing authorities do not constitute "substitutions" and do not constitute a basis for change orders.

   4. Submit 3 copies of each request for substitution. In each request identify the product or fabrication or installation method to be replaced by the substitution; include related specification section and complete documentation showing compliance with the requirements for substitutions.

   5. Within one week of receipt of the Contractor’s request for substitution, MSA’s representative will request additional information or documentation as may be needed for evaluation of the request.

   6. Within 2 weeks of receipt of the request, or within one week of receipt of the requested additional information or documentation, whichever is later, MSA’s representative will notify the Contractor of either the acceptance or rejection of the proposed substitution.

2.03 GENERAL PRODUCT REQUIREMENTS

A. Provide products that comply with the requirements of the contract documents that are undamaged and, unless otherwise indicated, unused at the time of installation.

B. Provide products that are complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.

C. Where they are available, provide standard products of types that have been produced and used successfully in similar situations on other projects.

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01013

SECTION 01043 - PROJECT COORDINATION (HAZMAT)

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Minimum administrative and supervisory requirements necessary for coordination of work on the project include but are not necessarily limited to the following.

1.02 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

A. Provide a full-time General Superintendent who is experienced in administration and supervision of asbestos, lead-based paint or other hazardous material abatement projects. This person is the Competent Person as required by OSHA in 29 CFR 1926 for the Contractor and the State of Maryland requirements. The Contractor's representative responsible for compliance with all applicable federal, state and local regulations.

B. The General Superintendent must have completed and passed the exam for an Asbestos Hazard Emergency Response Act (AHERA) accredited Supervisor level course, have had a minimum of two (2) years demolition supervisory experience and meet all additional requirements set forth in 29 CFR 1926.1101 for a Competent Person.

C. The General Superintendent must be acceptable to MSA's representative, based on submitted resume information and ongoing interaction with all parties involved in or affected by the project. The resume must include information regarding at least three similar projects for which the proposed General Superintendent has personally been the supervisor, including names and phone numbers for contact persons for MSA's representative on these projects. MSA reserves the right to reject any person proposed as the General Superintendent, who, in his sole judgment, does not serve the best interest of the State of Maryland.

D. The General Superintendent must be on-site at all times this project has any activities on-site, including sub-contracting, regardless of whether asbestos work is taking place or not. A written request, including resume, for any substitute for this person for any period during the project must be submitted to the Contract Manager or his designee in writing, in advance of such an assignment.

E. The General Superintendent, and any requested substitute, must have the full authority of the Contractor to commit resources, advise of Contractor's status and future plans and otherwise advise MSA's representative or the Environmental Consultant of issues that affect project quality and timeliness.

F. Both the full-time on-site General Superintendent and the primary supervisor inside the containment area during abatement activities must be fully conversant in the English language and shall act as interpreters between the CIH or MSA's representative or the Environmental Consultant and any employees who are not English speaking, when so requested.

1.03 SPECIAL REPORTS

A. Except as otherwise indicated, submit special reports directly to MSA within one day of occurrence requiring special report, with a copy sent to the MSA's representative and others affected by occurrence.

B. When an event of unusual and significant nature occurs at the site (examples: failure of negative pressure system, rupture of temporary enclosures), prepare and submit a special report listing chain of events, persons participating, response by Contract's personnel, evaluation of results or effects, and similar pertinent information. When such events are known or predictable in advance, advise MSA in advance at earliest possible date.

C. Prepare and submit reports of significant accidents at the site and anywhere else work is in progress. Record and document data and actions; comply with industry standards. For this purpose, a significant accident is defined to include events where personal injury is sustained, or property loss of substance is sustained, or where the event posed a significant threat of loss or personal injury.

1.04 CONTINGENCY PLAN

A. Prepare **and submit** a contingency plan for emergencies including fire, accident, power failure, negative air system failure, supplied air system failure, or any other event that may require modification or abridgment of decontamination or work area isolation procedures. Include in plan, specific procedures for decontamination or work area isolation.

B. Describe site-specific emergency egress procedures and how the work area will be marked to denote emergency egress paths and exits. Also describe lighting plan for emergency egress, should there be a power failure while work is in progress, specifically addressing use of daylight (if hours of work are compatible), building lighting not in the work area, temporary fixed emergency lighting and flashlights. Ensure the procedures for emergency egress lighting are as fail-safe as feasible and will adequately allow workers or visitors to safely escape from all portions of the work area in case of a power failure. Plan must incorporate prominent marking of pathways and exits.

C. Note that nothing in this specification should impede safe exiting in accordance with NFPA 101 or providing of adequate medical attention in the event of an emergency.

D. Post all portions of contingency plan in a prominent location, available to all employees and visitors (e.g. clean room). Post separately, in an immediately visible location, egress diagram and telephone numbers and location of emergency services including but not limited to fire, ambulance, doctor, hospital, police, power company, telephone company.

1.05 NOTIFICATIONS

A. Notify other entities at the job site of the nature of the asbestos abatement activities, location of asbestos-containing materials, requirements relative to asbestos set forth in these specifications, and applicable regulations.

B. Notify local emergency agencies such as fire, police, ambulance and hospital services of nature of work.

C. Notifications of Emergency: Any employee at the job site may notify emergency service agencies if necessary without effect on this Contract or the Contract Sum.

1.06 PRE-CONSTRUCTION CONFERENCE

A. Meet at project site, with General Superintendent, MSA's representative or the Environmental Consultant and other entities concerned with the asbestos, lead-based paint or other hazardous material abatement work.

B. This is an organizational meeting to review responsibilities and personnel assignments and to locate the containment and decontamination areas and temporary facilities including power, light, water, etc.

1.07 DAILY LOG

A. Maintain a daily log documenting the dates and time of but not limited to, the following items:

1. Meetings; purpose, attendees, brief discussion
2. Visitations; authorized and unauthorized
3. Personnel, by name, entering and leaving the work area
4. Special or unusual events, i.e., barrier breeching, equipment failures, accidents
5. Air monitoring tests and test results
6. Inspection of work area preparation prior to start of removal and daily thereafter.
7. Removal of any sheet plastic barriers
8. Contractor's inspections prior to spray back, lock back, encapsulation, enclosure or any other operation that will conceal the condition of asbestos-containing materials or the substrate from which such materials have been removed.
9. Removal of waste materials from work area
10. Work accomplished that day, including % completion for phase and project.
11. Decontamination of equipment (list items)
12. Contractor's final inspection
13. Other pertinent events that impact on health and safety, project schedule, or quality of work.

B. Submit copies of this log at final closeout of project as a project closeout submittal.

1.08 PROGRESS MEETINGS

A. In addition to specific coordination and pre-installation meetings for each element of work, and other regular project meetings held for other purposes, MSA's representative or the Environmental Consultant will hold general progress meetings as required.

B. Require each entity then involved in planning, coordination or performance of work to be properly represented at each meeting. Specifically, the Contractor's General Superintendent must attend all Meetings.

1.09 SUB-CONTRACTORS

A. Unless approved by MSA, sub-contractors may not be used for any asbestos, lead-based paint or other hazardous material removal or handling task, except waste handling for disposal, provided that the waste hauler and its employees are fully licensed and trained to perform such handling.

B. All proposed Sub-Contractors must be submitted to MSA's Field Representative or his designee for approval in a timely fashion, such that if any Sub-Contractor is disapproved, another can be retained without delay to the project. Specifically, information of the following Sub-Contractors must be submitted, or evidence shown that the Contractor and his employees have the capabilities

and licenses (as needed) to perform such tasks: electrician, plumber (if other than hose connections required), waste hauling, landfilling and training. The Contractor's CIH will perform sampling and analysis for OSHA compliance monitoring for asbestos particles, lead-paint dust and other potential hazardous exposures.

C. Sub-Contractors are required to diligently follow all safety and administrative provisions of the specification. Sub-Contractors shall particularly take great care to not cause asbestos fiber release, if performing work prior to abatement.

1.10 SUBMITTALS

A. Submit the following to the MSA for review within 5-days of Notice to Proceed. No work shall begin until these submittals are returned with MSA's action stamp indicating that the submittal is returned for unrestricted use or final-but-restricted use.

B. List of Contractor's principal staff assignments, including the Superintendent, mechanics, apprentices, and other personnel in attendance at the Site. Identify individuals, their duties and responsibilities. MSA reserves the right to require persons proposed for this position to interview with MSA, prior to acceptance for the position, if, in his sole judgment, there is any question regarding the qualifications of the proposed individual. Also provide, at a minimum, the cell phone numbers of the proposed General Superintendent and at least one alternate contact for the Contractor, with authority to respond to emergency situations.

C. Post copies of submittals as required by Section 01043 in project meeting room, temporary field offices, and each temporary phone.

D. Contingency Plans: for emergency actions.

E. Notifications: to be sent to other entities at the work site through the MSA's Field Representative or his designee.

F. Sub-Contractors: name, address, phone number, applicable licenses, etc. for any proposed sub-contractors.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Non-Applicable)

END OF SECTION 01043

SECTION 01091 - DEFINITIONS AND STANDARDS (HAZMAT)

PART 1 - GENERAL

1.01 DEFINITIONS

A. Abatement: Procedures to control fiber release from asbestos-containing building materials. Includes encapsulation, enclosure and removal.

B. Acceptable Demolition Debris: means debris which does not contain lead, asbestos or any other hazardous materials associated with the razing of buildings, roads, bridges, and other structures including structural steel, concrete, bricks (excluding refractory type), lumber, plaster and plasterboard, insulation material, cement, shingles and roofing material, floor and wall tile, asphalt, pipes and wires, and other items physically attached to the structure, including appliances if they have been or will be compacted to their smallest practical volume.

C. Adequately Wetted: Sufficiently mixed or coated with water or other aqueous solution to prevent dust emissions.

D. Aerosol: A system consisting of particles, solid or liquid, suspended in air.

E. Air Cell: Insulation normally used on pipes and ductwork that is comprised of corrugated cardboard which is frequently comprised of asbestos combined with cellulose or refractory binders.

F. Air Monitoring: The process of measuring the fiber content of a specific volume of air.

G. Airlock: A system for permitting restricted ingress or egress while allowing air movement from an uncontaminated area to a contaminated area during negative air pressure conditions; typically includes two (2) curtained doorways at least six (6) feet apart.

H. Amended Water: Water containing a wetting agent or surfactant.

I. Asbestos: The asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite (amosite), anthophyllite, and actinolite-tremolite. For purposes of determining respiratory and worker protection both the asbestiform and non-asbestiform varieties of the above minerals and any of these materials that have been chemically treated and/or altered shall be considered as asbestos.

J. Asbestos-Containing Material (ACM): Any material containing more than 1% asbestos as determined using the methods specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy.

K. Asbestos-Containing Waste Material: Any material that is or is suspected of being, or any material contaminated with an asbestos-containing material which is to be removed from a work area for disposal.

L. Authorized Visitor: MSA representative or designee, the Environmental Consultant, testing lab personnel or a representative of any federal and local agency with regulatory authority over the project.

M. Barrier: Sheet plastic barrier installed after critical barrier, which protects building components and non-movable objects from water damage and asbestos contamination. The primary barrier is normally two independently attached plastic sheets. Further defined in Section 01526.

N. Breathing Zone: A hemisphere forward of the shoulders with a radius of approximately 6 to 9 inches.

O. Ceiling Concentration: The concentration of an airborne substance that shall not be exceeded.

P. Certified Asbestos Workers: Workers who have received training through an MDE accredited training center.

Q. Certified Industrial Hygienist (CIH): An industrial hygienist certified in Comprehensive Practice by the American Board of Industrial Hygiene.

R. Clean Room: An uncontaminated area or room that is part of the decontamination enclosure system that contains facilities for the storage of employees' street clothing and uncontaminated materials and equipment.

S. Clearance Air Sample: Air monitoring sample taken after abatement is completed and prior to deregulation of work areas.

T. Construction Debris: Material emplaced by humans to include, but not limited to, bricks, trash, garbage, debris, concrete or any other material excluding asbestos or other hazardous material requiring specialized, handling, transport and disposal.

U. Containment: An enclosure with filtered air and restricted access.

V. Critical Barrier: Airtight barrier, usually of sheet plastic, which separates the contaminated work area from any other air space. Installed first, this barrier covers items such as, but not limited to: windows, doors, HVAC components, floor drains and containment walls, which are not at existing building walls. Further defined in Section 01526.

W. Curtained Doorway: A device to allow ingress or egress from one room to another while permitting minimal air movement between the rooms.

X. Decontamination Enclosure System: Designated part of the work area, for workers, materials and equipment, adjacent and connected to the regulated area. Includes an equipment room, shower room and clean room formed by connecting a series of rooms with curtained doorways forming airlocks between adjacent rooms.

Y. Decontamination Area: An enclosed area adjacent and connected to the regulated area and consisting of an equipment room, shower area and clean room used for the decontamination of workers, materials and equipment contaminated with asbestos.

Z. Demolition: The wrecking or taking out of any building component, system, finish or assembly of a facility together with any related handling operations.

AA. Disposal Bag: A properly labeled 6-mil thick leak-tight plastic bag used for transporting asbestos waste from work and to disposal site.

BB. Disturbance: Activities that disrupt the matrix of ACM or presumed ACM (PACM), crumble or pulverize ACM or PACM, or generate visible debris from ACM or PACM. Disturbance includes cutting away small amounts of ACM and PACM, no greater than the amount that can be contained in one standard sized glove bag or waste bag in order to access a building component. Prevent disturbance ACM or PACM in exceedance of levels that can be contained in one glove bag or waste bag measuring no more than sixty (60) inches in length and width.

CC. Encapsulant: A material that surrounds or embeds asbestos fibers in an adhesive matrix, to prevent release of fibers.

DD. Bridging encapsulant: an encapsulant that forms a discrete layer on the surface of an in situ asbestos matrix. Also referred to as a sealant when used to seal residual fibers left on a surface from which asbestos has been removed.

EE. Penetrating encapsulant: an encapsulant that is absorbed by the in situ asbestos matrix without leaving a discrete surface layer.

FF. Encapsulation: The application of an encapsulant.

GG. Enclosure: The construction of an airtight, impermeable, permanent barrier around asbestos-containing material to control the release of asbestos fibers into the air.

HH. Equipment Room (change room): Contaminated room located within the decontamination area that is supplied with impermeable bags or containers for the disposal of contaminated protective clothing and equipment.

II. Excursion Limit (EL): The maximum personal exposure concentration of asbestos fibers for a thirty (30)-minute period (one (1.0) fiber per cubic centimeter (f/cc) of air).

JJ. Fiber: A particulate form of asbestos, five (5) micrometers or longer, with a length-to-diameter ratio of at least three (3) to one (1).

KK. Filter: A media component used in respirators and mechanical equipment to remove solid or liquid particles from the inspired air.

LL. Fitting: Within any piping system, any valve, tee, elbow, flange, union, reducer, or other piping connector, which may be insulated with asbestos.

MM. Friable: Any asbestos-containing material that when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.

NN. Glovebag: Not more than a sixty (60) by sixty (60) inch impervious plastic bag-like enclosure affixed around an asbestos-containing material, with glove-like appendages through which material and tools may be handled.

OO. High-Efficiency Particulate Air Filter (HEPA): A filter which removes from air 99.97% or more of monodisperse dioctyl phthalate (DOP) particles having a mean particle diameter of 0.3 micrometer.

PP. HEPA Filter Vacuum Collection Equipment (or vacuum cleaner): High efficiency particulate air filtered vacuum collection equipment with a filter system capable of collecting and retaining asbestos fibers. Filters should be 99.97% efficient for retaining fibers of 0.3 microns or larger.

QQ. Intact: ACM has not crumbled, been pulverized, or otherwise deteriorated so the asbestos is no longer likely to be bound with its matrix.

RR. Lock-out: Installation of a locking device to prevent activation of an electrical circuit, which has been deactivated for safety reasons. Always utilized in conjunction with tag-out procedures to advise who has deactivated the circuit and in compliance with OSHA 1910.147, "Control of Hazardous Energy Source."

SS. Mini Enclosure Method: An abatement method that establishes an isolation zone as a sub-area of the total area. Air exchange requirements are a minimum of four (4) per hour. Decontamination facilities include two (2) air chamber airlock, double suiting and HEPA vacuuming.

TT. Negative Initial Exposure Assessment: Demonstration by the employer that employee exposure during an operation is expected to be consistently below the permissible exposure limit (PEL).

UU. Negative Pressure Respirator: A respirator in which the air pressure inside the respiratory-inlet covering is positive during exhalation in relation to the air pressure of the outside

atmosphere and negative during inhalation in relation to the air pressure of the outside atmosphere.

VV. Negative Pressure Ventilation System: Equipment that ensures the static pressure in an enclosed work area is lower than the environment outside the containment barriers.

WW. Non-Friable Asbestos Material: Material that contains asbestos fibers locked in by a bonding agent, coating, binder or other material. Non-friable asbestos is well bound and will not release fibers in excess of the asbestos control limit during appropriate use, handling, demolition, storage, transportation, processing or disposal.

XX. Particulate Asbestos Material: Finely divided particles of asbestos material.

YY. Personal Monitoring: Sampling of the asbestos fiber concentrations within the breathing zone of an employee.

ZZ. Protection Factor: The ratio of the ambient concentration of an airborne substance to the concentration of the substance inside the respirator at the breathing zone of the wearer. The protection factor is a measure of the degree of protection provided by a respirator to the wearer.

AAA. Regulated Area: Area where airborne concentrations of asbestos exceed, or there is a reasonable possibility the concentrations may exceed, the asbestos PELs.

BBB. Removal: Specified procedures necessary to strip ACMs from the designated areas and dispose of them in a permitted facility.

CCC. Repair: returning damaged ACM to an undamaged condition to prevent fiber release.

DDD. Respirator: A device designed to protect the wearer from the inhalation of harmful atmospheres. Must be approved by NIOSH and used in accordance with the employer's respiratory protection program and all manufacturer's procedures.

EEE. Secondary Barrier: Sheet plastic "drop cloth" installed on floors and/or walls of containment during removal activities to protect primary layers. Further defined in Section 02081.

FFF. Shower Room: A room between the clean room and the equipment room in the worker decontamination enclosure system, with hot and cold or warm running water and suitably arranged for complete showering during decontamination. The shower room comprises an airlock between contaminated and clean areas.

GGG. Standard Isolation: An asbestos removal process that encloses the entire area prior to, and during, removal.

HHH. Stripping: Removal of friable asbestos materials from a pipe, duct, boiler, tank, turbine, furnace or structural member or a building, structure, facility or installation.

III. Surfactant: A chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation or area.

JJJ. Surgical Removal: A process by which small amounts of asbestos are removed with extreme care from substrates to which critical barriers or other seals are to be applied. This process usually involves scraping with small hand tools directly into the inlet of a HEPA vacuum.

KKK. Thermal System Insulation: ACM applied to pipes, fittings, boilers, breeching, tanks, ducts or other structural components to prevent heat loss or gain.

LLL. Time Weighted Average (TWA): An eight (8)-hour weighted average airborne concentration of fibers longer than five (5) micrometers per cubic centimeter of air.

MMM. Unacceptable Demolition Debris: includes industrial waste or byproducts, any waste materials contained within a structure on the grounds of the structure being demolished that are not physically part of the structure, or which are comprised of or contain materials that pose an undue risk to public health or the environment.

NNN. Visible Emissions: Any emissions containing particulate asbestos material that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.

OOO. Wet Cleaning: The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning utensils which have been dampened with amended water or diluted removal encapsulant and afterwards thoroughly decontaminated or disposed of as asbestos-contaminated waste.

PPP. Work Area: The area where asbestos related work or removal operations are performed which is defined and/or isolated to prevent the spread of asbestos dust, fibers or debris, and entry by unauthorized personnel. Work area is a Regulated Area as defined by 29 CFR 1926.

1.02 GENERAL APPLICABILITY OF STANDARDS

A. Except to the extent that more explicit or more stringent requirements are written directly into the contract documents, applicable standards of the construction industry have the same force and effect (and are made a part of contract documents by reference) as if copied directly into contract documents, or as if published copies were bound herewith.

B. Refer to the other contract documents for resolution of overlapping and conflicting requirements which result from the application of several different industry standards to the same unit of work.

C. Refer to individual unit of work sections for indications of which specialized codes and standards the Contractor must keep at the project site available for reference.

D. Referenced Standards (referenced directly in contract documents or by governing regulations) have precedence over non-referenced standards, which are recognized in industry for applicability to work.

E. Except as otherwise indicated, where compliance with an industry standard is required, comply with standard in effect as of date of contract documents.

1.03 COPIES OF STANDARDS

A. The contract documents require that each entity performing work be experienced in that part of the work being performed.

B. Each entity is also required to be familiar with recognized industry standards applicable to that part of the work.

C. Where copies of standards are needed for proper performance of the work, the Contractor is required to obtain such copies directly from the publication source.

D. Although certain copies of standards needed for enforcement of the requirements may be required submittals, MSA's Field Representative or his designee reserves the right to require the Contractor to submit additional copies of these standards as necessary for enforcement of the requirements.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01091

SECTION 01092 - CODES AND REGULATIONS (HAZMAT)

PART 1 - GENERAL

A. Governmental regulations and industry standards, which are included and incorporated herein by reference and made a part of the specification.

B. Notices and permits which are known to MSA and which either must be applied for and received, or which must be given to governmental agencies before start of work.

1.01 CODES AND REGULATIONS

A. Except to the extent that more explicit or more stringent requirements are written directly into the contract documents, all applicable codes, regulations, and standards have the same force and effect (and are made a part of the contract documents by reference) as if copied directly into the contract documents, or as if published copies are bound herewith.

B. The Contractor shall assume full responsibility and liability for the compliance with all applicable Federal, State, and local regulations pertaining to work practices, hauling, disposal, and protection of workers, visitors to the site, and persons occupying areas adjacent to the site.

C. Neither the Contractor, nor any sub-contractor for any part of the contract work, shall require any laborer or mechanic employed in the performance of the contract to work in surroundings or under working conditions, which are unsanitary, hazardous or dangerous to his health or safety.

D. The Contractor is responsible for providing medical examinations and maintaining medical records of personnel as required by the applicable Federal, State, and local regulations.

E. The Contractor shall hold MSA, Environmental Consultant, Project Manager, and Certified Industrial Hygienist harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of himself, his employees, or his subcontractors.

1.02 FEDERAL REQUIREMENTS

A. U.S. Department of Labor, Occupational Safety and Health Administration (OSHA), including but not limited to:

1. Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite; Final Rules

29 CFR 1926.95 - Personal Protective Equipment (PPE)

29 CFR 1926.1101 - Asbestos in Construction

29 CFR 1926.417 - Lockout and Tagging of Circuits

29 CFR 1926 - Construction Industry - Entire Standard

29 CFR 1910.134 - Respiratory Protection

29 CFR 1910.20 - Access to Employee Exposure and Medical Records

29 CFR 1910.145 - Specifications for Accident Prevention Signs and Tags

29 CFR 1910.1200 - Hazard Communication

29 CFR 1926.62 - Interim Final Lead Regulation

B. U.S. Department of Transportation

49 CFR 171 through 177 - Hazardous Substances

C. U.S. Environmental Protection Agency (EPA) including but not limited to:

Federal Resource Conservation and Recovery Act (RCRA), Subtitle C

40 CFR 261 - Identification and Listing of Hazardous Waste

40 CFR 763, Sub-part E - Asbestos Hazard Emergency Response Act (AHERA) Regulation

40 CFR 763, Sub-part E, Appendix C - Training Requirements of (AHERA) Regulation Asbestos Containing Materials in Schools Final Rule & Notice

National Emission Standard for Hazardous Air Pollutants (NESHAP)

40 CFR 61, Sub-part A, and Sub-part M (Revised Sub-part B) - National Emission Standard for Asbestos

1.03 STATE REQUIREMENTS

A. MARYLAND (as published in the Code of Maryland Regulations - COMAR), including, but not limited to:

COMAR Title 09 - Department of Licensing and Regulation

Subtitle 12 - Division of Labor and Industry

Chapter 31 - Maryland Occupational Safety and Health Act (MOSHA)

Chapter 33 - MOSH Regulations for Access to Information about Hazardous and Toxic Substances

COMAR Title 26 - Department of the Environment

Subtitle 02 Lead-Based Paint and Lead Abatement

Subtitle 04 - Regulation of Water Supply, Sewage Disposal and Solid Waste

Chapter 07 - Solid Waste Management

Subtitle 11 - Air Quality

Chapter 21 - Control of Asbestos

Chapter 23 - School Asbestos Accreditation of Individuals, and Approval of Training Courses

Subtitle 13 - Disposal of Controlled Hazardous Substances

1.04 LOCAL REQUIREMENTS

A. Abide by all local requirements, which govern asbestos abatement work; hauling and disposal of asbestos waste materials; fire protection; electrical work and plumbing work, and building construction/demolition.

1.05 FEDERAL NOTIFICATION

A. U.S. Environmental Protection Agency

Send written notification as required by U.S. EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) Asbestos Regulations (40 CFR 61, Subpart M) to the regional Asbestos NESHAP Contact at least 10 working days prior to beginning any work on asbestos-containing materials. Send notification to the following address; send copies to Project Manager and Industrial Hygiene Services Contractor.

REGION III:

Asbestos NESHAP Contact

Air & Waste Management Division

USEPA

Region III

1650 Arch Street

Philadelphia, PA 19103-2029

(215) 814- 6552

Include the following information in the notification sent to the NESHAP Contact:

Name and address of MSA or operator.

Description of the facility being demolished or renovated, including the size, age, and prior use of the facility.

Estimate of the approximate amount of friable asbestos material present in the facility in terms of linear feet of pipe, and surface area on other facility components.

Location of the facility being demolished or renovated.

Scheduled starting and completion dates of demolition or renovation. Nature of planned demolition or renovation and method(s) to be used. Procedures to be used to comply with the requirements of USEPA

National Emission Standards for Hazardous Air Pollutants (NESHAPS) Asbestos Regulations (40 CFR 61 Subpart M).

Name and location of the waste disposal site where the friable asbestos and other identified hazardous waste material will be deposited.

For facilities being demolished under an order of a State or local governmental agency, issued because the facility is structurally unsound and in danger of imminent collapse, the name, title, and authority of the State or local governmental representative who has ordered the demolition.

1.06 STATE AND LOCAL AGENCIES

A. Send written Notification as required by state and local agencies prior to beginning any work on asbestos-containing materials. Send notification to the following address, as well as any local regulatory authority requiring such; send copies to Project Manager and Environmental Consultant.

   Air & Radiation Management Administration

   Maryland Department of the Environment

B. Post Project Notification sign at least 5 days but no more than 10 days before beginning removal project at entrances and exits from the work site to inform the public in the immediate vicinity, in accordance with COMAR 26.11.21.06.A(2) & (4). Keep such signs posted until the Maryland Air & Radiation Management Administration receives the written notice of final air monitoring results required under COMAR 26.11.21.06.B(3)(f).

C. Within 24 hours after receiving final written monitoring results, submit to the Maryland Air & Radiation Management Administration a record of Work Area Clearance results required in Section 01714, as required under COMAR 26.11.21.06.B(3)(f).

D. is the Contractor's responsibility to obtain any variance(s) to the provisions of COMAR 26.11.21 from the Maryland Air & Radiation Management Administration, if any proposed means and methods would require such The Contractor's failure to receive any anticipated variance does not relieve him from the obligation to perform the project as bid, nor shall such failure obligate the State to the Contractor for any additional cost or project completion time. In addition to receiving a variance from the Maryland Air Management Administration, written approval must be obtained from the Project Manger prior to implementing any such proposed alternate procedure. If, in the judgment of the Project Manager, the request for implementation of a variance is not deemed in the best interest of MSA, the Contract Manager will not approve it and the Contractor shall not implement it.

1.07 PERMITS

A. Notify, obtain and maintain demolition permitting from state and local regulators.

B. Ensure landfill which will dispose of waste from this project has permit conditions which allow acceptance of asbestos waste, if in the State of Maryland. If proposed disposal site is not in the State of Maryland, submit State and Local regulations from the jurisdiction covering the landfill and hauler, and demonstrate compliance with permit requirements for the landfill and hauler, if such apply.

1.08 LICENSES

A. Contractor must maintain a current license or accreditation to remove asbestos or lead-based paint from the Maryland Department of the Environment, and any other licenses as may be required by applicable state or local jurisdictions for the removal, transport, disposal or other regulated activity relative to the work of this contract. If hauler will handle asbestos waste, demonstrate that firm has a current asbestos license from the State of Maryland Air & Radiation Management Administration.

B. All workers involved with the removal, handling, transportation and disposal of asbestos-containing materials, or other asbestos regulated activity related to the work of this contract shall possess a valid Asbestos Worker license as approved by the State of Maryland, Air & Radiation Management Administration. For further information regarding proper licensing and training requirements for asbestos abatement workers reference Worker Training under Section 01560.

C. Accredited personnel of the Contractor involved with the supervision of asbestos, lead-based paint or other hazardous material abatement activities related to this contract shall maintain a valid Supervisor license as approved by the State of Maryland. At least one Supervisor shall be on the premises of the work site to supervise abatement activities at all times.

D. Each accredited person involved in asbestos abatement activities must possess a valid Maryland Photo Identification Card on the job site at all times.

E. The Contractor must maintain a copy of each accredited person’s valid asbestos, lead-based paint or hazardous material handler license and training certificate in the Contractor's office at all times.

F. Maintain two (2) copies of applicable federal, state and local regulations above. Post one copy of each at the job site. Keep on file in Contractor's office one copy of each.

1.09 SUBMITTALS

A. Before Start of Work submit the following to the MSA for review and approval.

1. Notices required by federal, state and local regulations together with proof of timely transmittal to agency requiring the notice.

2. Copies of current valid permits required by state and local regulations.

3. Copies of all State and Local licenses and permits necessary to carry out the work of this contract.

4. Copies of notices required by federal, state, and local agencies together with proof of timely transmittal to the agency.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01092

SECTION 01410 - AIR MONITORING

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Pre-demolition background monitoring conducted by the Environmental Consultant to establish action levels for dust for use in the Contractor site-specific HASP during demolition activities.

B. Air monitoring carried out by the Contractor's Certified Industrial Hygienist (CIH) to verify asbestos, lead-based paint or other hazardous airborne concentrations are maintained in the work zone and at the work site perimeter remain below site-specific HASP action levels.

C. Contractor CIH establishment of airborne asbestos fiber, lead dust or other hazardous airborne action levels both inside and outside the work area.

D. Mitigation steps required by the Contractor if an action level is met or exceeded.

E. Additional air monitoring carried out by MSA's Environmental Consultant to verify control and containment of dust resulting from demolition/building razing operations. MSA additional air monitoring activities do not absolve the Contractor's responsibility to maintain safe working conditions.

1.02 DEFINITIONS

A. Accepted Engineering Practice: Requirements compatible with standards of practice required by a registered Professional Engineer in the State of Maryland.

B. Ambient Air Sample: An outdoor measurement of the gaseous mixture surrounding a home or building representative of the naturally occurring conditions upgradient of the construction site.

C. Background Air Sample: A measurement of the gaseous mixture within the work zone representative of the naturally occurring conditions prior to the initiation of construction activities.

D. Breathing Zone: Area three (3) to five (5) feet above the ground surface representative of typical human adult air intake.

E. Chemical Dust Suppressants: Non-toxic chemical soil binders used to reduce dust on disturbed surfaces.

F. Clearance Air Sample: A measurement of the gaseous mixture within the work zone taken after abatement activities are completed and prior to reentry.

G. Disturbed Surface Area: Any portion of the earth's surface (or material placed thereupon) that has been physically moved, uncovered, destabilized or otherwise modified from its undisturbed native condition (including vehicular disturbances), thereby increasing the potential for the emission of fugitive dust. This definition does not include land that has been restored to a native condition, such that the vegetative ground cover and soil characteristics are equal to surrounding native conditions.

H. Excavation: Subsurface construction activity conducted below grade in the earth's surface. Any manmade cut, cavity, trench or depression in an earth surface, formed by earth removal.

I. Fugitive Dust: Any solid particulate matter (PM) that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of human activities.

J. Oil-Contaminated Soil: Soil with a TPH concentration of ten (10) parts per million (ppm) or greater.

K. PM10: Particles with an aerodynamic diameter less than or equal to ten (10) micrometers (µm).

L. Professional Engineer: An engineer duly registered by the State of Maryland to practice engineering in accordance with the provisions of Business Occupations and Professions Article, Title 14, Annotated Code of Maryland.

M. Silt: Any bulk material with a particle size less than seventy-five (75) µm in diameter that passes through a Number 200 sieve as determined by ASTM Test Method C 136 or any other test method approved by the EPA.

N. Treatment: Any process that changes the physical, chemical or biological characteristics of a waste to minimize its threat to the environment.

O. Work Zone: Any space temporarily occupied by workers during the course of construction activities.

1.03 WORK BY OTHERS

A. Air monitoring required by OSHA is the Contractor's responsibility and is not covered in this section.

1.04 RELATED SECTIONS

A. Section 01714 - Work Area Clearance: air monitoring required.

1.05 AIR MONITORING

A. The purpose of the air monitoring by the Contractor's CIH will be to detect faults in the work area isolation such as:

1. Contamination of the building outside of the work area with airborne asbestos fibers, lead dust or other hazardous materials resulting from demolition activities,

2. Failure of filtration or rupture in the negative pressure system,

3. Contamination of the exterior of the building with airborne asbestos fibers, lead dust or other contaminants generated by demolition activity.

B. Should any of the above occur the, Contractor will immediately cease abatement activities until the fault is corrected. Work will not recommence until authorized by the Project Manager.

C. The Contractor's CIH will monitor airborne fiber counts in the work area to detect airborne fiber counts which may significantly challenge the ability of the work area isolation procedures.

D. Work area clearance will be determined by reaching a pre-defined airborne fiber count or dust levels in the work area following the completion of abatement operations. The Contractor's CIH will sample and analyze airborne hazard concentrations, per Section 01714 and MSA's Environmental Consultant will verify clearance of the work area.

E. **See Section 3.03 – Dust Monitoring for details regarding the roles, responsibilities and tasks required for execution of the air monitoring program.**

1.06 STOP WORK ACTION LEVELS

A. Maintain an average airborne count in the work area of less than 0.1 fibers per cubic centimeter. If the fiber counts rise above this figure for any sample taken, revise work procedures to lower fiber counts. Airborne lead concentrations must remain below 50 $\mu g/m^3$ averaged over an 8-hour period, with an action level of 30 $\mu g/m^3$. Other hazardous airborne contaminant action levels will be established on an as needed basis.

B. If the Time Weighted Average (TWA) fiber count for any work shift or 8-hour period exceeds 0.5 fibers per cubic centimeter, stop all work, leave negative air system in operation and notify the Project Manager then initiate corrective action. Do not recommence work until subsequent testing indicates acceptable fiber counts.

C. If airborne fiber counts exceed 1.0 fibers per cubic centimeter for any 30-minute period, cease all work, except for corrective actions, until fiber counts fall below 0.1 fibers per cubic centimeter and notify the Project Manager. Do not recommence work until subsequent testing indicates acceptable fiber counts.

D. If any air sample taken outside of the work area exceeds the base line established below or 0.01 f/cc, whichever is greater, the Contractor's CIH shall immediately make a determination if it appears the cause of the elevated sample is associated with the Contractor's disturbance of asbestos. If the CIH determines the elevation is caused by the Contractor's disturbance of asbestos, or if any air sample taken outside the work area exceeds 0.05 f/cc, immediately and automatically stop all work. If this reading was taken inside the building but outside the critical barriers immediately erect new critical barriers to isolate the affected area from the balance of the building. Decontaminate the affected area in accordance with Section 01712 Cleaning & Decontamination Procedures. Follow all protective measures as outlined in other sections of this Specification.

E. The Contractor shall be responsible for costs for all additional air monitoring and clearance testing required due to the contamination.

1.07 FIBERS COUNTED

A. The following procedure will be used to resolve any disputes regarding fiber types when a project has been stopped due to excessive airborne fiber counts. "Airborne Fibers" referred to above include all fibers regardless of composition as counted in the NIOSH 7400 Procedures.

B. If work has stopped due to high airborne fiber counts and if the need for such is agreed upon by the Project Manager, MSA may request that air samples be secured by the Contractor's CIH for analysis by Phase Contrast Microscopy (PCM). "Airborne Fibers" counted in samples analyzed by PCM will only asbestos fibers, but of any diameter and length.

C. If Phase Contrast Microscopy (PCM) is used to arrive at the basis for determining "Airborne Fiber" counts in accordance with the above paragraph, and if the average of airborne asbestos fibers in all samples taken exceeds 70 structures per squared millimeter, or if any one sample exceeds 70 structures per squared millimeter, then the cost of such analysis will be borne by the Contractor, at no additional cost to MSA.

D. PCM utilized for this purpose will be performed using the analysis method set forth in the AHERA regulation 40 CFR Part 763 Appendix A.

1.08 AIR SAMPLE

A. The number and volume of air samples taken by the Contractor's CIH will be in accordance with the following schedule or by alternate rationale determined by the CIH. Sample volumes given may vary depending upon the analytical method used.

B. Samples will be collected on 25 mm cassettes with 50 mm extension cowls.

PCM: 0.8 micrometer mixed cellulose ester.

TEM: 0.45 micrometer mixed cellulose ester.

1.09 BACKGROUND SAMPLES

A. The Contractor's CIH will secure air samples to establish a base line before start of work.

Location Sampled	Number of Samples	Analytical Method	Sampling Sensitivity (fibers/cc)	**Minimum** Volume (liters)	Rate (LPM)
Each Work Area	2	PCM	0.005	1,200	1 -- 10
Outside Each Work Area	2	PCM	0.005	1,200	1 --10

1.10 DAILY SAMPLES

A. From start of work of Section 01526 Temporary Enclosures through the work of Section 01711 Project Decontamination, the Contractor's CIH may be taking the following samples on a **daily basis as a minimum.**

Location Sampled	Number of Samples	Analytical Method	Sampling Sensitivity (fibers/cc)	Minimum Volume (liters)	Rate (LPM)
Each Work Area OR AS REQUIRED BY CONDITIONS	2	PCM	0.05	100	1 - 4
Outside Work Area at Each Critical Barrier	1	PCM	0.005	1000	1 - 10
Clean Room	1	PCM	0.005	1000	1 - 10
Breathing Zone Excursion Sample	1	PCM	0.01	60	1-4
Breathing Zone Sample	1	PCM	0.01	100	1-4
HEPA Filtered Fan Unit Exhaust if Exhausted Inside the Building	1	PCM	0.005	1000	1 - 10

B. Additional samples may be taken at the discretion of the Project Manager. If airborne fiber counts exceed allowed limits additional samples will be taken as necessary to monitor fiber levels.

C. Sample results shall be available onsite for inspectors' review.

PART 2 - PRODUCTS

2.01 CONTROLS

A. Use one or more of the following controls, as necessary, under OSHA 29 CFR 1926.1101 – Toxic and Hazardous Substances, Asbestos, to achieve compliance with the PELs:

1. Local exhaust ventilation equipped with HEPA filter dust collection systems.
2. Enclosure or isolation of processes producing asbestos dust.
3. Ventilation of the regulated area to move contaminated air away from the breathing zone to a filtration or collection device equipped with a HEPA filter.
4. Supplement the controls with respiratory protection if insufficient to achieve compliance with the PELs.

2.02 ASBESTOS ENCLOSURE SYSTEMS

A. If an enclosure system is used, build suitable enclosure framing and line with polyethylene sheeting, or equivalent, sealed with tape at lap joints in the plastic for asbestos enclosures and decontamination areas.

B. For access between contaminated and uncontaminated areas, install an airlock system including a curtained doorway for access between two (2) areas within the decontamination enclosure systems. Provide a minimum distance between two (2) curtained doorways of six (6) feet. Modifications to the enclosure system due to work space constraints require approval by the Environmental Consultant.

C. The decontamination enclosure installation requirements include:

D. A three (3)-stage decontamination station for the removal of equipment and materials from the work area, allowing movement from the work area into a wash down room and finally a clean room while preventing cross-contamination outside the work area.

E. The wash down room should contain two (2) curtained doorways. Filter shower water through a five (5) micrometer-filter system, or equivalent, prior to disposal.

F. A clean area with one (1) curtained doorway into the rinsate area and one (1) entrance or exit to non-contaminated areas of the work area. Provide sufficient space for non-contaminated items.

G. Provide and post decontamination and work procedures to be followed by workers.

H. Ensure work site security and implementation of PPE requirements within the work area.

I. Decontaminate workers and authorized visitors prior to exiting the work area. Maintain respirators until the completion of decontamination procedures. Store contaminated PPE in the equipment room when not in use. Upon completion of asbestos abatement, dispose of PPE as contaminated waste. Dispose of contaminated protective clothing in receptacles for disposal with other ACM.

J. Ensure workers removing waste containers from the decontamination enclosure enter the rinsate area wearing a respirator and dressed in clean coveralls.

K. Do not allow workers to eat, drink, smoke, or chew gum or tobacco at the project site except in designated areas.

L. Ensure workers are fully protected with appropriate respirators and protective clothing prior to commencing actual asbestos abatement until completion of final clean-up.

1. Establish methods for safe tie-ins of temporary and replacement lines to ACM insulated pipes.

M. Visually inspect enclosures at the beginning of each work period. Dispersive smoke methods may be used to test effectiveness of barriers. Repair damage immediately at no additional cost to MSA.

PART 3 - EXECUTION

3.01 ADDITIONAL TESTING

A. The Contractor may conduct his own air monitoring and laboratory testing. If it elects to do this the cost of such air monitoring and laboratory testing shall be at the Contractor's expense.

3.02 PERSONAL EXPOSURE AIR MONITORING

A. Collect daily air samples as required under OSHA 29 CFR 1926.1101 – Toxic and Hazardous Substances, Asbestos unless 1) a negative exposure assessment confirms exposure consistently below the PELs or 2) site workers are equipped with supplied-air respirators operated in the pressure demand mode (or other positive pressure mode respirator). These may include pre-abatement, area and perimeter, personal, STEL and clearance samples.

B. Ensure control methods listed in the standard are in place.

1. Perform assessment and monitoring using a competent individual as specified in the regulations.

2. The Environmental Consultant may elect to conduct additional air sampling for Quality Assurance/Quality Control (QA/QC) purposes for work within confined spaces.

C. Collect air samples in accordance with current best practices (NIOSH Method 7400 or equivalent). Collect samples within the breathing zone, at an approximate height of sixty (60) inches. Maintain and regularly calibrate sample pumps.

D. Analyze the samples by the phase contrast microscopy (PCM) method, or equivalent. Provide test results to the Environmental Consultant for review prior to initiation of the next work day.

E. Ensure fiber concentrations inside the enclosure do not exceed one (1.0) f/cc. If such a concentration is detected, stop work immediately, evaluate work procedures and take corrective actions to resolve problems. Clean the work area with a HEPA vacuum and wet cleaning, or equivalent. Collect additional samples until the fiber count is below one one-hundredth (0.01) f/cc. The work may resume after cleaning and in accordance with procedural revisions agreed upon with the Engineer. Resolve filtration system problems at no additional cost to MTA.

F. Take personal and short term exposure limit (STEL) samples as required by applicable regulations. Provide personal air sample test results to the Environmental Consultant within twenty-four (24) hours of collection.

G. Limit the maximum flow rate for air sample collection to two and a half (2.5) liters per minute for personal samples and ten and a half (10.5) liters per minute for inside and outside work area air samples.

3.03 DUST MONITORING

A. The Contractor will be responsible for controlling dust levels at the demolition site and ensuring worker exposure to airborne asbestos particles, lead paint dust and other airborne hazards are maintained below regulatory TWA threshold limits.

B. The Environmental Consultant will be responsible for verifying that hazardous airborne particles and dusts are controlled and maintained below measurable action levels identified in the site-specific HASP.

C. Prior to the initiation of demolition activities, the Environmental Consultant will collect background air and worksite perimeter monitoring data to establish background concentrations of PM_{10}. Background monitoring will be conducted at the same frequency as monitoring during demolition.

1. Sample ambient air at the perimeter of the Site, both upwind and downwind, for approval by the Environmental Consultant. Two (2) air monitoring stations will be established at a distance of no more than 50-feet from the point of active demolition.
2. Calibrate sampler airflow before and after sampling, or as recommended by the manufacturer.
3. A second set of air monitoring stations will be established at a distance of 100-feet from the point of demolition.
4. Background dust levels will be factored into the calculation of increased dust levels produced by demolition activities.

D. The Contractor will be responsible for personal air monitoring and worker safety while the Environmental Consultant will conduct sufficient area monitoring and sampling to ensure the safety of the surrounding population. Both monitoring programs will comply with applicable federal, state and local requirements to ensure worker protection and the safety of the surrounding community and environment throughout demolition.

1. A dust fall level goal of no more than 1-3$\mu g/ft^2$/hour is established for this project. The sampling goal is considered an action level for the implementation of dust mitigation strategies, in conjunction with ongoing visual inspections.
2. The Contractor will perform continuous air monitoring during demolition activities and report exceedances using 15-minute average monitoring for each workday.
3. The Contractor will Apply dust suppression techniques if NAAQS or action levels are exceeded and suspend work until corrective measures are approved by the Environmental Consultant and applied.
4. The Environmental Consultant will collect daily meteorological data concurrently with air monitoring and sampling data.
5. The testing laboratory will hold a National Environmental Laboratory Accreditation Program (NELAP) certification and participate in the EPA National Lead Accreditation Program. The testing laboratory will provide MSA with Quality Assurance data and certifications confirming compliance with project requirements.

6. The analytical results will be delivered in electronic format and the Contractor will provide the data to the Environmental Consultant upon request.
7. The Environmental Consultant will conduct dust monitoring concurrent with demolition and debris removal and will cease monitoring activities following the cessation of dust generating activities at the site.

E. DUST MITIGATION

1. Prevent dust from demolition activities from creating a hazard and/or nuisance within the work zone or migrating off-site.
2. Control measures:
   a. Use the best available technology to minimize fugitive dust emissions.
   b. Use water or approved chemicals for control of dust during demolition and/or construction activities, as applicable:
      i. Use appropriate application technology to uniformly spread liquid across the dust-generating surface at a rate that does not produce runoff.
      ii. Install a shut-off valve to permit onsite operator control.
      iii. Provide effective wetting during demolition and debris removal, i.e. while moving debris to dumpsters, truck or container, debris will be regularly wetted to reduce dust emissions.
         1. At a minimum the Contractor is responsible for wetting of the debris pile and point of load-out by directing a hose at bucket during debris removal.
         2. Wetting is to be achieved via the use of fire hosing with a minimum diameter of two inches (2”).
      iv. During the wetting down phase of any demolition the contractor will ensure that adequate runoff procedures are followed.
   c. Cover and/or enclose material stockpiles or material stockpile areas to minimize dust generation.
      i. Dumpsters and stockpiles will also receive regular wetting to reduce dust emissions.
   d. Use paved roads, where possible, for vehicle movement of raw materials or products, and include the following dust prevention measures:
      i. Keep maintenance areas clean.
      ii. Repair damage immediately.
      iii. Limit speed to ten (10) miles per hour within the work zone.
      iv. Vacuum sweep and/or water flush surface.
   e. Apply coverings, water or suitable chemicals on dirt roads, material stockpiles and other surfaces that are sources of airborne dusts.
   f. Provide removal and hauling of demolition debris utilizing tightly sealed, secure and non-permeable coverings on trucks and dumpsters to prevent remobilization of impacted dust.
   g. The Contractor is required to apply water during the debris loading and removal process. At a minimum the Contractor is responsible for wetting of the debris pile and point of load-out by directing a hose at bucket at debris removal. Wetting is to be achieved via the use of fire hosing with a minimum diameter of two inches (2”).

END OF SECTION 01410

SECTION 01503 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Provide temporary connection to existing building utilities or provide temporary facilities as required herein or as necessary to carry out the work.

B. Coordinate all temporary connections with MSA.

PART 2 - PRODUCTS

2.01 MATERIALS AND EQUIPMENT

A. Provide new or used materials and equipment that are undamaged and in serviceable condition.

B. Provide only materials and equipment that are recognized as being suitable for the intended use in compliance with appropriate standards.

2.02 SCAFFOLDING

A. Provide all scaffolding, ladders and/or staging, etc. as necessary to accomplish the work of this contract.

B. The type, erection and use of all scaffolding shall comply with all applicable OSHA provisions.

1. Only fiberglass ladders will be permitted on site. The use of metal ladders is not permitted.

C. Provide a nonskid surface on all scaffold surfaces subject to foot traffic.

2.03 WATER SERVICE

A. All connections to on-site hydrants shall include back flow protection and be in accordance with all applicable local plumbing codes. All connections shall be coordinated with MSA.

B. No water valves may be shut, or other effect caused to the water system, which affect the ongoing building operations without specific written permission of the MSA.

C. Valves shall be temperature and pressure rated for operation at the temperatures and pressures encountered.

D. After completion of use, connections and fittings shall be removed without damage or alteration to existing hydrants, water piping and equipment.

E. Employ heavy-duty abrasion-resistant hoses with a pressure rating greater than the maximum pressure of the water distribution system to provide water into each work area and to each Decontamination Unit. Provide fittings as required to allow for connection to existing hydrants or spouts.

F. Contractor shall provide UL rated electric hot water heater of sufficient capacity that hot water is available for all needed use of the Decontamination Unit shower.

2.04 ELECTRICAL SERVICE

A. Comply with applicable OSHA, NEMA, NECA and UL standards and governing regulations for materials and layout of temporary electric service.

B. Provide service to a temporary sub-panel exterior to the work area. Sub-panel and disconnect shall be sized and equipped to accommodate all electrical equipment required for completion of the work.

C. Provide identification warning signs at power outlets that are other than 110-120-volt power. Provide polarized outlets for plug-in type outlets.

D. Dry type transformers shall be provided where required to provide voltages necessary for work operations.

E. Provide all circuit breakers in the sub-panel equipped with ground fault circuit interrupters, reset button and pilot light.

F. Use only hard-service grounded extension cords. Use single lengths or use waterproof connectors to connect separate lengths of electric cords.

G. Provide general service exterior incandescent lamps of wattage required for adequate illumination. Protect lamps with guard cages or tempered glass enclosures, where fixtures are exposed to breakage by construction operations.

H. Do not use any electrical equipment which is not properly equipped with fully operational, undamaged ground pin.

2.05 TEMPORARY HEAT

A. Provide temporary heating units, if necessary that have been tested and labeled by UL, FM or another recognized trade association related to the fuel being consumed.

B. Use steam or hot water radiant heat where available, and where not available use electric resistant fin radiation supplied from a branch circuit with ground fault circuit interrupter.

C. Ensure devices utilized for temporary heating are in full compliance with all applicable codes and regulations and do not present a fire hazard, especially in relation to use in the vicinity of plastic sheeting and other flammable materials. Ensure temporary heating devices do not present hazards to workers or building occupants, such as, but not limited to: exposure to carbon monoxide or other toxic gases or vapors or burn from contact with device.

D. MSA's Representative or his designee may require the Contractor to remove any device which does not meet these requirements and replace it (them) with a system that meets the above requirements.

2.06 SELF-CONTAINED TOILET UNITS

A. Submit method to be used for servicing, including frequency.

B. Submit number and type of units to be deployed.

2.07 FIRST AID

A. Comply with governing regulations and recognized recommendations within the construction industry.

2.08 FIRE EXTINGUISHERS

A. Provide Type "A" fire extinguishers for temporary offices and similar spaces where there is minimal danger of electrical or grease-oil- flammable liquid fires.

B. In other locations provide type "ABC" dry chemical extinguishers, or a combination of several extinguishers of NFPA recommended types for the exposures in each case.

C. Ensure fire extinguishers are provided in numbers sufficient for the work and materials utilized in each specific area. The minimum number of extinguishers for projects of any size are:

Each office -	one Type "A"
Each materials storage area -	one 10 LB ABC
Each decontamination unit -	one 10 LB ABC
Each contained work area/regulated area -	one 10 LB ABC

D. Provide product data and submit schedule indicating location at job site.

PART 3 - EXECUTION

3.01 SCAFFOLDING

A. During the erection and/or moving of scaffolding, care must be exercised so that any polyethylene floor covering is not damaged.

B. Clean, as necessary, debris from non-slip surfaces.

C. At the completion of abatement work clean all construction aids within the work area, wrap in one layer of 6 mil polyethylene sheet and seal before removal from the work area.

3.02 INSTALLATION OF TEMPORARY SERVICES & FACILITIES

A. Use qualified tradesmen, licensed as required by regulation or code, for installation of temporary services and facilities.

B. Locate temporary services and facilities where they will serve the entire project adequately and result in minimum interference with the performance of the Work.

C. Relocate, modify and extend services and facilities as required during the course of work so as to accommodate the entire work of the project.

3.03 WATER SERVICE

A. Water connection (without charge) shall be maintained at a maximum flow of ten gallons per minute (10 gpm) each to hot and cold water supply.

B. Supply hot and cold running water to the Decontamination Unit.

C. Maintain hose connections, outlet valves and any other water service connections in leak proof condition.

3.04 ELECTRICAL SERVICE

A. Provide a weatherproof, grounded temporary electric power service and distribution system of sufficient size, capacity, and power characteristics to accommodate performance of work during the construction period.

B. Utilize only licensed electrician for constructing sub-panel, hooking up sub-panel to source and de-energizing circuits in the work area. All other electrical tasks performed herein must be either performed directly by the licensed electrician or under his direct supervision and by persons and in a manner approved by him.

C. Provide circuits of adequate size and proper characteristics for each use.

D. Temporary wiring in the work area shall be type UF non-metallic sheathed cable located overhead and exposed for surveillance.

E. Provide liquid tight enclosures or boxes for wiring devices.

F. Provide overload-protected disconnect switch for each temporary circuit located at the power distribution center.

G. Distribution center should be located outside of work area.

H. Lockout all existing power to or through the work area as described below. Unless specifically noted otherwise, existing power and lighting circuit to the Work Area are not to be used. All power and lighting to the Work Area and Decontamination facilities are to be provided by the temporary electrical panel as described above.

   1. Lockout power to the Work Area by switching off all breakers serving power or lighting circuit in the Work Area. Label breakers with tape over breakers with the notation "DANGER circuit being worked on". Sign and date label. Lock panel and have key under the control of Contract's Superintendent or MSA's designated representative.

   2. Lockout power through the Work Area whenever possible by switching off breakers serving these circuits. Label breakers with tape over breakers with the notation "DANGER circuit being worked on". Sign and date label. Lock panel and have key under the control of Contractor's Superintendent or MSA's designated representative. If circuits cannot be shut down for any reason, label at intervals not exceeding 4' with tags reading "DANGER live electrical circuit. Electrocution Hazard."

I. Provide sufficient branch circuits as required by the work. All branch circuits are to originate at the temporary electrical panel. At minimum provide the following:

   1. One circuit for each HEPA filtered fan unit.

   2. For power tools and task lighting, provide one temporary 4-gang outlet with separate 110-120 volt, 20-amp circuit (4 outlets per circuit) in the following locations:

      a. One outlet per 2500 square feet of work area.

      b. One outlet at each decontamination unit, located in the equipment room.

      c. 110-120 volt 20-amp branch circuits with 4-gang outlet for the MSA's exclusive use for conducting air sampling during the work as follows:

         i. One in each work area.
         ii. One at the clean side of the decontamination unit.
         iii. One at the exhaust location of the HEPA filtered fan units.

d. 110-120 volt 20-amp branch circuits with 4-gang outlet for MSA's exclusive use for conducting final air sampling as set forth in Section 01714 Work Area Clearance as follows:

i. Five inside work area.
ii. Two outside work area in location designated by MSA's Field Representative.

3.05 TEMPORARY LIGHTING

A. In all areas under Contractor's control, provide sufficient temporary lighting to ensure proper workmanship and safety of movement and egress; by combined use of daylight, general lighting, and portable plug-in task lighting.

1. Do not use existing building lighting.
2. All lighting is to be provided from the temporary electrical panel or other approved power source described above.
3. Provide lighting as required to supply a 100-foot candle minimum light level at all areas where abatement or inspection occurs.
4. MSA's Representative or designee or the Contractor's CIH may at any time require the Contractor to provide 100-foot candle level at any point in the Contractor's control for any inspection purpose deemed necessary by MSA.

3.06 SANITARY FACILITIES

A. Provide on self-contained chemical toilet unit at the site for each 30 workers.

1. Facilities shall be maintained throughout the Work.
2. At the end of the job, facilities shall be decontaminated in accordance with these specifications.

3.07 FIRE EXTINGUISHERS

A. Comply with the applicable recommendations of NFPA Standard 10 "Standard for Portable Fire Extinguishers" and requirements of 29 CFR 1926, Subpart F, OSHA Construction Industry Fire Protection and Prevention regulations.

B. Locate fire extinguishers where they are most convenient and effective for their intended purpose, but provide not less than one extinguisher in each Work Area in Equipment Room and one outside Work Area in Clean Room.

3.08 TEMPORARY HEAT

A. Provide temporary radiant heat where needed for performance of the work, with the following minimum requirements:

1. In Decontamination Chamber/Shower: $70^{o}F$
2. In All Active Work Areas: $60^{o}F$
3. In All Areas of Building under Contractor's Control: $40^{o}F$

B. Ensure temporary heating devices are used in a manner consistent with manufacturer's recommendations and safety concerns discussed in paragraph 2.05.

END OF SECTION 01503

SECTION 01513 - PRESSURE DIFFERENTIAL AND AIR CIRCULATION SYSTEM

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Establishing, operating and maintaining a differential pressure ventilation system capable of ensuring the static pressure in an enclosed work area is lower than the environment outside of the containment barriers.

1.02 SUBMITTALS

A. Number of HEPA filtered fan units required and the calculations necessary to determine the number of machines. Include schematic diagram of power and auxiliary power supply to HEPA filtered fan units.

B. Description of projected air flow within work area and methods required to provide adequate air flow in all portions of the work area.

C. Description of the methods of testing for correct air flow and pressure differentials, and anticipated pressure differential across Work Area enclosures.

D. Manufacturer's product data on the HEPA filtered fan units, equipment used to monitor pressure differential between inside and outside work area, main and auxiliary generators, and power switches.

E. Location of the machines in the work space.

F. Method of supplying adequate power to the machines and designation of building electrical panel(s) which will be supplying the power.

G. Description of work practices to insure that airborne fibers travel downstream from workers.

1.03 QUALITY ASSURANCE

A. Monitor pressure differential across Decontamination Unit, or other location with a differential pressure meter equipped with a strip chart recorder or data-logger/printer assembly.

1. Meter shall be equipped with a warning buzzer which will sound if the negative pressure differential drops below -0.02" of water, relative to outside pressure.

B. Provide HEPA filtered fan units which pass visual inspection by the Environmental Consultant for all parameters defined in this section and which pass a quantitative challenge test at the work site.

1. The challenge test will be as recommended by the supervising CIH and approved by MSA’s Representative or designee, by a method such as a Portacount or other instrument capable of providing at least a thousand-fold range.

a. Any unit showing more than 0.3% of the intake reading at the exhaust side shall be considered defective and shall not be approved for use until the problem is corrected.

b. The Environmental Consultant shall mark approved units with a label with indelible ink with a unique number and date.

c. The challenge test shall not substitute for the requirement that the manufacturer to meet specified criteria certify each filter.

PART 2 - PRODUCTS

2.01 HEPA FILTERED FAN UNITS

A. Cabinet shall be factory sealed to prevent asbestos, lead or other hazard-containing dust from being released during use, transport, or maintenance. Access to and replacement of all air filters shall be from intake end.

B. Rate capacity of fan according to usable air-moving capacity under actual operating conditions.

C. The final filter shall be the HEPA type. The filter media (folded into closely pleated panels) must be completely sealed on all edges with a structurally rigid frame.

D. A continuous fully intact gasket, as provided by the manufacturer, shall be located between the filter and the filter housing to form a tight seal.

E. Performance of every HEPA filter shall be in accordance with Federal Standard Number 209G and ASHRAE Standard 52-87.

F. Each filter shall be marked with the name of the manufacturer, serial number, air flow rating, efficiency and resistance, and the direction of test air flow.

G. Two stages of pre-filters, which protect the final filter by removing the larger particles, are required to prolong the operating life of the HEPA filter.

H. Each unit shall be equipped with a Magnehelic gauge or manometer to measure the pressure drop across filters and indicate when filters have become loaded and need to be changed.

1. A table indicating the usable air-handling capacity for various static pressure readings on the Magnehelic gauge shall be available at the job site at all times, indicating at what point the filters should be changed, noting Cubic Feet per Minute (CFM) air delivery at that point.

I. A warning light is required to indicate excessive pressure drop across the filters (i.e., filter overloading).

J. Electrical components shall be approved by the National Electrical Manufacturers Association (NEMA) and Underwriter's Laboratories (UL).

K. Each unit shall be equipped with overload protection sized for the equipment. The motor, fan, fan housing, and cabinet shall be grounded.

2.02 PRESSURE DIFFERENTIAL METER

A. Pressure differential meter shall be recommended by its manufacturer for the intended purpose and shall have sufficient accuracy and resolution (minimum-0.02 0.005" H2O) to perform as specified herein.

B. Meter shall have an integral chart recording device (or be attached to one which is compatible with manufacturer's specification) which has equal accuracy and resolution to the meter.

C. Meter shall have initial and periodic calibrations in accordance with the manufacturer's recommendations. Record of such shall be with the meter at all times.

D. Meter shall be equipped with zero adjustment for both the meter and chart recorder.

PART 3 - EXECUTION

3.01 PRESSURE DIFFERENTIAL

A. Provide a fully operational differential pressure and air circulation system within the work area, maintaining continuously a pressure differential between work area enclosure and adjacent area of building of at least -0.02" H2O or greater, relative to outside pressure.

B. Before disturbance of any ACM, demonstrate to the MSA's Consultant the adequacy of pressure differential and air flow by use of a pressure differential meter(s) and smoke tubes or bombs. Perform these at location(s) directed by the MSA's Consultant, upon commencement of the project and daily thereafter.

C. Provide continuous monitoring and recording of the pressure differential between the work area and the building outside of the work area with the meter as defined in paragraph 2.02. Ensure chart recorder pen or other marking device and chart advance are fully operational, such that chart can be easily read.

D. At a minimum of once per day, remove chart, mark start and stop time, initial by Project Superintendent, mount on 8 1/2" x 11" paper in a manner that is easily readable and submit to MSA's Consultant within 24 hours.

E. Check zero of meter and recorder each time chart is restarted by removing tubing to work area from the back of the instrument. Ensure low pressure alarm is functional at this check. Do not perform abatement without meter and recorder in compliance with all provisions herein, unless specifically authorized by the MSA’s Field Representative or his designee.

F. Any apparent tampering with the meter, zero setting, or recorder will be grounds for removing the Project Superintendent from the job for its duration, at the discretion of the MSA’s Field Representative or his designee.

3.02 PREPARATION OF THE WORK AREA

A. Provide fully operational HEPA filtered fan units supplying a minimum of one air change every 15 minutes.

B. Add one (1) additional HEPA filtered fan unit as a backup in case of equipment failure or machine shutdown for filter changing.

C. Locate exhaust unit(s) so that makeup air enters work area primarily through decontamination facilities and traverses the work area as much as possible.

D. Place end of unit or its exhaust duct through an opening in the plastic barrier or wall covering. The plastic around the unit or duct shall then be securely sealed with tape or other approved method.

E. Vent to outside of building, unless authorized in writing by the MSA’s Representative or his designee.

F. Locate auxiliary makeup air inlets as far as possible from the exhaust unit(s), off the floor (preferably near the ceiling), and away from barriers that separate the work area from occupied clean areas.

G. Cover with flaps to reseal automatically if the negative pressure system should shut down for any reason. Spray flap and area around opening with spray adhesive so that flap seals if it closes.

3.03 START UP OF THE PRESSURE DIFFERENTIAL AND AIR CIRCULATING SYSTEM

A. Each unit shall be serviced by a dedicated circuit in the Contractor's electrical subpanel of capacity recommended by the manufacturer.

B. Before any asbestos or lead based paint-containing material is wetted or removed, and after the work area has been prepared, the decontamination facility set up, and the HEPA filtered fan unit(s) installed, start the unit(s) (one at a time) to demonstrate the system.

C. Proper operation of the system will exhibit, the following:

1. Plastic barriers and sheeting move lightly in toward work area,
2. Curtain of decontamination units move lightly in toward work area,
3. There is a noticeable movement of air through the decontamination unit.
4. Use smoke tubes to demonstrate a positive motion of air.
5. Use a differential pressure meter to demonstrate a pressure difference of at least -0.02" H_2O relative to outside pressure across every barrier separating the Work Area from the balance of the building or outside.

D. Modify the system as necessary to successfully demonstrate the above.

3.04 USE OF SYSTEM DURING ABATEMENT OPERATIONS

A. Start HEPA filtered fan units before beginning work.

B. Do not begin abatement work or any work deemed contaminated work; such as, but not limited to opening a wall or ceiling space which is contaminated with asbestos fibers; until the operation of the Pressure Differential and Air Circulation System is inspected and approved in writing by the MSA's Consultant.

C. After abatement work has begun, run units continuously to maintain a constant negative pressure until decontamination of the work area is complete.

D. Do not turn off units at the end of the work shift or when abatement operations temporarily stop.

E. Do not shut down system during encapsulating procedures, unless authorized by the MSA’s Representative or his designee in writing.

F. Start abatement work at a location farthest from the exhaust units and proceed toward them.

G. If an electric power failure occurs, immediately stop all abatement work and do not resume until power is restored and exhaust units are operating again.

H. At completion of abatement work, allow exhaust units to run as specified under Section 01711, to remove airborne fibers that may have been generated during abatement work and cleanup and to purge the work area with clean makeup air.

3.05 DISMANTLING THE SYSTEM

A. When a final inspection and the results of final air tests indicate that the area has met the work area clearance criteria of Section 01714, the exhaust units may be removed from the work area.

B. Before removal from the work area, remove and properly dispose of pre-filter, and seal intake to the machine with 6 mil polyethylene to prevent environmental contamination from the filters. The machine shall be cleaned and wrapped with 6 mil polyethylene prior to removing from the work area.

END OF SECTION 01513

SECTION 01526 - TEMPORARY ENCLOSURES

PART 1 - GENERAL

1.01 SUBMITTALS

A. Contingency Plans

B. Strippable Coatings: Product data, safety data sheets

C. Spray Cement: Product data, safety data sheets

D. Sheet Plastic: Product data, safety data sheets

E. Signs: Samples

PART 2 - PRODUCTS

2.01 POLYETHYLENE SHEET

A. A single polyethylene film in the largest sheet size possible to minimize seams, "true" 6.0 mils thick (not nominal), clear, frosted, or black.

B. Provide flame resistant polyethylene film for all work to be done where hot pipes or equipment are present or where there is a potential for fire that conforms to requirements set forth by the National Fire Protection Association Standard 701, Small Scale Fire Test for Flame- resistant Textiles and Films.

2.02 SPRAY PLASTIC

A. Spray plastic which is formulated to adhere to surfaces and peel off cleanly at the completion of the work may be used if approved by the MSA’s Field Representative and Consultant.

B. Damages to finish caused by application or removal of the spray plastic must be repaired and refinished to the satisfaction of the MSA’s Field Representative or his designee at no additional cost to the MSA.

2.03 DUCT TAPE

A. Provide duct tape in 2" to 4" widths as appropriate, with an adhesive which is formulated to aggressively stick to sheet polyethylene and the surface to which it is attached.

B. Damages to finish caused by application or removal of the duct tape must be repaired and refinished to the satisfaction of the MSA’s Field Representative or his designee at no additional cost to the MSA.

2.04 SPRAY ADHESIVE

A. Provide spray adhesive which is specifically formulated to stick tenaciously to sheet polyethylene.

B. Damages to finish caused by application or removal of the spray cement must be repaired and refinished to the satisfaction of the MSA's Field Representative or his designee at no additional cost to the MSA.

PART 3 - EXECUTION

3.01 GENERAL

A. A "work area" is considered contaminated during the work, and must be isolated from the balance of the building, and decontaminated at the completion of the asbestos-control work.

B. The Contractor will be responsible for deactivation and lock-out of ventilating systems or any other system bringing air into or out of the work area.

C. Completely Isolate the work area from the outside and other parts of the building by installing critical barriers to prevent asbestos-containing dust or debris from passing beyond the isolated area. If requested by the MSA's Field Representative or his designee, furnish plastic sheeting in black as a visual barrier.

D. Should the area beyond the work area(s) become contaminated with asbestos-containing dust or debris as a consequence of the work, those areas shall be isolated and cleaned in accordance with the procedures indicated in a contingency plan submitted by the Contractor to the satisfaction of the MSA's Representative or his designee, at no additional cost to MSA.

E. Place all tools, scaffolding, staging, etc. necessary for the work in the area to be isolated prior to erection of plastic sheeting temporary enclosure.

F. The Contractor will remove all removable furniture, equipment and supplies that are designated as non-contaminated.

G. Pre-clean all surfaces in the work area, including, but not limited to floors, walls and immovable or attached furniture, equipment and fixtures and completely cover with two (2) layers of polyethylene sheeting, securely taped in place with duct tape. One layer of polyethylene sheeting shall be secured in place using the above techniques.

H. Lockout power to Work Area by switching off all breakers serving power or lighting circuits in work area.

3.02 EMERGENCY EXITS

A. Arrange exit door so that it is secure from outside the Work area but permits exiting from the Work Area.

B. Mark outline of door on Primary and Critical Barriers with luminescent paint at least 1" wide. Hang a razor knife on a string beside outline. Paint words "EMERGENCY EXIT" inside outline with luminescent paint in letters at least one foot high and 2" thick.

C. Utilize existing emergency lighting signs, if this can be accomplished in keeping with OSHA lock-out requirements and is approved by the Contractor's licensed electrician.

3.03 CONTROL ACCESS

A. Isolate the Work Area to prevent entry by unauthorized personnel into Work Area or surrounding controlled areas.

B. Submit to MSA's Representative or his designee a list of doors and other openings that must be secured to isolate Work Area. Include on list notation if door or opening is in an indicated exit route.

C. Lock all doors into Work Area, or if doors cannot be locked, chain shut when work is not in progress. Cover any signs that direct emergency exiting to locked doors either outside or inside of Work Area. Provide MSA's Representative or his designee with a minimum of two keys to any locks installed.

D. Do not obstruct doors required for emergency exits from Work Area or from building.

E. Construct partitions or closures across any opening into Work Area.

F. Replace passage sets on doors required for exiting from Work Area with temporary lock sets for duration of the project. Use entry type lock sets that are key lockable from one side and always operable from inside. After meeting release criteria set forth in Section 01714 Work Area Clearance reinstall original passage sets and adjust for proper operation.

G. Arrange Work Area so that the only access into Work Area is through lockable doors for personnel and equipment decontamination units. If necessary, install temporary doors with entrance type lock sets that are key lockable from the outside and always unlocked and operable from the inside. Do not use dead bolts or padlocks. Provide a minimum of two keys to the MSA's Representative or his designee.

H. Provide Warning Signs at each locked door leading to Work Area reading as follows:

KEEP OUT

CONSTRUCTION

WORK AREA

PROTECTIVE CLOTHING REQUIRED

BEYOND THIS POINT

I. Immediately inside door and outside critical barriers post an approximately 20 inch by 14-inch manufactured caution sign displaying the following legend with letter sizes and styles of a visibility required by 29 CFR 1926:

DANGER

ASBESTOS

CANCER AND LUNG DISEASE HAZARD

RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED

IN THIS AREA

WARNING

HAZARD

NO SMOKING, EATING, OR DRINKING

J. Provide spacing between respective lines at least equal to the height of the respective upper line.

3.04 RESPIRATORY AND WORKER PROTECTION

A. Before proceeding beyond this point in providing Temporary Enclosures:

1. Provide Worker Protection per Section 01560
2. Provide Respiratory Protection per Section 01562
3. Provide Personnel Decontamination Unit per Section 01563

3.05 CRITICAL BARRIERS

A. Completely separate the Work Area from other portions of the building, and the outside by sealing all openings with two securely attached sheet plastic barriers. The closure assembly and materials shall comply with applicable local building and fire codes.

B. Ventilation openings (supply, return and exhaust grilles; ducts and any other potential leakage points to HVAC systems) and floor drains must be sealed with two (2) independently attached layers for the critical barrier(s).

C. Seal cracks leading out of Work Area with appropriate temporarily installed material which does not mar any building finish or permanent material, if approved in writing by the MSA's Field Representative or his designee.

D. Individually seal all lighting fixtures, clocks, speakers, alarm system components (unless otherwise specified), thermostats and other fixed mechanical components with polyethylene sheeting, taped securely in place with duct tape. Ensure lighting circuits are deactivated prior to installation of critical barrier(s) to avoid melting or burning of sheeting.

E. Maintain seal until all work including Project Decontamination is completed.

F. Where a sheet plastic wall of a containment is a critical barrier, two independently attached layers of sheet plastic may serve as both the critical barrier and Primary Barrier, if approved by the Consultant.

G. Where a critical barrier acts as a wall of a containment area, mechanically support sheet plastic independently of duct tape or spray cement so that seals do not support the weight of the plastic, such as with furring strips nailed into masonry joints. If the tape/glue comes loose on any other critical barrier, reinforce with furring strips, if so directed by the Consultant.

H. Provide pressure differential and air circulation system per Section 01513.

I. Thoroughly pre-clean all surfaces to which critical barriers or other seals are applied. Where required to properly isolate the work area or if specified in Section 01013, perform surgical removal of asbestos from any surface covered with ACM to which a barrier is to be applied.

3.06 PREPARE AREA

A. If fixed scaffolding is to be used to provide access, HEPA vacuum and wet clean area prior to scaffolding installation.

B. Remove or temporarily relocate all electrical and mechanical items, such as lighting fixtures, unit ventilators, clocks, diffusers, registers, escutcheon plates, etc. which cover any part of the surface to be worked on with the work.

C. Clean, decontaminate and reinstall all such materials, upon completion of all removal work with materials, finishes, and workmanship to match existing installations before start of work.

D. Clean all surfaces in Work Area with a HEPA filtered vacuum or by wet wiping prior to the installation of primary barrier.

3.07 PRIMARY BARRIER

A. After Critical Barriers are installed and approved by the consultant, protect building and other surfaces in the Work Area from water damage and asbestos contamination by covering with a primary barrier of polyethylene sheeting. The Primary Barrier is normally **two layers** of independently attached sheet plastic, except as may be otherwise specified in this section.

B. Cover floors, ceilings, and walls of Work Area, including critical barriers, in a manner which prevents leakage of air or water. Take great care particularly at floor/wall connection areas, turning floor plastic up walls at least 12 inches (forming a sharp right angle bend so the wall attachment will not be pulled loose), or as otherwise approved by the Consultant. Use both spray-glue and duct tape all seams in floor covering. Locate seams in top layer six feet from, or at right angles, to seams in bottom layer. Install sheeting so that top layer can be removed independently of bottom layer. In addition, attach one layer of poly to all ceilings in the work areas.

C. Cover sheet plastic in areas where movable scaffolding is to be used with a single layer of minimum 1/2" CDX plywood or 1/4" masonite. Wrap edges and corners of each sheet with duct tape or take alternate steps to ensure the floor plastic is not torn. At completion of abatement work, thoroughly decontaminate or dispose of as an asbestos-contaminated waste material. Plywood must have been painted with two coats of paint prior to use to be decontaminated.

D. Remove and replace plastic sheeting which has been damaged by removal operations or where seal has failed allowing water to seep between layers. Remove affected sheeting and wipe down entire area. Install new sheet plastic only when area is completely dry.

3.08 STOP WORK

A. If the critical or primary barrier falls or is breached in any manner stop work immediately. Do not recommence work until authorized in writing by the MSA’s designated representative.

3.09 EXTENSION OF WORK AREA

A. If the Critical Barrier is breached in any manner that could allow the passage of asbestos debris or airborne fibers, add affected area to the Work Area, enclose it as required by this Section of the specification, and decontaminate it as described in Section 01711 Project Decontamination.

3.10 SECONDARY BARRIER

A. Install a secondary layer of plastic as a drop cloth to protect the primary layers from debris generated by the asbestos abatement work as specified in the appropriate work sections.

3.11 EXTERIOR ENCLOSURES

A. Construct exterior enclosures as necessary to completely enclose the work.

1. Fabricate from reinforced polyethylene sheeting and wood framework of minimum 2" x 4" dimension.
2. Attach to existing building components or brace as necessary for stability.
3. Construct walls to meet all local regulations for construction of temporary buildings.
4. Construct to resist wind and slope ceiling to permit drainage of rain water.
5. Exterior enclosures shall be completely separate from other required barriers or protective layers.

3.12 CONTAINMENT APPROVAL

A. Do not begin abatement work or any work deemed contaminated work; such as, but not limited to opening a wall or ceiling space which is contaminated with asbestos fibers; until the Temporary Enclosure is inspected and approved in writing by MSA’s Environmental Consultant.

END OF SECTION 01526

SECTION 01560 - WORKER PROTECTION (HAZMAT)

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Equipment and procedures required for protecting workers against asbestos, lead-based paint and other hazardous exposure.

1.02 RELATED SECTIONS

A. Section 01562 - Respiratory Protection

1.03 WORKER TRAINING

A. Train all workers in accordance with 29 CFR 1926 regarding the dangers inherent in handling asbestos and breathing asbestos dust and in proper work procedures and personal and area protective measures.

B. All workers and supervisors must be AHERA accredited as described in the AHERA regulation 40 CFR 763 Appendix C to Subpart E, January, 1994. In addition, all supervisors shall have passed a written test given by the AHERA-accredited training facility. In addition, all workers must be licensed in accordance with State of Maryland regulatory requirements.

C. Provide documentation of State of Maryland approved training and licensing, as required by State asbestos regulations.

D. Train all workers and supervisors in potential job hazards and safety requirements other than asbestos, including, but not limited to: electrical; heat stress; slips, trips & falls; ladders, scaffolding & working surfaces; fire; power tools; noise; chemical exposures; sanitation; material handling; demolition; housekeeping; first aid; personal protective equipment; signs; etc.

E. Ensure all training is provided in a language in which each employee is fully fluent. The training provider must teach in this language of fluency; translation by other students is not acceptable.

1.04 MEDICAL EXAMINATIONS

A. Provide medical examinations for all workers who may encounter an airborne fiber level of 0.1 f/cc or greater for an 8-hour time weighted average.

B. In the absence of specific airborne fiber exposure data, provide medical examination for all workers who will enter the work area for any reason.

C. Examination shall at a minimum meet OSHA requirements set forth in 29 CFR 1926.

D. In addition, provide an evaluation of the individual’s ability to work in environments capable of producing heat stress in the worker.

1.05 SUBMITTALS

A. Submit a valid training certificate for each worker who will work on the project which fully complies with all applicable state and federal regulations.

B. Submit evidence of training for each worker for other potential job hazards and safety requirements, as outlined in this section.

C. Submit a completed Certificate of Worker's Acknowledgment for each worker, on the form provided at the back of this section. If any worker is not fluent in English, provide a written translation of this form in that worker's language of fluency and submit the signed, translated copy attached to the English version for any such workers.

D. Report from Medical Examination conducted within last 12 months as part of compliance with OSHA medical surveillance requirements for each worker who is to enter the work area.

E. Submit notarized certification signed by an officer of the abatement contracting firm and notarized that exposure measurements, medical surveillance, and worker training records are being kept in conformance with 29 CFR 1926.

PART 2 - EQUIPMENT

2.01 PROTECTIVE CLOTHING

A. Ensure compliance with 29 CFR 1926.95 – Personal Protective and Life Saving Equipment.

1. Provide disposable total body coveralls with attached hood or separate head covers, impenetrable by asbestos fibers (Tyvek® or equivalent) and in sizes appropriate for all members of the work crew and authorized visitors, and require that all persons in the work area wear them.

2. Provide works boots with non-skid soles, and where required by OSHA, foot protection for all workers. Dispose of boots as asbestos contaminated waste at the end of the work. Disposable foot covers may be provided in lieu of disposing of work shoes where permitted by site conditions.

3. Provide head protection (hard hats) as required by OSHA for all workers, and provide spares for use by others. Thoroughly clean and decontaminate hats before removing them from work area at the end of the work or dispose of them as contaminated waste.

4. Provide eye protection (e.g. safety glasses, goggles, face shield), as required by OSHA, for all workers involved in scraping, spraying, or any other activity which may potentially cause eye injury.

5. Provide work gloves, as required by OSHA, for all workers of various sizes and types, depending on task. Do not remove gloves from work area until disposed of as asbestos contaminated waste.

2.02 ADDITIONAL PROTECTIVE EQUIPMENT

A. Respirators, disposable coveralls, head covers, and footwear covers shall be provided by the Contractor for site visitors, including the Environmental Consultant, and other authorized representatives who may inspect the job site.

B. Provide these items in sufficient quantity, such that these persons can properly and safely perform their duties within the contained asbestos work area.

PART 3 - EXECUTION

3.01 GENERAL

A. Provide worker protection as required by the most stringent OSHA and/or EPA standards applicable to the work.

B. The following procedures are minimums to be adhered to regardless of fiber count in the work area.

C. Each time work area is entered remove all street clothes in the Changing Room of the Personnel Decontamination Unit and put on new disposable coverall, new head cover, and a clean respirator.

D. Proceed through shower room to equipment room and put on work boots.

3.02 DECONTAMINATION PROCEDURES

A. Require all workers to adhere to the following applicable personal decontamination procedures whenever they leave the work area as a minimum:

3.03 TYPE C SUPPLIED AIR RESPIRATORS:

A. When exiting area, remove disposable coveralls, disposable head covers, and disposable footwear covers or boots in the equipment room, and dispose of as contaminated waste.

B. Still wearing respirators, proceed to showers. Showering is mandatory, unless noted otherwise.

C. Thoroughly wet body including hair and face.

D. With respirator still in place thoroughly wash body, hair, respirator face piece, and all parts of the respirator except the blower unit and battery pack on a PAPR.

E. Pay particular attention to seal between face and respirator and under straps.

F. Take a deep breath, hold it and/or exhale slowly, completely wet hair, face, and respirator. While still holding breath, remove respirator and hold it away from face before starting to breathe.

G. Carefully wash face piece of respirator inside and out.

H. If using PAPR; shut down in the following sequence, first cap inlets to filter cartridges, then turn off blower unit. Thoroughly wash blower unit and hoses. Carefully wash battery pack with wet rag. Shower as above.

I. Rinse shower room walls and floor prior to exit.

J. Proceed from shower to Changing Room and change into street clothes or into new disposable work items.

3.04 AIR PURIFYING-NEGATIVE PRESSURE RESPIRATORS (FULL OR HALF FACE):

A. When exiting area, remove disposable coveralls, disposable headcovers, and disposable footwear covers or boots in the equipment room, and dispose of as contaminated waste.

B. Still wearing respirators, proceed to showers. Showering is mandatory, unless noted otherwise.

C. Thoroughly wet body from neck down.

D. Wet hair as thoroughly as possible without wetting the respirator filter if using an air purifying type respirator.

E. Take a deep breath, hold it and/or exhale slowly, complete wetting of hair, thoroughly wetting face, respiratory and filter (air purifying respirator). While still holding breath, remove respirator and hold it away from face before starting to breath.

F. Dispose of wet filters from air purifying respirator.

G. Carefully wash facepiece of respirator inside and out. Shower completely with soap and water.

H. Rinse thoroughly.

I. Rinse shower room walls and floor prior to exit.

J. Proceed from shower to Changing Room and change into street clothes or into new disposable work items.

3.05 WITHIN WORK AREA

A. Require that workers NOT eat, drink, smoke, chew gum, chew tobacco, or apply cosmetics in the work area. To eat, chew, drink or smoke, workers shall follow the decontamination procedure described above and dress in street clothes before entering the non-work areas of the building.

END OF SECTION 01560

SECTION 01562 - RESPIRATORY PROTECTION (HAZMAT)

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Use of respiratory protection appropriate for the fiber level or lead concentration encountered in the work place or as required for other demolition hazards encountered.

1.02 STANDARDS

A. Where there is a conflict in requirements set forth in these regulations and standards, meet the more stringent requirement.

B. OSHA - U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards 29 CFR 1910, Section 1001 and Section 134, and 29 CFR 1926 section 1101.

C. CGA - Compressed Gas Association, Inc., New York, Pamphlet G-7, "Compressed Air for Human Respiration", and Specification G-7.1 "Commodity Specification for Air".

D. CSA - Canadian Standard Association, Rexdal, Ontario, Standard Z180.1-1978, "Compressed Breathing Air".

E. ANSI - American National Standard Practices for Respiratory Protection, ANSI Z88.2-1992.

F. NIOSH - National Institute for Occupational Safety and Health

G. MSHA - Mine Safety and Health Administration

1.03 TRAINING

A. Comply with OSHA 29 CFR 1910.134 – Respiratory Protection.

B. Instruct and train each worker involved in ACM abatement in proper respirator use. Each worker must wear a respirator, properly fitted, from the start of an operation potentially containing ACM. Use respiratory protection appropriate for the fiber level encountered in the work place or as required for other toxic or oxygen-deficient situations.

1.04 SUBMITTALS

A. Manufacturer's product information for each component used, including NIOSH Certifications for each component in an assembly and/or for entire assembly.

B. When a Type "C" supplied air respiratory system is required by the work, submit drawing showing assembly of components into a complete supplied air respiratory system. Include diagram showing location of compressor, filter banks, backup air supply tanks, hose line connections in work area(s), routing of airlines to work area(s) from compressor.

C. Level of respiratory protection intended for each operation required by the project.

D. Airborne asbestos fiber count data to substantiate selection of respiratory protection proposed, both historical and as performed for this particular project.

E. Respiratory Protection Program (RPP) manual including written approval from an industrial hygienist in accordance with 29 CFR 1910.134.

F. Daily OSHA monitoring results

G. Worker Fit Testing Documentation for each individual required to don a respirator.

1.05 AIR QUALITY FOR SUPPLIED AIR RESPIRATORY SYSTEMS

A. Provide air used for breathing in Type "C" supplied air respiratory systems that meets or exceeds standards set for C.G.A. type 1 (Gaseous Air) Grade D.

PART 2 - EQUIPMENT

Provide workers with fit tested respirators equipped with HEPA filters approved by NIOSH to be worn in the designated work area and/or whenever a potential exposure to ACM exists. Provide sufficient filters for replacement as required by the workers or applicable regulations. Do not use disposable respirators.

2.01 AIR PURIFYING RESPIRATORS

A. Half face or full face type respirators.

B. Equip full-face respirators with a nose cup or other anti-fogging device.

C. P100 type filters labeled with NIOSH Certification for "Radionuclides, Radon Daughters, Dust, Fumes, Mists including Asbestos-Containing Dusts and Mists" and color coded in accordance with ANSI Z228.2 (1992).

D. A chemical cartridge section may be added, if required, for solvents, etc., in use. In this case, provide cartridges that have each section of the combination canister labeled with the appropriate color code and NIOSH Certification.

E. Utilize Powered Air Purifying Respirators (PAPR), where indicated by exposure levels (or supplied air system) or requested by any employee.

2.02 SUPPLIED AIR RESPIRATOR SYSTEMS

A. Provide equipment capable of producing air of the quality and volume required by the above referenced standards applied to the job site conditions and crew size.

B. Full face piece and hose by same manufacturer that has been certified by NIOSH/MSHA as an approved Type "C" respirator assembly providing Grade D air and operating in pressure demand mode with an auxiliary back-up system.

C. In atmospheres which contain sufficient oxygen (greater than or equal to 19.5% oxygen) provide a pressure-demand full-face piece supplied air respirator equipped with an emergency back up P100 filter.

D. In atmospheres which are oxygen deficient (less than 19.5% oxygen) provide a pressure-demand full face piece self-contained breathing apparatus (SCBA).

NOTE: DO NOT ALLOW ANYONE TO ENTER OXYGEN DEFICIENT ATMOSPHERES WITHOUT SPECIFIC WRITTEN PERMISSION OF THE MSA'S REPRESENTATIVE OR HIS DESIGNEE, EXCEPT FOR EMERGENCIES.}

E. Provide a reservoir of compressed air located outside the work area which will automatically maintain a continuous uninterruptable source of air automatically available to each connected face piece and hose assembly in the event of compressor shutdown, contamination of air delivered by compressor, power loss or other failure. Provide sufficient capacity in the back-up air supply to allow a minimum escape time of one-half hour times the number of connections available to the work area.

F. Provide a warning device that will operate independently of the main power supply. Locate so that alarm is clearly audible above the noise level produced by equipment and work procedures in use, in all parts of the work area and at the compressor. Perform field test with all equipment running, prior to beginning abatement, to ensure audibility. Connect alarm to warn of:

1. Compressor shut down or other fault requiring use of backup air supply,
2. Carbon Monoxide (CO) levels in excess of 5 PPM/V.

G. Interconnect monitors, alarms and compressor so that compressor is automatically shut down and the alarms sounded if any of the following occur:

1. Carbon Monoxide (CO) concentrations exceed 5 PPM/v in the air line between the filter bank and backup air supply.
2. Compressor temperature exceeds normal operating range.

H. Provide a compressor driven by an electric motor. Insure that electrical supply available at the work site is adequate to energize motor.

I. Locate compressor outside of building in location that will not impede access to the building, and that will not cause a nuisance by virtue of noise or fumes.

J. Locate air intake remotely from any source of automobile or other engine exhaust or any other source of toxic or irritating gases, vapors, fumes, dust, etc.

K. Provide an after cooler at entry to filter system which is capable of reducing temperatures to outside ambient air temperatures.

L. Configure system to permit the recharging of 1/2 hour 2260 PSI SCBA cylinders, if utilized.

PART 3 - EXECUTION

3.01 GENERAL

A. Comply with ANSI Z88.2 - 1992 (or more current edition, if published) "Practices for Respiratory Protection" and OSHA 29 CFR 1910 and 1926.

B. Require that respiratory protection is used at all times when there is any possibility of disturbance of asbestos-containing materials or when there is any possibility of the disturbance of asbestos in excess of OSHA's exposure limits.

C. At a minimum, an air purifying respirator with a tight-fitting "rubber" face-piece and P100 cartridges shall be used whenever friable asbestos containing materials are present, but work activities will not disturb the asbestos.

D. At a minimum, a half-face, negative-pressure air purifying respirator with a tight fitting face-piece and P100 cartridges or higher level respirator devices, shall be used whenever asbestos containing materials will be disturbed. Half-face, negative-pressure air purifying respirators shall be used from the time asbestos containing materials are disturbed until clearance has been achieved.

E. Require that a respirator be worn by anyone in a work area at all times, regardless of activity.

3.02 FIT TESTING

A. Provide initial fitting of respiratory protection during a respiratory protection course of training set up and administered by a qualified Industrial Hygienist.

B. Fit types of respirator to be actually worn by each individual.

C. Allow an individual to use only those respirators for which he has been trained and fit.

D. On at least a monthly basis, check the fit of each worker's respirator by having irritant smoke blown onto the respirator from a smoke tube according to the Protocol in CFR 1926.1101, or preferably, with a quantitative fit testing device.

E. Each time an air-purifying respirator is put on, it must be checked for fit with a positive and negative pressure fit test in accordance with the manufacturer's instructions or ANSI Z88.2 (1992).

F. All fit testing shall be done in accordance with 29 CFR 1910.134.

3.03 TYPE OF RESPIRATORY PROTECTION REQUIRED

A. Type “C” Supplied air respirators will be required during abatement or work conducted in oxygen deficient environments as provided in this section.

B. Respiratory protection which supplies an airborne fiber level inside the respirator, at the breathing zone of the wearer, at or below 0.01 f/cc is the minimum level of protection allowed. The minimum respiratory protection required shall be a half face air-purifying respirator as defined in this Section.

3.04 PERMISSIBLE EXPOSURE LIMIT (PEL)

A. Asbestos

1. 8-Hour Time Weighted Average (TWA) of asbestos fibers to which any worker may be exposed shall not exceed the current OSHA PEL or the Contractor’s internal standard, whichever is more stringent.

2. For the purpose of determining respirator type, protection factors shall be applied to a maximum concentration of 0.01 f/cc inside the mask, so that the maximum use concentration for a half-face negative pressure respirator shall be 0.1 f/cc and for a PAPR shall be 0.5 f/cc, for example.

3. Fibers are defined as all fibers regardless of composition as counted in the NIOSH 7400 procedure, or asbestos fibers of any size as counted using either a scanning or phase contrast microscope.

B. Perform sufficient personal air monitoring on employees during this project to accurately determine both TWA and short-term exposures to asbestos and other contaminants which might be encountered so that OSHA compliance can be demonstrated and so that employees can be adequately protected from harmful exposures.

3.05 RESPIRATORY PROTECTION FACTOR

Respiratory Type	**Protection Factor**
Air purifying: Negative pressure respirator High efficiency filter Half facepiece	10
Air purifying: Negative pressure respirator High efficiency filter Full facepiece	50
Powered-air purifying (PAPR): Positive pressure respirator High efficiency filter Full facepiece	100
Supplied air: Positive pressure respirator Continuous-flow Half or full facepiece	100
Type C supplied air: Positive pressure respirator Pressure demand mode Full facepiece	1,000
Type C supplied air: Positive pressure respirator Pressure demand mode Full facepiece Equipped with an auxiliary pressure demand Self-contained breathing apparatus (SCBA)	10,000
Self-contained breathing apparatus (SCBA): Pressure demand mode Full-face piece	10,000

3.06 NEGATIVE PRESSURE RESPIRATORS - HALF OR FULL FACE MASK:

A. Supply a sufficient quantity of respirator filters approved for asbestos, so that workers can change filters during the workday.

B. Require that respirators be wet-rinsed, and filters discarded, each time a worker leaves the work area.

C. Store respirators and filters at the job site in a clean environment and protect totally from exposure to asbestos when not in use.

D. Ensure that if any chemical cartridge or combination cartridge is utilized, air monitoring has been performed to ensure the adequacy of protection factors. Utilize only full-facepiece respirators for chemical exposures, which can cause eye irritation.

3.07 POWERED AIR PURIFYING - HALF OR FULL FACE MASK:

A. Supply a sufficient quantity of high efficiency respirator filters approved for asbestos so that workers can change filters any time that flow through the face piece decreases to the level at which the manufacturer recommends filter replacement. Ensure each employee with a PAPR has readily available and uses a flow-measuring device, as supplied by the manufacturer, to assist in determining adequacy of flow, if such a device is recommended by the manufacturer.

B. Require that HEPA elements in filter cartridges be protected from wetting during showering.

C. Require entire exterior housing of respirator including blower unit, filter cartridges, hoses, battery pack, facemask, belt, and cords to be washed each time a worker leaves the work area.

D. Caution should be used to avoid shorting battery pack during washing. Provide an extra battery pack for each respirator so that one can be charging while one is in use. Require employees to properly exit the work area immediately, if PAPR flow decreases due to low battery or any other purpose, and not to re-enter until the cause of decreased flow is determined and remedied.

3.08 TYPE "C" RESPIRATOR

A. Continuously monitor the air system operation including compressor operation, filter system operation, backup air capacity and all warning and monitoring devices at all times that system is in operation.

B. Assign an individual, trained by manufacturer of the equipment in use or by a Certified Industrial Hygienist, in the operation and maintenance of the system to provide this monitoring.

3.09 RESPIRATORY PROTECTION PROGRAM

A. If requested by the MSA’s Field Representative or his designee, submit a Respiratory Protection Program, indicating type of respiratory protection proposed for each portion of the work.

B. Demonstrate to the MSA’s Consultant compliance with the program and/or any requirements herein, at any time requested.

END OF SECTION 01562

SECTION 01563 - DECONTAMINATION UNITS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Personnel and equipment decontamination facilities.

B. Personnel Decontamination Unit as the only means of ingress and egress for the work area.

C. Materials exit the work area through the Equipment Decontamination Unit.

PART 2 - PRODUCTS

2.01 PLASTIC SHEET AND ACCESSORIES

A. Polyethylene Sheet: A single polyethylene film in the largest sheet size possible to minimize seams, 6.0 mils thick, as indicated, clear, frosted, or black as indicated.

B. Where plastic sheet is the only separation between the work area and building exterior, provide translucent, nylon reinforced, laminated, flame resistant, polyethylene film that conforms to requirements set forth by the National Fire Protection Association Standard 701, Small Scale Fire Test for Flame-resistant Textiles and Films. Provide largest size possible to minimize seams, 6.0 mils thick as indicated, frosted or black as indicated.

C. Duct tape in 2" or 3" widths as appropriate, with an adhesive, which is formulated to aggressively stick to sheet polyethylene.

D. Spray adhesive, which is specifically formulated to stick tenaciously to sheet polyethylene.

2.02 SHOWER

A. One-piece waterproof shower pan, with rigid, impervious, waterproof walls. Structurally support as necessary for stability.

B. Factory made showerhead producing a spray of water, which can be adjusted for spray size and intensity. Arrange so that control of water temperature, flow rate, and shut off is from inside shower.

C. Cascaded filter units on drain lines from showers with disposable filter elements as indicated below.

1. Primary Filter - Pass no particles larger than 20 microns

2. Secondary Filter - Pass no particles larger than 1 micron

D. Heavy bronze angle type hose bib with wheel handle, vacuum breaker, and 3/4" National Standard male hose outlet.

2.03 SUMP PUMP

A. Provide totally submersible waterproof sump pump with integral float switch and proper size for application. Provide unit capable of pumping debris, sand, plaster or other materials washed off during decontamination procedures without damage to mechanism of pump.

PART 3 - EXECUTION

3.01 PERSONNEL DECONTAMINATION UNIT

A. A serial arrangement of connected rooms or spaces, Changing Room, Drying Room, Shower Room, Equipment Room, that all persons pass through for entry into and exiting from the work area for any purpose.

B. Provide temporary lighting within decontamination units as necessary to reach a lighting level of 100-foot candles.

3.02 CHANGING ROOM (CLEAN ROOM)

A. Physically and visually separated from the rest of the building for the purpose of changing into protective clothing.

B. Construct using polyethylene sheeting, at least 6-mil in thickness, to provide an airtight seal between the Changing Room and the rest of the building.

C. Locate so that access to Work Area from Changing Room is through Shower Room.

D. Separate Changing room from the building by a two-sheet polyethylene flapped doorway.

E. Do not allow asbestos contaminated items to enter this room. Require Workers to enter this room either from outside the area dressed in street clothes, or naked from the showers.

F. An existing room may be utilized as the Changing Room if it is suitably located and approved by the MSA's Field Representative or his designee. Protect all surfaces of room with sheet plastic.

G. Maintain changing room dry and clean at all times. Do not allow overflow water from shower to wet floor in changing room.

H. Damp wipe all surfaces twice after each shift change, or more often if indicated or requested by the MSA's Representative, with a disinfectant solution.

I. Provide a continuously adequate supply of disposable bath towels.

J. Post information for all emergency phone numbers and procedures.

K. Provide 1 storage locker per employee.

3.03 DRYING ROOM

A. A place for workers to dry after showering.

B. Arrange so floor drains to shower room.

C. Separate from the rest of the building with airtight walls of 6-mil polyethylene.

D. Separate from change room with a sheet plastic flapped doorway.

3.04 SHOWER ROOM

A. A completely water tight operational shower to be used for transit by cleanly dressed workers heading for the Work Area from the Changing Room, or for showering by workers headed out of the Work Area after undressing in the Equipment Room.

B. Separate this room from the rest of the building with airtight walls fabricated of 6-mil polyethylene.

C. Separate this room from the Changing and Equipment Rooms with airtight walls fabricated of 6-mil polyethylene.

D. Provide splash proof entrances to Changing and Equipment Rooms with 2 doors.

E. Arrange so that water from showering does not splash into the Changing or Equipment Rooms.

F. Arrange water shut off and drain pump operation controls so that a single individual can shower without assistance.

G. Pump waste water to drain or to storage for use in amended water. If pumped to drain, provide 20-micron and 1-micron wastewater filters in line to drain. Change filters daily or more often if necessary. Ensure water never accumulates to the level where employees showering are standing in water, which has not been pumped from the sump.

3.05 EQUIPMENT ROOM

A. Work equipment, footwear and additional contaminated work clothing to be left here. This is a change and transit area for workers.

B. Separate this room from the work area by a 6-mil polyethylene flap doorway.

C. Separate this room from the rest of the building with airtight walls fabricated of two separate layers 6 mil polyethylene.

D. Separate this room from the Shower Room with airtight walls fabricated of two separate layers 6 mil polyethylene.

3.06 WORK AREA

A. Separate work area from the Equipment Room by polyethylene barriers.

B. If the airborne asbestos level in the work area is expected to be high, add an intermediate cleaning space between the Equipment room and the Work area.

C. Damp wipe clean all surfaces after each shift change.

D. Repair and replace damaged floor sections as required.

3.07 CONSTRUCTION OF DECONTAMINATION UNIT

A. Air tight walls and ceiling using polyethylene sheeting, at least 6-mil in thickness. Attach to existing building components or a temporary framework.

B. Use 2 layers (minimum) of 6-mil, polyethylene sheeting to cover floors in the Equipment, Shower (underneath shower pan), and Changing Rooms.

C. Provide an additional layer in the Equipment Room for every shift change expected.

D. Roll one layer of plastic from Equipment Room into Work Area after each shift change. Provide a minimum of two (2) layers of plastic at all times. Use only clear plastic to cover floors.

E. Fabricate doors from overlapping sheets with openings a minimum of three feet (3') wide. Configure so that sheeting overlaps adjacent surfaces. Weight sheets at bottoms as required so

that they quickly close after being released. Put arrows on sheets to indicate direction of overlap and/or travel.

F. If the decontamination area is located within an area containing friable asbestos on overhead ceilings, ducts, piping, etc., provide the area with a minimum 1/2-inch plywood "ceiling" with polyethylene sheeting, at least 4-mil in thickness covering the top of the "ceiling".

G. Visual barriers of opaque polyethylene sheeting at least 4-mil in thickness so that work privacy is maintained and work procedures are not visible.

H. Where the area adjacent to the decontamination area is accessible to the public, construct a solid barrier on the public side of the sheeting to protect the sheeting. Construct barrier with wood or metal studs covered with minimum 1/2-inch plywood. Where the solid barrier is provided, sheeting need not be opaque.

I. Provide sub-panel at Changing Room to accommodate all removal equipment. Power sub-panel directly from a building electrical panel. Connect all electrical branch circuits in decontamination unit and particularly any pumps in shower room to a ground-fault circuit protection device.

3.08 DECONTAMINATION SEQUENCE

A. Before leaving the work area, remove all gross contamination and debris from overalls and feet.

B. Proceed to the Equipment Room and remove all clothing except respiratory protection equipment. Disposable coveralls are placed in a bag for disposal with other material.

C. Decontamination procedures found in Section 01560 shall be followed by all individuals leaving the work area.

D. After showering, the worker moves to the Changing Room and dresses in either new coveralls for another entry or street clothes if leaving.

3.09 EQUIPMENT DECONTAMINATION UNITS

A. A serial arrangement of rooms, Clean Room, Holding Room, Wash Room constructed with 6-mil polyethylene sheeting, supported as necessary for removal of equipment and material from work area, not personnel.

B. Provide a wash down station located in the washroom as an equipment, bag and container cleaning station. Utilize hose or sprayer with a catch basin or enclosed shower such that wash water does not leak onto the plastic sheeting on the floor. Pump all wash water through a serial arrangement of 20 and 1-micron filters.

C. Provide washroom for cleaning of bagged or containerized asbestos-containing waste materials passed from the work area after being wiped clean can be passed to the Holding Room. Separate this room from the work area by a single flap of 6-mil polyethylene sheeting.

D. Provide Holding Room as a drop location for bagged asbestos-containing materials passed from the Wash Room located so that bagged materials cannot be passed from the Wash Room through the Holding Room to the Clean Room. Separate this room from the adjacent rooms by double flaps fabricated from 6-mil polyethylene.

E. Provide Clean Room to isolate the Holding room from the building exterior. Separate this room from the exterior by a single flap of 6-mil polyethylene sheeting.

3.10 EQUIPMENT DECONTAMINATION SEQUENCE

A. At wash down station, thoroughly wet-clean contaminated equipment or sealed polyethylene bags and pass into Wash Room.

B. When passing equipment or containers into the Wash Room, close all doorways of the Equipment Decontamination Unit, other than the doorway between the Wash Down Station and the Wash Room.

C. Wet-clean the bags and/or equipment.

D. Pass items into Holding Room. Close all doorways except the doorway between the Holding Room and the Clean Room.

E. Workers from the building exterior enter Holding Area and remove decontaminated equipment and/or containers for disposal.

F. Require these workers to wear full protective clothing and appropriate respiratory protection.

G. At no time is a worker from an uncontaminated area to enter the enclosure when a removal worker is inside.

3.11 CLEANING OF DECONTAMINATION UNITS

A. Clean debris and residue from inside of Decontamination Units on a daily basis.

B. Damp wipe all surfaces after each shift change.

C. If the Changing Room of the Personnel Decontamination Unit becomes contaminated with asbestos-containing debris, abandon the entire decontamination unit and erect a new decontamination unit. Use the former Changing Room as an inner section of the new Equipment Room.

3.12 SIGNS

A. Post an approximately 20-inch by 14-inch manufactured caution sign at each entrance to the work area as required by 29 CFR 1926.

B. Post an approximately 10-inch by 14-inch manufactured sign at each entrance to each work area displaying the following legend:

LEGEND

No Food, Beverages or Tobacco Permitted

All Persons Shall Don Protective

Clothing (Coverings) Before

Entering the Work Area

All Persons Shall Shower Immediately

After Leaving Work Area and Before

Entering the Changing Area

Asbestos Work Area

END OF SECTION 01563

SECTION 01711 - PROJECT DECONTAMINATION

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Cleaning of the primary barrier plastic prior to its removal.

B. Cleaning of the room surfaces to remove any new or existing contamination.

C. Operation of the pressure differential and air circulation system to remove airborne fibers.

D. Project closeout procedures.

1.02 RELATED SECTIONS

A. Section 02081 Removal of Asbestos Containing Materials

B. Section 01714 Work Area Clearance

1.03 SUBMITTALS

A. Evidence of suitability and compatibility of encapsulants with proposed finish materials.

B. Certification of Visual Inspection (form follows this section).

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.01 GENERAL

A. Work of this section includes the decontamination of air in the Work Area, which has been, or may have been contaminated by the elevated airborne asbestos fiber levels generated during abatement activities.

B. Cleaning, decontamination, and removal of temporary facilities installed prior to abatement work.

C. Cleaning, and decontamination of all surfaces (ceiling, walls, floor) of the Work Area, and all furniture or equipment in the Work Area.

3.02 PRIMARY BARRIER CLEANING

A. Carry out a first cleaning of all surfaces of the work area including items of remaining sheeting, tools, scaffolding and/or staging by use of damp-cleaning and mopping, and a High Efficiency Particulate Air (HEPA) filtered vacuum. (Note: A HEPA vacuum will fail if used with wet material.)

B. Do not perform dry dusting or dry sweeping.

C. Use each surface of a cleaning cloth one time only and then dispose of as contaminated waste.

D. Continue this cleaning until there is no visible debris from removed materials or residue on plastic sheeting or other surfaces.

E. Utilize leaf blower in all portions of the work area, in the same manner as if performing aggressive air sampling, to dislodge any asbestos particles, which may not have yet been cleaned.

F. Perform cleaning by methods described above to clean any asbestos, which has been dislodged by leaf blower.

G. Wait two hours to allow the HEPA filtered fan units to clean air and remove airborne asbestos fibers. Use oscillating fans as necessary to assure circulation of air in all parts of work areas during this period.

H. Maintain pressure differential and air circulation system in operation for the entire two-hour period.

I. Have the MSA's Consultant visually inspect the work area to approve initial cleaning efforts.

J. Remove outer layer of primary barrier sheet plastic and clean inner layer as needed, until no visible residue remains and cleaning is approved by the MSA's Consultant.

K. As soon as the MSA's Consultant approves cleaning of the inner layer of primary barrier sheet plastic, spray with lockdown encapsulant. Take care spraying encapsulant to ensure it does not leak behind barriers or otherwise mar surfaces. Allow sufficient time for encapsulant to fully dry and then remove all remaining primary barrier sheeting, leaving only the critical barriers, decontamination units and fully operational pressure differential and air circulation system.

L. Removal all filters in air handling system(s) and dispose of as asbestos-containing waste in accordance with requirements of Section 02084.

3.03 FINAL CLEANING

A. Carry out a final cleaning of all surfaces in the work area in the same manner as the first cleaning immediately after removal of primary barrier layers. This cleaning is being applied to existing room surfaces and critical barriers. Critical barriers shall remain intact and shall be repaired as necessary or at the direction of the MSA's Representative.

B. At the completion of cleaning of all surfaces except carpeting, HEPA vacuum carpeting designated to remain in work areas. Use a passive (non-power brush type) floor attachment with rubber floor seals and adjustable above-floor height.

C. Wait two hours to allow HEPA filtered fan units to clean air and remove airborne asbestos fibers. Use oscillating fans as necessary to assure circulation of air in all parts of work areas during this period. Maintain pressure differential and air circulation system in operation for the entire two-hour period.

3.04 VISUAL INSPECTION

A. After two hours the MSA's Consultant will Perform a Complete Visual Inspection of the entire work area including: decontamination unit, all plastic sheeting, seals over ventilation openings, doorways, windows, and other openings; look for debris from any sources, residue on surfaces, dust or other matter. If deemed necessary by the MSA's Consultant, utilize a leaf blower (provided by the Contractor) during this inspection process to see if any dust is dislodged.

B. If any such debris, residue, dust or other matter is found repeat final cleaning and continue decontamination procedure from that point, until visual inspection is approved by the MSA's Consultant.

C. When the visual inspection is approved by the MSA's Consultant MSA's Consultant, the Asbestos Abatement Contractor shall complete the "Asbestos Abatement Contractor Certification" at the top of the Certification of Visual Inspection, the form for which follows this section.

3.05 FINAL AIR SAMPLING

A. After the work area is found to be visually clean, air samples will be taken and analyzed in accordance with Phase Contrast Microscopy (PCM) or set forth in Section 01714.

B. If Release Criteria is not met, repeat Final Cleaning and continue decontamination procedure from that point.

C. If Release Criteria is met, proceed with completion of the Work.

3.06 COMPLETION OF ABATEMENT WORK

A. Shutdown and remove the Pressure Differential and Air Circulation System. Seal HEPA filtered fan units with 6-mil polyethylene sheet and duct tape to form a tight seal at intake end before being moved from work area.

B. Remove all critical barriers and critical barrier sheeting.

C. Remove decontamination units.

D. Remove all equipment, materials, and debris from the work site.

E. Dispose of all asbestos containing waste material as specified in Section 02084 and provide receipts and chain of custody forms documenting proper disposal.

F. Re-inspect all surfaces and finishes and re-clean as needed to remove all signs of stains, water marks, duct tape residue, smudges, smears and other visible marks. All interior finishes and surfaces shall be left in a condition suitable for application of wax or polish by the MSA. Glass surfaces shall be left sparkling clean.

3.07 PROJECT CLOSEOUT PROCEDURES

A. Submit written certification that Contract Documents have been reviewed, Work has been inspected and that Work is completed in accordance with the Contract Documents and ready for inspection by the MSA's Representative or his designee.

B. Remove all temporary facilities, tools and accessories installed for the project and restore to original condition all permanent facilities used as temporary facilities.

C. Obtain and submit releases enabling MSA's full unrestricted use of the site and access to services and utilities.

D. Submit specific warranties, bonds and guarantees.

E. Complete final cleaning requirements.

F. Conduct a final inspection with the MSA's Consultant, MSA's Representative or his designee and Contractor's Representatives to examine condition of remaining surfaces.

3.08 FINAL CLEANING

A. Provide final cleaning of the Work at the time indicated.

B. Complete all cleaning operations before requesting inspection by the MSA's representative or his designee for certification of substantial completion.

C. Remove exposed labels in finished spaces which are not required as permanent labels on materials supplied as part of the work, except for "Asbestos", "Asbestos Free", or Thermal Insulation Labels specified elsewhere.

D. Clean exposed hard-surfaced finishes affected by the work, to a dirt-free condition, free of dust, stains, films and similar distracting substances. Except as otherwise indicated, avoid disturbance of natural weathering of exterior surfaces. Restore reflective surfaces to original reflective condition.

E. Clean project site (yard and grounds), including landscaped areas, of litter and foreign substances left during the course of the work. Sweep paved areas, which have been affected by the work to a broom-clean condition; remove stains, petrochemical spills and other foreign deposits left by the work. Rake grounds, which are neither planted nor paved, to a smooth, even-textured surface where they have been disturbed by the work.

F. Comply with safety standards and governing regulations for cleaning operations. Do not burn waste materials at the site. Do not bury debris or excess materials on the MSA's property. Do not discharge volatile or other harmful or dangerous materials into drainage systems, onto ground or otherwise release at or onto MSA's property.

CERTIFICATION OF VISUAL INSPECTION

Asbestos Abatement Contractor Certification

In accordance with Section 01711 - Project Decontamination, the undersigned employee of the Asbestos Abatement Contractor hereby certifies that he has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found no dust, debris or residue.

By: (Signature)_____ Date_____

(Print Name)_____

(Print Title)_____

(Print Company Name)_____

_____

Consultant's Certification

The undersigned employee of the Environmental Consultant hereby certifies that he has accompanied the Asbestos Abatement Contractor on his visual inspection and verifies that this inspection has been thorough and to the best of his knowledge and belief, the Asbestos Abatement Contractor's Certification above is a true and honest one.

By: (Signature)_____ Date_____

(Print Name)_____

(Print Title)_____

(Print Company Name)_____

END OF SECTION 01711

SECTION 01714 - WORK AREA CLEARANCE (HAZMAT)

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. This section describes work performed by MSA’s Environmental Consultant to measure post-abatement fiber levels.

1.02 CONTRACTOR RELEASE CRITERIA

A. The Work is Complete when the work area has passed Visual Inspection and airborne fiber levels have been reduced to the level specified in this Section.

1.03 AIR MONITORING

A. To determine if the elevated airborne fiber counts encountered during abatement operations have been reduced to the specified level, the MSA's Industrial Hygiene Services Contractor will secure samples and analyze them according to the following procedures.

B. Fibers Counted: "Fibers" referred to in this section shall be either all fibers regardless of composition as counted in the NIOSH 7400, or asbestos fibers of any size as counted using a Phase Contrast Microscope.

1.04 AGGRESSIVE SAMPLING (IF NEEDED)

A. Before sampling pumps are started the exhaust from forced air equipment (such as a leaf blower with at least 1 horsepower electric motor) will be swept against all walls, ceilings, floors, ledges and other surfaces in the room. This procedure will be continued for 5 minutes per 10,000 cubic feet of work area volume.

B. One 20-inch diameter fan per 10,000 cubic feet of room volume will be mounted in a central location, directed toward ceiling and operated at low speed for the entire period of sample collection.

C. Air samples will be collected in areas subject to normal air circulation away from room corners, obstructed locations, and sites near windows, doors or vents.

D. After air-sampling pumps have been shut off, fans will be shut off.

1.05 SCHEDULE OF AIR SAMPLES

A. The number and volume of air samples taken and analytical methods used by the MSA's Industrial Hygiene Services Contractor will be in accordance with one of the following schedules in compliance with State and Federal regulations. Sample volumes given may vary depending upon the analytical instruments used.

1.06 PHASE CONTRAST MICROSCOPY (PCM)

A. In each homogenous work area to be cleared by PCM, after completion of all cleaning work, a minimum of 7 samples will be taken and analyzed as follows:

Location Sampled	Number of Samples	Filter Media	Acceptable Levels (fibers/cc)	Rate (LPM)	Minimum Air Volume
Each work area	5 [1]	0.8 MCE	<0.01	2 - 10	1,200
Field blank	2 or 10%	0.8 MCE	3 fibers/100 fields [2]	N/A	N/A

[1] Or 1 sample per room, or 1 sample per 5,000 ft^2 of floor area, or 1 sample for every 50,000 cubic feet, whichever will result in the most number of samples.

[2] If this is exceeded, the analysis will cease and new samples will be collected.

B. Fibers on each filter will be counted and measured using the NIOSH Method 7400 procedures. If counted in the field, the microscopist as well as the Contractor's CIH shall be rated board "Approved" and "Acceptable" in the Asbestos Analysts Registry (AAR) program, administered by the American Industrial Hygiene Association (AIHA). If counted in a laboratory, the laboratory shall be "Approved" and the analyst shall also be AAR "Acceptable" and the laboratory shall be accredited for asbestos by AIHA. The microscopist may also participate in Proficiency Analytical Testing (PAT) rounds through the Industrial Hygiene Services Contractor's company.

C. One work area sample will be split and both halves analyzed separately for duplicate analysis.

D. Decontamination of the work site is complete when every work area sample is below the applicable Acceptance Level. If any sample is above the Acceptance Level, then the decontamination is incomplete and recleaning is required.

1.07 PHASE CONTRAST MICROSCOPY (PCM)

A. In each homogenous work area to be cleared by PCM (as shown in Section 01013), after completion of all cleaning work, a minimum of 13 samples will be taken and analyzed as follows:

Location Sampled	Number of Samples	Filter Media (Structures/cc)	Acceptable Level	Rate (LPM)	Minimum Air Volume
Each Work Area	5 [1]	0.45 MCE	<0.01	2 -10	2,000
Outside Each Work Area	5 [2]	0.45 MCE	Z - Test	2 -10	2,000
Work Area Blank	1	0.45 MCE			
Outside Blank	1	0.45 MCE			
Laboratory Blank	1	0.45 MCE			

[1] or 1 sample per 1,000 ft^2 of contained floor area (except 1 per 2,000 ft^2 in rooms > 5,000 ft^2), whichever requires more samples.

[2] outside work area samples shall be taken as follows: 1) two at the entrance to the decontamination chamber, representing make-up air, 2) two outside the building, and 3) one at another location inside the building, determined by the MSA's Industrial Hygiene services contractor. Prior to taking these samples, the I. H. services contractor shall inspect the vicinity to ensure that neither the activities of the abatement contractor, nor other ACM in the building, are expected to create ambient fiber levels, which would be detected on these samples.

B. Analysis will be performed using the method set forth in the AHERA Regulation 40 CFR Part 763 Appendix A. The laboratory performing the analyses shall have current Accreditation for Airborne Asbestos Fiber Analysis through the National Voluntary Laboratory Accreditation Program (NVLAP), administered by the National Institute of Standards and Technology (NIST).

C. Asbestos structures referred to in this Section include asbestos fibers, bundles, clusters or matrices, as defined by method of analysis.

D. Release Criteria: Decontamination of the work site is complete when one of the following two sets of conditions are met. Utilization of condition 2 (Z-test) will be only if, in the written judgments of the CIH of the Industrial Hygiene Services Contractor, it is necessary due to knowledge or reasonable suspicion that ambient air entering the work area through the decontamination chamber is > 0.01 s/cc for reasons unrelated to the actions of the abatement Contractor.

1. Work Area Samples meet acceptance criteria

a. All Work Area sample volumes are greater than 2,000 liters for a 25 mm sampling cassette.

b. The average concentration of asbestos on the Work Area Samples does not exceed the acceptance criteria of 70 structures per squared millimeter of air sampled.

2. Work Area Samples are not statistically different from outside samples

a. All sample volumes except for blanks are greater than 2,000 liters for a 25 mm sampling cassette.

b. The average asbestos concentration of the three blanks is below the filter background level of 70 structures per square millimeter of filter area.

c. The Industrial Hygiene Services Contractor has determined that neither abatement contractor activities nor remaining ACM in other portions of the building are expected to be detected on the outside work area samples and average asbestos concentrations in Work Area Samples are not statistically different from Outside samples, as determined by the Z-test calculation found in 40 CFR Part 763, Subpart E, Appendix A (Z is less than or equal to 1.65)

d. If these conditions are not met, then the decontamination is incomplete and the cleaning procedures of Section 01711 shall be repeated.

E. If the arithmetic mean (average) asbestos concentration on the blank filters exceeds 70 structures per square millimeter of filter area the analysis will cease and new samples will be collected.

1.08 FAILED CLEARANCE TESTS

A. If the release criteria is not met and the area must be recleaned and retested the Contractor will be responsible for cost of retesting.

1.09 PHASE CONTRAST MICROSCOPY

A. The services of a testing laboratory will be employed by the Contractor to perform laboratory analysis of the air samples.

B. A technician will be at the job site with a microscope so that verbal reports on air samples can be obtained within two (2) hours.

C. A complete record, certified by the testing laboratory, of all air monitoring tests and results will be furnished to the Contractor and a copy delivered to the Environmental Consultant.

1.10 PHASE CONTRAST MICROSCOPY

A. The services of a testing laboratory will be employed by the Contractor to perform laboratory analysis of the air samples.

B. Verbal results will be available within 24 hours after taking the sample.

C. A complete record, certified by the testing laboratory, of all Phase Contrast Microscopy (PCM) results will be furnished to the Contractor, who will forward a copy to MSA for compliance with COMAR 26.11.21.06 B.(3)(e)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01714

SECTION 01732 - SELECTIVE DEMOLITION (DECONSTRUCTION)

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

B. Project C.O.R.E. Work Execution Protocols

1.02 SUMMARY

A. The purpose of this Section is to describe general procedures required for the abatement of lead containing materials within buildings to be removed. Specific requirements for lead removal are identified elsewhere in the Contract Documents. In addition, specific requirements for other hazardous material abatement that may be required (i.e., asbestos, mercury, PCBs, etc.) are identified elsewhere in the Contract Documents. This Section includes the following:

1. Demolition and removal of selected portions of building or structure.

2. Demolition and removal of selected site elements.

3. Salvage of existing items to be reused or recycled.

B. Related Sections include the following:

1. Division 2 Section "Building Demolition" for demolition of entire buildings, structures, and site improvements.

2. Division 2 Section "Site Clearing" for site clearing and removal of above- and below-grade improvements.

1.03 DEFINITIONS

A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.

Salvage in first paragraph below may add cost to Project; verify with MSA.

B. Remove and Salvage: Detach items from existing construction and deliver them to the approved place of transfer.

C. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.04 MATERIALS OWNERSHIP

A. Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to MSA that may be encountered during selective demolition remain MSA's property. Carefully

remove and salvage each item or object in a manner to prevent damage and deliver promptly to MSA.

1. Coordinate with MSA’s historical adviser, who will establish special procedures for removal and salvage.

1.05 SUBMITTALS

A. Qualification Data: For demolition firm, professional engineer, and refrigerant recovery technician.

Schedule below may be used to track Contractor's progress; it may also be used to determine that selective demolition will not interfere with MSA's operations. Delete schedule submittal if not required or if selective demolition will not interfere with MSA's operations.

B. Schedule of Selective Demolition Activities: Indicate the following:

1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Locations of proposed dust- and noise-control temporary partitions and means of egress.
2. Means of protection for items to remain and items in path of waste removal from building.

C. Inventory: After selective demolition is complete, submit a list of items that have been removed and salvaged. Responsible for documentation of all removed / salvaged materials using the form provided herein.

D. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

1.06 QUALITY ASSURANCE

A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.

B. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.

C. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

D. Standards: Comply with ANSI A10.6 and NFPA 241.

E. Predemolition Conference: Conduct conference at Project site. Review methods and procedures related to selective demolition including, but not limited to, the following:

1. Inspect and discuss condition of construction to be selectively demolished.
2. Review structural load limitations of existing structures.
3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.

F. Contractor will be required to hold all certifications and comply with all training requirements as identified in the Operations Protocol.

1.07 PROJECT CONDITIONS

A. Conditions existing at time of inspection for bidding purpose will be maintained by MSA as far as practical.

B. Notify MSA of discrepancies between existing conditions and Drawings before proceeding with selective demolition and information provided herein

C. Hazardous Materials: Hazardous materials are present in construction to be selectively demolished. The Contractor will be required to confirm information provided prior to bid to assess hazardous materials prior to demolition.

1. Hazardous material remediation is specified elsewhere in the Contract Documents.

D. Storage or sale of removed items or materials on-site is not permitted.

E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

1. Maintain fire-protection facilities in service during selective demolition operations.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that utilities have been disconnected and capped.

B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

C. Engage a professional engineer to survey condition of buildings to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective demolition operations. Submit documentation of survey to the MSA for review and approval prior to commencing deconstruction and demolition operations.

D. Survey of Existing Conditions: Record existing conditions by use of measured drawings preconstruction photographs, preconstruction videotapes and templates.

E. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.02 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Confirm utility services have been disconnected, sealed or capped prior to commencing deconstruction or demolition operations. If active utilities are identified, notify the MSA. and await direction prior to proceeding with work.

3.03 PREPARATION

A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

1. Provide protection to ensure safe passage of people around selective demolition area.

C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent unexpected or uncontrolled movement or collapse of construction being demolished.

1. Strengthen or add new supports when required during progress of selective demolition.

3.04 SELECTIVE DEMOLITION, GENERAL

A. General: Demolish and remove existing construction as indicated. Use methods required to complete the work within limitations of governing regulations and as follows:

1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.

2. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.

3. Maintain adequate ventilation when using cutting torches.

4. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.

5. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.

6. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.

7. Dispose of demolished items and materials promptly.

B. Removed and Salvaged Items:

1. Clean salvaged items.

2. Pack or crate items after cleaning. Identify contents of containers.

3. Store items in a secure area until removal from the site.

4. Transport items to approved location.

5. Protect items from damage during transport and storage.

3.05 HAZARDOUS MATERIAL ABATEMENT

A. Lead containing material removal: See related specifications in the Contract Documents.

3.06 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be salvaged, or otherwise indicated to remain the MSA's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill. When recyclable debris from a site exceeds 5 tons, at least 30% of that recyclable debris must be immediately transported to a licensed recycling facility per the "Baltimore City Building, Fire, and Related Codes" dated 2015 or the latest version thereof.

   1. Do not allow demolished materials to accumulate on-site.

   2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

B. Burning: Do not burn demolished materials.

C. Disposal: Transport demolished materials off MSA's property and legally dispose of them.

3.07 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 01732

SECTION 02081 - REMOVAL OF ASBESTOS-CONTAINING MATERIALS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. General requirements for the safe removal and handling of asbestos containing material (ACM).

B. Requirements for maintaining safe working conditions with hazardous and contaminated materials that may be encountered during the Work.

1.02 RELATED DOCUMENTS

A. A Site-Specific Asbestos Containing Material (ACM), Lead-Based Paint and Hazardous Material Survey will be provided by MSA at the time the Contractor is authorized to initiate work on the site. The survey will summarize the type, location, quantity and condition of materials identified by the Environmental Consultant in each building included for demolition.

1. The asbestos portions of the survey will comply with EPA's National Emissions Standards for Hazardous Air Pollutants (NESHAP), Subpart M, Section 61.145 for the identification of Category I and Category II ACM.

2. The survey will include recommendations for proper handling and disposal of the identified ACM, if applicable.

B. RELATED SECTIONS

1. Section 01513 - Pressure Differential and Air Circulation System

2. Section 01526 - Temporary Enclosures

3. Section 01560 - Worker Protection

4. Section 01562 - Respiratory Protection

5. Section 01563 - Decontamination Units

6. Section 01711 - Project Decontamination / Asbestos

7. Section 01714 - Work Area Clearance

8. Section 02084 - Disposal of Asbestos-Containing Materials

1.03 REMOVAL OF ACM

A. Following review of the Site-Specific ACM, Lead-Based Paint and Hazardous Material Survey, the Contractor will conduct an inspection of the site and confirm existing conditions and requirements for the safe and proper removal ACM material from the site.

B. Prior to initiation of onsite demolition work, the Contractor will submit to MSA an asbestos removal work plan and health and safety plan (HASP) for the safe removal and protection of onsite workers and the surrounding community. All plans will include sufficient detail of temporary control measures for the evaluation of proposed site-specific working conditions and

compliance with Federal, state and local regulations governing the removal and disposal of asbestos.

C. Remove all friable or Category II non-friable ACM prior to the conclusion of asbestos abatement activities and commencement of building demolition.

D. It is the responsibility of the Contractor to monitor and mitigate all asbestos present on the site to within acceptable OSHA PEL levels of one-tenth (0.1) f/cc of air as an eight (8)-hour TWA.

E. The Environmental Consultant will determine the condition of potential asbestos containing material and the potential for friability which may occur during demolition.

F. It will be the final decision of the Environmental Consultant to determine what Category I non-friable ACM could become friable during demolition activities and will require removal prior to building demolition.

G. The Contractor must adhere to the requirements of the Environmental Consultant and view the determinations as final.

H. Remove, handle, store and dispose of all friable ACM according to all applicable federal, state and local regulations.

1.04 SUBMITTALS

A. Submit product data, use instructions, recommendations from manufacturer of surfactant or removal encapsulant intended for use and MDE approval for intended use. Include data substantiating that material complies with requirements.

B. Submit certification from manufacturer of surfactant or removal encapsulant that, the material, if used in accordance with manufacturer's instructions, will wet asbestos containing materials to which it is applied as required by the National Emission Standard for Hazardous Pollutants (NESHAPS) Asbestos Regulations (40 CFR 61, Subpart M).

C. Asbestos Removal and Monitoring Plan that includes, at a minimum:

1. Detailed planning for the procedures proposed for compliance with the requirements and regulations included in this specification, including:

    a. Schedule of activities and sequencing of asbestos removal and monitoring work.

    b. Chain of command and project responsibilities, including the communication program for each trade involved in the work.

    c. Monitoring plan to ensure compliance with applicable permits and regulations and ensure the safety of abatement workers, contractors, surrounding community and visitors to the site.

    d. Methods, equipment and procedures for the identification, removal and cleanup of ACM or other hazardous materials.

        i. Encapsulation procedures.
        ii. Location and layout of decontamination areas, in accordance with Section 01563 - Decontamination Units.
        iii. Pressure differential system including calculation used to arrive at the number of machines necessary to achieve four (4) air changes per hour or a negative pressure of two one-hundredths (-0.02) inches of water column, relative to outside pressure.

e. Prepare a written respiratory protection program, as defined by OSHA 29 CFR 1910.134 – Personal Protective Equipment, Respiratory Protection and retain a permanent copy on-site during work activities.

f. Identification of National Voluntary Laboratory Accreditation Program (NVLAP)-certified laboratory, or equivalent, for analytical testing of ACM using phase contrast microscopy (PCM).

g. Methods of ACM removal and containment:

i. Identification and location of ACM and hazardous waste.
ii. Proposed ventilation system (HEPA or equivalent).
iii. ACM monitoring and abatement methods within the work area.

h. Contingency Plans:

i. Methods, equipment and procedures for preventing and handling accidental exposure and releases.
ii. Methods, equipment and procedures for the safe characterization of unidentified asbestos containing materials and structures.

D. Task-specific Health and Safety Plan (HASP) that includes, at a minimum:

1. Worker Protection Compliance Program as required for disturbances of ACM and other hazardous wastes. Ensure compliance measures in accordance with 29 CFR 1926.1101 – Safety and Health Regulations for Construction, Asbestos and applicable OSHA worker protection requirements.

2. Roles, responsibilities and notification procedures for documenting and reporting to the MSA and applicable regulatory agencies the identification and/or release of ACM.

3. Safety, health and security requirements and procedures for the protection of workers and the public during ACM removal and containment activities.

4. Work site monitoring equipment, methods and procedures for identifying and mitigating the presence of ACM and associated hazardous wastes.

5. Equipment and personnel decontamination procedures, in accordance with Section 01563.

6. Medical surveillance for personnel working within the control area in accordance with the regulations, as well as workers' post-contract medical surveillance results.

7. Copies of applicable permits and notifications required for asbestos removal work.

E. Quality Control Submittals:

1. Include quality control procedures in the action/informational submittals documenting the methods for ensuring the implementation of policies and procedures identified in the submittal documents.

2. Copies of personal air monitoring readings within seventy-two (72) hours of collection. Distribute results to the Environmental Inspector and on-site workers within twenty-four (24) hours of receipt from the laboratory.

3. If negative pressure containment is implemented, copies of pressure differential strip charts for each work area.

F. Certificates:

1. Copies of EPA and MDE project notifications.

2. Submit Contractor certification for licensed asbestos abatement.
3. Submit EPA certification and MDE accreditation for Asbestos Abatement Supervisor.
4. Submit EPA certification and MDE accreditation for proposed abatement workers showing compliance with COMAR 26.11.23 – Asbestos Accreditation of Individuals.
5. Submit laboratory accreditation certificates, such as NVLAP, for analytical testing of ACM and other hazardous waste.
6. Submit copies of current certifications for training, medical surveillance and respiratory fit test, as appropriate for on-site workers.
7. Submit a current, valid asbestos certification issued by the State of Maryland.

G. Quality Control Submittals:

1. Include quality control procedures in the action/informational submittals documenting the methods for ensuring the implementation of policies and procedures identified in the submittal documents.
2. Copies of personal air monitoring readings within seventy-two (72) hours of collection. Distribute results to the Environmental Consultant and on-site workers within twenty-four (24) hours of receipt from the laboratory.
3. If negative pressure containment is implemented, copies of pressure differential strip charts for each work area.

PART 2 - PRODUCTS

2.01 AMENDED WATER

A. Provide water to which a surfactant has been added.

B. For surfactant, use ENVIRO-WET, ASBESTO-WET, NANCOL or equivalent, as approved by the Environmental Consultant and in accordance with manufacturer's directions.

C. Use a mixture of surfactant and water which results in wetting of the asbestos containing material and retardation of fiber release during disturbance of the material equal to or greater than that provided by the use of one ounce of a surfactant consisting of 50% polyoxyethylene ester and 50% polyoxyethylene ether mixed with five gallons of water.

2.02 ENCAPSULANTS

A. Encapsulants (sealants) will meet the EPA requirements and possess the following characteristics:

1. Adherence: The sealant eliminates fiber dispersal by adhering to the fibrous substrate with sufficient penetration to prevent separation of the sealant from the sprayed asbestos material.
2. Impact Penetration: The sealant withstands impact and penetration, protects the enclosed sprayed asbestos material, while not causing separation of the sprayed asbestos material from its original substrate.
3. Flexibility: The sealant possesses enough flexibility to accommodate atmospheric changes and settling of the structure over time.
4. Resistance to Smoke and Flame: The sealant shall have high flame retardant characteristics and a low toxic fume and smoke emission rating.

5. Ease of Application: The sealant must be easily applied with relative insensitivity to errors in preparation or application. Ease of repair by routine maintenance personnel is desirable.
6. Toxicity: The sealant must be neither noxious nor toxic to application workers and structure users thereafter.
7. Permeability: The sealant will have suitable stability to weathering and aging.

2.03 POLYETHYLENE SHEET

A. Use polyethylene film in the largest sheet size possible to minimize seams, 6.0 mils thick, clear, frosted, or black.

B. Use flame resistant polyethylene film that conforms to requirements set forth by the National Fire Protection Association Standard 701, Small Scale Fire Test for Flame-resistant Textiles and Films.

2.04 MISCELLANEOUS MATERIALS

A. Provide duct tape in 2" or 3" widths, with an adhesive which is formulated to aggressively stick to sheet polyethylene.

B. Provide spray adhesive, which is specifically formulated to stick tenaciously to sheet polyethylene.

C. Provide 6 mil thick leak-tight polyethylene disposal bags labeled as indicated in Section 02084 - Disposal of Asbestos Containing Material.

2.05 ASBESTOS ENCLOSURE SYSTEMS

A. If an enclosure system is used, build suitable enclosure framing and line with polyethylene sheeting, or equivalent, sealed with tape at lap joints in the plastic for asbestos enclosures and decontamination areas.

B. For access between contaminated and uncontaminated areas, install an airlock system including a curtained doorway for access between two (2) areas within the decontamination enclosure systems. Provide a minimum distance between two (2) curtained doorways of six (6) feet. Modifications to the enclosure system due to work space constraints require approval by the Consultant.

C. The decontamination enclosure installation requirements include:

1. A three (3)-stage decontamination station for the removal of equipment and materials from work area, allowing movement from the work area into a wash down room and finally a clean room while preventing cross-contamination outside the work area.
2. The wash down room will contain two (2) curtained doorways. Filter shower water through a five (5) micrometer-filter system, or equivalent, prior to disposal.
3. A clean area with one (1) curtained doorway into the rinsate area and one (1) entrance or exit to non-contaminated areas of the work area. Provide sufficient space for non-contaminated items.

D. Provide and post decontamination and work procedures to be followed by workers.

E. Ensure work site security and implementation of PPE requirements within the work area.

F. Decontaminate workers and authorized visitors prior to exiting the work area. Maintain respirators until the completion of decontamination procedures. Store contaminated PPE in the equipment room when not in use. Upon completion of asbestos abatement, dispose of PPE as contaminated waste. Dispose of contaminated protective clothing in receptacles for disposal with other ACM.

G. Ensure workers removing waste containers from the decontamination enclosure enter the rinsate area wearing a respirator and dressed in clean coveralls.

H. Do not allow workers to eat, drink, smoke, or chew gum or tobacco at the project site except in designated areas.

I. Ensure workers are fully protected with appropriate respirators and protective clothing prior to commencing actual asbestos abatement until completion of final clean-up. Establish methods for safe tie-ins of temporary and replacement lines to ACM insulated pipes.

J. Visually inspect enclosures at the beginning of each work period. Dispersive smoke methods may be used to test effectiveness of barriers. Repair damage immediately.

PART 3 - EXECUTION

3.01 REMOVAL OF ASBESTOS

A. Spray ACM with sealant amended water, using equipment capable of providing appropriate application to reduce the release of fibers. Saturate the material sufficiently. Spray the asbestos material repeatedly during work process to maintain wet condition and minimize asbestos fiber dispersion.

B. Wire brush and/or wet sponge to clean surfaces that contained asbestos or clean by an equivalent method to remove visible material. Keep surfaces wet during cleaning.

C. Use encapsulant to ensure asbestos containing material is not remobilized after removal.

D. Place ACM in labeled disposal bags immediately upon removal. Thoroughly clean the external surfaces of bags by wet sponging within the designated work area. Place the waste bags in a second, clean bag at the waste load out for disposal.

   1. Do not drop or drag the waste bags.

   2. Ensure removal of containers from the regulated area by workers entering from uncontaminated areas dressed in clean coveralls. Ensure workers do not enter from contaminated areas into the clean area during excavation and removal.

E. Bag and secure ACM in a locked drum at the end of each workday. Do not leave debris, unsecured equipment or tools on the project site past the end of each workday.

F. Conduct work in a manner that prevents the spread of ACM. Cleanup ACM migration outside the work areas.

G. Use of mini enclosures and glove bags requires prior approved by the Consultant and MDE.

H. Keep water out of the trench/pit; collect accumulated water and treat or dispose of in accordance with regulatory requirements.

3.02 SECONDARY BARRIER

A. A drop cloth of clear 6 mil sheet plastic in all areas where asbestos removal work is to be carried out. Completely cover floor with sheet plastic.

B. Where the work is within 10'-0" of a wall, extend the Secondary Barrier up wall to ceiling. The ceiling shall then be additionally covered with one layer of poly.

C. Support sheet plastic on wall with duct tape, seal top of Secondary plastic to Primary Barrier with duct tape so that debris is unable to get behind it.

D. Provide cross strips of duct tape at wall support as necessary to support sheet plastic and prevent its falling during removal operations.

E. Install Secondary Barrier at the beginning of each work shift.

F. Remove Secondary Barrier at end of each work shift or as work in an area is completed. Fold plastic toward center of sheet and pack in disposal bags. Keep material on sheet continuously wet until bagged. The ceiling layer shall be kept in place until completion of the work.

G. Install Walkways of black 6-mil plastic between active removal areas and decontamination units to protect Primary layer from tracked material. Install walkways at the beginning of, and remove at the end of each work shift.

3.03 WET REMOVAL

A. Thoroughly wet asbestos-containing materials to be removed prior to stripping and/or tooling to reduce fiber dispersal into the air. Accomplish wetting by a fine spray (mist) of amended water or removal encapsulant. Utilize wet removal methods of asbestos-containing materials at all times during the abatement project.

B. Dry removal methods of asbestos-containing materials for this project are prohibited.

C. Saturate material sufficiently to wet to the substrate without causing excess dripping. Allow time for water or removal encapsulant to penetrate material thoroughly.

D. If amended water is used, spray material repeatedly during the work process to maintain a continuously wet condition. If a removal encapsulant is used, apply in strict accordance with manufacturer's written instructions.

E. Perforate outer covering of any installation which has been painted and/or jacketed in order to allow penetration of amended water or removal encapsulant, or where necessary, carefully strip away while simultaneously spraying amended water or removal encapsulant on the installation to minimize dispersal of asbestos fibers into the air.

F. Mist work area continuously with amended water whenever necessary to reduce airborne fiber levels.

G. Remove saturated asbestos-containing material in small sections from all areas. As it is removed, pack material while still wet into disposal bags.

H. Remove any residue with stiff bristle nylon hand brush.

I. Evacuate air from disposal bags with a HEPA filtered vacuum cleaner. Twist neck of bags, bend over and seal with minimum three wraps of duct tape. Clean outside and move to wash down station adjacent to material decontamination unit.

3.04 LOCK-DOWN ENCAPSULATION

A. Upon completion of removal and cleaning of surfaces, have surfaces visually inspected by the Environmental Consultant. When surfaces have passed the visual inspection, they shall be sprayed with an approved lock-down.

3.05 AIR FILTRATION SYSTEM

A. If necessary in order to meet work area fiber level specified in Section 01410, provide HEPA filtered fan units, one for each scraping activity, in addition to those required by Section 01513, in the vicinity of the work. Arrange so that exhaust is into the work area oriented in a direction away from the work. Extend a 12" diameter flexible non-collapsing duct from the intake end to a point no more than 4'-0" from any scraping or wire brushing activity.

B. Utilize pressure differential equipment continuously from first disturbance of ACM until completion of successful removal and final inspection.

C. Do not discharge unfiltered air outside the work area via air movement system or air filtering equipment.

D. Maintain the exchange rate at no less than four (4) air changes per hour.

E. Continuously monitor and record the pressure differential across isolated barriers using a pressure differential monitoring device. Maintain the pressure differential at a minimum of negative two-hundredths (-0.02) of an inch of water at four (4) degrees Celsius.

F. Provide a continuous-read strip chart manometer, or equivalent, for ensuring negative air pressure differential within the workspace.

G. Provide HEPA filter vacuums with disposable collection bags and filters that are ninety-nine point nine seven (99.97) percent efficient for retaining fibers of three-tenths (0.3) of a micron or larger.

3.06 AIRBORNE FIBER COUNTS

A. Use work procedures that result in an 8-hour Time Weighted Average (TWA) airborne fiber count less than PEL of one-tenth (0.1) f/cc of air as an eight (8)-hour TWA or one (1.0) f/cc as averaged over a thirty (30)-minute period.

B. If airborne fiber counts exceed these levels, immediately mist the area with amended water to lower fiber counts and revise work procedures to maintain airborne fiber levels within the required limit.

END OF SECTION 02081

SECTION 02084 - DISPOSAL OF ASBESTOS-CONTAINING WASTE MATERIALS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Asbestos Disposal

B. Packaging of asbestos-containing waste materials.

C. Execution

1.02 SUBMITTALS

A. Removal and Disposal of Asbestos Pipe Insulation Work Plan that includes, at a minimum:

1. Detailed planning for the procedures proposed for compliance with the requirements and regulations included in this specification, including:

a. Schedule of activities and sequencing of asbestos disposal work.

b. Chain of command and project responsibilities, including the communication program for each trade involved in asbestos disposal.

c. Monitoring plan to ensure compliance with applicable permits and regulations and ensure the safety of abatement workers, contractors, surrounding community during asbestos disposal activities.

d. Methods, equipment and procedures for the packaging, disposal and cleanup of ACM or other hazardous materials.

i. Encapsulation procedures.
ii. Location and layout of decontamination areas.
iii. Pressure differential system including calculation used to arrive at the number of machines necessary to achieve four (4) air changes per hour or a negative pressure of two one-hundredths (-0.02) inches of water column.

2. Prepare a written respiratory protection program, as defined by OSHA 29 CFR 1910.134 – Personal Protective Equipment, Respiratory Protection and retain a permanent copy on-site during work activities.

3. Methods of ACM containment, packaging, transport and disposal:

a. Packaging of removed asbestos debris.

b. Identification of licensed transporter and submission of contact information.

c. Name, location and contact information for a disposal facility meeting the requirements of COMAR 26.11.21.08 – Waste Disposal.

4. Contingency Plans:

a. Methods, equipment and procedures for preventing and handling accidental exposure and releases.

B. Task-specific Health and Safety Plan (HASP) that includes, at a minimum:

1. Worker Protection Compliance Program as required for disturbances of ACM and other hazardous wastes. Ensure compliance measures in accordance with 29 CFR 1926.1101 – Safety and Health Regulations for Construction, Asbestos and applicable OSHA worker protection requirements.
2. Roles, responsibilities and notification procedures for documenting and reporting to the Environmental Consultant and applicable regulatory agencies the release of ACM.
3. Safety, health and security requirements and procedures for the protection of workers and the public during ACM packaging, transport and disposal activities.
4. Equipment and personnel decontamination procedures.
5. Medical surveillance for personnel packaging, transporting and disposing of asbestos and other hazardous material in accordance with applicable regulations, as well as workers' post-contract medical surveillance results.
6. Copies of applicable permits and notifications required for transport and disposal.

C. Certificates:

1. Copies of EPA and MDE project notifications.
2. Submit MDE Certified Waste Hauler documentation identifying the use of a state-licensed ACM transporter.
3. Submit permitting and licensure identifying a designated hazardous or contaminated material disposal facility capable of accepting ACM and associated hazardous wastes.
4. Submit copies of current certifications for training, medical surveillance and respiratory fit test, as appropriate for on-site workers.
5. Submit a current, valid asbestos certification issued by the State of Maryland.

D. Quality Control Submittals:

1. Include quality control procedures in the action/informational submittals documenting the methods for ensuring the implementation of policies and procedures identified in the submittal documents.
2. Copies of personal air monitoring readings within seventy-two (72) hours of collection. Distribute results to the Environmental Consultant and on-site workers within twenty-four (24) hours of receipt from the laboratory.
3. If negative pressure containment is implemented, copies of pressure differential strip charts for each work area.

E. Chain of Custody form and form of waste manifest proposed.

F. Asbestos Cleaning

1. For friable and non-friable material, remove visible accumulations of ACM and debris using procedures approved in the work plan.
2. Include sealed drums and equipment for the clean-up and removal from work areas, via the decontamination enclosure system.
3. Conduct final inspections for each work area. The Consultant may conduct additional verification inspections, as needed. When final inspection and testing determine the area is free of visible accumulation of dust and ambient air measurements are less than one one-

hundredth (0.01) f/cc, breakdown decontamination enclosure systems and dispose of materials as contaminated waste.

PART 2 - PRODUCTS

2.01 PACKAGING OF ASBESTOS-CONTAINING WASTE MATERIALS.

A. Provide and affix labels to ACM, scrap, waste, debris and other products contaminated with asbestos in accordance with 29 CFR 1910.145(d)(4) – Caution Signs.

First Label:

CAUTION

CONTAINS ASBESTOS FIBERS

AVOID OPENING OR BREAKING CONTAINER

BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH

Second Label: Provide in accordance with 29 CFR 1910.1200 (f) of OSHA's

Hazard Communication standard:

DANGER

CONTAINS ASBESTOS FIBERS

AVOID CREATING DUST

CANCER AND LUNG DISEASE HAZARD

BREATHING AIRBORNE ASBESTOS, TREMOLITE, ANTHOPHYLLITE, OR

ACTINOLITE FIBERS IS HAZARDOUS TO YOUR HEALTH

Third Label: Provide in accordance with U.S. Department of Transportation regulation on hazardous waste marking. 49 CFR Parts 171 and 172:

ASBESTOS

NA 2212

RQ

CLASS 9 MISCELLANEOUS SOLID HAZARDOUS WASTE PLACARD

CONSIGNEE OR CONSIGNOR NAME & ADDRESS

Fourth Label:

NAME OF GENERATOR

NAME OF CONTRACTOR

CONTRACTOR'S REMOVAL LICENSE NUMBER

DATE BAG WAS SEALED

2.02 EQUIPMENT

A. Furnish tools, equipment, devices, appurtenances, facilities and services for the containment, packaging, transportation and disposal of ACM.

B. Use metal or fiberboard drums with locking ring tops; label in accordance with EPA 40 CFR 61.150(a)(1)(iv) and (v) – Standard for Waste Disposal for Manufacturing, Fabricating, Demolition, Renovation and Spraying Operations.

   1. The use of tear-off bags is not allowed.

C. Any non-suitable excavated material, including construction debris and man-made waste material, will be handled and disposed of by the Contractor.

PART 3 - EXECUTION

3.01 GENERAL PROCEDURES

A. All waste shall be maintained in an adequately wet condition until sealed in air and leak tight containers.

B. Prior to removing waste from the work area, each bag of waste shall be sealed and placed entirely within a second bag, which shall also be sealed in manner to prevent leakage.

C. All waste is to be hauled by a waste hauler with all required licenses from all state and local authorities with jurisdiction.

D. Load all asbestos-containing waste material in disposal bags or leak-tight drums.

E. Protect interior of truck or dumpster with Critical and Primary Barriers.

F. Carefully load containerized waste in fully enclosed dumpsters, trucks or other appropriate vehicles for transport. Exercise care before and during transport, to insure that no unauthorized persons have access to the material.

G. Advise the landfill operator, MSA and Environmental Consultant, at least ten days in advance of transport, of the quantity of material to be delivered.

H. Ensure asbestos waste storage and disposal complies with all aspects of Federal, State and local asbestos regulation, particularly regarding time periods for removing waste from project site and interim storage. Ensure compliance with all aspects of COMAR 26.11.21.08, particularly regarding time periods for removing waste from project site and interim storage.

I. Dispose of ACM waste as the work progresses to prevent exceeding available storage capacity on-site.

3.02 UNANTICIPATED HAZARDS

A. Should the Contractor suspect, encounter or have knowledge of any hazards not listed or described in the contract documents, the Contractor is responsible for informing the Environmental Consultant immediately and prior to disturbing or causing any action that could result in a release of any suspected or confirmed hazardous material to the work area or surrounding environment.

B. If other hazardous materials are discovered during ACM removal activities, notify the Environmental Consultant immediately. Cordon off area to prevent contamination of clean areas. Collect a representative sample of the material for identification. Estimate quantities of additional suspect hazardous materials and submit documentation to the Environmental Consultant.

3.03 PRECAUTIONS

A. Post "Danger" signs at entrances of ACM removal area.

B. Remove friable asbestos before demolition.

C. Wet asbestos, except asbestos to be encapsulated.

D. Isolate and contain asbestos that is removed or encapsulated.

E. Use appropriate work practices to minimize dispersal of particulate ACM.

F. Leave no visible residue of ACM after completing the project.

3.04 DISPOSAL

A. All asbestos waste shall be disposed of at an approved landfill within the State of Maryland.

B. For hauling and disposal, comply with EPA 40 CFR 61 – National Emission Standards for Hazardous Air Pollutants, Subpart M, and state and local standards. Ensure workers unloading material wear appropriate PPE when handling asbestos materials at the disposal site.

C. Sealed plastic bags may be carefully unloaded from the truck. If bags are broken or damaged, return to work site for re-bagging. Clean entire truck and contents using procedures set forth in Section 01711 Project Decontamination.

D. Retain receipts from landfill or processor for all materials disposed of.

E. No later than 10 days after disposal of each load submit copy of waste manifest, chain of custody form, and landfill receipt to the Consultant or his designee. Complete a waste disposal record at the time of shipment.

END OF SECTION 02084

SECTION 02085 - REMOVAL AND DISPOSAL OF MATERIAL CONTAINING LEAD

PART 1 - GENERAL

1.01 REFERENCES

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

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI Z9.2 (1979; R 1991) Fundamentals Governing the Design and Operation of Local Exhaust Systems ANSI Z88.2 (1992) Respiratory Protection

CODE OF FEDERAL REGULATIONS (CFR)

29 CFR 1926.21	Safety Training and Education
29 CFR 1926.33	Access to Employee Exposure and Medical Records
29 CFR 1926.55	Gases, Vapors, Fumes, Dusts, and Mists
29 CFR 1926.59	Hazard Communication
29 CFR 1926.62	Lead Exposure in Construction
29 CFR 1926.65	Hazardous Waste Operations and Emergency Response
29 CFR 1926.103	Respiratory Protection
40 CFR 260	Hazardous Waste Management Systems: General
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Generators of Hazardous Waste
40 CFR 263	Transporters of Hazardous Waste
40 CFR 264	MSAs and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 265	Interim Status Standard for MSAs and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 268	Land Disposal Restrictions
40 CFR 745	Lead; Requirements for Lead-Based Paint Activities

49 CFR 172 Hazardous Materials, Tables, and Hazardous Materials Communications Regulations

49 CFR 178 Shipping Container Specification

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (HUD)

HUD Guidelines (June 1995) Guidelines for the Evaluation and Control of Lead Based Paint Hazards in Housing

UNDERWRITERS LABORATORIES INC. (UL) UL 586

(1990; R1995) High-Efficiency,

Particulate, Air Filter Units

STATE OF MARYLAND REGULATIONS

Annotated Code of Maryland (COMAR) –

Title 26 Department of the Environment

Subtitle 16 Lead (26.16.01 through 26.16.04)

1.02 DEFINITIONS

A. Action Level: Employee exposure, without regard to use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air averaged over an 8-hour period.

B. Area Sampling: Sampling of lead concentrations within the lead control area and inside the physical boundaries which is representative of the airborne lead concentrations but is not collected in the breathing zone of personnel (approximately 5 to 6 feet above the floor).

C. Competent Person (CP): As used in this section, refers to a person employed by the Contractor who is trained in the recognition and control of lead hazards in accordance with current Federal and State of Maryland regulations, is a State of Maryland Lead Supervisor, and has the authority to take prompt corrective actions to control the lead hazard. An Industrial Hygienist certified by the American Board of Industrial Hygiene or a safety professional certified by the Board of Certified Safety Professionals is preferred.

D. Contaminated Room: Room for removal of contaminated personal protective equipment (PPE).

E. Decontamination Shower Facility: That facility that encompasses a clean clothing storage room, and a contaminated clothing storage and disposal rooms, with a shower facility in between.

F. Eight-Hour Time Weighted Average (TWA): Airborne concentration of lead to which an employee is exposed, averaged over an 8-hour workday as indicated in 29 CFR 1926.62.

G. High Efficiency Particulate Air (HEPA) Filter Equipment: HEPA filtered vacuuming equipment with a UL 586 filter system capable of collecting and retaining lead-contaminated particulate. A high efficiency particulate filter demonstrates at least 99.97 percent efficiency against 0.3-micron diameter or larger size particles.

H. Lead: Metallic lead, inorganic lead compounds, and organic lead soaps. Excludes other forms of organic lead compounds.

I. Material Containing Lead (MCL): Any material which contains lead as determined by the testing laboratory using a valid test method. The requirements of this section do not apply if no detectable levels of lead are found using a valid detection method.

J. Lead-Based Paint (LBP): The definition for lead-based paint is based upon the Maryland Department of the Environment (MDE) and defined as any paint, or other surface coating, containing lead or lead in its compounds, in any quantity at or above the MDE standard of 0.7 mg/cm2 by XRF, or 0.5% by dry weight, on one or more of the components or in any quantity sufficient to constitute a health or environmental hazard.

K. Note that lead may still be present and hazardous leaded dust may be generated during modernization, renovation, remodeling, maintenance or other disturbances of painted surfaces.

L. Lead Control Area: A temporary area or structure or containment, sometimes equipped with HEPA filtered local exhaust that prevents the spread of lead dust or debris. Usually critical barriers and physical boundaries are employed to isolate the lead control area and to prevent migration of lead contamination and unauthorized entry of personnel.

M. Lead Permissible Exposure Limit (PEL): Fifty micrograms per cubic meter (50 μg/m3) of air as an 8-hour time weighted average as determined by 29 CFR 1926.62.

N. Personal Sampling: Sampling of airborne lead concentrations within the breathing zone of an employee to determine the 8-hour time weighted average concentration in accordance with 29 CFR 1926.62. Samples shall be representative of the employees' work tasks. Breathing zone shall be considered an area within a hemisphere, forward of the shoulders, with a radius of six to nine inches and centered at the nose or mouth of an employee.

O. Physical Boundary: Area physically roped or partitioned off around lead control area to limit unauthorized entry of personnel.

1.03 DESCRIPTION OF WORK

A. It is the intent of this specification to perform demolition of structures, which include materials that contain lead. The contractor shall adhere to all applicable regulations and the requirements contained or referenced by this specification in order to protect employees and the public from exposure to lead and other hazardous contaminates.

1.04 SUBMITTALS

A. Submit the following in accordance with Section entitled "Submittal Procedures."

1. Manufacturer's Catalog Data
    a. Vacuum filters
    b. Respirators
2. Instructions
    a. Chemicals and equipment
    b. Safety data sheets for all chemicals
3. Statements

a. Qualifications of Competent Person (CP), including State of Maryland Lead Supervisor Certification

b. Testing laboratory qualifications

c. Third party consultant qualifications

d. Material Containing Lead Removal Plan including CP approval (signature, date, and certification number)

e. Rental equipment notification

f. Respiratory protection program

g. Hazard communication program

h. EPA approved hazardous waste treatment or disposal facility for lead disposal

i. EPA approved hazardous waste transporter name, address, phone number and EPA identification number

j. Hazardous waste management plan

k. Assessment data report

l. State of Maryland Contractor Lead License as applicable

m. State of Maryland Lead "Abatement Worker Certification" as applicable

4. Qualifications of Competent Person: Submit name, address, and telephone number of the Component Person selected to perform responsibilities specified in paragraph entitled "Competent Person (CP) Responsibilities." Provide previous experience of the CP. Submit proper documentation that the CP is trained, licensed and certified in accordance with all applicable Federal and State of Maryland laws.

5. Contractor Testing Laboratory: Submit the name, address, and telephone number of the testing laboratory selected to perform the air sampling, testing, and reporting of airborne concentrations of lead. Use a laboratory participating in the EPA National Lead Laboratory Accreditation Program (NLLAP) by being accredited by either the American Association for Laboratory Accreditation (A2LA) or the American Industrial Hygiene Association (AIHA) and that is successfully participating in the Environmental Lead Proficiency Analytical Testing (ELPAT) program to perform sample analysis.

6. Material Containing Lead Removal Plan (MCLRP): Submit a detailed job-specific plan of the work procedures to be used in the removal of MCL. The plan shall include sketches showing the location, size, and details of lead control areas, critical barriers, physical boundaries, location and details of decontamination facilities, viewing ports, and mechanical ventilation system. Include in the plan, eating, drinking, smoking and sanitary procedures, interface of trades, sequencing of lead related work, collected waste water and dust containing lead and debris, air sampling, respirators, personal protective equipment, and a detailed description of the method of containment of the operation to ensure that airborne lead concentrations of 30 micrograms per cubic meter of air are not reached or exceeded outside of the lead control area. Include occupational and environmental sampling, training and strategy, sampling and analysis strategy and methodology, frequency of sampling, duration of sampling, and qualifications of sampling personnel in the air-sampling portion of the plan.

7. Contractor's Third Party Consultant Qualifications: Submit the name, address and telephone number of the third party consultant selected to perform the wipe sampling for determining

concentrations of lead in dust. Submit proper documentation that the consultant is trained and certified as an inspector technician or inspector/risk assessor authorized by the USEPA, State of Maryland certification and accreditation programs.

B. Field Test Reports

1. Sampling results
2. Assessment Data Report
3. Occupational and Environmental Sampling Results: Submit occupational and environmental sampling results to the MSA/MSA's Authorized Representative within three working days of collection, signed by the testing laboratory employee performing the analysis, the employee that performed the sampling, and the CP.
    a. The sampling results shall represent each job classification, or if working conditions are similar to previous jobs by the same employer, provide previously collected exposure data that can be used to estimate worker exposures per 29 CFR 1926.62. The data shall represent the worker's regular daily exposure to lead.
    b. Submit worker exposure data conducted during the task-based trigger operations of 29 CFR 1926.62.
    c. The initial monitoring shall determine the requirements for further monitoring and the need to fully implement the control and protective requirements including the compliance program (MCLRP) per 29 CFR 1926.62.
4. Occupational and Environmental Assessment Data Report: Some MCL removal work may not require full implementation of the requirements of 29 CFR 1926.62. Based on the experience of the Contractor and/or the use of a specific process or method for performing the work, the Contractor may be able to provide historic data (previous 12 months) to demonstrate that airborne exposures are controlled below the action level. Such methods or controls shall be fully presented in the MCLRP. In order to reduce the full implementation of 29 CFR 1926.62, the Contractor shall provide documentation in an Assessment Data Report. Submit occupational and environmental assessment report to the MSA/MSA's Authorized Representative prior to start of work, signed by the testing laboratory employee performing the analysis, and the CP.
    a. Submit a report that supports the determination regarding the reduction of the need to fully implement the requirements of 29 CFR 1926.62 and supporting the MCLRP. The exposure assessment shall represent each job classification, or if working conditions are similar to previous jobs by the same employer, provide previously collected exposure data that can be used to estimate worker exposures per 29 CFR 1926.62. The data shall represent the worker's regular daily exposure to lead for stated work.
    b. Submit worker exposure data conducted during the task based trigger operations of 29 CFR 1926.62 with a complete process description in supporting a negative assessment.
    c. The initial assessment shall determine the requirement for further monitoring and the need to fully implement the control and protective requirements including the compliance program (MCLRP) per 29 CFR 1926.62.

C. Certificates

1. Vacuum filters

D. Records

1. Completed and signed hazardous waste manifest from treatment or disposal facility
2. Certification of medical examinations
3. Employee training certification

1.05 QUALITY ASSURANCE

A. Medical Examinations: Initial medical surveillance as required by 29 CFR 1926.62 shall be made available to all employees exposed to lead at any time (1 day) above the action level. Full medical surveillance shall be made available to all employees on an annual basis who are or may be exposed to lead in excess of the action level for more than 30 days a year or as required by 29 CFR 1926.62. Adequate records shall show that employees meet the medical surveillance requirements of 29 CFR 1926.33, 29 CFR 1926.62 and 29 CFR 1926.103.

1. Medical Records: Maintain complete and accurate medical records of employees for the duration of employment plus 30 years.
2. Medical Surveillance: Provide medical surveillance to all personnel exposed to lead as indicated in 29 CFR 1926.62.

B. Competent Person (CP) Responsibilities: Certify training as meeting all Federal and State of Maryland requirements.

1. Review and approve Material Containing Lead Removal Plan (MCLRP) for conformance to the applicable referenced standards.
2. Continuously inspect MCL removal work for conformance with the approved plan.
3. Perform air and non-clearance type wipe sampling.
4. Ensure work is performed in strict accordance with specifications and all applicable regulations at all times.
5. Control work to prevent hazardous exposure to human beings and to the environment at all times.
6. Certify the conditions of the work as called for elsewhere in this specification.

C. Training: Train each employee performing lead removal work, MCL disposal, and air sampling operations prior to the time of initial job assignment and annually thereafter, in accordance with 29 CFR 1926.21, 29 CFR 1926.62, and the State of Maryland regulations where appropriate.

1. Training Certification: Submit State of Maryland certificate of accreditation for each employee, stating that the employee has received the required lead training.

D. Respiratory Protection Program: Furnish each employee required to wear a respirator with a respirator fit test at the time of initial fitting and at least annually thereafter as required by 29 CFR 1926.62.

1. Establish and implement a respiratory protection program as required by ANSI Z88.2, 29 CFR 1926.103, 29 CFR 1926.62, and 29 CFR 1926.55.

E. Hazard Communication Program: Establish and implement a Hazard Communication Program as required by 29 CFR 1926.59.

F. Hazardous Waste Management: The Hazardous Waste Management Plan shall comply with applicable requirements of Federal and State of Maryland hazardous waste regulations and address:

1. Identification and classification of hazardous wastes associated with the work.
2. Estimated quantities of wastes to be generated and disposed.
3. Names and qualifications of each Contractor that will be transporting, storing, treating, and disposing of the wastes. Include the facility location and operator and a 24-hour point of contact. Furnish two copies of USEPA and State of Maryland hazardous waste manifests and USEPA Identification numbers.
4. Names and qualifications (experience and training) of personnel who will be working on-site with hazardous wastes.
5. List of waste handling equipment to be used in performing the work, to include cleaning, and transport equipment.
6. Spill prevention, containment, and cleanup contingency measures including a health and safety plan to be implemented in accordance with 29 CFR 1926.65.
7. Work plan and schedule for waste containment, removal and disposal. Wastes will be cleaned up and containerized daily.

G. Environmental, Safety and Health Compliance: In addition to the detailed requirements of this specification, comply with laws, ordinances, rules, and regulations of Federal and State of Maryland authorities regarding lead. Comply with the applicable requirements of the current issue of 29 CFR 1926.62. Submit matters regarding interpretation of standards to the MSA/MSA's Authorized Representative for resolution before starting work. Where specification requirements and the referenced documents vary, the most stringent requirement shall apply. All State of Maryland laws, ordinances, criteria, rules and regulations regarding removing, handling, storing, transporting, and disposing of lead-contaminated materials apply. Licensing and certification in the State of Maryland is required.

H. Pre-Construction Conference: Along with the CP, meet with the MSA/MSA's Authorized Representative to discuss in detail the Hazardous Waste Management Plan and the Material Containing Lead Removal Plan, including work procedures and precautions for the removal plan.

1.06 EQUIPMENT

A. Respirators: Furnish appropriate respirators approved by the National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services, for use in atmospheres containing lead dust, fume and mist. Respirators and cartridges shall comply with the requirements of 29 CFR 1926.62 and 42 CFR.

B. Special Protective Clothing: Furnish personnel who will be exposed to lead-contaminated dust with proper disposable protective whole body clothing, head covering, gloves, eye, and foot coverings as required by 29 CFR 1926.62. Furnish proper disposable plastic or rubber gloves to protect hands. The level of protection may be reduced only after obtaining approval from the CP.

C. Rental Equipment Notification: If rental equipment is to be used during MCL handling and disposal, notify the rental agency in writing concerning the intended use of the equipment. Furnish a copy of the written notification to the MSA/MSA's Authorized Representative.

D. Vacuum Filters: UL 586 labeled HEPA filters.

PART 2 - PRODUCTS

2.01 CHEMICALS

A. Submit applicable Safety Data Sheets (SDSs), compliant with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS), for all chemicals used in lead removal work. Use the least toxic product approved by the MSA/MSA's Authorized Representative.

PART 3 - EXECUTION

3.01 PROTECTION

A. Notification: Notify the MSA/MSA's Authorized Representative 10 days prior to the start of any lead work.

B. Lead Control Area Requirements: Establish a lead control area by completely establishing critical barriers and physical boundaries around the area or structure where MCL removal operations will be performed.

C. Protection of Existing Work to Remain: Perform work without damage or contamination of adjacent areas. Where existing work is damaged or contaminated, restore work to its original condition or better as determined by the MSA/MSA's Authorized Representative.

D. Boundary Requirements:

1. Physical Boundary: Provide physical boundaries around the lead control area by roping off the area designated in the work plan or providing curtains, portable partitions or other enclosures to ensure that airborne concentrations of lead will not reach 30 micrograms per cubic meter of air outside of the lead control area.

2. Warning Signs: Provide warning signs at approaches to lead control areas. Locate signs at such a distance that personnel may read the sign and take the necessary precautions before entering the area. Signs shall comply with the requirements of 29 CFR 1926.62.

E. Heating, Ventilating and Air Conditioning (HVAC) Systems: Shut down, lock out, and isolate HVAC systems that supply, exhaust, or pass through the lead control areas. Seal intake and exhaust vents in the lead control area with 6 mil plastic sheet and tape. Seal seams in HVAC components that pass through the lead control area.

F. Decontamination Shower Facility: Provide clean and contaminated change rooms and shower facilities in accordance with this specification and 29 CFR 1926.62.

G. Eye Wash Station: Where eyes may be exposed to injurious corrosive materials and chemicals, suitable facilities for quick drenching or flushing of the eyes shall be provided within the work area.

H. Mechanical Ventilation System: Use adequate ventilation to control personnel exposure to lead in accordance with 29 CFR 1926.62.

1. To the extent feasible, use fixed local exhaust ventilation connected to HEPA filters or other collection systems, approved by the CP. Local exhaust ventilation systems shall be designed, constructed, installed, and maintained in accordance with ANSI Z9.2.
2. Vent local exhaust outside the building only and away from building ventilation intakes.
3. Use locally exhausted, power actuated tools or manual hand tools.

I. Personnel Protection: Personnel shall wear and use protective clothing and equipment as specified herein. Eating, smoking, or drinking or application of cosmetics is not permitted in the lead control area. No one will be permitted in the lead control area unless they have been appropriately trained and provided with protective equipment.

J. Mass demolition will follow the wet / wet protocols described herein to protect the public from exposure to dust that may contain lead or other hazards.

3.02 WORK PROCEDURES

A. Perform lead work in accordance with approved MCLRP. Use procedures and equipment required to limit occupational exposure and environmental contamination with lead when lead hazard abatement is performed in accordance with 29 CFR 1926.62 40 CFR 745, and as specified herein. Handle and dispose of all MCL and associated waste in compliance with Federal and State of Maryland requirements.

1. Personnel Exiting Procedures: Whenever personnel exit the lead-controlled area, they shall perform the following procedures and shall not leave the work place wearing any clothing or equipment worn in the control area:
    a. HEPA vacuum themselves off.
    b. Remove protective clothing in the contaminated change room, and place them in an approved impermeable disposal bag.
    c. Wash hands and face at the site, don appropriate disposable or uncontaminated reusable clothing, move to an appropriate shower facility, and shower.
    d. Change to clean clothes prior to leaving the clean clothes storage area.
2. Air and Wipe Sampling: Air sample for lead in accordance with 29 CFR 1926.62 and as specified herein. Air and non-clearance wipe sampling shall be directed or performed by the CP.
    a. The CP shall be on the job site directing the air and non-clearance wipe sampling and inspecting the MCL removal work to ensure that the requirements of the contract have been satisfied during the entire MCL operation.
    b. Collect personal air samples on employees who are anticipated to have the greatest risk of exposure as determined by the CP. In addition, collect air samples on at least twenty-five percent of the work crew or a minimum of two employees, whichever is greater, during each work shift.
    c. Submit results of air samples, signed by the CP, within 72 hours after the air samples are taken. Notify the MSA/MSA's Authorized Representative immediately of exposure to lead at or in excess of the action level of 30 micrograms per cubic meter of air outside of the lead control area.
        i. Air Sampling During Material Containing Lead Removal Work: Conduct area air sampling at least daily in areas immediately adjacent to the lead control area on each

shift in which lead hazard abatement operations are performed. Sufficient area monitoring shall be conducted to ensure unprotected personnel outside of the control area are not exposed at or above 30 micrograms per cubic meter of air. If 30 micrograms per cubic meter of air is reached or exceeded, stop work, correct the conditions(s) causing the increased levels. Notify the MSA/MSA's Authorized Representative immediately. Determine if condition(s) require any further change in work methods. Removal work shall resume only after approval is given by the CP and the MSA/MSA's Authorized Representative. For outdoor operations, at least one sample on each work shift shall be taken on the downwind side of the lead control area at a site selected by the CP and approved in advance by the MSA/MSA's Authorized Representative.

B. Material Containing Lead Removal: Manual or power sanding or grinding of MCL is not permitted. Provide methodology for removing MCL in the MCLRP. Select MCL removal processes to minimize contamination of work areas outside the control area with lead-contaminated dust or other lead-contaminated debris/waste and to ensure that unprotected personnel are not exposed to hazardous concentrations of lead. Describe this MCL removal process in the MCLRP.

   1. Material Containing Lead - Indoor Removal: Perform removal in the lead control areas using enclosures, barriers or containments. This includes the construction of a durable critical partition between the portion of the structure to be demolished and the portion to remain. Collect debris for disposal in accordance with Federal and State of Maryland requirements.

   2. Material Containing Lead - Outdoor Removal: Perform outdoor removal as indicated in Federal and State of Maryland regulations and in the MCLRP. The work site preparation (barriers or containments) shall be job dependent and presented in the MCLRP.

   3. Sampling After MCL Removal: After the visual inspection, collect air samples inside and outside the lead control area. Collect wipe samples as required by all applicable Federal, State and local regulations.

C. Cleanup and Disposal

   1. Cleanup: Maintain surfaces of the lead control area free of accumulations of dust and debris. Restrict the spread of dust and debris; keep waste from being distributed over the work area. Do not dry sweep or use pressurized air to clean up the area. At the end of each shift and when the lead operation has been completed, clean the controlled area of visible contamination by vacuuming with a HEPA filtered vacuum cleaner, wet mopping the area and wet wiping the area as indicated by the MCLRP. Reclean areas showing dust or debris. After visible dust and debris is removed, wet wipe and HEPA vacuum all surfaces in the controlled area. If adjacent areas become contaminated at any time during the work, clean, visually inspect, and then wipe sample all contaminated areas. The CP shall then certify in writing that the area has been cleaned of lead contamination before clearance testing.

   2. Clearance Certification: The CP shall certify in writing that the final air and wipe samples collected inside and outside the lead control area are less than 30 micrograms per cubic meter of air or less than established wipe sample clearance criteria; the respiratory protection used for the employees was adequate; the work procedures were performed in accordance with 29 CFR 1926.62 and 40 CFR 745; and that there were no visible accumulations of material and dust containing lead left in the work site. Do not remove the lead control area or roped off boundary and warning signs prior to the MSA/MSA's Authorized Representative's acknowledgment of receipt of the CP certification. The durable critical barrier will remain until its removal is warranted by the renovation of the remaining structure.

3. Testing of Material Containing Lead Residue: Test MCL residue in accordance with 40 CFR 261 for hazardous waste.

4. Disposal: All material, whether hazardous or non-hazardous shall be disposed in accordance with all laws and provisions and all Federal and State of Maryland regulations. Ensure all waste is properly characterized. The result of each waste characterization (TCLP for RCRA materials) will dictate disposal requirements.

    a. Contractor is responsible for segregation of waste. Collect lead-contaminated waste, scrap, debris, bags, containers, equipment, and lead-contaminated clothing, which may produce airborne concentrations of lead particles. Label the containers in accordance with 29 CFR 1926.62 and 40 CFR 261. Dispose of lead-contaminated waste material at an approved hazardous waste treatment, storage, or disposal facility.

    b. Store waste materials in U.S. Department of Transportation (49 CFR 178) approved 55-gallon drums. Properly label each drum to identify the type of waste (49 CFR 172) and the date the drum was filled. The MSA/MSA's Authorized Representative or an authorized representative will assign an area for interim storage of waste-containing drums. Do not store hazardous waste drums in interim storage longer than 90 calendar days from the date affixed to each drum.

    c. Handle, store, transport, and dispose lead or lead-contaminated waste in accordance with 40 CFR 260, 40 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, 40 CFR 265, and State of Maryland Regulations. Comply with land disposal restriction notification requirements as required by 40 CFR 268 and State of Maryland Regulations.

D. Disposal Documentation: Submit written evidence that the hazardous waste treatment, storage, or disposal facility (TSD) is approved for lead disposal by the EPA and State or local regulatory agencies. Submit one copy of the completed manifest, signed and dated by the initial transporter in accordance with 40 CFR 262.

E. Final Payment: Final payment will not be made until signed copies of all manifests from the treatment or disposal facility certifying the amount of lead-containing materials delivered is returned and a copy is furnished.

END OF SECTION 02085

SECTION 02086 - HAZARDOUS WASTE MANAGEMENT

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification Sections, apply to work of this section.

1.02 RELATED SECTIONS

A. Section 01092 Codes and Regulations

B. Section 02081 Removal of Asbestos-Containing Materials

C. Section 02084 Disposal of Asbestos-Containing Materials

D. Section 02085 Removal and Disposal of Materials Containing Lead

1.03 DESCRIPTION OF THE WORK

A. This section describes the segregation, packaging, labeling, transport, and disposal of waste materials generated by demolition activities and the subsequent shipment of properly packaged and labeled waste materials to an approved disposal site.

1.04 CODES AND REGULATIONS

A. General Applicability of Codes and Regulations: Except to the extent that more explicit or more stringent requirements are written directly into the Contract Documents, all applicable codes and regulations have the same force and effect (and are made a part of the contract documents by reference) as if copied directly into the Contract Documents, or as if published copies are bound herewith.

B. Contractor Responsibility: The Contractor shall assume full responsibility and liability for the compliance with all applicable Federal, State, and local regulations pertaining to hazardous waste management and disposal. Hold the MSA and Designer harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of the Contractor, the Contractor's employees, or Subcontractors.

C. Federal Requirements: which govern the management, hauling and disposal of hazardous waste include but are not limited to the following:

1. DOT: U. S. Department of Transportation, including but not limited to:

a. Hazardous Substances:

i. Title 49, Part 171 and 172 of the Code of Federal Regulations

b. Hazardous Material Regulations:

i. General Awareness and Training Requirements for Handlers, Loaders and Drivers
ii. Title 49, Parts 171-180 of the Code of Federal Regulations

c. Hazardous Material Regulations

i. Editorial and Technical Revisions
ii. Title 49, Parts 171-180 of the Code of Federal Regulations

2. EPA: U. S. Environmental Protection Agency (EPA), including but not limited to:

a. Management of Hazardous Wastes Resource Conservation and Recovery Act (RCRA)

i. Title 40, Parts 260- 268 of the Code of Federal Regulations

D. State Requirements: which govern the management, hauling and disposal of hazardous waste include but are not limited to the following:

1. MDE: Maryland Department of the Environment, including but not limited to:

a. Title 26, Subtitle 13, of the Code of Maryland Regulations Disposal of Controlled Hazardous Substances.

E. Local Requirements: Abide by all local requirements which govern the management, hauling and disposal of hazardous waste.

1.05 DEFINITIONS

A. Toxicity Characteristic Leaching Procedure (TCLP): A laboratory test method to determine the mobility of both organic and inorganic analyses present in liquid, solid, and multiphasic wastes performed in accordance with test methods required under 40 CFR Part 268.

1.06 SUBMITTALS

A. Before Start of Work: Submit the following to the MSA for review. Do not start work until these submittals are returned with MSA's action stamp indicating that the submittal is returned for unrestricted use.

1. Copy of state and local licenses for waste hauler.
2. U.S. EPA Identification Number of waste hauler.
3. Name and address of waste disposal facility where hazardous waste materials are to be disposed including:

a. Contact person and telephone number.

b. Copy of state license and permit

c. Disposal facility permits

4. Specimen copy of Uniform Hazardous Waste Manifest form.
5. Copy of EPA “Notice of Hazardous Waste activity” form
6. Copy of forms requires by state and local agencies
7. Sample of disposal label to be used.
8. Submit copies of a valid training certificate for all employees involved in work related to hazardous materials as defined by OSHA under 29 CFR 1910.120.

B. During Work: Submit the following as required by the work.

1. TCLP test results, as required to characterize waste for segregation and packaging purposes.
2. Submit copies of all executed manifests and disposal site receipts to the MSA.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Disposal Bags: Provide 6 mil (0.15 mm) thick leak-tight polyethylene bags.

B. DOT Hazardous Waste Disposal Drums: Provide DOT 17-H or equivalent Open -Top Drums (55 gallon) in accordance with DOT regulations title 49 CFR Parts 173, 178, and 179.

C. DOT Hazardous Waste Labels: in accordance with DOT regulations Title 49 CFR parts 173, 178, and 179.

PART 3 - EXECUTION

3.01 GENERAL

A. Do not mix potentially hazardous waste streams. Where feasible, separate each type of hazardous waste from other types of hazardous wastes, from asbestos waste and from construction waste.

B. Segregate, package, label, transport and dispose of Hazardous Waste in accordance with DOT, EPA, State and Local regulations.

C. Training Certification – Train each employee performing work related to the removal, handling, transportation, treatment, storage and/or disposal of hazardous materials prior to the time of the initial job assignment and annually thereafter, in accordance with 29 CFR 1910.120 and the State of Maryland regulations where appropriate. Submit proper valid documentation for each employee which illustrates that he has successfully completed an accredited training course as defined by applicable federal, state and local regulations.

3.02 HAZARDOUS WASTE DESIGNATION

A. Where not otherwise designated by the MSA as Hazardous waste, characterize all suspect waste products by conducting representative TCLP testing.

B. Representative sampling of waste products will be in accordance with EPA Document SW 846.

C. TCLP test analysis will be performed in accordance with EPA Method 1311.

3.03 HAZARDOUS WASTE

A. The following waste products are designated by the MSA as non-salvageable and as Hazardous Waste Types:

1. Waste Type A: PCB waste.
    a. PCB-containing ballasts from fluorescent light fixtures.
2. Waste Type B: Mercury-containing waste.

a. Thermostats with mercury switches.

3.04 SCOPE OF WORK

A. Work included under this contract involves the removal and disposal of PCB and mercury containing waste materials from designated structures at the site. The work shall be conducted to support the demolition of the buildings located on the subject site. Quantities of materials to be removed are not provided. It shall be the responsibility of the Contractor to estimate quantities to his own satisfaction prior to submitting a bid.

1. If the Contractor bids for this work, this shall indicate acceptance of the Scope of Work that includes removal of all described materials, regardless of quantity.

3.05 HAZARDOUS WASTE PACKAGING AND LABELING

A. Package each segregated Hazardous Waste Type A and B, in specified containers as follows. IMPORTANT: Do Not Mix Waste Streams:

1. Waste Type A

a. Package in DOT 17-H or equivalent Open-Top Drums

b. Fill to capacity only with Waste Type A (Do Not Mix Waste Stream types).

c. Install gasket on lid, apply lock ring, and seal.

d. Apply Hazardous Waste Label to drum side.

e. Enter DOT Shipping Data as follows: RQ Waste Polychlorinated Biphenyls, 9, UN-2315, PG-II, (M001).

f. Adjacent to each label, enter the date indicating when waste was first placed in each drum.

B. Waste Type B

1. Package in DOT 17-H or equivalent Open-Top Drums with Polyethylene disposal bag liners

2. Fill liner bags only with Waste Type B (Do Not Mix Waste Stream types); then neck liner bags down into DOT 17-H or equivalent Open-Top Drum and seal with duct tape.

3. Install gasket on lid, apply lock ring, and seal.

4. Apply Hazardous Waste Label to drum side.

5. Enter DOT Shipping Data as follows: RQ Hazardous Waste Solid, NOS 9, NA3077, PG-III, (D009).

6. Adjacent to each label, enter the date indicating when waste was first placed in each drum.

C. Sealed and Labeled Containers: maintain all containers in a continuously sealed condition after they have been sealed.

1. Do not reopen sealed containers.

2. Do not place additional waste in sealed containers.

3.06 TEMPORARY STORAGE

A. Partially filled containers of hazardous waste may be stored at the work site for intermittent packaging provided that:

1. Each container is properly labeled when it is first placed in service;
2. Each container remains closed at all times except when compatible waste types are added; and
3. When moved from site to site, each container remains within the geographic boundaries of the facility without moving nor crossing public access highways.

3.07 REMOVAL OF HAZARDOUS WASTES:

A. Immediately seal containers of hazardous waste as each the container is filled. Remove containers of hazardous waste from the work site within seventy-two (72) hours of being filled.

B. Transporting filled containers from the work site to an approved disposal site or recycling center.

C. Continuously maintain custody of all hazardous material generated at the work site including security, short-term storage, transportation and disposition until custody is transferred to an approved disposal site or recycling center. Document continuous chain of custody.

D. Do not remove, or cause to be removed, hazardous waste from MSA's property without a legally executed Uniform Hazardous Waste manifest.

E. At completion of hauling and disposal of each load submit copy of waste manifest, chain of custody form, and landfill receipt to Designer.

3.08 RECYCLING AND RECOVERY

A. Turn over waste which contains materials for which recovery and/or recycling is possible to an approved recycling center. Materials subject to recycling include:

1. Fluorescent light tubes.
2. Thermostats with mercury switches.
3. Lead acid batteries
4. Combustible lead-based painted building components and lead-based paint chips.

3.09 BACK CHARGES

A. Where Contractor fails to fulfill packaging, handling, transport or disposal requirements as outlined herein, MSA will charge back to the Contractor all costs associated with ensuring that hazardous wastes are segregated, packaged, transported and disposed of in accordance with all applicable Federal and State regulations.

1. Environmental pollution of MSA's property or areas surrounding the project area resulting from Contractor's hazardous waste management activities will be promptly remediated to the MSA's sole satisfaction, and at the Contractor's sole expense.
2. Contractor agrees to either reimburse the MSA, or reduce the Contract amount by change order to cover all costs associated with waste re-packaging, waste re-segregation, or pollution remediation efforts.

3.10 REMOVAL OF NON-HAZARDOUS WASTE MATERIALS

A. Transport and legally dispose of non-hazardous waste products, materials, residues and refuse at a location in compliance with all Federal, state and local regulations.

B. Non-hazardous waste products, materials, residues and refuse include, but are not necessarily limited to:

   1. Materials which are determined to be non-hazardous wastes through objective sampling in accordance with EPA Document SW-846 and laboratory analysis in accordance with EPA Method 1311.

   2. Emptied hazardous material containers: containers holding a material with constituents listed on the Safety Data Sheet (SDS) as hazardous.

      a. When a container is emptied of its hazardous contents by pouring or scraping so that less than one inch of material remains in the bottom of the container, the container is considered “empty” and is not in itself a hazardous waste.

      b. Emptied hazardous material containers may be disposed of as construction debris waste (i.e. non-hazardous).

   3. Personnel protective clothing and safety equipment with *de minimus* or trace contamination, as determined by visual inspection by MSA’s Representative.

C. Keep premises in a clean and orderly condition during performance of abatement work.

D. Place non-hazardous construction debris wastes on a daily basis in secure containers for local landfill disposal.

END OF SECTION 02086

SECTION 02221 - BUILDING DEMOLITION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

B. Project CORE Work Execution Protocols.

C. Environmental Consultant Project Specific Inspection Report.

1.02 SUMMARY

A. This Section includes the following:

1. Pre-demolition activities

2. Demolition and removal of buildings and site improvements.

3. Abandoning in place and removing below-grade construction.

4. Salvaging items for reuse.

B. Related Sections include the following:

1. Section 01732 - Selective Demolition (Deconstruction) for the partial demolition of buildings, structures, and site improvements associated with salvage operations.

2. Section 02230 - Site Clearing for site clearing and removal of above- and below-grade site improvements not included under building demolition.

1.03 DEFINITIONS

A. Demolish: Completely remove and legally dispose of off-site.

B. Recycle: Recovery of demolition waste for subsequent processing in preparation for reuse.

C. Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to approved transfer location. Include fasteners or brackets needed for reattachment elsewhere.

1.04 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste removed from the site is the property of Contractor.

B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to MSA that may be uncovered during demolition remain the property of MSA.

1. Carefully salvage in a manner to prevent damage and promptly return to MSA.

1.05 SUBMITTALS

A. Asbestos Containing Material (ACM), Lead-Based Paint and Hazardous Material Survey: Prior to the initiation of demolition activities, the Environmental Consultant will complete a Hazardous Material Survey. The survey will detail the locations, quantities, condition, and containment/removal procedures required for the safe and proper disposal of the material. MSA will provide the demolition Contractor with the Hazardous Material Survey as part of the contracting process.

   1. As identified in the Hazardous Material Survey, hazardous/regulated materials including, but not limited to: petroleum products, solvents, aerosol cans, above- and underground storage tanks, polychlorinated biphenyl (PCB) containing materials, chlorofluorocarbon (CFC) containing material, batteries, cathode ray tube (CRT) devices, exit signs, leaded glass, paints, fluorescent lighting, mercury containing equipment and unidentified chemical mixtures, will be removed and disposed of by a Contractor designated licensed hazardous waste handler.

   2. If an unidentified hazardous item is encountered during the work, the Contractor will immediately notify MSA and the Environmental Consultant for direction and implementation of proper handling procedures.

B. Pre-Demolition Survey: No later than 5 days prior to start of demolition activities, the Contractor will complete and submit a report to MSA documenting the structural condition of all buildings to be removed and buildings to remain within and adjacent to the contract limits. The report will identify for each structure, areas suitable for deconstruction activities included in Section 01732 - Selective Demolition (Deconstruction); pre-demolition hazardous material abatement and removal; and other required pre-demolition activities. The report must be signed and sealed by a professional engineer licensed in the State of Maryland.

   1. 1. Report will also include details describing the Contractor's proposed methods for any necessary temporary supports for building demolition.

C. Qualification Data:

   1. All personnel working within the site perimeter will be properly trained to complete the required demolition task, familiarized with the site-specific health and safety plan prior to admittance onto the site.

   2. Hazardous material handling and disposal will only be performed by a licensed professional in accordance with the Site-Specific work plan and under applicable Maryland Occupational Safety and Health (MOSH) conditions.

      a. Workplace air lead concentrations must be maintained below the Permissible Exposure Limit (PEL) of 50 $\mu g/m^3$ of air, averaged over an 8-hour workday. Workplace air lead concentrations at or above the 30 $\mu g/m^3$ action level requires periodic monitoring of worker blood lead levels.

D. Proposed Protection Measures: Submit informational report, including drawings, that indicates the measures proposed for protecting individuals and property**,** for environmental protection**,** for dust control and**,** for noise control. Indicate proposed locations and construction of barriers.

E. Schedule of Building Demolition Activities: Indicate the following:

   1. Detailed sequence of demolition work, with starting and ending dates for each activity.

F. Building Demolition Plans: Drawings indicating the following:

   1. Locations of temporary protection and means of egress for adjacent occupied buildings.

G. Inventory: Submit a list of items to be removed and salvaged and deliver to MSA prior to start of demolition.

H. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

I. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.

J. The City of Baltimore will prepare demolition permit application. Contractor shall complete all predemolition activities as required by the permit including rodenticide and hazardous material abatement. The Contractor will be responsible for obtaining the demolition permit from the City of Baltimore prior to commencing demolition

1.06 QUALITY ASSURANCE

A. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.

B. Regulatory Requirements: Comply with governing EPA notification regulations before beginning demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

C. Standards: Comply with ANSI A10.6 and NFPA 241.

D. Pre-demolition Conference: Review methods and procedures related to building demolition including, but not limited to, the following:

1. Inspect and discuss condition of construction to be demolished.
2. Review structural load limitations of existing structures.
3. Review and finalize building demolition schedule and verify availability of demolition personnel, equipment, and facilities needed to make progress and avoid delays.
4. Review and finalize protection requirements.
5. Review procedures for noise control and dust control.
6. Review procedures for protection of adjacent buildings.
7. Review items to be salvaged.

1.07 PROJECT CONDITIONS

A. Buildings to be demolished will be vacated and their use discontinued before start of the Work.

B. Buildings immediately adjacent to demolition area may be occupied. Conduct building demolition so operations of occupied buildings will not be disrupted.

1. Provide ten (10) day Public Notice of Demolition .
2. Maintain access to existing walkways, exits, and other facilities used by occupants of adjacent buildings.

a. Do not close or obstruct walkways, exits, or other facilities used by occupants of adjacent buildings without written permission from authorities having jurisdiction.

C. MSA assumes no responsibility for buildings and structures to be demolished.

1. Conditions existing at time of inspection for bidding purpose will be maintained by Baltimore City as far as practical.

D. Hazardous Materials: Hazardous materials are present in buildings and structures to be demolished. The Contractor will be required to confirm information provided prior to bid to assess hazardous materials prior to demolition

1. Hazardous material remediation is specified elsewhere in the Contract Documents.

E. On-site storage or sale of removed items or materials is not permitted.

F. It is the intention of MSA to recycle as much of the acceptable demolition debris as feasible, with a minimum of 30% recycled per City of Baltimore requirement The Contractor, therefore, may be required to source separate certain materials that have recycling potential. These items include structural steel, concrete, bricks (excluding refractory type), lumber, plaster and plasterboard, insulation material, cement, shingles and roofing material, floor and wall tile, asphalt, pipes and wires, and other items physically attached to the structure, including appliances if they have been or will be compacted to their smallest practical volume.

1.08 SCHEDULING

A. Construction Scheduling – Within seven (7) calendar days of notice to proceed the Contractors shall submit a schedule conforming to Section 110 of the MSHA Standard Specifications for Construction and Materials (2001). All requirements for the initial activities chart, revisions, updates, meetings and time extensions will apply to these contracts.

B. Two Week Coordination Schedule – The Contractor will submit two-week coordination schedules to MSA on a bi-weekly basis describing the planned work activities for each period. These schedules will be used for agency coordination, utility coordination, testing, and coordination with other parties.

C. Special Work Hours – City regulations and noise ordinances apply. All work must be performed during permissible work hours Special permission may be requested from the MSA for any necessary night work required on emergency basis only. Absolutely, no impact demolition equipment of any kind may be operated after 9 pm.

1.09 COORDINATION

A. Reference is made to the Protocol Document included in the Contract. Each Demolition Contractor will coordinate with other parties that will have full access to the site (contract limits), as well as adjacent areas. Specifically:

1. Each Demolition Contractor will provide full and unrestricted access for representatives, consultants, testing agencies, inspection agencies and agents of MSA to the sites. Testing, monitoring and inspection will be on-going activities throughout the durations of the contract.

2. Each Demolition Contractor will provide full and unrestricted access when requested by MSA for surveys, geotechnical sampling and investigation, engineering studies, evaluations, inspections, etc. that may be necessary for future construction in the work areas.

3. 6. Each Demolition Contractor will coordinate with MSA, City agencies, government agencies, and utilities (including but not limited to BGE, Verizon, Comcast, City Water & Sewer, and City Street Lighting & Electric). Access will be coordinated and provided to each agency or utility when required.

PART 2 - PRODUCTS

2.01 SOIL MATERIALS

A. Satisfactory Soils: Comply with requirements in Division 2 Section "Earthwork."

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that utilities have been disconnected and capped before starting demolition operations.

B. Review Project Record Documents of existing construction provided by the MSA. The MSA does not guarantee that existing conditions are same as those indicated in Project Record Documents.

C. Inventory and record the condition of items to be removed and salvaged.

D. Engage a professional engineer to perform an engineering survey of condition of buildings to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during building demolition operations.

1. Submit report (no later than 5 days prior to start of demolition activities) certified by a Maryland Professional Engineer to MSA for review and acceptance.

2. Steel Tendons: Locate tensioned steel tendons and include recommendations for de-tensioning.

3. Existing buildings that are structurally unsound shall be identified in the report. These building will not incorporate deconstruction operations prior to demolition.

E. Verify that hazardous materials have been remediated before proceeding with building demolition operations.

3.02 PREPARATION

A. Refrigerant: Remove refrigerant from mechanical equipment according to 40 CFR 82 and regulations of authorities having jurisdiction before starting demolition.

B. Temporary Shoring: Provide and maintain interior and exterior shoring, bracing, or structural support to preserve stability and prevent unexpected movement or collapse of construction being demolished.

1. Strengthen or add new supports when required during progress of demolition.

C. Salvaged Items: Comply with the following:

1. Clean salvaged items of dirt and demolition debris.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until removed from the project site
4. Transport items to approved transfer location.
5. Protect items from damage during transport and storage.

3.03 PROTECTION

A. Existing Facilities: Protect adjacent walkways, building entries, and other building facilities during demolition operations. Maintain exits from existing buildings.

B. Existing Utilities: Maintain utility services to remain and protect from damage during demolition operations.

1. Do not interrupt existing utilities serving adjacent occupied or operating facilities unless authorized in writing by MSA and authorities having jurisdiction.
2. Provide temporary services during interruptions to existing utilities, as acceptable to MSA and authorities having jurisdiction.
    a. Provide at least 72 hours' notice to occupants of affected buildings if shutdown of service is required during changeover.

C. Temporary Protection: Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction and as indicated.

1. Protect adjacent buildings and facilities from damage due to demolition activities.
2. Protect existing site improvements, appurtenances, and landscaping to remain.
3. Erect a plainly visible fence around drip line of individual trees or around perimeter drip line of groups of trees to remain.
4. Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
5. Provide protection to ensure safe passage of people around building demolition area and to and from occupied portions of adjacent buildings and structures.
6. Protect walls, windows, roofs, and other adjacent exterior construction that are to remain and that are exposed to building demolition operations.
7. Erect and maintain dustproof partitions and temporary enclosures to limit dust, noise, and dirt migration to occupied portions of adjacent buildings.

D. Remove temporary barriers and protections where hazards no longer exist unless otherwise directed by MSA. Where open excavations or other hazardous conditions remain, leave temporary barriers and protections in place.

3.04 DEMOLITION, GENERAL

A. Demolition will be executed in a safe and coordinated manner, preventing or mitigating any additional risks for the general public or workers.

B. All demolition contractors and sub-contractors must wear all appropriate Personal Protective Equipment (PPE) while onsite. The Contractor will enforce strict PPE use during demolition activities and the Environmental Consultant will monitor for implementation of the site-specific Health and Safety Plan (HASP). Monitoring activities do not relieve the Contractor of responsibility for implementation of health and safety on the demolition site.

C. Demolish indicated existing buildings and site improvements completely. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Do not use cutting torches until work area is cleared of flammable materials. Maintain portable fire-suppression devices during flame-cutting operations.
2. Maintain fire watch during and for at least 4-hours after flame cutting operations.
3. Maintain adequate ventilation when using cutting torches.
4. Locate building demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
5. Avoid or minimize impediment of public roads, streets, walkways or neighboring properties.
6. Ensure a safe route for the continued passage of pedestrians and vehicles around the demolition site.

D. Engineering Surveys: During demolition, perform surveys to detect hazards that may result from building demolition activities.

E. Site Access and Temporary Controls: Conduct building demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

1. Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from MSA and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
2. Use water in accordance with the Project Execution Protocols outlined herein to limit spread of dust and dirt. Comply with governing environmental-protection regulations.

F. Explosives: Use of explosives is not permitted.

3.05 DEMOLITION BY MECHANICAL MEANS

A. Proceed with demolition of structural framing members systematically, from higher to lower level. Complete building demolition operations above each floor or tier before disturbing supporting members on the next lower level.

B. Remove debris from elevated portions of the building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

1. Remove structural framing members and lower to ground by method suitable to minimize ground impact and dust generation.

C. Below-Grade Construction: Demolish foundation walls and other below-grade construction.

1. Remove below-grade construction, including basements, foundation walls, and footings, completely.

D. Existing Utilities: Unless otherwise noted, demolish existing utilities and below-grade utility structures that are within the limits shown. Abandon utilities outside this area.

1. Remove existing utilities within 4' of finished grade.
2. Fill abandoned utility structures with satisfactory soil materials.
3. Piping: Disconnect piping at unions, flanges, valves, or fittings.
4. Wiring Ducts: Disassemble into unit lengths and remove plug-in and disconnecting devices.

3.06 SITE RESTORATION

A. Below-Grade Areas: Completely fill below-grade areas and voids resulting from building demolition operations with satisfactory soil materials according to backfill requirements in Division 2 Section "Earthwork."

B. Site Grading:

1. Uniformly rough grade area of demolished construction to a smooth surface, free from irregular surface changes. Provide a smooth transition between adjacent existing grades and new grades.
2. Soil removal and backfill will not occur until whole block demolition (contiguous site) has occurred to avoid recontamination of backfill. Soil should be lightly wetted prior to removal.

3.07 REPAIRS

A. Promptly repair damage to adjacent buildings caused by demolition operations.

3.08 DISPOSAL OF DEMOLISHED MATERIALS

A. Remove demolition waste materials from Project site and legally dispose of them in an EPA-approved landfill acceptable to authorities having jurisdiction.

1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
3. Removal of demolition debris should begin within 48 hours of commencing demolition operations and is to be completed no later than 14 days from the completion of demolition.
4. Debris piles must not exceed height of temporary fencing installed around perimeter of the site.
5. Roll off bins and dump trucks shall not be parked in front of occupied houses during debris removal.
6. Provide effective wetting during debris removal to reduce dust emissions. Dumpsters will also receive regular wetting to reduce dust.
7. Provide removal and handling of demolition debris utilizing tightly sealed secure and non-permeable coverings on trucks and dumpsters.

B. Do not burn demolished materials.

3.09 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by building demolition operations. Return adjacent areas to condition existing before building demolition operations began.

END OF SECTION 02221

SECTION 02230 - SITE CLEARING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

B. Project C.O.R.E. Work Execution Protocols

1.02 SUMMARY

A. This Section includes the following:

1. Protecting existing trees to remain.
2. Removing existing trees, shrubs, groundcovers, plants, and grass.
3. Clearing and grubbing.
4. Stripping and stockpiling topsoil.
5. Removing above- and below-grade site improvements.
6. Temporary erosion and sedimentation control measures.

B. Related Sections include the following:

1. Division 1 Section "Selective Demolition" for partial demolition of buildings or structures undergoing alterations.
2. Division 2 Section "Building Demolition" for demolition of buildings, structures, and site improvements.
3. Division 2 Section "Earthwork" for soil materials, excavating, backfilling, and site grading.

1.03 DEFINITIONS

A. Topsoil: Natural or cultivated surface-soil layer containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 2 inches in diameter; and free of subsoil and weeds, roots, toxic materials, or other non-soil materials.

1.04 MATERIAL OWNERSHIP

A. Except for stripped topsoil or other materials indicated to remain Baltimore City owned property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.05 SUBMITTALS

A. Photographs or videotape, sufficiently detailed, of existing conditions of trees and plantings, adjoining construction, and site improvements that might be misconstrued as damage caused by site clearing.

1.06 PROJECT CONDITIONS

A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.

1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from MSA and authorities having jurisdiction.

2. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.

B. Do not commence site clearing operations until temporary erosion and sedimentation control measures are in place.

PART 2 - PRODUCTS

2.01 SOIL MATERIALS

A. Satisfactory Soil Materials: Requirements for satisfactory soil materials are specified in Division 2 Section "Earthwork."

1. Obtain approved borrow soil materials off-site when satisfactory soil materials are not available on-site.

PART 3 - EXECUTION

3.01 PREPARATION

A. Protect and maintain benchmarks and survey control points from disturbance during construction.

B. Locate and clearly flag trees and vegetation to remain or to be relocated.

C. Protect existing site improvements to remain from damage during construction.

1. Restore damaged improvements to their original condition, as acceptable to MSA.

3.02 TEMPORARY EROSION AND SEDIMENTATION CONTROL

A. Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to requirements of authorities having jurisdiction and sediment and erosion control Drawings.

B. Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.

C. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.03 UTILITIES

A. Contractor will confirm that utilities have been disconnected, and sealed or capped off by others, as necessary, within Limit of Work.

B. Existing Utilities: Do not interrupt utilities serving facilities occupied by existing occupants or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:

   1. Notify MDS not less than two days in advance of proposed utility interruptions.

   2. Do not proceed with utility interruptions without MSA's written permission.

C. Excavate for and remove underground utilities indicated to be removed as necessary within Limit of Work.

3.04 CLEARING AND GRUBBING

A. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.

B. Cut minor roots and branches of trees indicated to remain in a clean and careful manner where such roots and branches obstruct installation of new construction.

C. Grind stumps and remove roots, obstructions, and debris extending to a depth of 18 inches below exposed subgrade.

D. Use only hand methods for grubbing within tree protection zone.

E. Chip removed tree branches and dispose of off-site.

F. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.

   1. Place fill material in horizontal layers not exceeding a loose depth of eight inches (8”), and compact each layer to a density equal to adjacent original ground.

3.05 TOPSOIL STRIPPING

A. Remove sod and grass before stripping topsoil.

B. Strip topsoil to whatever depths are encountered in a manner to prevent intermingling with underlying subsoil or other waste materials.

   1. Dispose of excess topsoil as specified for waste material disposal.

3.06 SITE IMPROVEMENTS

A. Remove existing above- and below-grade improvements as indicated.

B. Remove slabs, paving, curbs, gutters, sidewalks and aggregate base as indicated.

   1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut length of existing pavement to remain before removing existing pavement. Saw-cut faces vertically.

   2. Paint cut ends of steel reinforcement in concrete to remain to prevent corrosion.

3.07 DISPOSAL

A. Disposal: Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off of Baltimore City property.

END OF SECTION 02230

SECTION 02300 - EARTHWORK

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

B. Project C.O.R.E. Work Execution Protocols

1.02 SUMMARY

A. This Section includes the following:

1. Preparing subgrades for future slabs-on-grade, pavements and foundations.

2. Excavating and backfilling for buildings and structures.

B. Related Sections include the following:

1. Division 2 Section "Site Clearing" for temporary erosion and sedimentation control measures, site stripping, grubbing, stripping topsoil, and removal of above- and below-grade improvements and utilities.

1.03 DEFINITIONS

A. Backfill: Satisfactory soil material or controlled low-strength material used to fill an excavation.

B. Base Course: Course placed between the subbase course and hot-mix asphalt paving.

C. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.

D. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.

E. Fill: Soil materials used to raise existing grades.

F. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.

G. Subbase Course: Course placed between the subgrade and base course for hot-mix asphalt pavement, or course placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.

H. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.

I. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.04 SUBMITTALS

A. Product Data: For the following:

1. Geotextile.

2. Controlled low-strength material, including design mixture.

B. Samples: 12-by-12-inch sample of geotextile.

C. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated:

1. Classification according to ASTM D 2487 of each on-site and borrow soil material proposed for fill and backfill.

2. Laboratory compaction curve according to ASTM D 698 for each on-site and borrow soil material proposed for fill and backfill.

D. Pre-excavation Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by earthwork operations. Submit before earthwork begins.

1.05 PROJECT CONDITIONS

A. Existing Utilities: Do not interrupt utilities serving facilities occupied by MSA or others unless permitted in writing by MSA and then only after arranging to provide temporary utility services according to requirements indicated.

1. Notify MSA not less than two days in advance of proposed utility interruptions.

2. Do not proceed with utility interruptions without MSA's written permission.

3. Contact utility-locator service for area where Project is located before excavating.

B. Demolish and completely remove from site existing underground utilities indicated to be removed. Confirm utility services shut-off prior to proceeding.

PART 2 - PRODUCTS

2.01 SOIL MATERIALS

A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.

B. Satisfactory Soils: ASTM D 2487 Soil Classification Groups GW, GP, GM, SW, SP, and SM or a combination of these groups; free of rock or gravel larger than 6-inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.

C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D 2487, or a combination of these groups.

1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.

D. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.

E. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 95 percent passing a 1-1/2-inch sieve and not more than 8 percent passing a No. 200 sieve.

F. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.

G. Sand: ASTM C 33; fine aggregate, natural, or manufactured sand.

2.02 GEOTEXTILES

A. Subsurface Drainage Geotextile: Nonwoven needle-punched geotextile, manufactured for subsurface drainage applications, made from polyolefins or polyesters; with elongation greater than 50 percent; complying with AASHTO M 288 and the following, measured per test methods referenced:

1. Survivability: Class 2; AASHTO M 288.
2. Grab Tensile Strength: 157 lbf; ASTM D 4632.
3. Sewn Seam Strength: 142 lbf ASTM D 4632.
4. Tear Strength: 56 lbf; ASTM D 4533.
5. Puncture Strength: 56 lbf; ASTM D 4833.
6. Apparent Opening Size: No. 40 sieve, maximum; ASTM D 4751.
7. Permittivity: 0.5 per second, minimum; ASTM D 4491.
8. UV Stability: 50 percent after 500 hours' exposure; ASTM D 4355.

B. Separation Geotextile: Woven geotextile fabric, manufactured for separation applications, made from polyolefins or polyesters; with elongation less than 50 percent; complying with AASHTO M 288 and the following, measured per test methods referenced:

1. Survivability: Class 2; AASHTO M 288.
2. Grab Tensile Strength: 247 lbf; ASTM D 4632.
3. Sewn Seam Strength: 222 lbf; ASTM D 4632.
4. Tear Strength: 90 lbf; ASTM D 4533.
5. Puncture Strength: 90 lbf; ASTM D 4833.
6. Apparent Opening Size: No. 60 sieve, maximum; ASTM D 4751.
7. Permittivity: 0.02 per second, minimum; ASTM D 4491.
8. UV Stability: 50 percent after 500 hours' exposure; ASTM D 4355.

2.03 CONTROLLED LOW-STRENGTH MATERIAL

A. Produce conventional-weight, controlled low-strength material with 140-psi compressive strength when tested according to ASTM C 495.

PART 3 - EXECUTION

3.01 PREPARATION

A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.

B. Preparation of subgrade for earthwork operations including removal of vegetation, topsoil, debris, obstructions, and deleterious materials from ground surface is specified in Division 2 Section "Site Clearing."

C. Protect and maintain erosion and sedimentation controls, which are specified in Division 2 Section "Site Clearing," during earthwork operations.

D. Provide protective insulating materials to protect subgrades and foundation soils against freezing temperatures or frost.

3.02 DEWATERING

A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.

B. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.

1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.

2. Install a dewatering system to keep subgrades dry and convey ground water away from excavations. Maintain until dewatering is no longer required.

3.03 EXPLOSIVES

A. Explosives: Do not use explosives.

3.04 EXCAVATION, GENERAL

A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.

B. Earth excavation includes excavating pavements and obstructions visible on surface; underground structures, utilities, and other items indicated to be removed; together with soil, boulders, and other materials not classified as rock or unauthorized excavation.

1. 1. Intermittent drilling; blasting, if permitted; ram hammering; or ripping of material not classified as rock excavation is earth excavation.

3.05 EXCAVATION FOR WALKS AND PAVEMENTS

A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

3.06 SUBGRADE INSPECTION

A. Notify MSA when excavations have reached required subgrade.

B. If MSA determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.

C. Proof-roll subgrade with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.

1. Completely proof-roll subgrade in one direction**,** repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to 3 mph.

2. Proof-roll with a loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons.

a. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by MSA, and replace with compacted backfill or fill as directed.

D. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.

E. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by MSA, without additional compensation.

3.07 UNAUTHORIZED EXCAVATION

A. Fill unauthorized excavation with engineered fill as directed by MSA.

3.08 STORAGE OF SOIL MATERIALS

A. Stockpile borrow soil materials: Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.

1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.09 BACKFILL

A. Place and compact backfill in excavations promptly, but not before completing the following:

1. Testing and inspecting underground utilities.

2. Removing trash and debris.

3. Removing temporary shoring and bracing, and sheeting.

4. Installing permanent or temporary horizontal bracing on horizontally supported walls.

B. Place backfill on subgrades free of mud, frost, snow, or ice.

3.10 SOIL FILL

A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.

B. Place and compact engineered fill material in layers to required elevations.

C. Place soil fill on subgrades free of mud, frost, snow, or ice.

3.11 SOIL MOISTURE CONTROL

A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.

1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.

2. Remove and replace, or scarify and air dry otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.12 COMPACTION OF SOIL BACKFILLS AND FILLS

A. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.

B. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 698:

1. Scarify and recompact top twelve inches (12”) of existing subgrade and each layer of backfill or fill soil material at 95 percent.

3.13 GRADING

A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.

1. Provide a smooth transition between adjacent existing grades and new grades.

2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.

B. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:

1. Lawn or Unpaved Areas: Plus or minus 1 inch.

2. Walks: Plus or minus 1 inch.

3. Pavements: Plus or minus 1/2 inch.

3.14 SUBBASE AND BASE COURSES

A. Place subbase and base course on subgrades free of mud, frost, snow, or ice.

B. On prepared subgrade, place subbase and base course under pavements and walks as follows:

1. Install separation geotextile on prepared subgrade according to manufacturer's written instructions, overlapping sides and ends.

2. Place base course material over subbase course under hot-mix asphalt pavement.

3. Shape subbase and base course to required crown elevations and cross-slope grades.

4. Place subbase and base course 6 inches or less in compacted thickness in a single layer.
5. Place subbase and base course that exceeds 6 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches thick or less than 3 inches thick.
6. Compact subbase and base course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 698.

3.15 SEEDING

A. The disturbed areas shall be vegetated with permanent seeding as follows:

1. Seedbed preparation: Area to be seeded shall receive 4 inches of topsoil. Also, the areas to be seeded shall be amended with the addition of 2 inches of fully composted organic material. The compost shall be incorporated into the top 6 inches of soil through discing or roto-tilling.
2. Seeding Application (Hydrosee/Hydo-Mulch acceptable)
    a. Spring Seeding Season (March 1 to May 31). Apply 3 lbs. per 1,000 square feet (130 lbs. per acre) Zoysiagrass (as per recommended cultivars, University of Maryland Turfgrass Technical Updated TT-77), plus 1 lb. pre 3,000 square feet (13 lbs. per acre) White Clover.
    b. Summer Seeding Season (Jun 1 to August 31). Apply the same as Spring Season. Res-seed in the Fall season with Hard Fescue and White Clover
    c. Fall Season (September 1 to October 31). Apply 3 lbs. per 1,000 square feet (130 lbs. per acre) Hard Fescue (as per recommended cultivars, University of Maryland Turfgrass Technical Updated TT-77), plus 1 lb. pre 3,000 square feet (13 lbs. per acre) White Clover.
    d. Winter Season (November 1 to February 28). Apply the same as Fall Season plus 22 lbs. per acre of Rye Grain.
3. When requested, the following alternative seed mix may be applied during any of the above seasons: Maryland State Highway Administration (SHA) Turfgrass Mixture (Pure Seed): 50% Houndog 5 Tall Fescue, 45% Bingo Tall Fescue & 5% Raven Kentucky Bluegrass (all 90% germination).
4. Seed shall be applied uniformly with a cyclone seeded frill, cultipacker seeder or hydroseeder (slurry includes seeds and fertilizer, recommended on steep slopes only) on a moist, firm seedbed. Maximum seed depth should be ½" in clayey soils and ½" in sandy soild when using other than the hydroseeder method. If soil moisture is deficient to support adequate growth, irrigation should be employed until vegetation is firmly established.
5. Hydroseeding
    a. Mix specified seed, fertilizer, and fiber mulch in water, using equipment specifically designed for hydroseed application. Continue mixing until uniformly blended into homogenous slurry suitable for hydraulic application.
    b. Mix slurry with non-asphaltic or asphalt-emulsion or fiber mulch manufacturer's recommended, as directed, tackifier.
    c. Apply slurry uniformly to all areas to be seed in a one-step process. Apply slurry at a rate so that mulch component is deposited at not less than 1,500 lb/acre (15.6 kg / 92.9sq. m) dry weight, and seed component is deposited at not less than the specified

seed sowing rate. Or apply slurry uniformly to all areas to be seeded in a two step process. Apply firs slurry coast at a rate so that mulch component is deposited at not less than 500-lb/acre (5.2-kg/92.5 sq. m) dry weight, and seed component is deposited at not less than the specified seed-sowing ate. Apply slurry cover coat of fiber mulch (hydro mulching) at a rate of 1,000 lb/acre (10.4 kg /92.9 sq. m)

6. Topsoil

   a. ASTM D5268 topsoil, with PH range of 5.5 to 7, a minimum of 2 percent organic material content.

7. Mulching: Mulch shall be approved small grain straw or approved hydro-mulch. Mulch shall be un-chopped, un-rotted, small grain straw applied at a rate of 70 to 90 lbs. per 1,000 square feet. Mulch materials shall be relatively free of all kinds of weeds and shall be free of prohibited noxious weeds which are Canada Thistle, Johnson-grass and Quack-grass. Spread mulch mechanically or uniformly by hand; mulch anchoring shall be accomplished immediately after much placement to minimize loss by wind or water. This may be done by one of the following methods: Mulch anchoring tool, tracking, mulch netting, liquid mulch binders, wood cellulose fiber or peg and twine. Proper execution of these provisions, resulting in a full healthy growth of grass shall be a criterion for accepting the site as completed. The Contractor shall not be relieved of this responsibility in the event the site is accepted prior to a full healthy growth of grass being established.

8. Compost:

   a. Compost (observed characteristics)

      Color – Brown

      Particle Size – Less that ½ inch

      Particle Composition – Free of sub-soil, large stones, earth clods, sticks, stumps, clay lumps, roots or other objectionable material

      Odor – “earthy” (like the woods or a forest)

      Weeds – Free of noxious weeds (including Quack-grass rhizomes, Elytrigia repens, and the nut-like tuber of nutsedge, Cyperus esculentus); Weeds may not be growing at the production site

   b. Compost (Laboratory test characteristics)

      Moisture Content – 30- 50%

      Organic Content - Greater than 30%

      Ash Content – Less than 70%

      Carbon to Nitrogen ratio – Below or equal to 30:1

      Nitrogen – 0.5 – 3.0%

      Phosphorus – Greater than 0.2%

pH – 6/0 to 7.5

3.16 FIELD QUALITY CONTROL

A. Testing Agency: The MSA will engage a qualified independent geotechnical engineering licensed to practice in the State of Maryland testing agency to perform field quality-control testing.

B. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earthwork only after test results for previously completed work comply with requirements.

C. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests will be performed at the following locations and frequencies:

   1. At subgrade and at each compacted fill and backfill layer, at least 1 test for every 2000 sq. ft.

D. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil to depth required; recompact and retest until specified compaction is obtained.

E. Testing reports will be distributed to the MSA within 24-hours after completion of test.

3.17 PROTECTION

A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.

B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.

   1. Scarify or remove and replace soil material to depth as directed by Architect; reshape and recompact.

C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.

   1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.18 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off of Baltimore City property.

END OF SECTION 02300

ATTACHMENT J
PROJECT SIGN - SAMPLE

Larry Hogan, Governor
Boyd K. Rutherford, Lt Governor

PROJECT C.O.R.E.

CREATING OPPORTUNITIES for RENEWAL and ENTERPRISE

A JOINT PROJECT BETWEEN MARYLAND · CITY OF BALTIMORE · MARYLAND STADIUM AUTHORITY

CONTRACTOR Name Goes Here

dhcd.maryland.gov/ProjectCORE

THE MARYLAND GENERAL ASSEMBLY: Michael E. Busch, *Speaker Of The House* Thomas V. Mike Miller Jr., *President Of The Senate*

BOARD OF PUBLIC WORKS: Larry Hogan, Governor Peter Franchot, Comptroller Nancy K. Kopp, Treasurer

ATTACHMENT K
PREVAILING WAGE DETERMINATION - SAMPLE

INFORMATIONAL WAGE RATES

The wage rates listed below are published by the State of Maryland, Division of Labor and Industry, Prevailing Wage Unit.

The wage rates posted on this site are provided for **informational** purposes ONLY.

The wage and fringe rates may change between the time of issuance of the wage determinations and the award of the public works contract. Therefore, prior to the award of the public works contract, verification must be made with the public body, to insure that the rates contained in this determination are still prevailing.

These **Informational Prevailing Wage Rates** may not be substituted for the requirements of pre-advertisement for bids or onsite job posting for a public work contract that exceeds $500,000 in value and either of the following criteria are met: (1) the contracting body is a unit of State government or an instrumentality of the State and there is any State funding for the project; or (2) the contracting body is a political subdivision, agency, person or entity (such as a county) and the State funds 50% or more of the project.

BALTIMORE CITY **BUILDING CONSTRUCTION** **Print Date Jul 14, 2017**

CLASSIFICATION	MODIFICATION REASON	BASIC HOURLY RATE	BORROWED FROM	FRINGE BENEFIT PAYMENT
BALANCING TECHNICIAN	AD	$28.90		$8.18
BOILERMAKER	AD	$30.52	005	$29.06
BRICKLAYER	AD	$30.61		$10.38
BRICKLAYER/SAWMAN	AD	$26.47	003	$11.12
CARPENTER	AD	$26.66		$13.20
CARPENTER - SHORING SCAFFOLD BUILDER	AD	$26.66		$13.20
CARPET LAYER	AD	$28.68		$10.62
CEMENT MASON	AD	$23.60		$8.75
COMMUNICATION INSTALLER TECHNICIAN	AD	$36.97	003	$12.68
DRYWALL - SPACKLING, TAPING, & FINISHING	AD	$26.66		$13.20
ELECTRICIAN	AD	$36.10		$16.98
ELEVATOR MECHANIC	AD	$46.57		$30.41
FIREPROOFER - BY HAND	AD	$32.47	003	$17.21
FIREPROOFER - SPRAYER	AD	$26.50	003	$11.24
FIRESTOPPER	AD	$26.81		$6.13
GLAZIER	AD	$29.46		$19.64
INSULATION WORKER	AD	$34.33		$14.07
IRONWORKER - FENCE ERECTOR	AD	$28.23	027	$19.64
IRONWORKER - ORNAMENTAL	AD	$29.13		$19.64
IRONWORKER - REINFORCING	AD	$28.48		$19.64
IRONWORKER - STRUCTURAL	AD	$28.48		$19.64
LABORER - AIR TOOL OPERATOR	AD	$19.15		$5.93
LABORER - ASPHALT PAVER	AD	$19.15		$5.93
LABORER - ASPHALT RAKER	AD	$18.71		$4.94
LABORER - BLASTER - DYNAMITE	AD	$19.15		$5.93
LABORER - BURNER	AD	$19.15		$5.93
LABORER - COMMON	AD	$18.71		$4.94
LABORER - CONCRETE PUDDLER	AD	$18.71		$4.94
LABORER - CONCRETE SURFACER	AD	$19.15		$5.93
LABORER - CONCRETE TENDER	AD	$18.71		$4.94
LABORER - CONCRETE VIBRATOR	AD	$18.71		$4.94

LABORER - DENSITY GAUGE	AD	$18.71		$4.94
LABORER - FIREPROOFER - MIXER	AD	$18.71		$4.94
LABORER - FLAGGER	AD	$18.71		$4.94
LABORER - GRADE CHECKER	AD	$18.71		$4.94
LABORER - HAND ROLLER	AD	$18.71		$4.94
LABORER - HAZARDOUS MATERIAL HANDLER	AD	$19.15		$5.93
LABORER - JACKHAMMER	AD	$18.71		$4.94
LABORER - LANDSCAPING	AD	$18.71		$4.94
LABORER - LAYOUT	AD	$18.71		$4.94
LABORER - LUTEMAN	AD	$18.71		$4.94
LABORER - MASON TENDER	AD	$19.15		$5.93
LABORER - MORTAR MIXER	AD	$18.71		$4.94
LABORER - PIPELAYER	AD	$19.15		$5.93
LABORER - PLASTERER - HANDLER	AD	$18.71		$4.94
LABORER - SCAFFOLD BUILDER	AD	$19.15		$5.93
LABORER - TAMPER	AD	$18.71		$4.94
MILLWRIGHT	AD	$29.61		$13.75
PAINTER	AD	$29.61		$13.75
PILEDRIVER	AD	$28.03		$13.55
PLASTERER	AD	$28.33		$5.95
PLASTERER - MIXER	AD	$36.55	003	$17.95
PLUMBER	AD	$38.02		$18.99
POWER EQUIPMENT OPERATOR - ASPHALT DISTRIBUTOR	AD	$36.55	003	$17.95
POWER EQUIPMENT OPERATOR - BACKHOE	AD	$32.00		$11.65 a + b
POWER EQUIPMENT OPERATOR - BROOM / SWEEPER	AD	$26.35	003	$11.65
POWER EQUIPMENT OPERATOR - BULLDOZER	AD	$27.25		$11.65 a + b
POWER EQUIPMENT OPERATOR - CONCRETE CURB AND GUTTER PAN	AD	$31.28	003	$4.26 a
POWER EQUIPMENT OPERATOR - CONCRETE PUMP	AD	$38.26	003	$7.04
POWER EQUIPMENT OPERATOR - CRANE	AD	$32.25		$15.35 a + b
POWER EQUIPMENT OPERATOR - CRANE - TOWER	AD	$35.00	005	$15.05 a
POWER EQUIPMENT OPERATOR - DRILL - RIG	AD	$35.94	005	$9.66 a
POWER EQUIPMENT OPERATOR - EXCAVATOR	AD	$27.94		$11.65
POWER EQUIPMENT OPERATOR - FORKLIFT	AD	$28.18	005	$12.97 a
POWER EQUIPMENT OPERATOR - GRADALL	AD	$28.25		$11.65
POWER EQUIPMENT OPERATOR - GRADER	AD	$33.75		$11.65
POWER EQUIPMENT OPERATOR - GUARD RAIL POST DRIVER	AD	$25.75	003	$11.80
POWER EQUIPMENT OPERATOR - HOIST	AD	$27.97		$12.97
POWER EQUIPMENT OPERATOR - LOADER	AD	$25.75		$11.80 a + b
POWER EQUIPMENT OPERATOR - MECHANIC	AD	$28.18	005	$12.97
POWER EQUIPMENT OPERATOR - MILLING MACHINE	AD	$27.25	003	$11.65 a
POWER EQUIPMENT OPERATOR - OILER	AD	$26.75		$2.86
POWER EQUIPMENT OPERATOR - PAVER	AD	$18.89		$3.63 a + b
POWER EQUIPMENT OPERATOR - ROLLER - ASPHALT	AD	$18.75		$3.63 a + b
POWER EQUIPMENT OPERATOR - ROLLER - EARTH	AD	$28.18	005	$12.97 a
POWER EQUIPMENT OPERATOR - SCRAPER	AD	$22.00	027	$3.44
POWER EQUIPMENT OPERATOR - SCREED	AD	$25.03		$14.85
POWER EQUIPMENT OPERATOR - SKID STEER (BOBCAT)	AD	$24.05		$11.55 a + b
POWER EQUIPMENT OPERATOR - SKIDDER	AD	$31.25		$0.00
POWER EQUIPMENT OPERATOR- TRANSFER MACHINE OPERATOR		$14.00		$0.00

POWER EQUIPMENT OPERATOR-VACCUM TRUCK	AD	$26.35	027	$11.65
RESILIENT FLOOR	AD	$28.68		$10.62
ROOFER/WATERPROOFER	AD	$28.75		$11.01
SHEETMETAL WORKER	AD	$31.76		$19.08
SPRINKLERFITTER	AD	$29.01	003	$18.77
STEAMFITTER/PIPEFITTER	AD	$38.02		$18.99
STONE MASON	AD	$35.91		$16.89
TILE & TERRAZZO FINISHER	AD	$22.46		$10.06
TILE & TERRAZZO MECHANIC	AD	$27.25		$11.23
TRUCK DRIVER - CONCRETE PUMP	AD	$23.50		$1.31
TRUCK DRIVER - DUMP	AD	$18.00		$3.58 a + b
TRUCK DRIVER - DUMP - ARTICULATING	AD	$27.97	027	$4.18
TRUCK DRIVER - FLATBED	AD	$26.14	003	$19.27
TRUCK DRIVER - LOWBOY	AD	$23.93	005	$8.19
TRUCK DRIVER - TACK/TAR TRUCK	AD	$19.64	005	$5.17
TRUCK DRIVER - TANDEM	AD	$21.71	005	$7.27
TRUCK DRIVER - TRACTOR TRAILER	AD	$28.45	005	$11.55
TRUCK DRIVER - WATER	AD	$23.75	005	$9.97
TRUCK DRIVER- STAKE BODY		$18.50		$2.13

FRINGE REFERENCES AS NOTED:

a. PAID HOLIDAYS: New Year Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

b. PAID VACATIONS: Employees with 1 year service - 1 week paid vacation; 2 years service - 2 weeks paid vacation; 10 years service - 3 weeks paid vacation.

Incidental Craft Data: Caulker, Man Lift Operator, Rigger, Scaffold Builder, and Welder receive the wage and fringe rates prescribed for the craft performing the operation to which welding, scaffold building, rigging, operating a Man Lift, or caulking is incidental.

These **Informational Prevailing Wage Rates** may not be substituted for the requirements of pre-advertisement for bids or onsite job posting for a public work contract that exceeds $500,000 in value and either of the following criteria are met: (1) the contracting body is a unit of State government or an instrumentality of the State and there is any State funding for the project; or (2) the contracting body is a political subdivision, agency, person or entity (such as a county) and the State funds 50% or more of the project.

Modification Codes:

(AD) 17-209 Annual Determination from Survey Wage Data Received
(CH) 17-211 Commissioners' Hearing
(CR) 17-208 Commissioners' Review
(SR) 17-208 Survey Review by Staff

Each "Borrowed From" county is identified with the FIPS 3-digit county code unique for the specific jurisdiction in Maryland.

For additional information on the FIPS (Federal Information Processing Standard) code, see http://www.census.gov/datamap/fipslist/AllSt.txt

The Prevailing Wage rates appearing on this form were originally derived from Maryland's annual Wage Survey. The Commissioner of Labor & Industry encourages all contractors and interested groups to participate in the voluntary Wage Survey, detailing wage rates paid to workers on various types of construction throughout Maryland.

A mail list of both street and email addresses is maintained by the Prevailing Wage Unit to enable up-to-date prevailing wage information, including Wage Survey notices to be sent to contractors and other interested parties. If you would like to be included in the mailing list, please forward (1) your Name, (2) the name of your company (if applicable), (3) your complete postal mailing address, (4) your email address and (5) your telephone number to PWMAILINGLIST@dllr.state.md.us. Requests for inclusion can also be mailed to: Prevailing Wage, 1100 N. Eutaw Street - Room 607, Baltimore MD 21201-2201.

END OF REPORT

ATTACHMENT L
PRE-PROPOSAL INSTRUCTIONS

On- Call Demolition Services for Project C.O.R.E.

A pre-proposal meeting will be conducted on Wednesday, July 26, 2017 at 10:00 a.m. Interested Offerors must pre-register with the Procurement Officer. In order to participate in the conference, interested Offerors must pre-register by providing an e-mail no later than Thursday July 24, 2017 that identifies the firm name, anticipated pre-proposal meeting attendee name(s) and contact information. Attendance is limited to two representatives per firm.

ATTACHMENT M
CORPORATE PROFILE FORM

Corporate Profile

Firm Contact Information

Firm Name: _____

Federal ID Number: _____

D&B Number: _____

Point of Contact: _____ Phone Number: _____

Regional Office Address: _____

_____

Firm Background Information

Year Firm Founded: _____

Contractor's License #: _____ State: _____ Expiration Date: _____

Bonding Capacity: _____ Available Bond Capacity: _____

Is the firm MDOT MBE and/or SBR Certified? Yes ☐ No ☐ If certified, provide the certification # and minority status.

_____

Primary Business / Service Provided: _____

Number of Years Performing Demolition Services: _____

Number Full Time Employees (Corporate / Regional Office): _____/_____

Provide a brief narrative outlining the firm's history. Elaborate on the firms experience and expertise performing demolition services. Specifically, elaborate on the firms experience completing residential demolitions that include hazardous materials abatement.

_____
_____
_____
_____
_____
_____

_____
_____

_____
_____
_____
_____
_____

Provide sales volume, project completion data and safety data for the most recently completed three year period. Note that information provided is to be for the regional / local office that would be responsible for completing work under this solicitation.

	Annual Sales Volume	Completed Projects	Largest Project	EMR Rating
2014	_____	_____	_____	_____
2015	_____	_____	_____	_____
2016	_____	_____	_____	_____

Firm References

Provide three (3) references. Note that references are to be from different projects; that is, only one reference per project is allowed.

Firm Reference Number 1

Name: _____
Title: _____
Company Name: _____
Phone Number: _____
Project Relationship: _____

Firm Reference Number 2

Name: _____
Title: _____
Company Name: _____
Phone Number: _____
Project Relationship: _____

Firm Reference Number 3

Name: _____
Title: _____
Company Name: _____
Phone Number: _____
Project Relationship: _____

Corporate Profile Prepared By:

Name: _____

Title: _____

Signature: _____

Date: _____

ATTACHMENT N
PROJECT EXAMPLE FORMS

ATTACHMENT N
Project Example Form
RFP - On-Call Demolition Services
Project CORE

Project Title and Location:	Project Duration			
	Start Date Month / Yr.		Completion Month/Yr	

Offeror's Specific Role on Project:	
Project Delivery Method:	

	As Bid	Actual	Explanation for Difference
Total Project Construction Cost:			
Firm Contract Cost:			
Project Duration :			
Project Size (GSF / # of Properties):			

Brief Narrative Description of Project:

Similiaries / Relevance to Project

Offeror Key Personnel Involvement	
Project Executive:	
Projec Manager:	
Field Superintendent:	
Other:	

Owner Information	
Name:	
Address:	
Contact Rep:	
Contact Info:	

Project Photos Provided on Following Page

ATTACHMENT O
KEY PERSONNEL RESUME FORMS

ATTACHMENT O
Key Personnel Resume Form
RFP - On-Call Demolition Services
Project CORE

Name:		**Experience**	
Proposed Role:		**Total:**	**Current Firm:**
Firm Name & Location:			

Education (Degree):	**Current Professional Certifications / License:**

Brief Narrative of Other Professional Qualifications

Employment History

Project Examples

a.	Title:			Project Duration (Mth./Yr)	
	Location:			Start	Completed
	Sepcific Role on Project:				
	Total Project Cost / Firm Contract Cost:	$ / $		Delivery Method:	
	Brief Project Description:				
	Relevance to this Project:				
b.	Title:			Project Duration (Mth./Yr)	
	Location:			Start	Completed
	Specific Role on Project:				
	Total Project Cost / Firm Contract Cost:	$ / $		Delivery Method:	
	Brief Project Description:				
	Relevance to this Project:				
c.	Title:			Project Duration (Mth./Yr)	
	Location:			Start	Completed
	Specific Role on Project:				
	Total Project Cost / Firm Contract Cost:	$ / $		Delivery Method:	
	Brief Project Description:				
	Relevance to this Project:				

ATTACHMENT P
PERMIT APPLICATION SAMPLE DOCUMENTS

Note these forms are subject to change at any time and are being provided for information purposes only.

PROJECT CORE DEMOLITION SUBMITTAL CHECKLIST

The reasons for this check list are:

1. **To guide the designer with developing a complete submittal.**
2. **To guide the DPW technical reviewers in their review.**

FOR CITY USE ONLY

ESD#: _____

Date Received: _____

Date Approved: _____

SWM/ESC Reviewer: _____

PROJECT ADDRESS: _____

WARD(S): _____ **SECTION(S):** _____ **BLOCK(S):** _____ **LOT(S):** _____

DHCD/ MSA PROJECT MANAGER CONTACT INFORMATION:

NAME: _____

PHONE NUMBER: _____ **E-MAIL:** _____

CONTRACTOR CONTACT INFORMATION:

NAME: _____

FIRM: _____

ADDRESS: _____

PHONE NUMBER: _____ **E-MAIL:** _____

ESC RESPONSIBLE PERSONNEL NAME: _____

ESC RESPONSIBLE PERSONNEL NUMBER: _____

CERTIFICATION STATEMENT

I hereby certify that this project meets the specified limitations and that all requirements for this Simplified Plan will be met and that all grading and construction will be performed according to the requirements and guidelines of the Simplified Plan.

_____

Signature **Date**

_____

Printed Name **Title**

PROJECT TYPE:

☐ Demolition, slab-on-grade to remain

☐ Demolition, slab-on-grade removed

X Demolition, full basement removal and backfilled with suitable material

☐ Demolition and mass grading (changes to drainage patterns)—**Not Eligible for Simple Plan**

PROJECT INFORMATION:

PROPERTY AREA: _____ sf/ ac PROPOSED LOD AREA: _____ sf/ ac

EXISTING IMP. AREA: _____ sf/ ac PROPOSED IMP. AREA.: _____ sf/ ac

ENCLOSURES:

☐ Existing Conditions Map (use Baltimore Cityview*) showing:

- Base Map* = Community Base Map; Thematic Overlay (Floodplain & Contours; select contour lines)
- Limit of Disturbance (LOD), by applicant
- Nearest inlet locations, by applicant
- Erosion and sediment control locations, by applicant (check as applicable)
  - Stabilized Construction Entrance for equipment on pervious surface (i.e. equipment drives off of existing pavement)
  - Inlet Protection for inlets within 25 feet of LOD
  - Silt Fence around work area

☐ Proposed Conditions Map (use Baltimore Cityview*) showing:

- Base Map* = Hybrid Aerial 2014
- Impervious area removal, by applicant

FOR CITY USE ONLY

DPW Reviewer Name (signature): _____

DPW Reviewer Name (print): _____ (Date)

City Match for Plans Review and Permitting Fees: $_____

Approved plans must be retained on-site and be available for the DPW during construction. A written notification must be submitted to DPW at least 72 hours prior to the start of construction to the Department of Public Works', Office of Compliance and Laboratories, 3001 Druid Park Drive, Room 228 Baltimore, MD 21215; Fax 410-523-9047; dpw.escinspections@baltimorecity.gov.

DEPARTMENT OF TRANSPORTATION
BALTIMORE CITY

APPLICATION FOR TEMPORARY USE OF A RIGHT OF WAY

Department of Transportation Right of Way Permits Section
200 Holliday Street, Rm 6, Baltimore, MD 21202
410-396-4508 • row.permit.documents@baltimorecity.gov

PLEASE PRINT OR TYPE INFORMATION

SECTION A (Contact Information)	**DATE SUBMITTED:**
Applicant*	Contractor
Applicant Point of Contact Name	Contractor Point of Contact Name
Applicant Point of Contact Phone	Contractor Point of Contact Phone
Applicant Email Address	Contractor Email Address
Applicant Address, City, State, Zip	Contractor Address, City, State, Zip

*Note that DOT will hold the Applicant listed in this top left box responsible for any and all work performed under this permit.
Any violations found by our inspection team will be sent to this individual or organization.
Payment must be received and 'NO PARKING' signs must be posted prior to 72 hours of the permit start work date.

TYPE OF PERMIT

- ☐ Alley Closure
- ☐ Curb Lane
- ☐ Curb Repair
- ☐ Dumpster
- ☐ Fence
- ☐ Film Equipment
- ☐ Footway
- ☐ Scaffolding
- ☐ Street Closure
- ☐ Test Pit
- ☐ Utility/Street Cut (see Section B)
  - ☐ Electric
  - ☐ Fiber Optics/ Telephone
  - ☐ Gas
  - ☐ Sewer/Water
  - ☐ Other:_____
- ☐ Wire Pull Access
- ☐ Emergency App under Blanket Permit
- ☐ New Pole/Pole Attachment Permit (see Section B)
- ☐ Other: _____

Proposed Work Location/Address		Applicant Internal Job/WO#
Street Name		
From Street	To Street	Councilmanic District Number
Description of Proposed Work		
Requested Start Date/Time	Requested End Date/Time	Drawing Attached? Yes ◯ No ◯

Parking Meter Id's/No. of Spaces (EZ Park Only)			**Related Approvals**	
			Developer's Agreement	Right of Entry
			City Contract #	H.C.D. Permit #
			Other	

*For EZ Park meters only, if you are requesting fewer than 10 spaces, the meter will not be bagged. 'NO PARKING' signs will need to be obtained and posted at the location 72 hrs. in advance to reserve spaces.

CONTINUED ON PAGE 2.

APPLICATION FOR TEMPORARY USE OF A RIGHT OF WAY

Department of Transportation Right of Way Permits
Section 200 Holliday Street, Rm 6, Baltimore, MD 21202
410-396-4508 • row.permit.documents@baltimorecity.gov

SECTION B (For Street Cut Work *Only*)

Lane or Sidewalk Closures?	Yes	No
Will steel plates be used?	Yes	No
Weekend Work?	Yes	No
Night Work?	Yes	No

Estimated Number of Street Cuts _____
(Please list size of each Street Cuts in *Additional Comments*)
Attach drawing (re-submit drawing to streetcuts@baltimorecity.gov when job is complete if design is different from original; reference the permit number.)

Additional Comments

SECTION C (All Permits)

I declare under penalties of perjury that this application, including any accompanying plans, specifications, etc., has been examined by myself and to the best of my knowledge and belief is a true, correct, and complete statement of the work to be covered by this application.

X_____ X_____ X_____
Signature **(Required)** Print Name **(Required)** Date

- FOR OFFICE USE ONLY. PLEASE DO NOT WRITE IN THIS SECTION. -

Date Received	Received By

Please submit this application via email to row.permit.documents@baltimorecity.gov in a PDF format.