



LIMITED ASBESTOS DEMOLITION

FORMER HK PORTER FRICTION MATERIALS SITE
1849 EAST SABINE STREET
HUNTINGTON, INDIANA

SME PROJECT 082717.00
SEPTEMBER 25, 2019



The following document was prepared by Soil and Materials Engineers, Inc., under the supervision of a Project Designer accredited by the Indiana Department of Environmental Management under the requirements of Section 206 of the Toxic Substances Control Act and constitutes an asbestos abatement design in connection with:

**LIMITED ASBESTOS DEMOLITION
FORMER HK PORTER FRICTION MATERIALS SITE
1849 EAST SABINE STREET
HUNTINGTON, INDIANA
SME PROJECT 082717.00**

SME Project Designer: Jason C. Lafayette
Accreditation Number: 19A003227
Signature: _____
Date: September 25, 2019

**LIMITED ASBESTOS DEMOLITION
FORMER HK PORTER SITE
1849 EAST SABINE STREET
HUNTINGTON, INDIANA
SME PROJECT 082717.00**

| Section Title | Section Number | Page(s) |
|--|-----------------------|----------------|
| Bidding Instructions..... | 00 21 00..... | 1-4 |
| Regulatory Requirements | 00 41 00..... | 1 |
| Bid Form | 00 41 13..... | 1-3 |
| Quality Control | 00 45 00..... | 1-2 |
| Warranties and Bonds..... | 00 61 00..... | 1 |
| General Conditions | 00 72 00..... | 1-17 |
| Special Working Conditions | 00 73 00..... | 1-2 |
| Insurance Provisions..... | 00 73 16..... | 1-5 |
| Safety, Health, and Emergency Response..... | 00 73 19..... | 1-3 |
| General Requirements | 01 00 00..... | 1-11 |
| Payment Procedures and Applications for Payment | 01 20 00..... | 1-5 |
| Project Coordination | 01 31 13..... | 1-4 |
| Submittals | 01 33 00..... | 1-6 |
| Hazardous Material Project Procedures | 01 35 00..... | 1-2 |
| Equipment Decontamination Procedures | 01 35 43..... | 1-2 |
| Temporary Utilities | 01 50 00..... | 1-6 |
| Construction Facilities | 01 52 00..... | 1-2 |
| Construction Aids..... | 01 54 00..... | 1 |
| Temporary Barriers and Enclosures..... | 01 56 00..... | 1-3 |
| Temporary Controls | 01 57 00..... | 1-2 |
| Project Closeout..... | 01 77 19..... | 1-4 |
| Demolition Involving Asbestos-Laden Dust | 02 40 00..... | 1-16 |
| Demolition Asbestos Air Monitoring..... | 02 40 00.01 | 1-5 |
| Worker Protection-Asbestos Demolition..... | 02 40 00.02 | 1-4 |
| Respiratory Protection-Asbestos Demolition | 02 40 00.03 | 1-4 |
| Hazardous Contaminated Material | 02 60 00..... | 1-4 |
| Off-Site Transportation and Disposal | 02 81 00..... | 1-3 |
| Lead-Bearing Paints and Coatings..... | 02 83 00..... | 1-6 |
| Cadmium-Bearing Paints and Coatings | 02 83 00.01 | 1-6 |
| PCB-Containing Equipment Removal | 02 84 00..... | 1-6 |
| Respirable Silica Exposure | 02 87 00..... | 1-5 |
| Miscellaneous Regulated Materials..... | 02 90 00..... | 1-3 |
| Appendix A- Required Forms | | |

SECTION 00 21 00 BIDDING INSTRUCTIONS

Sealed bids will be received by the City of Huntington Clerk Treasurer's office, second floor of City Building, 300 Cherry Street, Huntington, Indiana, until 3:30 p.m., local time, on Monday, October 7, 2019, for furnishing all labor, materials, and performing all work in connection with:

LIMITED ASBESTOS DEMOLITION FORMER HK PORTER FRICTION MATERIALS SITE 1849 EAST SABINE STREET HUNTINGTON, INDIANA SME PROJECT 082717.00

1.01 GENERAL INFORMATION

- A. The scope of demolition includes the demolition and disposal of five site buildings known or presumed to be contaminated with asbestos-laden dust from the former asbestos manufacturing operations at the Project Site. The site structures consist of an approximately 4,500 square foot mixing/solvent recovery building; two metal-framed storage buildings totaling approximately 17,000 square feet; and two dust collector structures. The primary manufacturing building and other Project Site features will remain.

A mandatory Pre-Bid Meeting will be conducted at 10:00 a.m. local time, on Monday, September 30, 2019. The Pre-Bid Meeting will convene in the paved parking lot north of the buildings located at 1849 East Sabine Street, east of Grayson Avenue and West of Broadway Street, in Huntington, Huntington County, Indiana. Following the opening discussion, attendees will tour the buildings included in the scope of work to view existing conditions affecting the Work, including calculation of a visual estimation of quantities of materials to be removed from the Project Site. All bidders are required to attend the Pre-Bid meeting and subsequent tour of the structure representing site conditions. Failure to attend the Pre-Bid meeting will disqualify a bidder.

- B. Bids will be accepted on the Work indicated in Base Bids with unit costs for additional work which may be requested.
- C. Bidders are required to submit offers on Bid Forms provided in this section. Each bidder is required to submit the affidavit appended to the Bid Form stating that neither bidder, bidders agents, nor any party representing the bidder, has paid or agreed to pay, directly or indirectly, any person, firm or corporation any money or valuable consideration for assistance in procuring or attempting to procure the contract herein referred to, and further agreeing that no such money or reward will be hereafter paid. Each Bidder is also required to submit a Bidder Qualification Statement.
- D. Proposals will not be accepted after the time designated for the opening of the bids. The Bidder shall assume full responsibility for delivery of proposals to the Owner at the appointed hour for opening same, and shall assume the risk of late delivery or non-delivery regardless of the manner he/she employs for the transmission thereof. Facsimile or email copies of the bid will not be accepted.

- E. Each Bid must contain the full name of every person, firm or corporation interested in the bid, and the address of the person, firm or the president and secretary of the corporation bidding; and if a corporation, the bid must give the name of the State in which it is incorporated.
- F. Each bid must be clearly signed with the full name and address of each person, firm, or corporation interested in it. In case of a partnership, the firm name and address and name and address of each individual party must be given. In case of a corporation, the title of the officer signing must be stated, and each officer must be thereunto duly authorized. In the case of a partnership, the signature of at least one of the partners must follow the firm name, using the term "member of firm". In case of an individual, use the term "doing business as" or "sole owner."
- G. Bids which have been submitted shall not be withdrawn after the time set for the opening of bids, and shall remain firm for 120 days following submission. Bids may not be withdrawn or altered prior to this date.
- H. The City of Huntington, Indiana, for the use and benefit of its Department of Development and Redevelopment (the Owner) reserves the right to reject any or all bids or to waive any formality in the bidding process.
- I. No bid will be accepted from an individual, firm or corporation that is in arrears or default to the City of Huntington, upon any debt or Contract, including but not limited to prevailing wage requirements, or has defaulted as surety or otherwise upon any obligation to the aforementioned, or has failed to perform faithfully any previous contract with the aforementioned.
- J. Submit a bid bond or cashier's check payable to the Owner with each bid included in the contractor's proposal. Each bid bond or cashier's check shall be, at a minimum, in an amount that is at least 10% of the total corresponding bid. The bid bond or cashier's check will be released or returned to the bidder in case its bid is rejected. The bid bond or cashier's check shall be forfeited and the principal amount of said bid bond shall be paid to the Owner or said check shall be surrendered to the Owner as the agreed amount of liquidated damages in case of failure to enter into contract as described by the Contract Documents. If the bid is accepted, the bid bond or cashier's check will be returned after the Contract Agreement has been signed and the performance bond herein required has been furnished and approved by the Owner.
- K. A Performance Bond for the work will be required prior to award of the contract. The Contractor shall include the cost for a Performance Bond in an amount that is 100% of the total corresponding bid. The performance bond and the Surety will be released only when all provisions of the Contract and all warranty obligations required by the Contract have been fulfilled.
- L. All bonds shall be executed by Sureties licensed to conduct business in the State of Indiana and named in the current list of "Companies Holding Certificates of Authority as acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All bonds signed by an agent must be accompanied by a certified copy of the authority to act. If the Surety of any bond furnished in conjunction with the work for this contract is declared bankrupt or becomes insolvent or its right to do

business is terminated in the State of Indiana, the bidder/contractor shall substitute another bond and Surety acceptable to the Owner within five (5) working days.

- M. The Owner/Owner's Consultant will issue a Notice to Proceed to the Contractor prior to work beginning. Upon receipt of the Notice To Proceed, the Contractor shall prepare and submit a demolition notification to the appropriate regulatory agency, the Indiana Department of Environmental Management.
- N. The Contractor shall complete the work within 45 calendar days of the Notice to Proceed. Failure to complete the work within 45 calendar days of the Notice to Proceed shall result in the application of \$1,000 per day in liquidated damages penalty for each day beyond 45 calendar days of the Notice to Proceed.
- O. The Contractor shall enroll in and verify the work eligibility status of all his/her/its newly hired employees through the E-Verify program as defined in IC 22-5-1.7-3. The Contractor shall not knowingly employ or contract with an unauthorized alien. The Contractor shall not retain an employee or contract with a person that the Contractor subsequently learns is an unauthorized alien. The Contractor shall provide certification of E-verify eligibility for all employees using the forms appended to these specifications. Termination for default occurs if thirty (30) days after notification the Contractor fails to cure a breach of this provision. The Contractor is not required to participate should the E-Verify program cease to exist. Additionally, the Contractor is not required to participate if the Contractor is self-employed and does not employ any employees.
- P. The State of Indiana has enacted a law (I.C. 22-5-16.5) which requires all state agencies and political subdivisions request certification from its contractors that the contractor is not engaged in investment activities in Iran as those terms are defined by that Chapter 16.5. The Contractor shall provide such certification using the forms appended to these specifications.

1.02 EXAMINATION OF SPECIFICATIONS & SITE OF THE WORK

- A. Bidders shall carefully examine the proposal forms, project specifications, and inspect the site of proposed work in order to satisfy themselves, by examination, as to all local conditions affecting the contract and as to the detailed requirements of construction. The submission of a bid shall be considered prima facie evidence that the Bidder has made such examination and is satisfied as to the conditions of the specifications, supplemental specifications, special provisions, and contract.
- B. Bidders shall acquaint themselves with the structures associated with the proposed work. The protection of the public; surrounding structures, facilities and infrastructure; and others using the facilities shall be the Contractor's responsibility and bidders shall take these matters into account in submitting the bid.
- C. If data regarding existing conditions or quantities of asbestos or hazardous materials is provided or mentioned in the Contract Documents, such data is provided for the convenience of the bidder and not as a guarantee of conditions. The bidder shall satisfy himself as to the sufficiency and correctness of such data and shall make all investigations/measurements

- necessary so that the bid shall be based upon the bidder's own knowledge and estimation of conditions to be met.
- D. Bidders shall also familiarize themselves with the requirements of all Federal, State, and local laws which may directly or indirectly affect the prosecution of the work and the furnishing of the necessary materials.
 - E. Should a bidder find any discrepancy in or omission from the specifications and general conditions or be in doubt as to their meaning, the bidder shall notify the Owner's Consultant in writing. The Owner's Consultant will send written response/instructions in addenda to all bidders, electronically mailed, sent via facsimile, or delivered to bidders as soon as possible. The Owner will not be responsible for any oral instructions. Questions regarding the scope of work for the project, general conditions, specifications, etc. must be submitted via electronic mail to the Owner's Consultant by October 3, 2019. Submit questions to:

Jason C. Lafayette
Senior Project Consultant
SME
Email address:

jason.lafayette@sme-usa.com

1.03 AWARD OF CONTRACT

- A. Unless further time is required for analysis of the bids or investigation of the responsibility of any bidder and in the absence of a limitation upon the time of acceptance set forth in the bid, the Contract(s) will be awarded by the Owner by October 15, 2019. The notice of the award will be transmitted via facsimile and mailed to the address given by the Bidder(s) on the proposal by October 16, 2019. A Notice To Proceed with contract work will be issued to the successful bidder upon award. Upon receipt of the Notice To Proceed, the selected bidder(s) will be responsible to notify the appropriate regulatory agencies via overnight delivery service such that demolition is completed within 45 days of the Notice To Proceed. Bids submitted for the work shall be applicable and firm for 120 days following submission. Bids may not be withdrawn or altered prior to this date.
- B. The Owner may opt to enter into contract with one or more contractor(s) for the prosecution of work described herein.
- C. The Owner reserves the right to rescind the award of any contract at any time before the execution of said contract by all parties without liability against the Owner. The Owner may award the contract either in its entirety or may delete any of the items from the award as is in the best interests of the Owner.
- D. Bids will be evaluated on the basis of qualifications, schedule and project price.

END OF SECTION 00 21 00

SECTION 00 41 00 REGULATORY REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

Specifications to conform to regulatory requirements.

1.2 RELATED SECTIONS

Diagrams and general provisions of the Contract, including General and Supplementary Conditions and other Project Specifications sections apply to this section, including but not limited to:

Section 00 72 00 - General Conditions and Requirements

Section 01 33 00 – Submittals

1.3 PERFORMANCE REQUIREMENTS

A. Applicable Codes

Research and comply with all current local, state, and federal rules, ordinances, and regulations relating to buildings, employment, the preservation of public health and safety, etc. Conduct specified activities in accordance with building codes, mechanical codes, electrical codes, and other regulations. Bid costs should include all fees applicable to complete specified activities.

B. Necessary Permits

Research, obtain, and pay for all permits necessary to comply with current local, State, and Federal rules, ordinances, and regulations relating to specified activities. Applicable permits may include, but are not limited to, discharge permits and grading permits, if necessary.

PART 2 PRODUCTS (not used)

PART 3 EXECUTION (not used)

END OF SECTION 00 41 00

**SECTION 00 41 13
BID FORM**

**LIMITED ASBESTOS DEMOLITION
FORMER HK PORTER SITE
1849 EAST SABINE STREET
HUNTINGTON, INDIANA
SME PROJECT 082717.00**

The undersigned has examined the Contract Documents, including the general conditions, specifications, drawings, and all addendums and is fully informed as to the nature of the work and conditions relating to its performance. The undersigned has visited the site and premises for this Project and is familiar with existing conditions affecting the Work including calculation of a visual estimation of quantities of materials to be removed from the Project Site. The undersigned hereby proposes to furnish all necessary machinery, tools, equipment, and other means of construction; perform labor and furnish all the materials; and to complete the work herein described in strict conformity with the requirements of the Contract Documents for the above mentioned project.

We, the undersigned, hereby offer to enter into a Contract to perform the following work based on the following bid:

Demolition and proper disposal of the following structures contaminated with asbestos-laden dust:

One Mixing/Solvent Recovery Building
Two adjoined metal storage buildings
Two dust collector structures

The demolition activities include the removal and proper disposal or recycling of fluorescent light fixture tubes and fluorescent light fixture ballasts within the structures. Inspect the fluorescent light fixture ballasts for date of production and/or labels that identify the polychlorinated biphenyl (PCB) content of the ballasts. Ballasts which are not affixed with a "Non-PCB" label or which were produced prior to 1979 shall be considered to contain PCBs and shall be properly disposed or recycled. Demolition shall also include disposal of mechanical equipment such as motors, air compressors, heat exchangers, fan coil units, and other discarded/abandoned materials within the structures.

The Indiana Department of Environmental Management – Office of Land Quality has indicated that materials contaminated with asbestos-laden dust at the site must be properly decontaminated or disposed as asbestos waste in a landfill licensed by the State of Indiana to accept the waste material. Nonporous materials are permitted to be properly decontaminated and recycled or disposed as standard demolition waste.

Porous materials, such as wood, fabric, and concrete block, that are not suitable for decontamination must be disposed as asbestos waste.

Demolition shall also include filling depressions/holes in the concrete slabs with aggregate material and capping with 6 inches of concrete finished to match the existing floor slab level, and plugging existing sewer connections and floor drains with rubber stoppers, capping the connections and drains with concrete to match the level of the existing concrete floor slabs, and applying fiber lockdown encapsulant to the floor slabs to remain in place.

Existing storm sewer catch basins and pipes adjacent to the buildings included in the scope of work must be protected and preserved.

The Contractor shall be responsible to provide water, electricity, and heat as needed for asbestos decontamination and demolition activities. The Contractor is responsible to coordinate acquisition/connection of temporary utility services as needed to complete the work and for all fees, permits, and notifications required for temporary utility services.

Should any suspect asbestos or hazardous materials become known during abatement or demolition, the Contractor shall notify the Owner and Owner's Consultant. The Contractor shall document the discovery of such materials in writing, including specific locations and quantities of the materials, and submit the documentation to the Owner and Owner's Consultant. Unit rates for the removal of concealed materials shall be applied with the approval of the Owner. Change Order requests for removal of such materials will be rejected in the absence of proper notification and written documentation.

The Contractor shall provide a detailed Work Plan with each Bid that includes a schedule of work with a schedule of labor (and applicable qualifications/training for each worker) that specifies the minimum number of workers to be dedicated to the job site throughout the project and maximum number of man hours or work days necessary to complete each phase of the work. The number of work days, man hours, and minimum number of workers included shall reflect the maximum amounts of time and costs associated with completing the work for the project in accordance with the bid submitted. The schedule of work shall include the number of work days the Contractor anticipates to facilitate the demolition activities and the number of work days the Contractor anticipates to complete demolition activities. The work plan shall specify the method(s) to be employed for dust suppression to ensure that visible emissions will not be generated by the demolition activities, the proposed method(s) for material decontamination and disposal, and the proposed method(s) to be used to complete the demolition activities.

Submit a bid bond or cashier's check payable to the Owner with each bid in an amount that is at least 10% of the total corresponding bid. A performance bond for the work will be required prior to award of the contract. The Contractor shall include the cost for a Performance Bond in an amount that is 100% of the total corresponding bid. All bonds submitted must be issued by a surety company authorized to do business in Indiana.

September 25, 2019

Work is permitted at the site Monday through Friday from the hours of 7:00 a.m. to 6:00 p.m. (except on Holidays). Work on weekends or Holidays shall be subject to approval by the Owner and Owner's Consultant. Demolition activities must be conducted safely, swiftly, and efficiently. The Owner may award multiple contracts to maximize progress in the shortest amount of time possible. Provide a Base Bid as indicated below.

Provide a Base Bid to decontaminate building components, remove hazardous materials, demolish the above-grade features of the five structures, properly dispose debris, and encapsulate remaining concrete floor slabs which will remain in place.

BASE BID, Demolition of Five Structures, Former HK Porter Friction Materials Site, Huntington, IN

.....\$
The undersigned agrees, if awarded Contract, to furnish evidence of insurance within ten (10) business days after date of award and submit notification to appropriate regulatory agencies upon receipt of the Notice To Proceed for the project. The Contractor shall complete all site work within 45 calendar days after receipt of the Notice To Proceed.

Bids submitted for the work shall be applicable and firm for 120 calendar days following submission. Bids may not be withdrawn or altered prior to this date. The Undersigned further certifies that, as an individual, firm or corporation making this Bid, is not in arrears or default to the Owner aforementioned, nor has failed to perform faithfully any previous contract with the aforementioned and that there is no suit or claim pending as to any such arrears or default.

Submitted By: _____
(Company Name)

(Address)

Signed: _____

Signed By: _____
(Name)

Title: _____

Date: _____

END OF SECTION 00 41 13 – Bid Form

SECTION 00 45 00 QUALITY CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

Quality control measures for samples submitted for laboratory analyses.

1.2 RELATED SECTIONS

A. Section 01 35 43 - Equipment Decontamination Procedures

1.3 REFERENCE STANDARDS

A. Code of Federal Regulations (CFR)

1. CFR 29 CFR 1926/1910 Construction/General Industry Occupational Safety and Health Standards.
2. CFR 40 CFR 260 General Regulations for Hazardous Waste Management.
3. CFR 40 CFR Part 261 Identification and Listing of Hazardous Waste.
4. CFR 49 CFR 171 Department of Transportation Regulations to Stipulate Requirements for Containers and Procedure for Shipment of Hazardous Waste.

B. National Fire Protection Association (NFPA)

1. NFPA 30 (1990) Flammable and Combustible Liquids Code.
2. NFPA 325M (1991) Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids.

C. State of Indiana

1. Title 13 (Environment) of the Indiana Code
2. Indiana Occupational Safety and Health Act (IOSHA)- General Industry and Construction Safety Standards (as amended).

D. United States Environmental Protection Agency (EPA)

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

1.4 SUBMITTALS

A. Work Plan

Before proceeding with any removal and disposal work, as part of the bid for the work, submit a work plan that includes the procedures proposed for the accomplishment of all specified activities. The procedures shall provide for safe conduct of the work; careful removal and disposition of solid wastes; and property protection. The procedures shall provide a detailed description of the methods and equipment to be used for each operation, and the sequence of operations. The work plan shall be based on work experience, and the

guidance provided in this specification. Include appropriate quality control measures as outlined in this Section.

B. Statement of Qualifications

Include with bid submittals a statement of qualifications for each entity performing work specified in this bid package. Entities include, but are not limited to the Contractor, security service contractors, transportation service contractors, laboratory service contractors, suppliers, and all other subcontractors.

C. Chain of Custody Documentation

All samples submitted for laboratory analyses must be accompanied by a laboratory chain-of-custody. At a minimum, the chain-of-custody must contain sample identification, required laboratory analyses, preservation techniques, number of sample containers, date of sample collection, time of sample collection, signature of sample collector, and date results are expected.

D. Laboratory Analytical Reports

Submit two copies of each laboratory analytical report to the Owner's Consultant. The laboratory analytical report should include analytical parameters, date(s) of sample collection, date(s) of extraction, and date(s) of analyses. The laboratory analytical report must be accompanied by the signature of the qualified representative of the laboratory testing company.

1.5 REGULATORY REQUIREMENTS

A. Statutes and Regulations

Samples submitted for laboratory analyses must be analyzed in accordance with EPA approved methods. Submit samples for all laboratory analyses required by the approved disposal facility.

B. General

All health and safety regulations relating to collecting samples from hazardous materials available in 29 CFR, Parts 1926 and 1910 shall be complied with at all times. All pertinent regulations such as, but not limited to, 29 CFR Parts 1910 and 1926 and 40 CFR 260, 261, 262, 263, 264, 761 and applicable state and local regulations shall be followed in sampling, storing, containing, and handling hazardous waste, electrical equipment, asbestos-containing materials, and lead-bearing paints.

PART 2 PRODUCTS (not used)

PART 3 EXECUTION (not used)

END OF SECTION 00 45 00

SECTION 00 61 00 WARRANTIES AND BONDS

PART 1 GENERAL

1.1 DESCRIPTION

- A. The Contractor shall obtain and forward to the Owner any documents concerning Guarantee and Indebtedness, and any other special warranties or requirements of the Contract Documents. All required material shall accompany Contractor's request for final payment.
- B. A bid bond or cashier's check payable to the Owner with each bid in an amount that is at least 10% of the total corresponding bid at a minimum is required.
- C. A performance bond for the work in an amount that is 100% of the total corresponding bid will be required prior to award of the contract.
- D. All bonds submitted must be issued by a surety company authorized to do business in Indiana. All bonds signed by an agent must be accompanied by a certified copy of the authority to act. If the Surety of any bond furnished by the Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located, the Contractor shall substitute another bond and Surety within five (5) working days, both of which shall be acceptable to the Owner.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION 00 61 00

SECTION 00 72 00 GENERAL CONDITIONS

PART 1 GENERAL

1.1 DEFINITIONS:

The definitions contained in this section are not necessarily complete but are general to the extent that they are not defined more explicitly elsewhere in the Contract Documents.

- A. Approve: The term "approve" or "approved," where used in conjunction with the Owner's Consultant's action on the Contractor's submittals, applications, and requests, is limited to the responsibilities and duties of the Owner's Consultant stated in General Conditions. Such approval shall not release the Contractor from responsibility to fulfill Contract Document requirements, unless otherwise provided in the Contract Documents.
- B. Contract: The term "Contract" means the Agreement, the General Conditions of the Contract, the project Specifications and Drawings, including all modifications prior to execution of the Agreement, together with changes approved by the Owner and provided subsequent to said execution of the Agreement.
- C. Contractor: The term Contractor shall mean the person, firm or corporation or any combination thereof, and its, their or his/her successors, personal representative, executors, administrators and assigns, and any person, firm or corporation who or which shall at any time be substituted therefore under this Contract having a contract with the Owner for the Work and shall include in their respective capacities, the President, Manager, or other officer or agent representing or locally managing any corporation contracting the Work. References to specific contractors or subcontractors are made for convenience only and shall in no way relieve the Contractor of the responsibility to complete the Work for the project in entirety.
- D. Deliverable: "Deliverable" shall mean any document, product, action, etc. to be provided by the Contractor as identified in the Contract Documents. A Deliverable may be unique or support attainment of Substantial Completion or Final Acceptance.
- E. Directed: Terms such as "directed", "requested", "authorized", "selected", "approved", "required", and "permitted" mean "directed by the Owner's Consultant", "requested by the Owner's Consultant", and similar phrases. However, no implied meaning shall be interpreted to extend the Owner's Consultant responsibility into the Contractor's area of construction supervision.
- F. Experienced: The term "experienced," when used with the term "Installer" means having a minimum of five (5) previous projects of similar in size and scope to this project, and familiar with the precautions required, and has complied with requirements of the authority having jurisdiction.
- G. Furnish: The term "furnish" is used to mean "supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, and similar operations."

- H. General Superintendent: This is the Contractor's Representative at the work site. This person will generally be the Competent Person required by OSHA in 29 CFR 1926.1101 and other applicable OSHA standards.
- I. Generator: Any person, by site, whose act or process produces hazardous waste identified or listed in part 261 (40 CFR) or whose act first causes a hazardous waste to become subject to regulation.
- J. Indicated: This term refers to graphic representations, notes or schedules on the Diagrams, or other Paragraphs or Schedules in Specifications, and similar requirements in Contract Documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used, it is to help locate the reference; no limitation on location is intended except as specifically noted.
- K. Install: The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations."
- L. Installer: An "Installer" is an entity engaged by the Contractor, either as an employee, subcontractor, or sub-subcontractor for performance of a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.
- M. Law or Laws: "Law" or "Laws" shall mean the Constitution of the State of Indiana, the City Charter of Huntington, a statute of the United States or of the State of Indiana, applicable Codified Ordinances, any municipal ordinance, rule or regulation having the force of law which is applicable to this Contract.
- N. Owner: The Owner is the person, partnership, firm, or corporation that owns the land, buildings, equipment, and other appurtenances associated with the Project Site. For the purposes of this project and contract, the Owner is the City of Huntington, Indiana, for the use and benefit of its Department of Development and Redevelopment.
- O. Owner's Consultant: The Owner's Consultant will represent the Owner during hazardous materials removal and demolition activities until the Contractor achieves substantial completion and final payment is due. The Owner's Consultant will advise and consult with the Owner. The Owner's instructions to the Contractor at times may be forwarded through the Owner's Consultant. The terms "Engineer," "Consultant," "Professional Service Provider" or any variations of these same terms, when occurring throughout the Contract Documents and project Specifications, shall be understood to refer to the Owner's Consultant. For the purposes of this project and contract, the Owner's Consultant is SME, 5835 W. 74th Street, Indianapolis, Indiana 46278.
- P. Project Site: The space available to the Contractor for performance of the work, either exclusively or in conjunction with others performing other construction as part of the project.
- Q. Provide: The term "provide" means "to furnish and install, complete and ready for the intended use."

- R. Regulations: The term "Regulations" includes laws, statutes, ordinances and lawful orders issued by authorities having jurisdiction, as well as rules, conventions and agreements within the construction industry that control performance of the Work, whether they are lawfully imposed by authorities having jurisdiction or not.
- S. Subcontractor: The term Subcontractor shall mean any person, firm, or corporation having a direct or assigned contract with the Contractor or another subcontractor to provide materials and labor at the project site, labor only, or material worked to a special design or configuration according to the project's Contract Documents, Drawings, and Specifications. Subcontractor does not include a person, firm, or corporation that only furnishes raw materials or materials that are not worked to special design or configuration.
- T. Substantial Completion: "Substantial Completion" shall mean that the Work, or portion of the Work, is sufficiently complete in accordance with the Contract Documents so that the Owner may utilize the Work for its intended use.
- U. Testing Laboratory: A "testing laboratory" is an independent entity engaged to perform specific inspections or tests, either at the project site or elsewhere, and to report on, and, if required, to interpret, results of those inspections or tests.
- V. Work: The term "Work," "project Work," or "Work of the contract" means work covered under the Contract. It includes all labor, materials, tools, equipment, transportation, supervision, temporary construction of all configurations and purpose, taxes, fees, permits, and all other services and facilities of any kind necessary to begin, perform, and complete the construction required by the Contract. All costs of the Work are considered incidental and shall be included in the bid for the Work, provided by the Contractor, and paid by the Contractor unless specifically noted in the Contract Documents.

1.2 DRAWINGS AND SPECIFICATIONS

- A. The Drawings and Specifications as part of the Contract contemplate a finished piece of work of such character and quality as is described in and is reasonably inferable from them, and the Contractor, recognizing the impossibility of producing Drawings and Specifications with perfect accuracy, agrees that its submitted price for the work hereunder includes sufficient money allowance to make the work complete, in operating condition, fitting with the work of other contractors and the Owner, and in compliance with good practice and the ordinances, codes and regulations of all bodies or persons having authority over it. The Contractor agrees that inadvertent discrepancies or omissions, or the failure to show details or to repeat on any drawing the figures or notes given on another, shall not be the cause for additional charges or claims. In the case of dispute as to the interpretation of the Drawings and the Specifications, the rulings of the Owner shall be final.
- B. The organization of the Specifications into divisions, sections or articles and arrangement of Drawings shall not control the Contractor in dividing the

Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

- C. Generally, the Drawings will indicate dimensions, positions, and locations of property features. Work indicated on the Drawings and not mentioned in the Specifications, or vice versa, shall be furnished as though fully set forth in both. Work not particularly detailed, marked or specified shall be the same as similar work that is detailed, marked or specified.
- D. Under no circumstances will bids be submitted or work performed with uncertainty. Questions pertaining to work that do not appear to be sufficiently detailed or explained or pertain to the true meaning of any part of the Drawings or Specifications shall be referred to the Owner's Consultant or Owner for clarification. After execution of the Contract, no allowances will be made in favor of the Contractor for failing to check dimensions on the Drawings and at the site and reporting any discrepancies.
- E. If questions arise concerning Drawings and Specifications, or should omissions or errors be found in same, or should conditions arise which would make it impractical to follow any part of the Drawings or Specifications, or which would result in substandard work, it shall be the duty of the Contractor to so notify the Owner's Consultant before proceeding with the work in question, and such work shall then be performed according to the Owner's interpretation of the intent of the drawings and specifications.
- F. If the Contractor proceeds with the work so affected without instructions from the Owner or Owner's Consultant, the Contractor shall make good any resulting damage or defects. This includes typographical errors in the Specifications and notational errors on the Drawings where doubtful of interpretation.
- G. In case of conflict between Drawings and Specifications, the Drawings will take precedence over the Specifications in matters of construction of installation detail; Specifications over Drawings in matters of equipment or materials specified; large scale drawings over small scale; and any special drawing details over standard details.
- H. Should the Contractor deviate in any way from the Drawings or Specifications or provide materials or workmanship which do not conform with the Specifications without the expressed approval of the Owner, or provide materials or workmanship which are otherwise defective or which become damaged as the result of the Contractor's operations, the Contractor shall be required to replace the work in question at its own expense as directed.
- I. In the event of conflict between the Agreement, General Conditions, or other documents comprising this Contract, the provisions of the Agreement shall control, then the General Conditions, Proposal or Bid Form, and finally the Specification in that order.
- J. All Drawings, Specifications and copies thereof are made and shall remain the property of the Owner. They are not to be used on any other project by the Contractor.

- K. The Contractor shall keep in its field office one copy of all Drawings, Specifications, shop drawings and changes, available for reference by the Owner and Owner's Consultant, reflecting an accurate and up-to-date record of actual construction whether or not covered by official revisions to Drawings and Specifications.

1.3 TIME OF COMPLETION

- A. All time limits stated in the Contract Documents are of the essence of the Contract.
- B. The Contractor shall provide a projected schedule of completion dates and schedule of values for each stage or phase of the work of the Contract.
- C. If the progress of the work is delayed at any time by any act or neglect of the Owner, or of any separate Contractor employed by the Owner and with whose work the work of this Contract is to be integrated or is dependent upon, then the Contract time may be extended for such reasonable time as the Owner may determine. Claims for such extension of time must be made in writing to the Owner or Owner's Consultant within seven (7) days of such occurrence, otherwise such claims shall be deemed to have been waived.
- D. If the progress of the work is delayed by labor disputes over which the Contractor has no control, then the Contract time may be extended for such reasonable time as the Owner may determine. Claim for such extension of time must be made in writing to the Owner within seven (7) days of such occurrence, otherwise such claims shall be deemed to have been waived.
- E. No extensions of time will be allowed for correction of faulty work.
- F. Dates for completion of the total work, or sections thereof, as stated in the Agreement shall not be altered by changes in the work made effective after the signing of such Agreement.
- G. Should the Contractor fail to complete all of the work by the completion date stipulated, the Owner shall have the right to suspend all further payments on the Contract until completion of the work and acceptance of the same by the Owner. The application of this penalty shall not preclude the Owner from any other remedies it may have for such a failure to complete.
- H. The said penalty of suspension of all payments shall be invoked unless an extension of time has been granted in writing.
- I. The Owner shall determine the dates for Substantial Completion and Final Acceptance. It shall be understood and agreed by the parties hereto that the Owner shall determine finally, the satisfactory quality of the Work, material, and equipment furnished under the Contract.
- J. Interruption of Work. If, as a result of fire, earthquake, acts of God, war, strikes, picketing, boycott, lock-outs, or other causes or conditions beyond the control of Contractor, or if the Owner shall consider it inadvisable for the Contractor to proceed with the Work, then the Contractor shall, upon receipt of written notice from the Owner, immediately discontinue any further Work until such time as the Owner may deem it advisable to resume the Work. The Contractor shall resume the Work promptly upon receiving written notice from the Owner to do so, and the Contractor shall not be entitled to any damages or compensation during the period of or on account of

cessation of the Work as a result of any of the causes mentioned above. This Paragraph shall not be construed as conferring upon the Contractor the right to strike, picket, boycott or conduct lockouts in connection with the Work.

1.4 CHANGES IN THE WORK

- A. The Owner shall have the right to make any alterations or additions or any omissions from the work and materials referenced in the specifications or depicted on the drawings during the Contractor's prosecution of the work and such alterations, additions, or omissions shall be acceded to and carried out by each Contractor without in any way violating the Contract. Charges for extras will be allowed only when the work is ordered and the price thereof is agreed upon in writing.
- B. Extra compensation will not be authorized for work which, though not specifically detailed or specified, is reasonably inferable to satisfy the design intent and/or obviously necessary to complete the work established by the Drawings and Specifications. The Contractor is expected to examine the Drawings and Specifications as well as the Project Site carefully before submitting a proposal and obtain any necessary additional information which would affect its bid from the Owner's Consultant in writing.
- C. Should unknown physical conditions of an unusual nature be encountered, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract, the Contract Sum shall be equitably adjusted by Change Order upon claim by either party made within ten business days after the first observance of the conditions and following immediate notification of such material differences within 24 hours of discovery.
- D. If the Contractor wishes to make a claim for an increase in the Contract Sum, he shall provide the Owner and Owner's Consultant written notice thereof within ten days after the occurrence of the event giving rise to such claim. The Contractor shall provide notice before proceeding to execute the Work, except in an emergency endangering life or property, in which case the Contractor shall act, at his discretion, to prevent threatened damage, injury or loss. Any additional compensation or extension of time claimed by the Contractor on account of emergency work shall be determined as provided in Article 4 for Changes in the Work. No such claim shall be valid unless so made. If the Owner and the Contractor cannot agree on the amount of the adjustment in the Contract Sum, it shall be determined by the Owner and Owner's Consultant. Any change in the Contract Sum resulting from such claim shall be authorized in writing by Change Order.
- E. Change Orders may be executed on a Time and Material basis, using unit rates provided with the bid, or Lump Sum basis. The Owner and Owner's Consultant shall determine which type of Change Order shall be executed.
- F. For Time and Material Change Orders, the Contractor shall keep a daily record of all quantities of labor, materials, and equipment utilized for any authorized Change Order work. For the Change Order to be considered for payment, this daily record shall be verified and signed daily by the Contractor's Superintendent and the Owner.

- G. Costs for administering Change Orders shall be included in the base bid for the Contractor's project management and shall not be paid for explicitly in any Change Order.
- H. If the Owner wishes to change the scope or the character of any work, a Bulletin may be issued to the Contractor.
- I. The Contractor shall, upon receipt of the Bulletin, stop work on that section affected by the anticipated change until agreement has been reached on an acceptable alternative.
- J. Emergency situations, existing or anticipated, that pose, in the opinion of the Owner, a hazard or threat to life, service or vital equipment will be resolved with the Contractor on the spot. An Emergency Field Order (EFO) will be prepared immediately, clearly defining what is to be done to negate the emergency condition. The Contractor will quote the EFO and both he and the Owner will sign off as provided on the EFO. It is immediately a part of the contract and payment or request for partial payment will be processed as provided in Section 01 20 00 of the Project Documents.

1.5 LIABILITY

- A. The Contractor shall assume liability under the terms of the Workmen's Compensation Law of the State in which the Work is being performed (State of Indiana).
- B. Contractor assumes all liability for injury to persons or damage to, or loss of property of (a) Contractor, his agents or employees, (b) the Owner, its agents or employees, (c) the Consultant, its agents or employees, and (d) any person, firm or corporation arising in any way directly or indirectly out of the performance of this Contract whether or not such injury, damage, or loss is due to the negligence of the Contractor, its agents or employees. This foregoing assumption of liability by Contractor shall include, without limiting the generality of the foregoing, any injury, damage, or loss arising out of the operation of motor vehicles. This assumption of liability by Contractor shall also include, without limiting the generality of the foregoing, any injury, damage, or loss (1) arising out of negligence of Contractor, (2) arising out of the joint or combined negligence of Contractor and the Owner, (3) arising out of the negligence of a third party or parties, or (4) arising out of the joint or combined negligence of a third party or parties and Contractor, or (5) without limiting in any way the foregoing, arising in any way, directly or indirectly out of the conduct or occurrence not fully limited to the separate sole negligence of the Owner as proven by Contractor or third party.
- C. Should the Owner or Owner's Consultant, or their agents or employees be made a party to any suit or proceeding, even though such suit or proceeding is groundless, false, or fraudulent, arising out of injury, damage, or loss for which the Contractor assumes liability under this Contract, the Contractor will defend such suit or proceeding and shall indemnify and save harmless the Owner, the Owner's Consultant, their agents or employees, of and from all liability, loss, expenses, and judgments (including interest thereon), including Attorney's fees.

- D. Since the Contractor hereunder shall be an independent Contractor and not an agent, servant, or employee of Owner, the Contractor assumes full responsibility for compliance with any and all Federal, State, or Municipal laws, ordinances, and regulations, including (but not limited to) those having to do with labor, wages, and benefits, or taxes and duties collectible from employees under all applicable provisions of the law.

1.6 TERMINATION OF CONTRACT

- A. Owner's Right to Terminate Contract: the Owner may upon certificate of the Owner's Consultant that sufficient cause exists to justify such action, without prejudice to any other right or remedy and after giving the Contractor five (5) calendar days' written notice, terminate the employment of the Contractor and take possession of the premises and of all materials, tools and appliances thereon and finish the work by whatever method the Owner may deem expedient. Upon completion of the work, all of the Contractor's tools and appliances which were possessed to complete the work shall be returned to the Contractor.
- B. Sufficient cause for termination of the Contract by the Owner shall be any of the following:
1. the Contractor being adjudged bankrupt
 2. the Contractor making a general assignment for the benefit of its creditors
 3. the appointment of a receiver because of the Contractor's insolvency
 4. the Contractor persistently refusing or failing to provide enough skilled workmen or proper materials to ensure execution of the work in accordance with the schedule
 5. failure to make prompt payment to subcontractors or suppliers
 6. a violation by the Contractor of any provision of the Contract.
- C. If the Owner terminates the Contract for any of the above reasons, the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the Contract price shall exceed the expense of finishing the work including compensation for additional management and administrative services such excess shall be paid to the Contractor. If such expense shall exceed such unpaid balance, the Contractor shall pay the difference to the Owner. The expense incurred by the Owner as herein provided, and the damage incurred through the Contractor's default, shall be certified by the Owner.
- D. Sufficient cause for termination of the Contract by the Contractor shall be stoppage of the work under an order of any court or other public authority, for a period of 3 months, through no act or fault of the Contractor or of anyone employed by it. If the work should be stopped by the Contractor, the Contractor may, upon seven (7) calendar days written notice to the Owner, stop work for all work executed and any loss sustained upon any plant or materials and reasonable profit and damages on the Work performed to that date.

- E. By submitting a bid for the Work, the Contractor agrees, under this or any other Contract, that in the employment of skilled or unskilled labor, there shall be no discrimination exercised against any person because of race, color, religion, national/ethnic origin, sexual orientation, age, disability, or disabled veteran status; and that any violation hereof shall be deemed a material breach of said Contract.

1.7 AWARD OF SUBCONTRACTS

- A. Bidders shall submit a complete list of Subcontractors to whom it will award the work covered by the various sections of the specifications with the proposal/bid for the Work.
- B. Prior to the award of the Contract, the Owner or Owner's Consultant shall notify the successful bidder in writing if either the Owner or Owner's Consultant, after due investigation, has objection to any person or organization on such list. Failure to make an objection to any person or organization on the list prior to the award shall constitute notice of no objection.
- C. If, prior to the award of the Contract, the Owner or Owner's Consultant has objection to and refuses to accept any person or organization on such list, the successful bidder may, prior to the award, withdraw its bid. If the successful bidder submits an acceptable substitute with an increase in its bid price the Owner may, at its discretion, accept the increased bid price or it may disqualify the bid.
- D. If, after the award, the Owner or Owner's Consultant refuses to accept any person or organization on such list, the Contractor shall submit a substitute to whom the Owner or Owner's Consultant, has no objection, and the Contract Sum shall be increased or decreased by the difference in cost occasioned by such substitution and appropriate Change Order shall be issued; however, no increase in the Contract Sum shall be allowed for any such substitution unless the Contractor has acted promptly and responsibly in submitting a name with respect thereto.
- E. The Contractor shall not contract with any Subcontractor or any person or organization proposed for portions of the Work designated in the bidding documents who has been rejected by the Owner or Owner's Consultant. The Contractor will not be required to contract with any Subcontractor or person or organization against which it has a reasonable objection.
- F. All Subcontractors shall agree to the following stipulations:
 - 1. To be bound to the Contractor by terms of the Agreement, General Conditions, Special or Supplementary Conditions, Drawings and Specifications, and to assume toward it all the obligations and responsibilities that the Contractor, by those documents, assumes toward the Owner.
 - 2. To submit to the Contractor applications for payment in such reasonable time as to enable the Contractor to apply for payment under the General Conditions.
 - 3. To make all claims for extras, for extensions of time and for damages for delays or otherwise, to the Contractor in the manner provided in the

General Conditions for like claims by the Contractor upon the Owner, except that the time for making claims for extra cost is ten business days.

G. The Contractor shall agree to the following stipulations:

1. To be bound to the Subcontractor by all the obligations that the Owner assumes to the Contractor under the Agreement, General Conditions, Special or Supplementary Conditions, Drawings and Specifications, and by all the provisions thereof affording remedies and redress to the Contractor from the Owner.
2. To pay the Subcontractor the amount allowed to the Contractor on account of the Subcontractor's work to the extent of the Subcontractor's interest therein.
3. To pay the Subcontractor to such extent as may be provided by the Contract Documents or the subcontract, if either of these provides for earlier or larger payments than the above.
4. To pay the Subcontractor a just share of any fire insurance money received by it, the Contractor, under the General Conditions.
5. To make no demand for liquidated damages or penalty for delay in any sum in excess of such amount as may be specifically named in the subcontract.
6. To hold true that no claim for services rendered or materials furnished by the Contractor to the Subcontractor shall be valid unless written notice thereof is given by the Contractor to the Subcontractor during the first ten (10) days of the calendar month following that in which the claim originated.
7. To give the Subcontractor an opportunity to be present and to submit evidence in any arbitration involving its rights.
8. To name as arbitrator under arbitration proceedings the person mutually agreed upon by Contractor and Subcontractor, if the sole cause of the dispute is the work, materials, rights or responsibilities of the Subcontractor or, if of the Subcontractor and any other Subcontractor jointly, to name as such arbitrator the person upon whom all parties agree.

H. The Contractor and all subcontractors shall mutually agree to the following stipulations:

1. that in the matter of arbitration, their rights and obligations and all procedures shall be analogous to those set forth in the Contract
2. nothing in these general conditions or specifications shall create any obligation on the part of the Owner to pay to or be concurred with payment of any sums to any Subcontractor.

1.8 SUBSTITUTIONS

- A. The Bidders may offer the substitution of materials of other than named manufacturers if they so desire. Such substitutions shall be listed in the Proposal for the work and noted on the bid form.

- B. All proposed substitutions shall be subject to evaluation by the Owner and Owner's Consultant as to compliance with the specification requirements for quality and performance, and the Owner's decision on equality shall be final. The burden of proof of equality shall rest entirely with the Bidder.
- C. All substitutions proposed shall be accompanied by their resulting cost revisions to the proposal price, and by complete manufacturer's literature, specifications, and other such pertinent data, and samples if so requested by the Owner. Cost revisions shall include for all modifications required to adjacent construction as shown to accommodate the proposed substitution. Submit complete details of such modifications for Owner's approval.
- D. Proposed substitutions shall be referenced to the item for which each is proposed as a substitution, with the "Add" or "Deduct" amount shown being applied to the proposal price.
- E. The requirements of the contract documents shall govern all proposed substitutions, with all requirements noted as applicable to the originally specified item applying to the proposed substitutions.
- F. After the execution of the contract agreement, proposed substitutions will be considered only if the Owner receives the advantage of lesser cost, higher quality, or better delivery date. Such requests will be considered only if submitted through the Owner's Consultant.
- G. In no case shall a substitution be made until after receipt of written approval from the Owner and Owner's Consultant. The Contractor shall comply with any special provisions of a particular specification section regarding substitutions.
- H. The Owner reserves the right to reject any material and/or workmanship either before or after installation, which is not indicated in the drawings and specifications, or the substitution of which has not been approved by it in writing.
- I. Except as otherwise stated within the various sections of the specifications, substitution request may be submitted at any time providing the Contractor allows ample lead time for Owner to assess the proposed substitution, preparation of shop drawings and submittals, delivery, without delaying the work. When not allowed sufficient lead time, the Owner will not consider substitutions and the Contractor shall furnish the work as specified.

1.9 COORDINATION

- A. It is the Contractor's responsibility as authorized by the Owner and Owner's Consultant to determine when to commence, cease or resume all phases of the work. All materials and labor shall be furnished at times best suited to allow all phases of the work to be completed properly and fully according to the project schedule.
- B. Any costs incurred as a result of defective work or failure of the Contractor to maintain the project schedule shall be borne by the Contractor.
- C. When directed by the Owner or Owner's Consultant, meetings shall be held for the purpose of coordinating and expediting the work. The invited contractors or subcontractors will be required to have qualified representatives at these meetings, empowered to act and make decisions

in their behalf at the time of the meeting. Tentatively, job progress meetings will be held at the job site by the Owner's Consultant or Contractor as needed during the project to determine the progress of the work.

- D. All construction apparatus, machinery and equipment shall be designed and constructed in conformity with the best practice, and so as to contribute to efficiency, reliability and safety of operation, and provide for interchangeability of parts, accessibility, sightlines, and minimum expense of maintenance. Each installation shall be so made that its several component parts will function together as a workable system. It shall be complete with all accessories necessary for its operation and shall be left with all equipment properly adjusted and in working order.
- E. Except wherein it is otherwise specified, all work and materials, and the ratings and capacities of all machinery and equipment, shall conform to the codes and standards of the respective national engineering and technical societies, and all performance tests shall be made in accordance with the test codes of these societies. All capacities, sizes weights, and guarantees are specified as minimum and may be increased at the option of the Contractor.
- F. The Contractor and each subcontractor shall cooperate with the Owner and Owner's Consultant in the movement of major shipments of material or equipment on or off the premises and shall furnish, as far in advance as possible, the probable dates of arrival or departure of such shipments as to facilitate the movement of all commercial carriers.
- G. Should it become necessary at any time during the course of the Work to move stored materials which are to be used in the construction, or equipment which has been temporarily placed then the Contractor or subcontractors furnishing such material or equipment shall move them, or cause them to be moved, without additional charge.
- H. The Contractor shall be solely responsible for ensuring the safety and stability of adjacent public or private property and structures against damage of any type resulting from operations under this Contract.
- I. The Contractor shall be solely responsible for any interruptions in utility services to adjacent properties. Interruptions shall be avoided whenever possible and, when unavoidable, shall be coordinated with the utility involved, scheduled at times most acceptable to the owners or tenants of such properties, and kept to a minimum frequency and duration.

1.10 PROJECT CONFIDENTIALITY

Neither the Contractor, the Contractor's employees nor any of his/her subcontractors shall discuss the project with any member of the media. The work of this project or any representative connected with the project shall not be used for referral or advertising purposes without express written authorization from the Owner. No newspaper, radio, television, or on-line (computerized) statements or social media posts concerning the project shall be given by the Contractor, the Contractor's employees, or any of his/her subcontractors. The Contractor shall inform his/her employees and subcontractors that should a member of the media or press contact the employee or subcontractor regarding this project, the media or press should be

directed immediately to the Owner or Owner's Consultant. No photographs of the site or of work in progress will be permitted without the written authorization by the Owner.

1.11 MISCELLANEOUS PROVISIONS

- A. The interpretation of this Contract shall be governed by the law of the location of the facility upon which the work is being performed (City of Huntington, Huntington County, Indiana).
- B. Neither party to the Contract shall assign the Contract or sublet it as a whole without the written consent of the other, nor shall the Contractor assign any moneys due or to become due to it hereunder, without the previous written consent of the Owner. The Contractor represents, by submitting a bid, that it has not previously made a general assignment of accounts receivable.
- C. The Owner and Contractor each binds itself, its partners, successors, assigns and legal representatives of such other party in respect to all covenants, agreements and obligations contained in the Contract Documents.
- D. Written notice shall be deemed to have been duly served if delivered in person to the individual or member of the firm or to an officer of the corporation for whom it was intended, or if delivered at or sent by registered or certified mail to the last business address known to it who gives the notice.
- E. Should the Contractor suffer injury or damage to person or property because of any act or omission of the Owner or Owner's Consultant or any of their employees, agents or others for whose acts it is legally liable, claim shall be made in writing within seven (7) calendar days after the first observance of such injury or damage.
- F. The Work shall be subject to inspection and approval by the Owner and all applicable governmental authorities; provided, however, in no event shall any such inspection and/or approval by the Owner constitute an assumption of Contractor's duties and obligations or a waiver or release of liability or a release of any other obligations whatsoever of the Contractor with respect to the Work under this Contract.
- G. If the Contract Documents require any work such as soil materials and density, bituminous concrete, Portland cement concrete, structural steel, roofing, electrical switchgear, etc., to be inspected, tested and approved for conformance with contract requirements by an independent testing agency, it will be the responsibility of and paid for by the Contractor.
- H. The Contractor shall coordinate all of its work requiring inspection, testing and/or approval with the Owner's Consultant and the testing agency designated to perform the services. The Contractor shall give the Owner's Consultant timely notice of its readiness or requirements for testing, etc., and the date arranged so that the Owner's Consultant may observe such testing, etc., and the agency can coordinate and perform these services without delay of the work. The Contractor shall cooperate with and provide reasonable assistance to the testing agency.

- I. If after the commencement of the work, the Owner or Owner's Consultant determines that any work requires special inspection, testing, or approval which is not included in the specifications, the Owner or Owner's Consultant will instruct the Contractor who shall give notice. If such special inspection or testing reveals a failure of the Work to comply with the requirements of the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, the Contractor shall bear all costs thereof, including any additional services by the Owner's Consultant made necessary by such failure; otherwise the Owner shall bear such costs, and appropriate Change Order shall be issued.
- J. Required certificates of inspection, testing or approval shall be concurrently submitted to the Owner and the Owner's Consultant.
- K. Neither the observations of the Owner's Consultant, nor inspections, tests or approvals by any and all persons shall relieve the Contractor from its obligations to perform the Work in accordance with the Contract Documents.
- L. The Contractor shall pay or cause to be paid any royalties or license fees required due to the use of materials or construction methods used in the work.
- M. The Contractor agrees to indemnify and save the Owner and Owner's Consultant, and their servants and agents, harmless against any and all claims for infringement of patent rights or royalties in respect of tools, appliances, equipment, processes, or systems of construction and materials made, furnished or used under this Contract, and to defend at its own expense any and all suits at law or in equity which may be brought against the Owner, its servants or agents, for such claims for infringement or royalties, provided however, that the Owner or Owner's Consultant gives the Contractor immediate notice in writing of the institution of such suit and authorizes it to defend the same furnishing it with such reasonable assistance, and available information, as will enable it to so defend. This notwithstanding anything to the contrary implied or expressed elsewhere in any of the Contract Documents.
- N. If any part of the Contractor's work depends for proper execution or results upon the work of any separate contractor, the Contractor shall inspect and promptly report to the Owner's Consultant any discrepancy between the executed work of such separate contractor and the relationship to same described in the Drawings and Specifications for this Contract, or defects in such work that render it unsuitable for such proper execution and results. Failure to so inspect and report shall constitute an acceptance of its work, except as to defects which may develop in the separate contractor's work after the execution of its work.
- O. The Contractor shall well, truly, and promptly, pay or satisfy the just and equitable claims of all persons who have performed labor or furnished material for the Contractor in the execution of the Contract, including those who have previously filed attested account of such claims with the Owner, and all bills, cost or claims of whatever kind which might in law or equity become a lien upon said Work or against the fund from which the same is to be paid or a charge against the Owner. In case said attested accounts, claims, bills or costs are not paid or adjusted to the satisfaction of the

Owner, then it is agreed that the Owner may proceed as in the next succeeding paragraph.

- P. The Owner may retain out of any funds at any time due the Contractor a sum sufficient to pay all persons who have done Work or furnished labor or materials for the Work herein contracted for, and who shall have filed an attested account of such claim with the Owner within four (4) months from the performance of labor or the delivery of materials, stating that any balance for said work or materials is still due and unpaid, which amount may be retained the Owner until satisfactory evidence is furnished that said balance has been fully paid, and if said evidence is not furnished before the next estimate becoming due to the Contractor under the Contract, the Owner may pay said balance to the person claiming it and charge such payment to the Contractor as payment on the Contract, unless the Contractor shall have previously provided the Owner a written notice that such claim is in dispute. In the event of such dispute, the Owner will retain the amount until the claim has been adjusted or the money paid into arbitration or court on proceedings in the nature of an interpleader.
- Q. The Contractor and all subcontractors shall adhere to and follow the requirements of the Indiana Mechanic's Lien Statute: Indiana Code, Title 32 – Property, Article 28 – Liens on Real Property.
- R. All claims, disputes and other matters in question arising out of, or relating to, this Contract or the breach thereof, except with respect to the Owner's or Owner's Consultant's decisions on matters relating to artistic effect, and except for claims which have been waived by acceptance of final payment as provided, shall be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association then prevailing, providing however, that if the state in which the Project Site is located shall have enacted an Arbitration Statute, said statute shall control and is incorporated herein by reference.
- S. This agreement so to arbitrate shall be specifically enforceable under the prevailing arbitration law. The award rendered by the arbitration shall be final, the judgment may be entered upon it in any court having jurisdiction thereof.
- T. Notice of the demand for arbitration shall be filed in writing with the other party to the Contract and with the American Arbitration Association, and a copy shall be filed with the Owner and Owner's Consultant. The demand for arbitration shall be made within a reasonable time after the claim dispute or other matter in question has arisen. In no event shall such claim, be made after institution of legal or equitable proceedings based on such claim, dispute or other matter in question would have been barred by the applicable statute of limitations.
- U. The Contractor shall carry on the Work and maintain the progress schedule during any arbitration proceedings, unless otherwise agreed by it, the Owner and Owner's Consultant in writing.

1.12 EQUAL OPPORTUNITY EMPLOYMENT

During the performance of this Contract, the Contractor shall agree and abide by the following stipulations:

- A. The Contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, sexual orientation, national origin, age, disability, ethnic origin, or military veteran or disabled veteran status (regardless of the era of military service). The Contractor shall take affirmative action to insure that applicants are employed and that employees are treated during employment without regard to race, religion, color, sex, sexual orientation, national origin, age, disability, ethnic origin or military veteran or disabled veteran status. As used herein, "treated" means and includes without limitation the following: recruited, whether by advertising or other means; compensated, whether in the form of rates of pay or other forms of compensation; selected for training, including apprenticeship, promoted, upgraded, demoted, downgraded, transferred, laid off and terminated. The Contractor agrees to and shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by the hiring representatives of the Contractor setting forth the provisions of this nondiscrimination clause.
- B. The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that the Contractor is an equal opportunity employer.
- C. The Contractor shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice advising the labor union or worker's representative of the Contractor's commitments under the Equal Opportunity Clause, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- D. It is the Owner's policy that business concerns owned and operated by minority persons and/or women shall have every practicable opportunity to participate in the performance of contracts awarded by the Owner.
- E. The Contractor shall permit access by the Owner or his/her designated representative to any relevant and pertinent reports and documents to verify compliance with the regulations of the Office of Equal Opportunity. All such materials provided to the Owner or his/her designated representatives by the Contractor shall be considered confidential.
- F. The Contractor shall not obstruct or hinder the Owner or the Owner's designated representatives in the fulfillment of the duties and responsibilities imposed by the Office of Equal Opportunity.
- G. The Contractor agrees that such subcontract shall include this Equal Opportunity Clause, and the Contractor shall notify each Subcontractor, vendor, and supplier that the Subcontractor must agree to comply with and be subject to all applicable provisions of the Office of Equal Opportunity. The Contractor shall take any appropriate action with respect to any Subcontractor as a means of enforcing the provisions of the Office of Equal Opportunity.

1.13 EMPLOYMENT ELIGIBILITY VERIFICATION

- A. The Contractor shall affirm under the penalties of perjury that he/she/it does not knowingly employ an unauthorized alien.
- B. The Contractor shall enroll in and verify the work eligibility status of all his/her/its newly hired employees through the E-Verify program as defined in IC 22-5-1.7-3. The Contractor is not required to participate should the E-Verify program cease to exist. Additionally, the Contractor is not required to participate if the Contractor is self-employed and does not employ any employees.
- C. The Contractor shall not knowingly employ or contract with an unauthorized alien. The Contractor shall not retain an employee or contract with a person that the Contractor subsequently learns is an unauthorized alien.
- D. The Contractor shall require his/her/its subcontractors, who perform work under this contract, to certify to the Contractor that the subcontractor does not knowingly employ or contract with an unauthorized alien and that the subcontractor has enrolled and is participating in the E-Verify program. The Contractor agrees to maintain this certification throughout the duration of the term of a contract with a subcontractor.
- E. Termination for default occurs if thirty (30) days after notification the Contractor fails to cure a breach of this provision.

1.14 INDIANA IRAN INVESTMENT CERTIFICATION

- A. The State of Indiana has enacted a law (I.C. 22-5-16.5) which requires all state agencies and political subdivisions request certification from its contractors that the contractor is not engaged in investment activities in Iran as those terms are defined by that Chapter 16.5. Each contractor and any subcontractor doing business with the City of Huntington must, as a term of its contract, certify that it does not engage in investment activities in Iran. The Contractor shall provide certification that it is not engaged in investment activities in Iran using the forms appended to these specifications.

END OF SECTION 00 72 00

SECTION 00 73 00 SPECIAL WORKING CONDITIONS

PART I GENERAL:

- 1.1** The Work comprising this project will be performed at a site owned by the City of Huntington. The Contractor shall comply with all rules and regulations pertaining to such sites and shall conform to the following special working conditions.
- 1.2** The project site work hours shall be limited from 7:00 a.m. to 6:00 p.m., Monday through Friday, except for holidays. The Contractor may be permitted to work weekends or holidays to meet the project schedule with the consent of the Owner and Owner's Consultant.
- 1.3** The Owner or Owner's Consultant will issue a Notice to Proceed to the Contractor prior to the beginning of demolition site activities. The Contractor shall complete all site activities within 45 calendar-days after receipt of the Notice To Proceed.
- 1.4** The Contractor shall provide a competent Superintendent, whose qualifications and experience are satisfactory to the Owner, on the work site at all times during working hours with full authority to act for the Contractor. The superintendent shall be responsible for insuring the work is performed in compliance with existing current regulatory guidelines, generally accepted asbestos work protocols, hazardous materials removal, and demolition practices/principles and the project documents. It shall be the Contractor's responsibility to furnish the Owner with the name, address and telephone number of the responsible person to contact for emergencies during after hours, weekends, and holiday periods.
- 1.5** The Contractor shall be responsible for furnishing all labor, materials, and equipment necessary to complete the work in the contract.
- 1.6** Asbestos-laden dust is present on building components and interior equipment, materials, and debris as a result of the former asbestos manufacturing operations at the Project Site. These materials area considered asbestos-contaminated and must either be decontaminated (if permitted as specified) or disposed as asbestos waste. The asbestos waste materials will require special handling and disposal procedures.
- 1.7** Light fixtures containing fluorescent light tubes and ballasts suspected to contain PCBs are present in the buildings. Lead-bearing and cadmium-bearing paints and coatings are also present in/on the buildings. Refer to Section 02 83 00 and Section 02 83 00.01 for information related to work involving lead-bearing and cadmium-bearing paints and coatings, respectively. Refer to Section 02 84 00 for specific requirements related to work involving PCBs and

- to Section 02 90 00 for specific information related to work involving other regulated materials.
- 1.8** Should the Contractor elect to stage a waste bin at the Project Site to store asbestos-contaminated waste (e.g. used, disposable coveralls, gloves, respirator cartridges, etc., the Contractor shall provide appropriate covered, leak-proof waste bins that can be locked for holding and disposal of asbestos-contaminated materials and shall arrange for removal of asbestos-contaminated materials from the job site. The waste bin(s) shall be lined with 6-mil thick polyethylene sheeting and staged within the perimeter security fence at the Project Site, at a location designated by the Owner or Owner's Consultant.
- 1.9** A bid bond or cashier's check payable to the Owner with each bid in an amount that is at least 10% of the total corresponding bid is required. A performance bond for the work in an amount that is 100% of the total corresponding bid will be required prior to award of the contract. All bonds submitted must be issued by a surety company authorized to do business in Indiana. All bonds signed by an agent must be accompanied by a certified copy of the authority to act. If the Surety of any bond furnished by the Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located, the Contractor shall substitute another bond and Surety within five (5) working days, both of which shall be acceptable to the Owner.
- 1.10** Contractor parking space will be available in the paved lot north of the buildings during demolition activities.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 00 73 00

SECTION 00 73 16 INSURANCE PROVISIONS

PART 1 GENERAL

- 1.1** The Contractor shall not commence work until it has obtained all the insurance required as follows and such insurance has been approved by the City of Huntington. The Contractor and Subcontractors shall, at their own expense, obtain and maintain the insurance coverage as specified below:
- A. General Liability Insurance: The Contractor and all Subcontractors shall, at their own expense, obtain and maintain general liability insurance, on an occurrence basis, applying to all operations and liability in limits as respects Contractors and all tiers of Subcontractors, \$5,000,000 each occurrence, combined single limit for bodily injury and property damage, personal and advertising injury of \$5,000,000 for any one person or organization and \$10,000,000 aggregate limits. The coverage shall include:
 - 1. Premises and Operations.
 - 2. Products and Completed Operations.
 - 3. Coverage for explosion, collapse and underground work.
 - 4. Removal of "XCU" exclusion.
 - 5. Broad Form Property Damage.
 - 6. Broad Form Contractual Liability.
 - 7. Exclusion for Work Emanating from Project.
 - B. Automobile Insurance: The Contractor and Subcontractors shall, at their own expense, obtain and maintain such insurance as will protect it against liability imposed by law for loss or damage, including personal injuries and death arising from the ownership, use or operation of any motor vehicle, including owned, non owned and hired vehicles for not less than \$1,000,000 inclusive limits, on an occurrence basis, for each loss. Each Accident combined single limit for bodily injury and property damage to include uninsured and underinsured motorist coverage.
 - C. Construction Equipment: Unless consented to by the Owner in writing, the Contractor and all Subcontractors shall carry insurance covering loss of or damage to construction machinery, tools, equipment, temporary construction buildings, or other buildings used in connection with the Contract, owned by and/or on bar rental from a third party or parties and used by the Contractor and/or Subcontractors in performing the Work, which insurance shall be in a form satisfactory to the Owner and have coverage in accordance with the actual cash values of such property. Such policies shall also provide for subrogation to be waived against the Owner, the Owner's Consultant, all Contractors, Subcontractors, and all others connected with the Project.

- D. Course of Construction Insurance: the Contractor and all Subcontractors shall carry insurance covering all risk of loss, maintained at one hundred percent of the completed value based on the insurable portion of the work, including materials at the project site, stored off the project site, and in transit. The insurable portion of the work is ninety percent of the Contract amount unless adjusted by the Supplementary General Conditions. Course of construction coverage shall contain the following provisions:
1. The City of Huntington shall be named as loss payee.
 2. The insurer shall waive all rights of subrogation against the City of Huntington.
- E. Worker's Compensation & Employer's Liability:
1. The Contractor and all Subcontractors shall, at their own expense, obtain and maintain Workers' Compensation and Employer's Liability Insurance through their General Insurer to cover persons employed in connection with the Work.
 2. The Limit for the Workers' Compensation shall be the Statutory Limits of Indiana.
 3. The Limit for Employer's Liability shall be \$1,000,000 bodily injury by accident, \$1,000,000 bodily injury by disease, policy limit and \$1,000,000 bodily injury by disease for each employee.
 4. The Contractor hereby declares that all assessments or compensation payable under the Workers' Compensation Act have been paid, and the Contractor hereby agrees that all such assessments and compensation payable to the Workers' Compensation Board in respect of its employees providing the Work shall be paid in full.
 5. The Contractor shall require each Subcontractor, at the time of entering into a Subcontract, to declare that all assessments and compensation payable under the Worker's Compensation Act have been paid and from time to time during the performance of the Work, or upon completion of the Work, a declaration that any assessments and payments have been paid in full.
 6. The Contractor unconditionally guarantees to the Owner full compliance with the Workers' Compensation Act by any Subcontractor and other persons employed by the Contractor or with whom the Contractor may make any Subcontract for the performance of any Work hereunder.
 7. The Contractor unconditionally agrees to indemnify and save harmless the City of Huntington, City of Huntington Redevelopment Commission, and, its officers, employees, representatives, volunteers, consultants, agents and Owner's Consultant from and against all loss, liability, costs, charges, claims, damages, expenses or liens which may arise as a consequence of or result from any failure by the Contractor or any Subcontractor or other

person employed by the Contractor, to comply fully with these provisions regarding Workers' Compensation and Employer's Liability or which may arise as a consequence of or in connection with any injury, illness or death of any employee of the Contractor or any employee of any Subcontractor engaged or participating in the performance of the Work to be performed under this Agreement.

E. Asbestos/Pollution Legal Liability Insurance:

1. The Contractor shall carry occurrence-based asbestos and pollution/environmental impairment legal liability insurance covering all operations by or on behalf of the Contractor. The limits of liability shall not be less than a combined single limit for bodily injury, property damage, including cleanup costs, and personal injury liability of \$5,000,000 each occurrence, \$10,000,000 aggregate.
 2. The Contractor agrees to cause his asbestos and pollution/environmental impairment legal liability insurance policy to be endorsed to specifically identify this project, and name the City of Huntington, City of Huntington Redevelopment Commission, and, its officers, employees, representatives, volunteers, consultants, agents and SME (Owner's Consultant) as additionally insured.
- F. The Contractor or the hazardous waste transporter Subcontractor shall carry Sudden & Accidental Pollution endorsements Limits of Liability: \$2,000,000.00 Each Occurrence; and \$2,000,000.00 General Aggregate. The Contractor or the hazardous waste transporter Subcontractor must have MCS-90 endorsement in accordance with 49 C.F.R. 387.15
- G. Excess/umbrella liability insurance, with coverage for commercial general liability, asbestos and pollution/environmental impairment liability, and automobile liability, with minimum limits of liability of \$5,000,000 for each occurrence and \$5,000,000 in the aggregate.
- H. Other Insurance: The Contractor and each Subcontractor shall provide at its own costs any additional insurance which is required by law or which it considers necessary, including professional liability insurance, none of the foregoing of which will be paid for, directly or indirectly, by the Owner or the Owner's Consultant.
- I. Evidence of Insurance: The Contractor shall submit certificates of insurance and separate letters and endorsements to the policies of insurance required by the Contract. Insurance Certificates evidencing the policies obtained by the Contractor and each Subcontractor shall be submitted to the City of Huntington Department of Engineering immediately upon the award of the contract and within not more than 10 days of the Notice to Proceed. The scope of coverage and deductible shall be shown on each certificate of insurance. Each such certificate shall unequivocally state that it cannot be canceled, lapsed or materially altered without at least 30 days written notice,

by certified mail, return receipt requested, to the City of Huntington and the Owner's Consultant.

- J. The acceptance of any certificate of insurance by the Owner and Owner's Consultant shall in no way relieve the Contractor or a Subcontractor of its obligations to provide and to cause its Subcontractors and the Contractor to provide the insurance herein referred to or limit the Contractor's liability under the Contract.
- K. The Contractor's obligations to obtain and maintain all required insurance are nondelagable duties under this Contract.
- L. The Contractor and/or Subcontractors: The Contractor shall ensure that all lower tier contractors and/or subcontractors procure the insurance required by this Section, "Insurance Provisions."
- M. Reliance on Insurance: Notwithstanding anything appearing to the contrary in the Contract Documents, in the event any damages are incurred by the Parties during the Project, the Owner and the Contractor agree to initially proceed against such insurance to the extent that it is available and results in payment of such damages and to waive their respective rights of subrogation against each other to the extent valid insurance covers the damages incurred; provided, however, that if any such damages are not insured and/or do not result in payment of such damages, the same shall not affect the liabilities of the Parties as otherwise provided in the Contract Agreement.
- N. The Contractor, and his subcontractors at all levels furnishing labor under the Contract, will be required to complete and satisfy an insurance process prior to being issued such insurance. The insurance process shall include, but not be limited to, submittal of all pertinent information requested by the Owner's authorized insurance representative, completion of all appropriate forms, and acknowledgment of the coverage provided.
- O. For any claim related to the work, the Contractor's insurance coverage shall be primary insurance with respect to the City of Huntington, its officers, employees, representatives, volunteers, agents, and the Owner's Consultant. Any insurance or self-insurance maintained by the City of Huntington its officers, employees, representatives, volunteers, and agents shall be in excess of the Contractor's insurance and shall not contribute with it.
- P. The City of Huntington, its officers, employees, representatives, volunteers, and agents shall not by reason of their inclusion as additional insured incur liability to the insurance carriers for payment of premiums for such insurance.
- Q. Acceptability of Insurers: Insurers shall be licensed by the State of Indiana to transact insurance and shall hold a current A.M. Best's rating of A:VII, or shall be a carrier otherwise acceptable to the City of Huntington.

- R. The Contractor and all subcontractors shall cooperate with, and provide, all information requested by the Owner's insurance representative. Failure to do so, or failure to complete or satisfy the insurance process will be deemed sufficient reason for the Owner or Owner's Consultant to reject those proposed Subcontractors who fail to furnish required information or to satisfy the insurance process.
- S. Under no circumstances shall any work proceed until the appropriate certificates of insurance have been received and recorded by the Owner. Upon request by the Owner, the Contractor shall provide certified copies of each insurance policy. The right of the Owner to receive such certified copy or copies shall not relieve the Contractor of any part of the obligation to provide insurance under this Contract.
- T. The insurance coverage and policy limits required by this Contract are minimums and shall not be construed as the limits of the Contractor's risk or liabilities arising from or otherwise associated with the performance of the Contract.
- U. Any deductible under any policy of insurance required hereby shall be Contractor's liability.
- V. If the City of Huntington is damaged by the failure of the Contractor or any of its Subcontractors to provide or maintain the required insurance, the Contractor shall pay the City for all damages including the City's reasonable attorney fees.
- W. In the event the Contractor does not comply with these insurance requirements, the City of Huntington may, at its option, provide insurance coverage to protect the City. The cost of the insurance shall be paid by the Contractor and, if prompt payment is not received, may be deducted from Contract sums otherwise due the Contractor.
- X. The City of Huntington, City of Huntington Redevelopment Commission, and, its officers, employees, representatives, volunteers, consultants, agents and Soil and Materials Engineers, Inc. (Owner's Consultant) shall be named additional insureds on a primary and noncontributory basis on all insurance certificates required by this section.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

END OF SECTION 00 73 16

SECTION 00 73 19 SAFETY, HEALTH, AND EMERGENCY RESPONSE

PART 1 GENERAL

1.1 DESCRIPTION OF WORK

This Section provides minimum guidance and implementation of a site safety and accident prevention program for the employees of the Contractor and for preparation of a Health and Safety Plan (HASP). The HASP shall be submitted to the Owner and Owner's Consultant for information only. Approval shall not be required. The information and requirements identified in this section are the minimum requirements. The Contractor shall evaluate the work conditions and implement appropriate measures to protect the workers, environment and general public.

1.2 REFERENCES

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

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH)

ACGIH-02 (1993) 1993-1994 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices or most recent revision.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI Z358.1 (1990) Emergency Eyewash and Shower Equipment or most recent revision.

CODE OF FEDERAL REGULATIONS (CFR)

29 CFR Part 1904 Recording and Reporting Occupational Injuries/Illnesses

29 CFR Part 1910 Occupational Safety and Health Standards

29 CFR Part 1926 Safety and Health Regulations for Construction

49 CFR Part 171 General Information, Regulations, and Definitions

49 CFR Part 172 Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH
(NIOSH)

NIOSH Pub No. 85-115 (1985) Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities or most recent revision.

1.3 SUBMITTALS

The following submittals are required for information only. The Owner reserves the right to request for additional pertinent information. Refer to Section 01 33 00, Submittals, for complete submittal requirements.

- A. Site Drawings showing proposed zones such as exclusion zones, decontamination zones, support zones, etc.
- B. Personnel Exposure Monitoring Results
- C. Site Control Log
- D. Record of each entry into and exit from the site
- E. Health and Safety Plan
- F. Qualifications and experience of the Site Safety and Health Officer (SSHO) and Safety Health Manager (SHM)
- G. Proof of Employee Training.

1.4 REGULATORY REQUIREMENTS

Work performed under this contract shall conform to all applicable Federal, State, and local safety and occupational health laws and regulations. This includes, but is not limited to, Occupational Safety and Health Administration (OSHA) standards 29 CFR Part 1910 and 29 CFR Part 1926. Matters of interpretation of standards shall be submitted to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations and referenced documents vary, the most stringent requirements shall apply.

1.5 HEALTH AND SAFETY PLAN

A. Preparation and Implementation

A Health and Safety Plan (HASP) shall be prepared covering on site work to be performed by the Contractor and all subcontractors. The Safety and Health Manager shall be responsible for the development, implementation and oversight of the HASP. The HASP shall establish, in detail, the protocols necessary for the anticipation, recognition, evaluation, and control of hazards associated with each task performed. The HASP shall address site-specific safety and health requirements and procedures based upon

site-specific conditions. The level of detail provided in the HASP shall be tailored to the type of work, complexity of operations to be performed, and hazards anticipated. Details about some activities may not be available when the initial HASP is prepared and submitted. Therefore, the HASP shall address, in as much detail as possible, anticipated tasks, their related hazards and anticipated control measures.

B. Availability

The HASP shall be made available in accordance with 29 CFR Part 1910, Section 120 (b)(1)(v) and 29 CFR Part 1926, Section 65 (b)(1)(v).

C. Elements

Topics required by 29 CFR Part 1910, Section 120 (b)(4) and in 29 CFR Part 1926, Section 65 (b)(4) shall be addressed in the HASP. Where the use of a specific topic is not applicable to the project, the HASP shall include a statement to justify its omission or reduced level of detail and establish that adequate consideration was given the topic. The HASP should include but will not be limited to the following sections:

1. Site description and contamination characterization
2. Hazard/Risk analysis
3. Staff organization, qualifications, and responsibilities
4. Training
5. Personal protective equipment
6. Medical surveillance
7. Exposure monitoring/air sampling program
8. Heat and cold stress monitoring
9. Safety procedures, engineering, controls, and work practices
10. Site control measures
11. Personal hygiene and decontamination
12. Equipment Decontamination
13. Emergency equipment and first aid requirements
14. Emergency response and contingency
15. Certificate of worker/visitor acknowledgment
16. Inspection
17. Safety and health phase-out report

PART 2 PRODUCTS (not used)

PART 3 EXECUTION (not used)

END OF SECTION 00 73 19

SECTION 01 00 00 GENERAL REQUIREMENTS

PART 1 GENERAL

1.1 USE OF PREMISES

The Contractor expressly undertakes at his/her own expense:

- A. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract.
- B. The Contractor shall comply with all codes and regulations governing the use of the Owner's facility and the work to be performed as described in these project documents.
- C. The Contractor shall keep the Owner's premises, adjoining premises and rights-of-way clean of dust and debris resulting from this work. Dust control materials such as surfactants, shall be applied as often as necessary.
- D. The Contractor will be responsible for all damages from fire that originates in or is propagated by the Contractor's activities.
- E. Any damages incurred as a result of the Contractor's use of the premises shall be repaired at the Contractor's expense. Any such damages will be listed as a punch list item that must be corrected before final payment of the contract.
- F. Any cleaning or repairs required of the Contractor and not performed, shall be completed by the Owner at the Contractor's expense.
- G. All materials, equipment and supplies shall be stored in areas designated by the Owner and in an orderly manner so as not to interfere with the progress of this, or any other work being performed on the premises.
- H. The Contractor shall be responsible for the conduct of employees including all subcontractors.
- I. The Contractor shall not allow employees to use or consume alcohol or illegal drugs upon the Project Site or enter upon or perform any services on the Project Site while under their influence.
- J. The Contractor shall not allow employees to use profanity or be discourteous or uncivil to others on the Project Site or while performing the services under this contract.
- K. The Contractor shall require employees working at the Project Site to refrain from offensive or disruptive behavior while working at the site.
- L. The Contractor shall prohibit employees from playing loud or offensive music at the Project Site.
- M. The Contractor shall protect utilities and other facilities from damage caused by settlement, lateral movement, undermining, and other hazards due to performance of work under this Contract.

- N. At the completion of the work, the Contractor shall remove all debris, materials equipment, etc. from and about the premises and shall leave the project site clean. This shall include removing all spillage, waste materials, and project debris.
- O. The Owner and/or Owner's Consultant will walk the Project Site with the Contractor's superintendent to develop a punch list of unsatisfactory conditions requiring change or further cleaning at the conclusion of the project. The Contractor is required to fulfill each punch list item to the satisfaction of the Owner and provide all required closeout documentation before final payment will be approved.
- P. The Contractor shall ensure all vehicles, automobiles, trucks and other mechanized or motorized equipment are locked when parked or unattended, to prevent unauthorized use. Do not leave such vehicles or equipment unattended with the motor running or the ignition key in place or accessible to unauthorized persons. The Contractor is responsible for any and all equipment provided by the Contractor to complete work.
- Q. If entry into any confined spaces is necessary to complete the Work then the Contractor is required to prepare a site-specific Confined Space Entry Program. All Contractor and subcontractor personnel who enter confined spaces must be appropriately trained in confined space entry and training documentation must be provided to the Owner and Owner's Consultant prior to any confined space entry. All confined space entry shall be conducted in accordance with OSHA regulations. If confined space entry is necessary at any time during the Work, the Contractor shall notify the Owner and Owner's Consultant at least 24 hours prior to initiating the entry.

1.2 CONTRACTOR'S PERSONNEL

- A. The Contractor shall provide the services of a competent superintendent at the site to act on behalf of the Contractor during all phases of this work. The superintendent shall be responsible for insuring the work is performed in compliance with existing current regulatory guidelines, generally accepted asbestos work protocols and demolition practices/principles, Contract Documents, General Conditions and the Project Specifications/Drawings.
- B. The Contractor shall provide the superintendent with the necessary assistance to properly and safely carry out all phases of this work and shall be responsible for any consequences of neglect or carelessness by all personnel associated with the work. The superintendent shall attend all job progress meetings or designate another individual with the same decision making authority to attend in his/her stead. The Owner or Owner's Consultant reserves the right, at no additional cost to the Owner, to request the Contractor's superintendent, any employee and/or subcontractor be replaced if unprofessional conduct or unsatisfactory work practices occur at the site.
- C. The Contractor shall provide a staff adequate to coordinate and expedite the work properly and shall at all times maintain competent supervision of the work, including the work of subcontractors to insure compliance with Contract requirements.

- D. The Contractor shall be responsible for all hazardous materials removal and demolition means, methods, techniques, sequences and procedures, and for coordinating and expediting all portions of the work under the contract.
- E. It is the responsibility of the Contractor to ensure that all employees of the Contractor, and any and all subcontractors that will be on site, have met the minimum training and accreditation requirements and have had the proper medical surveillance.
- F. The Contractor shall be responsible for the acts and omissions of all its employees and all subcontractors, their agents and employees, and all other persons performing any of the work.
- G. The Contractor and its subcontractors will be held entirely responsible for the movement and conduct of personnel on the Project Site.
- H. The employees of the Contractor and all subcontractors shall comply with all rules regarding entrance to and exit from the premises, parking, smoking, use of toilets, storage of material and clothing, and litter, materials and tools in construction work areas.

1.3 PROJECT SAFETY

- A. It is the Contractor's responsibility to enforce compliance with any protective measures indicated in specific sections of these specifications. The adequacy of all protective measures shall be the responsibility of the Contractor as to methods, strength, stability, etc.
- B. The Contractor shall provide barricades, lighting, guardrails, ladders, scaffolding, signage, and other safety measures as needed in accordance with local, state, and federal regulations.
- C. Any and all accidents, resulting in property damage or requiring medical attention and occurring during the execution of this contract, shall be reported immediately in person, by telephone, or messenger to the Owner and Owner's Consultant. All verbal reports shall be followed by a written report within 24 hours of the incident to the Owner and Owner's Consultant providing all details of the accident, including causes and results.
- D. If any claim is made by anyone against the Contractor or any subcontractor as a result of an accident occurring during the execution of this contract, promptly report all details of the claim within 24 hours to the Owner and Owner's Consultant, in writing.
- E. The Contractor shall be required to abide by all applicable safety regulations in force at the time that the demolition project is implemented. This includes, but is not limited to, USEPA, OSHA, and State of Indiana regulations and to Owner's Standard Operating Procedures. In addition, the Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs.
- F. Designated entry to and exit from the Project Site shall be approved by the Owner and Owner's Consultant. No site activities may commence until the Owner and Owner's Consultant have given approval concerning the security arrangements (if necessary) that have been put in place for the project.

- G. Designated entry/exit from regulated Work Areas shall be approved by Owner's Consultant. No activities may commence until the Owner and Owner's Consultant has given approval concerning the security arrangements (if necessary) that have been put in place for regulating access to Work Areas.
- H. Prior to starting work, the Contractor shall ensure the area in which the work is to occur is a safe work area. The Owner's Consultant shall review the Contractor's preparation of the area and shall note any deficiencies, which the Contractor shall rectify before proceeding with any work activities. It should be noted that, while the Owner's Consultant will provide input on any safety problem areas recognized, the Contractor is solely responsible for the safety of his/her personnel and must act at all times in such a way that assures compliance with applicable state and federal safety regulations.
- I. After the contract work has commenced, the Contractor shall be responsible for reporting any safety hazards or incidents immediately to Owner and Owner's Consultant. Newly occurring or discovered safety problems must be corrected immediately and none of the Contractor's employees shall be allowed to work in areas or situations that are deemed to be unsafe.
- J. The Contractor's superintendent shall conduct a daily site safety audit. The superintendent shall complete a written report regarding the results of the daily safety audit and submit a copy to the Owner's Consultant within 24 hours of completing the safety audit.

1.4 FIRE PREVENTION

- A. No open fires will be permitted on the site.
- B. Avoid storage of large quantities of flammable materials at the site. Gasoline or fuels may only be stored in areas as designated by the Owner or Owner's Consultant.
- C. All tarpaulin or other covers for stored materials, openings in walls, etc. shall be flame-resistant.
- D. Spray adhesives or other highly flammable materials shall be stored only in well-ventilated areas. All such material shall be handled in accordance with safe practice and the requirements of authorities having jurisdiction, and in no case shall empty containers or soiled rags be left on site at end of a shift.
- E. Provide and maintain one fire extinguisher station for each five thousand (5,000) square feet of floor area or portion thereof in work area and one additional station for each enclosed area used as a storeroom for flammable materials or materials stored in cardboard or paper boxes or packing. Each station shall be located so as to be easily accessible while providing minimum interference with operations, and shall contain one standard UL listed, multi-purpose dry chemical extinguisher of minimum 2A:10BC UL rating. Alternatively, one 2-1/2 gallon pressurized water unit and one 10 lb:6BC rated carbon-dioxide unit may be used. During freezing weather the extinguishers shall be enclosed in a heated cabinet. Check units frequently and maintain in serviceable condition.

1.5 LAYOUT

- A. The Contractor shall locate existing utilities on the site and arrange for deactivation and disconnection with utility owners or authorities as necessary to complete the work. Costs for all efforts, services, permits, and notifications related to deactivation and disconnection of utility services shall be included in the base bid for demolition. No additional compensation will be provided.
- B. Should unmarked or incorrectly marked utilities be encountered, the Contractor shall consult the utility owner(s) immediately for directions. Cooperate with the utility and facility owners to maintain uninterrupted services. Repair damaged utilities to the satisfaction of the utility owner(s).
- C. The Contractor shall take all field measurements necessary to provide a proposal for the work, and lay out all work in accordance with the Project Documents considering existing clearances and conditions. The Contractor shall be responsible for any damage and/or cost caused by any inaccuracy on his/her part. Neither the Owner nor the Owner's Consultant shall be held responsible for providing accurate measurements of materials. Any measurements given are to be viewed as estimates only.
- D. Information relative to locations of existing hazardous materials, utilities, subsurface features, buildings, pavement and walks, obstructions on or near the site, or similar items whether referenced in the Project Documents or depicted on Drawings, have been obtained from sources believed to be reliable, but are offered for information only and with no guarantee as to accuracy. The Contractor's use of such information is at the risk of the Contractor.
- E. If the Contractor finds suspect asbestos-containing materials (ACMs) for which no apparent laboratory results exist, the Contractor is responsible to bring the material to the attention of the Owner and Owner's Consultant. The Owner's Consultant shall collect a bulk sample of the material for Polarized Light Microscopy (PLM) verified by point counting for all samples visually estimated at less than 10 % asbestos. The Contractor shall not collect samples of suspect ACM and submit the samples for laboratory analysis.
- F. Should any suspect ACM or other hazardous material become known during demolition which, in the opinion of the Owner and Owner's Consultant, was concealed during the Contractor's pre-bid examination of the work, the Contractor shall notify the Owner and Owner's Consultant. The Contractor shall document the discovery of such materials in writing, including specific locations and quantities of the materials, and submit the documentation to the Owner and Owner's Consultant. Unit rates for the removal of concealed materials shall be applied with the approval of the Owner and Owner's Consultant. Change Order requests for removal of such materials will be rejected in the absence of proper notification and written documentation.
- G. In submitting proposals for the Work, the Contractor will be held to have satisfactorily examined the premises and conditions under which the Contractor will be obliged to operate in performing the work or that will affect the work under this Contract in any manner. Any exceptions to performing the work in accordance with the bidding documents must be outlined in the

Contractor's proposal/bid. The submission of a bid shall be considered prima facie evidence that the Contractor has made such examination and is satisfied with the general conditions, specifications, drawings, supplemental specification documents, special provisions, and contract documents.

1.6 SUBMITTALS

Submittals shall be delivered to the Owner and Owner's Consultant as directed in the project documents and:

- A. The Contractor shall be responsible for all costs associated with delivering all submittals to the designated representative and consultant.
- B. Submittals required are indicated in the individual project document sections. The Owner and Owner's Consultant reserve the right to require samples of substitutions proposed by the contractor for review.
- C. Materials purchased or fabrication commenced prior to approval of the pertinent submittal shall be at the sole risk of the Contractor.
- D. If the initial submittal is not approved by the Owner and Owner's Consultant additional submittals shall be provided until approval is obtained.
- E. Materials supplied or installed which do not conform to the quality or other determinant specified will be rejected and replaced with satisfactory materials at the Contractor's expense.

1.7 CODES, REGULATIONS, AND STANDARDS

- A. The entirety of the work shall be carried out in full compliance with all applicable laws, codes, rules and regulations of all Federal, State, and Municipal governments and authorities having jurisdiction. It shall be the duty of the Contractor to fully understand all such requirements and to ensure that such are fully and faithfully carried out.
- B. The Contractor shall be fully responsible for ensuring that subcontractors provide construction and systems that are complete with all necessary controls, accessories, etc., to satisfy such requirements and that mechanical and electrical systems satisfy the "minimum" requirements, whether or not such are correctly shown on the Drawings or specified.
- C. The requirements outlined in the project specifications shall be considered minimum standards. If the requirements of any applicable law, code, rule or regulation enacted by an authority having jurisdiction conflicts with the requirements outlined in the project specifications, the more stringent requirements of the authority having jurisdiction shall prevail and be fulfilled by the Contractor.
- D. In the case of any such contradiction between the project specifications and any applicable law, code, rule or regulation, the Contractor shall promptly notify the Owner and Owner's Consultant, in writing, of said variance. Any changes in the work necessary to comply with the applicable law, code, rule or regulation shall be ordered, with adjustments for said changes being made in accordance with the terms of these General Conditions except in those cases where the Contractor is rendered fully responsible. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, regulations, etc., and without such notice to the Owner and

Owner's Consultant, the Contractor shall bear all costs associated with such work.

- E. No extra compensation will be allowed for completion of work legally required which is not specifically mentioned in the Project Documents or depicted on Drawings, but which according to the Project Documents is the responsibility of the Contractor. Should the Contractor, through ignorance, neglect, or design, be responsible for violating any provision of any applicable law, code, ordinance or regulation, resulting in injunction of other procedure by the authorities, it shall make full restitution and pay all penalties to the full satisfaction of the authorities, the Owner's Consultant and the Owner, as their interests may appear.
- F. Any reference to standards of any society, institute, association, or governmental agency, which are part of the regulatory standards governing this work shall be of that standard with the publication date that is most recent.
- G. Any reference to standards of any society, institute, association or governmental agency which are not part of the regulatory standards governing this work shall be of the latest edition of that standard, as of the date the contract for this work is awarded, unless stated otherwise in the specifications.

1.8 QUALITY CONTROL

- A. The Owner has contracted for the services of the Owner's Consultant to administer the project, and perform quality control observations. The Owner's Consultant will conduct demolition air monitoring and observation of demolition activities to determine if Contractor's demolition work operations conform to the project specifications, accepted industrial hygiene practices, and regulatory guidelines. The Owner's Consultant is not obligated or authorized to conduct exposure monitoring of the Contractor's employees. Employee exposure monitoring is the Contractor's responsibility.
- B. The placing of any phase of the work into use, even with the consent of the Owner or the Owner's Consultant or payment for any work shall not be construed as acceptance of the work by the Owner, nor shall it obligate the Owner to accept improper work or defective materials.
- C. The Owner or Owner's Consultant is not obligated to provide the Contractor with early notice of the rejection of improper work or defective materials.
- D. The Owner and Owner's Consultant shall have access to the work at all times and the Contractor shall provide proper facilities for access and observations.
- E. The on-site representatives of the Owner's Consultant are not authorized, without prior approval of the Owner, to revoke, alter, relax, enlarge, or release any requirements of the project specifications, nor to approve or accept any portion of the work.
- F. The presence or absence of the Owner or Owner's Consultant shall in no way relieve the Contractor of responsibility to furnish materials and

construction in full compliance with regulatory guidelines and the project specifications.

- G. The Owner and/or Owner's Consultant shall be permitted to document work activities in progress, including photographic or videographic documentation, without interference from the Contractor or claims of an invasion of privacy and/or an attempt to obtain proprietary business information.
- H. The Contractor shall furnish any labor necessary to assist the Owner's Consultant to obtain samples at the site or at other material sources.
- I. The use of any experimental or untried methods, or the use or installation of any experimental or untried materials or equipment or any combination of either or both, shall not be allowed. Each bidder, if so required by the Owner or Owner's Consultant, shall submit ample proof that the method of doing any Work contemplated under the specifications has been successfully used for like work for a period of at least one year; or that the materials or equipment or any combination of either or both proposed to be used on or furnished for such contemplated work, is of a reliable make and is of a type that has been successfully used in practical service outside of the builder's works, for a period of not less than one year.

1.9 TEMPORARY UTILITIES

See Section 01 50 00 - Temporary Utilities

1.10 SITE PLAN

- A. The Contractor shall prepare a site plan indicating the proposed location and dimensions of any area to be used for material stockpiles, equipment/material storage, routes of ingress/egress, and personnel/equipment decontamination units.

- B. Identification of Employees

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

- C. Employee Parking

Contractor parking will be available in paved lot north of the buildings.

1.11 AVAILABILITY AND USE OF UTILITY SERVICES

- A. The Contractor shall furnish water for the asbestos decontamination and demolition activities through use of a tanker truck, temporary water service or from a nearby fire hydrant. Locations of available hydrants for water use are depicted on the Project Drawing, and city water usage must be coordinated through the City of Huntington Department of Public Works. The Contractor shall furnish heat, and electricity as needed for demolition

activities and decontamination purposes. The Contractor is responsible to coordinate acquisition/connection of temporary utility services as needed to complete the work and for all fees, permits, and notifications required for temporary utility services.

- B. The Contractor shall furnish temporary lighting for work areas. The Contractor shall provide a water heater to supply hot water for decontamination purposes.

C. Utility Services and Payment

The Contractor shall install and pay for all temporary facilities and controls required by the Work. The Contractor shall remove them temporary facilities installed upon completion of the Work.

D. Meters and Temporary Connections

The Contractor shall provide and maintain, at its expense and in a manner satisfactory to the City of Huntington or applicable utility owner, necessary temporary connections, distribution lines, meters, and meter bases required to measure the amount of each utility used for the purpose of determining charges unless this service is provided by the local utility company.

E. Sanitation

The Contractor shall provide and maintain minimum field-type sanitary facilities. The sanitation facilities shall be per applicable federal, state and local regulatory requirements.

F. Telephone/Facsimile

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

1.12 PROJECT SIGNING

A. Bulletin Board

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

B. Project and Safety Signs

The requirements for the signs, their content, and location shall be as outlined in the specification or as deemed necessary by the Contractor, local governing body, or the Owner. The data required by the safety signs shall be corrected daily, with light colored metallic or non-metallic numerals. Upon completion of the project, the signs shall be removed from the site.

1.13 BARRIER AND ENCLOSURES

- A. The Contractor shall furnish, install, and maintain as long as necessary adequate barriers, warning signs, or lights at all dangerous points throughout the Work for protection of property, workers, and the public. The Contractor shall remove such material when deemed no longer required. The Contractor shall hold the Owner and Owner's Consultant harmless from damage or claims arising out of any injury or damage that may be sustained by any person or persons as a result of the Work under the Contract.
- B. Street Barricades: If traffic lanes will be closed to facilitate operations, the Contractor shall erect, and maintain all street barricades, signal lights and lane change markers during periods that traffic lanes are closed for operations. The Contractor shall fully comply with rules and ordinances respecting such street barricading and the devices shall be removed when the hazard is no longer present.

1.14 DECONTAMINATION

- A. The Contractor shall provide, operate and maintain decontamination units for personnel and equipment at the project site as detailed in these specifications and approved by the Owner and Owner's Consultant.

1.15 CONTRACTOR'S TEMPORARY FACILITIES

- A. Security Provisions

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

- B. Storage Facilities

The Contractor shall be responsible for providing and maintaining storage facilities for project-related materials and items.

1.16 CLEANUP

- A. Construction debris, waste materials, and discarded packaging material created by the Contractor's operations shall be removed from the work site daily. Stored material not in trailers, whether new or not, shall be neatly stacked when stored.

1.17 PERFORMANCE OF WORK

- A. The work shall be performed by properly trained and equipped contractor personnel. All intrusive work shall be performed by properly trained and equipped contractor personnel. All intrusive work involving potential contact with hazardous materials shall be conducted by Contractor personnel that have completed initial and annual OSHA training and medical surveillance,

in accordance with 29 CFR 1926.1101, 29 CFR 1926.62, and other applicable OSHA Standards.

- B. The work described in the specifications will be performed under the observation of the Owner's Consultant acting on behalf of the Owner.

1.18 PROJECT COORDINATION

- A. Prior to beginning Work the Contractor shall meet with the Owner and Owner's Consultant to establish the schedule for the project. Once the project is started, it shall be carried to completion without delay.
- B. Phasing of Work shall be clearly established and verified with the Owner prior to commencing work in any area. No work shall begin until authorized by the Owner and Owner's Consultant.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Non-Applicable)

END OF SECTION 01 00 00

SECTION 01 20 00 PAYMENT PROCEDURES AND APPLICATION FOR PAYMENT

PART 1 GENERAL

1.1 DESCRIPTION

All units of measurement shall be standard United States convention as applied to the specific items of work by tradition and as interpreted by the Owner and Owner's Consultant.

A. Unit Price Items

Payment items for the work of this contract on which the contract progress payment will be based are listed in the bid form. The unit price and payment made for each item listed shall constitute full compensation for furnishing all labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, safety requirements, sampling, tests, and reports, and for performing all work required for each of the unit price items. Payment is contingent upon approval of all applicable submittals.

B. Lump Sum Items

Payment items for the work of this contract for which Contract lump sum payments will be made are listed in bid form. Contract progress payments for lump sum items will be paid for based on the approved schedule of values. All cost for items of work, which are not specifically mentioned to be included in a particular lump sum or unit price payment item, shall be included in the listed lump sum item most closely associated with the work involved. The lump sum price and payment made for each item listed shall constitute full compensation for furnishing all labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, safety requirements, sampling, tests and reports, and for performing all work required for which separated payment is not otherwise provided. Payment is contingent upon approval of all applicable submittals.

1.2 SCOPE OF PAYMENT

- A. The Contractor shall accept compensation as herein provided, as full payment to furnish all materials, labor, tools, equipment, permitting, and incidentals necessary to the completed work; for performing all work contemplated and embraced by the Contract; for all loss or damage arising from the nature of the work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the execution of

the work; and for all expenses incurred in consequence of the suspension of the work as herein authorized.

- B. No extra payment will be made to the Contractor for any expense or delays caused by revision of inadequate submittals, lack of progress, defective workmanship, or rescheduling of work by other contractors, subcontractors, or equipment and material suppliers.
- C. No additional payment will be allowed because of differences between field dimensions and those shown specified herein should work be conducted before notifying the Owner and Owner's Consultant of these differences.
- D. Additional costs caused by ill-timed or defective work, or work not conforming to Project Specifications, including costs for additional services of an Engineer, shall be incurred solely by the Contractor.
- E. Additional work completed with written instructions from the Owner or Owner's Consultant, other than detective or non-conforming work, will be paid for by the Owner.
- F. The Owner shall not be obligated to make any payments to the Contractor until the Contractor has filed with the Owner affidavits showing the names of each firm and/or person supplying labor and/or materials used in the performance of the work herein specified, and further showing the amounts owing to each firm and/or person supplying labor and/or materials which are not paid for in full, and until the Contractor has also filed with the Owner, in a form satisfactory to the Owner, waivers of lien from each firm and/or person supplying labor and/or materials used in the performance of the work herein specified.

1.3 PAYMENT FOR INCREASED OR DECREASED QUANTITIES

- A. Payment for concealed materials will be at the unit price bid for the respective item. The Contractor must notify the Owner and Owner's Consultant in writing of concealed materials encountered during the work within 24 hours of discovery. Quantities of concealed materials must be field verified by the Owner's Consultant.
- B. Increased or decreased work involving Change Orders will be paid for as stipulated in writing on such Change Orders.

1.4 FINAL PAYMENT

- A. Upon Final Acceptance of the Work by the Owner, the Owner will, as soon as practicable after the entire completion of the project, pay the entire sum found to be due, after adding any accepted change orders and deducting all previous payments and sums the Owner may have expended or may be properly deductible under the provisions of the Contract. All amounts to be paid under the provisions of the Contract may be held by the Owner for a period of sixty days after the completion of the project or until such time as

the Contractor submits satisfactory evidence that all bills for labor and materials used under this Contract have been paid and all required closeout documents, including waivers of lien, have been submitted.

- B. Final payment by the Owner does not constitute acceptance of defective work or unauthorized substitution of inferior materials, whether or not such work or materials shall be apparent when final payment is made. The Contractor agrees to submit warranties and guarantees in writing with the final request for payment as provided in this section.
- C. The acceptance of final payment shall constitute a waiver of all claims by the Contractor.

1.5 PAYMENT PROCEDURES

This subsection specifies administrative and procedural requirements governing the Contractor's Applications for Payment. Coordinate the Schedule of Values and Applications for Payment with the Construction Schedule, List of Subcontracts and Submittal Schedule. The Construction Schedule and Submittal Schedule are included in Section 01 33 00 "Submittal Procedures."

- A. Prepare the Schedule of Values for the Owner.
- B. Correlate line items in the Schedule of Values with other required administrative schedules and forms, including:
 - 1. Application for Payment Form.
 - 2. List of Subcontractors.
 - 3. Schedule of Alternates.
 - 4. List of Products.
 - 5. List of Principal Suppliers and Fabricators.
 - 6. Schedule of Submittals.
- C. Rounding: Round amounts off to the nearest whole dollar; the total shall equal the Contract Sum.
- D. Unit-Cost Allowances: Show line item value of unit cost allowances as a product of unit cost times measured quantity as estimated from the best indication in the Project Documents.
- E. Retainage: The amount of 10% of the contract amount (including any changes or deletions) shall be shown as retainage deducted from the amount applied for the contract. Upon forwarding all contract submittals and completing any punch list items, the Contractor may apply for the retainage and any final amount applicable.
- F. Change Order Forms: The AIA Document G 701 shall be used as the form for Change Order requests.

- G. Payment Application Forms: The AIA Document G 702 and Continuation Sheets G 703 are to be used as the form for Application for Payment. Include amounts of Change Orders (if any) issued prior to the last day of the construction period covered by the application. The Application for Payment shall be reviewed by Owner's Consultant and paid for by Owner.
- H. Application Preparation: Complete every entry on the form, including notarization and execution by persons authorized to sign legal documents on behalf of the Contractor. Incomplete applications will be returned without action.
- I. Transmittal: **Submit one (1) executed original of each Application for Payment** to the Owner's Consultant by means ensuring receipt within 24 hours; each application shall be complete, including waivers of lien and similar attachments, if required. Transmit each application with a transmittal form listing attachments, and recording appropriate information related to the application in a manner acceptable to the Owner's Consultant.
- J. Release Of Lien: With the Final Application for Payment, submit waivers of mechanics liens from every entity who may lawfully be entitled to file a mechanics lien arising out of the Contract, and related to the Work covered by the payment.
1. The Owner reserves the right to designate which entities involved in the Work must submit waivers.
 2. Submit Application for Payment with or preceded by final waivers from every entity involved with performance of Work covered by the application that could lawfully be entitled to a lien.
- K. Payment Application: Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment include the following:
1. Completion of Project closeout requirements.
 2. Written assurance that unsettled claims will be settled.
 3. Written assurance that Work not complete and accepted will be completed without undue delay.
 4. Transmittal of required project construction records.
 5. Disposal receipts, bills of lading, or other required documentation for transportation and disposal of asbestos-containing waste, hazardous/regulated materials, and other wastes.
 6. Proof that taxes, fees, and similar obligations have been paid.
 7. Removal of temporary facilities and services.
 8. Removal of surplus materials, rubbish, and similar elements.

- L. The Owner may decline to approve any application for payment in whole or in part as may be necessary in its opinion to protect itself from loss because of:
 - 1. defective work not remedied;
 - 2. claims filed or reasonable evidence indicating probable filing of claims;
 - 3. failure of the Contractor to make payments to subcontractors for material or labor;
 - 4. a reasonable doubt that the work can be completed for the unpaid balance of the Contract amount;
 - 5. damage to the Owner or another contractor;
 - 6. reasonable indication that the work will not be completed within the Contract time; or
 - 7. unsatisfactory prosecution of the work by the Contractor.
- M. If payment is withheld because of any of the foregoing reasons, and such reasons are removed or corrected, payment shall be made for the amount withheld because of such reason(s).
- N. The Contractor should refer to Section 00 72 00 General Conditions and Requirements regarding adjustments that may be made to the Contractor's application(s) for payment.

PART 2 PRODUCTS (NOT USED).

PART 3 EXECUTION (NOT USED).

END OF SECTION 01 20 00

SECTION 01 31 13 PROJECT COORDINATION

PART 1 GENERAL

1.1 RELATED DOCUMENTS:

Diagrams and general provisions of Contract, including General and Supplementary Conditions and other technical specification sections, apply to this section.

1.2 SUMMARY

This section specifies administrative and supervisory requirements necessary for project coordination including, but not necessarily limited to:

- A. Administrative and supervisory personnel
- B. Progress Meetings
- C. Pre-Construction Conference
- D. Daily Log
- E. Special reports

1.3 ADMINISTRATIVE AND SUPERVISORY PERSONNEL:

- A. General Superintendent: The Contractor shall provide a full-time General Superintendent who is experienced in administration and supervision of asbestos abatement and demolition projects of similar size and complexity to this project including work practices, protective measures for building and personnel, disposal procedures, etc. This person is the Contractor's Representative responsible for compliance with all existing applicable federal, state, and local regulations.
- B. Experience and Training: The General Superintendent must have completed a course at a USEPA Training Center or equivalent certificate course in asbestos abatement procedures (this training must be current), and have had a minimum of three (3) years on-the-job training in asbestos abatement procedures and demolition operations.
- C. Competent Person: The General Superintendent is to be a Competent Person as indicated above, familiar with all aspects of 29 CFR 1926.1000 and 29 CFR 1926.1101.

1.4 PROGRESS MEETINGS:

General: In addition to specific coordination and pre-installation meetings for each element of work, and other regular project meetings held for other purposes, the Owner or Owner's Consultant may hold general progress meetings as required. These meetings will be scheduled, where possible, at time of preparation of payment request. It is required each entity then involved in planning, coordination or performance of work to be properly represented at each meeting.

1.5 PRE-CONSTRUCTION CONFERENCE:

- A. An initial progress meeting, recognized as "Pre-Construction Conference" may be convened by the Owner or the Owner's Consultant prior to start of work. The conference will take place at the project site and will include other entities concerned with the asbestos decontamination and demolition work. This is an organizational meeting, to review responsibilities and personnel assignments and to locate decontamination areas and temporary facilities including electricity, water, etc.
- B. At least twenty-four (24) hours advance notice will be provided to all participants prior to convening Pre-Construction Conference unless circumstances do not allow.
- C. No unauthorized tape recording of meeting minutes will be allowed. The Owner's Consultant or Owner will take minutes and submit them to the Contractor.

1.4 DAILY LOG:

- A. Daily Log: Maintain a daily log documenting the dates and time of, at least the following items:
 - 1. Visitations; authorized and unauthorized
 - 2. Personnel, by name and social security number, entering and leaving the work area
 - 3. Special or unusual events, i.e. barrier breaching, equipment failures, accidents
 - 4. Air monitoring results
 - 5. Documentation of Contractor's completion of the following:
 - a) Inspection of asbestos removal work areas preparation prior to start of removal and daily thereafter.
 - b) Removal of any polyethylene barriers.
 - c) Contractor's inspections prior to lock-down, 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.
 - d) Removal of waste materials from work area.
 - e) Decontamination of equipment used for asbestos work (list items).
 - f) Amounts of waste materials removed from the site for recycling or disposal on a daily basis. Include name of waste transporter(s) and destination(s) of waste materials.
 - g) Condition of personnel decontamination units or hand wash stations. List corrective measures implemented.
 - h) Condition of vehicle wash/decontamination stations and adjacent street surfaces. List any corrective measures implemented.
 - i) Demolition activities conducted each day and estimation of progress towards project completion.

- j) Soil and sedimentation control mechanisms installed at the property and adequacy/conditions of said controls as assessed daily by the Superintendent. List any deficiencies or concerns and corrective measures implemented in response.
- B. Provide one (1) copy of these logs to the Owner's Consultant on a daily basis.
- C. Submit copies of these logs at final closeout of project as a closeout submittal unless otherwise directed by the Owner and Owner's Consultant.

1.5 SPECIAL REPORTS:

- A. General: Except as otherwise indicated, submit special reports directly to Owner's Consultant within one day of occurrence requiring special report, with a copy to Owner and others affected by occurrence.
- B. Daily Site Safety Audit: The Contractor's superintendent shall conduct a daily site safety audit of the work area(s). The superintendent shall complete a written report regarding the results of the daily safety audit and submit a copy to the Owner's Consultant within 24 hours of completing the safety audit.
- C. Reporting Unusual Events: When an event of unusual and significant nature occurs at site, prepare and submit a special report listing chain of events, persons participating, and the response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. When such events are known or predictable in advance, advise the Owner and Owner's Consultant in advance at earliest possible date.
- D. Reporting Accidents: Prepare and submit reports of significant accidents, at 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, property loss of substance is sustained, or where the event posed a significant threat of loss or personal injury. Written accident reports are due to the Owner and Owner's Consultant within twenty-four (24) hours of the incident.
- E. Report Discovered Conditions: When an unusual condition of the building is discovered during the work (e.g. leaks, termites, corrosion) prepare and submit a special report indicating the condition discovered and location of discovery.

1.6 CONTINGENCY PLAN:

- A. Contingency Plan: Prepare a contingency plan for emergencies including fire, power failure, pressure differential system failure, or any other event that may require modification or abridgement of Work Area isolation procedures, decontamination and hazardous materials removal activities or demolition operations. Include in the plan specific procedures for decontamination or Work Area isolation. Note that nothing in this specification should impede safe exiting or providing of adequate medical attention in the event of an emergency.

- B. Post: In a central location of the project site, post telephone numbers and locations of emergency services including but not limited to fire, ambulance, doctor, hospital, police, electrical power company, natural gas company, and telephone company. In addition, post contact information for the Contractor's project manager, Contractor's superintendent, Owner's Consultant, and Owner.

1.7 NOTIFICATIONS

- A. Other Entities: Notify other entities at the job site of the nature of the demolition activities, location of asbestos-containing materials, requirements relative to regulated materials set forth in these specifications and applicable regulations.
- B. Emergency Services: Notify emergency service agencies including fire, ambulance, police, or other agencies that may service the work site in case of an emergency. Notification is to include methods of entering the work areas, emergency entry and exit locations, modifications to fire notification or firefighting equipment, and other information needed by agencies providing emergency services.
- C. Notifications of Emergency: Any individual at the job site may notify emergency service agencies if necessary without effect on this Contract or the Contract Sum.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Non-Applicable)

END OF SECTION 01 31 13

SECTION 01 33 00 SUBMITTALS

PART 1 GENERAL

1.1 SUBMITTAL CLASSIFICATION

- A. Submittals are classified as Owner Approved (OA) and For Information Only (FIO).

1.2 APPROVED SUBMITTALS

- A. The approval of submittals by the Owner shall not be construed as a complete check but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist.
- B. Upon completion of review of submittals requiring Owner approval (OA), the submittal will be identified as having received approval by being so stamped and dated.
 - 1. Reservation of Rights
The Owner reserves the right to require the Contractor to resubmit any item found not to comply with the Contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications and will not prevent the Owner from requiring removal and replacement if nonconforming material is incorporated in the work. This does not relieve the Contractor of the requirement to conduct testing where the technical specifications so prescribe or furnish samples to the Owner for testing. Additional time and expense necessary to comply with additional resubmittals required under this paragraph will not be the basis for any claims for time extension, delay, or extra cost on the part of the Contractor.

1.3 DISAPPROVED SUBMITTALS

When a submittal is returned to the Contractor and marked "DISAPPROVED" or "APPROVED AS NOTED, REVISE AND RESUBMIT", the Contractor shall make all corrections required by the Owner and/or Owner's Consultant and promptly furnish a corrected submittal in the form and number of copies as specified for initial submittal.

1.4 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained. Additional time and expense necessary to comply with additional resubmittals required under this paragraph will not be the basis for any claims for time extension, delay, or extra cost on the part of the Contractor.

1.5 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with pertinent drawings shall be so scheduled. No delay damages or time extensions will be allowed for time lost in late submittals. The Contractor shall carefully control its procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date

1.6 INFORMATION ONLY SUBMITTALS

Normally submittal for information only will not be returned but by receipt thereof will be acknowledged. Owner Approval is not required on information only submittals. These submittals will be used for information purposes.

1.7 SUBMIT WITH PROPOSAL

The Contractor shall submit these bid submittals to the Owner as part of the bid.

The information is to be responded to in the same order as presented below. All employee submittals shall be alphabetized and placed in the consecutive order:

A. EDUCATION/TRAINING:

1. Provide a roster of key personnel (project managers, supervisors, etc.) who will work on the project that lists dates and type of training for each employee arranged in alphabetic order.

B. EXPERIENCE/REFERENCES:

1. List the company's last three projects.
2. Include contacts for each of the projects with telephone numbers and addresses.
3. Submit a copy of all licenses for each state in which the contractor is licensed to work.

C. COMPLIANCE/ENFORCEMENT:

1. Provide a description of any projects that have been halted by the owner, architect, engineer, industrial hygiene consultant, or any regulatory agency representative. Submit documentation as to the problem and the resolution.
2. Submit copies of or documentation relating to any citations levied by any Federal, State, or local agency for violations related to asbestos or hazardous materials abatement or demolition activities. Include name or location of the project, dates, citation amount (if applicable) and how the allegations were resolved.
3. Submit copies of any inspections by any regulatory agency on any project.

D. INSURANCE AND BONDING:

1. Submit copies of insurance policies fulfilling the contract requirements. All insurance carriers must be licensed to write coverage in the State of Indiana hold a current A.M. Best's rating of A:VII, or shall be a carrier otherwise acceptable to the City of Huntington.
 - a) Asbestos/hazardous materials liability insurance in the amount of at least five million dollars of occurrence form will be required for this project.
 - b) General Liability insurance in the amount of at least five million dollars of occurrence form will be required for this project.
 - c) Excess/umbrella liability insurance, with coverage for commercial general liability, asbestos and pollution/environmental impairment liability, and automobile liability, with minimum limits of liability of five million dollars will be required for this project.
2. Submit a copy of the sample certificate(s). The City of Huntington, City of Huntington Redevelopment Commission, and, its officers, employees, representatives, volunteers, consultants, agents and SME are to be named additional insured on all policies. The certificate(s) shall specifically reference the project name and location and the additional insured.
3. Submit a copy of any exclusions to the insurance policies named above.

E. PLAN OF ACTION/SCHEDULE OF WORK:

1. Submit a detailed plan of the procedures proposed for use in complying with the requirements of the project specifications. Include in the plan the location and layout of decontamination areas, the sequencing and sectioning of decontamination and demolition work, methods to be used to complete the work, methods to be used to assure the safety of visitors to the site, disposal plan including location of approved disposal site(s), and a detailed description of the methods and engineering controls to be employed to control contamination. The plan and schedule must be approved by the Owner and/or the Owner's Consultant prior to commencement of work.
2. Provide a schedule of work with a schedule of labor that specifies the minimum number of workers to be dedicated to the job site for each phase of work and maximum number of man-hours necessary to complete each phase of the work. The total number of work-days, man hours, and minimum number of workers included shall reflect the maximum amounts of time and costs associated with completing the work for the project in accordance with the bids submitted.

F. BIDDER AFFIDAVIT AND STATEMENT OF BIDDER QUALIFICATION:

1. Submit completed, signed Bidder Affidavit, Statement of Bidder Qualification, Iran Investment Certification and E-Verify Program Certification with the proposal to conduct the work. Both of these forms are included in Appendix A to the Project Specifications. Submittal of a bid proposal to conduct the work without these completed, signed forms may result in the disqualification of the bid for the work.

1.8. NOTIFICATION

Upon award of the contract and upon receipt of the Notice to Proceed, send written notification to the Indiana Department of Environmental Management (IDEM) in conformance with USEPA National Emissions Standards for Hazardous Air Pollutants (NESHAP) Asbestos Regulations (40 CFR 61, Subpart M) and Indiana Rule 326 IAC 14-10-3(1). Indiana Rule 326 IAC 14-10-3(1) requires the notification to be submitted using **Notification of Demolition and Renovation Operations, State Form 44593**. **A copy of this form and instructions for completing it may be obtained on-line at:**

http://www.in.gov/idem/5157.htm#oaq_compliance

The NESHAP asbestos regulation 40 CFR Part 61, Subpart M, requires that if at least 80 linear meters (260 linear feet) of friable asbestos materials, or at least 15 square meters (160 square feet) of friable asbestos materials, or other facility components are stripped or removed while renovating a facility, all the requirements of sections 61.147 apply.

The NESHAP regulation also requires submittal of a Notification of Demolition and Renovation Operations at least 14 calendar days prior to demolition of a building regardless of whether asbestos-containing materials are present in the building.

The project notification must include at minimum the following:

- A. Name, address, and telephone number of owner or operator.
- B. Description of facility being demolished or renovated, including the size, age, number of floors, present and prior use of the facility.
- C. Procedures employed to detect presence of RACM, Category I, and Category II nonfriable ACM.
- D. 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.
- E. Location and street address (including city, county and state) of the facility being demolished or renovated.
- F. Scheduled starting and completion dates of asbestos removal.
- G. Scheduled starting and completion dates of demolition or renovation.
- H. Description of planned demolition or renovation and method(s) to be used.
- I. Description of procedures to be used to comply with requirements, including asbestos removal and waste-handling emission control procedures.
- J. Name and location of the waste disposal site where asbestos-containing waste material will be deposited.
- K. The name and accreditation number of the Inspector who conducted the asbestos assessment of the structure as well as the name and address of the company employing the Inspector.
- L. Certification that at least one person trained as required by paragraph (c)(8) of the Asbestos NESHAP regulations will be on-site and will

supervise the asbestos removal and demolition operations described by the notification.

The Contractor shall submit the notification to regulatory agencies by overnight mail with copies of the receipts(s) and notifications forwarded to the Owner's Consultant.

1.9 PROJECT SUBMITTALS AT COMMENCEMENT OF WORK

A. **Contractor Submittals:** Before commencement of work for this project deliver the following submittals to Owner's Consultant:

1. Written standard operating procedures, a respiratory protection program meeting the requirements of 29 CFR 1910.134 (if respiratory protection is to be used), and a Hazard Communication program meeting the requirements of 29 CFR 1910.1200.
2. Completed insurance certificates and full copies of the insurance policies required under Section 00 73 16 of the project specifications. The City of Huntington, City of Huntington Redevelopment Commission, and, its officers, employees, representatives, volunteers, consultants, agents and SME are to be named additional insured on the insurance certificate(s). The certificate(s) shall specifically reference the project name and location and the additional insured.
3. For asbestos work included in the contract, copies of all personnel training certificates, State of Indiana accreditation, certifications of medical surveillance, respiratory fit testing for the employees who will be assigned the work if the documentation submitted with the proposal has or will change. (No employee will be allowed to work without complete documentation).
4. Product Data and Safety Data Sheets (SDS) for all materials to be used during the project.
5. Copy of state or local license for waste transporter(s).
6. Name and address of the landfill(s) or treatment/disposal facilities or recycling facilities where asbestos-contaminated waste materials, other hazardous materials wastes, and demolition wastes are to be disposed or recycled. Include contact person(s) and telephone number(s).
7. Site Health and Safety Plan.

B. **Administrative Submittals:** Refer to other Sections of the project manual for requirements pertaining to administrative submittals.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 SUBMITTAL PROCEDURES

The Owner and Owner's Consultant reserve the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received. No extension of contract time will be authorized because of

failure to transmit submittals sufficiently in advance of the work to permit processing.

- A. **Submittals**: Submit 2 copies of each submittal required. Submit at least one copy of each submittal unbound. The Owner or Owner's Consultant will return the one copy as needed marked with action taken and corrections or modifications required.

Unless noncompliance with the project specifications provisions is observed, the submittal may serve as the final submittal.

- B. **Closeout Submittals**: Submit 2 copies of each required closeout submittal. Submit at least one copy of each submittal unbound. Refer to SECTION 01 77 19 "Project Closeout" and to individual sections of the Project specifications for specific submittal requirements of project closeout information.

END OF SECTION 01 33 00

SECTION 01 35 00 HAZARDOUS MATERIAL PROJECT PROCEDURES

PART 1 GENERAL

- A. Environmental hazards (air, water, land and liquid industrial) are handled by the Indiana Department of Environmental Management (IDEM) in carrying out the requirements of the United States Environmental Protection Agency (EPA). For general information and/or a copy of the latest regulations and publications contact the IDEM.
- B. The Indiana Occupational Safety and Health Administration (IOSHA) provides protection and regulations for the safety and health of workers.
 - 1. The Contractor shall be responsible for training employees in safe work practices and in proper removal methods when coming in contact with toxic or hazardous materials.
- C. Applicable Regulations/Rules:
 - 1. RCRA, 1976 - Resource Conservation and Recovery Act: This federal statute regulates generation, transportation, treatment, storage or disposal of hazardous wastes nationally.
 - 2. 329 IAC 3.1-6- Indiana's Hazardous Waste Rules: Indiana has adopted most of the federal hazardous waste management standards codified federally at 40 CFR Parts 260-270, and 273. Exceptions and additions to the federal rules are specifically noted in the state's hazardous waste management rules.
 - 3. 329 IAC 3.1 – Regulation of Wastes Containing PCBs: This rule regulates the generation, transportation, storage and disposal of PCB wastes in Indiana.
- D. Definitions: Hazardous substances are ignitable, corrosive, reactive, and/or toxic, based on their chemical characteristics.
 - 1. Under Federal and Indiana law, a Small Quantity Generator of hazardous waste provides from 220 to less than 2,000 lbs./month or never accumulates 2,200 lbs. or more.
 - 2. A Generator size provider of hazardous waste provides 2,200 lbs. or more/month or accumulates above 2,200 lbs.
- E. Disposals: To use an off-site hazardous waste disposal facility, the Contractor must use the Uniform Hazardous Waste Manifest (shipping paper).
 - 1. Small quantities of hazardous waste may not be disposed of in sanitary landfills used for solid waste.

- F. Federal, State and local laws and regulations may apply to the storage, handling and disposal of hazardous materials and wastes. The list below includes the regulations which are most frequently encountered.

| <u>Topic</u> | <u>Agency</u> |
|---|--|
| Hazardous waste management | Hazardous Waste Compliance Section - Indiana Department of Environmental Management (IDEM) |
| Discharge to groundwater or discharge to surface water such as through a drain pipe or wastewater discharge | Office of Water Quality - IDEM |
| Disposal of waste into municipal sanitary sewers | Contact the superintendent of the City of Huntington treatment plant for requirements/prohibitions/permits |
| Worker Protection and Hazard Communication Standards (for chemicals in the work place) | IOSHA |
| Local fire prevention regulations and codes (including chemical storage requirements) | City of Huntington fire chief or fire marshal |
| Building and outdoor storage requirements (including setbacks) | City of Huntington building or zoning official |

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 01 35 00

SECTION 01 35 43 EQUIPMENT DECONTAMINATION PROCEDURES

PART 1 GENERAL

1.1 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 00 73 19 - Health, Safety, and Emergency Response
- B. Section 01 35 00 - Hazardous Contaminated Materials

1.2 HEALTH AND SAFETY REQUIREMENTS

Complete all work in accordance with Section 00 73 19, "Safety, Health, and Emergency Response."

1.3 SUBMITTALS

Submit the following in accordance with Section 00 73 19, "Safety, Health, and Emergency Response."

A. Equipment Decontamination Procedures

1. Equipment decontamination procedures shall be submitted as part of the Work Plan "Decontamination of Equipment" and shall detail all equipment and procedures proposed for decontamination of equipment used in contaminated areas. At a minimum, the decontamination procedures shall include:
2. Proposed water supply source and method.
3. Proposed washing equipment and procedures.
4. Proposed decontamination procedures.

1.4 CONTRACTOR RESPONSIBILITY

Provide and maintain equipment required for decontaminating and maintaining all facilities and equipment included in the equipment decontamination system. Decontaminate all equipment requiring decontamination, as specified in Paragraph: 3.1 Need for Decontamination.

PART 2 PRODUCTS

2.1 MISCELLANEOUS EQUIPMENT

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

PART 3 EXECUTION

3.1 NEED FOR DECONTAMINATION

All Contractor materials, equipment, and facilities shall be decontaminated prior to removal from the site. All small tools and other materials for which decontamination is difficult or uncertain shall be packaged and disposed of by

the Contractor in accordance with applicable or appropriate and relevant disposal regulations for contaminated materials. Examples of such equipment or materials are personal protective equipment, rope, lumber, plastic, etc.

3.2 EXTENT OF DECONTAMINATION

All equipment requiring decontamination, as defined in Paragraph: "Need for Decontamination", shall be washed to the extent that visible contamination is removed from the equipment.

3.3 DECONTAMINATION PROCEDURES

- A. Schedule construction activities to avoid spreading of contamination into uncontaminated areas. If possible, schedule work so that contaminated media are addressed first, leaving the facility sufficiently clean so that subsequent work can be performed with less potential of spreading of contamination and reduced requirements for decontamination.
- B. Decontaminate equipment to avoid spreading contamination onto previously uncontaminated equipment. Rinse small equipment with potable water, wash with a solution of Alconox or other approved non-phosphate detergent and water, and rinse with potable water. Submit Alternative decontamination procedures and methods to the Owner's Consultant for Owner approval prior to implementation.

END OF SECTION 01 35 43

SECTION 01 50 00 TEMPORARY UTILITIES

PART 1 GENERAL

1.1 SECTION INCLUDES

Requirements for temporary utilities used on site during project activities. The Contractor shall provide water, heat and electrical power for the asbestos decontamination and demolition activities. Costs for providing temporary utilities should be included in the base bid.

1.2 RELATED SECTIONS

- A. Section 01 52 00 – Construction Facilities
- B. Section 01 57 00 – Temporary Controls

1.3 PERFORMANCE REQUIREMENTS

A. Installation

Supply and install all temporary utilities and controls required to complete all specified activities. Temporary utilities may include lighting, heat, compressed air, water, and telephone lines.

B. Connection

Connect or have connected all temporary utilities and controls required to complete all specified activities. Pay all initial connection fees and monthly service costs.

C. Disconnection

At the conclusion of the project, disconnect or have disconnected all temporary utilities and controls installed for completion of this project. Pay final cancellation costs, if any, and monthly service costs. Restore grounds and existing facilities to original condition.

PART 2 PRODUCTS

2.1 EQUIPMENT

Provide all necessary equipment, materials, labor, hook-up fees, and incidentals to supply each utility. If renting equipment, pay all costs associated with rental of temporary utility equipment.

A SUBMITTALS

Before the start of work, submit information for all products to be used during the project. The product data may be indicated in letter form. Begin no work until these submittals are returned with Owner's action stamp indicating that the submittal is returned for unrestricted use or final, but restricted use. Submit information on the following to the Owner for review:

1. Scaffolding: Submit list of rolling and fixed scaffolding intended for use on the project. Submit sufficient detail to indicate compliance with applicable worker safety regulations or other requirements.
2. Ground Fault Circuit Interrupters (GFCI): Submit product data.
3. Lamps and Light Fixtures: Submit product data.
4. Temporary Heating Units: Provide product data.
5. Self Contained Toilet Units: Provide product data and name of subcontractor to be used for servicing self-contained toilets. Submit method used for servicing.
6. First Aid Supplies: Provide list of contents of first aid kit. Submit in form of checklist.
7. Fire Extinguishers: Provide product data. Submit schedule indicating locations at job site.

2.2 COMPONENTS

- A. Provide temporary electrical power, as needed, to the job site during demolition.
 1. Arrange and pay for connection and fees.
 2. Install temporary wiring and accessories.
 3. Pay for electricity used during asbestos decontamination and demolition.
 4. Remove temporary connection and wiring at completion of job.
- B. If necessary, provide temporary telephone service to the job site during asbestos decontamination and demolition.
 1. Arrange and pay for connection and fees.
 2. Install temporary wiring and accessories.
 3. Provide telephones for use during asbestos decontamination and demolition.
 4. Pay for telephone service (and roam charges as applicable) used during asbestos decontamination and demolition.
 5. Remove temporary connection and wiring at completion of job.
- C. Provide and pay for temporary heat, as needed, to the job site during asbestos decontamination and demolition.
- D. Provide and pay for temporary sanitary facilities, as needed, at the job sites during asbestos decontamination and demolition.
 1. Arrange and pay for installation and fees.
 2. Arrange and pay for cleaning/maintenance of temporary sanitary facilities on at least a weekly basis.

2.3 MATERIALS AND EQUIPMENT:

Provide new or used materials and equipment that are undamaged and in serviceable condition. Provide only materials and equipment that are recognized as being suitable for the intended use, by compliance with appropriate standards.

2.4 SCAFFOLDING:

- A. Provide all scaffolding, ladders and/or staging, etc. as necessary to accomplish the work of this contract. Scaffolding may be of suspension type or standing type such as metal tube and coupler, tubular welded frame, pole or outrigger type, or cantilever type. The type, erection, and use of all scaffolding shall comply with all applicable OSHA/IOSHA provisions.
- B. Equip rungs of all metal ladders, etc. with an abrasive non-slip surface.
- C. Provide a nonskid surface on all scaffold surfaces subject to foot traffic.

2.5 WATER SERVICE:

The Contractor shall provide water for asbestos decontamination and demolition as well as a water heater to supply hot water for worker decontamination.

- A. Water Hoses: 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 wall hydrants or spouts, as well as temporary water heating equipment, branch piping, showers, shut-off nozzles, and equipment.
- B. Water Heater: Provide UL rated 40-gallon electric hot water heater to supply hot water for the Decontamination Unit shower. Activate from 30-amp circuit breaker located within the Decontamination Unit subpanel. Provide with relief valve compatible with water heater operation; pipe relief valve down to drip pan on floor with type L copper. Wiring of the hot water heater shall be in compliance with NEMA, NECA, and UL standards. Heated water shall be supplied at a minimum temperature of 100 degrees Fahrenheit for decontamination purposes.

THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ASBESTOS CONTAMINATED DECONTAMINATION AND DEMOLITION WATER DOES NOT ENTER THE PUBLIC SEWER SYSTEM OR LEAVE THE PROJECT SITE.

2.6 ELECTRICAL SERVICE:

Comply with applicable NEMA, NECA, and UL standards and governing regulations for materials and layout of temporary electric service.

- A. Temporary Power: Provide service to Decontamination Unit subpanel with minimum 60 amp, 2 pole circuit breaker or fused disconnect connected to the building's main distribution panel. Subpanel and disconnect shall be sized and equipped to accommodate all electrical equipment required for completion of the work.

- B. Voltage Differences: Provide warning signs identifying power outlets that are other than 110-120 volt power. Provide polarized outlets for plug-in type outlets, to prevent insertion of 110-120 volt plugs into higher voltage outlets. Dry-type transformers shall be provided by the Contractor where required to provide voltages necessary for work operations.
- C. Ground Fault Protection: Equip all circuits for any purpose entering Work Area with ground fault circuit interrupters (GFCI). Locate GFCI's exterior to Work Area so that all circuits are protected prior to entry to Work Area. Provide circuit breaker type ground fault circuit interrupters (GFCI) equipped with test button and reset switch for all circuits to be used for any purpose in work area, decontamination units, exterior, or as otherwise required by national electrical code, OSHA or other authority. Locate in panel exterior to Work Area.
- D. Electrical Power Cords: Use only grounded extension cords; use "hard-service" cords where exposed to abrasion and traffic. Use single lengths or use waterproof connectors to connect separate lengths of electric cords, if single lengths will not reach areas of work.
- E. Lamps and Light Fixtures: Provide general service incandescent lamps or fluorescent lamps of wattage indicated or required for adequate illumination as required by the work or this section. Protect lamps with guard cages or tempered glass enclosures, where fixtures are exposed to breakage by construction operations. Provide vapor tight fixtures in work area and decontamination units. Provide exterior fixtures where fixtures are exposed to the weather or moisture.

2.7 FIRST AID:

First Aid Supplies: Comply with governing regulations and recognized recommendations within the construction industry.

2.8 FIRE EXTINGUISHERS:

Fire Extinguishers: Provide Type "A" fire extinguishers for temporary offices and similar spaces where there is minimal danger of electrical or grease-oil-flammable liquid fires. 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 and as indicated in the SECTION 01 00 00 General Requirements.

PART 3 EXECUTION

3.1 SCAFFOLDING:

- A. Clean as necessary debris from non-slip surfaces.
- B. At the completion of work, clean all construction aids within the work area prior to removal.
- C. At the completion of demolition work, clean all construction aids prior to removal from the project site.

3.2. INSTALLATION OF TEMPORARY SERVICES/FACILITIES:

- A. Use qualified tradesmen 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. Require that trades people accomplishing this work be licensed as required by local authority for the work performed. A licensed electrician must conduct temporary power panel installation as well as identification of building electrical circuits in work areas and lockout/tagout of those circuits prior to commencing site work activities.
- D. Relocate, modify, and extend services and facilities as required during the course of work to accommodate the entire work of the project.

3.3 WATER SERVICE:

The Contractor shall provide water for decontamination and demolition activities. The Contractor shall arrange to supply hot water, when necessary, and for hot water to be supplied at a minimum temperature of 100 Degrees Fahrenheit.

3.4 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. Install temporary lighting adequate to provide sufficient illumination for safe work and traffic conditions in every area of work.
- C. Lockout: Lockout all existing power to or through the work area as described below. All power and lighting to the Work Area and Decontamination facilities are to be provided from temporary electrical panel described below.
- D. Circuit Protection: Protect each circuit with a ground fault circuit interrupter (GFCI) of proper size located in the temporary panel. Do not use outlet type GFCI devices.
- E. Temporary Wiring: in the Work Area shall be type UF non-metallic sheathed cable located overhead and exposed for surveillance. Do not wire temporary lighting with plain, exposed (insulated) electrical conductors. Provide liquid tight enclosures or boxes for wiring devices.
- F. Number of Branch Circuits: Provide sufficient branch circuits as required by the work. All branch circuits are to originate at temporary electrical panel. At minimum provide the following:
 - 1. For power tools and task lighting, provide one temporary 4-gang outlet with a separate 110-120 Volt, 15 Amp circuit for each 4-gang outlet, in the following locations:
 - a. One outlet in the work area for each 2,500 square feet of work area.

- b. One outlet at each decontamination unit, located in equipment room.
- 2. Provide 110-120 volt 15 amp branch circuits with 4-gang outlet for the Owner's Consultant's exclusive use while conducting air sampling during the demolition work as follows:
 - a. One adjacent each work area
 - b. One at clean side of each Decontamination Unit.
 - c. Outside work area in locations designated by the Owner's Consultant.
- G. Provide the following or equivalent where natural lighting does not meet the required light level minimum provide the following:
 - 1. One 200-watt lamp per 1,000 square feet of floor area, uniformly distributed, for general construction lighting, or equivalent illumination of a similar nature. In corridors and similar traffic areas provide one 100-watt lamp every 50 feet. In stairways and at ladder runs, provide one lamp minimum per story, located to illuminate each landing and flight. Provide sufficient temporary lighting to ensure proper workmanship everywhere; by combined use of daylight, general lighting, and portable plug-in task lighting.
- H. Provide lighting in areas where work is being performed as required to supply a 100-foot candle minimum light level.
- I. Provide lighting in any area being subjected to a visual inspection as required to supply a 100-foot candle minimum light level.
- J. Provide lighting in the Decontamination Unit as required to supply a 100-foot candle minimum light level.
- K. Provide sufficient lighting circuits as required by the work. All lighting circuits are to originate at electrical panel.

3.5 SANITARY FACILITIES:

The Contractor shall provide temporary sanitary facilities at the site. The Contractor shall maintain the facilities in a clean and sanitary condition through completion of the project with no additional expense to the Owner.

3.6 FIRE EXTINGUISHERS:

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 or as otherwise indicated in the Project Specifications.

END OF SECTION 01 50 00

SECTION 01 52 00 CONSTRUCTION FACILITIES

PART 1 GENERAL

1.1 SECTION INCLUDES

Requirements for temporary facilities used on site during project activities. Costs for any construction facilities should be included in the bid items for site services.

1.2 RELATED SECTIONS

- A. Section 01 50 00 – Temporary Utilities
- B. Section 01 57 00 – Temporary Controls

1.3 PERFORMANCE REQUIREMENTS

A. Installation

Provide additional storage and sanitary facilities for the property (as necessary). Sanitation facilities must remain at the property until termination of the project. Connect or have connected temporary utilities necessary for operation of the construction facilities, as specified in Section 01 50 00, Temporary Utilities.

B. Cleanliness

All construction facilities must be kept clean, orderly, and in adequate state of repair. Adequacy of provided facilities will be determined by the Owner or the Owner's Consultant. Dilapidated construction facilities will be immediately removed from site at the Contractor's expense.

1.4 QUALITY ASSURANCE

A. Cross-Contamination

Instruct personnel to maintain cleanliness throughout the construction area to prevent unnecessary cross-contamination.

B. Daily Inspections

Conduct daily inspections to ensure that standards are being maintained. The Owner or Owner's Consultant will conduct random assessments to verify "good housekeeping" procedures are being practiced.

1.5 SCHEDULING

A. Facility Inspections

Conduct daily inspections and necessary cleaning and maintenance for the facilities specified. Inadequate facilities, as determined by the Owner or Owner's Consultant, will be immediately removed from site at the Contractor's expense. At a minimum, sanitary facilities will be cleaned once each week.

PART 2 PRODUCTS

2.1 EQUIPMENT

A. Sanitary Facilities

The Contractor shall provide and maintain temporary, portable sanitary facilities, in locations approved by the Owner, adequate to accommodate the work force. Costs associated with acquisition and maintenance of temporary sanitary facilities shall be at the Contractor's responsibility and included in the base bid for the work.

B. Storage Building

The Contractor shall provide a storage building (as necessary) adequate to house equipment remaining at the property. The storage building may be a trailer or shanty. Neatly store items and equipment in designated storage areas. The storage area may be used as a break trailer, provided all on-site personnel are sheltered from inclement weather. Bid must include costs for (1) mobilization, (2) building rental, and (3) demobilization. Conduct daily inspections and necessary cleaning and maintenance for the storage area.

PART 3 EXECUTION (NOT USED)

END OF SECTION 01 52 00

SECTION 01 54 00 CONSTRUCTION AIDS

PART 1 GENERAL

1.1 DESCRIPTION

- A. The Contractor shall furnish, install, and maintain as long as necessary, and remove when no longer required, safe and adequate scaffolding, ladders, staging, platforms, chutes, railings, hoisting equipment, etc., as required for proper execution of the Work. All construction aids shall conform to federal, state, and local codes or laws for protection of workers and the public.
- B. Storage Containers: The contractor shall provide and maintain as long as necessary and remove when no longer required, all appropriate storage containers for the purposes of equipment storage and waste disposal.
- C. Pumping and Drainage: The Contractor shall provide all pumping necessary to keep excavations and trenches free from water the entire period of the contract work. The Contractor shall construct and maintain any necessary surface drainage systems on the Project Site to prevent water entering existing structures, sewers, or to flow onto public or private property adjacent to the Project Site except for properly treated water via existing drainage courses or into existing drainage systems. The Contractor shall prevent erosion of soils and blockage of any existing drainage system. The Contractor shall erect sedimentation controls on the site to prevent sediment migration.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 01 54 00

SECTION 01 56 00 TEMPORARY BARRIERS AND ENCLOSURES

PART 1 GENERAL

1.1 SECTION INCLUDES

Facilities and procedures for protection of workers and the public during construction.

1.2 RELATED SECTIONS

- A. Section 01 50 00 – Temporary Utilities
- B. Section 01 52 00 – Construction Facilities

1.3 QUALITY ASSURANCE

A. Cleanliness

All construction facilities must be kept clean, orderly, and in adequate state of repair. Adequacy of provided facilities will be determined by the Owner or Owner's Consultant. Dilapidated construction facilities will be immediately removed from site at the contractor's expense.

B. Assessments

Conduct routine inspections to ensure that standards are being maintained. The Owner or Owner's Consultant will conduct random assessments to verify "good housekeeping" procedures are being practiced.

1.4 SITE CONDITIONS

A. Temporary Fencing, Barriers, Enclosures, and Security Devices

1. The Project Site is currently enclosed with a woven wire security fence. Gates shall be closed and secured in place with locks at all times when Work under the Contract is not in progress. The Contractor shall protect and preserve the existing security fence throughout the project and return control of the Project Site to the Owner with the woven wire security fence intact. Should the Contractor's work damage the existing security fence in any fashion, the Contractor shall repair or replace the security fence to the Owner's satisfaction. The Contractor shall bear any and all costs for repair or replacement of the fencing. The Owner shall not provide any additional compensation for repair or replacement of the fencing.
2. The Contractor shall regulate access to the work areas and demolition operations during the project. Access shall be limited to the Contractor's personnel and subcontractors, the Owner's authorized representatives, the Owner's Consultant, and authorized visitors such as regulatory officials.
3. Demarcate asbestos demolition work areas in accordance with USEPA regulations (40 CFR 61) and OSHA regulations (29 CFR 1926.1101).

4. Erect a temporary, four-foot-high fence to deny access to open excavations deeper than one-foot. Place bright plastic ribbon at eye-level and in random locations along the fence to warn unaware or complacent workers or passersby of the imminent danger. Barricade with construction barrels or otherwise with blinking lights at conspicuous levels.

B. Safety Provisions

Maintain all temporary facilities to provide safe working conditions and prevent unauthorized entry to the site.

C. Dust Control Measures

Provide adequate measures for dust control to minimize potential exposure to airborne fibers or particulates by on-site workers or nearby residents as part of the Base Bid.

D. Drainage Facilities

Provide all temporary drainage facilities necessary to perform specified activities as part of the base bid.

E. Cleaning and Waste Removal

Continuously maintain cleanliness and orderliness around storage areas during construction activities, to allow safe passage and proper access.

1. Collect scrap, waste, debris, and spoil in and around storage areas daily. Deposit in appropriate waste receptacles.
2. Straighten and restack storage piles weekly
3. Collect scrap, waste, debris, and spoil in and around construction areas weekly. Deposit in appropriate waste receptacles
4. Remove and dispose all waste derived from on-site activities, including used PPE and general refuse
5. Inspect the demolition site weekly or within 24 hours after a rainfall greater than 0.5 inches. If erosion or sediment accumulation warrant removal, notify the Owner's Consultant. Remove or replace soil accordingly

1.5 MAINTENANCE

- A. General: Maintain all storage areas, improvements, work areas, and site access ways for clear passage and safe functional use.
- B. Adequacy: The Owner and Owner's Consultant will determine adequacy of maintenance at the properties.

PART 2 PRODUCTS

2.1 EQUIPMENT

Provide all equipment necessary to conduct all activities specified in this section. Equipment will include, but not be limited to, trash receptacles, caution tape, plastic barricades, sawhorses, and other related equipment.

2.2 COMPONENTS

Provide all incidental components necessary to maintain safe working conditions as specified in this section as part of the Base Bid.

PART 3 EXECUTION (NOT USED)

END OF SECTION 01 56 00

SECTION 01 57 00 TEMPORARY CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

Site or environmental controls necessary to allow safe working conditions.

1.2 RELATED SECTIONS

Section 01 54 11 – Construction Aids

Section 01 56 00 – Temporary Barriers and Enclosures

1.3 QUALITY ASSURANCE

- A. Cleanliness: All construction facilities must be kept clean, orderly, and in adequate state of repair. Adequacy of provided facilities will be determined by the Owner or Owner's Consultant. Dilapidated construction facilities will be immediately removed from the project site at the Contractor's expense.
- B. Inspections: Conduct routine inspections to ensure that standards are being maintained. The Owner or Owner's Consultant will conduct random inspections to verify "good housekeeping" procedures are being practiced.

1.4 SITE CONDITIONS

A. Safety Provisions

Maintain all temporary facilities to provide safe working conditions and prevent unauthorized entry to the site.

B. Drainage Facilities

Provide as part of the Base Bid for demolition all temporary drainage facilities necessary to perform specified activities in accordance with the bid schedule.

C. Erosion Control

Develop a comprehensive Soil Erosion and Sedimentation Control (SESC) plan for the project work. The plan will clearly show the physical earth change limits of the project; location and installation details for all SESC measures; timing and sequencing schedule which identifies the installation schedule and maintenance requirements of each temporary and permanent SESC measure.

1. Inspect the construction site weekly or within 24 hours after a rainfall greater than 0.5 inches. If erosion has occurred or if sediment accumulation warrants removal, notify the Owner and Owner's Consultant. Remove or replace soil accordingly.
2. Install temporary SESC measures before or upon commencement of earth change work or soil disturbance.
3. Protect all storm water inlets that may be impacted by sediment. Care must be taken to not cause street flooding.

D. Cleaning and Waste Removal

Continuously maintain cleanliness and orderliness around storage areas during construction activities, to allow safe passage, good drainage, and proper access.

1. Collect scrap, waste, debris, and spoil in and around storage areas daily. Deposit in appropriate waste receptacles.
2. Straighten and restack storage piles weekly.
3. Collect scrap, waste, debris, and spoil in and around construction areas weekly. Deposit in appropriate waste receptacles.
4. Remove and recycle or dispose all waste derived from site activities, including used PPE, general refuse, and scrap metal.
5. All existing manholes, catch basins and inlets structures on the site and within the public roads, easements and alleys must have a temporarily geofabric under the Fram cover to prevent gravel, sand and dirt from entering the drainage structure and must be kept clean during construction. Temporary covers must be removed after construction is completed.

1.5 MAINTENANCE

A. General

Maintain all storage areas, improvements, work areas, and access ways for clear passage and safe functional use.

B. Adequacy

The Owner or Owner's Consultant will determine adequacy of maintenance at the properties.

PART 2 PRODUCTS

2.1 COMPONENTS

Provide all incidental components necessary to maintain safe working conditions as specified in this section, including, but not limited to, silt fencing or straw bundles to prevent erosion.

PART 3 EXECUTION (NOT USED)

END OF SECTION 01 57 00

SECTION 01 77 19 PROJECT CLOSEOUT

PART 1 GENERAL

Project Closeout is the term used to describe certain collective project requirements that indicate completion of the work and must be fulfilled near the end of the Contract time in preparation for final acceptance of the work by the Owner, as well as final payment to the Contractor and the normal termination of the Contract.

1.1. RELATED DOCUMENTS

Diagrams and general provisions of Contract, including General and Supplementary Conditions and other technical specification sections apply to this Section including but not limited to:

Section 01 56 00 – Temporary Barriers and Enclosures

Section 01 57 00 – Temporary Controls

1.2 SUMMARY

This Section specifies administrative and procedural requirements for project closeout, including but not limited to:

- A. Inspection procedures.
- B. Project final record document submittal.
- C. Submittal of warranties.
- D. Final cleaning.
- E. Closeout requirements for specific construction activities are included throughout the various project documents.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for certification of Substantial Completion, complete the following listing exceptions in the request:
 - 1. In the Application for Payment that coincides with, or first follows the date Substantial Completion is claimed, show 100 percent completion for the portion of the work claimed as substantially complete. Include supporting documents for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.
 - 2. Advise the Owner and Owner's Consultant of pending changes in insurance coverage. Submit evidence of final continuing insurance coverage complying with the insurance requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications and similar documents. Include

certificates of insurance for products and completed operations where required.

4. Obtain and submit releases enabling the Owner unrestricted use of the Project Site.
5. Submit final project photographs, damage or settlement survey, and similar final record information.
6. Discontinue or change over and remove temporary facilities from the site, along with construction tools, and similar elements.
7. Complete final clean up requirements, including all "punch list" items.
8. The Contractor shall provide the Owner's Consultant with a Substantial Completion Notification (form included in Appendix A to the Project Specifications).

B. Inspection Procedures and Certificate of Substantial Completion.

1. Upon receipt of a Substantial Completion Notification (form included in Appendix A – Required Forms), the Owner's Consultant will inspect the work completed, including punch-list items resulting from earlier inspections, to assess whether the work has been substantially completed.
2. The Owner's Consultant will either proceed with inspection or advise the Contractor of unfilled requirements. If necessary, the Owner's Consultant will repeat the reinspection procedure at the expense of the Contractor when requested.
3. If the inspection is deemed to be satisfactory and the Owner's Consultant agrees with the Contractor that Substantial Completion has been achieved, the Contractor shall provide the Owner with a Certificate of Substantial Completion (form included in Appendix A – Required Forms), signed by the Contractor and Owner's Consultant.
4. If the Owner agrees to accept the Certificate of Substantial Completion for the Work, the Owner shall return a signed copy of the Certificate to the Contractor and Owner's Consultant.

1.4 FINAL ACCEPTANCE

A. Preliminary Procedures: Before requesting final inspection for Final Payment, complete the following listing exceptions in the request:

1. Submit the Final Payment Request with releases and supporting documentation not previously submitted and accepted. Include Certificates of Insurance for products and completed operations where required.
2. Submit an updated final statement, accounting for final additional changes to the Contract Sum.
3. Submit a final inspection list of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, and the list has been endorsed and dated by the Owner.

1.5 RECORD DOCUMENT SUBMITTALS

- A. Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire-resistive location; provide access to record documents for the Owner's and/or Owner's Consultant's reference during normal working hours. Note related Change Order numbers where applicable.
1. Miscellaneous Record Submittals: Specific requirements for record documents are indicated in the individual Sections of these Specifications. Refer to other Specification Sections for requirements of miscellaneous record keeping and submittals in connection with actual performance of the work. Other requirements are indicated in Section 00 72 00 - General Conditions and Requirements. General submittal procedures are outlined in Section 01 33 00 - Submittals. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference.
 2. Submit to the Owner's Consultant for the Owner's records:
 - a. Copies of all daily logs and safety inspection reports completed during the project.
 - b. Copies of all sign-in rosters used for payroll purposes and certified payroll records demonstrating compliance with prevailing wage requirements.
 - c. Copies of all sign-in rosters and visitors logs.
 - d. Copy of USEPA-NESHAP Notification of Demolition and Renovation Operations, Indiana State Form 44593, and copies of any revised notifications submitted during the project.
 - e. Copies of all regulatory agency inspection documentation.
 - f. Copies of all recycling receipts, bills of lading, and disposal manifests/receipts, including completed NESHAP Waste Shipment Record for all asbestos-containing waste generated by demolition activities and transported from the project site.
 - g. Copies of SESC inspection reports and documentation of any changes/alterations in SESC controls instituted as a result of the inspections.
 - h. Copy of clean fill certification if fill materials were imported to the site for grading and site restoration.
 - i. Copies of all incident reports.
 - j. Additions to scope of work: Change Order proposals.
 - k. Correction of work: Completed punch list.
 - l. Contractor's Liability Insurance certificates (including guarantee period).
 - m. Submit releases and waivers of lien enabling the Owner unrestricted use of the Project Site. Provide waivers of mechanics liens from

every entity who may lawfully be entitled to file a mechanics lien arising out of the contract and related to the work.

- n. Documentation that all taxes, fees, and similar obligations required to facilitate and complete the project have been paid/satisfied.
- o. All other documents as indicated in these specifications, including but not limited to Substantial Completion Notification(s), Certificate(s) of Substantial Completion, and Form of Final Lien Waiver. The forms noted in this paragraph are included in Appendix A to the specifications.
- p. Personal exposure air monitoring data as indicated in these specifications.
- q. Copies of all closeout documents related to the asbestos decontamination and demolition activities as found in Section 02 40 00, Demolition Involving Asbestos-Laden Dust, including completed Worker Acknowledgement forms (Section 02 40 00.03) for each worker conducting asbestos removal activities and Certificates of Visual Inspection (Section 02 40 00) for each asbestos removal area signed by the Contractor's Competent Person/Supintendent.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

- 3.1** Removal of Protection: Remove temporary protection and facilities installed for protection of the work during construction.
- 3.2** Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Owner's property. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove waste materials from the sites and dispose of in a lawful manner.
- 3.3** Before final acceptance by the Owner, clean all debris generated by the scope of work from the Project Site.
- 3.4** Notify the Owner and Owner's Consultant when the Work will be substantially complete and ready for inspection. The Contractor's superintendent shall be present at the time of the inspection. A list of minor replacement, correction, and adjustment items will be prepared.
- 3.5** Complete all listed deficiencies by the date set by the Owner for final acceptance.
- 3.6** The Contractor shall provide the Owner or Owner's Consultant properly completed and signed copies of all forms appended to the specifications (Appendix A).

END OF SECTION 01 77 19

SECTION 02 40 00 DEMOLITION INVOLVING ASBESTOS-LADEN DUST

PART 1 GENERAL

1.1 SECTION INCLUDES:

Work item numbers included in the Base Bid for building demolition involving asbestos-laden dust.

The Contractor shall complete the work within the specified time limits of the contract. All time limits stated in the project specifications and contract documents are of the essence of the contract. Should the Contractor fail to complete all of the work by the completion dates stipulated, the Owner shall have the right to suspend all future payments and/or invoke liquidated damages as specified in the project specifications and contract documents.

1.2 RELATED DOCUMENTS:

Diagrams and general provisions of Contract, including General and Supplementary Conditions and other project specification sections, apply to work of this section.

1.3 REFERENCE STANDARDS:

Except to the extent that more stringent requirements are written directly into the project specifications and contract documents, the following 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 were bound herewith. Where there is a conflict in requirements set forth in these regulations and standards, meet the more stringent requirement.

- A. OSHA - U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards 29 CFR Part 1926.1101 AND 29 CFR Part 1910.134.
- B. ANSI – American National Standard Practices for Respiratory Protection ANSI Z88.2-1980.
- C. NIOSH – National Institute for Occupational Safety and Health.
- D. MSHA – Mine Safety and Health Administration.

1.4 SUBMITTALS:

A. Work Plan

Prior to proceeding with the asbestos demolition activities, the Contractor shall submit a Work Plan which includes the means, methods and procedures proposed for the accomplishment of the asbestos demolition work. The means, methods and procedures shall provide for safe conduct of the work; careful removal and disposition of buildings and structures, and solid materials and wastes; and protection of property that is to remain

undisturbed. The procedures shall provide a detailed description of the methods and equipment to be used to comply with asbestos regulations for each operation, and the sequence of operations. The name and location of disposal facilities for all removed materials shall be submitted in the Work Plan. The Work Plan shall be based on work experience and the guidance provided in this specification. The cost of Work Plan preparation is incidental to the project and shall be included in the Base Bid for demolition.

B. Inspection Reports

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

C. Disposal Documents

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

D. Manifests

The Contractor shall submit a copy of the official manifest for each shipment of removed materials including, but not limited to, building and structure debris, concrete and brick debris, asbestos demolition waste, and miscellaneous site debris and solid wastes evidencing delivery of the material to an approved licensed disposal facility. All manifests shall be in accordance with the requirements of all the applicable federal, state and local regulations. The Contractor's superintendent shall coordinate with the Owner and the Owner's Representative to provide documentation of waste materials transported from the site each day.

1.5 DEFINITIONS

- A. Adequately wet: As defined in 40 CFR Part 61, Subpart M, sufficiently mix or penetrate with liquid to prevent the release of particulates from the source material.
- B. Aerosol: A system consisting of particles, solid or liquid, suspended in air.
- C. 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.
- D. Air Monitoring: The process of measuring the fiber content of a specific volume of air.
- E. Amended Water: Water to which a surfactant has been added to decrease the surface tension to 35 or less dynes.
- F. Asbestos: The asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, 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.

- G. Asbestos-Containing Material (ACM): Any material containing more than 1% by weight of asbestos of any type or mixture of types.
- H. Asbestos-Containing Building Material (ACBM): Surfacing ACM, thermal system insulation ACM, or miscellaneous ACM that is found in or on interior structural members or other parts of a building.
- I. Asbestos-Containing Waste Material: Any material that is or is suspected of being or any material contaminated with an asbestos-containing material that is to be removed from a work area for disposal.
- J. Asbestos debris: Pieces of ACBM that can be identified by color, texture, or composition, or means dust, if the dust is determined by an accredited inspector to be ACM.
- K. Authorized Visitor: The Owner's Representative, the Owner's Consultant, testing lab personnel, the Architect/Engineer, emergency personnel or a representative of any federal, state and local regulatory or other agency having authority over the project.
- L. Barrier: Any surface that seals off the work area to inhibit the movement of fibers.
- M. Breathing Zone: A hemisphere forward of the shoulders with a radius of approximately 6 to 9 inches.
- N. Building/Facility Owner: The legal entity, including a lessee, which exercises control over management and record keeping functions relating to a building and/or facility in which asbestos activities take place.
- O. Category I Nonfriable Asbestos Containing Material: As defined in 40 CFR Part 61, Subpart M, asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos as determined using the method specified in 40 CFR Part 763, Appendix A, Subpart F, Section 1, Polarized Light Microscopy, that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
- P. Category II Nonfriable Asbestos Containing Material: As defined in 40 CFR Part 61, Subpart M, asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos as determined using the method specified in 40 CFR Part 763, Appendix A, Subpart F, Section 1, Polarized Light Microscopy, that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
- Q. Ceiling Concentration: The concentration of an airborne substance that shall not be exceeded.
- R. Competent Person: As defined in 29 CFR Part 1926, a designated person experienced in administering and supervising asbestos abatement projects. A competent person must be familiar with safe and reasonable work practices, abatement methods, protective measures for personnel, inspection of asbestos abatement work areas, evaluating the adequacy of containment barriers, placement and operation of local exhaust systems,

waste containment and disposal procedures, decontamination units, and site health and safety health requirements. The designated “competent person” is responsible for compliance with applicable local State, and Federal requirements governing the work and for enforcing the site-specific Health and Safety Plan.

- S. Demolition: The wrecking or taking out of any building component, system, finish or assembly of a facility together with any related handling operations.
- T. Disposal Bag: A properly labeled 6-mil thick leak-tight plastic bags used for transporting asbestos waste from work and to disposal site.
- U. Employee Exposure: Exposure to airborne asbestos that would occur if the employee were not using respiratory protective equipment.
- V. Encapsulant: A material that surrounds or embeds asbestos fibers in an adhesive matrix, to prevent release of fibers.
- W. Bridging encapsulant: an encapsulant that forms a discrete layer on the surface of an in situ asbestos matrix.
- X. Penetrating encapsulant: an encapsulant that is absorbed by the in situ asbestos matrix without leaving a discrete surface layer.
- Y. Removal encapsulant: a penetrating encapsulant specifically designed to minimize fiber release during removal of asbestos-containing materials rather than for in situ encapsulation.
- Z. Encapsulation: Treatment of asbestos-containing materials, with an encapsulant.
- AA. Enclosure: The construction of an airtight, impermeable, permanent barrier around asbestos-containing material to control the release of asbestos fibers into the air.
- BB. Filter: A media component used in respirators to remove solid or liquid particles from the inspired air.
- CC. Friable Asbestos Material: Material that contains more than 1.0% asbestos by weight and that can be crumbled, pulverized, or reduced to powder by hand pressure when dry.
- DD. Glovebag: A sack (typically constructed of 6 mil transparent polyethylene or polyvinylchloride plastic) with inward projecting long-sleeved gloves, which are designed to enclose an object from which an asbestos-containing material is to be removed.
- EE. HEPA Filter: A High Efficiency Particulate Air (HEPA) filter capable of trapping and retaining 99.97% of asbestos fibers greater than 0.3 microns in diameter.
- FF. 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 of 99.97% efficiency for retaining fibers of 0.3 microns or larger.

- GG. High-efficiency particulate air filter (HEPA): This term refers to a filtering system capable of trapping and retaining 99.97 percent of all monodispersed particles 0.3 μ m in diameter or larger.
- HH. Homogeneous Area: An area of surfacing material, thermal system insulation, or miscellaneous material that is uniform in color and texture.
- II. Negative Pressure Enclosure (NPE) System: A pressure differential and ventilation system that is created with critical barriers and air filtration equipment fitted with HEPA filters. This system must be constructed to allow at least 4 air changes per hour with a minimum of -0.02 column inches of water pressure differential relative to the pressure outside of the enclosure.
- JJ. 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.
- KK. Negative Pressure Ventilation System: A pressure differential and ventilation system.
- LL. Personal Monitoring: Sampling of the asbestos fiber concentrations within the breathing zone of an employee.
- MM. Pressure Differential and Ventilation System: A local exhaust system, utilizing HEPA filtration capable of maintaining a pressure differential with the inside of the Work Area at a lower pressure than any adjacent area, and which cleans recirculated air or generates a constant air flow from adjacent areas into the Work Area.
- NN. Presumed Asbestos-Containing Material (PACM): Thermal system insulation and surfacing material found in buildings constructed no later than 1980.
- OO. 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.
- PP. Regulated Area: A demarcated work area where airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed, the permissible exposure limits.
- QQ. Repair: Returning damaged ACBM to an undamaged condition or to an intact state so as to prevent fiber release.
- RR. Respirator: A device designed to protect the wearer from the inhalation of harmful atmospheres.
- SS. Surfacing Material: Material that is sprayed, troweled-on or otherwise applied to surfaces (such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, and other purposes)

- TT. Surfactant: A chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation or area.
- UU. Thermal System Insulation (TSI): ACM applied to pipes, fittings, boilers, breeching, tanks, ducts or other structural components to prevent heat loss or gain.
- VV. Time Weighted Average (TWA): The average concentration of a contaminant in air during a specific time period. For asbestos exposure samples analyzed via phase contrast microscopy, the TWA is an average of airborne concentration of fibers (longer than 5 micrometers) per cubic centimeter of air based on an 8-hour exposure duration, which represents the employee's 8-hour workday as defined in Appendix A of 29 CFR Part 1926.1101.
- WW. 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.
- XX. 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.
- YY. 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. The Work area is a Regulated Area as defined by 29 CFR 1926.1101.

1.6 PROJECT/SITE CONDITIONS:

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

A. Electrical Disconnection

The Contractor shall verify that on site electrical wiring to be demolished or in close enough proximity to be damaged by the demolition operations shall be disconnected, de-energized, and/or relocated prior to proceeding with demolition operations. The Contractor shall verify that operational electrical equipment is not present in all structures to be demolished. Any such equipment shall be disconnected and/or de-energized prior to proceeding with demolition operations. The Contractor shall coordinate with the local electrical utility company for any necessary relocation of utilities and include any associated fees or expenses in the Base Bid for demolition.

B. Water Disconnection

The Contractor shall verify water lines on site or in close enough proximity to be damaged by the demolition operations are disconnected or capped at the main, or closed at the gate valve, as directed by the Owner or Owner's Representative, prior to proceeding with demolition operations.

C. Sewer Disconnection

The Contractor shall locate all sanitary sewer connections and floor drains at the site. Sewer connections shall be removed during excavation and capped at the site boundary.

The sewer pipes onsite and adjacent to the site must be preserved and protected during demolition and excavation. Adjacent storm water catch basins must also be preserved and protected during demolition to allow for continued adequate storm water drainage after the conclusion of this project. Any costs for repair/replacement of sewer pipes or catch basins damaged by the demolition or excavation activities shall be the sole responsibility of the Contractor. No additional compensation will be provided for repair/replacement of sewer pipes or catch basins.

D. Gas Disconnection

The Contractor shall verify that on site combustible gas pipes/mains entering all structures included in the scope of work or in close enough proximity to be damaged as a result of the demolition operations shall be disconnected and/or capped prior to proceeding with demolition operations. The Contractor shall coordinate with the local natural gas utility company for any necessary relocation of utilities and be responsible for any associated fees or expenses, which are to be included in the Base Bid for the work.

E. Telephone and Cable Disconnection

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

1.7 GENERAL REQUIREMENTS:

A. Demolition and Asbestos Decontamination

The work includes demolition of the designated site building and contents, and removal of resulting rubbish and debris associated with demolition activities at the Project Site. Rubbish and debris shall be removed from the site daily, unless otherwise directed, to avoid accumulation at the Project Site. The Contractor shall remove all building components to slab grade including building contents such as abandoned machinery, materials, and debris. Building floor slabs and foundations shall be protected and preserved during the demolition operations. Materials that cannot be removed daily shall be stored in areas as specified by the Owner or Owner's Representative. In the interest of safety, the work shall be performed with regard to the protection of personnel and property.

Building walls, floors, ceilings, and interior items are contaminated with asbestos-laden dust from the former asbestos manufacturing operations. Nonporous items are permitted to be decontaminated within the existing buildings or in a designated decontamination area approved by the Owner

or Owner's Representative and recycled or disposed as general demolition waste. Porous building components and materials or debris located within the buildings shall be disposed as asbestos waste at a landfill licensed by the State of Indiana to accept the material.

The Contractor shall complete the work within the specified time limits of the contract. All time limits stated in the project specifications and contract documents are of the essence of the contract. Should the Contractor fail to complete all of the work by the completion dates stipulated, the Owner shall have the right to suspend all future payments and/or invoke liquidated damages as specified in the project specifications and contract documents.

B. Dust Control and Air Monitoring

The Contractor shall take all necessary means and procedures to measure and control dust generated by the demolition operations as specified in this Section and other applicable Sections of the Project Specifications. The Contractor shall prevent, to the maximum extent practical, emissions of airborne dust from impacting the surrounding properties as a result of the demolition operations (such as by deploying misting fans adjacent to the demolition activities and along the perimeter of the project site). At no time shall the concentration of aerosol dust resulting from the Contractor's activities exceed ten (10) parts per million for longer than 10 minutes during the site activities and dust levels shall not exceed 20% opacity over a 10 minute average, as measured by real-time aerosol particle monitoring (such as a TSI DustTrak or comparable equivalent). The responsibility and costs for the dust monitoring shall be borne solely by the Contractor. The costs for dust monitoring are incidental to the contract and shall be included in the Base Bid for demolition.

SME, on behalf of the Owner, to perform site perimeter air monitoring and sample analyses to evaluate for the presence of airborne asbestos fibers at the site boundaries. Asbestos air monitoring is described in Section 02 40 00.02 – Demolition Asbestos Air Monitoring.

C. Protection of Personnel

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

Until a NEA is established, the Contractor shall demarcate each Work Area as a Regulated Area using asbestos warning barrier tape and signs with minimum perimeter of 25 feet from the building, and comply with other applicable provisions of the OSHA Asbestos Construction Standard during the performance of demolition activities.

Contractor shall provide interim personal protective equipment (PPE) and perform employee exposure air monitoring during demolition as specified in Section 02 40 00.03, Worker Protection-Asbestos Demolition and Section 02 40 00.04, Respiratory Protection-Asbestos Demolition. The costs associated with providing demolition personnel with appropriate PPE and conducting exposure air monitoring are incidental to the project and shall be included in the Base Bid for demolition.

D. Ownership

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

E. Sequencing and Scheduling

Contractor shall perform work in such a way so that any asbestos contaminated material, shall be removed or cleaned-up prior to demolition or debris removal to protect the safety and health of all personnel.

F. Burning and Explosives

Burning waste and debris materials are prohibited. Use of explosives for controlled demolition is not permitted.

1.8 PERMITS:

The permits described here cover the general description of the permits called for demolition. The permits described below are not necessarily all of the permits required for completion of this project. The costs associated with obtaining the necessary permits required to complete the demolition activities are incidental to the project and shall be included in the Base Bid for demolition.

A. Demolition Permit

The Contractor shall be responsible for obtaining a Demolition permit from the City of Huntington. The Contractor shall contact the City of Huntington at least 72 hours prior to construction or disconnection of utilities for all work within alleys, easements and public rights-of-way. In addition, if necessary, the Contractor shall obtain a permit from the Indiana Department of Transportation (INDOT), Huntington County, or the City of Huntington to perform demolition work in adjacent rights-of way. The Contractor is responsible for all permits and associated permit costs are incidental to the contract and to be included in the Base Bid for the work

B. Notification of Demolition and Renovation Operations form required by USEPA National Emission Standards for Hazardous Air Pollutants (NESHAP, 40 CFR 61 M)

The Contractor shall be responsible for filing a *Notification of Demolition and Renovation Operations* form (Indiana State Form 44593) required by the United States Environmental Protection Agency (USEPA) National

Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations and payment of any fees associated with submitting the form to the Indiana Department of Environmental Management (IDEM). The notification shall be completed in its entirety, including a description of the demolition tasks to be conducted and the quantities of asbestos-containing materials (ACMs) specified for abatement. The *Notification of Demolition and Renovation Operations* form must be submitted to the IDEM at least 10 working days (14 calendar days) prior to demolition, regardless of whether or not ACMs are present in the building. The Contractor shall provide a copy of the form(s) submitted to the Owner's Consultant at the time of submission to the regulatory agencies. The *Notification of Demolition and Renovation Operations* notification form can be downloaded from the IDEM website.¹

1.9 DUST CONTROL:

- A. The Contractor shall employ all necessary engineering controls and misting operations to ensure that the demolition debris remains adequately wetted at all times during the building demolition to prevent emissions of dust and migration of airborne materials from impacting surrounding properties.
- B. The Contractor shall prevent, to the maximum extent practical, the generation of airborne dust, and control airborne dust from impacting the surrounding properties as a result of the demolition operations. At no time shall the concentration of aerosol dust resulting from the Contractor's activities exceed 0.01 fibers per cubic centimeter (f/cc), as measured by the Contractor or the Owner's Consultant via ambient air sampling and analyses by phase contrast microscopy (PCM) if requested by the Owner. If at any time during demolition activities, total fiber concentrations exceed 0.01 f/cc, the Contractor shall utilize additional dust suppression methodology until analyzed fiber concentrations are at or below acceptable limits. The responsibility and costs for dust control shall be borne solely by the Contractor.
- C. Due to the presence of the asbestos-laden dust in the site buildings, constant misting and recurrent, systematic watering will be required for the work included with the contract to prevent dust emissions during demolition and site operations. The Contractor shall be responsible for the supply water for dust control and shall include all necessary costs for water supply in the Base Bid. Use of water shall not result in or create hazardous or objectionable conditions such as ice, flooding, pollution and electrical shock.
- D. The Contractor shall 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 wall hydrants or spouts, as well as temporary water heating equipment, branch piping, showers, shut-off nozzles, and equipment.

¹ Notification Form: http://www.in.gov/idem/5157.htm#oag_compliance

- E. If the Contractor desires to temporarily stockpile any demolition debris or pulverized concrete materials that may generate dust at the site, the stockpiles shall be placed at locations approved by the Owner, appropriately secured to prevent unauthorized access to the debris, and covered with secured polyethylene sheeting. Stockpiles of demolition debris shall be covered with polyethylene sheeting at least 10 mils thickness, and the material kept adequately wetted until the earliest feasible removal from the site and disposed at a landfill licensed to accept the waste.

1.10 DEMOLITION AND REMOVAL:

A. Buildings and Structures

The Contractor shall conduct demolition activities as specified in Section 02 41 00, Demolition, this Section, and all other applicable Sections of the project specifications.

B. Utilities

The Contractor shall submit a utility locating request to the Indiana811 system to demarcate underground utility locations 72 hours prior to the initiation of the project work. The Contractor shall identify any active utilities on and adjacent to the site. The Contractor shall be responsible for the deactivation of powered utilities as necessary for the safe conduct of work and protection of workers and the public.

The Contractor shall protect and preserve all utilities adjacent to the site prior to proceeding with demolition operations and during commencement of demolition.

C. Hazardous Contaminated Materials

The removal and disposal of hazardous contaminated materials exposed as a result of the demolition activities shall be handled as detailed in the contract documents and applicable Sections of the project specifications. Other potentially hazardous or contaminated materials not specified which are exposed during the demolition and removal shall immediately be brought to the attention of the Owner, or the Owner's Representative on site, and documented in writing within 24 hours of discovery.

All demolition and removal work shall be performed in compliance with 29 CFR 1926.1101, OSHA Asbestos Standard for Construction; 29 CFR 1926.62, OSHA Lead Exposure in Construction Standard; 29 CFR Part 1926.1127, OSHA Cadmium Construction Standard; and other applicable local, state, and federal regulations and requirements.

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

D. Asbestos-Laden Dust

The Contractor shall remove and dispose of asbestos materials, in conformance with all applicable asbestos regulations and as specified in the contract documents.

1. **Until a NEA is established, the Contractor shall demarcate each Work Area as a Regulated Area using asbestos warning barrier tape and signs with minimum perimeter of 25 feet from the building. Post warning signs displaying an OSHA-compliant pictogram and that carry the following legend:**



**DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY
WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING IN THIS
AREA**

2. The Contractor shall control access to the Regulated Areas. Allow only authorized personnel to enter the Regulated Areas and only when properly protected. All unauthorized individuals entering the Regulated Areas shall be immediately reported to Owner and the Owner's Representative.
3. The Contractor shall conduct all demolition utilizing wet methods and prevent visible dust emissions during demolition activities.
4. For asbestos decontamination and demolition activities, the Contractor shall establish a decontamination area adjacent to the Regulated Area for decontamination of employees and equipment. The decontamination area shall consist of an impermeable polyethylene drop cloth placed horizontally on the floor or ground surface adjacent to the Regulated Area. The decontamination area shall be equipped with a HEPA-filtered vacuum and labeled disposal bags, as needed.
5. Unless a Negative Exposure Assessment (NEA) is produced, the Contractor shall provide the employees who are authorized to enter the Regulated Areas with work clothing consisting of disposable full body coveralls, head covers, boots, and other safety gear as needed, including hard hats and eye protection.
6. Each time a Regulated Area is entered or until an NEA is produced, the Contractor shall ensure all personnel, including supervisors, don a new disposable coverall, new head cover, work boots, and a clean respirator.
7. For asbestos decontamination and demolition activities, the Contractor shall require that workers change out of coveralls at the designated decontamination area after cleaning the exterior of the coveralls with a

vacuum equipped with high-efficiency particulate air (HEPA) filtration. Dispose of coveralls as asbestos waste once removed.

8. For asbestos decontamination and demolition activities, following removal of coveralls, workers shall clean exteriors of respirators with HEPA-filtered vacuum, doff the respirator, remove air-purifying cartridges, and wet wipe the exterior of the respirator. Used air-purifying cartridges and wet wipes shall be placed in an appropriately labeled asbestos waste bag.
9. The Contractor shall ensure all personnel who enter a Regulated Area do NOT eat, drink, smoke, chew tobacco or gum, or apply cosmetics in the Regulated Area, until a NEA has been produced in accordance with 29 CFR 1926.1101.
10. The Contractor shall instruct all personnel who enter a Regulated Area to completely utilize the disposable coveralls, including wearing the hood, until a NEA has been produced in accordance with 29 CFR 1926.1101.
11. The Contractor shall prohibit personnel from altering the disposable coveralls (cutting off sleeves, hoods, etc.) and shall ensure any person whose disposable coveralls become ripped or torn while in a Regulated Area proceeds immediately to the decontamination area to don a new pair of coveralls unless an NEA has been produced.
12. The Contractor shall designate a Competent Person to conduct personal exposure sampling as outlined above in Subpart 1.4 of this Section and otherwise supervise the asbestos demolition activities.

E. Polychlorinated Biphenyl (PCB) Items

When conducting work involving PCBs, the Contractor shall implement handling, disposal, waste manifesting, and recordkeeping requirements, as set forth in 40 CFR 761 – Polychlorinated Biphenyl (PCB) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions and as specified in Section 02 84 00, PCB-Containing Equipment Removal.

The Contractor shall remove, segregate from other material, and dispose of PCB contaminated materials. If PCB contamination for the waste materials is greater than the Toxic Substance Control Act (TSCA) criterion (refer to Section 02 84 00, PCB-Containing Equipment Removal), the waste material shall be handled as a TSCA waste. The removal and disposal of PCB-contaminated material shall be completed prior to demolition.

F. Miscellaneous Regulated Materials

The Contractor shall remove, segregate from other material, and dispose of all miscellaneous regulated materials in accordance with all federal, state, and local regulations and Section 02 90 00, Miscellaneous Regulated Materials

1.11 RECYCLING:

The Contractor shall maximize recycling of materials suitable for asbestos decontamination in order to reduce costs, shorten project duration, and demonstrate sustainable demolition practices. Although the materials are limited to nonporous materials, it is recommended that only steel be recycled. Steel separated from demolition rubble may be recycled and becomes the

property of the Contractor. The Contractor will not be permitted to conduct on-site abatement of lead-bearing or cadmium-bearing paint found on steel, except with the Owner's permission and unless appropriate procedures and federal, state and local codes or regulations are followed. Materials stockpiled for recycling shall be removed within 10 days of completion of demolition activities, and prior to restoration of the site.

1.12 DECONTAMINATION AND DEMOLITION WATER:

Water use for asbestos decontamination operations, and for demolition operations to control the emission of airborne dust, shall be in accordance with all Federal, State and local codes and regulations. Runoff from water used for the site work shall be collected and processed in accordance with specific Federal and State requirements with respect to asbestos contamination and as detailed in these specifications.

1.13 DISPOSAL:

The designated buildings are required to be demolished and removed, as well as all miscellaneous inert debris, waste, and unsatisfactory materials resulting from this work, unless otherwise specified or directed by the Owner, shall be removed from the site. All disposals shall conform to Federal, State and local requirements. All removed materials shall be documented by manifests and disposal facility tickets with copies given to the Owner and the Owner's Representative within 48 hours after removal from the site.

- A. The Indiana Department of Environmental Management – Office of Land Quality has indicated that building materials contaminated with asbestos-laden dust at the site must be properly decontaminated or disposed as asbestos waste in a landfill licensed by the State of Indiana to accept the waste material. Nonporous materials are permitted to be properly decontaminated and recycled or disposed as standard demolition waste. Porous materials, such as wood, fabric, and concrete block, that are not suitable for decontamination must be disposed as asbestos waste.
- B. If asbestos-contaminated waste materials will be stored on the site, the Contractor shall provide appropriate covered, leak-proof waste bins that can be locked for holding and disposal of asbestos-contaminated materials and shall arrange for prompt removal of asbestos-contaminated materials from the site. The Contractor shall line the waste bin with 6-mil thick polyethylene sheeting prior to depositing bagged asbestos waste. The waste bin shall be affixed with appropriate hazard warning signs prior to loading. The waste bins shall be staged at a location authorized by the Owner and the Owner's Representative and the waste material shall remain adequately wetted until disposal at the licensed landfill. Do not store containerized materials outside of regulated areas. Take containers from the regulated areas directly to a sealed truck or waste bin.
- C. Properly decontaminated demolition debris is not considered asbestos waste and may be recycled or disposed of as general demolition/construction waste. Special waste handling and containerization is not required.

- D. Used coveralls, gloves, respirator filter cartridges, wet wipes, etc. used during the demolition must be properly disposed as asbestos-containing waste materials in appropriately labeled asbestos disposal bags or containers.
- E. Waste Shipment Records required by USEPA NESHAP regulations for shipments of asbestos-contaminated PPE waste must be completed and returned to the Owner within 35 days of removal from the site.
- F. Asbestos waste is to be transported by a waste hauler with all required licenses from all state and local authority within the site jurisdiction. Do not transport materials for disposal in open trucks. Properly label drums and bags with asbestos warning labels. Advise the landfill operator or processor, in advance of transport, of the quantity of material to be delivered.

1.14 RESTORATION:

- A. After removal of trailers, materials, and equipment from within the construction fenced area, the Contractor shall restore impacts to the site caused by the demolition and removal work.

1.15 QUALITY CONTROL:

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

- A. Electrical, gas and water disconnection verified.
- B. Dust control
- C. Soil Erosion and Sediment Control (SESC)
- D. Noise and vibration control
- E. Observance of safety regulations
- F. Observance of environmental regulations

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

END OF SECTION 02 40 00

September 25, 2019

ATTACHMENT TO SECTION 02 40 00
CERTIFICATE OF VISUAL INSPECTION

In accordance with Section 02 40 00, "Demolition Involving Asbestos-Laden Dust," the Contractor hereby certifies that he/she has visually inspected the work area and has found no dust, debris or residue. The Contractor further certifies that all remaining building floor slab surfaces have received an application of encapsulant to "lock-down" any remaining microscopic fibers.

Work Area: _____

As Authorized Representative of the Contractor,

Inspected By: (Signature) _____

Date _____

(Print Name) _____

(Print Title) _____

SECTION 02 40 00.02 DEMOLITION ASBESTOS AIR MONITORING

PART 1 GENERAL

1.1 RELATED DOCUMENTS:

Diagrams and general provisions of Contract, including General and Supplementary Conditions and other project specification sections, apply to work of this section.

1.2 SUMMARY

This section describes air monitoring carried out by the Owner's Consultant to verify that the outside environment remains uncontaminated. This section sets forth airborne fiber concentrations adjacent the work area, and at site boundaries, as action levels, and describes the action required by the Contractor if an action level is met or exceeded.

A Visual Inspection of each Work Area is also required as a prerequisite of demolition completion, as set forth in Section 02 40 00 – Demolition Involving Asbestos-Laden Dust.

Contractor's Personnel Air Monitoring: The Contractor is required to perform personal exposure monitoring for his employees as required by the OSHA Asbestos Construction Standard (29 CFR 1926.1101). Specific personal exposure monitoring requirements are listed below, in Item 6 of this section. The Owner's Consultant is not authorized to conduct personal exposure monitoring of the Contractor's personnel.

1.3 AIR MONITORING:

- A. Background and Perimeter Airborne Fiber Monitoring: The Owner's Consultant shall perform monitoring of airborne fiber concentrations during all phases of demolition including background sampling, site perimeter air sampling, and/or sampling of areas adjacent to the Work Area(s). The purpose of this air monitoring is to detect potential contamination of air outside the boundaries of the Project Site.

Should evidence of potential asbestos contamination outside of the Project Site boundaries occur, the Contractor shall immediately cease asbestos demolition activities until the fault is corrected. Asbestos demolition activities shall not recommence until authorized by the Owner's Consultant.

- B. Airborne Fiber Concentrations Within and Adjacent To Work Areas: The Owner's Consultant will have an Industrial Hygiene technician on-site who may monitor airborne fiber concentrations within and adjacent to the Work Area. The purpose of this air monitoring will be to detect airborne fiber concentrations that may challenge the dust control procedures to protect the properties adjoining the Project Site from contamination by airborne asbestos fibers.

1.4 STOP WORK LEVELS:

- A. Adjacent Work Areas: If any air sample collected adjacent to the Work Area exhibits a fiber concentration that exceeds 0.01 f/cc, immediately and automatically stop all work except corrective action.
 - 1. The Contractor shall immediately re-wet the building materials to be demolished and install an oscillating misting fan (aka Dust Boss®) to reduce dust emissions migrating toward the sample location(s).
 - 2. If the elevated reading was the result of other causes initiate corrective action as determined by the Owner's Consultant.
- B. Effect on Contract Sum: Complete corrective work with no change in the Contract Sum if elevated airborne fiber concentrations were caused by Contractor's activities. The Contract Sum and schedule will be adjusted for additional work caused by elevated airborne fiber concentrations beyond the Contractor's control.
- C. Fibers Analyzed: The following procedure will be used to resolve any disputes regarding fiber types when a project has been stopped due to excessive airborne fiber concentrations.
 - 1. Large Fibers: "Airborne Fibers" referred to above include all fibers regardless of composition as counted by phase contrast microscopy (PCM), unless additional analysis by transmission or scanning electron microscopy demonstrates to the satisfaction of the Owner and Owner's Consultant that non-asbestos fibers are being counted. "Airborne Fibers" counted in samples analyzed by scanning or transmission electron microscopy shall be asbestos fibers, greater than 5 microns in length and greater than 0.25 microns in diameter.
 - 2. Small Structures: "Airborne Fibers" referred to above include asbestos structures (fibers, bundles, clusters or matrices) of any diameter and any length greater than 0.5 microns.
 - 3. If the Contractor desires additional analysis to determine the type of fibers detected in an elevated concentration which results in a stop work order, the Contractor will be responsible for the cost of the scanning or transmission electron microscopy analysis and any associated shipping fees.

1.5 ANALYTICAL METHODS:

The following methods will be used by the Owner's Consultant in analyzing filters used to collect air samples. Sampling rates may be varied from printed standards to allow for high volume sampling.

- A. Phase Contrast Microscopy (PCM) will be performed using the NIOSH 7400 method. This analysis will be carried out at the project site until such time as demolition activities are completed.
- B. Transmission Electron Microscopy (TEM): If a dispute arises pertaining to an elevated fiber concentration as analyzed by PCM or as directed by the Owner or the Owner's Consultant, TEM analyses using the Level 1 analysis per EPA Provisional Method and Update (USEPA 1977, Yamate 1984), with either polycarbonate or mixed cellulose ester filters will be utilized.

1.6 SCHEDULE OF AIR SAMPLES:

The number, type and volume of air samples collected by the Owner's Consultant will be in accordance with the following schedule. Sample volumes given may vary depending upon the analytical method used.

- A. Sample cassettes: Samples will be collected on 25 mm. cassettes as follows:
 - 1. PCM: 0.8 micrometer mixed cellulose ester, or if required,
 - 2. TEM: 0.45 micrometer mixed cellulose ester or 0.40 micrometer polycarbonate, with 5.0 micron mixed cellulose ester backing filter. Samples collected for TEM analysis may be held without analysis.
- B. Types of air monitoring samples:
 - 1. Baseline Air Monitoring: Collected adjacent the Work Area(s) and at site perimeters prior to demolition to determine ambient fiber concentrations.
 - 2. Background: Collected on a daily basis in areas away from the work area which should not be affected by demolition operations.
 - 3. Contiguous: Collected on an as needed basis in various/numerous locations outside the work area to detect elevated fiber concentrations during demolition.
 - 4. Site Perimeter: Collected on a daily basis in various/numerous locations at site boundaries to detect elevated fiber concentrations at the site perimeter during demolition.
 - 5. Field Blanks: Field blanks are collected to ensure that contamination of cassettes has not occurred. Each set of samples collected will include ten percent (10%) blanks or a minimum of two blanks.
- C. Samples will be collected on 25 mm. cassettes with 0.8 micrometer mixed cellulose ester the filter media according to the following schedule:

| Sample Location | Number of Samples | Analysis Method | Detection Limit (f/cc) | Minimum volume (liters) | Sampling Rate (liters per minute) |
|-----------------|-------------------|-----------------|------------------------|-------------------------|-----------------------------------|
| Baseline | 4 or as required | PCM | 0.01 | 500 | 1.0-14.0 |
| Background | 2 or as required | PCM | 0.01 | 1,200 | 1.0-14.0 |
| Contiguous | as required | PCM | 0.01 | 1,200 | 1.0-14.0 |
| Site Perimeter | 4 or as required | PCM | 0.01 | 1,200 | 1.0-14.0 |
| Field Blanks | 2 or as required | PCM | 0.01 | 1,200 | 1.0-14.0 |

Additional samples may be collected at the discretion of the Owner or Owner's Consultant. If the airborne fiber concentrations exceed allowable limits, additional samples will be collected as necessary to monitor fiber concentrations.

1.7 LABORATORY TESTING:

All daily air monitoring samples collected by the Owner's Consultant will be analyzed by Phase Contrast Microscopy.

- A. A Phase-Contrast microscope and Industrial Hygiene technician will be set up at the job site for analysis of air samples collected by the Owner's Consultant for the Owner during each shift of work.
- B. The Contractor will have access to all air monitoring tests and results.
- C. Reports of all air monitoring tests will be available at the job site.

1.8 CONTRACTOR PERSONNEL EXPOSURE MONITORING

- A. The Contractor shall perform worker exposure monitoring required to meet OSHA Requirements 29 CFR 1926.1101 for the maintenance of Time Weighted Average (TWA) fiber concentrations for the types of respiratory protection provided, including, at the beginning of each work period, collection and analysis of Excursion Limit (1.0 f/cc over a 30 minute period) air sample.
- B. At a minimum, 25% of the Contractor's work force, stratified over each job function in the work area, shall be monitored for exposure to asbestos fibers. The samples shall be collected at flow rates of ranging from 0.5 to 2.5 liters per minute. The samples shall be collected in a manner consistent with accepted industrial hygiene practices. The sampling units utilized for collection of the personal exposure samples shall be calibrated with a primary or secondary calibration device at the beginning and end of each sample period. The mean flow rate shall be used to compute the sample volume.
- C. The Contractor shall provide for analysis of the samples in accordance with NIOSH 7400 Method within 24 hours of collection and shall submit a copy of a written report of all personal air monitoring. In addition, at the beginning of each work shift, the Contractor shall post the results of the exposure sampling conducted during the previous shift.

- D. The Contractor shall be responsible for all costs associated with the personnel exposure monitoring.
- E. Results of the personal exposure samples shall be posted at the job site and made available to the Owner and Owner's Consultant as specified herein. The Contractor shall maintain a fiber concentration within the demolition work areas equal to or less than 0.1 f/cc expressed as an 8 hour, TWA during asbestos decontamination and demolition. If fiber concentration rises above 0.1 f/cc, the Contractor's superintendent and the Owner's Consultant shall examine work procedures to determine the cause.
- F. Workers shall not be exposed to an airborne fiber concentration in excess of 1.0 f/cc, as average over a sampling period of 30 minutes. If either an environmental concentration of 0.1 f/cc expressed as an 8-hour TWA or a personal excursion concentration of 1.0 f/cc expressed as a 30-minute sample occur, stop work immediately, notify the Owner and Owner's Consultant, and implement additional engineering controls and work practice controls to reduce airborne fiber concentrations below prescribed limits in the Work Area.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

END OF SECTION 02 40 00.01

SECTION 02 40 00.02

WORKER PROTECTION – ASBESTOS DEMOLITION

PART 1 GENERAL

1.1 RELATED DOCUMENTS:

Diagrams and general provisions of Contract, including General and Supplementary Conditions and other project specification sections, apply to work of this section.

1.2 DESCRIPTION OF WORK:

This section describes the equipment and procedures required for protecting workers against asbestos contamination and other workplace hazards except for respiratory protection, which is described in Section 02 40 00.05 – Respiratory Protection-Asbestos Demolition. Worker protection must be coordinated with the daily site safety audit.

1.3 WORKER TRAINING:

- A. State and Local License: All workers are to be trained and accredited as required by 326 IAC 18-1: Indiana Asbestos Licensing requirements.
- B. In accordance with the OSHA Asbestos Construction Standard, 29 CFR Part 1926.1101, train all workers regarding the dangers inherent in handling asbestos and breathing asbestos dust and in proper work procedures and personal and area protective measures.

1.4 MEDICAL EXAMINATIONS:

Provide medical examinations for all workers (prior to the start of work) who may encounter an airborne fiber concentration of 0.1 f/cc or greater for an 8-hour Time Weighted Average. In the absence of specific airborne fiber data provide medical examinations for all workers who will enter the Work Area for any reason. The examination shall, at a minimum, meet OSHA requirements as set forth in 29 CFR Part 1926.1101. In addition, provide an evaluation of the individual's ability to work in environments capable of producing heat stress in a worker.

PART 2 PRODUCTS

2.1 PROTECTIVE CLOTHING:

- A. Coveralls: Provide cloth full-body disposable coveralls and hats, require that they be worn by all workers in the Work Area. Require that workers change out of coverall in the Equipment Room of the Personnel Decontamination Unit. Dispose of coverall as asbestos waste at completion of all work.
- B. Boots: Provide work boots with non-skid soles, and where required by OSHA, foot protection for all workers. Provide boots at no cost to workers. Do not allow boots to be removed from the Work Area unless decontaminated to the satisfaction of the Owner's Consultant.

- C. Hard Hats: Provide head protection (hard hats) as required by OSHA for all workers, and provide two spares for use Owner and Owner's Representative. Require hard hats to be worn at all times that work is in progress that may potentially cause head injury. Provide hard hats of type with plastic strap type suspension. Require hard hats to remain in the Work Area throughout the work. Thoroughly clean and decontaminate hard hats before removing them from Work Area at the end of the work.
- D. Gloves: Provide work gloves to all workers and require that they be worn at all times in the Work Area. Do not remove gloves from Work Area and dispose of as asbestos-contaminated waste at the end of the work.

2.2 ADDITIONAL PROTECTIVE EQUIPMENT:

- A. Disposable coveralls, head covers, footwear covers, and, if necessary, respirators shall be provided by the Contractor for the Owner, Owner's Representative, Owner's Consultant, and other authorized representatives who may inspect the job site. Provide two (2) powered air-purifying respirators (PAPRs), six (6) complete coveralls, and two (2) PAPR respirator filter changes per day per person visiting the site.
- B. Provide worker protection as required by the most stringent OSHA and/or USEPA standards applicable to the work. The following procedures are minimums to be adhered to regardless of fiber count in the Work Area.

PART 3 EXECUTION

3.1 WORK AREA ENTRY:

Unless or until a Negative Exposure Assessment (NEA) is produced, the Contractor shall ensure all personnel, including supervisors, follow the procedure outlined below for entry into a work area involving demolition with asbestos-laden dust:

- A. Each time Work Area is entered don a new disposable coverall, new head cover, a clean respirator, and work boots.

3.2 DECONTAMINATION PROCEDURES:

Unless or until a NEA is produced, the Contractor shall require all personnel, including supervisors, to adhere to the following personal decontamination procedures whenever they leave the Work Area:

- A. Workers shall change out of coveralls at the designated decontamination area after cleaning the exterior of the coveralls with a vacuum equipped with high-efficiency particulate air (HEPA) filtration. Dispose of coveralls as asbestos waste once removed.
- B. Following removal of coveralls, workers shall clean exteriors of respirators with HEPA-filtered vacuum, doff the respirator, remove air-purifying cartridges, and wet wipe the exterior of the respirator. Used air-purifying cartridges and wet wipes shall be placed in an appropriately labeled asbestos waste bag.

3.3 WORK AREA RESTRICTIONS:

- A. Until such time that a NEA is established, the Contractor shall ensure all personnel who enter Work Areas do NOT eat, drink, smoke, chew tobacco or gum, or apply cosmetics in the Work Area. Personnel with repeated infractions will be removed from the project work area and prohibited from returning to the project site.
- B. Until such time that a NEA is established, the Contractor shall instruct all personnel who enter Work Areas to completely utilize the disposable coveralls, including wearing the hood,.
- C. In all work areas where disposable coveralls are employed for personal protection, the Contractor shall prohibit personnel from altering the disposable coveralls (cutting off sleeves, hoods, etc.) and shall ensure any person whose disposable coveralls become ripped or torn while in the Work Area proceeds immediately to the decontamination unit or area to don a new pair of coveralls.
- D. In all work areas where respirators are employed for personal protection, the Contractor shall prohibit personnel who enter the Work Area from removing respiratory protection while inside the Work Area. Personnel with repeated infractions will be removed from the project work area and prohibited from returning to the job site.
- E. Until such time that a NEA is established, the Contractor shall prohibit personnel who enter the Work Area in leather work boots from removing the leather work boots from the Work Area. Upon completion of the project, the leather work boots shall be placed in an appropriately labeled waste bag and disposed as ACM waste or in the case of lead work areas as lead waste.

END OF SECTION 02 40 00.02

September 25, 2019

ATTACHMENT TO SECTION 02 40 00.02 - WORKER PROTECTION
CERTIFICATE OF WORKER'S ACKNOWLEDGEMENT

Project Name Former HK Porter Friction Materials Site Limited Asbestos Demolition

Project Address 1849 East Sabine Street, Huntington, Indiana

Contractor's Name _____

WORKING WITH ASBESTOS CAN BE DANGEROUS. INHALING ASBESTOS FIBERS HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.

Your employer's contract with the Owner for the above project requires that: You are supplied with the proper respirator and are trained in its use. You are also trained in safe work practices and in the use of the equipment found on the job. You have received a medical examination. These things are to have been performed and supplied at no cost to you. By signing this certification you are assuring the Owner that your employer has met these obligations to you.

RESPIRATORY PROTECTION: I have been trained in the proper use of respirators, and informed of the type respirator to be used on the above referenced project. I have a copy of the written respiratory protection manual issued by my employer. I have been equipped, at no cost, with the respirator to be used on the above project.

TRAINING COURSE: I have been trained in the dangers inherent in handling asbestos and breathing asbestos dust and in proper work procedures and personal and area protective measures. The topics covered in the course included the following:

- Physical characteristics of asbestos and health hazards associated with asbestos
- Respiratory protection and use of other protective equipment
- Work practices including hands on or on-job training
- Personal decontamination procedures
- Air monitoring, personal and area
- Physical Characteristics of any other hazardous materials
- Health hazards associated with any other hazardous materials
- Protective equipment for any other hazardous materials

MEDICAL EXAMINATION: I have had a medical examination within the past twelve months that was paid for by my employer. This examination included: health history, pulmonary function tests and may have included an evaluation of a chest x-ray.

Signature _____

Printed Name _____

Social Security Number _____

Witness _____

Date _____

SECTION 02 40 00.03

RESPIRATORY PROTECTION – ASBESTOS DEMOLITION

PART 1 GENERAL

1.1 RELATED DOCUMENTS:

Diagrams and general provisions of Contract, including General and Supplementary Conditions and other project specifications sections, apply to work of this section.

1.2 DESCRIPTION OF WORK:

- A. Instruct and train each worker involved in demolition activities that could result in exposure to contaminants at concentrations exceeding the OSHA permissible exposure limits (PELs) in proper respiratory use and require that each worker always wear a respirator, properly fitted on the face in the Work Area from the start of any operation which may cause airborne asbestos fibers in excess of the action level, until the Work Area is completely decontaminated.
- B. Use respiratory protection appropriate for the fiber and particulate concentrations encountered in the work place or as required for other toxic or oxygen-deficient situations that may be encountered.

1.3 STANDARDS:

Except to the extent that more stringent requirements are written directly into the Contract Documents, the following 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 were bound herewith. Where there is a conflict in requirements set forth in these regulations and standards, meet the more stringent requirement.

- A. OSHA - U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards 29 CFR Part 1926.1101 and 29 CFR Part 1910.134.
- B. ANSI - American National Standard Practices for Respiratory Protection, ANSI Z88.2-1980.
- C. NIOSH - National Institute for Occupational Safety and Health
- D. MSHA - Mine Safety and Health Administration

1.4. SUBMITTALS:

Before the start of work, submit information and begin no work until these submittals are returned with Owner's action stamp indicating that the submittal is returned for unrestricted use or final, but restricted use. Submit information on the following to the Owner for review:

- A. Product Data: Submit manufacturer's product information for each component used, including NIOSH and MSHA Certifications for each component in an assembly and/or entire assembly.

- B. System Diagram: When a Type "C" supplied air respiratory system is required by the work, submit a 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), and routing of air lines to Work Area(s) from compressor
- C. Operating Instruction: Submit complete operating and maintenance instructions for all components and systems as a whole. Submittal is to be in bound manual form suitable for field use.
- D. Respiratory Protection Program: Submit Contractor's written respiratory protection program manual as required by the OSHA Respiratory Protection Standard (29 CFR 1910.134).
- E. Historic Air Monitoring Data/Negative Exposure Assessment: Submit airborne asbestos fiber concentration data and/or lead or cadmium exposure monitoring data from an independent air monitoring firm to substantiate selection of respiratory protection proposed. Data submitted shall include at least the following and have originated no more than six months prior to the start of work involving use of respiratory protection:
 - 1. Date of measurements
 - 2. Operation monitored
 - 3. Analytical description of contaminants
 - 4. Sampling and analytical methods used and evidence of their accuracy
 - 5. Number, duration, and results of samples collected
- F. Resume information: Submit resume and information on training for individual monitoring the operation of supplied air respiratory systems. Submit training certifications where applicable.
- G. Air quality for supplied air systems: 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 H or CSA Z180.1 whichever presents the more stringent quality standard.
- H. Delivery: Deliver replacement parts, etc., not otherwise labeled by NIOSH or MSHA to the job site in the manufacturer's containers.

PART 2 EQUIPMENT

2.1 AIR PURIFYING RESPIRATORS

- A. Respirator Bodies: Provide at a minimum, 1/2 face negative pressure respirators.
- B. Filter Cartridges: Provide, at a minimum, P100 (HEPA) type filters labeled with NIOSH and MSHA Certification for "Radionuclides, Radon Daughters, Dust, Fumes, Mists including Asbestos-Containing Dusts and Mists" and color coded in accordance with ANSI Z228.2 (1980). In addition, a chemical cartridge 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/MSHA Certification.

- C. Supplied air respirator systems: Provide equipment capable of producing air of the quality and volume required by the above reference standards applied to the job site conditions and crew size. Comply with provisions of this specification if more stringent than the governing standard.

PART 3 EXECUTION

3.1 GENERAL:

- A. Respiratory Protection Program: Must comply with ANSI Z88.2 - 1980 "Practices for Respiratory Protection" and the OSHA Respiratory Protection Standard (29 CFR 1910.134).
- B. Require that respiratory protection be used at all times that there is any possibility of disturbance of asbestos-containing materials whether intentional or accidental.
- C. Require that a respirator be worn by anyone in a Work Area at all times, regardless of activity, during a period that starts with any operation which could cause airborne asbestos fibers in excess of the action levels until a Negative Exposure Assessment has been produced for the work activity. **Prohibit all personnel who enter the Work Areas where respiratory protection is required from removing respiratory protection within the Work Area. Personnel with repeated infractions shall be removed from the job site and prohibited from returning.**
- D. Do not allow the use of single-use, disposable, or quarter-face respirators during asbestos-related work for any purpose.

3.2 FIT TESTING:

- A. Initial Fitting: Provide initial fitting of respiratory protection during a respiratory protection course. Fit types of respirator to be actually worn by each individual. Allow an individual to use only those respirators for which training and fit testing has been provided.
- B. Upon Each Wearing: Require that each time an air-purifying respirator is put on it be checked for fit with a positive and negative pressure seal check fit test in accordance with the manufacturer's instructions or ANSI Z88.2 (1980) and 29 CFR 1910.134.

3.3. PERMISSIBLE EXPOSURE LIMITS (PEL):

8-Hour Time Weighted Average (TWA) of asbestos fibers to which any worker may be exposed shall not exceed the following:

- A. Time Weighted Average (TWA) - 0.1 fibers/cubic centimeter
- B. Excursion Level (EL) of 1.0 fibers/cubic centimeter over a 30 minutes sampling period performed by the Contractor's Consultant at the commencement of every work period.

3.4 TYPE OF RESPIRATORY PROTECTION REQUIRED:

Unless or until a NEA is produced, provide respiratory protection for asbestos work in accordance with the requirements of the OSHA Asbestos Construction Standard, 29 CFR 1926.1101, paragraph (h).

3.5 AIR PURIFYING RESPIRATORS:

The Contractor's employees shall wear at minimum the following respiratory protection while setting up for ceiling panel removal during the project:

- A. Negative pressure air purifying - half face mask: Supply a sufficient quantity of P100 respirator filters approved for asbestos so that workers can change filters at any time that flow through the face piece decreases to the level that is uncomfortable to the worker. Require that regardless of flow, filter cartridges be replaced after 24 hours of use. Require that high efficiency elements in filter cartridges be protected from wetting during showering. Require entire exterior housing of respirator be washed each time a worker leaves the Work Area.
- B. If chemical agents are used for any purpose, provide appropriate chemical filtration cartridges for the chemical used. Consult SDS sheet for the chemical to determine appropriate filtration cartridges.

END OF SECTION- 02 40 00.03

SECTION 02 60 00 HAZARDOUS CONTAMINATED MATERIALS

PART 1 GENERAL

1.1 DESCRIPTION

- A. Building Components (e.g. electrical equipment boxes and lighting system fixtures) may contain hazardous materials. In addition, other areas may contain hazardous contaminated materials. The hazardous material may include lead-bearing and cadmium-bearing paint, asbestos, PCBs, mercury contaminated materials (such as mercury switches, fluorescent light tubes, and high-intensity discharge lamps), and smoke detectors containing radioactive elements. The hazardous materials shall be removed and recycled or disposed at waste facilities licensed to accept such wastes.
- B. The removal and disposal of hazardous contaminated materials shall follow the procedures described in Section 01 35 00 – Hazardous Material Project Procedures.

1.2 SUBMITTALS

The following shall be submitted in accordance with Section 01 33 00 Submittals:

- A. Work Plan - The Contractor shall submit a work plan including the procedures proposed for the accomplishment of removal and disposal of hazardous materials prior to proceeding with any removal and disposal work.
 - 1. The work plan shall provide a detailed description of the methods and equipment to be used for each operation (such as sampling, staging, etc.), health and safety plan, confined space entry, and sequence of operations.
 - 2. No work at the site, with the exception of site inspection and mobilization, shall be performed until the Work Plan is approved. The cost of work plan preparation is incidental to the project and is to be included with the base bid for demolition. No adjustment for time or money will be made for resubmittals required as a result of noncompliance.
- B. Disposal Documents
 - 1. The Contractor shall submit a report summarizing all activities stated in this section including a copy of the records for disposal or recycling of hazardous contaminated materials.
 - 2. The Contractor shall provide copies of all licenses, certifications, permits, agreements, manifests, chain of custody records, weigh tickets, meter recordings, delivery tickets, and receipts required or issued for the

disposal of materials, the methods used, and the disposal areas and facilities.

C. Manifests

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

1.3 SAMPLING AND ANALYTICAL TESTING

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

1.4 REGULATORY REQUIREMENTS

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

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 GENERAL

- A. The Contractor shall be responsible for obtaining all required permits, including confined space entry permits if necessary. The Contractor shall provide approved containers, vehicles, equipment, labor, labels, and manifests and other documents necessary for accomplishment of the work.
- B. Safety Guidelines
 - 1. All work associated with hazardous materials shall be performed using an appropriate level of personal protective equipment (PPE) as defined by IOSHA/OSHA. In the event of unknown hazardous material is identified at the project site, the work shall be performed in at least Level B protection as defined by IOSHA/OHSA.

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

C. Control of Work

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

3.2 PROTECTION

- A. The Contractor shall conduct atmospheric monitoring in accordance with IOSHA/OSHA requirements for confined space entry if work will occur in a confined space.
- B. The Contractor shall continuously monitor air quality at the site. If airborne dust concentrations as measured using real-time aerosol particle counter exceed 10 parts per million (ppm) or 20% opacity for longer than 10 minutes, the Contractor shall stop operations until airborne dust levels are below 10 ppm and/or 20% opacity for at least ten (10) minutes.

3.3 REMOVAL AND DISPOSAL

- A. In the event that unidentified hazardous contaminated material is discovered on the Project Site, the Owner's Consultant shall be notified immediately via verbal communication followed by written documentation to the Owner and Owner's Consultant within 24 hours.
- B. The Contractor shall provide all labor, materials, equipment, transportation, packaging, sampling and testing, and incidentals required to perform removal and disposal of hazardous contaminated materials. The hazardous contaminated materials shall be handled in accordance with all applicable RCRA and Indiana regulations.
- C. Hazardous Contaminated Materials
 1. All hazardous contaminated materials removed from the Project Site shall be recycled or properly disposed in an approved licensed facility. The Contractor shall provide the Owner and Owner's Consultant with manifests, certificates and other such evidence as may be required by Federal, state, and local regulations, to demonstrate that waste materials of all types were properly transported to, received at and disposed of in approved recycling or disposal facilities.
 2. In the event that small containers, drums, or storage containers of hazardous contaminated material are discovered on the Project Site, the Contractor shall inspect if the containers and drums of hazardous

materials are broken, leaked or deformed. Leaking or broken containers of hazardous materials shall be overpacked and hazardous contents shall be removed to new drums. Any small containers of waste shall be packaged to meet all applicable INDOT requirements. Based on the analytical results provided by the Owner, the Contractor shall categorize the drums by content and disposal compatibility. The Contractor shall perform compatibility test so compatible waste can be segregated in the interim storage area without risk of fire or explosion.

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

END OF SECTION 02 60 00

SECTION 02 81 00 OFFSITE TRANSPORTATION, RECYCLING, AND DISPOSAL

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Insure that all vehicles entering and leaving the site comply with all safety requirements and licensing requirements of the local, state and federal regulations.
- B. Prepare vehicles to prevent spillage or contamination.
- C. Inspect vehicles before leaving the site.
- D. Transport equipment to and from the site.
- E. Transport hazardous or non-hazardous waste materials from the site to an approved facility.

1.2 SUBMITTALS

- A. Submit the names of the disposal facilities to the Owner's Consultant for Owner approval at least a week before the disposal operation is conducted.
- B. Submit the transportation routes to the selected solid waste disposal facilities to the Owner's Consultant as part of the Work Plan.
- C. Submit a Spill Contingency Plan for transportation of solids and liquid wastes. The Plan shall address all the potential hazards, necessary actions to follow in case of spills and emergency phone numbers enroute.
- D. Submit copies of all manifests and bill of lading to the Owner's Consultant for the Owner's records.
- E. Submit a plan to decontaminate wheels of vehicles leaving project site. This procedure shall be detailed identified in the overall decontamination plan.

1.3 PROJECT RECORD DOCUMENTATION

- A. Record weight, volume, and character of material disposed.
- B. Provide documentation that measuring devices used, are certified by the appropriate state inspection agency.
- C. The Contractor shall provide written documentation and records verifying receipt and the quantity received of each load at the disposal facility and verification of proper disposal to the Owner's Consultant and Owner. Copies of the actual receipt must be provided.
- D. The Contractor shall prepare and maintain accurate manifests or bill of lading for each batch of the waste materials being transported and disposed. If required, the Contractor is responsible for obtaining the Owner's signatures on manifests for transportation and disposal purposes.

- E. All the materials shall be sampled and analyzed in accordance with the disposal requirements of applicable local, state, and Federal regulations and codes as well as the Project Specifications. The testing parameters shall be determined based on the potential for presence of the respective contaminants.

PART 2 PRODUCTS

2.1 EQUIPMENT

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

PART 3 EXECUTION

3.1 GENERAL

- A. Transportation and disposal of all hazardous materials shall comply with the regulations as specified in the Section 01 35 00 –Hazardous Material Project Procedures.

3.2 LOADING AND HAULING

- A. Inspect haul vehicles for soil adhesion to wheels and under carriage. These soils shall be removed and properly handled by the Contractor before leaving site. The decontamination procedures shall be carried out at the decontamination zone. The Owner's Consultant will monitor the effectiveness of soil removal from vehicles prior to leaving the site.
- B. At a minimum, provide wheel wash down for vehicles. All rinse waters are to be collected for temporary storage prior to disposal. The Contractor will sample collected rinse waters to ensure proper disposal. Contractor shall be responsible for the disposal of decontamination effluents and any associated testing.
- C. No transport vehicles shall be allowed to leave the site that are leaking or spilling materials.
- D. All transport vehicles shall be tarped or covered when leaving the site and during transit.
- E. All transport vehicles shall be in strict conformance with all the applicable federal, state, and local laws.
- F. The Contractor shall keep accurate records for the following information: Type and quantity of materials removed from the site and any associated analytical testing results.
- G. The Contractor shall provide the Owner's Consultant with copies of the above records, all permits required, manifests, waste hauling permits, and necessary affidavit regarding the waste materials, including liquid disposal.

- H. Prior to transportation, all of the established pre-transport requirements shall be met.
- I. The waste shall be transported by a certified waste hauler in approved containers.

3.3 RECYCLING AND DISPOSAL

- A. All recycling or disposal shall conform to Federal, State and local government regulations.
- B. For hazardous or non-hazardous contaminated wastes the Contractor shall utilize a State of Indiana approved manifest system so that the waste can be tracked from generation to ultimate disposal. The manifest shall comply with all of the provisions of the transportation and disposal regulations. All transporters must sign the appropriate portions of the manifest and must comply with all of the provisions established in the applicable regulations.
- C. Contaminated materials shall be disposed at an approved licensed disposal facility.
- D. Arrangements for disposal shall be performed by the Contractor. All costs associated with recycling or disposal are incidental and shall be included in the base bid. No additional compensation shall be provided.

3.4 SPILLS

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

END OF SECTION 02 81 00

SECTION 02 83 00

LEAD-BEARING PAINTS OR COATINGS

PART 1 GENERAL

1.1 RELATED DOCUMENTS:

General provisions of Contract, including General and Supplementary Conditions and project specifications sections, apply to work of this section.

1.2 DESCRIPTION OF WORK:

This section describes the equipment and procedures required for protecting workers against lead contamination. If paint with any amount of lead in it is subjected to demolition forces, which may cause paint particles to become airborne, unacceptable levels of lead exposure to on-site personnel and environmental lead contamination could result, depending on the method and extent of demolition performed. These paints could pose lead inhalation or ingestion hazards if burned, pulverized or converted to dust and disturbed, resulting in fumes or dust becoming airborne.

According to the OSHA Lead Exposure in Construction Standard, 29 CFR 1926.62, paragraph (d)(2)(v), until an employee exposure assessment is performed which determines actual employee exposures will not be above the Permissible Exposure Limit (PEL), 50.0 ug/m³, the following interim employee protection must be provided:

- A. appropriate respiratory protection;
- B. appropriate personal protective clothing and equipment;
- C. designated change areas;
- D. hand washing facilities;
- E. biological monitoring consisting of blood sampling and analysis for lead and zinc protoporphyrin;
- F. and lead training in accordance with the standard.

Demolition activities which will involve surfaces coated with lead-bearing paints or resulting accumulations of dust shall be initiated in conformance with 29 CFR 1926.62 (d)(2)(v) until an employee exposure assessment is developed which documents the tasks involved will not expose employees to airborne concentrations of lead above the PEL or action level. Once it is determined and documented that employees will not be exposed at or above the action level, reduced personal protective equipment measures may be employed.

PART 2 PRODUCTS:

2.1 GENERAL:

- A. Wetting Materials: For wetting prior to renovation/demolition of surfaces coated with lead-bearing paints. Use either amended water or a removal encapsulant solution.

- B. Polyethylene Sheet: A single polyethylene film in the largest sheet size possible to minimize seams, or 6.0 mil thick as needed, clear, frosted, or black.
- C. Duct Tape: Provide duct tape in 2" or 3" widths as indicated, with an adhesive which is formulated to stick aggressively to sheet polyethylene.
- D. Spray Cement: Provide spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to sheet polyethylene.
- E. Disposal Bags: Provide 6 mil thick leak-tight polyethylene bags.
- F. Fiber Drums: When needed provide fiber drums to containerize lead waste materials that may puncture or break the disposal bags.
- G. HEPA-Filtered Vacuum: High efficiency particulate air filtered vacuum collection equipment with a filter system capable of collecting and retaining fibers or particulates. Filters should be of 99.97% efficiency for retaining particulates of 0.3 microns or larger.

PART 3 EXECUTION

3.1 GENERAL:

The work described in this section includes demolition of surfaces coated with lead-bearing paints and the work practices to reduce the potential for the exposures.

3.2 POLYETHYLENE BARRIERS:

- A. Polyethylene Barriers: Install critical primary barriers over all penetrations and openings to areas where demolition activities involving lead-bearing paints will be conducted. Install secondary barrier as a drop cloth a clear 6-mil sheet polyethylene in all areas where renovation/demolition of surfaces with lead-bearing paints or coatings is to be carried out. Completely cover floor with sheet polyethylene. Support sheet polyethylene on walls with duct tape and prevent its falling during removal operations.
- B. Install Secondary Barrier at the beginning of each work shift. Install only sufficient plastic for work of that shift.
- C. 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 wet until bagged.

3.3 WORKER TRAINING:

- A. State and Local License: All workers are to be trained, certified and accredited as required by state or local code or regulation.
- B. In accordance with 29 CFR 1926.62, train all workers regarding the dangers inherent in working with surfaces containing or coated with lead-bearing materials and in proper work procedures and personal and area protective measures.

3.4 EXPOSURE MONITORING

- A. During the demolition activities involving surfaces coated with lead-bearing paints, the Contractor shall conduct an exposure assessment for employees engaged in activities such as manual demolition, manual

scraping, manual sanding, power tool cleaning, rivet busting, abrasive blasting, welding, cutting, torch burning, debris cleanup and debris removal. A representative number of employees and job types should be monitored to develop the exposure assessment. Whenever a change in equipment, process, control methods or personnel are instituted, additional monitoring should be conducted. Each employee monitored must be notified in writing of the results that represent that employee's exposure.

- B. Objective data may be used in lieu of actual monitoring if the data is determined to be relevant in assessing the anticipated exposures associated with the planned activities. Objective data may be obtained from insurance companies, trade organizations, exposure sampling data from similar operations or area monitoring data associated with similar operations. Similar operations should be interpreted to mean activities which involve the same employee tasks and exposure conditions as those to which the data is to be extrapolated.

3.5 BIOLOGICAL MONITORING:

The Contractor(s) shall conduct biological monitoring consisting of blood sampling and analysis for lead and zinc protoporphyrin for personnel performing demolition activities involving surfaces coated with lead-bearing paints at the beginning and conclusion of the project. If the employee exposure assessment indicates workers are exposed to airborne lead concentrations exceeding the action level for more than 30 days then a medical surveillance program should be instituted. If an employee's blood lead level exceeds 40 micrograms per deciliter (ug/dl) follow up blood testing and medical monitoring is required in accordance with the OSHA standard. The biological monitoring and medical surveillance should be conducted in accordance with 29 CFR 1926.62 (j).

3.6 PROTECTIVE CLOTHING:

- A. Coveralls: Provide cloth full-body disposable coveralls and hats, require that they be worn by all workers in the Work Area. The disposable coveralls shall be removed prior to leaving the work area and properly containerized for disposal. Prior to removal, the disposable coveralls shall be HEPA vacuumed to remove visible accumulations of dust. Visible dust accumulations must not be removed by compressed air or other means that may result in uncontrolled dispersal of the dust. Dispose of coveralls as lead waste at completion of all work.
- B. Boots: Provide rubber work boots with non-skid soles, and where required by OSHA, foot protection for all workers. Provide 2 spare pairs of boots for use by authorized site visitors such as the Owner or regulatory personnel. Provide boots at no cost to workers. Do not allow boots to be removed from the Work Area unless decontaminated to the satisfaction of the Owner's Consultant.
- C. Hard Hats: Provide head protection (hard hats) as required by OSHA for all workers, and provide 2 spares for use by the Owner and Owner's Representative. Require hard hats to be worn at all times that work is in progress that may potentially cause head injury. Provide hard hats of type with plastic strap type suspension. Require hats to remain in the Work Area

throughout the work. Thoroughly clean, decontaminate and bag hats before removing them from Work Area at the end of the work.

- D. Gloves: Provide work gloves to all workers and require that they be worn at all times in the Work Area. Do not remove gloves from Work Area and dispose of as lead waste at the end of the work.

3.7 RESPIRATORY PROTECTION:

- A. Instruct and train each worker involved in renovation or demolition of surfaces coated with lead-bearing paints in proper respiratory use and require that each worker always wear a respirator, properly fitted on the face in the Work Area from the start of any operation which may cause airborne lead concentrations until the Work Area is completely decontaminated or until a negative exposure assessment is produced.
- B. Use respiratory protection appropriate for the airborne lead concentration encountered in the work area or as required for other toxic or oxygen-deficient situations that may be encountered.
- C. Except to the extent that more stringent requirements are written directly into the Contract Documents, the following 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 were bound herewith. Where there is a conflict in requirements set forth in these regulations and standards, meet the more stringent requirement.
1. OSHA - U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards 29 CFR 1926.62 and 29 CFR 1910.134.
 2. ANSI - American National Standard Practices for Respiratory Protection, ANSI Z88.2-1980.
 3. NIOSH - National Institute for Occupational Safety and Health
 4. MSHA - Mine Safety and Health Administration
- D. Respirator Bodies: Provide at a minimum, 1/2 face negative pressure respirators.
- E. Filter Cartridges: Provide, at a minimum, P100 (HEPA) filters labeled with NIOSH and MSHA Certification for "Radionuclides, Radon Daughters, Dust, Fumes, Mists including Asbestos-Containing Dusts and Mists" and color coded in accordance with ANSI Z228.2 (1980). In addition, a chemical cartridge 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/MSHA Certification.
- F. Respiratory Protection Program: Must comply with ANSI Z88.2 - 1980 "Practices for Respiratory Protection" and the OSHA Respiratory Protection Standard (29 CFR 1910.134). Require respiratory protection be used at all times that there is any possibility of disturbance of lead-bearing materials unless a negative exposure assessment for the activity has been produced or until the area has been cleared for re-occupancy. Prohibit all personnel who enter the Work Areas from removing respiratory protection within the

Work Area. Personnel with repeated infractions shall be removed from the job site and prohibited from returning.

- G. Do not allow the use of single-use, disposable, or quarter-face respirators for any purpose.
- H. Initial Fitting: Provide initial fitting of respiratory protection during a respiratory protection course. Fit types of respirator to be actually worn by each individual. Allow an individual to use only those respirators for which training and fit testing has been provided.
- I. Upon Each Wearing: Require that each time an air-purifying respirator is put on it be checked for fit with a positive and negative pressure fit test in accordance with the manufacturer's instructions or ANSI Z88.2 (1980).
- J. At a minimum, until a negative exposure assessment is produced for each applicable job function, the Contractor's employees shall wear a negative pressure air purifying - half face mask. Supply a sufficient quantity of high efficiency respirator filters approved for lead dust so workers can change filters at any time that flow through the face piece decreases to the level that is uncomfortable to the worker. Require that regardless of flow, filter cartridges be replaced after 24 hours of use. Require entire exterior housing of respirator be washed each time a worker leaves the Work Area.

3.8 HYGIENE FACILITIES:

The OSHA Lead Exposure in Construction standard, 29 CFR 1926.62, requires hand washing facilities to be provided where occupational exposure to lead occurs. Due to the potential for the renovation activities to produce dust with measurable lead loading, the Contractor shall provide a designated hand washing area(s) for use by employees prior to each break period and at the end of each work shift involving renovation or demolition of surfaces coated with lead-bearing paints. The hand washing facilities should be equipped with an adequate supply of cleansing agents and towels for use by affected employees. Hand washing will significantly reduce the lead ingestion potential for employees who may eat, drink, smoke or apply cosmetics during break periods and will limit the spread of potential lead contamination beyond the job site.

3.9 WORK PRACTICES AND HOUSEKEEPING:

- A. Demolition activities involving lead-bearing paints or coatings shall be performed utilizing wet methods. Amended water or dust control agents shall be applied prior to demolition of surfaces coated with lead-bearing paints to reduce the amount of dust generated during demolition.
- B. Accumulations of dust shall be cleaned from floors and other surfaces by vacuuming. The vacuum methods utilized must employ vacuums equipped with high efficiency particulate air (HEPA) filtration per OSHA lead standard requirements. Shoveling, dry or wet sweeping and brushing may be used only where vacuuming has been tried and found to be ineffective.
- C. Compressed air shall not be used to remove dust accumulations from any surface unless it is used in conjunction with a negative pressure enclosure or similar ventilation system designed to capture airborne dust created by the use of compressed air. Any such ventilation system should be equipped with HEPA filtration to produce no visible emissions.

- D. Each time Work Area is entered put on new disposable coverall, new head cover, and a clean respirator.

3.10 ADDITIONAL PROTECTIVE EQUIPMENT:

- A. Disposable coveralls, head covers, appropriate work boots/footwear, and, if necessary, respirators shall be provided by the Contractor for the Owner, Owner's Representative, Owner's Consultant and other authorized representatives who may inspect the job site. Provide two (2) powered air purifying respirators (PAPRs), six (6) complete coveralls and 2 PAPR respirator filter changes per day per person visiting the site.
- B. Provide worker protection as required by the most stringent OSHA and/or EPA standards applicable to the work.

3.11 WORK AREA RESTRICTIONS:

- A. Until such time that a NEA is established, the Contractor shall ensure all personnel who enter a lead work area do NOT eat, drink, smoke, chew tobacco or gum, or apply cosmetics in the Work Area. Personnel with repeated infractions will be removed from the project work area and prohibited from returning to the job site.
- B. Until such time that a NEA is established, the Contractor shall instruct all personnel who enter a lead work area to completely utilize the disposable coveralls, including wearing the hood.
- C. The Contractor shall prohibit personnel from altering the disposable coveralls (cutting off sleeves, hoods, etc.) and shall ensure any person whose disposable coveralls become ripped or torn while in the Work Area proceeds immediately to the decontamination unit to don a new pair of coveralls.
- D. Until such time that a NEA is established, the Contractor shall prohibit personnel who enter the work area from removing respiratory protection while inside the work area. Personnel with repeated infractions will be removed from the project work area and prohibited from returning to the job site.
- E. Until such time that a NEA is established, the Contractor shall prohibit personnel who enter a lead work area in leather work boots from removing the leather work boots from the work area. Upon completion of the project, the leather work boots shall be placed in an appropriately labeled waste bag and disposed as lead waste.
- F. Compressed air must not be used to remove dust accumulations from any surface unless it is used in conjunction with a negative pressure enclosure or similar ventilation system designed to capture airborne dust created by the use of compressed air.
- G. Power tools which are not equipped with HEPA-filtered dust collection systems shall not be used on surfaces coated with lead-bearing paints unless the work area where the surfaces are located is isolated with polyethylene critical barriers and ventilated with HEPA-filtered fans.

END OF SECTION 02 83 00

SECTION 02 83 00.01

CADMIUM-BEARING PAINTS OR COATINGS

PART 1 GENERAL

1.1 RELATED DOCUMENTS:

General provisions of Contract, including General and Supplementary Conditions and project specifications sections, apply to work of this section.

1.2 DESCRIPTION OF WORK:

This section describes the equipment and procedures required for protecting workers against cadmium contamination. If paint with any amount of cadmium in it is subjected to demolition forces, which may cause paint particles to become airborne, unacceptable levels of cadmium exposure to on-site personnel and environmental contamination could result, depending on the method and extent of demolition performed. These paints could pose cadmium inhalation or ingestion hazards if burned, pulverized or converted to dust and disturbed, resulting in the fumes or dust becoming airborne.

Demolition activities which will involve surfaces coated with cadmium-bearing paints or resulting accumulations of dust shall be initiated in conformance with 29 CFR 1926.1127.

PART 2 PRODUCTS:

2.1 GENERAL:

- A. Wetting Materials: For wetting prior to renovation/demolition of surfaces coated with cadmium-bearing paints. Use either amended water or a removal encapsulant solution.
- B. Polyethylene Sheet: A single polyethylene film in the largest sheet size possible to minimize seams, or 6.0 mil thick as needed, clear, frosted, or black.
- C. Duct Tape: Provide duct tape in 2" or 3" widths as indicated, with an adhesive which is formulated to stick aggressively to sheet polyethylene.
- D. Spray Cement: Provide spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to sheet polyethylene.
- E. Disposal Bags: Provide 6 mil thick leak-tight polyethylene bags.
- F. Fiber Drums: When needed provide fiber drums to containerize lead waste materials that may puncture or break the disposal bags.
- G. HEPA-Filtered Vacuum: High efficiency particulate air filtered vacuum collection equipment with a filter system capable of collecting and retaining fibers or particulates. Filters should be of 99.97% efficiency for retaining particulates of 0.3 microns or larger.

PART 3 EXECUTION

3.1 GENERAL:

The work described in this section includes demolition of surfaces coated with cadmium-bearing paints and the work practices to reduce the potential for the exposures.

3.2 POLYETHYLENE BARRIERS:

- A. Polyethylene Barriers: Install critical primary barriers over all penetrations and openings to areas where demolition activities involving cadmium-bearing paints will be conducted. Install secondary barrier as a drop cloth a clear 6-mil sheet polyethylene in all areas where renovation/demolition of surfaces with cadmium-bearing paints or coatings is to be carried out. Completely cover floor with sheet polyethylene. Support sheet polyethylene on walls with duct tape and prevent its falling during removal operations.
- B. Install Secondary Barrier at the beginning of each work shift. Install only sufficient plastic for work of that shift.
- C. 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 wet until bagged.

3.3 WORKER TRAINING:

- A. State and Local License: All workers are to be trained, certified and accredited as required by state or local code or regulation.
- B. In accordance with 29 CFR 1926.1127 (n)(4), train all workers regarding the dangers inherent in working with surfaces containing or coated with cadmium-bearing materials and in proper work procedures and protective measures.

3.4 EXPOSURE MONITORING

- A. During the demolition activities involving surfaces coated with cadmium-bearing paints, the Contractor shall conduct an exposure assessment for employees engaged in activities such as manual demolition, manual scraping, manual sanding, power tool cleaning, rivet busting, abrasive blasting, welding, cutting, torch burning, debris cleanup and debris removal. A representative number of employees and job types should be monitored to develop the exposure assessment. Whenever a change in equipment, process, control methods or personnel are instituted, additional monitoring should be conducted. Each employee monitored must be notified in writing of the results that represent that employee's exposure.
- B. Objective data may be used in lieu of actual monitoring if the data is determined to be relevant in assessing the anticipated exposures associated with the planned activities. Objective data may be obtained from insurance companies, trade organizations, exposure sampling data from similar operations or area monitoring data associated with similar operations. Similar operations should be interpreted to mean activities which involve the same employee tasks and exposure conditions as those to which the data is to be extrapolated.

3.5 BIOLOGICAL MONITORING:

The Contractor(s) shall conduct biological monitoring consisting of sampling and analysis for cadmium in urine, Beta-2 microglobulin in urine, and cadmium in blood for personnel performing demolition activities involving surfaces coated with cadmium-bearing paints at the beginning and conclusion of the project. If the employee exposure assessment indicates workers are exposed to cadmium concentrations exceeding the action level of 2.5 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) as an 8-hour Time Weighted Average (TWA) for more than 30 days then a medical surveillance program should be instituted. The biological monitoring and medical surveillance should be conducted in accordance with 29 CFR 1926.1127 (I).

3.6 PROTECTIVE CLOTHING:

If an employee is exposed to airborne cadmium above the Permissible Exposure Limit (PEL) of $5.0 \mu\text{g}/\text{m}^3$ TWA or where skin or eye irritation is associated with cadmium exposure, the employer must provide the following protective clothing, at no cost to employees:

- A. Coveralls: Provide cloth full-body disposable coveralls and hats, require that they be worn by all workers in the Work Area. The disposable coveralls shall be removed prior to leaving the work area and properly containerized for disposal. Prior to removal, the disposable coveralls shall be HEPA vacuumed to remove visible accumulations of dust. Visible dust accumulations must not be removed by compressed air or other means that may result in uncontrolled dispersal of the dust. Dispose of coveralls as cadmium waste at completion of work.
- B. Gloves: Provide work gloves to all workers and require that they be worn at all times in the Work Area. Do not remove gloves from Work Area and dispose of as lead waste at the end of the work.
- C. Face Shields or vented goggles. Provide face shields or vented goggles to all employees working in areas where eye irritation is associated with cadmium exposure and require that they be worn at all times in the Work Area.

Provide the following additional protective equipment in work areas:

- A. Boots: Provide rubber work boots with non-skid soles, and where required by OSHA, foot protection for all workers. Provide 2 spare pairs of boots for use by authorized site visitors such as the Owner or regulatory personnel. Provide boots at no cost to workers. Do not allow boots to be removed from the Work Area unless decontaminated to the satisfaction of the Owner's Consultant.
- B. Hard Hats: Provide head protection (hard hats) as required by OSHA for all workers, and provide 2 spares for use by the Owner and Owner's Representative. Require hard hats to be worn at all times that work is in progress that may potentially cause head injury. Provide hard hats of type with plastic strap type suspension. Require hats to remain in the Work Area throughout the work. Thoroughly clean, decontaminate and bag hats before removing them from a work area.

3.7 RESPIRATORY PROTECTION:

- A. Instruct and train each worker involved in renovation or demolition of surfaces coated with cadmium-bearing paints in proper respiratory use and require that each worker always wear a respirator, properly fitted on the face in the Work Area from the start of any operation which may cause airborne cadmium concentrations until the Work Area is completely decontaminated or until a negative exposure assessment is produced.
- B. Use respiratory protection appropriate for the airborne cadmium concentration encountered in the work area or as required for other toxic or oxygen-deficient situations that may be encountered.
- C. Except to the extent that more stringent requirements are written directly into the Contract Documents, the following 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 were bound herewith. Where there is a conflict in requirements set forth in these regulations and standards, meet the more stringent requirement.
 - 1. OSHA - U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards 29 CFR 1926.1127 and 29 CFR 1910.134.
 - 2. ANSI - American National Standard Practices for Respiratory Protection, ANSI Z88.2-1980.
 - 3. NIOSH - National Institute for Occupational Safety and Health
 - 4. MSHA - Mine Safety and Health Administration
- D. Respirator Bodies: Provide at a minimum, 1/2 face negative pressure respirators.
- E. Filter Cartridges: Provide, at a minimum, P100 (HEPA) filters labeled with NIOSH and MSHA Certification for "Radionuclides, Radon Daughters, Dust, Fumes, Mists including Asbestos-Containing Dusts and Mists" and color coded in accordance with ANSI Z228.2 (1980). In addition, a chemical cartridge 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/MSHA Certification.
- F. Respiratory Protection Program: Must comply with ANSI Z88.2 - 1980 "Practices for Respiratory Protection" and the OSHA Respiratory Protection Standard (29 CFR 1910.134). Require respiratory protection be used at all times that there is any possibility of disturbance of cadmium-bearing materials unless a negative exposure assessment for the activity has been produced or until the area has been cleared for re-occupancy. Prohibit personnel who enter the Work Areas from removing respiratory protection within the Work Area. Personnel with repeated infractions shall be removed from the site and prohibited from returning.
- G. Do not allow the use of single-use, disposable, or quarter-face respirators for any purpose involving work with cadmium.

- H. Initial Fitting: Provide initial fitting of respiratory protection during a respiratory protection course. Fit types of respirator to be actually worn by each individual. Allow an individual to use only those respirators for which training and fit testing has been provided.
- I. Upon Each Wearing: Require that each time an air-purifying respirator is put on it be checked for fit with a positive and negative pressure fit test in accordance with the manufacturer's instructions or ANSI Z88.2 (1980).
- J. At a minimum, until a negative exposure assessment is produced for each applicable job function, the Contractor's employees shall wear a negative pressure air purifying - half face mask. Supply a sufficient quantity of high efficiency respirator filters approved for cadmium dust so workers can change filters at any time that flow through the face piece decreases to the level that is uncomfortable to the worker. Require entire exterior housing of respirator be washed each time a worker leaves the Work Area.

3.8 HYGIENE FACILITIES:

The OSHA Cadmium Construction standard, 29 CFR 1926.1127, requires showers and hand washing facilities be provided where occupational exposure to cadmium above the PEL occurs. Due to the potential for the demolition activities to produce dust with measurable cadmium loading, the Contractor shall provide a designated hand washing area(s) for use by employees prior to each break period and at the end of each work shift involving renovation or demolition of surfaces coated with cadmium-bearing paints. The hand washing facilities should be equipped with an adequate supply of cleansing agents and towels for use by affected employees. Hand washing will significantly reduce the ingestion exposure potential for employees who may eat, drink, smoke or apply cosmetics during break periods and will limit the spread of potential cadmium contamination beyond the job site.

3.9 WORK PRACTICES AND HOUSEKEEPING:

- A. Demolition activities involving cadmium-bearing paints or coatings shall be performed utilizing wet methods. Amended water or dust control agents shall be applied prior to demolition of surfaces coated with cadmium-bearing paints to reduce the amount of dust generated during demolition.
- B. Accumulations of dust shall be cleaned from floors and other surfaces by vacuuming. The vacuum methods utilized must employ vacuums equipped with high efficiency particulate air (HEPA) filtration per OSHA requirements. Shoveling, dry or wet sweeping and brushing may be used only where vacuuming has been tried and found to be ineffective.
- C. Compressed air shall not be used to remove dust accumulations from any surface unless it is used in conjunction with a negative pressure enclosure or similar ventilation system designed to capture airborne dust created by the use of compressed air. Any such ventilation system should be equipped with HEPA filtration to produce no visible emissions.

3.10 WORK AREA RESTRICTIONS:

- A. Until such time that a NEA is established, the Contractor shall ensure all personnel who enter a cadmium work area do NOT eat, drink, smoke, chew tobacco or gum, or apply cosmetics in the Work Area. Personnel with

repeated infractions will be removed from the project work area and prohibited from returning to the job site.

- B. The Contractor shall instruct all personnel who enter a cadmium work area where exposures are expected to be above the PEL to completely utilize disposable coveralls, including wearing the hood. The Contractor shall prohibit personnel from altering the disposable coveralls (cutting off sleeves, hoods, etc.) and shall ensure any person whose disposable coveralls become ripped or torn while in the Work Area proceeds immediately to the decontamination unit to don a new pair.
- C. Until such time that a NEA is established, the Contractor shall prohibit personnel who enter the work area from removing respiratory protection while inside the work area. Personnel with repeated infractions will be removed from the project work area and prohibited from returning to the job site.
- D. Until such time that a NEA is established, the Contractor shall prohibit personnel who enter a cadmium work area in leather work boots from removing the leather work boots from the work area. Upon completion of the project, the leather work boots shall be placed in an appropriately labeled waste bag and disposed as cadmium waste. Rubber boots must be effectively decontaminated prior to removing them from the work area.
- E. Power tools which are not equipped with HEPA-filtered dust collection systems shall not be used on surfaces coated with cadmium-bearing paints unless the work area where the surfaces are located is isolated with polyethylene critical barriers and ventilated with HEPA-filtered fans.

END OF SECTION 02 83 00.01

SECTION 02 84 00 PCB-CONTAINING EQUIPMENT REMOVAL

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Removal and disposal requirement for PCB-containing lighting system ballasts.

1.2 RELATED SECTIONS

- A. Section 00 73 19 - Health, Safety, and Emergency Response
- B. Section 00 45 00 – Quality Control
- C. Section 01 57 00 – Temporary Controls

1.3 REFERENCE STANDARDS

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

- A. American Petroleum Institute (API)
 - 1. API Rp 2003, Protection Against Ignitions Arising out of Static, Lightning and Stray Currents.
 - 2. API Publ 2015, Safe Entry and Cleaning Petroleum Storage Tanks.
 - 3. API Publ 2217, Guidelines for Confined space Work in the Petroleum Industry.
 - 4. API Publ 2219, Safe Operation of Vacuum Trucks in Petroleum Service.
- B. Code of Federal Regulations (CFR)
 - 1. CFR 29 CFR 1910.146 OSHA - Permit Required Confined Spaces.
 - 2. CFR 29 CFR 1926/1910 Construction Industry Occupational Safety and Health Standards.
 - 3. CFR 40 CFR 260 General Regulations for Hazardous Waste Management.
 - 4. CFR 40 CFR Part 261 Identification and Listing of Hazardous Waste.
 - 5. CFR 40 CFR Part 262 Standards Applicable to Generators of Hazardous Waste.
 - 6. CFR 40 CFR Part 263 Standards Applicable to Transporters of Hazardous Waste.
 - 7. CFR 40 CFR Part 264 Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.
 - 8. CFR 40 CFR Part 265 Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.

9. CFR 49 CFR 171 Department of Transportation Regulations to Stipulate Requirements for Containers and Procedure for Shipment of Hazardous Waste.
10. CFR 40 CFR Part 761 Polychlorinated Biphenyls (PCB) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions.
- C. National Fire Protection Association (NFPA)
 1. NFPA 30 (1990) Flammable and Combustible Liquids Code.
 2. NFPA 70 B (1990) Recommended Practice for Electrical Equipment Maintenance.
 3. NFPA 325M (1991) Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids.
 4. NFPA 327 (1987) Standard Procedures for Cleaning or Safeguarding Small Tanks and Containers.
- D. National Institute of Occupational Safety and Health (NIOSH)
 1. NIOSH 80-106 Criteria for a Recommended Standard for Working in Confined Spaces.
- E. United States Environmental Protection Agency (EPA)
 1. EPA SW-846, Test Methods for Evaluating Solid Waste.

1.4 MEASUREMENT

- A. Removal and Disposal of PCB-containing Light Ballasts and Switch Boxes
- The removal and disposal of PCB-containing light ballasts, associated connections, and switch boxes found on site shall be included in the Base Bid for demolition. The Contractor and Owner's Consultant on-site representative shall concurrently document the amount of material removed and containerized for disposal prior to removal of the materials from the site.

1.5 SUBMITTALS

A. Work Plan

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

B. Health and Safety Plan

Before proceeding with any removal and disposal work, submit a site-specific health and safety plan (HASP) that includes the necessary precautions and safety procedures proposed for the accomplishment of the removal and disposal work. Include detailed information regarding temporary controls, including lock-out/tag-out procedures, and hazardous material handling. The

HASP shall include procedures specified in this Section and in Section 00 73 19, Health, Safety, and Emergency Response.

C. Notice of Acceptance

After removing PCB light fixture ballasts from the project site, submit the name and location of the properly licensed disposal facility and a copy of the written agreement from the disposal facility agreeing to accept contaminated materials for disposal. This documentation shall include manifests with quantities agreed by the Owner and Owner's Consultant. The documentation is due 14 days after removal from the site.

D. Recycling and Disposal Documents

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

E. Manifests

Submit a copy of the official manifest for each shipment of contaminated materials including, but not limited to, electrical transformer components and fluids, light ballast contents, expended cleaning liquids, structural components, and ballast carcasses evidencing delivery of the material to the approved licensed disposal facility. All manifests shall be in accordance with the requirements of 40 CFR, Part 262, 40 CFR, Part 761, Section 23 and State and local regulations.

1.6 REGULATORY REQUIREMENTS

A. Statutes and Regulations

Removal, transportation, and disposal work associated with liquids or fluids containing PCBs shall be carried out in accordance with 29 CFR, Part 1910. Obtain all licenses, permits, certifications, receipts, etc., as required by such laws, regulations, codes, and ordinances.

B. General

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

C. Protection of Employees and Visitors

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

D. Toxicity Considerations

Exercise care to minimize exposure to PCB-containing material during the handling of PCB-containing materials.

PART 2 PRODUCTS

2.1 GENERAL

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

PART 3 EXECUTION

3.1 GENERAL

Disconnect electrical power from transformers, ballasts, and switch boxes being removed. Remove and containerize all PCB-containing light ballasts and dispose of properly. Obtain all required permits and approval documents. Provide approved containers, vehicles, equipment, labor, signs, placards, labels, manifests, and other documents necessary for accomplishing the work including materials necessary for spill cleanup for material from removal operations. Coordinate and pay for any additional sampling that may be necessary such as waste characterization sampling for proper disposal.

A. Safety Guidelines

Personnel working inside and in the general vicinity of the cleanup area shall be trained and made thoroughly familiar with the safety precautions, procedures, and equipment required for controlling the potential hazards associated with this work. Personnel shall use proper protection and safety equipment during work in and around ballasts, switch boxes, and electrical transformer as specified in API Publication 2217, AP RP 1604, and in the site-specific health and safety plans. Proper guidelines regarding safety precautions shall be required for handling all other items. For further Health and Safety requirements, refer to Section 00 73 19.

B. Control of the Work

Perform work in accordance with the requirements and specifications and take direction only from the Owner or Owner's Consultant for this contract. Any other party that proposes to give direction to the contractor shall be immediately referred to Owner. Perform control measures as specified in Section 01 57 00.

3.2 CONTENTS VERIFICATION

A. Sampling and Analytical Testing

No destructive sampling of building systems suspected of containing either PCBs or mercury components was performed. Any additional testing necessary is the responsibility of the Contractor. If necessary, the Contractor shall collect samples to the extent required by the approved off-site disposal facility receiving the material. All analytical testing as required under this section shall be paid for by the Contractor and is incidental to the Contract. The analysis shall require a five working day completion time from the date of sample receipt at the laboratory. Meet all regulatory requirements, including chain-of-custody documentation. Follow quality control measures as outlined in Section 00 45 00, Quality Control.

3.3 EXAMINATION

A. Sampling and Testing Requirements of Others

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

3.4 DISPOSAL REQUIREMENTS

A. General

Materials requiring disposal shall become the property of the Contractor. Dispose light ballasts and switch boxes at a facility licensed to receive, clean, recycle, and dispose PCB-containing electrical equipment. Dispose all wastes in accordance with all local, State, and Federal solid and liquid waste laws and regulations, including those for hazardous waste, when applicable, as well as the Resource Conservation and Recovery Act (RCRA), and conditions specified herein. These services shall include all necessary personnel, labor, packaging, transportation, manifesting or completion of waste profile sheets, equipment, and reports. Maintain all disposal and recycle information for closeout submittal and review by the Owner and Owner's Consultant.

B. Records

Maintain disposal and recycle records for all waste determinations, including (1) appropriate results of analyses performed, (2) sample locations, (3) substances detected, (4) time of collection, and (5) other pertinent data as required by 40 CFR Part 280, Section 74 and 40 CFR Part 262 Subpart D. Record and make available information regarding method of transportation, method of treatment, method of disposal, quantities of waste, the names and addresses of each transporter, and the disposal or reclamation facility. Prepare and maintain copies and originals disposal manifests, waste analyses or waste profile sheets, and certifications of final treatment/disposal signed by the responsible disposal facility official. Following contract

completion, the records shall be submitted to the Owner's Consultant and become the property of the Owner.

C. Hazardous/Special Waste Manifests

A USEPA waste generator identification number for the site may be required depending upon the nature of the materials to be disposed. Work with the generator to obtain this or other generator identification numbers. For hazardous and non-hazardous contaminated liquid waste, utilize a State of Indiana approved manifest system in conformance with the requirements identified in 40 CFR Part 262, 40 CFR Part 263 and 40 CFR Part 761.

The manifests shall comply with all of the provisions of the transportation and disposal regulations. Prepare manifests for each load and obtain the appropriate identification numbers and signatures.

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

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

D. Documentation of Treatment and Disposal

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

3.5 SPILLS

A. Spill Responsibility

The Contractor is responsible for cleaning up all the leaks and spills from demolition operations, drums, or other containers staged on the project site by the Contractor during demolition activities. Immediate containment actions shall be taken as necessary to minimize the effect to natural surroundings. Notify the Owner, Owner's Consultant and appropriate governmental authorities of the incident. Cleanup shall be in accordance with applicable local, State, and Federal laws and regulations at no additional cost to the Owner.

END OF SECTION 02 84 00

SECTION 02 87 00

RESPIRABLE SILICA EXPOSURE

PART 1 GENERAL

1.1 RELATED DOCUMENTS:

General provisions of Contract, including General and Supplementary Conditions and project specifications sections, apply to work of this Section.

1.2 DESCRIPTION OF WORK:

This Section describes the equipment and procedures required for protecting workers against respirable crystalline silica exposure. This Section includes demolition or site activities where as onsite personnel could foreseeably be exposed to airborne respirable crystalline silica at or above the Action Level of 25 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), calculated as an 8-hour time weighted average (TWA).

According to Occupational Safety and Health Administration (OSHA) created the standard for Occupational Exposure to Respirable Crystalline Silica in construction (29 CFR 1926.1153), until an employee exposure assessment is performed which determines actual employee exposures will not be above the Permissible Exposure Limit (PEL), 50.0 $\mu\text{g}/\text{m}^3$ of air collected as an 8-hour TWA, the following interim employee respiratory protection must be provided.

Demolition activities which will involve silica-based construction materials, including resulting accumulations of dust, shall be initiated in conformance with 29 CFR 1926.1153 until an employee exposure assessment is developed which documents the tasks involved will not expose employees to airborne concentrations of respirable silica above the PEL. Once it is determined and documented that employees will not be exposed at or above the PEL, reduced personal protective equipment measures may be employed, following the established silica control methods.

PART 2 PRODUCTS

2.1 GENERAL:

- A. Wetting Materials: For wetting of silica-based construction prior to and during demolition activities. Use either water or a suitable removal encapsulant solution.
- B. HEPA-Filtered Vacuum: High efficiency particulate air filtered vacuum collection equipment with a filter system capable of collecting and retaining fibers or particulates. Filters should be of 99.97% efficiency for retaining particulates of 0.3 microns or larger.

PART 3 EXECUTION

3.1 GENERAL:

The work described in this section includes demolition of silica-based construction materials and the work practices to reduce the potential for the exposure to respirable crystalline silica.

3.2 WORKER TRAINING AND MEDICAL MONITORING:

The Contractor shall determine the amount of silica to which workers are exposed, or may potentially be exposed, at or above the Action Level of 25 ug/m³, averaged over an 8-hour TWA. The Contractor shall also:

- A. Train employees on the health effects of silica exposure, workplace tasks that can expose them to respirable crystalline silica, and ways to limit exposure. Such as:
 1. Methods used by the employer to control employee exposures to airborne dust from concrete and masonry materials, including wet cutting, local exhaust ventilation systems, and process isolation, as applicable.
 2. Proper use and maintenance of dust reduction systems, including the safe handling and disposal of waste materials collected in connection with their use.
 3. The importance of good personal hygiene and housekeeping practices when working in proximity to dust from concrete and masonry materials including: not smoking tobacco products; appropriate methods of cleaning up before eating, and appropriate methods of cleaning clothes.
 4. OSHA requirements including permissible exposure limits, requirements for engineering controls, and respirator protection program requirements.
- B. Establish and implement a written exposure control plan that identified tasks that involve exposure and methods used to protect workers, including procedures to restrict access to work areas where elevated exposures may occur.
- C. Designate a competent person to implement the written exposure control plan.
- D. Offer medical exams including chest x-rays and lung function tests, every three years for workers who are required by the standard to wear a respirator for 30 or more days per year.
- E. Maintain records of silica exposure and medical exams.

3.3 EXPOSURE MONITORING:

- A. During the demolition activities involving surfaces coated with lead-bearing paints, the Contractor shall conduct an exposure assessment for employees engaged in disturbance of silica-based construction materials that could result to respirable crystalline exposure at or above the Action Limit of 25 ug/m³, until a NEA is established for the respective work task. A representative number of employees and job types (minimum of 25 percent of the labor force for each work task) should be monitored to develop the exposure assessment. Whenever a change in equipment, process, control

methods or personnel are instituted, additional monitoring should be conducted. Each employee monitored must be notified in writing of the results that represent that employee's exposure.

- B. Objective data may be used in lieu of actual monitoring if the data is determined to be relevant in assessing the anticipated exposures associated with the planned activities. Objective data may be obtained from insurance companies, trade organizations, exposure sampling data from similar operations or area monitoring data associated with similar operations. Similar operations should be interpreted to mean activities which involve the same employee tasks and exposure conditions as those to which the data is to be extrapolated.

3.4 RESPIRATORY PROTECTION:

- A. Instruct and train each worker involved in demolition of silica-based construction materials in proper respiratory use and require that each worker always wear a respirator, properly fitted on the face in the Work Area from the start of any operation which may cause airborne lead concentrations until the Work Area is completely decontaminated or until a negative exposure assessment is produced.
- B. Use respiratory protection appropriate for the airborne respirable crystalline silica concentration encountered in the work area or as required for other toxic or oxygen-deficient situations that may be encountered.
- C. Except to the extent that more stringent requirements are written directly into the Contract Documents, the following 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 were bound herewith. Where there is a conflict in requirements set forth in these regulations and standards, meet the more stringent requirement.
 - 1. OSHA - U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards 29 CFR 1926.1153 and 29 CFR 1910.134.
 - 2. ANSI - American National Standard Practices for Respiratory Protection, ANSI Z88.2-1980.
 - 3. NIOSH - National Institute for Occupational Safety and Health
 - 4. MSHA - Mine Safety and Health Administration
- D. Respirator Bodies: Provide at a minimum, 1/2 face negative pressure respirators.
- E. Filter Cartridges: Provide, at a minimum, P100 (HEPA) filters labeled with NIOSH and MSHA Certification for "Radionuclides, Radon Daughters, Dust, Fumes, Mists including Asbestos-Containing Dusts and Mists" and color coded in accordance with ANSI Z228.2 (1980). In addition, a chemical cartridge 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/MSHA Certification.

- F. Respiratory Protection Program: Must comply with ANSI Z88.2 - 1980 "Practices for Respiratory Protection" and the OSHA Respiratory Protection Standard (29 CFR 1910.134). Require respiratory protection be used at all times that there is any possibility of disturbance of crystalline silicate materials unless a negative exposure assessment for the activity has been produced or until the area has been cleared for re-occupancy. Prohibit all personnel who enter the Work Areas from removing respiratory protection within the Work Area. Personnel with repeated infractions shall be removed from the job site and prohibited from returning.
- G. Do not allow the use of single-use, disposable, or quarter-face respirators for any purpose.
- H. Initial Fitting: Provide initial fitting of respiratory protection during a respiratory protection course. Fit types of respirator to be actually worn by each individual. Allow an individual to use only those respirators for which training and fit testing has been provided.
- I. Upon Each Wearing: Require that each time an air-purifying respirator is put on it be checked for fit with a positive and negative pressure fit test in accordance with the manufacturer's instructions or ANSI Z88.2 (1980).
- J. At a minimum, until a NEA is produced for each applicable job function, the Contractor's employees shall wear a negative pressure air purifying - half face mask. Supply a sufficient quantity of high efficiency respirator filters approved for lead dust so workers can change filters at any time that flow through the face piece decreases to the level that is uncomfortable to the worker. Require that regardless of flow, filter cartridges be replaced after 24 hours of use. Require entire exterior housing of respirator be washed each time a worker leaves the Work Area.

3.5 HYGIENE FACILITIES:

Contractor shall provide a designated hand washing area(s) for use by employees prior to each break period and at the end of each work during demolition activities. The hand washing facilities should be equipped with an adequate supply of cleansing agents and towels for use by affected employees.

3.6 WORK PRACTICES AND HOUSEKEEPING:

- A. Demolition activity tasks involving the disturbance of silica based construction materials shall be performed in accordance of control methods listed in Table 1 of the standard. The Contractor may implement alternative exposure control methods if protection from respirable crystalline silica is demonstrated through establishment of a NEA for the respective work task.
- B. Work activities shall be conducted in accordance with the Contractor's written exposure control plan.
- C. Dry sweeping or use of compressed air shall not be used to remove dust accumulations from any surface unless it is used in conjunction with a negative pressure enclosure or similar ventilation system designed to capture airborne dust created by the use of compressed air. Any such ventilation system should be equipped with HEPA filtration to produce no visible emissions.

3.7 WORK AREA RESTRICTIONS:

- A. Until such time that a NEA is established, the Contractor shall ensure all personnel who enter the Work Area do NOT eat, drink, smoke, chew tobacco or gum, or apply cosmetics in the Work Area. Personnel with repeated infractions will be removed from the project work area and prohibited from returning to the job site.
- B. Until such time that a NEA is established, the Contractor shall prohibit personnel who enter the work area from removing respiratory protection while inside the work area. Personnel with repeated infractions will be removed from the project work area and prohibited from returning to the job site.
- C. Compressed air must not be used to remove dust accumulations from any surface unless it is used in conjunction with a negative pressure enclosure or similar ventilation system designed to capture airborne dust created by the use of compressed air.
- D. Power tools used for manual demolition, which are not equipped with HEPA-filtered dust collection systems, shall not be used on silica-based construction materials, unless compliant with the exposure control methods of the standard.

END OF SECTION 02 87 00

SECTION 02 90 00 MISCELLANEOUS REGULATED MATERIALS

PART 1 GENERAL

1.1 GENERAL REQUIREMENTS

- A. Contractor shall furnish all labor, material, equipment, packaging, sampling and testing, and incidentals required to remove/abate, transport and dispose/recycle all substances regulated under Federal, State and local statutes and land ban restrictions. These substances may include but are not limited to:
 - 1. Mercury Devices (i.e., switches, thermostats, vapor lamps)
- B. The Contractor shall take all field measurements necessary to provide a proposal for the work, and lay out all work in accordance with the Project Specifications considering existing clearances and conditions. The Contractor shall be responsible for any damage and/or cost caused by any inaccuracy on his/her part. Neither the Owner, the Design Consultant, nor the Owner's Consultant shall be held responsible for providing accurate measurements of potentially hazardous materials. Any measurements given are to be viewed as estimates only.
- C. The Contractor shall be aware that the building contains lead-bearing and cadmium-bearing paints and, as such, the potential for exposure exists. The Contractor shall conduct work involving lead-bearing and cadmium-bearing paints/coatings in accordance with all federal, state, and local regulations.
- D. The Occupational Safety and Health Administration (OSHA) provides protection and regulations for the safety and health of workers.
 - 1. The Contractor shall post any applicable State and/or Federal government regulations at the job sites in prominent locations.
 - 2. The Contractor shall be responsible for training their workers in safe work practices and in proper removal methods when coming in contact with hazardous materials
- E. Applicable Regulations:
 - 1. RCRA, 1976 -Resource Conservation and Recovery Act: This federal statute regulates generation, transportation, treatment, storage or disposal of hazardous wastes nationally.
 - 2. 329 IAC 3.1-6- Indiana's Hazardous Waste Rules: This statute regulates generation, transportation, treatment, storage and disposal of hazardous wastes in Indiana.
 - 3. The lists provided in Section 00 45 00 and Section 01 35 00 include the regulations that are most frequently encountered.

- F. To use an off-site hazardous waste disposal facility, the Contractor must use the Uniform Hazardous Waste Manifest (shipping paper).
1. Hazardous wastes may not be disposed of in sanitary landfills used for solid waste.
- G. Federal, State and local laws and regulations may apply to the storage, handling, and disposal of hazardous materials and wastes generated at the Site. The list below and provided in Section 00 45 00 includes the regulations that are most frequently encountered.
- | | |
|------------------------------------|---|
| Local fire prevention regulations: | Local fire chief or fire marshal and codes (including chemical storage requirements) |
| Building and outdoor storage | Local government building or zoning official requirements (including setbacks) |
- H. Federal, State and local laws and regulations may apply to the removal, handling, transportation, and disposal of smoke alarms containing radioactive elements, depending upon the amount of radioactive material contained within them.

PART 2 PRODUCTS

2.1 PACKAGING AND CONTAINERIZATION OF MATERIALS

- A. Packaging and containerization materials shall include but not be limited to the following:
1. Lab packing requirements per approved disposal or recycling facility.
 2. Fiberboard barrels
 3. INDOT approved removable head drums; roll-off boxes or equivalent
 4. Drum labels and marking which conform to Federal, State and local regulations
 5. Spill prevention countermeasure materials and control products consistent with 49 CFR 173 and Contractor's approved Spill Prevention, Control, and Countermeasure (SPCC) plan.
 6. Sampling equipment and containers consistent with standard sampling technique.

PART 3 EXECUTION

3.1 REMOVAL OF MERCURY DEVICES

- A. High intensity discharge lamps and fluorescent light bulbs that may contain mercury are present in fixtures within the building. The Contractor shall be

responsible for the removal, transport and recycling or disposal of all mercury containing devices.

1. Some light fixtures and/or associated components may be suitable for recycling or resale. The Contractor is encouraged to account for recycling or resale of such fixtures in its bid, if feasible.
2. The Contractor shall be responsible for the removal of all regulated lamps and bulbs from the associated lighting fixtures. All lamps and bulbs shall be carefully removed from the fixtures and placed in appropriate sized containers equipped with dividers.
3. All containers intended for off-site recycling shall be either shrink-wrapped or placed in a secure crate to avoid accidental breakage. All containers shall be labeled as hazardous waste in accordance with applicable INDOT regulations.
4. The Contractor must use all precautions when handling lamps to avoid accidental breakage. Should accidental breakage of lamps occur, then the lamp debris shall be collected and placed in segregated reinforced drums or similar containers pending disposal.
5. Light ballasts containing PCBs shall be managed in accordance with Section 02 84 00 of the project specifications.

3.2 TRANSPORTATION

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

END OF SECTION 02 90 00

APPENDIX A

REQUIRED FORMS

BIDDER AFFIDAVIT

State of _____

County of _____

The undersigned being first duly sworn as provided by law, deposes and says:

1. Affiant's name is _____ residing at _____
_____ whose office is
located _____
at _____

2. Affiant makes this affidavit with the knowledge and intent that it is to be filed with _____ (Owner), and that it will be relied upon by said Owner in any consideration, which it may give to, and any action, which it may take with respect to this proposal.

3. Affiant makes and is authorized to make this affidavit on behalf of:

(Name of Corporation, Partnership, Individual, etc.),

a ☐ Corporation, ☐ Partnership, ☐ Sole Proprietorship, or ☐ Other: _____
_____ (please specify)

formed under the laws of the State of _____, of which Affiant is

☐ Sole Owner, ☐ Partner, ☐ President, or ☐ Other: _____
(please specify)

4. Neither the undersigned nor any other person, firm or corporation, named in above paragraph 3 nor anyone else to the knowledge of the undersigned, have themselves solicited or employed anyone else to solicit favorable action for this proposal by the Owner; also that no head of any department or employee therein, or any officer of the Owner is directly or indirectly interested therein.

5. This proposal is genuine and not collusive or a sham; the person, firm or corporation named above in paragraph 3 has not colluded, conspired, connived or agreed directly or indirectly with any bidder or person, firm or corporation to put in a sham proposal, or that such other person, firm or corporation shall refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement or collusion, or communication or conference with any person, firm or corporation, to fix the unit prices of said proposal or proposals of any other bidder, or to secure any advantage against the Owner or any

person, firm or corporation interested in the proposed contract; all statements contained in the proposal or proposals described above are true.

6. Neither the undersigned, nor the person, firm or corporation named above in paragraph 3, has directly or indirectly submitted said proposal or the contents thereof, or divulged information or data relative thereto, to any association, or to any member or agent thereof.
7. Further that said bidder will not pay or agree to pay, directly or indirectly, any money or other valuable consideration to any corporation, partnership, company, association, organization or to any member or agent thereof, or to any other individual, for aid or assistance in securing contract above referred to in the event the same is awarded.

(Affiant)

Sworn to before me and subscribed in my presence this

____ day of _____

(Notarial Seal)

Notary Public

STATEMENT OF BIDDER'S QUALIFICATIONS

By completion of this statement, as a minimum, all bidders are required to submit evidence satisfactory to The City of Huntington, Indiana, for the use and benefit of its Department of Development and Redevelopment (Owner) that Bidder meets the following requirements:

- a) Minimum of ten (10) years experience in successful execution of work of similar magnitude with revenues greater than \$1 million per year;
- b) Successful completion of at least four (4) projects of similar nature and complexity.

The Owner reserves the right to reject any Bid, which in the Owner's opinion fails to meet the above requirements. All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. Questions are to be answered on separate sheets, attached to this form, and submitted with Bid. The Bidder may submit any additional information he desires.

- 1. Name of Bidder.
- 2. Permanent main office address.
- 3. When organized.
- 4. If a corporation, where incorporated.
- 5. How many years have you been engaged in the contracting business under your present firm or trade name?
- 6. Contracts on hand: (schedule these, showing amount of each contract and the appropriate anticipated dates of completion).
- 7. General character of work performed by your company.
- 8. Have you ever failed to complete any work awarded to you? If so, where and why?
- 9. Have you ever defaulted on a contract? If so, where and why?
- 10. List the more important projects recently completed by your company, stating the approximate cost for each, and the month and year completed.
- 11. List your major equipment available for this contract.
- 12. Experience in construction work similar in nature, complexity to this project. Provide at least four (4) projects with general discussion of size, complexity, schedule, budget, equipment, environmental remediation, and special issues.
- 13. Background and experience of the principal members of your organization, including the officers.
- 14. Give Bank reference.
- 15. Upon request, fill out a detailed financial statement and furnish any other information that may be required by the Owner.

Limited Asbestos Demolition
Former HK Porter Friction Materials Site, 1849 East Sabine Street, Huntington, Indiana

The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the Owner in verification of the recitals comprising this Statement of Bidder's Qualifications.

Dated at _____ this _____ day of _____,
_____.

Company

By: _____
(Name)

(Title)

_____ being duly sworn, deposes and
says that he is _____ of _____
_____ and that the answers to the foregoing questions and all statements therein contained
are true and correct.

(Affiant)

Sworn to before me and subscribed in my presence this _____ day of _____

(Notarial Seal)

Notary Public

**CERTIFICATE OF SUBSTANTIAL COMPLETION
LIMITED ASBESTOS DEMOLITION
FORMER HK PORTER FRICTION MATERIALS SITE
1849 EAST SABINE STREET
HUNTINGTON, INDIANA**

To: City of Huntington, Indiana, for the use and benefit of its Department of Development and Redevelopment_(Owner)

From: _____
(Contractor)

Project _____ **No.:** _____
Title: _____

Date _____ **of** _____ **Substantial** _____ **Completion:** _____

Reference:

Portions of Work Substantially Completed:

1. [DESCRIPTION OF WORK]

The work indicated above has been assessed by authorized representatives of the Owner's Consultant and the Contractor and is hereby declared to be substantially complete.

A tentative list of items to be completed or corrected is attached hereto. This Punchlist, as authored by the Owner's Consultant, may not be exhaustive; failure to include an item does not alter the Contractor's responsibility to complete all the Work in accordance with the Contract Documents. The acceptance of this Certificate of Substantial Completion does not relieve the Contractor from the repair of any hidden defects in the work which have not been included on the Punchlist, as such may not be obvious at this time. Should any defects not currently on the Punchlist arise, the Contractor shall immediately institute any actions required under the warranties, guarantees and provision of the Contract and have them corrected after that becomes known, but in no case shall such corrections require more than thirty (30) working days, unless otherwise agreed by the Owner or the Owner's Consultant.

Warranties and Guarantees required by the Contract Documents shall commence on the above substantial completion date and shall remain in effect through the Period of Beneficial Use and extend for a period of twelve (12) months following Final Acceptance unless others are provided herein or in the contract documents. The acceptance of payment connected with this certificate shall constitute a waiver of all claims except those

previously made in writing and identified herein by the Contractor as unsettled at this time. The issuance of this Certificate of Substantial Completion does not indicate final acceptance of the Project by the Owner and the Contractor is not relieved of any responsibility for the project except as specifically stated in this Certificate of Substantial Completion.

The Contractor accepts this Certificate of Substantial Completion, certifies that the work covered by the Certificate is substantially complete, and agrees to comply with all requirements of this Certificate of Substantial Completion.

_____ by: _____
CONTRACTOR Authorized Representative Date

The undersigned have determined that the work covered by the Certificate of Substantial Completion is substantially complete and hereby declare the same to the Owner subject to any and all provisions associated with Contract Close-Out proceedings.

_____ by: _____
OWNER'S CONSULTANT Authorized Representative Date

The Owner accepts this Certificate of Substantial Completion and agrees that the Work covered by the Certificate is substantially complete. As of the date of this Certificate, the responsibility for security, insurance, normal maintenance, and operation of the work covered by this Certificate shall be the Owner, except as otherwise provided in the contract documents or as set forth in the attached Punchlist.

_____ by: _____
OWNER Authorized Representative

Date _____

Attachment (Punchlist)

**CONTRACTOR'S CERTIFICATION OF COMPLETION
LIMITED ASBESTOS DEMOLITION
FORMER HK PORTER FRICTION MATERIALS SITE
1849 EAST SABINE STREET
HUNTINGTON, INDIANA**

To: _____ Date: _____

CONTRACTOR: _____

ATTN:
Owner's Consultant _____

From: _____
(Firm or Corporation)

This is to certify that _____ am an authorized
official of _____
(Print Name)

(Firm Name)

working in the capacity of _____ and have been
properly _____
(Title)

authorized by said firm or corporation to sign the following statements pertaining to the
subject contract:

I know of my own personal knowledge, and do hereby certify, that the work
of the contract described above has been performed, in accordance with,
and in conformity to, the Contract Documents.

The contract work is now complete in all parts and requirements, and ready
for your final inspection.

I understand that neither the determination by the Owner's Consultant that
the work is complete, nor the acceptance thereof by City of Huntington,
Indiana, for the use and benefit of its Department of Redevelopment
(Owner), shall operate as a bar to claim against the Contractor under the
terms of the guarantee provisions of the Contract Documents.

By _____
(Signature)

Title _____

For _____

**FORM OF FINAL LIEN WAIVER
UNCONDITIONAL WAIVER OF LIEN RIGHTS
LIMITED ASBESTOS DEMOLITION
FORMER HK PORTER FRICTION MATERIALS SITE
1849 EAST SABINE STREET
HUNTINGTON, INDIANA**

The undersigned, having contracted with City of Huntington, Indiana, for the use and benefit of its Department of Redevelopment (Owner) to provide_____

_____ (description of work)

of the property known as the Former HK Porter Friction Materials Site and located at 1849 East Sabine Street, in the City of Huntington, Huntington County, Indiana, hereby acknowledges having been fully paid all amounts due or to become due under said contract for the work described on the Completed Work, or otherwise, for all labor and materials furnished to said property in connection with the Completed Work and therefore hereby waive and release all my/our lien rights against such property and agree not to file any affidavit, notice or other instrument alleging or claiming any such rights with respect to the Completed Work. I have full authority to execute this waiver.

Dated _____, 20____

(Name and address of contractor)

By: _____
(Signature)

Name: _____

Title: _____

STATE OF INDIANA

SS:

COUNTY OF _____

The foregoing instrument was acknowledged before the undersigned, a notary public, this ____ day of _____, 20____, by _____, _____ of _____, on behalf of such _____.

Notary Public

**CERTIFICATION OF
E-VERIFY PROGRAM PARTICIPATION AND NO INVESTMENT IN IRAN
LIMITED ASBESTOS DEMOLITION
FORMER HK PORTER FRICTION MATERIALS SITE
1849 EAST SABINE STREET
HUNTINGTON, INDIANA**

E-Verify: _____ is enrolled in and verifies the work eligibility status of all newly hired employees through the E-Verify program. Pursuant to I.C. 22-5-1.7-11, _____ is not required to verify the work eligibility status of all newly hired employees through the E-Verify program if the E-Verify program no longer exists.

No Investment in Iran: As required by I.C. 5-22-16.5, _____ certifies that it has not and is not engaged in investment activities in Iran.

I affirm under the penalty of perjury that _____ neither knowingly employs unauthorized aliens nor is engaged in invest activities in Iran.

"CONTRACTOR"

By: _____ As its
() Duly Authorized

Representative

STATE OF INDIANA)
) SS:
COUNTY OF _____)

Before me, a Notary Public, in and for said County and State, personally appeared _____, as the Duly Authorized Representative of _____ (Contractor above), and acknowledged the execution of the foregoing instrument, this ____ day of _____, 20__.

Witness my hand and Notary Seal this ____ day of _____, 20__.

(Seal)

(Written Signature)

(Printed Signature), Notary Public

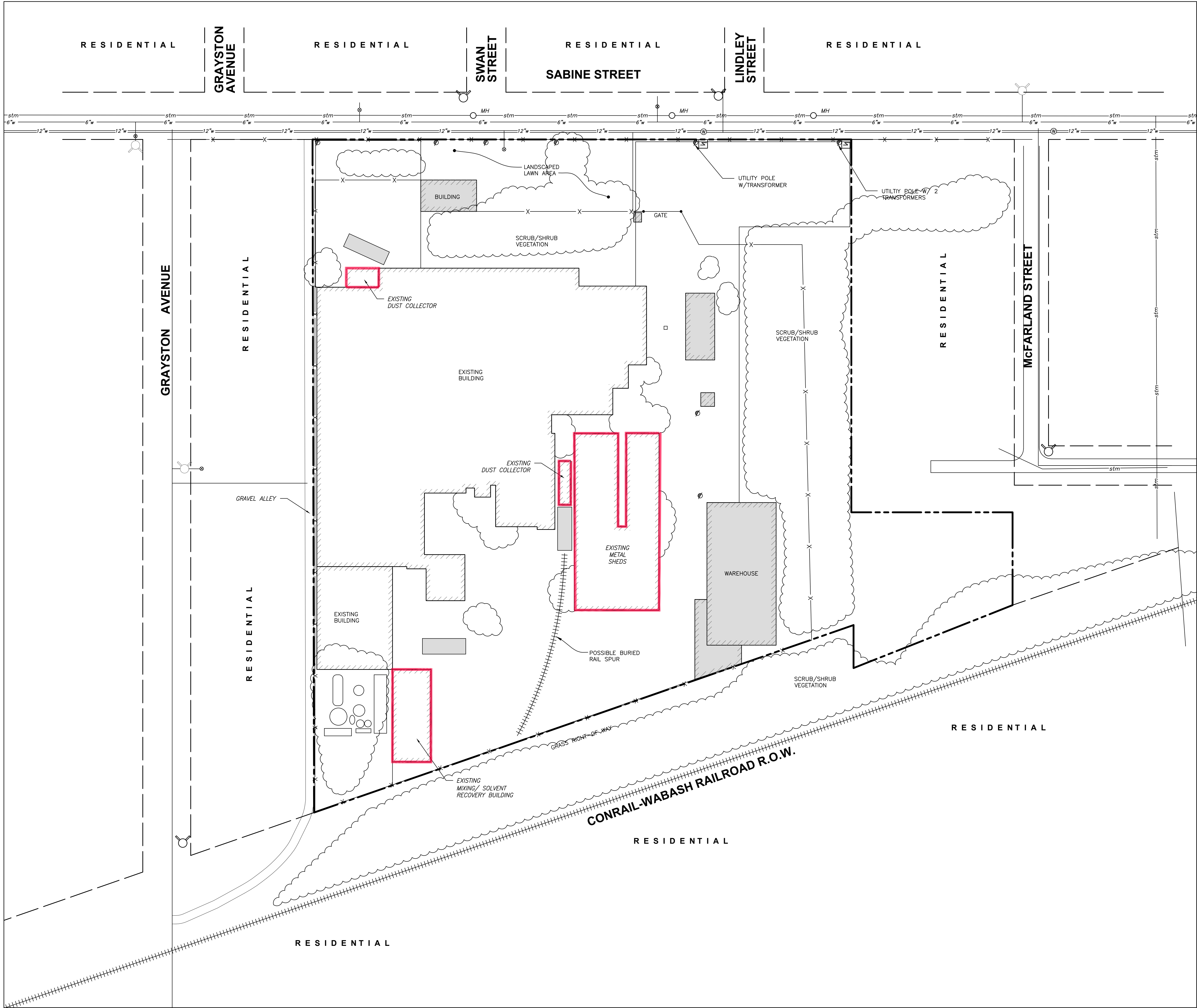
My Commission Expires: _____

My County of Residence is: _____



*Passionate People Building
and Revitalizing our World*







LEGEND

- SITE PROPERTY LINE TO BE DEMOLISHED
- EXISTING CURB
- FORMER STRUCTURE
- EXISTING ON SITE BUILDINGS INCLUDED IN BASE BID SCOPE OF WORK
- EXISTING BUILDING FEATURE
- EXISTING CONCRETE/CONCRETE WALK
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING CATCH BASIN
- EXISTING UNIDENTIFIED MH
- EXISTING WATER MAIN
- EXISTING HYDRANT (SEE NOTE 3)
- EXISTING WATER VALVE
- EXISTING WATER MANHOLE
- PAD MOUNTED ELECTRICAL TRANSFORMER
- UTILITY POLE
- HYDRANT (SEE NOTE 4)


- NOTES**
- EXISTING BASE DRAWING CREATED BY SME, DATED 8-20-14.
 - EXISTING BASE DRAWING INFORMATION TAKEN FROM CITY OF HUNTINGTON GEOGRAPHIC INFORMATION SYSTEM, CITY OF HUNTINGTON ASSESSOR, CITY OF HUNTINGTON CODE COMPLIANCE DEPARTMENT AND GOOGLE EARTH PRO.
 - EXISTING BASE DRAWING UTILITY INFORMATION PROVIDED FROM SANITARY SEWER, STORM SEWER, WATER AND ELECTRICAL DRAWINGS PROVIDED FROM THE CITY OF HUNTINGTON, MAP NO. N-9 AND 11, 966 ACRES, SURVEYED 9/30/86, SITE MAP PRINTED 10/2/95.
 - HYDRANT LOCATIONS BASED ON PROVIDED HYDRANT MAP.



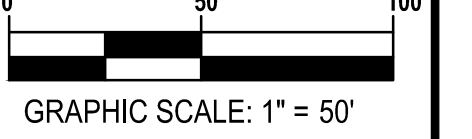
www.sme-usa.com



Orientation



Scale



GRAPHIC SCALE: 1" = 50'

Project

LIMITED ASBESTOS DEMOLITION

Project Location

FORMER HK PORTER FRICTION MATERIALS SITE
1849 SABINE STREET
HUNTINGTON, INDIANA

Sheet Name

SITE FEATURES DIAGRAM

Engineer's Seal

Revisions

| REV | ISSUED FOR | DATE | BY |
|-----|------------|------|----|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Date

9-20-2019

SME Project No.

082717.00

Project Manager:

JCL

Designer:

JCL

CADD:

SRP

Checked By:

Sheet No.

1 OF 1

WARNING!!

THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

DRAWING NOTE: SCALE DERIVED IS MEANT FOR 24" X 36" AND WILL SCALE INCORRECTLY IF PRINTED ON ANY OTHER SIZE MEDIA.
NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR CONSENT OF SME
© 2019

FILE LOCATION: \\sme-inc\p\wp\082717.00\CAD\DWG\Envire\082717.00-Env.Figure.dwg
Sep 20, 2019 - 4:15pm - paradise
PLOT DATE: