06/10/DB Tank & Soil ISID
Rev 03/17/2022

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET

This contract authorizes the professional services contractor to provide professional services.

(Authority: Public Act 431 of 1984, as amended)

CONTRACT FOR PROFESSIONAL SERVICES: Indefinite Scope – Indefinite Delivery
Design Build Tank and Soil Services

THIS CONTRACT, authorized this 10th day of June in the year two-thousand and twenty-two (2022), by the Director, Department of Technology, Management and Budget, BETWEEN the STATE OF MICHIGAN acting through the STATE FACILITIES ADMINISTRATION, DESIGN AND CONSTRUCTION DIVISION of the DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET, 3111 West St. Joseph Street, Lansing, Michigan, hereinafter called the Department, and

ATC Group Services LLC dba Atlas Technical
46555 Humboldt Drive, Suite 100
Novi, MI 48377

the Prime Professional Services Contractor, hereinafter called the Design Build Entity (DB Entity),

WHEREAS the Department proposes securing design build services for the following project:

Indefinite-Scope, Indefinite-Delivery Contract No. 00909
Department of Technology, Management and Budget
State Facilities Administration, Design and Construction Division
2022 Design Build Services for Tank and Soil Removal Indefinite-Scope, Indefinite Delivery Contract (ISID) for Western Upper Peninsula, Eastern Upper Peninsula, Gaylord, Cadillac, Bay City, Grand Rapids, Lansing, Kalamazoo, Jackson, and Warren Districts
Various State Departments and Facilities
Various Site Locations, Michigan

NOW THEREFORE, the State of Michigan and the DB ENTITY in consideration of the covenants of this Contract agree as follows:

The State of Michigan has accepted the DB Entity's offer to provide the goods or services in accordance with the Design Build Contract's terms and specifications.

IN WITNESS, WHEREOF, each of the parties has caused this Design Build ISID Contract for Minor Projects to be executed by its duly authorized representatives on the dates shown beside their respective signatures, with the Contract to be effective upon the date on which the DB ENTITY received a copy executed by the authorized State of Michigan representative(s) by regular, registered, or certified mail or by delivery in person.

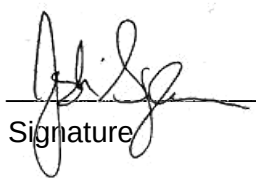
FOR THE PROFESSIONAL:

CV0053354

SIGMA Vendor Number

ATC Group Services LLC (dba Atlas Technical)

Firm Name



Signature

6/23/2022

Date

Operations Manger, MI

Title

FOR THE STATE OF MICHIGAN:

Director, DTMB, SFA, Design & Construction

June 28, 2022

Date

NOW THEREFORE, the Department and the DB ENTITY, in consideration of the covenants of this Contract, agree as follows:

WHEREAS this Contract constitutes the entire agreement between the parties, any Contract Modification of this Contract and the Department's approved and attached Project/Program Statement must be in writing, signed by duly authorized representatives of the parties, and shall be in such format and detail as the State may require. No Contract Modification may be entered into to compensate the DB ENTITY for correcting, or for responding to claims or litigation for, the DB ENTITY's Contract Documents, design errors, omissions, or neglect on the part of the DB ENTITY.

The definition of terms and conditions of this Contract are described and outlined in the following Articles and attached appendices.

This Contract provides two (2) distinct types of DB ENTITY services. These professional services may be coordinated and combined, or used singularly, depending upon the flexibility required by the Project.

The two (2) distinct types of DB ENTITY services for this Contract are defined as follows:

I. DESIGN SERVICES

Provide complete architectural and engineering design/build, specialized study services, or other professional services. The design work activities will be performed either by the DB ENTITY or through their Consultant(s).

The DB ENTITY's design work may be provided by either the DB ENTITY's office staff, or a third-party consultant procured by either the State of Michigan or the DB ENTITY. The Department may also elect to use a design/build approach combining the design and construction orders to provide an integrated, expedient, delivery approach.

Design and Construction Consultant (DB ENTITY) Services: The following Phase description(s) outline the DB ENTITY design services that may be included to accomplish the scope of work.

PHASE 100 - ENVIRONMENTAL INVESTIGATION/STUDY SERVICES

Provide complete and comprehensive Environmental Investigation/Study Deliverables to meet the requirements of the Project/Program Statement. Upon completion of all field investigation, assessment, research, review and/or oversight, prepare a complete report with an executive summary, and in such detail, as the Project Director may prescribe. The services under this phase may include but not be limited to coordination, environmental assessments, drilling, field sampling/oversight, data/document review/management, feasibility study, and reporting as described in the Project/Program Statement. Project reports must be in accordance with Department/Client/Agency requirements and as outlined in the Project/Program Statement but shall include, as a minimum and as appropriate, the following items: (1) Problem; (2) Conclusion; (3) Recommendations; and (4) Discussion, details, and documentation.

PHASE 300–SCHEMATIC DESIGN

Prepare Schematic Design Deliverables consistent with the Project/Program Statement. The deliverables shall consist of conceptual remediation system, drawings, outline specifications, a Schematic Construction Cost Estimate, other related documentation, and shall diagrammatically depict the areas, scales, and relationships of the functions.

The services under this phase may include but not be limited to coordination, construction codes and design reviews, civil/site staging investigation, schematic design and utilities review, drafting, and project cost/proposed construction schedule, as required by the Department/Client/Agency and as outlined in the Project/Program Statement. Acceptance of the Schematic Design by the Department/Client/Agency does not limit subsequent inclusion of minor, but essential, schematic or design details whose necessity and arrangement may best become apparent during subsequent Phases of the Project design. Revise design as necessary and obtain approval from the Department/Client/Agency.

PHASE 400–DESIGN DEVELOPMENT

Prepare Design Development Deliverables based on the Owner-accepted Schematic Design to depict the intent of the designed remediation system(s). The deliverables shall consist of draft drawings and specifications, Construction Cost Estimates, and other related documentation to clearly establish the complete basis for further detail into final design drawings/specifications. The deliverables shall further define the Project by fixing and describing the Project size, character, site relationships, and other appropriate elements including the environmental, civil, structural, architectural, mechanical, electrical, and safety systems. The services under this phase may include but not be limited to coordination, draft drawings/specifications, site specific staging investigation, structural calculations, and preliminary environmental/architectural/engineering design development/reviews of drawings/specifications, as required by the Department/Client/Agency and as outlined in the Project/Program Statement.

PHASE 500–CONSTRUCTION DOCUMENTS AND BIDDING DOCUMENTS

Prepare Construction Documents that revise, refine, amplify, and depict, in detail, the Project. The documents shall set forth, in detail, quality levels of and requirements for the construction, and shall consist of final drawings/specifications that comply with applicable regulatory and construction code requirements, enacted at the time of completion of the one hundred percent (100%) Construction Documents. Prepare Bidding Documents in Phases/Bid packages appropriate to the Project requirements and funding. Incorporate the current edition of DTMB “DCSPEC” or “50KSPEC”, as adopted and modified by the State of Michigan. The Construction Documents shall contain all information necessary to bid and construct the Project. The services under this phase may include but not be limited to coordination, final drawings/specifications and bidding documents, civil/site staging design, final structural calculations, final environmental/architectural/engineering design development/reviews of drawings/specifications, construction testing program, hazardous materials, health and safety risks, final design correction procedures, design and construction budget, construction codes/permits and construction schedule, as required by the Department/Client/Agency and as outlined in the Project/Program Statement.

PHASE 600 - CONSTRUCTION ADMINISTRATION - OFFICE SERVICES

Provide all required construction oversight administration and timely professional review and administrative services, as the circumstances of the Construction may require, allowing the successful review/implementation of the Construction Documents into a completed remedial actions/abatement measures and/or for the use intended by the Department/Client/Agency.

The services under this phase may include but not be limited to coordination, review and approval of shop drawings and submittals, reporting of construction progress, construction quality testing, construction contractor performance review, punch list procedures, claims, establishing close-out procedures and developing/review of as-built documents, as required by the Department/Client/Agency requirements, and as outlined in the Project/Program Statement.

PHASE 700 - CONSTRUCTION ADMINISTRATION - FIELD SERVICES

Provide all required Construction Oversight and Field Services, including timely inspection and professional services, as the circumstances of the Construction may require, allowing the successful review/implementation of the Construction Documents into a completed remedial action/abatement measure and/or for the use intended by the Department/Client/Agency. The services under this phase may include but not be limited to coordination, field inspections, progress meetings and final project inspection, as required by the Department/Client/Agency requirements and as outlined in the Project/Program Statement.

PHASE 900 – OPERATION AND MAINTENANCE SERVICES – REMEDIATION FACILITY

Provide all required Operation and Maintenance (O&M) Services and perform, in a safe and secure environment, all functions, including timely inspection, sampling and professional services, necessary to maintain uninterrupted, effective, and efficient facility/system components for the use intended by the Department/Client/Agency. The services under this phase may include but not be limited to coordination, general system operation/inspections, routine system/building/ground maintenance, sampling, spare replacement parts, consumable supplies, utilities, waste materials removal/treatment/disposal, non-routine emergency services, progress meetings and reporting, as required by the Department/Client/Agency requirements and as outlined in the Project/Program Statement.

II. CONSTRUCTION SERVICES

SECTION I - INSTRUCTIONS TO DB ENTITY

1. **MICHIGAN PREFERENCE CERTIFICATION:** All DB Entities and their professional partners submitting proposals shall complete the Certification of Michigan Based Business. This information will determine if a DB Entity qualifies as a "Michigan" business for purposes of application of reciprocity where applicable.

2. **SIGNATURES:** All contracts and any subsequent Assignments Bids, notifications, claims, and statements shall be signed as follows:

(a) **Corporations:** Signature of official shall be accompanied by a certified copy of the Resolution of the Board of Directors authorizing the individual signing to bind the corporation.

(b) **Partnerships:** Signature of one partner shall be accompanied by a signed copy of the legal document (e.g., Power of Attorney or partnering agreement) authorizing the individual signing to bind all partners. If Bid is signed by all partners, no authorization is required.

(c) **Individual:** No authorization is needed. Each signature shall be witnessed

3. **BID PRICES:** The DB Entity's Not-To-Exceed Bid and Alternate Bid prices shall include, and payment for completed Work will compensate in full for: all professional design, services, obligations, responsibilities, management, supervision, labor, materials, devices, equipment, construction equipment, general conditions, permits, patent fees and royalties, testing, inspection and approval responsibilities, warranties, temporary facilities, small tools, supplies, Bonds, insurance, taxes, mobilization, close-out, overhead and profit and all connections, appurtenances and any other incidental items of any kind or nature, as are necessary to complete the Work, in a neat, first quality, workmanlike and satisfactory manner as required to fulfill the Owner's Project requirements as described on the attached Project Description and as approved through the project design process by the Owner.

    - For each Cash Allowance item, the DB Entity shall include, within the Bid, all labor costs, construction equipment costs, insurance and Bond premiums and other general conditions costs and Fees (for both the DB Entity's and any Subcontractors) to complete Work associated with the material, equipment, or other designated item to be furnished under the Cash Allowance.

    - For each Provisionary Allowance, the DB Entity shall include, within the Bid, insurance, premiums (not recoverable as labor burden) and Bond premiums required to complete Work that may be ordered under a Provisionary Allowance.

4. **INSPECTION OF REQUEST FOR PROPOSAL AND SITE CONDITIONS:** The DB Entity shall carefully review and inspect all documents referenced and made part of this ITB, site conditions, all applicable statutes, regulations, ordinances, and resolutions addressing or relating to the goods and services under this contract. Failure to do so or failure to acquire clarifications and answers to any discovered conflicts, ambiguities, errors, or omissions in the Request for Proposal will be at the DB Entity's sole risk.

5. **CERTIFICATION:** The DB Entity certifies to the best of its knowledge and belief that, within the past three (3) years, the DB Entity, an officer of the DB Entity, or an owner of a 25% or greater interest in the DB Entity:

(a) Has not been convicted of a criminal offense incident to the application for or performance of a contract or subcontract with the State of Michigan or any of its agencies, authorities, boards, commissions, or departments.

(b) Has not had a felony conviction in any state (including the State of Michigan).

(c) Has not been convicted of a criminal offense which negatively reflects on the DB Entity's business integrity, including but not limited to, embezzlement, theft, forgery, bribery, falsification, or destruction of records, receiving stolen property, negligent misrepresentation, price-fixing, bid-rigging, or a violation of state or federal anti-trust statutes.

(d) Has not had a loss or suspension of a license or the right to do business or practice a profession, the loss or suspension of which indicates dishonesty, a lack of integrity, or a failure or refusal to perform in accordance with the ethical standards of the business or profession in question.

(e) Has not been terminated for cause by the Owner.

(f) Has not failed to pay any federal, state, or local taxes.

(g) Has not failed to comply with all requirements for foreign corporations.

(h) Has not been debarred from participation in the bid process pursuant to Section 264 of 1984 PA 431, as amended, MCL 18.1264, or debarred or suspended from consideration for award of contracts by any other State or any federal Agency.

(i) Has not been convicted of a criminal offense or other violation of other state or federal law, as determined by a court of competent jurisdiction or an administrative proceeding, that in the opinion of DTMB indicates that the DB Entity is unable to perform responsibly or which reflects a lack of integrity that could negatively impact or reflect upon the State of Michigan, including but not limited to, any of the following offenses under or violations of:

(i) The Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.101 to 324.90106.

(ii) A persistent and knowing violation of the Michigan Consumer Protection Act, 1976 PA 331, MCL 445.901 to 445.922.

(iii) 1965 PA 166, MCL 408.551 to 408.558 (law relating to prevailing wages on state projects) and a finding that the DB Entity failed to pay the wages and/or fringe benefits due within the time period required.

(iv) Repeated or flagrant violations of 1978 PA 390 MCL 408.471 to 408.490 (law relating to payment of wages and fringe benefits).

(v) A willful or persistent violation of the Michigan Occupational Health and Safety Act, 1974, PA 154, MCL 408.10001 to 408.1094, including: a criminal conviction, repeated willful violations that are final orders, repeated violations that are final orders, and failure to abate notices that are final orders.

(vi) A violation of federal or state civil rights, equal rights, or non-discrimination laws, rules, or regulations.

(vii) Been found in contempt of court by a Federal Court of Appeals for failure to correct an unfair labor practice as prohibited by Section 8 of Chapter 372 of the National Labor Relations Act, 29 U. s. C. 158 (1980 PA 278, as amended, MCL 423.321 et seq).

(j) Is NOT an Iran linked business as defined in MCL 129.312.

A false statement, misrepresentation, or concealment of material facts on this certification may be grounds for rejection of this proposal or termination of the award and may be grounds for debarment.

6. **CONTRACT TIME; LIQUIDATED DAMAGES:** The Project described shall be completed as specified in each Assignment.

7. **MOBILIZATION:** The costs to establish temporary site offices, to obtain required permits for commencing the Work and for bonds and insurance premiums are examples of costs to the DB Entity that are covered by the mobilization pay item. This cost shall not exceed four percent (4%) of the Not-To-Exceed Bid, unless otherwise expressly provided in the Bidding Documents.

8. **SAFETY REQUIREMENTS AND LAWS:** The DB Entity awarded the Contract shall comply with all applicable federal, state, and local Laws including health and safety regulations, environmental protection, permits and licensing.

9. **MICHIGAN PRODUCTS AND RECYCLED PRODUCTS:** All DB Entities, Subcontractors, DB Entity Architect-Engineers, and Suppliers are encouraged to specify and/or provide Michigan-made products, whenever possible where price, quality, and performance are equal or superior to non-Michigan products. All DB Entities, Subcontractors, DB Entity Architect-Engineers, and Suppliers are encouraged to specify and/or provide recycled products, green products, and/or environmentally friendly products whenever possible where price, quality, and performance meet the Project requirements. A list of Michigan-made products is available at: www.michigan.gov/dcd. The DB Entity will be required to use alternatives to landfills for waste disposal such as reuse or recycle of asphalt, bricks, concrete, masonry, plastics, paint, glass, carpet, metals, wood, drywall, insulation, and any other waste materials to the extent practical.

10. **SOIL EROSION AND SEDIMENTATION CONTROL:** All Work under this Contract shall meet the storm water management requirements of the Project and comply with the applicable Soil Erosion and Sedimentation Control (SESC) rules and regulations and specific provisions for same. SESC measures will be monitored and enforced by DTMB-SFA, or another authorized enforcing agency if so delegated, through the review of the DB Entity's implementation plans and site inspections.

    SFA or the other authorized enforcing agency will notify the DB Entity in writing of any violation(s) of the applicable SESC statutes and/or the corrective action(s) undertaken by the Owner and may issue stop work orders. DTMB-SFA has the right to assess a fine to the DB Entity for noncompliance with the SESC regulations applicable to this Work and fines shall be in addition to any other remediation costs or liquidated damages applicable to the Project and may exceed the value of the Contract.

END OF SECTION I

SECTION II – INFORMATION FOR DB ENTITY

1. **PERMITS, APPROVALS, LICENSES AND FEES**

1.1 If the Owner has secured or will secure any permits, approvals and licenses and has paid or will pay any associated charges and fees, any such permits, approvals and licenses are itemized in the individual assignment.

1.2 If any permits, approvals, and licenses itemized above have been obtained by the Owner and the fees have been paid, copies of those permits, approvals, licenses, and corresponding fee receipts, will be attached to the individual assignment

1.3 Except for any permits, approvals, licenses, and fees identified above, the DB Entity shall be responsible for all permits, approvals, licenses, and fees applicable to Work.

2. **TAXES:** The DB Entity must pay all Michigan sales and use taxes and any other similar taxes covering the Work that are currently imposed by legislative enactment and as administered by the Michigan Department of Treasury, Revenue Division. If the DB Entity is not required to pay or bear the burden or obtains a refund of any taxes deemed to have been included in the Bid and Contract Price, the Contract Price must be reduced by a like amount and that amount, whether as a refund or otherwise, must ensure solely to the benefit of the State of Michigan.

3. **SEQUENCING REQUIREMENTS:** Refer to each individual Assignment for information, data, and criteria on sequences of Work restraints, construction, and maintenance of service to existing facilities, which, if provided, shall govern the selection of Work sequences. Each DB Entity shall be responsible for any conclusions or interpretations the DB Entity makes related to the selection of sequences and Means and Methods, based on the technical data made available, and/or those additional investigations or studies made or obtained by that DB Entity.

4. **SUBSURFACE CONDITIONS, UNDERGROUND UTILITIES, AND EXISTING PHYSICAL CONDITIONS:** Information or data about subsurface conditions, Underground Utilities, buildings, systems, facilities, and other Project information shall be noted in each Assignment and will be available to the DB Entities. The Owner does not warrant that this list identifies all existing relevant documents. The Owner does not warrant the accuracy or thoroughness of this information or data. The DB Entity is responsible for field verification and investigation.

END OF SECTION II

SECTION III – GENERAL PROVISIONS

1. **INTERPRETATIONS:** Any requests for clarifications or interpretations of this contract or any subsequent Assignments shall be in writing to the Project Director, who will issue written clarifications or interpretations as appropriate. As the Project is designed and constructed, if the DB Entity believes that such clarification or interpretation justifies an adjustment to the Not-To-Exceed Contract Price/Time, the DB Entity shall promptly notify the Project Director in writing before proceeding with the Work Involved. If the DB Entity fails to notify the Project Director before proceeding with the Work Involved, any adjustment to the Contract Price is waived.

2. **STANDARDS:** The Specifications to be prepared by the DB Entity will describe the entire Work.

   The provisions of the Contract Documents shall govern over any standard specifications, manual, or code of any technical society, organization, or association but, if lower than the standards set by any Law applicable to the Work or the Project, the higher standards shall govern. The DB Entity's responsibilities extend to cover subcontractors and suppliers if liable because of their actions or obligations.

3. **CONTRACT TIME COMPUTATION:** The time to complete the Work shall be made in Calendar Days and shall include both the first and last day. The first day is established by the Notice-to-Proceed.

4. **TECHNICAL SPECIFICATIONS AND PRIORITY:** The following applies whenever priority is called for in Contract Documents: specifications shall govern Drawings; figured dimensions shall govern scaled dimensions; detail drawings shall govern general drawings; Drawings shall govern Submittals.

5. **INDEMNIFICATION:** To the extent permitted by law, the DB Entity is required to defend, indemnify and hold harmless the Owner, its employees, agents, servants, and representatives from and against all claims, suits, demands, actions of whatever type and nature and all judgments, costs, losses and damages, whether direct, indirect or consequential including, but not limited to, attorneys and others and all court, hearing and any other dispute resolution costs arising from:
   (a) any patent or copyright infringement by the DB Entity;

   (b) any damage to the premises or adjacent lands, areas, properties, facilities, rights-of-way, and easements, including loss of use to the business and property of others because of DB Entity 's operations;

   (c) any bodily injury, sickness, disease or death, or injury to or destruction of property, including loss of use due to or related to the Work and caused in whole or in part by the DB Entity's or Subcontractor's or Supplier's negligence, omissions, or failure to maintain the required insurance and coverage and;

   (d) a failure by the DB Entity to appropriately handle Hazardous Materials for the Work or the DB Entity's operations in compliance with the Owner requirements and/or applicable Laws and regulations.

   The indemnification obligations are not affected by the limitation on the amount and types of damages, compensation or benefits payable by or for the DB Entity or Subcontractor or Supplier under worker's or workman's compensation acts, disability benefit acts or other employee benefit acts.

6. **CONTRACT DOCUMENTS OWNERSHIP:** The State is the owner of the Contract Documents. The DB Entity, Subcontractor or Supplier shall not reuse any of the documents on any other Project without prior written consent of the State

END OF SECTION III

SECTION IV – RIGHTS AND RESPONSIBILITIES

1. OWNER'S RIGHTS AND RESPONSIBILITIES

1.1 **Representation and Authority:** The Project Director and/or Owner Field Representative will represent the Owner. Only the Project Director has the authority to interpret the requirements of the Request for Proposal or to authorize any changes in the Work. Adjustments in the Not-To-Exceed Contract Price or Contract Time shall be authorized by the Project Director and the Contract amended by Contract Change Order. The State will provide the necessary easements for permanent structure and permanent changes in existing lands, areas, properties, and facilities.

1.2 **Salvage:** The Owner reserves the right to salvage certain items and equipment and those salvaged items will be identified to the DB Entity at the time of their inspection of the proposed Work. The Owner will remove salvaged items before commencement of the Work.

1.3 **Removal and Protection:** The DB Entity must give timely notice to the State Agency representative identified in the pre-construction meeting of all furnishings, window covering and movable equipment that will interfere with the Work or which the DB Entity cannot protect with coverings of paper, plastic, drop cloths or clean tarpaulin. The DB Entity must furnish, install, maintain, and remove all coverings used to protect furnishings, window coverings and movable equipment.

2. DB ENTITY'S RIGHTS AND RESPONSIBILITIES

2.1 **General:** The DB Entity shall administer the entire project by directing, coordinating, scheduling, and expediting all Subcontractor work with a minimum disturbance to or interference to the business operations on site or adjacent properties.

2.2 **Coordination:** The DB Entity shall develop and provide a project schedule and other appropriate procedures and methods to ensure that the Subcontractors function harmoniously in accordance with the plans and specifications and meet the Owner's objectives of cost, time, and quality. Any building utility service interruptions or outages including security required by the DB Entity in performing the Work must be prearranged with the staff of the State Agency and must occur only during those scheduled times.

2.3 **Communication:** The DB Entity shall conduct design and coordination meetings and shall maintain project lines of authority and communication.

2.4 **Schedules:** The DB Entity shall develop, maintain, and enforce the project schedule and the orderly performance of the Work within the Contract Time; report changed conditions to the Project Director; verify that each Subcontractor labor force, product deliveries, and construction equipment are available and adequate for maintaining the project schedule; and report conditions which will adversely affect the schedule to the Project Director with recommendations for corrective action. Once the Project is started, it must be carried to completion without delay.

2.5 **Submittals:** The DB Entity shall coordinate processing of shop drawings, product data, samples, project record documents, and other specified submittals.

2.6 **Use of Site:** The DB Entity shall allocate use and location of temporary offices and storage areas; verify that adequate temporary utilities are provided and maintained; and administer traffic and parking controls. The DB Entity shall obtain, at no increase in Contract Price/Time, permits for any other lands, areas, properties, facilities, rights-of-way, and easements required by the DB Entity for temporary facilities, storage, disposal of soil or waste material, or any other purpose. The DB Entity shall submit copies of the permits and written agreements to the Project Director. The DB Entity shall engage a registered land surveyor to establish the necessary reference points and/or base lines for construction and shall be responsible for protecting them, including benchmarks and Project elevations

2.7 **Verification of Dimensions and Existing Conditions:** All dimensions and existing conditions shall be verified by the DB Entity by actual measurement and observation. Failure to verify shall constitute the DB Entity's acceptance of existing conditions as fit for the proper execution of its work.

2.8 **Laying out the Work:** The DB Entity shall be responsible for properly and accurately laying out the Work and for all lines, levels, elevations, and measurements for all the Work under this Contract.

2.9 **Supervision of the Work:** The DB Entity shall supervise the Work. The DB Entity shall be responsible for site safety and for all construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under this Contract.

2.10 **Superintendent:** The DB Entity shall employ a competent superintendent, who shall be in attendance at the site throughout the active performance of the Work, and at such other times as may be reasonably necessary, and who shall be authorized to commit the DB Entity regarding to workforce schedule, coordination, and cooperation. The Superintendent shall be a direct employee of the DB Entity.

(a) The Superintendent shall have not less than two years documented experience in responsible field supervision for projects of comparable size and complexity
(b) The DB Entity may request a change of the superintendent by written request to the Project Director at least fifteen calendar days in advance of its proposed change. In case of emergency, notify the Project Director as soon as possible, and obtain the Project Director's approval of the substitute within 15 calendar days.
The request for change of superintendent shall include the reasons for the change and a detailed resume of the proposed replacement. No replacement shall be made unless and until the Project Director has given written authorization to do so
(c) In the event the superintendent fails to perform his duties under the contract requirements, the Project Director may, in writing, require the DB Entity to remove the superintendent from the project. The DB Entity shall provide a competent replacement to be approved by Owner.

2.11 **Adequate Staff:** The DB Entity shall furnish a competent and adequate staff as necessary for the proper administration, coordination and supervision of the Work; organize the procurement of all materials and equipment so that they will be available at the time they are needed for the Work; and keep an adequate force of skilled workers on the job to complete the Work in accordance with all requirements of this Contract.

2.12 **Inspections:** The DB Entity shall schedule, give notice, and participate in the various permit inspections, the inspection for Substantial Completion, and final acceptance of the Work

2.13 **Subcontractors and Suppliers:** The physical work activities may be performed by a combination of self-performance, tradesmen, or Subcontractors, with approval of the Department. If Subcontractors are used, they shall be selected through a public advertisement or other competitive selection process, preapproved by the Department. The final selection process shall be performed by the DB Entity. In an emergency, this work may be performed on a time-and-materials basis, with the written approval of the Department. The Owner assumes no contractual obligations to anyone other than the DB Entity. All trade construction Drawings shall be field coordinated before fabrication and/or installation. The Owner reserves the right to reject or revoke, for its convenience, any approved Subcontractor or Supplier.

Work performed by any Subcontractor or Supplier shall be through an appropriate written agreement that:

(a) expressly binds the Subcontractor or Supplier to the requirements of the Contract Documents, and
(b) contains the waiver of rights provisions set forth in this Section 6, paragraph 4.5.

2.14 **Lines and Grades:** The DB Entity is required to furnish certifications that the lines and grades for all concrete work were checked before and after placing concrete, and that final grades are as required by the Contract Documents.

2.15 **Cutting and Patching, Restoration:** Wherever required, the DB Entity shall be responsible for all cutting, fitting, drilling, fixing-up, and patching of concrete, masonry, gypsum board, piping and other materials that may be necessary to make in-place Work and dependent Work fit together properly.

The DB Entity shall restore to pre-existing conditions all walks, roadways, paved or landscaped areas and other real and personal property not designated for alteration. Holes or openings cut in exterior walls and roofs for installation of materials or equipment must be waterproofed by appropriate, approved materials and methods.

All adjacent finished surfaces that are damaged by the new Work must be patched with materials matching existing surfaces. Joints between patched and existing material must be straight, smooth, and flush. Workers skilled in its installation must apply all patching material.

2.16 **Record Documents:** The DB Entity shall maintain at the site one copy of all as built/Record Documents in good order and annotated in a neat and legible manner to show:

(a) all revisions made;
(b) dimensions noted during the furnishing and performance of the Work; and
(c) all deviations between the as-built installation and the Contract Documents, all approved Submittals, and all clarifications and interpretations;
(d) all lines, grades, boundaries, and other survey information.

2.17 **Field Records:** The DB Entity shall maintain and furnish promptly to the Project Director, upon their request, daily field reports recording the on-site labor force and

equipment (DB Entity's and Subcontractors); materials/equipment received; visits by Suppliers; significant in-progress and completed trade Work, and other pertinent information.

2.18 **Emergencies:** The DB Entity is obligated to act to prevent threatened damage, death, injury, or loss without any special instruction in emergencies and shall give the Owner prompt written notice of any changes in Work resulting from the action taken for review and approval.

2.19 **Prevailing Wage and Access to Payroll Records:** The DB Entity and its Subcontractors shall comply with the Prevailing Wage Rates for the Project's county and shall maintain and keep, in accordance with generally accepted accounting principles, records pertaining to the bidding, award and performance of the Work, including, but not limited to certified payroll, employment records and all data used in estimating the DB Entity's prices for the Bid, Change Order, proposal or claim. The Owner or its representative shall have access to those records, shall have the right to interview the DB Entity's employees and shall be provided with appropriate facilities for the purpose of inspection, audit/review and copying for five years after final payment, termination, or date of final resolution of any dispute, litigation, audit exception or appeal. The payroll and other employment records of workers assigned to the site shall contain the name and address of each worker, correct wage classification, rate of pay, daily and weekly number of hours worked, deduction made, and actual wages paid.

2.20 The DB Entity shall maintain records that show:
(a) the anticipated costs or actual costs incurred in providing such benefits;
(b) that commitment to provide such benefits is enforceable, and;
(c) that the plan or program is financially responsible and has been communicated in writing to the workers affected.

2.21 **Nondiscrimination:** The DB Entity and each Subcontractor and Supplier covenants to comply with the following requirements:
(a) Not to discriminate against any employee or employment applicant because of race, religion, color, national origin, age, sex, height, weight, marital status, or a physical or mental disability that is unrelated to the individual's ability to perform the duties of the particular job or position.
(b) To take action to ensure that applicants are employed and that employees are treated during employment without regard to their race, religion, color, national origin, age, sex, height, weight, marital status, or a physical or mental disability that is unrelated to the individual's ability to perform the duties of the job or position. Such action shall include, but is not limited to employment upgrading, demotion, or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship;
(c) To state, in all solicitations or advertisements for employees, that all qualified applicants will receive consideration for employment without regard to race, religion, color, national origin, age, sex, height, weight, marital status, or a physical or mental disability that is unrelated to the individual's ability to perform the duties of the particular job or position;
(d) To send, or have its collective bargaining representative send, each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice advising that labor union or worker's representative of commitments under this provision;

(e) To comply with the Elliot-Larsen Civil Rights Act, 1976 PA 453, as amended, MCL 37.2201 et seq.; the Michigan Persons with Disabilities Civil Rights Act, 1976 PA 220, as amended, MCL 37.1101 et seq.; and all published rules, regulations, directives, and orders of the Michigan Civil Rights Commission which may be in effect on or before the date of Bid opening.

(f) A breach of the covenants set forth in paragraphs 2.21 (a) through 2.21 (e) shall be regarded as a material breach of the Contract

2.22 **Nondiscrimination Compliance:** The DB Entity shall furnish and file compliance reports within the times, and using the forms, prescribed by the Michigan Civil Rights Commission. Compliance report forms may also elicit information as to the practices, policies, programs, and employment statistics of the DB Entity and Subcontractors. The DB Entity shall permit access to Records by the Michigan Civil Rights Commission and its agent for the purposes of ascertaining compliance with the Contract Documents and with rules, regulations, and orders of the Michigan Civil Rights Commission. If, after a hearing held pursuant to its rules, the Michigan Civil Rights Commission finds that the DB Entity has not complied with the nondiscrimination requirements of the Contract Documents, the Michigan Civil Rights Commission may, as part of its order, certify said findings to the Board. Upon receipt of certification, the Board may order the cancellation of the Contract and/or declare the DB Entity ineligible for future contracts with the State, until the DB Entity complies with said order of the Michigan Civil Rights Commission.

2.23 **Michigan Residency for Employees:** Fifty percent (50%) of the persons employed on the Work by the DB Entity shall have been residents of the State of Michigan for not less than one year before beginning employment on the Work. This residency requirement may be reduced or omitted in writing, at the sole discretion of the Owner, to the extent that Michigan residents are not available or to the extent necessary to comply with federal Law concerning federal funds used for the Project. A breach of this requirement shall be considered a material breach of the Contract. This residency requirement shall not apply to the DB Entity or to any Subcontractor if the DB Entity or any such Subcontractor is signatory to collective bargaining agreements which allow for the portability of employees on an interstate basis (The Management and Budget Act, 1984 PA 431, as amended, MCL 18.1241a).

2.24 **Responsibilities for Underground Utilities:** The DB Entity must comply with the 1974 PA 53, as amended, MCL 460.701 et seq., and all other Laws concerning Underground Utilities. Before performing site Work, all Underground Utilities, lines, and cables (public and private) must be located and marked. The DB Entity must notify MISS DIG to locate and mark utilities on properties that are not State properties. In addition, the DB Entity must be responsible for immediately notifying the Owner of any contact with or damage to Underground Utilities, and for the safety, protection of and repairing any damage done to any Work, surface, and subsurface facilities.

2.25 **Hazardous Material Conditions:** If the DB Entity encounters material reasonably believed to be Hazardous Material, which could not have reasonably been expected, and was not generated or brought to the site by the DB Entity, the DB Entity shall immediately stop all affected work, give written notice to the Owner of the conditions encountered, and take appropriate health and safety precautions in accordance with all federal, State, and local laws.

Upon receipt of the notice, the Owner will investigate the conditions and may stop the Work and terminate the affected Work or the Contract for convenience; may contract others to have the Hazardous Material removed or rendered harmless or issue a written Contract Change Order to amend the Contract Price/Time. If Hazardous Material is brought to site by the DB Entity or as a result in whole or in part from any of its violation of any Law covering the use, handling, storage, disposal of, processing, transport and transfer or from any other act or omission within its control, the DB Entity is responsible for the Delay and costs to clean up the site, and must remove and render harmless the Hazardous Material to the satisfaction of the Owner, State and all Political Subdivisions with jurisdiction.

2.26 **Incidents with Archaeological Features:** The DB Entity must immediately notify the Owner in writing of any Archeological Feature deposits encountered at the site and must protect the deposits in a satisfactory manner. If the DB Entity encounters such features which result in an anticipated change to the Contract Price/Time, the Owner may issue a written Contract Change Order.

2.27 **Safety and Protection:** The DB Entity and its Subcontractors/Suppliers must comply with all applicable Federal, State, and local Laws governing the safety and protection of persons or property, including, but not limited to the Michigan Occupational Safety and Health Act (MIOSHA), 1974 PA 154, as amended, MCL 408.1001 et seg., and all rules promulgated under the Act. The DB Entity is responsible for all damages, injury or loss to the Work, materials, equipment, fines, penalties because of any violation of such Laws, except when it's due to the fault of the Drawings or Specifications or to the Act, error, or omission of the Owner or Professional. The DB Entity is solely responsible for initiating, maintaining, and supervising all safety precautions and programs and such responsibility must continue until such time as the Owner is satisfied that the Work, or Work inspected, is completed and ready for final payment.

In doing the Work and/or in the event of using explosives, the DB Entity must take all necessary precautions for the safety of, and must erect and maintain all necessary safeguards and provide the necessary protection to prevent damage, injury, or loss to:

(a) all employees on the Work and other persons who may be affected by the Work;
(b) all the Work and materials and equipment to be incorporated into the Work, whether stored on or off the site;
(c) other property at or adjacent to the site, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Utilities not designated for removal, relocation, or replacement.

In the event of severe weather, the DB Entity must inspect the Work and the site and take all reasonably necessary actions and precautions to protect the Work and ensure that public access and safety are maintained.

2.28 **Fire Hazard Conditions:**

(a) The fire hazard classification of finish materials must be in accordance with the current Michigan Building Code.
(b) Classification must be determined by tunnel test in accordance with National Fire Protection Association (NFPA-255), American Society for Testing Materials (ASTM E-84) or Underwriters' Laboratories, Inc. (UL-723).

2.29 **Michigan Right-To-Know Law:** The DB Entity and its Subcontractors/Suppliers must comply with MIOSHA, Michigan Right-to-Know Law (Public Act 80 of 1986) and the rules promulgated under it. The Act places certain requirements on employers to develop a communication program designed to safeguard the handling of hazardous chemicals through labeling of chemical containers and development and availability of Material Safety Data Sheets (MSDS), and to provide training for employees who work with these chemicals and develop a written hazard communications program. The Act also provides for specific employee rights, including the right to be notified of the location of MSDS and to be notified at the site of new or revised MSDS within five Business Days after receipt and to request MSDS copies from their employers. The DB Entity, employer or Subcontractor must post and update these notices at the site.

2.30 **Environmental Requirements:** The DB Entity and its Subcontractors/Suppliers must comply with all applicable Federal, State and local environmental Laws, standards, orders or requirements including but not limited to the National Environmental Policy Act of 1969, as amended, Michigan Natural Resources and Environmental Protection Act, P.A. 451 of 1994, as amended, the Clean Air Act, as amended, the Clean Water Act, as amended, the Safe Drinking Water Act, as amended, Pollution Prevention Act, as amended, Resource Conservation and Recovery Act, as amended, National Historic Preservation Act, as amended and Energy Policy and Conservation Act and Energy Standards for Buildings Except Low-Rise Residential Buildings, ANSI/ASHRAE/IESNA Standard 90.1-1999.

2.31 **Miscellaneous:** Other rights and responsibilities of the DB Entity are set forth throughout these contract documents and are included under other titles, articles, sections, and headings for convenience. It is the responsibility of the DB Entity to familiarize itself with all provisions of these contract documents to understand fully the entirety of its rights and responsibilities hereunder.

3. DB ENTITY'S ARCHITECT-ENGINEER'S (A/E) RIGHTS AND RESPONSIBILITIES

3.1 **Design:** The DB Entity's Architect Engineer (A/E) is responsible for all design decisions and design products and review, coordination and approval of construction documents, drawings, and specifications. The DB Entity may self-perform professional design responsibilities in accordance with PA 230 of 1972 and PA 299 of 1980 or may subcontract professional design responsibilities.

3.2 **Submittals:** The A/E will review and monitor all required DB Entity submittals for conformance with the approved contract documents.

3.3 **Closeout:** The A/E shall certify to the Owner that to the best of its knowledge, the Work conforms to the requirements of the Contract Documents and will review and certify the Record Documents.

3.4 **Miscellaneous:** Other responsibilities and authority of the A/E are set forth throughout the Contract Documents.

4. BONDS AND INSURANCE

Bond Requirements: Both the Performance Bond and Payment Bond must remain in effect from the date of Assignment Award until final completion of the Work or the end of Correction Period, whichever comes later.

The surety bonds required for a Construction Contract will not be accepted by SFA unless the surety bonding company is listed in the current United States Government, Department of Treasury's, listing of approved sureties (bonding/insurance companies), Department Circular 570. Copies of the current Circular listing may be obtained through the internet web site at http://www.fms.treas.gov/c570/c570.html. Photocopies are not acceptable.

Insurance Requirements: DB Entity must maintain the insurances identified below and is responsible for all deductibles.

All required insurance must: (a) protect the State from claims that may arise out of, are alleged to arise out of, or result from DB Entity's or a subcontractor's performance; (b) be primary and non-contributing to any comparable liability insurance (including self-insurance) carried by the State; and (c) be provided by a company with an A.M. Best rating of "A" or better, and a financial size of VII or better.

Required Limits	Additional Requirements
Commercial General Liability Insurance	
Minimal Limits: $1,000,000 Each Occurrence Limit $1,000,000 Personal & Advertising Injury Limit $2,000,000 General Aggregate Limit $2,000,000 Products/Completed Operations Deductible Maximum: $50,000 Each Occurrence	DB Entity must have their policy endorsed to add “the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents” as additional insureds using endorsement CG 20 10 11 85, or both CG 2010 07 04 and CG 2037 07 04.
Automobile Liability Insurance	
Minimal Limits: $1,000,000 Per Occurrence	DB Entity must have their policy: (1) endorsed to add “the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents” as additional insureds; and (2) include Hired and Non-Owned Automobile coverage.
Workers' Compensation Insurance	
Minimal Limits: Coverage according to applicable laws governing work activities.	Waiver of subrogation, except where waiver is prohibited by law.
Employers Liability Insurance	
Minimal Limits: $1,000,000 Each Accident $1,000,000 Each Employee by Disease $1,000,000 Aggregate Disease.	
Professional Liability (Errors and Omissions) Insurance	
Minimal Limits: $1,000,000 Each Occurrence $2,000,000 Annual Aggregate Deductible Maximum: $50,000 Per Loss	
Environmental and Pollution Liability (Errors and Omissions)	
Minimal Limits: $1,000,000 Each Occurrence $2,000,000 Annual Aggregate Deductible Maximum: $50,000 Per Loss	DB Entity must have their policy: (1) be applicable to the work being performed, including completed operations equal to or exceeding statute of repose; (2) not have exclusions or limitations related to Transportation (upset overturn, spills during loading or unloading, Hazardous Materials Handling, and Non Owned disposal site liability; and (3) endorsed to add “the State of Michigan, its departments, division, agencies, offices, commissions, officers, employees, and agents” as additional insured.

If any of the required policies provide **claims-made** coverage, the DB Entity must: (a) provide coverage with a retroactive date before the effective date of the contract or the beginning of Contract Activities; (b) maintain coverage and provide evidence of coverage for at least three (3) years after completion of the Contract Activities; and (c) if coverage is canceled or not renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective date, DB Entity must purchase extended reporting coverage for a minimum of three (3) years after completion of work.

DB Entity must: (a) provide insurance certificates to the Contract Administrator, containing the agreement or purchase order number, at Contract formation and within 20 calendar days of the expiration date of the applicable policies; (b) require that subcontractors maintain the required insurances contained in this Section; (c) notify the Contract Administrator within 5 business days if any insurance is cancelled; and (d) waive all rights against the State for damages covered by insurance. Failure to maintain the required insurance does not limit this waiver.

This Section is not intended to and is not to be construed in any manner as waiving, restricting, or limiting the liability of either party for any obligations under this Contract (including any provisions hereof requiring DB Entity to indemnify, defend and hold harmless the State).

Builder's Risk Insurance: Unless indicated otherwise in the bid document, the DB Entity will purchase and maintain property insurance for 100% of actual cash replacement value of the insurable Work while during construction, including foundations, additions, attachments, and all fixtures, machinery and equipment belonging to and constituting a permanent part of the building structures. The property insurance also will cover temporary structures, materials, and supplies to be used in completing the Work, only while on the building site premises or within five hundred feet of the site. The property insurance insures the interests of the Owner, DB Entity and all Subcontractors and Suppliers at any tier as their interest may appear. The property insurance insures against "all risk" of physical loss or damage to the extent usually provided in policy forms of insurers authorized to transact this insurance in Michigan. A copy of the master insurance policy will be available for review by the State, upon request.

The Owner and DB Entity intend that the required policies of property insurance must protect all the parties insured and provide primary coverage for all losses and damages caused by the perils covered. Accordingly, to the extent that the insurance company pays claims, the Owner and the DB Entity and its Subcontractors/Suppliers waive all rights against each other for any such losses and damages and waive all such rights against all other persons named as insureds or additional insureds.

Waivers: The Owner and DB Entity intend that the required policies of property insurance shall protect all the parties insured and provide primary coverage for all losses and damages caused by the perils covered. Accordingly, to the extent that the insurance company pays claims, the Owner and the DB Entity and its Subcontractors/Suppliers waive all rights against each other for any such losses and damages and waive all such rights against all other persons named as insureds or additional insureds.

5. PROSECUTIONS

5.1 **Laws:** The DB Entity and its Subcontractors/Suppliers must comply with all Federal, State, and local Laws applicable to the Work and site.

5.2 **Registration:** Architects or engineers registered to practice in the professional field involved in the State of Michigan shall prepare, review, and approve the design of architectural, structural, mechanical, electrical, civil, or other engineering features of the Work.

5.3 **Responsibility of the DB Entity for Design:**

(a) The DB Entity shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and any other non-construction services furnished by the DB Entity under this contract. The DB Entity shall, without additional compensation, correct or revise any errors or deficiencies in its designs, drawings, specifications, and other non-construction services. Neither the Owner's review, approval, or acceptance of, nor payment for, the services required under this contract shall be construed to operate as a waiver of any rights under this contract or any cause of action arising out of the performance of this contract, and the DB Entity shall be and remain liable to the Owner in accordance with applicable law for all damages to the Owner caused by the DB Entity's negligent performance or any of the services furnished under this contract.

(b) The DB Entity's construction management key personnel shall be actively involved during the design process to effectively integrate the design and construction requirements of this contract. This includes, but is not limited to actions such as: integrating the design schedule into the project schedule to maximize the effectiveness of fast tracking design and construction (within the limits allowed in the contract), ensuring constructability and economy of the design, integrating the shop drawing and installation drawing process into the design, executing the material and equipment acquisition programs to meet critical schedules, effectively interfacing construction quality with the design program, and maintaining and providing the project team with accurate, up-to-date redline and as built documentation. The DB Entity shall require and manage the active involvement of key trade Subcontractors in the above activities.

5.4 **Codes and Statutory Requirements:**

(a) General: The DB Entity shall comply with all State and Federal requirements governing the design of the project and this agreement.

(b) Code Assessment: Within 30 days after the Notice to Proceed, the DB Entity will submit a list of all building codes and regulations they will be following on this project.

(c) Building Codes: The DB Entity shall ensure that the design and construction of the project is compliant with building codes.

5.5 **Permits:** The project shall be designed to the standards necessary to receive permits from state and federal agencies having jurisdiction over any aspect of the project. The DB Entity is responsible to submit for and obtain such permits. All required construction permits fees including inspection costs must be paid by the DB Entity.

The time incurred by the DB Entity in obtaining construction permits must constitute time required to complete the Work and does not justify any increases to the Contract Time or Price, except when revisions to the Drawings and/or Specifications required by the permitting authority cause the Delays. The DB Entity must pay all charges of Public Utilities for connections to the Work, unless otherwise provided by Cash Allowances specific to those connections. The following permit fees will be paid by the Owner.

5.6 **Design Submittals and Acceptance:**

(a) After receipt of the Notice to Proceed, the DB Entity shall initiate design, comply with all design submission requirements as covered in the Bidding Documents, and obtain review of submissions as required.

(b) The DB Entity may begin construction on portions of the Work for which the Owner has reviewed the final design submission and has determined to be satisfactory for beginning construction. The Project Director will notify the DB Entity in writing when the design is cleared for construction. The Owner will not grant any time extension for any design re-submittal required when, in the opinion of the Project Director, the initial submission failed to meet the minimum quality requirements as set forth in the Contract.

(c) No payment will be made for any in-place construction until all required submittals have been made, reviewed and are satisfactory to the Owner.

(d) If the Owner allows the DB Entity to proceed with limited construction based on pending minor revisions to the reviewed Final Design submission, no payment will be made for any in-place construction related to the pending revisions until they are completed, resubmitted and are satisfactory to the Owner.

5.7 **Construction Phase Submittal:**

(a) The DB Entity shall submit all material and articles requiring coordination and/or approval. All submittals shall be reviewed and approved by the A/E prior to being submitted to the Project Director for approval or acceptance, as applicable.

(b) The DB Entity shall provide the Project Director four (4) copies (or the number of copies designated in the Project Description) of all A/E approved submittals.

(c) The Project Director will review only those submittals it has requested approval authority for and all submittals which deviate from the Project Description or accepted proposal. In most cases the Owner, or its authorized representative, will review submittals for compliance to the Project Description, including design criteria or accepted proposals. It is the DB Entity's responsibility, in the design build process, to ensure compliance with the accepted designs, all required codes, regulations and the contract

(d) A/E approval is required for extension of design, critical materials, and deviations from the Project Description, Bidding Documents, the accepted design proposal(s), or the completed design, equipment whose compatibility with the entire system shall be checked, and other items as designated by the Project Director. The Project Director's approval is required for any deviations from the Project Description, Bidding Documents, accepted design proposals, or Owner-approved submittals. The Project Director will review all submittals designated as deviating from the Project Description, Bidding Documents, or accepted design proposals.

5.8 **Starting Work at the Site:** The DB Entity shall not start the Work at the site before the first day established by the Notice to Proceed and not before all insurance is in effect.

A pre-construction conference will be held with the DB Entity to review its Progress Schedule, qualifications of its key personnel, its proposed access to the site, traffic and parking, procedures for submittal, change orders, etc., and to exchange emergency telephone numbers. The DB Entity shall use its accepted Progress Schedule when making proposals or claims for adjustment in Contract Time/Price.

5.9 **Working Hours:** Except in an Emergency, all Work at the site shall take place during normal working hours; 6:00 AM to 6:00 PM, during Business Days and in accordance with the special working conditions for the Agency. If the Contract Documents allow work outside the normal hours, the DB Entity shall provide a written notice to the Project Director twenty-four hours before performing such Work and shall reimburse the Owner any related increase in the costs incurred by the Owner such as overtime charges of the Owner and payments for custodial and security personnel.

5.10 **Withholding:** Upon issuing the Certificate of Substantial Completion, the Owner will pay for the completed Work subject to:

(a) withholding of two hundred percent of the value of any uncompleted Work, and
(b) any other deductions Owner may withhold to cover Defective Work, liquidated damages and the fair value of any other items entitling the Owner to a withholding.

5.11 **Partial Use:** The Owner may decide to use, at its sole option, any functioning portion of the Work and will inform the DB Entity in writing of the decision. The portion of Work to be used shall be jointly inspected to determine the extent of completion if it has not undergone the inspection for Substantial Completion.

The Owner will prepare a list of items to be corrected/completed and the Owner will allow the DB Entity reasonable access to correct/complete the listed items and finish other work.

6. WARRANTY, TESTS, INSPECTIONS AND APPROVALS; CORRECTIONS OF WORK

6.1 **Warranty:** The DB Entity shall furnish the State with a written guarantee to remedy any defects due to faulty materials or labor which appear in the Work within one year from the date of Substantial Completion by the State. This warranty excludes defect or damage caused by abuse, modification by others, insufficient or improper operation or maintenance, or normal wear and tear under normal usage. Manufacturer warranties for materials and equipment received by the DB Entity shall be assigned and promptly delivered to the Owner at Substantial Completion. The warranty period starts from the date of the Substantial Completion and shall be in full force and effect for the entire duration of the Correction Period.

6.2 **Tests, Inspections and Approvals:** The Owner may perform or retain a professional/agency to perform inspections, tests or approvals for those materials required to meet quality control standards specified in the Contract Documents. However, the DB Entity shall assume full responsibility for any testing, inspection, or approval

(a) required to meet code requirements, as promulgated by code inspecting authorities;
(b) required by Law;
(c) indicated or required by the Contract Documents;
(d) required for the Owner's acceptance of a Supplier, materials or equipment or mix designs submitted for prior approval by the DB Entity; or

(e) Defective Work, including an appropriate portion of the Delay and costs occasioned by discovery of Defective Work.

The DB Entity shall:
(a) pay all related costs;
(b) schedule related activities; and
(c) secure and furnish to the Owner the required certificates of inspection, testing, or approval.

The DB Entity shall provide proper and safe access to the site for inspection, testing, or approval. The DB Entity shall provide the Owner with timely notice whenever any Work is ready for inspection, testing, or approval. If the DB Entity covers any Work without proper approval by the Owner as required by the Contract Documents, or approval by code or other authorities, the DB Entity shall, at its own expense, uncover, expose, or otherwise make the Work accessible, if requested by the Owner, for testing, inspection, or approval.

6.3 **Correction of Work:** If any testing, inspection, or approval reveals Defective Work and the Work is rejected by the Owner in writing, the DB Entity, at its sole expense, shall promptly correct or remove the Defective Work from the site and replace it with non-Defective Work within the Correction Period. The DB Entity shall bear responsibility for its proportionate share of the Delay and costs resulting from the correction and/or removal and replacement of Defective Work. If the DB Entity, within reasonable and agreed upon time after receipt of written notice,
(a) fails to correct Defective Work or remove and replace rejected Work,
(b) fails to correct or complete items on any Punch List,
(c) fails to perform Work in accordance with the Contract Documents, or
(d) fails to comply with any other provision of the Contract Documents, the Owner, directly or through others, after seven Calendar Days from the date of the written notice to the DB Entity, may correct and remedy the Defective Work and withhold payment for any Defective Work.

To the extent necessary to correct and remedy such Defective Work, the Owner shall be allowed to exclude the DB Entity from all or part of the site; take possession of all or part of the Work and stop related operations of the DB Entity; take possession of the DB Entity's tools, plant and office and construction equipment at the site; and incorporate into the Work materials and equipment for which the Owner has paid the DB Entity. The DB Entity shall allow the Owner easy access to the site to correct Defective Work. The Owner shall be entitled to an appropriate decrease in Contract Price for all claims, costs, losses, damages, and Delay incurred or sustained by the Owner which are attributable to the DB Entity.

Such costs may include, but not be limited to, costs of correction or removal and replacement of Defective Work and costs of repair and replacement of other work destroyed or damaged by the action. If the discovery of the Defective Work takes place after final payment and the DB Entity fails to correct and pay the Owner any of these costs, the Owner shall demand due performance under the Performance Bond. Until the period of limitation provided by Michigan Law, the DB Entity shall promptly, and upon receipt of written notice from the Owner, correct Defective Work.

In the event of an Emergency or unacceptable risk of loss or damage or if appropriate under the circumstances, the Owner, directly or through others under contract with the Owner, may correct or remove and replace the Defective Work. The specified correction of Work requirements does not limit the rights of the Owner to have Defective Work corrected or removed and replaced, if rejected, except as otherwise provided by the Michigan Law.

6.4 **Special Correction Period Requirements:** Whenever the Owner undertakes any portion of the Work because the DB Entity's act or omission Delays completion of the Work or it is eligible for Partial Use, the warranties for all materials and equipment incorporated into that portion of the Work shall remain in full force and effect between the start of such Partial Use and the date when the Correction Period starts. The Correction Period for any Defective Work that is corrected or rejected and replaced within the last three months of the Correction Period shall be extended by an additional six months, starting on the date such Work was made non-Defective.

6.5 **Special Maintenance Requirements:** If the Contract Documents specify that the entire Work, or a portion of the Work, upon reaching Substantial Completion, shall not be placed in use by the Owner, the DB Entity shall maintain the Work, or specified part of the Work, in good order and proper working condition and shall take all other actions necessary for its protection between the certified date of Substantial Completion and the date when the Work, or designated part of the Work, is placed in use. If no separate price for such special maintenance period was requested and made part of the Contract Documents, the Owner will amend the Contract Documents to appropriately increase the Contract Price.

6.6 **Regular Cleaning**: The DB Entity must remove all scrap or removed material, debris, or rubbish from the Project work site at the end of each working day and more frequently whenever the Owner Field Representative deems such material to be a hazard. The DB Entity cannot discard materials on the grounds of the State Agency without the express permission of the Project Director. No salvage or surplus material may be sold on the premises of the State Agency. No burning of debris or rubbish is allowed. Any recycled materials must be recycled, and the DB Entity will be required to provide recycling plan.

6.7 **Final Cleaning**: Before final acceptance by the State, the DB Entity must clean all the Work and existing surfaces, building elements and contents that were soiled by their operations and make repairs for any damage or blemish that was caused by the Work.

6.8 **Substantial Completion Prerequisites:** Prerequisites for Substantial Completion, over and above the extent of Work completion required, include:

(a) receipt by the Owner of operating and maintenance documentation,

(b) all systems have been successfully evaluated and demonstrated by the DB Entity for their intended use, and

(c) the Owner having received all required certifications and/or occupancy approvals from the State and those Political Subdivisions having jurisdiction over the Work. Receipt of all certifications and/or occupancy approvals from those Political

Subdivisions with jurisdiction in and of itself does not necessarily connote Substantial Completion.

The DB Entity shall provide all related operating and maintenance (O&M) documentation to the Owner before training if training is required and not later than Substantial Completion otherwise. The DB Entity shall give the Owner the final O&M documentation (with revisions made after Substantial Completion) before the request for final payment.

6.9 **Substantial Completion Inspection:** If, upon inspection and completing all pre-requisite testing of the Work, the DB Entity considers that a portion of the Work or all the Work is substantially completed, it shall provide a list of items to be corrected or completed to the Owner for joint inspection. Within ten Calendar Days of this joint inspection, the Owner will deliver to the DB Entity a list of incomplete/Defective Work or a Certificate of Substantial Completion with a Punch List.

The certificate shall:
(a) fix a reasonable date of Substantial Completion,
(b) fix a date for completion of the Punch List, and
(c) recommend the division of responsibilities between the Owner and DB Entity for utilities, security, safety, insurance, maintenance, etc.

7. CHANGES

7.1 **Changes in the Work:** The Owner may, at any time, without notice to sureties, make any changes bilaterally or unilaterally, by a written Change Order, in the Work within the general scope of the Contract, including but not limited to changes in the Specifications, materials, or Contract Time. In a bilateral change order, the Owner may prepare a Bulletin describing the change being considered. Upon receiving the Bulletin, the DB Entity establishes the cost and returns it to the Owner for review within 15 calendar days. The DB Entity's proposal shall be irrevocable for sixty (60) Calendar Days after it is submitted to the Owner. If the Owner agrees with the changes, the Owner will issue a written bilateral Contract Change Order to amend the Contract Documents. However, the Owner may issue a unilateral Change Order if the Owner and DB Entity are unable to agree on the adjustment in Contract Price or Time. If the DB Entity disagrees with such unilateral Contract Change Order, the DB Entity shall complete the Work and may deliver notice of a claim in accordance with the claim submittal process.

7.2 **Differing Site Condition:** The Owner does not warrant that any technical data, including the Project reference points, provided by the Owner are sufficient and complete for the purpose of selecting Means and Methods, initiating, maintaining, and supervising safety precautions and programs or discharging any other obligation assumed by the DB Entity under the Contract Documents. If different or unknown site conditions are discovered, the DB Entity shall notify the Owner in writing before the conditions are disturbed or before proceeding with the affected Work.

Upon review, if the Owner agrees that there are differing site conditions, the Owner may issue a written Contract Change Order to amend the Contract Price or Time through the Bulletin authorization process. If the Owner disagrees with the DB Entity and the DB Entity disagrees with the Owner's decision, the DB Entity shall complete the Work and may deliver notice of a claim in accordance with the claim submittal process. No proposal or claim by the DB Entity due to differing site conditions will be allowed if the

DB Entity knew of their existence before submitting its Bid or if the DB Entity could have discovered those conditions by any reasonable examinations during the design process for which the DB Entity is responsible under this Contract.

7.3 **Responsibilities for Underground Utilities:** The DB Entity shall comply with the 1974 PA 53, as amended, MCL 460.701 et seq., and all other Laws concerning Underground Utilities. Before performing site Work, all Underground Utilities, lines, and cables (public and private) shall be located and marked. The DB Entity shall notify MISS DIG to locate and mark utilities on properties that are not State properties. In addition, the DB Entity shall be responsible for immediately notifying the Owner of any contact with or damage to Underground Utilities, and for the safety, protection of and repairing any damage done to any Work, surface, and subsurface facilities. If the DB Entity encounters Underground Utilities that were not previously located/marked, which could not be reasonably have been seen, the Owner may issue a written Contract Change Order to amend the Contract Price or Time through the Bulletin authorization process.

7.4 **Hazardous Materials:** If the DB Entity encounters material reasonably believed to be Hazardous Material, which was not discovered by any reasonable examinations during the design process for which the DB Entity is responsible under this Contract, and was not generated or brought to the site by the DB Entity, the DB Entity shall immediately stop all affected Work, give written notice to the Owner of the conditions encountered, and take appropriate health and safety precautions in accordance with all federal, State and local laws. Upon receipt of the notice, the Owner will investigate the conditions and may:

(a) stop the Work and terminate the affected Work or the Contract for convenience
(b) contract others to have the Hazardous Material removed or rendered harmless or
(c) issue a written Contract Change Order to amend the Contract Price/Time through the Bulletin authorization process.

If the Hazardous Material is brought to the site by the DB Entity as a result, in whole or in part, from any of violation of any Law by the DB Entity covering the use, handling, storage, disposal of, processing, transport and transfer; or from any other act or omission within the DB Entity's control, the DB Entity shall be responsible for the Delay and costs to clean up the site; and remove and render harmless the Hazardous Material to the satisfaction of the Owner, the State, and all Political Subdivisions with jurisdiction.

7.5 **Incidents with Archaeological Features:** The DB Entity shall immediately notify the Owner in writing of any Archeological Feature deposits encountered at the site and shall protect the deposits in a satisfactory manner. If the DB Entity encounters such features, which result in an anticipated change to the Contract Price/Time, the Owner may issue a written Contract Change Order through the Bulletin authorization process.

7.6 **Unit Price Work:** NA

7.7 **Allowances:** The DB Entity shall obtain the Owner's written acceptance before providing materials, equipment, or other items covered by Allowance.

Payments under an Allowance shall be on actual cost and exclude cost for supervision, handling, unloading, storage, installation, testing, fee, premiums for bond and insurance, etc.

Work authorized under any Allowance may consist of changes required by actual conditions, as determined by the Owner, and any other Work authorized and completed under the pertinent provisions of the Contract Documents.

8. **COMPENSATION:** The Owner shall provide compensation to the DB Entity for this Contract according to the categories in Paragraphs 8.1, 8.2, 8.3, 8.4, and 8.5.

8.1 **Professional Design Services:** The Professional Design Services item is estimated as part of the Not-To-Exceed Contract Price. This estimate shall be regarded as a Not-To-Exceed number, against which only actual Project Costs will be charged. If professional design services are provided by DB Entity staff, the DB Entity will invoice at the DB Entity's hourly billing rates and may not charge an overhead and profit flat fee on this category. If professional design services are provided by a Subcontractor, the DB Entity will invoice according to the subcontract terms.

8.2 **Construction, Trade Labor, and Subcontractors**: The Construction, Trade Labor and Subcontractors item is estimated as part of the Not-To-Exceed Contract Price. This estimate shall be regarded as a Not-To-Exceed number, against which only actual Project Costs will be charged. The Construction, Trade Labor, and Subcontractors item includes the labor, equipment, material, and supervision required to provide all construction and maintenance work for this Contract. DB Entity self-performed or Subcontractor-performed construction trade labor work shall be invoiced or subcontracted as specified in Appendix VI – Project Prevailing Wage Trade Labor Rates.

8.3 **General Conditions**: The General Conditions items are estimated as part of the Not-To-Exceed Contract Price. This estimate shall be regarded as a Not-to-Exceed number, against which only actual Project costs will be charged. The DB Entity will invoice General Conditions material items for actual costs incurred. All project labor for approved self-performed Work will be invoiced at the DB Entity Hourly Billing Rate Compensation schedule.

8.4 **Management Services:** The management services required to support the design/build, procurement, implementation, and close-out process will include estimating, scheduling, subcontract bids and award, scope of work determination, cost tracking, reporting, etc. The management effort required to deliver the Project will be included on a Not-to-Exceed basis. Only the actual cost of personnel used will be billed on the basis of their hourly billable rates as shown on the DB Entity Hourly Billing Rate Compensation schedule.

8.5 **Overhead and Profit Flat Fee:** All of the cost factors presented above are actual out-of-pocket expense for the DB Entity to directly perform the Work. In order to compensate the DB Entity for indirect overhead and profit, the DB Entity may invoice a flat fee percentage applied to all actual costs identified in this Section 6, Paragraphs 8.1, 8.2 & and 8.3 as noted on its Not-To-Exceed Bid.

8.6 **Project Budget:** The DB Entity shall prepare and submit a project budget that shall divide the Work into pay items for significant Sections and areas, facilities, or structures, with subtotals for first tier Subcontractors, and shall contain a summary, organized per the Compensation items detailed above.

If required by the Owner, the accepted project budget shall be supported by a more detailed breakdown allocating the pay items to the Progress Schedule Activities. The project budget shall include two percent of the Not-to-Exceed Contract Price for each of the following close-out pay items:

(a) fire safety inspection, certificate of occupancy and other code approvals, as specified in the Contract Documents;
(b) manufacturer warranties, finalized operating and maintenance documentation, Owner training documentation, and test and balance reports;
(c) finalized as built/Record Documents.

The Owner will review the project budget, and the DB Entity may not request payment until the Owner has accepted the Project Budget.

8.7 **Requests for Payment:** Not more than once every thirty Calendar Days, the DB Entity may submit to the Owner a Request for Payment on the Owner's form, signed by the DB Entity, certifying Work completed and enclosing all supporting documentation. A draft copy of the payment request may be submitted to the Owner's Field Representative for review and comments. For projects under $50,000, the DB Entity may not submit more than two requests in addition to the final payment request. Each Request for Payment shall certify that all monies owed by the DB Entity to Subcontractors and Suppliers for which payment previously has been sought has been paid from payments received. No Request for Payment shall include amounts for a Subcontractor or Supplier if the DB Entity does not intend to use the payments requested, when received, to reduce the DB Entity's outstanding obligations on the Work. The Owner will review the Request for Payment within ten Calendar Days and, if acceptable, will pay the DB Entity within thirty Calendar Days after the Owner approves a Request for Payment. The DB Entity will provide a certification in writing that the payment request submittal is true and accurate. If payment is requested based on materials and equipment stored at the site or at another location agreed to in writing, the Request for Payment also shall be accompanied by

(a) consent of surety;
(b) a bill of sale, invoice or other documentation warranting that the Owner has received the materials and equipment free and clear of all liens
(c) evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect them and the Owner's interests.

The DB Entity warrants and guarantees that title to all Work, materials and equipment covered by any Request for Payment, whether incorporated in the Work or not, will pass to the Owner free and clear of all liens no later than at the time of payment by the Owner to the DB Entity.

8.8 **Review of Request for Payment; Intent of Review:** Within ten Calendar Days after receipt of a Request for Payment, the Owner will review the Request for Payment to determine if the Work has progressed to the point indicated; that to the best of the Owner's knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents; and that the DB Entity is entitled to payment in the amount certified. In the case of final payment, the Owner will also review to determine whether the Work is acceptable and that conditions governing final payment to the DB Entity have been met.

8.9 **Refusal to Make or to Recommend Payment:** The Owner may withhold from any payment an amount based on the Owner's estimate of the fair value of items included in the payment request. The Owner will give the DB Entity reasonably prompt written notice supporting such action.

The Owner may refuse to pay any part of any payment, or because of subsequently discovered evidence, inspections or tests or the value of the Punch List, nullify all or any portion of any payment previously approved as may be consider necessary to protect against loss because:

(a) the Work is Defective or completed Work has been damaged requiring correction or replacement,
(b) the Contract Price has been reduced by Change Order,
(c) it has been necessary that the Owner correct Defective Work or complete Work,
(d) reasonable evidence exists that all or a part of the Work will not be completed within the corresponding Contract Time,
(e) the DB Entity failed to comply with any material requirements of the Contract, including, but not limited to the failure to submit Progress Schedule Submittals or as built/Record Documents when due,
(f) stored materials for which payment has been made or is sought has been determined by the Owner or the Owner Field Representative to be damaged or missing, or
(g) the Owner reasonably believes or knows of the occurrence of an event justifying termination for cause.

8.10 **Request for Final Inspection**: The DB Entity shall complete the Substantial Completion Punch List within the Contract Time and date. The DB Entity shall assemble all required documentation before requesting final inspection in writing. The DB Entity may request, in writing, final inspection of the entire Work, or the part of the Work for which final payment is specified in the Contract Documents. Upon receipt of the written request, the Owner will make a final completion inspection with the DB Entity and notify the DB Entity of all incomplete or Defective Work revealed by the Final Inspection. The DB Entity shall immediately correct and complete the Work.

8.11 **Close-out Documents:** The DB Entity shall prepare and submit the following documentation before requesting final inspection or final payment: final operating and maintenance documentation (with revisions made after Substantial Completion), warranties, inspection certificates, as built/Record Documents, release of payment claim forms, and all other required documents.

8.12 **Request for Final Payment:** The DB Entity may request final payment after correcting or completing the Work to the satisfaction of the Owner and delivering close-out documentation. The DB Entity's request for final payment shall also include:

(a) evidence of completed operations insurance and an affidavit certifying that the insurance coverage will not be canceled, materially changed, or renewal refused,
(b) an affidavit certifying that the surety agrees that final payment does not relieve the surety of any of its obligations under the Performance Bond and Payment Bond,
(c) a completed DMB-460 Form close out checklist,
(d) a list of all pending insurance claims arising out of or resulting from the Work being handled by the DB Entity and/or its insurer

(e) DB Entity's 'Guarantee and Statement' (DMB-437) containing a statement of guaranteed indebtedness acceptable to the Owner in the full amount of the Contract Price, or a release of payment claims in the form of a release of liens, or a Bond or other security acceptable to the Owner to indemnify the Owner against any payment claim.

8.13 **Final Payment and Acceptance:** If the Owner is satisfied that the entire Work, or the part of the Work for which final payment is specified in the Contract Documents, is complete and the DB Entity's other obligations under the Contract Documents has been fulfilled, the Owner will furnish to the DB Entity an acceptance and payment within thirty Calendar Days after receipt of the final payment request. If the Owner is not satisfied, the Owner will return the request to the DB Entity indicating in writing the reasons for not certifying final payment. If the final payment request is returned, the DB Entity shall correct the deficiencies and re-request final payment.

8.14 **DB Entity's Continuing Obligation:** The following does not constitute acceptance of the Work in the event the Work or any Work is not in accordance with the Contract Documents, and therefore does not release the DB Entity from its obligation to perform and furnish the Work in accordance with the Contract Documents:

(a) the issuance of a Substantial Completion certificate;
(b) any payment by the Owner to the DB Entity;
(c) any Partial Use;
(d) any act of acceptance by the Owner or any failure to do so;
(e) any review and approval of a Shop Drawing, sample, test procedure or other Submittal;
(f) any review of a Progress Schedule;
(g) any On-Site Inspection;
(h) any inspection, test or approval;
(i) any issuance of a notice of acceptability by the Owner; or
(j) any correction of Defective Work or any completion of Work by the Owner.

8.15 **Waiver of Claims:** The making of final payment does not constitute a waiver by the Owner of any rights as to the DB Entity's continuing obligations under the Contract Documents, nor will it constitute a waiver of any claims by the Owner against the DB Entity still unsettled, or arising from unsettled payment claims, Defective Work appearing after final inspection or failure by the DB Entity to comply with the Contract Documents or the terms of any special warranties provided by the Contract Documents or by Law. The acceptance of final payment will constitute a waiver of all claims by the DB Entity against the Owner, other than those claims previously made in writing, on a timely basis.

9. **OTHER WORK:** During the Contract Time, the Owner may self-perform or Contract for other work at the site. By doing so, the Owner or its representative will coordinate the operations of the DB Entity and the other work. Whenever the other work interfaces with the DB Entity's Work on site, the DB Entity shall coordinate its activities with the interfacing work, inspect the other work and promptly report to the Owner in writing if the other work is unavailable or unsuitable. The DB Entity's failure to do so will constitute an acceptance of such other work as fit and proper for integration with the Work except for latent defects and deficiencies in the other work.

10. The DB Entity shall provide proper and safe access to the site for handling, unloading and storage of their materials and equipment and for the execution of the other work. The DB Entity shall do all cutting, fitting, patching, and interfacing of the Work that may be required to make any part of the Work come together properly and integrate with other work. If the DB Entity becomes party to a dispute or claim due to damages caused to its Work/property, the DB Entity shall promptly attempt, without involving the Owner or its agents, to settle with the other party by agreement or otherwise resolve the claim.

    If the Owner determines that the other work resulted in a delay to the Work to be performed by the DB Entity and such delay justifies a Change Order, the Owner will authorize the necessary adjustment in Contract Price and/or Time.

11. **STOP WORK ORDERS AND SUSPENSION OF WORK:** The Owner may order the DB Entity in writing to defer, stop, suspend, or interrupt all or part of the Work, in the event any of the following situations:
    (a) any Work is Defective,
    (b) any Work, when completed, will not conform to the Contract Documents,
    (c) any materials or equipment are unsuitable,
    (d) any workers are insufficiently skilled,
    (e) failure of the DB Entity to implement appropriate measures for the SESC, or
    (f) as the Owner may determine appropriate for its convenience.

    The DB Entity is responsible for the Delays and any additional costs if at fault. Any justified increase in Contract Price/Time due to suspension of Work shall be submitted within thirty Calendar Days of the resumption of the Work.

12. **TERMINATION**

12.1 **Termination for Breach**: The Owner may elect to terminate all or any part of the Work if:
    (a) the DB Entity fails to complete the Work, or a specified part of the Work, within the corresponding Contract Time; fails or refuses to supply sufficient management, supervision, workers, materials, or equipment; or otherwise fails to prosecute the Work, or any specified part of the Work, with the diligence required to comply with the Contract Time(s);
    (b) the DB Entity persistently disregards the authority of the Owner or violates or disregards a provision of the Contract Documents or the Laws of any Political Subdivision with jurisdiction;
    (c) the DB Entity admits in writing, or the Owner otherwise establishes, the DB Entity's inability or refusal to pay the DB Entity's debts generally as they become due;
    (d) in response to the Owner's demand, the DB Entity fails to provide adequate, written assurance that the DB Entity has the financial resources necessary to complete the Work within the Contract Time;
    (e) the DB Entity fails to comply with the Michigan Residency requirements (1984 PA 431, as amended, MCL 18.1241a); or is found to be in violation of Section 4 of 1980 PA 278 concerning unfair labor practices, or any nondiscrimination requirements imposed by Law;
    (f) at any time, the DB Entity, Subcontractor or Supplier is in violation of unfair labor practices prohibited by Section 8 of Chapter 327 of the National Labor Relations Act, 29 U.S.C. 158; or

(g) the DB Entity violates or breaches any material provision of the Contract Documents, which provides contractually for cause termination or rescission of the Contract or of the DB Entity's right to complete the Work.

11.1.1 Within seven Calendar Days after the DB Entity receives a notice requiring assurance of due performance for any of the above occurring non-conformances, the DB Entity shall meet with the Owner and present the DB Entity's plan to correct the problems. If the Owner determines that the DB Entity's plan provides adequate assurance of correction, that determination does not waive the Owner's right to subsequently default the DB Entity or affect any rights or remedies of the Owner against the DB Entity and/or surety then existing or that may accrue in the future. The Owner, after giving the DB Entity and its surety seven Calendar Days' written notice of intent to default, may declare the DB Entity in default and terminate the services of the DB Entity for cause.

Unless otherwise agreed between the Owner and DB Entity, at the expiration of the Seven-Calendar Day (intent to default) period, the DB Entity shall immediately stop all Work and proceed in accordance with the Owner's instructions. Following the expiration of the Seven-Calendar Day (intent to default) notice, the DB Entity will be sent a default letter as notice of termination for cause. The Owner will issue a Contract Change Order to revise the name of the contract party to the name of the surety company. The surety company shall undertake to perform and complete the Work, in accordance with the Contract Documents, in place of the DB Entity, either through the surety's agents or by executing agreements with qualified DB Entities (excluding the DB Entity and any of the DB Entity's affiliates), or both.

11.1.2 If the Owner has terminated the DB Entity, any such termination will not affect any rights or remedies of the Owner against the DB Entity or surety, or both, then existing or that may accrue after termination. All provisions of the Contract Documents that, by their nature, survive final acceptance of the Work shall remain in full force and effect after a termination for cause of the DB Entity or default of the surety, or both. The Owner may, in its sole discretion, permit the DB Entity to continue to perform Work when the DB Entity is in default or has been defaulted.

Such decision by the Owner in no way operates as a waiver of any of the Owner's rights under the Contract Documents or Performance Bond, or in the event of a subsequent default, entitle the DB Entity or surety to continue to perform or prosecute the Work to completion.

11.1.3 If upon receipt of a notice of termination for cause, the surety fails to proceed immediately, the Owner shall declare the surety in default under the Performance Bond in accordance with the terms and conditions of this paragraph.

11.1.4 No default of the surety under the Performance Bond shall be declared, however, until the expiration of fifteen (15) Calendar Days after receipt by the surety of an additional written notice from the Owner demanding that the surety perform its obligations under the Performance Bond.

12.2 **Termination on Non-Bonded Project:** For non-bonded projects, the Owner will follow the termination protocol in Paragraph 11.1 without involving a surety.

12.3 **Termination for Convenience of the Owner:** Upon fifteen Calendar Days' written notice to the DB Entity and surety, or sooner if reasonable under the circumstances, the Owner may, without cause and without prejudice to any other right or remedy it may have, elect to terminate any part of the Work, or the Contract in whole or in part, as the Owner may deem appropriate for its convenience. Upon receipt of any such termination notice, the DB Entity shall immediately proceed in accordance with any specific instructions, protect and maintain the Work, and make reasonable and diligent efforts to mitigate costs associated with the termination. In such termination, the DB Entity will be paid in accordance with the terms of this Contract only for services rendered before the effective date of termination.

Upon termination for convenience, the DB Entity will be released from any obligation to provide further services and the Owner shall have full power and authority to take possession of the Work, assume any agreements with Subcontractors and Suppliers that the Owner selects, and prosecute the Work to completion by Contract or as the Owner may deem expedient.

12.4 **Termination for Lack of Funding:** If expected or actual funding is withdrawn, reduced, or limited in any way before the completion date set forth in this Contract or in any amendment, the State may, upon written notice to the DB Entity, terminate this Contract in whole or in part in accordance with Paragraph 11.3.

13. **DISPUTES:** All claims, counterclaims, disputes, and other matters in question between the Owner and DB Entity arising out of or relating to the Contract Documents shall be submitted in writing to the Owner and otherwise processed and resolved as provided in this Paragraph 12. The DB Entity shall continue the Work with due diligence during all disputes or disagreements. Work shall not be delayed or postponed pending resolution of any disputes or disagreements. The DB Entity shall exercise reasonable precautions, efforts, and measures to avoid situations that would cause delay.

13.1 **Notice of Claim**: Except for Owner claims for liquidated damages, no claim is valid unless it is based upon written notice delivered by the claimant to the other party promptly, but in no event later than thirty Calendar Days after the Project Director's written determination giving rise to the claim. The notice shall state the nature of the dispute, the amount involved, if any, and the remedy sought. The claim submittal with all supporting data shall be delivered within sixty Calendar Days after the determination giving rise to the claim (unless the Owner allows an extension). The responsibility to substantiate claims rests with the claimant. A claim by the DB Entity shall be submitted to the Director-FA for a decision. The Owner reserves the right to audit any DB Entity claim (or claim package) that the DB Entity values at more than $50,000.00. Pending final resolution of any claim under this Paragraph 12, the DB Entity shall proceed diligently with the Work and comply with any decision of the Owner.

For all DB Entity claims seeking an increase in Contract Price or Contract Time, the DB Entity shall submit an affidavit, certifying that the amount claimed accurately reflects any Delay and all costs that the DB Entity is entitled from the occurrence of the claimed event and that supporting cost and pricing data are current, accurate, complete and represent the DB Entity's best knowledge and belief. The affidavit shall be signed in the same manner as required in the bid documents.

The Director-FA has discretion as to whether to hold a presentation and is not bound to any rules of evidence in deciding the claim. The Director-FA will issue a written decision. The Director-FA's determination on the dispute is final and binding on the DB Entity unless the DB Entity files a lawful action in the Michigan Court of Claims within thirty Calendar Days after receiving the Director-FA's determination.

After settlement or final adjudication of any claim, if payment by the DB Entity is not made to the Owner, the Owner may offset the appropriate amounts against payments due to the DB Entity under any other Contract between the Owner and the DB Entity, or any amounts for which the Owner may be obligated to the DB Entity in any capacity. The Director-FA may designate someone to fulfill the Director-FA's duties under these terms and conditions.

END OF SECTION IV

SECTION V – PROJECT PROCEDURES

1. **PRE-CONSTRUCTION CONFERENCES:** The Project Director will schedule a pre-construction conference to be attended by the Professional, State Agency staff, and the DB Entity. A project procedure as outlined in Form DMB-460, will be established for the Work during the pre-construction meeting. When no organizational meeting is called, the DB Entity, before beginning any Work, must meet with the staff of the Agency and arrange a Work schedule for the Project. Once the Project has been started, the DB Entity must carry it to completion without delay.

2. **PROGRESS MEETINGS:** The Professional will schedule progress meetings to be held on the job site whenever needed to supply information necessary to prevent job interruptions, to observe the Work or to inspect completed Work. The DB Entity must be represented at each progress meeting by persons with full authority to act for the DB Entity in regard to all portions of the Work.

3. **SIGNAGE AND SAFETY:** The DB Entity must post appropriate construction signs to advise the occupants and visitors of occupied facilities of the limits of construction work areas, hardhat areas, excavations, construction parking and staging areas, etc. Advertising signage by the DB Entity, subcontractors, or suppliers is not allowed. The DB Entity must maintain safe and adequate pedestrian and vehicular access to fire hydrants, commercial and industrial establishments, churches, schools, parking lots, hospitals, fire, and police stations and like establishments. The DB Entity must obtain written approval from the Owner ten (10) Calendar Days before connecting to existing facilities or interrupting the services on site.

4. **REQUIRED PROJECT SIGN:** For projects costing in excess of $500,000, the DB Entity must provide and install a project sign conforming to the funding source requirements. The Project Director will designate the wording for the sign.

5. **TEMPORARY FACILITIES AND CONTROLS:** The DB Entity must furnish and install all temporary facilities and controls required by the Work, must remove them from State property upon completion of the Work, and the grounds and existing facilities must be restored to their original condition.

If water or electricity is available in the area where Work will be performed, the DB Entity will not be charged for reasonable use of these services for construction operation. The DB Entity must pay costs for installation and removal of any temporary connections including necessary safety devices and controls. Use of services must not disrupt or interfere with operations of the State Agency.

6. **TEMPORARY SANITARY FACILITIES:**

- ☐ **Portable Toilets**: The DB Entity must provide and maintain a sufficient number of portable temporary toilets in locations approved by the State Agency. They must comply with all Federal, State, and local code requirements. The DB Entity must maintain the temporary toilets in a sanitary condition at all times and must remove them when the Work under this Contract is complete. The DB Entity and all subcontractor's employees are not allowed to use any existing State toilet facility.

- ☐ **State Toilets**: If available, the State Agency will designate a permanent toilet facility on the premises for use by personnel employed in the Work. The DB Entity must repair any damage to the bathroom facility caused by their employees and maintain it in a clean and sanitary condition.

7. **FIELD OFFICE:**

- ☐ **On Site Trailer:** At the beginning of the Work, the DB Entity may provide a field office and storage building at the site in a location acceptable to the Owner. The building may be a trailer. The DB Entity may provide such other temporary buildings as he may require for the use of workers and safe storage for tools and materials. Job signs with the DB Entity's name, logos, specialty, etc., are not allowed.

- ☐ **On site trailers are not allowed.**

8. **TEMPORARY HEATING:** Until the new heating system is ready to provide heat, the DB Entity must provide adequate temporary heaters to maintain the temperature in those areas of the building where Work is being conducted between 55 degrees F. and 70 degrees F. during working hours.

9. **BARRIER AND ENCLOSURES:**

(a) The DB Entity must furnish, install, and maintain as long as necessary and remove when no longer required adequate barriers, warning signs or lights at all dangerous points throughout the Work for protection of property, workers and the public. The DB Entity and all subcontractors must hold the State of Michigan harmless from damage or claims arising out of any injury or damage that may be sustained by any person or persons as a result of the Work under the Contract.

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

(c) Street Barricades: The DB Entity and all subcontractors must erect and maintain all street barricades, signal lights and lane change markers during the periods that a traffic lane is closed for their operations.

There must be full compliance with rules and ordinances respecting such street barricading and devices must be removed when hazard is no longer present.

10. **CONSTRUCTION AIDS:**

(a) The DB Entity and all subcontractors must 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 must conform to Federal, State, and local codes or Laws for protection of workers and the public.

(b) Debris Chute: The DB Entity and all subcontractors must use a chute to lower debris resulting from their Work. The chute must be the enclosed type with its discharge directly into the truck or approved container.

(c) Pumping and Drainage: The DB Entity and all subcontractors must provide all pumping necessary to keep excavations and trenches free from water the entire period of Work on the Contract. The DB Entity and all subcontractors must construct and maintain any necessary surface drainage systems on the Work site so as to prevent water entering existing structures or to flow onto public or private property adjacent to the Agency's land, except for existing drainage courses or into existing drainage systems. The DB Entity and all subcontractors must prevent erosion of soils and blockage of any existing drainage system.

11. **MATERIAL AND EQUIPMENT:** The DB Entity must furnish and be responsible for all materials, equipment, facilities, tools, supplies, and utilities necessary for completing the Work. All materials and equipment must be provided as described in the Contract Documents and of excellent quality, free of defect and new and must be applied, installed, connected, erected, used, cleaned and conditioned following the manufacturer’s and Suppliers’ instructions.

12. **DELIVERY, STORAGE, AND HANDLING:** All materials and equipment delivered to and used in the Work must be suitably stored and protected from the elements. The areas used for storage must only be those approved by the State Agency. The Owner assumes no responsibility for stored material. The ownership and title to materials will not be vested in the Owner before materials are incorporated in the Work unless payment is made by the Owner for stored materials and equipment. After delivery, before and after installation, the DB Entity and all subcontractors must protect materials and equipment against theft, injury, or damage from all causes. For all materials and equipment, the DB Entity and all subcontractors must provide complete information on installation, operation, and preventive maintenance.

12.1 The DB Entity and all subcontractors must cover and protect bulk materials while in storage which are subject to deterioration because of dampness, the weather or contamination. The DB Entity and all subcontractors must keep materials in their original sealed containers, unopened, with labels plainly indicating manufacturer's name, brand, type, and grade of material and must immediately remove from the Work site containers which are broken, opened, watermarked and/or contain caked, lumpy, or otherwise damaged materials.

12.2 The DB Entity and all subcontractors must keep equipment stored outdoors from contact with the ground, away from areas subject to flooding and covered with weatherproof plastic sheeting or tarpaulins.

12.3 The DB Entity and all subcontractors must certify that any materials stored off-site are:
(a) Stored on property owned or leased by the DB Entity and all subcontractors or owned by the agency.
(b) Insured against loss by fire, theft, flood, or other hazards.
(c) Safely stored and protected against loss or damage.
(d) In compliance with the plans and specifications.
(e) Specifically allotted, identified, and reserved for the project.
(f) Itemized for tracking and payment.
(g) Subject to these conditions until the items are delivered to the project site.

END OF SECTION V

SECTION VI – SPECIAL WORKING CONDITIONS

The Work is for the Michigan Department of Environmental Quality. The specific Special Working Conditions for the department are site specific and will be established for each individual assignment. DB Entity shall comply with all security regulations. Access to and egress from the buildings and State Agency grounds shall be via routes specifically designated by the State Agency.

Whenever the DB Entity has caused an operating security or fire system to go out of service or left unsecured openings in existing facilities or security fences, the DB Entity shall furnish a security guard or fire watch acceptable to the Owner to maintain security of the facility outside of normal working hours and will be held responsible for any losses from the facility.
The DB Entity shall always maintain dust control measures to the satisfaction of the Owner.

END OF SECTION VI

SECTION VII - SUPPLEMENTARY CONDITIONS

The provisions amend or supplement any section of the contract will be noted on each individual Assignment. All other requirements that are not so amended or supplemented remain in full force and effect.

END OF SECTION VII

APPENDIX I

GLOSSARY

Glossary

Activity–An element in the Progress Schedule establishing a requisite step, or the time and resources required, for completing the part of the Work associated with that Activity.

Addenda–Written instruments that are used by the Owner to incorporate interpretations or clarifications, modifications, and other information into the Bidding Documents. An Addendum issued after Bid opening to those DB Entities who submitted a Bid, for the purpose of re-bidding the Work without re-advertising, is referred to as a **post-Bid** Addendum.

Agency- Any unit, section, division, department, or other instrumentality of the State that benefits from the Work.

Alternate–Refers to work specified in the Request for Proposal for which the DB Entity shall bid a Bid Price.

Apparent Low DB Entities– Those DB Entities Whose Not-To-Exceed Bid, when added to those specific Alternates the Owner intends to accept, yields the three lowest sums of Not-To-Exceed Bid and Alternates. Additional DB Entities may be considered Apparent Low DB Entities if their Not-To-Exceed Bid, when added to those specific Alternates the Owner intends to accept, yields a sum within 10% of the lowest of the Apparent Low DB Entity's sum.

Archaeological Feature –Any prehistoric or historic deposit of archaeological value, as determined by a representative of a state agency that is duly authorized to evaluate such findings and render such judgments. An Archaeological Feature deposit may include, but is not limited to Native American habitations, ceremonial sites, abandoned settlements, treasure trove, artifacts, or other objects with intrinsic archaeological value and that relate to the history and culture of the State of Michigan. Known Archaeological Features are listed under Section 9 - Supplementary Conditions.

Bid–Written offer by a DB Entity for the Work, as specified, which designates the DB Entity's Not-To-Exceed Bid and Bid Prices for all Alternates. The term *Bid* includes a *re-bid*.

DB Entity–The Person acting directly, or through an authorized representative, who submits a Bid directly to the Owner.

Bidding Documents–The proposed Project Description and any other documents, drawings, sketches programs or other information developed by the Owner to provide the Project requirements, the Contract Documents as advertised, and all Addenda issued before execution of the Contract.

Bid Price– The DB Entity's price for a lump sum item of work, or the product of the DB Entity's unit price for an item of Unit Price Work times the quantity given on the Bid Form for that item.

Bidding Requirements–The Advertisement, Instructions to DB Entities, Supplementary Instructions, Information for DB Entities, Bid Form, Bid Form Attachments, and qualification submittals, as advertised and as modified by Addenda, and any other Section included in the Request for Proposal for the purpose of governing bidding and award of the Contract.

Board–The Administrative Board of the State of Michigan.

Bond– Security furnished by the DB Entity, as required by the Contract Documents.

Business Day–Any Day except Saturdays, Sundays and holidays observed by the Owner**.**

Bulletin–A request used by the Owner to describe a change in the Work under consideration by the Owner and to request the DB Entity to submit a proposal for the corresponding adjustment in Contract Price and/or Contract Time, if any.

Calendar Day–Every day shown on the calendar, Saturdays, Sundays, and holidays included.

Cash Allowance–An Owner-specified sum included within the Contract Price to reimburse the DB Entity for the actual purchase/furnished cost of materials and/or equipment or other designated items, as specifically provided in the Contract Documents. Although the scope (e.g., the required quantity) of any Work covered by a Cash Allowance is sufficiently detailed in the Contract Documents for the purposes of bidding the required labor costs, Subcontract costs, construction equipment costs and general conditions costs and Fee, it is understood that the required materials, equipment or other designated items are of uncertain purchase cost at the time of Bid or are yet to be specified in more detail by the Owner as to quality, appearance, durability, finish and such other necessary features affecting purchase price.

Change Order–A written order issued and signed by the Owner, which amends the Contract Documents for changes in the Work or an adjustment in Contract Price and/or Contract Time, or both.

Contract Award–The official action of the **Board** or the **Director-FA** awarding the Contract to the DB Entity.

Contract Documents–Written and graphic documents that form the legal agreement between the Owner and the DB Entity, consisting of this document, completed Bid and Contract forms, terms and conditions of the contract, specifications, drawings, addenda, Notice of Award, Notice-to-Proceed and contract change orders.

Contract Price–The total compensation, including authorized adjustments, payable by the Owner to the DB Entity (subject to provisions for Unit Price Work).

Contract Times–The Contract Times for the entire Work are the periods allowed, including authorized adjustments, for Substantial Completion and final completion of the Work. The Contract Times for a designated portion of the Work are the periods allowed for Substantial Completion and final completion of any such portion of the Work, as specified in the Contract Documents.

Correction Period – A period during which the DB Entity shall, in accordance with the Contract Documents, correct or, if rejected, remove, and replace Defective Work, and maintain warranties for materials and equipment in full force and effect.

Defective–As determined by the Owner, an adjective which when referring to or when applied to the term “Work” refers to Work not conforming to the Contract Documents or not meeting the requirements of an inspection, test or approval or Work itemized in a Punch List which the DB Entity fails to complete or correct within a reasonable time after issuance of the Punch List by the Owner.

Delay–Any act or omission or other event that in any manner adversely affects or alters the schedule, progress or completion of all or any part of the Work. Delay is a generic term intended to include deferral, stoppage, slow down, interruption and extended performance, and all related hindrance, rescheduling, disruption, interference, inefficiency and productivity and production losses.

Department (DTMB) –Department of Technology, Management and Budget of the State of Michigan.

Design-Build Entity (DB Entity) –Business enterprise with which the Owner has entered into the Contract.

Director is the Director of the **Department.**

Director-FA is the Director of **DTMB** State Facilities Administration, Design and Construction Division.

Drawings–Part of the Contract Documents showing the Work. Drawings shall neither serve nor be used as Shop Drawings.

Emergency–A condition affecting the safety or protection of persons, or the Work, or property at or adjacent to the site.

State Facilities Administration-Entity in the **Department** responsible for design, construction, and operations and maintenance of facilities.

Hazardous Material–Asbestos containing materials (ACMs), Polychlorinated biphenyls (PCBs), petroleum products, such construction materials as paint thinners, solvents, gasoline, oil, etc., and any other like material the manufacture, use, treatment, storage, transportation, or disposal of which is regulated by federal, State, or local Laws governing the protection of public health, natural resources, or the environment.

Invitation to Bid (ITB) -The solicitation document presenting the terms and conditions that will become part of the Contract when the Bid is accepted.

Law(s)–Means federal, State, and local statutes, ordinances, orders, rules and/or regulations.

MCL–The Michigan Compiled Laws of the State of Michigan.

Means and Methods–Includes means, methods, techniques, sequences and/or procedures applicable to the Work.

Notice of Award–Written notice accepting the Bid to the DB Entity selected under Section 2 and designating the Contract Price (and establishing the Alternates accepted by the Owner).

Notice-to-Proceed–Written notice issued by the Project Director directing the DB Entity to commence the construction activities and establishing the start date of the Contract Time.

Not-To-Exceed Bid–A DB Entity-specified sum included within the Contract Price to reimburse the DB Entity for the design, selection, actual purchase, installation, demolition, and construction of the Work, including materials and/or equipment or other designated items, as specifically provided in the Contract Documents. The scope of the Work is sufficiently detailed in the Contract Documents for the purposes of bidding the required labor costs, Subcontract costs, construction equipment costs and general conditions costs and Fee, it is understood that the required materials, equipment or other designated items are of uncertain purchase cost at the time of Bid or are yet to be specified in more detail by the DB Entity, and approved by the Owner as to quality, appearance, durability, finish and such other necessary features affecting final cost. .

On-Site Inspection–The Owner**'s** on-site examination of the DB Entity**'s** completed or in progress Work to determine and verify to the Project Director that the quantity and quality of all Work complies with the requirements of the Contract Documents.

Owner–The State of Michigan, with whom the DB Entity has entered the Contract and for whom the Work is to be provided.

Owner Field Representative–A State employee or consultant, acting under the direction of the Project Director, providing on-site, periodic observation and documentation of the Work for compliance with the Contract Documents.

Partial Use – Use by the Owner of a designated portion of the Work before accomplishing Substantial Completion of the entire Work. Partial Use does not mean Substantial Completion of the portion of the Work placed in use by the Owner.

Person–Individuals, partnerships, corporations, receivers, trustees, joint ventures or any other legal entity and any combinations of any of them.

Political Subdivision–Any county, city, village, or other local unit of the State, including any agency, department, or instrumentality of any such county, city, village, or other local unit.

Progress Schedule–Work Schedule that shows the DB Entity**'s** approach to planning, scheduling, and execution of the Work and that accurately portrays completed Work as to sequencing and timing, as provided in the Contract Documents.

Project–The total construction, which includes the Work and other work completed by others, as indicated in the Contract Documents.

Project Director*-D*esignated State employee(s) responsible for directing and supervising the DB Entity's services during the period allowed for completion of the Work; and/or acting as representative for the Owner and for the enforcement of the Contract, approving payment to the DB Entity and coordinating the activities of the State, Owner, and DB Entity**.**

Provisionary Allowance–An amount included within the Contract Price to reimburse the DB Entity for the cost to furnish and perform Work that is uncertain because, for example, it is indeterminate in scope and may not be shown or detailed in the Contract Documents.

Punch List–A list of minor items to be completed or corrected by the DB Entity**,** any one of which do not materially impair the use of the Work for its intended purpose.

Record Documents–Drawings, Specifications, Addenda, Change Orders, Change Authorizations, Bulletins, inspection, test and approval reports, photographs, written clarifications and interpretations and all other documents recording, or annotated to show, all revisions and deviations between the as-built installation and the Contract Documents, all approved Submittals and all clarifications and interpretations.

Records–Books, reports, documents, electronic data, and other evidence relating to the bidding, award and furnishing and performance of the Work.

Recycled Material–Recycled paper products, structural materials made from recycled plastics, re-refined lubricating oils, reclaimed solvents, recycled asphalt and concrete, recycled glass products, re-treaded tires, ferrous metals containing recycled scrap metals and all other materials that contain waste materials generated by a business or consumer, materials that have served their intended purpose, and/or materials that have been separated from solid waste for collection, recycling and disposition in the percentage determined by the State as provided by Law.

Request for Payment–The form provided by the Owner (Payment Request DMB-440) to be used by the DB Entity in requesting payment for Work completed, which shall enclose all supporting information required by the Contract Documents.

Shop Drawings–Includes drawings, diagrams, illustrations, standard schedules, performance charts, instructions and other data prepared by or for the DB Entity to illustrate some part of the Work, or by a Supplier and submitted by the DB Entity to illustrate items of material or equipment.

Soil Erosion and Sedimentation Control–The planning, design and installation of appropriate Best Management Practices designed and engineered specifically to reduce or eliminate the off-site migration of soils via water runoff, wind, vehicle tracking, etc. Soil erosion and sedimentation control in the State of Michigan is regulated under The Natural Resources Environmental Protection Act; Soil Erosion and Sedimentation Control, 1994 PA 451, Part 91, as amended, MCL 324.9101 et seq. Soil erosion and sedimentation control associated with this Contract is monitored and enforced by the DTMB-SFA.

State–The State of Michigan in its governmental capacity, including its departments, divisions, agencies, boards, offices, commissions, officers, employees, and agents. Non-capitalized references to a state refer to a state other than the State of Michigan.

State Construction Code–The Michigan State Construction Code Act, 1972 PA 230, as amended, MCL 125.1501 et seq.

Subcontractor –A Person having an agreement with the *DB Entity* to provide professional design services, professional testing services, general services, labor at the site, and/or furnishing materials and/or equipment for incorporation into the Work.

Submittals–Includes technical Submittals, Progress Schedules and those other documents required for submission by the Contract Documents. The term "technical Submittal" includes Shop Drawings, brochures, samples, Operation and Maintenance (O&M) Manuals, test procedures and any other Submittal the Contract Documents require the DB Entity to submit to demonstrate how the items covered, after installation or incorporation into the Work, will conform to the information given in the Bidding and Contract Documents and be compatible with

the design of the completed Work as a functioning whole as indicated in the Contract Documents.

Substantial Completion–The Work, or a portion of the Work designated in the Contract Documents as eligible for separate Substantial Completion, has been completed in accordance with the Contract Documents as determined by the Owner, to the extent that the Owner can use or occupy the entire Work, or the designated portion of the Work, for the use intended without any outstanding, concurrent Work at the site, except as may be required to complete or correct Punch List items.

Supplier–A manufacturer or fabricator, or a distributor, material man or vendor representing a manufacturer or fabricator, who has an agreement with the DB Entity to furnish materials and/or equipment.

Underground Utilities–Pipelines, piping, conduit, duct, cables, wells, tanks, tunnels and appurtenances, or other similar facilities, installed underground to convey or support conveyance of potable water, sprinkler or irrigation water, fire protection systems, electricity, gases, steam, petroleum products, sewerage and drainage removal, telephone, communications, cable TV, traffic, or control systems.

Unit Price Work–Work involving specified quantities (i.e., related Work quantities) which when performed is measured by the Owner and paid using the measured quantities and unit prices contained in the Contract Documents. Performance of Unit Price Work for undefined quantities is contingent upon conditions encountered at the site, as determined, and authorized by the Owner.

Unit Price Work, Specified–Work of specified and defined quantities (i.e., quantities are detailed in, and can be taken-off from, the Contract Documents) that when performed is measured by the Owner and paid based on the measured quantities and unit prices contained in the Contract Documents.

Work (as in *"the Work,"* "*the entire Work"*)–The entire *completed Construction* required by the Contract Documents. The Work results from furnishing and performing all professional design, services, obligations, responsibilities, management, supervision, labor, materials, equipment, construction equipment, general conditions, permits, taxes, patent fees and royalties, testing, inspection and approval responsibilities, warranties, temporary facilities, small tools, field supplies, Bonds, insurance, mobilization, close-out, overhead and all connections, devices and incidental items of any kind or nature required and/or made necessary by the Contract Documents.

Work Involved, any Work Involved–Existing or prospective Work reflected in any notice, proposal, or claim; reflected in changes ordered or in process; or affected by Delay.

APPENDIX II

PROJECT STATEMENT

PROJECT STATEMENT

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
State Facilities Administration
Design and Construction Division
3111 West St. Joseph Street
Lansing, Michigan 48909

FILE NUMBER Various	PROPOSAL DUE DATE May 12, 2022, at 2:00pm, EST
CLIENT AGENCY Department of Environment, Great Lakes and Energy (EGLE)	
PROJECT NAME AND LOCATION 2022 DB Tank and Soil Removal Indefinite Scope Indefinite Delivery (ISID)	
PROJECT ADDRESS (if applicable) Various	
CLIENT AGENCY CONTACT Elaine Pelc	TELEPHONE NO./EMAIL 989-619-5016 pelce@michigan.gov
DTMB - DCD PROJECT DIRECTOR Sadi Rayyan	TELEPHONE NUMBER 517-719-2801 rayyans@michigan.gov

WALK-THROUGH INSPECTION DATE, TIME, AND LOCATION:
None

☐ **MANDATORY** (Check box if Mandatory)

☐ **LEIN Check** (Department of Corrections ONLY) All contractor / vendor representatives attending Preproposal Walk Through Meeting must submit a Vendor / Contractor LEIN Request form five business days prior to the meeting date (See the attached Vendor/Contractor LEIN Request Form). Send the LEIN Request form, filled and signed, by email to Daniel T. Smith at email address: smithD76@michigan.gov . The email "Subject" must include (facility name, project name, date and time of Pre-Proposal Walk Through Meeting).

COVID 19 Precautions:

1. Depending on project location, individuals may be required to wear masks to attend any meetings and for a firm to be eligible to submit proposals / quotations / bids. Bring and be prepared to wear a mask if required upon arrival. Requirements may change at any time and any updated guidance must be followed.

.

PROJECT DESCRIPTION/SERVICES REQUESTED
Proposals must be submitted electronically through the SIGMA VSS website at https://sigma.michigan.gov/webapp/PRDVSS2X1/AltSelfService

Provide professional environmental design-build Indefinite-Scope Indefinite-Delivery (ISID) services for tank and soil removal. The selected professional entity (Entity) will be assigned sites for the removal of sources of contamination associated with releases from former underground storage tank (UST) systems and other contaminant sources at multiple sites across the State. The Entity will be required to effectively perform tasks at assigned sites with design, construction, restoration and reporting in accordance with the applicable Part 201/Part 213 of the Michigan Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended. The Entity is required to refer to State and Federal statutes, procedures, guidelines and the administration rules when providing the design build services or entering contracts with subcontractors to provide the services.

The Entity is required to complete and submit both the 2022 Tank and Soil Removal ISID Unit Prices form and the 2022 Tank and Soil Removal ISID Example Site for Bidding forms for EACH of the EGLE District Offices in which they are interested in providing services. Also, the Entity must complete the attached Questionnaire and use the attached appropriate forms to indicate the billing rates. The State of Michigan reserves the right not to award the contract(s) or award the contract(s) to one or more firms.

Please NOTE:

- Proposal responses MUST be uploaded to SIGMA VSS. Please enter the total cost for all phases as bid amount.
- Please remember that individual attachments can be no larger than 6mb.
- If you experience issues or have questions regarding your electronic submission, you must contact the SIGMA Help Desk for assistance. They can be reached by telephone at 888.734.9749 or by email at sigma-procurement-helpdesk@michigan.gov

- Please notify the Office of Design and Construction if you are having SIGMA VSS issues. Include your SIGMA ticket number in an email to our contract specialists, Anne Watros (WatrosA@michigan.gov) and Don Klein (KleinD4@michigan.gov).
- You may be asked to email your proposal. Emailed submissions will require DCD approval and will be handled on a case-by-case basis. Approved emailed submissions MUST be received prior to 2:00 p.m. deadline to be considered responsive and responsible.

NIGP CODES
90629; 91244; 91842; 91843; 92535;92577; 92629; 92630; 92645; 92690; 92678; 92693; 96871; 96878

DESIRED SCHEDULE OF WORK
Dependent on the assigned project.

ACCEPTING RFP QUESTIONS UNTIL: Monday, April 18, 2022, at 5:00 p.m., local time
Please do not submit online questions via VSS. ALL questions should be emailed to Sadi Rayyan at rayyans@michigan.gov.

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

This form is required to be a part of the professional service contract. (Authority: 1984 PA 431)
Attachment(s)

ATTACHMENT II

SCOPE OF WORK

Department of Technology, Management and Budget
2022 TANK AND SOIL REMOVAL ISID RFP
Scope of Work

A. PROJECT OBJECTIVES

The Department of Great Lakes, Environment Energy (EGLE) is seeking proposals to retain services to assist with the removal of sources of contamination associated with releases from former underground storage tank (UST) systems and other contaminant sources at multiple sites across the State. The actual number of sites is unknown, but it is anticipated that there will be several sites within the geographic boundaries of each of the following nine EGLE Remediation and Redevelopment Division (RRD) District/Field offices; **Upper Peninsula District, Gaylord Field Office, Cadillac District Office, Bay City District Office, Lansing District Office, Warren District Office, Kalamazoo District Office, Jackson District Office, and Grand Rapids District Office.**

The Upper Peninsula District Office will be split into an eastern and western area. All counties west of Delta and Alger counties will be considered the western upper peninsula for assignments and bidding purposes.

A list of the EGLE district offices and counties within each district boundary can be found at: https://www.michigan.gov/egle/0,9429,7-135-3306_3329-12306--,00.html

The project objectives are to remove sources of contamination (e.g. contaminated soil, USTs, pipes, etc.) from the environment and sample soil/groundwater/soil vapor to determine the effectiveness of the source removal actions.

Work will only be performed where EGLE has signed access. No work will be conducted in road rights-of-way, easements, utility corridors, etc., unless the contractor or EGLE has obtained signed access and/or any required permits. Copies of all signed access agreements and permits, if applicable, will be supplied to the contractor. If the contractor obtains the access and/or permit, a copy will be supplied to EGLE.

The State currently does not anticipate that the tank removal or excavations will be implemented on operating UST systems. There may be sites that have been redeveloped into operating facilities with abandoned USTs and the State of Michigan may utilize this contract on those types of sites.

Site photographs along with the documentation will be required at each site and must include photographs before on-site work is initiated and after on-site work and site restoration are completed and will be included as part of the Construction/Removal Report.

The following describes the required elements and services at each site in more detail.

1. PROJECT ADMINISTRATION AND SITE VISIT

These items cover project management including site visit(s).

1a. Project Administration

Includes the tasks to manage the project such as meetings, invoicing and contacting Miss Dig, establishing the safe storage and handling of all equipment and supplies, health and safety plan (HASP) preparation, and if site conditions warrant, or required by the regulating local unit of government or the Michigan Department of Transportation (MDOT), obtaining any and all required signage. Project administration will include obtaining any permits necessary to complete site work, which may include, but are not limited to, MDOT right-of-way permits, county right-of-way permits, soil erosion and sedimentation control, landfill acceptance, and waste identification. This line item also includes the tasks to manage the construction phase of the project such as construction planning, communication, progress meetings, management of costs, quality, schedule, safety, administration and close out documentation.

2. PROFESSIONAL SERVICES

These items cover all professional services work performed under this contract.

2a. Site Visit
Includes time, costs, and travel expenses for the contractor to conduct site visit(s) to become familiar with the site.

2b. Engineering Design/Excavation Plans/Drawings
Includes all time, equipment, labor, and materials to develop/prepare excavation plans and drawings to ensure the professional, state project manager, and excavator operator all have a clear understanding of the work to be completed. The excavation plans should include, at a minimum, a written description of what material is being removed, what the anticipated dimensions of the excavation will be, how the banks will be stabilized, an estimated quantity of material to be removed, where the material will be disposed of, and how the actual quantity will be determined. The drawings should include, at a minimum, the excavation plan in both vertical and plan view, sloping or bank stabilization, and disposal routes. Assume that one draft and one final copy of the Excavation Plans/Drawings will be required. It can also be assumed that 1 final copy will be submitted in both hard and electronic format.

2c. UST Removal/Excavation Oversight
Includes all activities and cost needed to perform all fieldwork for construction oversight. The contractor will be required to provide documentation of the material being removed, collection of measurements for mapping, collection of any verification samples, signing of manifests on behalf of the State of Michigan, taking photographs for documentation, and providing communication to the state project manager and the construction crew(s). Assume an 8 hour work day unless prior arrangements have been made with the EGLE PM and the property owner.

2d. Construction/Removal Report
Includes all activities and cost needed to prepare and complete a detailed report discussing, documenting, and outlining all site/construction work completed. This report will include, at a minimum, text, figures, and tables to document the site activities, including contaminant removal location(s) and sample location(s). The figures shall contain “as built” drawings that will show all actual work completed on site and site features after site activities. These drawings will include, at a minimum, locations of removed UST(s) and associated piping if present, excavation outlines/locations, depths of excavation, sample locations, and any groundwater monitoring well/soil vapor pin locations. The drawings shall be submitted to EGLE in hard copy and electronically in CADD or GIS (shapefile) format. Site photographs will be required at each site and must include photographs before on-site work is initiated and after on-site work and site restoration are completed. The report shall conform to industry standards for a construction/removal report prepared by an environmental professional.

2e. Notification to Remove and UST Registration
Includes all activities and cost needed to register any unregistered USTs that are found onsite and provide the notification to remove the USTs to the appropriate regulatory agency. All work done under this item will be in accordance with Part 211 of the Natural Resources and Environmental Protection Act (NREPA), 1994 Public Act 451, as amended.

2f. UST Removal (Part 211) Site Assessment and Reporting
Includes all activities and cost needed to perform the site assessment sampling and reporting that is outlined in Part 211 of NREPA and the UST Rules, Rule R29.2155. The report will be submitted to the appropriate regulatory agency and EGLE. All samples, except waste characterization samples, will go to the state laboratory and costs of analysis should not be included in the proposal. For waste characterization samples, the DB Entity can select the laboratory (those will not go to the EGLE laboratory) and the costs will need to be incorporated into the unit costs.

2g. Monitoring Well Abandonment
Includes all activities and cost needed to abandon any monitoring wells that may be obstructing site work or as requested by the state project manager. All monitoring wells shall be abandoned in general accordance with ASTM International Standard D5299. Assume all monitoring wells will be 2-inch diameter and the casing will be cut approximately one foot below ground. The well will be abandoned by filling the remaining space with a bentonite grout starting at the bottom of the well using a tremie pipe.

2h. Monitoring Well Installation-Hollow Stem Auger

Includes all activities, equipment and costs needed to install groundwater monitoring wells for the long-term monitoring of the groundwater. All monitoring wells shall be installed in general accordance with ASTM International Standard D5092. Assume all monitoring wells will be constructed of 2-inch polyvinyl chloride (PVC) casing and a 5-foot-long screen. For the pricing, it can be assumed that the casing will be schedule 40 PVC and completed with a flush mount and a watertight cap. The boring annulus will be filled with a sand/gravel pack to approximately one foot above the screen and the gravel pack will be topped with a 6-inch bentonite pellet collar. Above the bentonite pellet collar, the annular space will be filled with a neat cement or grout. Assume the wells will be installed with a 4.25" inner diameter hollow stem augers. Well logs and lithologic logs, with any olfactory or visual observations of contamination, will be digitally prepared using industry standard software for all wells installed. An example log is attached for reference. The well logs shall be submitted to the EGLE project manager.

2i. Mobilization and Demobilization of Hollow Stem Auger Drilling Equipment

Includes all activities and costs needed to mobilize and demobilize all equipment and vehicles to install groundwater monitoring wells described in items 2h. This includes the mobilization and demobilization of a drill rig capable of installing groundwater monitoring wells with 4.25-inch inner diameter hollow stem augers, all support trucks, and all equipment necessary to install monitoring wells.

2j. Monitoring Well Installation - Geoprobe

Includes all activities, equipment and costs needed to install groundwater monitoring wells for the long-term monitoring of the groundwater. All monitoring wells shall be installed in general accordance with ASTM International Standard D5092. Assume all monitoring wells will be constructed of 2-inch polyvinyl chloride (PVC) casing and a 5-foot-long screen. The boring annulus will be filled with a sand/gravel pack to approximately one foot above the screen and the gravel pack will be topped with a 6-inch bentonite pellet collar. Above the bentonite pellet collar, the annular space will be filled with a neat cement or grout. Assume the wells will be installed with a Geoprobe using 4.25" inner diameter rods and according to the ASTM International Standard D6724/D6724M-16. Well logs and lithologic logs, with any olfactory or visual observations of contamination will be digitally prepared using industry standard software for all wells installed. An example log is attached for reference. The well logs shall be submitted to the EGLE project manager.

2k. Mobilization and Demobilization of Geoprobe Equipment – Monitor Well and Soil Vapor Monitoring Point Installation

Includes all activities, equipment and costs needed to mobilize and demobilize all equipment and vehicles to install Groundwater Monitoring Wells described in item 2j and Soil Vapor Monitoring Points described in 2m. This includes the mobilization and demobilization of a Geoprobe capable of installing

- groundwater monitoring wells with 4.25-inch inner diameter rods, all support trucks, and all equipment necessary, and
- Soil Vapor Monitoring Points as described in EGLE's Standard Operating Procedure for the *Installation of a Soil Gas Probe/Vapor Monitoring Point to Support Vapor Intrusion Investigations Revision #1 February 13, 2013* contained in Attachment A, all support trucks and all equipment necessary.

2l. Groundwater Monitoring and Reporting

Includes all activities and cost needed to conduct the field work and reporting for groundwater monitoring at a site. The field work shall include, but is not limited to, measuring the static water levels in the wells and top of casing elevations to the nearest 0.01 foot, purging the well, collection of a groundwater sample from the well to be analyzed for volatile organic compounds, semi-volatile organic compounds, and/or metals, collection of select geochemical parameters, and/or other parameters The reporting shall include figures, tables, and text discussing the sampling procedure and results. For the metals, assume that the "Michigan 10" will be analyzed, and the samples will NOT be filtered. All soil and groundwater samples, except the waste characterization samples will be analyzed by the EGLE lab and the contractor should NOT include those analytical costs in the proposal. The well depths will vary based on the site, but 20 feet well depths and 20 feet depth to groundwater will likely be exceeded at sites. At a minimum, the report shall be to industry standards for groundwater monitoring reports prepared by environmental professionals and contain a site map with analytical results, a groundwater flow map, a table summarizing static water levels, a table summarizing the current and historic analytical results, any concentration trend analysis to

support site decisions, and text discussing the sampling procedure, sampling results, and analysis. The reports will be submitted to the EGLE project manager in electronic format and a hard copy if requested. If requested, all maps will be submitted to the EGLE project manager in either CADD or GIS (shapefile) format. Assume that each event there will be *10 wells sampled per sampling event* and the top of casing survey will only be done once.

2m. Soil Vapor Monitoring Point Installation-Geoprobe

Includes all activities, equipment and costs needed to install soil vapor monitoring points for the long-term monitoring of the soil gas as described in EGLE's Standard Operating Procedure for the *Installation of a Soil Gas Probe/Vapor Monitoring Point to Support Vapor Intrusion Investigations; Revision #1 February 13, 2013*.

2n. Sub Slab Soil Gas Vapor Pin Installation

Includes all activities, equipment and costs needed to install Sub Slab Soil Gas Vapor Pins for the long-term monitoring of sub slab soil gas as described in EGLE's Standard Operating Procedure for *the Installation of Sub-Slab Soil Gas Probe/Vapor Monitoring Point to Support Vapor Intrusion Investigations; Revision #1 February 1, 2013* and contained in Attachment B

2o. Soil Vapor Monitoring & Reporting

Includes all activities and costs needed to conduct the field work and report the results of soil vapor monitoring at a site. Sampling shall be performed consistent with EGLE's Standard Operating Procedure for *Sampling Utilizing USEPA Method TO-15 VIA Bottle Vac to Support Vapor Intrusion Investigations* contained in Attachment C. The reporting shall include figures, tables, and text discussing the sampling procedure and results. At a minimum, the report shall be to industry standards for soil vapor monitoring reports prepared by environmental professionals and contain a site map with sample locations identified and analytical results, a table summarizing the current and historic analytical results, and any concentration trend analysis to support site decisions. The reports will be submitted to the EGLE project manager in electronic format and hard copy if requested. All maps will be submitted to the EGLE project manager, upon request in either CADD or GIS (shapefile) format. Assume that each event there will be *5 soil gas monitoring points sampled per sampling event.*

3. UST SYSTEM CLOSE IN PLACE

This item includes all activities and costs required to permanently close the UST system in place by:

- excavating soil to expose the components of the UST that need to be accessed,
- removing liquids, sludges and vapors from the tank,
- cleaning the tank, and
- filling the tank with a solid inert material

4. UST SYSTEM REMOVAL AND DISPOSAL

This item includes all activities and costs required to:

- excavate, remove, dismantle, and dispose of USTs of various sizes.
- excavate, remove, and dispose of all associated piping, pump islands, electrical and other components associated with the UST.
- purge and clean the UST and associated piping.
- excavate soil to expose and remove the UST and;
- backfill the excavation to grade including compaction.
    - Backfill will be placed in the excavation in 1-foot lifts and should be compacted to 95% unless otherwise directed.
    - The backfill shall be from an uncontaminated source and either certified by the owner or verified with analytical data. The backfill shall be free of debris, frozen materials, wood, vegetation, rock fragments greater than 6-inches, and soft materials unsuitable for backfill.

5. EXCAVATION, TRANSPORTATION, AND DISPOSAL OF NON-HAZARDOUS SOIL AND EXCAVATION BACKFILL

Includes all activities and cost needed to excavate, transport and properly dispose of non-hazardous contaminated soil at the various tonnages. This also includes the purchase, transport, placement, and compaction of backfill that is equal to tonnage requested for excavation and disposal. Backfill will be placed in the excavation in 1-foot lifts and should be compacted to 95% unless otherwise directed. The backfill shall be from an uncontaminated source and either certified by the owner or verified with analytical data. The backfill shall be free of debris, frozen materials, wood, vegetation, rock fragments greater than 6-inches, and soft materials unsuitable for backfill. The contaminated soil and backfill tonnage will be verified by a certified scale. All characterization, sampling and analytical, required for disposal approval, will be included in this bid item.

6. WASTE CHARACTERIZATION AND DISPOSAL

6a. Non-Hazardous Liquid

Includes all activities and cost needed to characterize, remove and transport non-hazardous liquid from a site, and properly dispose of in accordance with applicable laws.

6b. Hazardous Liquid

Includes all activities and cost needed to characterize, remove and transport hazardous liquid from a site, and properly dispose of in accordance with applicable laws.

6c. Hazardous Solid / Sludge

Includes all activities and cost needed to characterize, remove and transport hazardous soil/sludge from a site, and properly dispose of in accordance with applicable laws.

6d. 55 Gallon Drum Removal, Non-Hazardous Solid/Sludge

Includes all activities and cost needed to characterize, remove and transport non-hazardous soil/sludge contained in a 55-gallon drum from a site, and properly dispose of in accordance with applicable laws. Also included in this is the cost of the 55-gallon drum.

6e. 55 Gallon Drum Removal, Hazardous Solid/Sludge

Includes all activities and cost needed to characterize, remove and transport hazardous soil/sludge contained in a 55-gallon drum from a site, and properly dispose of in accordance with applicable laws. Also included in this is the cost of the 55-gallon drum.

7. MISCELLANEOUS

7a. Vac Truck and Operator

Includes all activities and costs needed to remove waste liquids from a site, excavation, or other miscellaneous purposes. The costs shall also include mobilization, demobilization, all waste characterization, and waste disposal costs.

7b. Site Preparation, including Excavation Sloping and Overburden Stockpiling

Includes all activities and cost required to prepare the site for source removal activities. This includes, but is not limited to, mobilization, demobilization, snow removal, fencing, uncontaminated overburden stockpiling, and excavation sloping.

7c. Clearing & Grubbing Dense and Woody Vegetation

This includes all activities, equipment and costs required to remove extremely dense or woody vegetation greater than 3 inches in diameter with a brush hog, disc mulcher or other comparable equipment to prepare the site for excavation. It is expected the vegetation will be chipped and remain on site after the removal unless an alternative approach has been accepted by the state project manager.

7d. Provisionary Allowance
Provisionary allowance of $10,000 will be included in every assignment to cover any unforeseen and unknown costs during site work. Prior to utilizing any of the provisionary allowance, a cost must be agreed upon between the contractor and the state project manager and the contractor must have written approval from the state project manager.

7e. Concrete Disposal/Recycling
Includes all activities and cost needed to remove, transport and dispose or recycle uncontaminated concrete from a site. Assume that the concrete is 4 inches thick. This will also include mobilization, demobilization, any testing or characterization required for disposal or recycling.

7f. Asphalt Disposal/Recycling
Includes all activities and cost needed to remove, transport and dispose or recycle asphalt from a site. This will also include mobilization, demobilization, any testing or characterization required for disposal or recycling.

7g. 5,000 Gallon Frac Tank
Includes all activities and cost needed for transportation, daily rental, and disposal of any wastewater. This item also includes mobilization, demobilization, all characterization, and any other costs required for wastewater disposal.

7h. Air Monitoring
Includes all activities and costs associated with placing, maintaining, and collecting data from air monitoring equipment to ensure areas around the excavation are safe for both workers and the public. Assume air monitoring will be occur in three locations and will be monitored for oxygen, volatile organic compounds, hydrogen sulfide with equipment, such as AreaRAE or similar technology. This will also include mobilization, demobilization, all time, labor, tools, and equipment to monitor, log, transfer, and tabulate the air monitoring data.

8. SITE RESTORATION

Upon completion of all site activities, all site features will be returned to like conditions unless otherwise expressed by the site owner and agreed to by the state project manager.

8a. 22a Gravel
Includes all activities and cost to purchase, transport, place, and grade Michigan Department of Transportation specified 22a gravel. The actual quantity will be determined by a certified scale.

8b. Crushed Limestone
Includes all activities and cost needed to purchase, transport, place, and grade crushed limestone including mobilization and demobilization. The actual quantity will be determined by a certified scale.

8c. Asphalt Paving
Includes all activities and cost needed to place and compact a 2” thick base course and a 2” thick finish coarse of asphalt including mobilization and demobilization. The asphalt paving will be on a finished square foot basis.

8d. Concrete
Includes all activities and cost needed to make appropriate forms, pour concrete, and finish concrete including mobilization and demobilization. The actual thickness will be determined on a site-by-site basis, but for bidding assume the concrete will be 4-inches thick. The concrete will be on an actual cubic yard placed.

8e. 2” Topsoil and Seeding
Includes all activities and cost needed to purchase, transport, place, and grade 2 inches of topsoil including mobilization and demobilization. The topsoil will be free of contaminants, debris, vegetation, and gravel. Seeding will consist of a mixture of Kentucky bluegrass, Perennial Ryegrass, and Red Fescue.

8. Mobilization, Demobilization and General Conditions

Includes the cost of performance bonds, pre-development fee, office utilities and trailers, mobilization and demobilization, cost of activities and tools of any other items and resources that are needed to complete the construction activities but are not listed above.

B. TIME FRAME

EGLE expects to have each assignment satisfactorily and properly completed, including all reports and invoices submitted, within 180-calendar days from the notice to proceed. Assignments will be made as needed. The total timeframe for the contract is two years with a 1-year extension for a possible 3-year contract.

C. NOTICE OF ON-SITE WORK ACTIVITY

The contractor must supply the contract manager and state project manager at least 14-days' notice prior to any on-site work activity.

D. INVOICING

One progress and one final invoice may be submitted during the project unless extenuating circumstances warrant additional invoices. Lump sum tasks that are not completed may be invoiced in the progress payment for actual work completed up to 75%. At least 25% any uncompleted lump sum task shall be paid at the final invoice. For example, if a task was 50% complete at the progress invoice, 50% could be invoiced; however, if 85% of the task was complete at the time of progress payment, 75% could be invoiced. The attached UST and Soil Excavation Schedule of Values Form must be utilized for all tracking and invoicing and must be submitted with each month's invoice along with the proper DTMB forms.

Unit Price Bid Form

2022 Tank & Soil Removal ISID Unit Pricing

BIDDER NAME:

DISTRICT:

Line Item	Description	Units	Unit Price
1a	Project Administration	% of D&C	
2	**Professional Services**		
2a	Site Visit	Lump Sum	
2b	Excavation Plans/Drawings	Lump Sum	
2c	UST Removal/Excavation Oversight	Day	
2d	Construction/Removal Report	Lump Sum	
2e	Notification to Remove and UST registration	Lump Sum	
2f	UST Removal (Part 211) Site Assessment and Reporting	Lump Sum	
2g	Monitoring Well Abandonment	Lineal Foot	
2h	Monitor Well Installation - Hollow Stem Auger	Lineal Foot	
2i	Mobilization and Demobilization - Hollow Stem Auger Drilling Equipment	Lump Sum	
2j	Monitor Well Installation – Geoprobe	Lineal Foot	
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	Lump Sum	
2l	Groundwater Monitoring and Reporting	Event	
2m	Soil Vapor Monitoring Points Installation- Geoprobe	Lineal Foot	
2n	Sub Slab Soil Gas Vapor Pin Installation	Each	
2o	Soil Vapor Monitoring and Reporting	Event	
3	**UST System Close in Place (includes removing liquids and sludges, cleaning and filling with an inert solid material)**		
3a	0 - 1000 gallon	Tank	
3b	1001 - 4000 gallon	Tank	
3c	4001 - 6000 gallon	Tank	
3d	6001 - 8000 gallon	Tank	
3e	8001 - 10,000 gallon	Tank	
3f	10,001 - 12,000 gallon	Tank	
3g	12, 001 - 15,000 gallon	Tank	
3h	15,001 - 20,000 gallon	Tank	
4	**UST System Removal and Disposal (includes purging, cleaning and all associated piping)**		
4a	0 - 1000 gallon	Tank	
4b	1001 - 4000 gallon	Tank	
4c	4001 - 6000 gallon	Tank	
4d	6001 - 8000 gallon	Tank	
4e	8001 - 10,000 gallon	Tank	
4f	10,001 - 12,000 gallon	Tank	
4g	12, 001 - 15,000 gallon	Tank	
4h	15,001 - 20,000 gallon	Tank	
5	**Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill**		
5a	0- 250 tons	Ton	
5b	251 - 500 tons	Ton	
5c	501 - 1000 tons	Ton	
5d	1001 - 2000 tons	Ton	
5e	> 2000 tons	Ton	
	BID FORM CONTINUED ON NEXT PAGE		

6	Waste Characterization and Disposal	Units	Unit Price
6a	Non- Hazardous Liquid	Gallon	
6b	Hazardous Liquid	Gallon	
6c	Hazardous Solid / Sludge	Gallon	
6d	55-gallon drum removal - Non-Hazardous Solid/Sludge	Drum	
6e	55-gallon drum removal - Hazardous Solid/Sludge	Drum	
7	**Miscellaneous**		
7a	Vac Truck and Operator	Day	
7b	Site Preparation Including Excavation Sloping and Overburden Stockpiling	Cubic yard	
7c	Clearing and Chipping Dense & Woody Vegetation	Day	
7d	Provisionary Allowance	Allowance	$10,000.00
7e	Concrete Disposal/Recycling	Sq. Foot	
7f	Asphalt Disposal/Recycling	Sq. Foot	
7g	5,000-gallon Frac Tank	Day	
7h	Air Monitoring	Day	
8	**Site Restoration**		
8a	22a Gravel	Ton	
8b	Crushed Limestone	Ton	
8c	Asphalt Paving (4" Thick)	Sq. Foot	
8d	Concrete	cubic yard	
8e	2" Topsoil and Seeding	Sq. Foot	
	Subtotal Construction		
9	**Mobilization, Demobilization and General Conditions**	% of construction	
	Subtotal Design & Construction (D&C)		

TOTAL PROJECT COST:	$
Management	$
Design	$
Construction	$

EXAMPLE SITE BID FORM

2022 Tank and Soil Removal ISID EXAMPLE SITE	BID FORM
Bidder Name:	
District:	

Line Item	Description	Est. Quantity	Units	Unit Price	Extended Price
1a	Project Admin	1	% of D&C		
2	**Professional Services**				
2a	Site Visit	1	Lump Sum		
2b	Excavation Plans/Drawings	1	Lump Sum		
2c	UST Removal/Excavation Oversight	10	Day		
2d	Construction/Removal Report	1	Lump Sum		
2e	Notification to Remove and UST registration	1	Lump Sum		
2f	UST Removal (Part 211) Site Assessment and Reporting	1	Lump Sum		
2g	Monitoring Well Abandonment	0	Lineal Foot		
2h	Monitoring Well Installation - Hollow Stem Auger	0	Lineal Foot		
2i	Mobilization and Demobilization - Hollow Stem Auger Drilling Equipment	0	Lump Sum		
2j	Monitor Well Installation - Geoprobe	35	Lineal Foot		
2k	Mobilization & Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	1	Lump Sum		
2l	Groundwater Monitoring & Reporting	4	Event		
2m	Soil Vapor Monitoring Points Installation - Geoprobe	30	Lineal Foot		
2n	Sub Slab Soil Gas Vapor Pin Installation	5	Each		
2o	Soil Vapor Monitoring and Reporting	4	Event		
3	**UST System Close In-Place (includes removing liquids and sludges, cleaning, and filling with an inert solid material)**				
3a	0 - 1000 gallon	1	Tank		
3b	1001 - 4000 gallon	0	Tank		
3c	4001 - 6000 gallon	0	Tank		
3d	6001 - 8000 gallon	0	Tank		
3e	8001 - 10,000 gallon	0	Tank		
3f	10,001 - 12,000 gallon	0	Tank		
3g	12, 001 - 15,000 gallon	0	Tank		
3h	15,001 - 20,000 gallon	0	Tank		
4	**UST System Removal and Disposal (includes purging, cleaning, and all associated piping)**				
4a	0 - 1000 gallon	0	Tank		
4b	1001 - 4000 gallon	0	Tank		
4c	4001 - 6000 gallon	0	Tank		
4d	6001 - 8000 gallon	1	Tank		
4e	8001 - 10,000 gallon	1	Tank		
4f	10,001 - 12,000 gallon	0	Tank		
4g	12, 001 - 15,000 gallon	0	Tank		
4h	15,001 - 20,000 gallon	0	Tank		
	BID FORM CONTINUED ON NEXT PAGE				

5	Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill	Est Quantity	Unit	Unit Price	Extended Price
5a	0- 250 tons	0	Ton		
5b	251 - 500 tons	0	Ton		
5c	501 - 1000 tons	1000	Ton		
5d	1001 - 2000 tons	0	Ton		
5e	> 2000 tons	0	Ton		
6	**Waste Characterization and Disposal**				
6a	Non- Hazardous Liquid	500	Gallon		
6b	Hazardous Liquid	0	Gallon		
6c	Hazardous Solid / Sludge	0	Gallon		
6d	55-gallon drum removal - Non-Hazardous Solid/Sludge	1	Drum		
6e	55-gallon drum removal - Hazardous Solid/Sludge	0	Drum		
7	**Miscellaneous**				
7a	Vac Truck and Operator	1	Day		
7b	Site Preparation Including Excavation Sloping and Overburden Stockpiling	100	Cubic yard		
7c	Clearing and Chipping Dense & Woody Vegetation	1	Day		
7d	Provisionary Allowance	$10,000.00	Allowance		
7e	Concrete Disposal/Recycling	30	Sq. Foot		
7f	Asphalt Disposal/Recycling	0	Sq. Foot		
7g	5,000-gallon Frac Tank	0	Day		
7h	Air Monitoring	2	Day		
8	Site Restoration				
8a	22a Gravel	2	Ton		
8b	Crushed Limestone	0	Ton		
8c	Asphalt Paving (4" Thick)	0	Sq. Foot		
8d	Concrete	0	cubic yard		
8e	2" Topsoil and Seeding	500	Sq. Foot		
	Subtotal Construction				
9	**Mobilization, Demobilization and General Conditions**		**% of construction**		
	Subtotal Design & Construction (D&C)				

TOTAL PROJECT COST:		$
Management		$
Design		$
Construction		$

Example Well/Boring Log

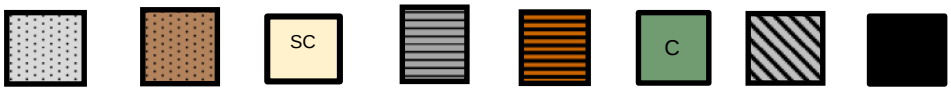
SOIL BORING LOG/MONITORING WELL CONSTRUCTION DIAGRAM

Elev. Datum: TOC MW-1 assumed 100.00	**Lat**: 45.678909009
Grd. Elev: 94.78 **T.O.C.:** 97.78 **T.O.S.:** 91.5	**Long**: -88.889709798
SWL: 6 ft bgl **Well Depth:** 16 ft bgl	**Datum**: NAD-83 Mich georef
Casing Type: 2 in galvanized	**Northing**: 567091.230
Screen Type: 4 ft SS 7 slot **Screen Length:** 5 ft	**Easting**: 346098.018
Annulus Sealed By: SC = soil collapse 22-5; B = bentonite 5-0, C = Cement	

Well Const.	Annulus Seal	Lithology	Lithologic Description	Depth bgl	Sample Type	Sample ID	Field Results PID and visual/olfactory
			Ground Surface - Asphalt	0 1			
	B		Sand, brown, silty, medium, dry, thin gravel zone at 3 – 3.5 ft	1 2 3 4 5	Soil	4-5	80 ppm PID slight staining and old petroleum odor
			Clay, brown, silty, moist	6 7 8 9 10	soil	7-9	130 ppm PID
	SC		Sand, grey, silty, medium, saturated, more silt with depth Screened at 12-16 ft. bgl	10 11 12 13 14 15 16 17 18 19 20	Water	12-16	2500 ppm PID: Sheen, strong petro odor
			Clay, grey, mottled, moist	20 21 22	Soil	21-22	4500 ppm PID sheen, strong petro odor
			TD in clay at 22 ft				

EXAMPLE

COMPANY NAME	SITE:	**ABC**	BORING/WELL:	**MSB-1/RL-12**
	ADDRESS:	**12345 W. Northeast Street**	DATE:	**Date**
	COUNTY:	**County Name**	DRILLER:	**J. Smith**
	TOWNSHIP:	**Township Name**	LOGGED BY:	**M. Smith**
	TOWN: **25N** RANGE: **15W** SEC.# **22**		DRILL METHOD:	**Direct Push**
	LOCATION:	**50 ft. SW of SE corner of building**	TOTAL DEPTH:	**22 ft. bgl**



Sand Grey | Sand Brown | Sand Collapse | Clay Grey | Clay Brown | Cement | Silt Grey | Asphalt

ATTACHMENT A

Remediation and Redevelopment Division

Standard Operating Procedure

INSTALLATION OF A SOIL GAS PROBE/VAPOR MONITORING POINT TO SUPPORT VAPOR INTRUSION INVESTIGATIONS

Original Date of Issuance: April 30, 2012

Revision #: 1 **Revision Date: February 1, 2013**

Approved by: Robert Wagner Date: 2/6/13

Robert Wagner, Chief
Remediation and Redevelopment Division
Michigan Department of Environmental Quality

Written by: **Matthew Williams, Vapor Intrusion Specialist**
Superfund Section
Remediation and Redevelopment Division
Michigan Department of Environmental Quality

The information contained in this Standard Operating Procedure (SOP) is explanatory and provides direction to staff and guidance to the regulated community, but does not have the force and effect of law and is not legally binding on the public or the regulated community. The information contained in this SOP is drawn from existing manuals, various reference documents, and a broad range of colleagues with considerable practical experience and diverse educational backgrounds. This SOP outlines the generic procedures for installing a soil gas probe, vapor monitoring point, or sub-slab vapor implant. Site conditions, contaminants, and geology may require modifications of this procedure.

Installation of a Soil Gas Probe/Vapor Monitoring Point

PLEASE NOTE:

This SOP was developed based on a compilation of available information, knowledge, field experience, and general industry practices to provide guidance to the Michigan Department of Environmental Quality (MDEQ) staff and their contractors conducting investigations and remedial activities at sites with known or potential vapor intrusion issues. The SOP was created to promote a consistent, informed, and practical approach for the MDEQ staff to follow that achieves the performance standards required by Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), and Part 213, Leaking Underground Storage Tanks, of the NREPA. The methods outlined in this document will produce reliable data that can support the various decisions required throughout the environmental process.

This SOP is available as a technical reference that may be informative when conducting work at sites where vapor intrusion issues are of concern and may be used as a reference for those conducting vapor intrusion evaluations under Part 201 or Part 213. This SOP is not intended to prohibit those conducting evaluations from using means other than those specified herein to measure soil gas concentrations; however, departures from this guidance will often need to include information for a more detailed review.

The MDEQ is not responsible for the misuse or misinterpretation of the information presented herein. Please note that because the SOP was written for the MDEQ staff, it may contain references to specific equipment for field investigations that the MDEQ currently uses. Such references do not represent endorsements of particular vendors.

1.0 SCOPE AND APPLICATION

This SOP describes the MDEQ's procedure for installing a Soil Gas Probe/Vapor Monitoring Point. Please note that this procedure is written for use by MDEQ staff and their contractors. Its use is optional for all others.

Soil gas samples collected less than five feet below ground surface must be referenced as shallow soil gas samples. Though these samples may provide beneficial information to support various lines of evidence, the effects due to barometric pressure, temperature, and the potential breakthrough of ambient air from the surface have the potential to cause these samples to be less reliable than soil gas samples collected at depths greater than five feet below the surface.

This SOP does not cover, nor is it intended to provide, a justification or rationale for where a sampling point is installed. It is assumed by using this SOP that site conditions have been fully evaluated and that the sampling location and depth meet the objectives outlined in the work plan or scope of work. For example, considerations must be given to the types of chemicals of concern, lithology encountered, surrounding buildings and underground structures, and the depth of the vapor source. Samples collected deeper than any potential source of vapors may not fully characterize the potential risk and sampling points should never be installed or collected within the zone of saturation.

2.0 SAMPLING POINT INSTALLATION

Prior to selecting sample locations, an underground utility search is required. Miss Dig and, if necessary, the local utility companies must be contacted and requested to mark the locations of their underground lines. Each sample location should also be screened in the field with a metal detector or magnetometer to verify that no underground utilities or structures exist.

2.1 Boring Advancement

There are many methods to advance a boring intended to install a soil gas sampling point. It is highly recommended that the methodology utilized have the following characteristics:

- Nominal in diameter (less than three inches is recommended)
- Provide minimal disturbance to the surrounding soil
- Does not inject air or water fluids
- Provides a soil core that can be screened, visibly classified, and if necessary collected for chemical analysis

A hydraulic probe is often utilized to advance a boring utilizing two different sampling devices. Those are:

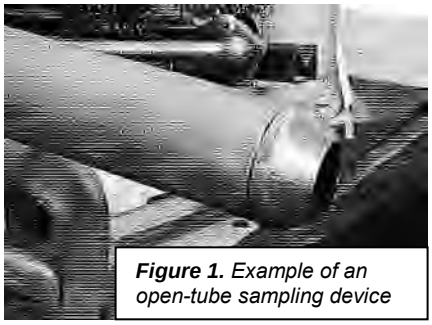


Figure 1. *Example of an open-tube sampling device*

- **Open-tube sampling device** – A direct push sampler for collecting continuous core samples of stable, unconsolidated materials. Although other lengths are available, a standard macro-core sampler (MC5) available from Geoprobe® is available in lengths between 48 and 60 inches with an outside diameter of 2.25 inches (Figure 1). Soil is collected inside a removable liner. Macro-core

samplers are readily available and easy to use in most unsaturated soil conditions to at least ten feet below ground surface.

Figure 2. *Example of a dual-tube sampling device*

- **Dual-tube sampling system** – Dual-tube sampling systems are efficient methods of collecting continuous soil cores with the added benefit of a cased hole. Dual-tube sampling is beneficial in loose or unstable soils as a casing is advanced that prevents soil samples from falling into the boring (Figure 2).

Other methods for advancing boring include the use of hand augers, slab bars, and electric hammers. Each methodology has benefits and drawbacks and should be evaluated before a specific use is decided upon. The hydraulic probe methods identified above can be deployed in a wide variety of site conditions that allows the probe to be driven past some dense stratigraphic horizons.

2.2 Soil Gas Well Materials (General List of Materials)

Tubing – Sample probe tubing should be of a small diameter (1/8 to 1/4 inch) and made of materials that will not react or interact with target compounds. The size should also correspond to the size and construction of the sample point. Suggested materials are nylon, Teflon®, polyethylene, copper, polyvinyl chloride (PVC), or stainless steel. The choice of tubing type depends on site-specific considerations, but in general, nylon tubing is preferred as it exhibits lower adsorption rates and is more flexible and easier to work with than stainless steel

Figure 3. *Vapor point examples*

Soil Gas Well Screen – Screens must be less than six inches in length and configured to allow soil gas to enter along the entire length (Figure 3). This typically results in a fine mesh or screen being utilized to prevent dirt or other debris from entering into the sample tubing.

Sand Pack – The grain size of the sand pack should be sized appropriately (i.e., no smaller than the adjacent formation) and installed in a manner to minimize disruption of airflow to the sampling tip.

Bentonite – Bentonite is utilized to form a chemically resilient, low-permeability, flexible seal from above the well screen to the ground surface. In single vapor point well construction, granular bentonite or bentonite crumbles can be utilized. If multiple well screens are to be utilized, then a coated and compressed bentonite pellet or "tablet" must be utilized (1/4 inch) to prevent any bentonite dust from sealing portions

of the borehole. It must be noted that adequately sealing soil gas sampling probes is very important to minimize the exchange of atmospheric air with the soil gas and to maximize the representativeness of the sample.

2.3 Soil Gas Well Installation

The following procedure does not account for the advancement of the boring due to the number of available methodologies available; however, it is imperative that for each boring a soil boring log is competed that provides details on the soil conditions and potential contamination encountered. The procedure below starts after the boring has been advanced and may need to be modified based on the boring methodology utilized. Construction details for each point must be documented in a field log.

A. Inspect the borehole to ensure that it has remained open and is free of water to the depth were the well screen is to be placed.
B. Place four to six inches of sand pack on the bottom of the boring.
C. Pre-assemble screen and tubing and lower into borehole in an upright position on top of the sand pack. If the boring is deep and narrow, adding a small inert weight (e.g., nut) may be utilized to facilitate the tube reaching the bottom.
D. Cut the tubing and temporarily terminate the surface end with a Swagelok cap or other fitting to prevent debris from entering into the line.
E. Mark tubing using tape and a ball-point pen to identify the probe location and depth. All marks should be on tags attached to the tubing and not on the tubing itself. Note: Permanent markers must not be used.
F. Place sand pack around the screen and extend the sand pack to six inches above the top of the screen.
G. Confirm the depth to the top of the sand pack.
H. Record all measurements on the field log.
I. Place one foot of dry granular bentonite or bentonite pellets on top of the sand pack.
J. Avoid lateral movement between the tubing and the bentonite as much as possible once a point has been installed.
K. Install bentonite pellets until six inches below the next screen interval and then hydrate with minimal water or one foot from the ground surface ensuring that the bentonite does not bridge during the placement. If an additional vapor point in the same boring is to be installed, return to Step A and repeat.
L. Ensure that the final bentonite seal is at least 2.5 feet thick.
M. Cut the protruding lengths of tubing successively shorter so the deepest sample tube is the longest length and the others progressively shorter. This is helpful if the labels on each tube are lost or illegible upon resampling.
N. Terminate surface ends of tubes with Swagelok caps, valves, or other desired terminations.
O. Complete all required field documentation.
P. Unless soil gas points are to be abandoned the same day they are installed, probes must be properly secured, capped, and completed to prevent infiltration of water or ambient air into the subsurface. For surface completions, the following components may be installed, as necessary:
    1. Fitting for connection to above ground sampling equipment
    2. Protective flush-mounted or above ground well vaults; and/or
    3. Guard posts

Examples of a single depth soil gas probe and a multi-depth or "nested" soil gas probe are shown in Figure 4. Figure 5 shows example pictures of surface completion.

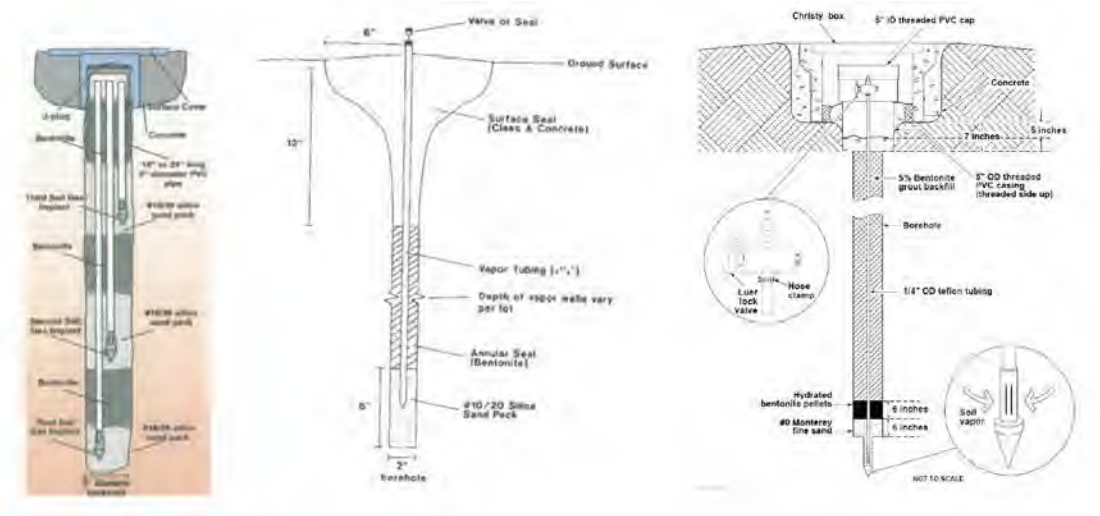


Figure 4. *Examples of complete vapor monitoring points [Hartman, 2004 (left and center) and* Vonder Haar, S.*, 2000 (right)]*

Figure 5*. Examples of various surface completions for vapor wells. (Hartman, 2004)*

2.4 Soil Gas Well Abandonment

All vapor monitoring wells, including those used for soil gas monitoring, must be abandoned upon completion of site activities.

Vapor wells constructed in the manner identified above and that are less than 20 feet in depth may be abandoned by removing any tubing and all surface protective covers. The boring annulus can then be backfilled with uncontaminated native material or grout and returned as close as possible to original site conditions.

If the tubing cannot be removed, the tubing should be filled with liquid grout and cut off at least one foot below the ground surface. All surface protective covers must be removed and the boring annulus backfilled with uncontaminated native material or grout and returned to as close as possible to original site conditions.

3.0 SOIL BORING LOGS AND VAPOR COMPLETION DIAGRAM

Boring logs and diagrams may be completed utilizing a variety of programs. The following information must be included for every vapor point installed:

- Project information
- Boring location
- Date Installed
- Total depth
- Project personnel including drilling contractor, driller, and geologist
- Drilling method
- Boring diameter
- Soil sampler utilized for lithology
- Sample recovery
- Soil description
- Field screening performed
- Samples sent for analysis
- Unified soil classification system classification
- Boring coordinates (state plane)
- A diagram representing installed sampling point that includes:
    - Surface completion
    - Bentonite seal used
    - Probe and screen construction materials and specifications
    - Depth of all installed materials including screen, bottom of screen, sand pack, tubing, and various bentonite seals

4.0 REFERENCES

Hartman, B., 2004. Vapor Monitoring Wells/Implants Standard Operating Procedures.

Vonder Haar, S., 2000. ERD SOP 1.10: Soil Vapor Surveys - Revision: 4.

ATTACHMENT B

Remediation and Redevelopment Division

Standard Operating Procedure

INSTALLATION OF A SUB-SLAB SOIL GAS PROBE/VAPOR MONITORING POINT TO SUPPORT VAPOR INTRUSION INVESTIGATIONS

Original Date of Issuance: April 30, 2012

Revision #: 1 **Revision Date: February 1, 2013**

Approved by: _____ Date: 2/6/13

Robert Wagner, Chief
Remediation and Redevelopment Division
Michigan Department of Environmental Quality

Written by: **Matthew Williams, Vapor Intrusion Specialist**
Superfund Section
Remediation and Redevelopment Division
Michigan Department of Environmental Quality

The information contained in this Standard Operating Procedure (SOP) is explanatory and provides direction to staff and guidance to the regulated community, but does not have the force and effect of law and is not legally binding on the public or the regulated community. The information contained in this SOP is drawn from existing manuals, various reference documents, and a broad range of colleagues with considerable practical experience and diverse educational backgrounds. This SOP outlines generic procedures for installing a soil gas probe, vapor monitoring point, or sub-slab vapor implant. Site conditions, contaminants, and geology may require modifications of this procedure.

PLEASE NOTE:

This SOP was developed based on a compilation of available information, knowledge, field experience, and general industry practices to provide guidance to the Michigan Department of Environmental Quality (MDEQ) staff and their contractors conducting investigations and remedial activities at sites with known or potential vapor intrusion issues. The SOP was created to promote a consistent, informed, and practical approach for the MDEQ staff to follow that achieves the performance standards required by Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), and Part 213, Leaking Underground Storage Tanks, of the NREPA. The methods outlined in this document will produce reliable data that can support the various decisions required throughout the environmental process.

This SOP is available as a technical reference that may be informative when conducting work at sites where vapor intrusion issues are of concern and may be used as a reference for those conducting vapor intrusion evaluations under Part 201 or Part 213. This SOP is not intended to prohibit those conducting evaluations from using means other than those specified herein to measure soil gas concentrations; however, departures from this guidance will often need to include information for a more detailed review.

The MDEQ is not responsible for the misuse or misinterpretation of the information presented herein. Please note that because the SOP was written for the MDEQ staff, it may contain references to specific equipment for field investigations that the MDEQ currently uses. Such references do not represent endorsements of particular vendors.

1.0 SCOPE AND APPLICATION

This SOP describes the MDEQ's procedure for installing a sub-slab soil gas probe/vapor monitoring point. Please note that this procedure is written for use by MDEQ staff and their contractors. Its use is optional for all others.

Sub-slab soil gas samples are vapor samples collected within two feet of the floor of the lowest point of the structure and must be referenced as sub-slab soil gas samples. Though these samples may provide beneficial information to support various lines of evidence, the effects due to barometric pressure, temperature, and the potential breakthrough of ambient air from the surface have the potential to cause these samples to be less reliable than soil samples collected at depths greater than five feet below the surface.

This SOP does not cover, nor is it intended to provide, a justification or rationale for where a sampling point is installed. It is assumed by using this SOP that site conditions have been fully evaluated and that the sampling location and depth meet the objectives outlined in the work plan or scope of work. For example, considerations must be given to the types of chemicals of concern, lithology encountered, surrounding buildings and underground structures, and the depth of the vapor source.

2.0 SAMPLING POINT INSTALLATION

2.1 Boring Advancement

Borings should be through the use of a rotary hammer drill. The specific drill utilized must be capable of utilizing the drill and coring bits identified by the SOP (see below) as well as be of sufficient size to penetrate the expected thickness of concrete present.

2.2 Sub-Slab Point Well Materials (General List of Materials)

Tubing:	1/4 inch diameter x 0.35 inch wall thickness stainless steel tubing for implant
Screen (optional):	3 inch stainless steel implant with 1/4 inch stainless steel compression fittings
Misc:	Mini SST ball-valve adapter, rubber shaft plug, top plug, hose barb, ¾" diameter bottle brush, compression fittings
Expendable supplies:	Neat cement, bentonite, or volatile organic compounds (VOC)-free plumbers putty or modeling clay
Surface termination:	Various surface terminations are available and the selection often depends on whether the probes are temporary or permanent and whether they need to be installed flush with the surface. This SOP utilizes products available from AMS, Inc.
Tools:	Shop-Vac® with with HEPA filter (optional) Rotary hammer drill 1 inch x 16 inch x 21 inch SDS max bit 2 inch x 3 inch x 16 inch SDS max core bit 50 cubic centimeter (cc) syringe

2.3 Sub-Slab Vapor Probe Installation Protocol

Figure 1. Hammer Drill

1. Prior to drilling holes in a foundation or slab, contact local utility companies to identify and mark utilities coming into the building from the outside (e.g., gas, water, sewer, refrigerant, and electrical lines). Consult with a local electrician and plumber to identify the location of utilities inside the building.

2. Prior to fabrication of the sub-slab vapor probes, use the rotary drill and the **two inch diameter drill bit** to create a shallow (e.g., 1/4 to 1/2 inch in depth) outer hole that **partially** penetrates the slab (Figure 1). This outer hole will allow the protective cap to be flush with the concrete surface.

Figure 2. Inner & Outer Holes

3. Brush the hole with a bottle brush and use the small portable vacuum cleaner to remove cuttings from the outer hole.

4. Use the rotary hammer drill and the **one inch drill bit** to create a smaller diameter "inner" hole through the remainder of the slab and at least 6 inches into the underlying soil to form a void in the sub-slab material. Figure 2 illustrates the appearance of the "inner" and "outer" holes from the surface. Drilling into the sub-slab material will create an open cavity which will prevent obstruction of probes during sampling by small pieces of gravel.

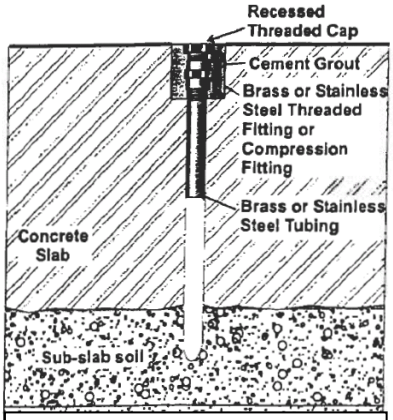


Figure 3. Typical sub-slab vapor probe (shown without a screen)

5. Brush the hole with a bottle brush and use a small portable vacuum cleaner to remove cuttings from the hole. Cuttings should be removed prior to advancing completely through the cement as much as possible. Once through the slab, care should be taken to minimize the amount of vacuum applied beneath the slab.

6. Determine the thickness of the slab and record the measurement.

7. Assemble the vapor point using the basic design of a sub-slab vapor probe illustrated in Figure 3.

Figure 4. Complete Vapor point

8. Place the assembled vapor point (Figure 4) into the hole and ensure the screen, if utilized, extends beyond the concrete and the top of the probe will be completed flush with the slab once the tamper resistant cap is applied, so as not to interfere with day-to-day use of the buildings. Cut tubing if necessary (Figure 5).

9. Confirm the fit of the rubber shaft plug to the sides of the boring. It should be snug and no gaps present. If additional thickness is necessary, VOC-free plumbers putty or modeling clay can be added to the sides of the rubber.

10. Mix quick-drying Portland cement with water to form slurry. Portland cement may expand upon drying**.** Points installed for a single sampling event may use VOC-free plumbers putty or modeling clay.

Figure 5. Cut tubing

11. Inject the Portland cement with a 50 cc syringe or push into the annular space between the probe and outside of the "outer" hole (Figure 6) until filled (Figure 7). If a tamper-resistant cap is to be used the cement should be left ¼" below the concrete surface.

12. Complete installed vapor point with a plug (Figure 8) or tamper-resistant cap (Figure 9).

13. Allow cement to cure for at least 24 hours prior to sampling. The time may be adjusted if quick-drying cement is utilized.

Figure 6. Seal annular space

Figure 7. Seal complete

Figure 8. Plug

Figure 9. Tamper-resistant cap

2.4 Abandonment

All vapor monitoring wells, including those used for soil gas monitoring, must be abandoned upon completion of site activities.

Vapor wells constructed in the manner identified may be abandoned by removing any tubing and all surface protective covers. The boring annulus can then be backfilled with uncontaminated native material or grout and returned as close as possible to the original site conditions.

If the tubing cannot be removed, the tubing should be cemented in place. All surface protective covers must be removed and returned to as close as possible to original site conditions.

3.0 SOIL BORING LOGS AND VAPOR POINT COMPLETION INFORMATION

Boring logs and diagrams must be completed. A variety of programs may be utilized; however, the following information must be included for every sub-slab vapor point installed:

- Project information
- Boring location
- Date installed
- Total depth
- Thickness of concrete
- Project personnel including drilling contractor, driller, and geologist
- Boring diameter
- Soil description (if identified)
- Field screening performed
- A diagram representing installed sampling point that includes:
    - Surface completion
    - Seal used
    - Probe and screen construction materials and specifications
    - Depth of all installed materials including screen, bottom of screen, sand pack, and tubing

4.0 REFERENCES

Though not specifically referenced, the SOP is based upon the following:

DiGiulio, Dominic. DRAFT Standard Operating Procedure (SOP) for Installation of Sub-Slab Vapor Probes and Sampling Using EPA Method TO-15 to Support Vapor Intrusion Investigations. United States Environmental Protection Agency, Office of Research and Development, National Risk Management Research Laboratory, Ground-Water and Ecosystem Restoration Division, Ada, Oklahoma.

Hartman, B., 2004. Vapor Monitoring Wells/Implants Standard Operating Procedures.

ATTACHMENT C

Remediation and Redevelopment Division

Standard Operating Procedure

SAMPLING UTILIZING USEPA METHOD TO-15 *VIA* BOTTLE-VAC® TO SUPPORT VAPOR INTRUSION INVESTIGATIONS

Original Date of Issuance: April 30, 2012

Revision #: 1 **Revision Date: February 1, 2013**

Approved by: Robert Wagner Date: 2/6/13

Robert Wagner, Chief
Remediation and Redevelopment Division
Michigan Department of Environmental Quality

Written by: **Matthew Williams, Vapor Intrusion Specialist**
Superfund Section
Remediation and Redevelopment Division
Michigan Department of Environmental Quality

The information contained in this Standard Operating Procedure (SOP) is explanatory and provides direction to staff and guidance to the regulated community, but does not have the force and effect of law and is not legally binding on the public or the regulated community. The information contained in this SOP is drawn from existing manuals, various reference documents, and a broad range of colleagues with considerable practical experience and diverse educational backgrounds. This SOP outlines generic procedures for installing a soil gas probe, vapor monitoring point, or sub-slab vapor implant. Site conditions, contaminants, and geology may require modifications of this procedure.

PLEASE NOTE:

This SOP was developed based on a compilation of available information, knowledge, field experience, and general industry practices to provide guidance to the Michigan Department of Environmental Quality (MDEQ) staff and their contractors conducting investigations and remedial activities at sites with known or potential vapor intrusion issues. The SOP was created to promote a consistent, informed, and practical approach for the MDEQ staff to follow that achieves the performance standards required by Part 201, Environmental Remediation, and Part 213, Leaking Underground Storage Tanks, of the NREPA. The methods outlined in this document will produce reliable data that can support the various decisions required throughout the environmental process.

This SOP is available as a technical reference that may be informative when conducting work at sites where vapor intrusion issues are of concern and may be used as a reference for those conducting vapor intrusion evaluations under Part 201 or Part 213. This SOP is not intended to prohibit those conducting evaluations from using means other than those specified herein to measure soil gas concentrations; however, departures from this guidance will often need to include information for a more detailed review.

The MDEQ is not responsible for the misuse or misinterpretation of the information presented herein. Please note that because the SOP was written for the MDEQ staff, it may contain references to specific equipment for field investigations that the MDEQ currently uses. Such references do not represent endorsements of particular vendors.

1.0 SCOPE AND APPLICATION

This SOP describes the MDEQ's procedure for collecting a vapor sample through either a soil gas probe/vapor monitoring point and/or sub-slab monitoring point for the analysis of volatile organic compounds (VOCs) by the United States Environmental Protection Agency Method TO-15 (USEPA, 1999). Please note that this procedure is written for use by MDEQ staff and their contractors. Its use is optional for all others.

This SOP does not cover, nor is it intended to provide, a justification or rationale for where a sampling point is installed. It is assumed by using this SOP that site conditions have been fully evaluated and that the sampling location and depth meet the objectives outlined in the work plan or scope of work. Considerations must be given to the types of chemicals of concern, lithology encountered, and the depth of the vapor source. Samples collected deeper than any potential source of vapors may not fully characterize the potential risk and sampling points should never be installed or collected within the zone of saturation.

The Method TO-15 in this procedure has been modified for use with one-liter Bottle-Vac® samplers by Entech Instruments, Inc. Bottle-Vacs® are utilized by the MDEQ's Laboratory in all soil gas sampling applications. Bottle-Vac® has been shown by internal testing performed by the MDEQ Laboratory to be reliable for both holding times and reporting requirements in soil gas sampling applications.

2.0 SOIL GAS COLLECTION

Most vapor wells are installed at relatively shallow depths (less than ten feet below ground surface) so minimum purge volumes and low-volume samples must be performed to minimize potential breakthrough from the surface or between sampling intervals. Tracer/leak gas is necessary to ensure breakthrough does not occur and that a leak does not occur at any fitting above grade. Samples must not be collected after any rain event and until site conditions (including moisture content) return to typical site conditions.

Samples from wells with multiple points installed must not be collected simultaneously and approximately 30 minutes must elapse between each sampled interval which should be documented on the field log. Sample flow rates are not to exceed 200 milliliters per minute (ml/min) to minimize the potential for vacuum extraction of contaminants from the soil phase. Volumes of various tubing sizes are provided in Table 1 in order to aid in calculating purge volumes.

Table 1
Volumes for Select Tubing Sizes

Tubing Size (inches ID)	*Volume/ft. (liters)*
3/16	0.005
1/4	0.010
1/2	0.039

Care must be used during all aspects of sample collection to ensure that sampling error is minimized and high quality data are obtained. Care must also be taken to avoid excessive purging prior to sample collection and prevent pressure build-up in the enclosure during introduction of the tracer gas. Inspection of the installed sample probe, specifically noting the integrity of the surface seal and the porosity of the soil in which the probe is installed, will help to determine the tracer gas setup. The sampling team must avoid actions (e.g., fueling vehicles, using permanent marking pens, and wearing freshly dry-cleaned clothing or personal fragrances) which could potentially cause sample interference in the field.

IMPORTANT SAMPLING NOTES:

- An initial vacuum test must be performed on each point. This is done by attaching a 50-ml syringe and pulling back on a point to ensure that the point is able to provide adequate vapor without obtaining a vacuum. If a point is installed in which the syringe cannot be withdrawn without generating a vacuum, the sampling point may not be valid and may need to be replaced.
- If water droplets are observed in the tubing or in a Bottle-Vac®, the sampling crew must note the presence of water on the sample label and Chain of Custody and recollect the sample.
- Bottle-Vac® must remain out of the sun and not placed on ice or chilled.
- Collected Bottle-Vac® samples must be stored at room temperature and not left in a hot vehicle or freezing vehicle.
- Label all samples with the label provided by the lab using a ballpoint pen. *Do not use a Sharpie*!
- Wash hands or replace sampling gloves between samples to ensure the leak/tracer compound is not on your fingers when connecting fittings.
- Disposable equipment and supplies must not be used for multiple sampling points.
- *Do not write* on boxes provided by the MDEQ Laboratory.
- *Do not remove* the green tape from the flow regulator. Do not adjust; the flow regulator has been calibrated to the correct flow rate of 100 to 200 ml/min.
- The MDEQ provides a dedicated regulator for each sample that is collected. The ID of each regulator should be referenced on the sampling form and any issues reported to the MDEQ Laboratory.

2.1 Soil Gas Collection General List of Materials

The equipment required for soil gas sample collection is as follows:

Tooling and Supplies	Flow Meters and Detectors:
• Bottle-Vac® (one per location) • Regulated flow meter assembly set to a maximum of 200 ml/min (one per location) • 1/4 inch tubing (suggested materials are nylon, Teflon® polyethylene, or similar) and assorted fittings • Plastic housing for using tracer gas • 50 ml syringe (for purging) • Camera • Adjustable crescent wrenches, small to medium size, and/or open end combo wrenches 9/16 to 1/2 inch • Scissors/snips to cut tubing • Ballpoint pens • Nitrile gloves • Compound to be used as tracer gas - lab grade helium	• Flow regulator with vacuum gauge. Flow regulators provided by the MDEQ Laboratory are pre-calibrated to a specified flow rate (e.g., 100 ml/min). • Photoionization detector (with appropriate lamp • Helium detector • Methane meter for petroleum sites that is capable of also measuring percent of methane (CH_4), carbon dioxide (CO_2), and oxygen (O_2) • Optional meter to measure %LEL of methane **Forms:** • Chain of Custody forms • Soil gas sample collection log (example attached) • Field notebook

2.2 Soil Gas Tracer Compounds

A leak in the sampling assembly may allow ambient air into the system and dilute the soil gas results (Benton, 2007). Therefore, tracer gases must be utilized during the collection of soil gas samples to verify that the sample collected is from the installed sampling point. The presence of a tracer compound, whether liquid or gaseous, can confirm a leak in the sampling train and the usability of the sample will need to undergo further evaluation.

Careful thought and consideration must be used when choosing a leak check compound as a tracer as each compound utilized can have specific benefits and drawbacks that should be considered. Figure 1 depicts a typical sub-slab sampling setup utilizing helium as a tracer gas. Though other compounds may be utilized, the MDEQ Laboratory has identified a preference for helium.

Helium used as a tracer gas beneath a shroud as shown in Figure 1 allows for the screening of the sampling train in the field. The use of a field meter capable of detecting helium may be able to resolve and correct any leaks by reevaluating the sampling train and retightening all fittings prior to collecting the sample for analysis. If a leak has been detected and is unable to be resolved, the sampling point may need to be decommissioned and a new one installed. Lab grade helium must be utilized to eliminate possible contribution issues as helium available at general merchandise stores may contain secondary contaminants such as benzene (Figure 2).

Understanding the relationship between a leak and the concentration detected of the tracer gas used to check for leaks, the potential for absorption of the tracer gas (i.e., helium) onto sample train tubing, and the potential for interference by the tracer gas compound with VOCs is important in answering the data usability. An ambient air leak up to ten percent may be acceptable if quantitative tracer testing is performed. Otherwise, the soil gas vapor well should be decommissioned if the leak cannot be corrected. Replacement vapor wells should be installed at least five feet from the location where the original vapor well was decommissioned due to a confirmed leak.

***Figure 1**. Sampling shroud being pressurized with helium.*

***Figure 2**. Use Ultra High Pure (UHP) grade helium to avoid background contaminants.*

2.3 Sample Collection Procedure

***Figure 3**. Sampling equipment.*

1. Allow for subsurface conditions to equilibrate and vapor concentrations to stabilize after vapor point installation:
   - Do not conduct the purge volume test, leak test, and soil gas sampling for at least 45 minutes.
   - Do not conduct the purge volume test, leak test, and soil gas sampling for at least 48 hours after vapor probe installation with augers.
   - Do not conduct the purge volume test, leak test, and soil gas sampling after any rain event until site conditions return to normal.
2. Assemble the aboveground sampling equipment which consists of new connector tubing, a designated regulated flow meter assembly including pressure gauge for each sample, purging equipment, and Bottle-Vac® (Figure 3).
3. Place the completed sampling label on the Bottle-Vac®.

***Figure 4.** Connect sampling line to point.*

***Figure 5**. Connect regulator to sampling line.*

***Figure 6**. Connect regulator assembly to shroud.*

4. Connect the above ground sampling line to the vapor monitoring point (Figure 4).
5. Connect the regulated flow meter assembly to sampling line (Figure 5).
6. Connect the regulated vapor flow meter assembly to the sampling shroud (Figure 6).
7. Calculate volume of air contained within the vapor point and sampling assembly up to the point where the sample will be collected and record on the field sampling form.
8. Check all sampling system connections and fittings for tightness and/or obvious deterioration.

Figure 7

Figure 8

Figure 9

9. Run all sampling lines through the helium shroud and place the enclosure on the ground (Figure 7). It may be appropriate to seal the enclosure to the ground using VOC-free plumbers putty, modeling clay, or hydrated bentonite.

10. Connect the sampling port line to the outside of shroud, making sure that the valve is closed (Figure 8).

11. Connect the helium cylinder to the tracer gas port. Opening the valve on the line from helium to the shroud, begin the flow of helium into the enclosure (Figure 9).

Figure 10

Figure 11

12. Confirm that the enclosure contains helium through the use of the helium detector.

13. Connect a 50 cubic centimeter (cc) syringe to the sampling port line and purge at least three volumes of air from the sampling system (Figure 10). After purging is complete, close the valve to the sampling line, disconnect the syringe, and close valve to the helium cylinder.

14. Calibrate the helium detector and zero for existing site conditions.

15. Connect the helium detector to the sampling port, collect, and record a reading (Figure 11).

16. If helium is detected, return to Step 5 and repeat process until no helium is detected. If a leak is unable to be resolved, the sampling point may need to be decommissioned and a new one installed.

17. Reaffirm that the enclosure contains helium through the use of the helium detector. If helium is not detected in the sampling enclosure, identify how the helium is leaving the enclosure and return to Step 6 and seal the enclosure as appropriate.

Figure 12

Figure 13

18. Disconnect or remove the sampling lines from the sampling enclosure leaving the flow regulator assembly and the lines connecting it into the sampling point in place (Figure 12).

19. Open the valve on sampling line.

20. Immediately connect the flow regulator assembly to the Bottle-Vac® using the quick connect adaptor and record the start time and vacuum gauge reading (Figure 13). The vacuum gauge should register about -28 millimeters mercury when it is first attached.

21. Check every two minutes and record the time at which the vacuum gauge reaches 0 pounds per square inch.

22. Calculate and confirm that the sampling rate is less than 200 ml/min. Record the flow regulator number on the sampling form and note any sampling discrepancies in the field notes and sampling form.

23. Disconnect the quick connect adaptor from the Bottle-Vac® and place paraffin on the top of the Entech Micro-QT® Valve.

24. Confirm the container has the proper label with the sample identification information.

25. Remove the flow regulator from the tubing and record the regulator number on the sampling form.

26. Complete the air volatiles request form. Be sure to circle Bottle-Vac® in the upper right.

27. Return everything including the Bottle-Vac®, adaptor, vacuum gauge, flow regulator assembly, and notes on equipment issues to the MDEQ Laboratory for analysis, cleaning, and calibration.

3.0 QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES AND FIELD RECORDS

The Quality Assurance/Quality Control (QA/QC) procedures are an integral part of any sampling activities. The most important QA/QC procedures in collecting soil gas sampling are ensuring that the samples are representative of the subsurface conditions. For soil gas sampling, that means the QA/QC program identify procedures that verify that the sample is properly collected. Recording the pressure reading throughout the process is a critical component. Unlike soil or groundwater sampling, most of the containers and sampling devices utilized for sampling are verified clean. Upon request, the laboratory can provide laboratory batch cleaning results.

Trip blanks are typically not collected due to the sampling process and sampling devices that prevent the intrusion (or introduction) of air or other media into the sampling device. In addition, the failure of one flow regulator sampling assembly on a specific Bottle-Vac® does not provide an indication that any of the other sampling assemblies or Bottle-Vacs® have failed. Sampling blanks for soil gas sampling equipment including tubing and fittings may be collected if the source of the material is unknown or suspected to be contaminated.

Duplicate samples including blind duplicates are recommended to be collected to verify laboratory procedures and should include the collection of at least one field duplicate per sampling event or one per 20 samples, whichever is greater. When collecting duplicate samples in the field, it is imperative that the duplicate samples are collected simultaneous to collection of the primary sample using a sampling tee and at a combined sample rate to not exceed 200 ml/min from each point. Laboratory duplicate samples can also be collected from the same sampling Bottle-Vac® if the duplicate is not required to be a blind sample.

3.1 Soil Gas Sampling Record

The following information should be recorded in a field notebook or on sampling forms similar to those shown in Attachment 1 to document the procedures utilized at a specific site to collect soil gas data. In general, the fields should include the following information:

1. Sample identification information including the locations and depths at which the samples were collected, sample identifiers, date, and time
2. Identify the field personnel involved in the sample collection
3. Weather conditions (e.g., temperature, wind speed, barometric pressure, precipitation, etc.)
4. Sampling methods, devices, and equipment used
5. Purge volumes prior to sample collection. Relate the purge volumes to the volume of the sampling equipment, including the tubing connecting the sampling interval to the surface.
6. Volume of soil gas extracted (i.e., volume of each sample)
7. Vacuum of canisters before and after samples collected
8. Tracer gas utilized and whether it is a liquid or a solid
9. Field screening of any tracer gas

4.0 REFERENCES

Benton, Diane and Shafer, Nathan. 2007. Evaluating Leaks in a Soil Gas Sample Train, Paper #45 Extended Abstract, Air Toxics, Ltd.

United States Environmental Protection Agency. 1999. Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. Compendium Method TO-15 Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS). Center for Environmental Research Information, Office of Research and Development, United States Environmental Protection Agency. Document No. EPA/625/R-96/010b.

STATE OF MICHIGAN

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
State Facilities Administration
Design and Construction Division

3111 West St. Joseph Street

Lansing, MI 48917

ADDENDUM NO. 1

TO: All applicants and interested parties

DATE: April 21, 2022

SUBJECT: Department of Technology, Management and Budget
2022 Tank and Soil Removal ISID RFP
Design-Build Services
Various Locations, Michigan
Request for Proposal

Please acknowledge receipt of this Addendum in your proposal.

QUESTIONS

The following questions have been compiled to clarify answers to questions in portions of the RFP package:

Q1. For Line Item 2g – Monitoring Well Abandonment, would monitoring well abandonment using bentonite crumbles be acceptable instead of bentonite grout?

A1. If there is 20' or less of groundwater in the well casing bentonite pellets may be used to abandon the well. If there is more than 20' of groundwater in the well casing, the contractor shall use Pell Plug to seal and abandon the well.

Q2. Under Line Item 4 – UST System Removal and Disposal, the Scope of Work calls for backfill to be compacted to 95%. Is a standard or modified proctor test required for the density testing?

A2. Modified proctor test.

Q3. If the contractor is responsible for backfilling and compacting the excavation with approved material, and excavated contaminated soil tonnage will be determined from a certified scale, why is the backfill tonnage also required from a certified scale? Can that requirement be waived?

A3. No

Q4. On Page 7 of the RFP, (Section II-5) the DB Entity Questionnaire is referenced as Attachment V. Please clarify that the Questionnaire for Professional Services is supposed to be Attachment V.?

A4. Confirmed but also attached as fillable form document.

Q5. Some information requested in the Section II Proposal Format-Part I Technical (page 5) is redundant with information requested in the Questionnaire for Professional Services. (Example the request for a staff organization chart(s), and references). Please clarify if similar information is to be included in both the Questionnaire and in Sections II-1 through II-5 following the proposal format?

A5. There is no need to provide the same information more than once. You can just reference the location(s) of the provided information if requested more than once.

Q6. Section II-3, page 6 of RFP: Please confirm that the table to include information (a-f) is the table labeled "Position, Classification and Employee Billing Rate.

A6. Confirmed.

Q7. Page 6, Section 4.12 of the Questionnaire states: "Describe how you would coordinate your work on a project where the sampling will be provided by State of Michigan employees." Is this suggesting that the sampling plan will be provided, or that sampling will be completed by State employees? Please clarify

A7. Sampling of all media (soil, groundwater, soil vapor) will be completed by the contractor. State of Michigan project managers may choose to split some samples with the contractor which the project manager will collect and arrange for analysis.

Q8. A Total Project Cost is requested at the bottom of the Unit Pricing Bid form. Are you requesting that this be completed (a sum of all unit pricing) in addition to the Total Cost requested at the bottom of the Example Site Bid form?

A8. No. Just fill out the "Unit Price" Columns.

Q9. Please clarify which items on the Unit Rate sheet should include "Design" vs. "Management"?

A9. See A8 Above.

Q10. Are forms III-2-B through III-2-D to include totals from the Unit Price Sheet or from the ISID Example Site? If from the Unit Price Sheet, how do we account for multiple line items under each category (Example – various tank sizes)?

A10. Submittal of Forms III-2-B through III-2-D are not required for this RFP. They are provided as information and may be required only at the time a proposal for an individual assigned project is requested.

Q11. Do we assume drum cost, transportation and disposal for drilling cuttings and purge water is covered under the monitoring well installation? Or will these items be billed under Waste Characterization and Disposal Section 6?

A11. It will be billed under Waste Characterization and Disposal Section 6.

Q12. Is site restoration after monitoring well abandonment cost to be included in Line item 2g. Monitoring Well Abandonment or under Section 8 Site Restoration?

A12. Line Item 2g - Monitoring Well Abandonment.

Q13. What line item does Private Utility Locate fall under?

A13. Item 2b – Excavation Plans/Drawings.

Q14. Does the probe rod diameter have to be 4.25" on Monitoring Wells Installation – Geoprobe? Or can Geoprobe Rods have diameter of 3.25"?

A14. 4.25" diameter Geoprobe rods will be required for the installation of monitoring wells.

Q15. Well Installation – Are we using Bentonite Pellets or is Bentonite Chips allowed?

A15. Bentonite pellets or Pell Plug can be used in place of grout in the annular space.

Q16. For Well Installation – Is grout required or optional

A16. Bentonite pellets or Pell Plug can be used in place of grout in the annular space.

Q17. What line item should the collection of top of casing, survey measurements be included under?

A17. 2h for Hollow Stem Auger monitor well installation
2j for Geoprobe monitor well installation

END OF ADDENDUM NO. 1

STATE OF MICHIGAN

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
State Facilities Administration
Design and Construction Division

3111 West St. Joseph Street

Lansing, MI 48917

ADDENDUM NO. 2

TO: All applicants and interested parties

DATE: May 10, 2022

SUBJECT: Department of Technology, Management and Budget
2022 Tank and Soil Removal ISID RFP
Design-Build Services
Various Locations, Michigan
Request for Proposal

Please acknowledge receipt of this Addendum in your proposal.

QUESTIONS

The following question has been added to clarify answers to questions in portions of the RFP package:

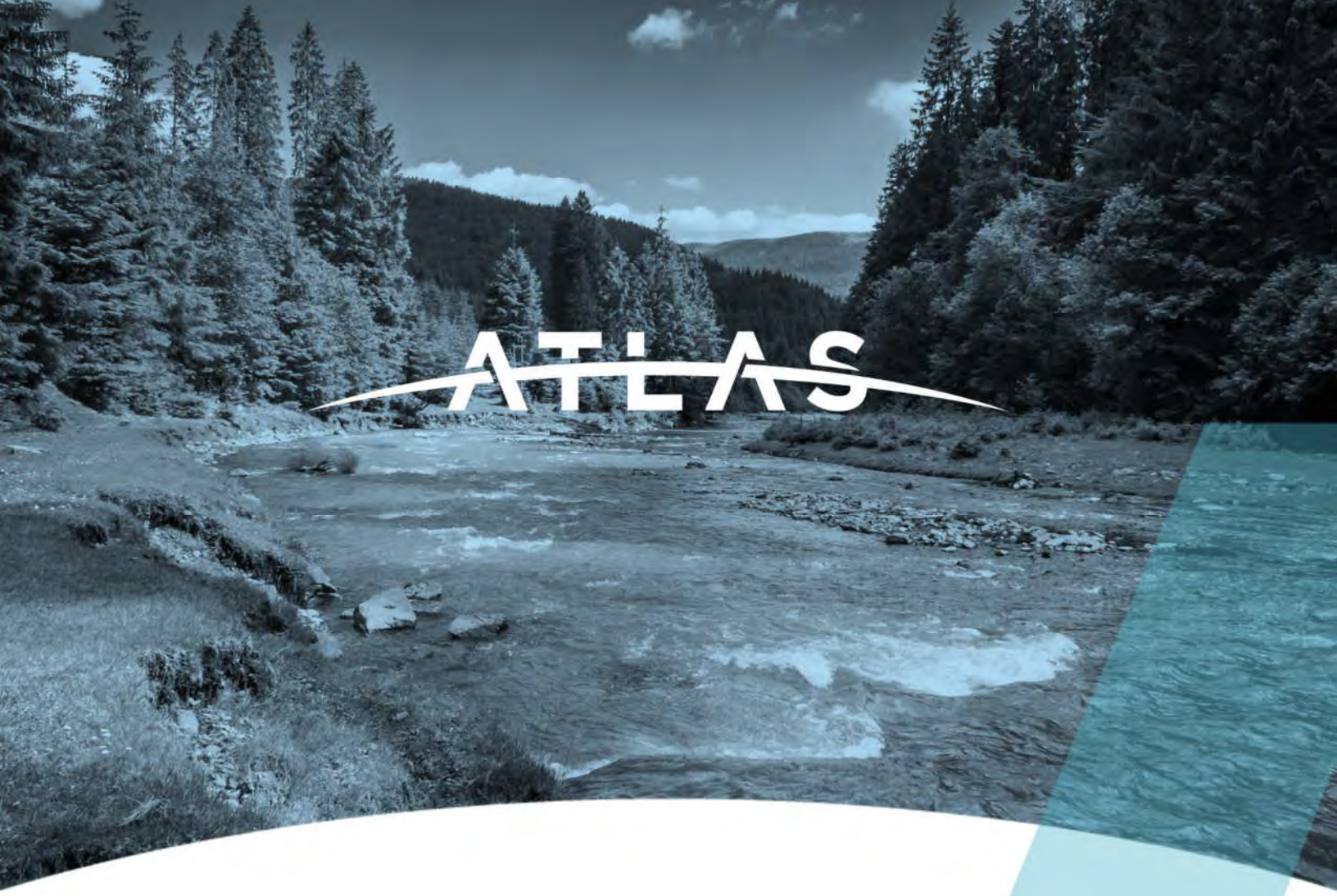
Q1. According to Section IV.2.19 and APPENDIX VI.2, it appears that Davis Bacon Act ("Prevailing Wages") apply to the Construction work performed under the Contract. As you know, Prevailing Wage rates are set by each county. Furthermore, the Contract is for a period of 2 years and Prevailing Wage Rates are adjusted every 90 days. With multiple counties in each EGLE District, how do we provide a single Unit Rate covering all of the counties in an entire District and for a period of 2 years?

A1. Most of the assignments will not be federally funded work, and Davis Bacon Act will not apply. However, State of Michigan prevailing wage rates will apply, and each assignment will have its own prevailing wage rates. The firms will need to factor in the potentially applied prevailing wage rates into the unit rate prices for the corresponding counties/districts.

END OF ADDENDUM NO. 2

APPENDIX III

VENDOR PROPOSAL RESPONSE



2022 TANK AND SOIL REMOVAL ISID RFP

DESIGN-BUILD SERVICES
VARIOUS LOCATIONS, MICHIGAN

PREPARED FOR:

STATE OF MICHIGAN, DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
State Facilities Administration
Design and Construction Division
3111 West St. Joseph Street
Lansing, Michigan 48917

PREPARED BY:

Atlas Technical Consultants LLC
46555 Humboldt Drive, Suite 100
Novi, Michigan 48377

May 12, 2022

Questionnaire for Professional Services

Department of Technology, Management and Budget
2022 Indefinite-Scope Indefinite-Delivery Design-Build Contract
Tank and Soil Removal
Request for Qualifications
Various Locations, Michigan

INSTRUCTIONS: Firms shall complete the following information in the form provided. A separate sheet may be used if additional space is needed; please key the continuation paragraphs to the questionnaire. Answer questions completely and concisely to streamline the review process.

ARTICLE 1: BUSINESS ORGANIZATION

1. Full Name: ATC Group Services LLC dba Atlas Technical
   Address: 13214 Bee Cave Parkway, Building B Suite 230, Austin, Texas 78738
   Telephone and Fax: P: (512) 575-3637 F: (248) 669-5147
   Website: www.oneatlas.com
   E-Mail: joshua.schuyler@oneatlas.com
   DB Entity(s) federal I.D. number(s): 46-0399408

   If applicable, state the branch office(s), partnering organization or other subordinate element(s) that will perform, or assist in performing, the work: Novi, MI; Detroit, MI; Grand Rapids, MI; and Grayling, MI (See Part I-Technical for further details)

2. Check the appropriate status:

   ☐ Individual firm ☐ Association ☒ Partnership ☐ Corporation, or ☐ Combination – Explain:

   If you operate as a corporation, include the state in which you are incorporated and the date of incorporation: NA

   Include a brief history of the DB Entity's firm: ATC Group Services, an Atlas Company, was founded in Sioux Falls, South Dakota in 1982. In 2017, ATC was acquired by Atlas Technical Consultants (NASDAQ: ATLASX) (Atlas), headquartered in Austin, Texas, with over 3,500 employees, in over 100 offices and 40 states.

   Provide an organization chart depicting all personnel and their roles/responsibilities. Atlas has provided a Michigan Organizational Chart depicted all Michigan Staff with roles/responsibilities in **Appendix A** of the attached response to 2022 Tank and Soil ISID RFP.

Provide an organization chart depicting key personnel and their roles for a typical assigned project. Include generic supporting staff positions. Atlas has provided an Organizational Chart depicting key personnel and their roles for a typical project assignment. Please refer to the attached response to 2022 Tank and Soil ISID RFP, Section I-3 Personnel, Figure 1: Authority and Communication Lines.

ARTICLE 2: PRIOR EXPERIENCE

2.1 Include a brief description of your firm's design build experience in the UST and contaminated soil removal. Provide client references and brief descriptions for at least three (3) projects in the last five years closely related to the work requested in this RFP. Name the currently employed key personnels assigned to each project. Emphasis shall be placed on recent work at sites of environmental contamination and on sites where the Professional has provided technical support services

Project 1 Reference Information:
Project Name:Speedway #8752
Key Personnels: Joshua Schuyler, Michael Hauswirth, Jason Conant, Joshua Samson, Jessica Davis, Brian Weir, Nick Priehs
Project Address:5260 Miller Road
Project City/State/Zip:Flint, Michigan 48507
Owner/Client Contact Name and Telephone #:Speedway LLC, 7-11/Jason Siemen, (937) 591-1106
Project 1 Description:Pre-Construction Assessment, Oversight and Sampling, Underground Storage Tank Removals, Soil Management Plan, Dewatering Plan, Subsurface Investigation, Waste Disposal, Permitting, Monitoring Well Abandonment, Corrective Action, Institutional Controls

Project 2 Reference Information:
Project Name:Michigan Department of Environment, Great Lakes and Energy (EGLE)/Former Higgins Service
Key Personnels:Joshua Schuyler, April Hehir, Jeanette Howell, Jessica Davis, Nick Priehs, Brian Weir, Mike Hauswirth
Project Address:92 S. Elk Street
Project City/State/Zip:Sandusky, Michigan 48471
Owner/Client Contact Name and Telephone #:City of Sandusky/Dave Faber (810) 294-7561
Project 2 Description:Excavation, Transportation and Disposal of Contaminated Soil; Soil Verification Sampling; Waste Handling; Oversight; Dewatering; Subsurface Investigation; Site Restoration; Construction Removal Reporting

Project 3 Reference Information:
Project Name:Michigan Department of Corrections (MDOC) / Saginaw Correctional Facility
Key Personnels:Joshua Schuyler, April Hehir, Jeanette Howell, Jessica Davis, Brian Weir, Mike Hauswirth
Project Address:9625 Pierce Road
Project City/State/ZipFreeland, Michigan 48623
Owner/Client Contact Name and Telephone #:MI Dept. of Corrections/Trevor LeBarre (517) 335-2069

Project 3 Description:Underground Storage Tank Removals; AST install/Generator Upgrades, Design, Excavation, Transporatation, Disposal of Contamianted Soil; Oversight; Leaking UST Assessments, Initial Assessment Report, Closure Report; Site Restoration; Verifcation Sampling.

2.2 A sample of field activity logs detailing a 1-week period (from one of the three (3) prior experience sites) and a weekly report provided? ☒Yes ☐No Provided in **Appendix B** of the attached response to 2022 Tank and Soil ISID RFP

ARTICLE 3: CONTRACT UNDERSTANDING: The following items should be addressed on the assumption that your firm is awarded an Indefinite-Scope, Indefinite-Delivery contract. (See attached sample contract).

3.1 Is it understood that your firm is required to respond to small projects (less than $25,000) as well as larger projects?
Yes ☒ No ☐

3.2 Is it understood that there is no guarantee of any work under this contract?
Yes ☒ No ☐

3.3 Is it understood that you may be required to coordinate work with contract manager and state project managers?
Yes ☒ No ☐

3.4 Is it understood you may be given a conceptual design prepared by State of Michigan designers but must develop this plan and provide design and documentation required to appropriate reviews and permits?
Yes ☒ No ☐

3.5 Is it understood that your firm will be required to execute the attached Standard DB ISID Contract Provisions language for design-build services?
Yes ☒ No ☐

3.6 Is it clearly understood that performance and payment bonding will be required at the time of execution of any individual project contract assigned to you under this contract that will exceed $50,000.00?
Yes ☒ No ☐

3.7 Is it clearly understood that professional liability insurance will be required from the designer of record for any individual project contract, at the time of execution of that contract?
Yes ☒ No ☐

3.8 Is it understood that your firm must comply with State of Michigan law as it applies to your services?
Yes ☒ No ☐

ARTICLE 4: CAPACITY AND QUALITY

4.1 Briefly describe your firm's methods or procedures for quality control for your deliverables and services.

Atlas maintains a stringent 'check and balance' quality control system to ensure project activity, techniques and standards and deliverables are fulfilled to the highest standard of quality possible. Our goal is to provide high quality service and continually strive to achieve client satisfaction through quality, cost-effective work, and excellent communication. The Project Manager, along with Atlas' Field Managers and project staff will ensure the proper preparation of deliverables as a project continues. They will personally conduct a rigorous QA/QC review of every draft and final report to eliminate errors, provide accurate information, and ensure overall consistency. All technical reports will undergo at least one peer review by senior Atlas staff that has the applicable certification/licensure. Additional peer review may be warranted on a case by case basis depending on the complexity of the project and the disciplines required to complete the task. All subcontractor work products will be peer reviewed by Atlas.

4.2 Has your firm been involved in claims or suits associated with design and/or construction projects?

Yes ☐ No ☒

If yes, explain:

4.3 Will there be a key person who is assigned to a project for its duration?

Yes ☒ No ☐

4.4 Please describe your understanding of the relationship between your firm, the DTMB Design and Construction Division, and the State Agency for whom a project will be completed.

Atlas understands that a State Project Manager (PM) will be assigned to each Project. The State PM will be the liason between Atlas and DTMB, coordinate site access, and provide oversight of Atlas during the entire project period. Atlas understands that the State PM will review the scope of work, proposal and work plan prior to the Tank and Soil Contract Manager approvals for submittal of all Atlas cost estimates, proposal, contract modifications, and invoices (if approved) to the DTMB for processing, approvals and board review pending project total costs.

4.5 How will your firm provide consistent and continuous communication on project activities and project status to the State of Michigan during the progress of projects?

Atlas will provide a single point of contact for DTMB Tank and Soil Contract Manager and State Project Manager for the duration of the contract period. This will create a streamlined process for coordination of schedule, protect project goals, and maintain budgets. The Atlas Project Manager will communicate regularly with DTMB/EGLE representatives regarding work plans, project objectives, reporting,scheduling structure, timelines and budgets.

4.6 Describe your method of estimating construction costs and demonstrate the validity of that method.

Project Construction Costs are estimated based on comparison of project location, project unit bid rates by multiple contractors, based on tank and soil RFP units, and also project

specific bid/costs. Project cost estimates or specific units that are not an exact fit to the project are individual bid and included as line item cost to provide DTMB/EGLE with precise and competitive rates.

4.7 Describe your approach to minimizing construction cost over-runs.
Our team is accustomed to managing the variables of scope, budget and schedule from one project to the next, specifically for on call contracts where a high volume of tasks and multiple projects sites may occur simultaneously. We recognize the steps that are critical to the successful management of on-call contracts and the often, multiple and simultaneous work orders under those contracts. In an effort to minimize cost overruns, Atlas takes into account each stage of project variables that may affect timelines and costs. These variables along with the project timeline will be communicated with Tank and Soil Contract Manager/EGLE/RRD Project Manager, subcontractors and vendors. Once the project costs and timeline have been established, the project tasks are tracked closely so that the milestones and deadlines are met on schedule and within budget. Atlas utilizes a purchase order system to ensure prices are established and agreed upon by subcontractors and vendors and that the deliverables are invoiced at the agreed upon price. If during the course of the project, unforeseen factors are encountered that would affect the scope of work, Atlas will notify the EGLE/RRD Project Manager and the Tank and Soil Contract Manager immediately regarding the changes and will not proceed with the changes without our approval/permission up to and including contract modification

4.8 On a typical project, what would be your response time, from the time you receive a project assignment to providing design or construction services?
20 Business Days

4.9 Describe your understanding of how you minimize or recycle construction waste.
Atlas understands that reducing the impacts of contruction debris, waste handling and disposal is critical in the success of the project and overall budget. Atlas Project Management and Design team will utilize the provided data to ensure the project is a success with minimal disturbance to reduce construction waste. All clean constuction waste will be recylced. Atlas oversight will provide continuous field screening of excavation and overburden soils to be utlized as clean backfill. Atlas will continuoulsy look for opportunites at each site assignment to increase recycling, re-use of materials as possible and minimize construction waste through the duration of each specific project.

4.10 Describe your experience with similar ISID contracts.
Atlas has extensive experience conducting similar scope of work under the 2017 ISID Design Build Services Tank and Soil Removal (#00686). In addtion Atlas currently holds the following active ISID Contracts: 2018 ISID Expanded Environmental Remediation (#00719); Lead Hazard Identification and Abatement Services (#18180000003602); and Industrial Hygiene Contract Services.

4.11 Describe how you would get information about preparing a work plan/health and safety plan.
Atlas will review the information provided by EGLE Project Manager, including any reports prepared by others. Upon review, Atlas will obtain any further site-specific information through a review of online databases, standard industry knowledge from similar projects, or through submission of Freedom of Information Act requests, if applicable. Atlas will

submit a utility staking request with MISS DIG at project assignment and perform a site visit to obtain additional information and review site conditions including any known hazards, potential project obstacles, or potential project delays prior to the preparation of the work plan. Atlas Health and Safety plan is prepared with initial site information and updated as new information and site specific hazards are identified.

4.12 Describe how you would coordinate your work on a project where the sampling will be provided by State of Michigan employees.

Atlas will coordinate with the State of Michigan Project Manager for contact information pertaining to the State of Michigan employee responsible for performing the sampling. Atlas will provide detailed information for the State of Michigan employee to arrive prior to sampling to ensure compliance with applicable site-specific health and safety requirements. Following health and safety meeting with the Field Contact, Atlas field staff and State of Michigan employee will perform sampling concurrently of the required media.

4.13 Describe how you would perform the work on a project where a leaking UST to be removed along with few tons of contaminated soils from the site.

For Project Sites were a leaking underground storage tanks has been identified and previously reported, Atlas will work diligently to meet all State of Michigan initial assessment identification and reporting deadlines. Atlas will coordinate, prepare and submit notifications of intent to remove UST and update or provide UST registration prior to UST removal. Atlas will coordinate efforts with EGLE/Remediation and Redevelopment Site Project Manager and Department of Licensing and Regulatory Affairs (LARA) to provide required site notifications prior to any, and all site activities. Waste approval letters would be requested of EGLE and waste characterization samples would be collected as possible for approval of waste profiles/volume quantification. For most UST projects where impact is known or site has active release the soil would be categorized as “exempt” for disposal. All liquids would be removed, UST cleaned and vented prior to excavation and removal. UST would be inspected for holes/damage and photographs taken to provide to LARA for inspection. Additional soil would be removed based on scope of work provided by EGLE or based on visual and PID screening of soil. Once soil removal completed, verification samples would be collected per LARA requirements for UST Closure sampling and site backfilling/restoration would be completed.

ARTICLE 5: SPECIAL FACTORS

Include a brief description of your firm’s special qualifications such as awards, recognitions, innovations, etc.

We perform our services in Michigan with extensive experience in accordance with Part 211, Part 201 Part 213 regulations of the Michigan NREPA, Public Act 451 of 1994, as amended and UST Rules, Rules R29.2155. We have extensive experience interfacing with the EGLE/RRD, LARA and DTMB Contract Management. Environmental regulations in Michigan have gone through many changes over the last few years, revitalizing the state’s cleanup and redevelopment programs. Atlas has partnered with the State to aid in development of these changes by being a key stakeholder. Atlas senior staff members attend meetings and break out groups as a stakeholder in the following groups:

- In 2006 to review and provide input in the development of the Part 201 and Part 213 regulation changes.
- EGLE/RRD Vapor Intrusion Specialist in 2009 in the development of field procedures to investigate vapor intrusion at petroleum impacted sites.

- ❖ EGLE/RRD Collaborative Stakeholders Initiative (CSI) group for Vapor Intrusion, in which Atlas provided review and feedback to the State during the development and issuance of the EGLE/RRD Guidance Document for the Vapor Intrusion Pathway in 2013.
- ❖ In August of 2014, Atlas presented our Soil Gas Sampling Standard Operating Procedures for installing vapor intrusion sample points and the collection of vapor samples at a EGLE/RRD Internal Training Program.
- ❖ In January of 2012, Atlas Senior Staff participated in the Non-Aqueous Phase Liquid (NAPL) CSI group. As a key stakeholder for the NAPL group, Atlas contributed in the review and development for the EGLE/RRD guidance document Non-Aqueous Phase Liquid (NAPL) Characterization, Remediation, and Management for Petroleum Releases issued in June of 2014.
- ❖ In 2022, Atlas staff participated in Michigan Risk Based Corrective Action (RBCA) Work Group. This group is working to develop report forms and related guidance to i) streamline the implementation of Part 213 process for UST sites and ii) enhance consistency in the cleanup of UST sites.

<u>Atlas has been awarded the Environmental News-Records (ENR) Top 100 Award in the following categories:</u>

- ENR #9 Top Environmental Management Firm
- ENR#15 Top Construction Management Firm
- ENR #47 Top Program Management Firm

DTMB QUESTIONNAIRE FOR PROFESSIONAL SERVICES

TABLE OF CONTENTS

PART I - TECHNICAL PROPOSAL

I-1 GENERAL INFORMATION AND PROJECT TEAM

ATC Group Services LLC, dba Atlas Technical (Atlas) headquartered at 13215 Bee Cave Parkway, Building B, Suite 230, Austin, Texas 78738 has prepared this proposal for the Michigan Department of Technology, Management, and Budget (DTMB) in response to the Request for Proposal (RFP) for 2022 Indefinite Scope, Indefinite Delivery (ISID), Design Build Services for Tank and Soil Removal for various locations, Michigan, issued on March 30, 2022, and Addendum No. 1 issued April 21, 2022. Atlas is registered under SIGMA Vendor Code # CV0053354.

The Atlas Michigan offices are located in Detroit, Grand Rapids, Grayling, and Novi, Michigan. Atlas is licensed to operate and practice in the State of Michigan. Within the last 5 years, Atlas has **not** defaulted on a contract or had a contract terminated for cause.

Atlas' Novi, Michigan office is the primary SIGMA business address for all project correspondences.

Atlas Primary Contact
Joshua Schuyler
Operations Manager, Michigan
46555 Humboldt Drive, Suite 100
Novi, Michigan 48377
Phone: (248) 669-5140
joshua.schuyler@oneatlas.com

Other Office Locations:

Detroit	Grand Rapids	Grayling
1735 E. McNichols Road	2650 Horizon Drive SE, Suite 110	5690 W M-72 Highway
Detroit, Michigan 48203	Grand Rapids, Michigan 49546	Grayling, Michigan 49738

In addition to Mr. Schuyler, Mr. Robert Smith, Branch Manager (robert.smith@oneatlas.com) is authorized to receive and sign contracts and can be contacted at the primary address above. Atlas' certifications as a Michigan Business, Certificate of Responsibility and Acknowledgement of Addendums may be found in **Appendix C.**

I-2 – UNDERSTANDING OF PROJECT AND TASKS

Atlas understands that the DTMB is seeking a qualified Design Build Entity (DBE) that is capable of providing minor design and construction services for project assignments. Services requested may include, but may not be limited to removal of underground storage tanks (USTs); excavation, transportation, and disposal of contaminated soil; closing underground storage tanks in place; waste characterization and disposal; completing regulatory notifications and reporting; preparing excavation drawings and design plans; monitoring well installation and/or abandonment; groundwater monitoring and reporting; soil vapor pin or point installation, monitoring and reporting; and site restoration. Atlas understands the following contractual agreements are expected if awarded this Contract:

- The 2022 Design Build Tank and Soil Removal ISID contract will be limited to a two (2) year term with option to extend up to one (1) year.
- DTMB expects to award contract to multiple DBE; however this does not guarantee assignments.

- It is required that each assignment is completed for all contracted work to the satisfaction of DTMB, Michigan Department of Environment, Great Lakes, and Energy (EGLE) Tank and Soil Contract Manager, and EGLE/RRD Project Manager, including all site work, reports, deliverables and invoices within 180-calendar days from the notice to proceed.
- One progress invoice and one final invoice will be submitted per project assignment; unless extenuating circumstances warrant additional invoices. Lump sum tasks may be invoices based on completion status, up to 75% on progress invoice; a minimum of 25% must be submitted on the final invoice.
- A performance and payment bond will be required for any assignment exceeding $50,000.

To accomplish contract goals, Atlas intends to perform the following tasks:

- DTMB and EGLE Project Team (Contract Manager and EGLE District Project Manager) will coordinate all project assignments through the Atlas Project Manager at the beginning of the assignment. Atlas will respond to all project assignment requests within 24 hours of assignment award.
- Atlas' Project Manager and Project Team (selected based on geographical area in which the site is located and experience), will perform an internal review of project assignment, prepare questions, submit a request to MISS DIG for utility staking, develop a Site Specific Health and Safety Plan (SSHASP), and request additional site specific information through available online databases or FOIA requests to prepare a construction design. A site visit will be coordinated with EGLE PM to review scope of work, review site conditions and note any other site-specific conditions to reflect in scope of work/cost proposal.
- Atlas' Project Manager will work closely with EGLE Project Team (or other entities utilizing the Tank and Soil contract) to prepare the site specific construction plans (plan) which will detail the construction design, engineering drawing, schedule, field techniques, methods for sampling and anticipated deliverables in the specified time frame and with the quality expected.
- Atlas will utilize pre-qualified subcontractors whom have undergone the annual pre-approval process. All subcontractors will be approved based on a review of information provided annually regarding their financial background, insurance coverage, licenses, registrations, permits, certifications, experience, and health and safety programs.
- Atlas will provide final construction documentation to EGLE and Property Owner for review/approval prior to commencing any onsite activities and pending DTMB approval. Once final approvals from all parties have been obtained, Atlas will update the SSHASP, coordinate schedules with subcontractors, obtain necessary permits or bonds, and submit all required notifications prior to UST removals. Atlas will provide to the Contract Manager, EGLE Project Team and site owner a minimum of 14-day notice prior to any on-site work activity.
- Atlas will ensure all State of Michigan regulatory notifications, contract notifications, and environmental laboratory notifications are accurate and submitted per their applicable prior notification requirements.
- Atlas' Project Team consisting of a Project Manager, Health and Safety Officer, one (1) Manager, one (1) Project Geologist/Scientist, and one (1) Technician will execute the deliverables as outlined in the site specific work plan. Work plan elements are described in more detail below in Section I-4.
- If during the course of the project, unforeseen factors are encountered that would affect the scope of work, Atlas will notify the EGLE Project Team immediately regarding the changes and will not proceed without approval/permission up to and including contract modification costs.

Relevant Project Experience

A summary of Atlas' experience with a government, institutional and retail design and construction entity related to the Tank and Soil Task Assignments (i.e. sampling, management, schematic and design development, construction documentation, construction oversight, reporting) is provided in the table below.

Client	# of projects	UST Removal/ Remediation/ Assessment	GPR / EM Surveys	Subsurface Investigations / Drilling	Engineering Design/ Excavation Plans	Soil and Groundwater Sampling	Soil Gas / Sampling / VIAP Assessments	Waste Characterization/ Disposal	Part 213 / 201 Assessments
Detroit Building Authority	50+	/	/	/	/	/	/	/	/
State of Michigan Land Bank	10+		/	/	/	/		/	/
City of Detroit	50+	/	/	/	/	/	/	/	
Speedway	300+	/	/	/		/	/	/	/
Detroit Land Bank	50+		/	/	/	/		/	
Detroit Public Schools	15+	/	/	/	/	/	/	/	/
DTMB / EGLE/MDOC	25+	/	/	/	/	/	/	/	/
Pilot	15+	/	/	/	/	/	/	/	/
Marathon Petroleum	25+	/	/	/	/	/	/	/	/
City of Ann Arbor	5+	/	/	/	/	/	/	/	/

Project Team Value and Services

Atlas' staff for this proposal was organized specifically because they are accomplished engineers, project managers, geologists, scientists, and technicians, with extensive experience in UST soil excavations, construction oversight, waste characterization, Part 211 regulations, and/or Part 213/201 related site investigations with EGLE/RRD staff in all districts. This team has a limited number of key personnel in order to provide consistency and accountability for the EGLE/RRD Project Managers. They have the management capabilities, proficient technical skills and field experience to be flexible, effective and cost-efficient in their work and in providing solutions on the job.

The Atlas geographical footprint in Michigan allows for individual project assignments to be managed and staffed based on the site location and offers additional flexibility based on workloads between offices. Atlas will mobilize as follows:

- Atlas **Novi Office:** Southeast Michigan, Lansing, Jackson and Bay City Districts;
- Atlas **Grand Rapids Office:** Kalamazoo, Grand Rapids and Cadillac Districts; and
- Atlas **Grayling Office:** Cadillac, Bay City Districts, Gaylord and Upper Peninsula Districts.

Atlas' extensive experience with environmental management service projects and our geographic footprint in Michigan are the key reasons we believe Atlas is fully suited to provide the services required in the 2022 Tank and Soil ISID Design Build Entity Services. Our team will utilize our broad experience to ensure the projects are managed effectively to meet the project goals and objectives established by the State of Michigan DTMB and EGLE/RRD.

I-3 – PERSONNEL

Atlas Key Personnel and supporting staff have been summarized in Table 1 below and detailed chronological resumes have been provided in **Appendix D**. All Atlas staff listed below are direct hires/employed by Atlas. Key personnel as they relate to this RFP is described in additional detail in section I-4.

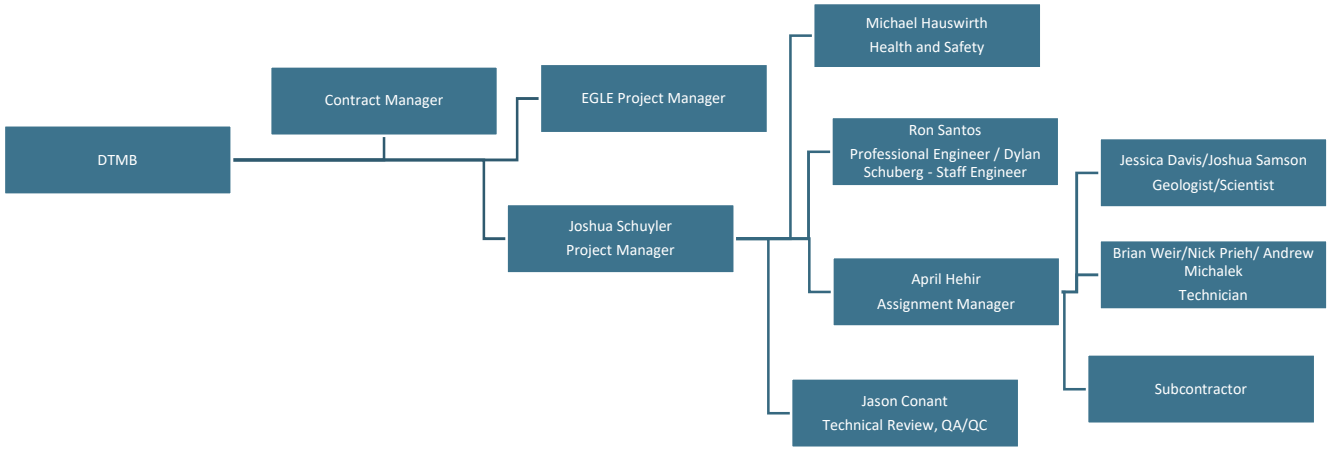
Table 1: Atlas Key Personnel Summary

PERSONNEL	TITLE	EXPERIENCE	CONTRACT ROLE	CONTRACT PERCENT	PHYSICAL LOCATION
Joshua Schuyler*	**Operations Manager MI**	**22**	**Project Manager**	**100%**	**Novi, MI**
Ron Santos*	Principal Engineer	29	Michigan Licensed P.E.	10%	Idaho
April Hehir*	Senior Project Manager	17	Assignment Manager	80%	Grayling, MI
Joshua Samson*	Project Geologist	8	Geologist	80%	Grand Rapids, MI
Jessica Davis*	Project Scientist	10	Scientist	80%	Novi, MI
Dylan Schuberg*	Staff Engineer	4	Engineering Design	80%	Grand Rapids, MI
Brian Weir*	Field Scientist	2.5	Technician	80%	Grayling, MI
Nick Priehs*	Field Geologist	1.5	Technician	80%	Novi, MI
Andrew Michalek*	Field Geologist	1	Technician	80%	Grand Rapids, MI
Jason Conant*	Division Manager	22	Technical Review & QA/QC	40%	Grand Rapids, MI
Michael Hauswirth*	Industrial Hygiene Project Manager	31	Health and Safety	20%	Novi, MI
Jeanette Howell	Project Manager	19	Assignment Manager	40%	Novi, MI
Laura Sleeper	Division Manager	15	Technical Review & QA/QC	10%	Novi, MI
John Kerr	Principal Geotechnical Engineer	42	Michigan Licensed P.E.	10%	Ohio
Madelyn Haas	Field Geologist	1	Technician	10%	Novi, MI
Macy Wingate	Geotechnical Engineer	4	CMT Technician	10%	Novi, MI

* Atlas Key Project Personnel

The Authority and Communication lines organizational chart, detailing the appropriate lines of communication for this contract, with Atlas Key Staff identified is found in Figure 1 below.

Figure 1: Authority and Communication Lines



I-4 – MANAGEMENT SUMMARY, WORK PLAN AND SCHEDULE

Atlas utilizes a management approach that includes: preparation of a comprehensive project work plan and individual task management supplements, intensive health and safety planning, a focused QA/QC program, and use of appropriate management information systems for invoicing, cost and schedule controls.

Atlas embraces a strategic approach to overall program management. The Atlas Project Manager and Primary SIGMA Contact, Joshua Schuyler will work closely with DTMB/EGLE to schedule each project in order to protect goals and budgets of the DTMB/EGLE. This approach provides the following to our clients:

- Single Point of Contact from an Atlas management office = consistency and accountability in all communications, reporting and deliverables.
- Maintains and transmits the most recent project and site data to DTMB/EGLE so they have the latest data and reports with one contact.
- Development of standardized and DTMB/EGLE approved templates for budgeting, cost proposals, reporting and invoicing = consistency in data and its translation.
- Develop a calendar of scheduled status meetings and project tasks between Atlas Project Manager and the DTMB/EGLE team for routine project status communication and convey DTMB/EGLE commentary, expectations and satisfaction.
- Communication with EGLE and Property Owners to coordinate site activities, minimize any interference to active business, site restoration and be sure that the site owner(s) are completely satisfied with final project completion and site cleanup.

Our team is accustomed to managing the variables of scope, budget and schedule from one project to the next, specifically for on call contracts where a high volume of tasks and multiple projects sites may occur

simultaneously. We recognize the steps that are critical to the successful management of on-call contracts and multiple simultaneous work orders under those contracts.

WORK PLAN AND METHODOLOGY

Atlas intends to perform all the requirements of the Tank and Soil ISID Contract as discussed in Section 1-2 and further detailed in the sections below.

Project Administration and Contract Services

The Atlas Project Manager will respond within 24-hours of receiving notice of a project assignment from the EGLE Contract Manager to accept project award. The Atlas Project Manager will utilize an internal Project Team based on experience and location of assignment. The Project Team will develop a draft construction plan, develop a SSHASP, and contact MISS DIG. The Atlas Project Manager will submit any questions to the EGLE Project Manager (EGLE PM) and coordinate a site visit once all access has been negotiated. Atlas will solicit competitive bids from Atlas pre-approved subcontractors, summarize bids, complete district specific schedule of values form, and submit final contract documents to EGLE PM for review and approval, prior to submission to the EGLE Contract Manager. The EGLE Contract Manager is responsible for submission to DTMB staff for financial contract order approval and award to Atlas. Once final contract order has been received from DTMB, Atlas will finalize the Construction plans and submit to EGLE PM and Property Owner for review and approval.

Health and Safety

At Atlas, we are committed to safety as our priority and we continuously work to strengthen our culture around it. The Atlas mantra is **Think 12** which means you will always be aware of what is 12 feet in front of you, behind you, each side, above you, and below you. Atlas health and safety requirements apply to all employees, subcontractors, site visitors, property owners, DTMB, EGLE Contract Manager, and EGLE PM. Atlas ensures the safety of all onsite workers and nearby properties through a set of key practices which include the SSHASP, annual safety training (including on-line, classroom and certified instruction), job safety analysis (JSA), Stop Work Authority, internal safety audits, subcontractor pre-qualifications system, private utility locating/ ground penetrating radar/electromagnetic survey (GPR/EM) clearing of all excavation and borings, hand clearing to minimum of 6 feet below grade and 120% of borehole clearances.

Atlas will prepare a SSHASP upon notification of each project assignment including prior to the initial field visit. The SSHASP is updated routinely to ensure all new or potential dangers have been identified.

Construction Plans/Engineering Drawings

Atlas will develop site specific construction plans (plan) for each project assignment. The construction documentation will include a summary of site specific details as provided by EGLE Contract Manager/EGLE PM, obtained through Atlas research or the site visit. Atlas will retain the services of a subcontractor to perform a private location utilizing GPR/EM to identify subsurface structures, USTs, utilities, existing wells and/or to aid in the placement of soil borings/monitor wells as necessary. The plan will include scaled site drawings that at a minimum, include the location of site utilities, any structures located on site, the area of planned excavation/underground storage tank removal/UST close-in-place, the site security equipment staging area, the area of dewatering (if required), and any other site specific requirements. The plan will include all anticipated waste streams, waste tracking logs, waste characterization profiles, waste disposal and waste handling procedures and requirements. The plan will provide the requirements of backfill with site restorations. Atlas will utilize construction plans to obtain competitive cost from approved subcontractors. If project assignment warrants engineering approval, an Atlas Professional Engineer will review and approve all design documentation. The plan will be submitted to the EGLE Project Team and Property Owner for review and approval prior to commencement of field activities.

Notifications and Registration

An Atlas Geologist/Scientist under the direct oversight of the Assignment Manager will provide a minimum notice of 14-days to the Contract Manager/EGLE PM, respective District Supervisor and Property Owner for any on-site work activity. Atlas will also provide a minimum notice of 14-days to a private or EGLE laboratory to request sample collection containers and preservatives kits, and a minimum notice of 14-days prior to delivery of samples, to assure they will be able to accept and analyze the samples. Atlas will provide advanced notification of intent to remove underground storage tanks in accordance with Part 211. If required by project assignment, Atlas will complete UST registration forms and submit to Licensing and Regulatory Affairs (LARA), prior to UST removals.

Construction Oversight, Verification Sampling and Restoration

The Atlas technician will provide oversight of approved subcontractor during all on-site project assignment activities. Schedules, equipment, objectives and site contact information will be clearly laid out for Atlas technicians in the site specific Plan. The technician will communicate regularly with the Atlas Assignment Manager for all project activities and provide a daily debriefing. On site issues as well as task completions will be relayed to the EGLE PM or other site specific representatives by the Atlas Project Manager. The Atlas Project Manager, Assignment Manager, Geologist/Scientist and Technician will ensure that any excavation, UST system close-in-place, UST system removal and disposal, site preparation, material recycling or disposal, and waste disposal is completed as outline in the 2022 Tank and Soil ISID RFP, Attachment II Scope of Work.

The Atlas technician will be responsible for documentation of all work activities, accurate depiction of soil condition (including PID, lithology, and noting any olfactory, staining and/or discoloration observed), collection of photographs, collect and document accurate construction measurements, authorizations of manifests, tracking contaminated soil and backfill tonnages, and all media sampling. The Atlas technician will collect site assessment and/or verification of remediation soil and or groundwater samples per EGLE Part 211 and or 213 requirements, which will be described in detail in the site-specific plan. The Atlas technician will ensure that all underground storage tanks are properly exposed with extraction of all liquids, sludge and vapor prior to removal activities or close-in-place. The site-specific plan will include detail regarding UST removal activities, including the waste extraction methods, waste handling and disposal requirements. The Atlas technician will ensure that all backfill material is suitable for placement is free of any debris, frozen materials, wood, vegetation, rock fragments greater than 6-inches or soft material. The Atlas technician will ensure placement of backfill in 1-foot lifts and compacted to 95%, unless otherwise directed. If requested by the EGLE PM, an Atlas Construction Material Testing (CMT) technician will perform density testing and provide written reporting of compaction results. Following backfill the Atlas Technician will ensure the site restoration is completed per the specification in the site-specific plan.

Quality Control Plan

Atlas maintains a stringent 'checks and balance' quality control system to ensure project activity, techniques, standards and deliverables are fulfilled to the highest standard of quality possible and consistently through the contract. The Atlas Project Manager, along with Atlas' Assignment Manager will ensure the proper preparation of deliverables during each project assignment. They will personally conduct a rigorous QA/QC review of field documentation, chain-of-custody forms, waste tracking documentation, backfill documentation, and every draft and final report to eliminate errors, provide accurate information, and ensure overall consistency. To ensure accuracy of sampling methods and procedures Atlas technician will collect QA/QC samples for laboratory analysis on all sampling media including blanks, duplicates and matrix spike/matrix duplicate samples. All samples collected will be placed directly into laboratory provided sample containers, placed directly into a cooler on "wet" ice, and transported to the laboratory via chain-of-custody form.

Monitoring Well Installation, Monitoring and Reporting

The Atlas technician will provide oversight of approved drilling subcontractor during the advancement of monitoring wells for long term monitoring of groundwater. The Atlas Project Manager and Assignment Manager will work with the EGLE PM to propose monitoring well location and obtain approval prior to placement. Monitoring wells with be installed with either hollow stem augers or Geoprobe depending on site conditions, EGLE PM preference, or data collected during construction activities. Monitor wells will be installed in general accordance with ASTM International Standard, methods outline in the 2022 Tank and Soil ISID RFP, Attachment II Scope of Work, and Atlas Standard Operating Procedures which include GPR/EM clearance, advancement of hand auger to a minimum of 6-feet below grade and 120% borehole diameter. Atlas will make every attempt to install monitoring wells prior to site restoration, if conditions warrant, for project assignments that include concrete or asphalt surface restoration. The Atlas Geologist/Scientist will prepare well construction and lithology logs including field observations of contamination (i.e. olfactory or visual observations of contamination). The well and lithology logs will be digitally prepared utilizing the format required by EGLE and submitted to the EGLE PM in a technical report.

Following monitoring well installation, the Atlas technician will collect top of casing and ground surface elevations from each monitoring well and accurately record the monitoring well position relative to existing site features. The Atlas technician will collect static water level measurements of all monitoring wells prior to sample collection events to depict groundwater flow. Wells will be allowed time to equilibrate prior to static water level measurements.

The groundwater samples will be collected using low flow, minimal drawdown sampling techniques. During the low-flow sampling activities, several indicator parameters, including temperature, specific conductivity, dissolved oxygen, pH, oxidation reduction potential, and turbidity, will be monitored and recorded every three to five minutes. The water level will also be monitored periodically to ensure that excessive water level drawdown did not occur. At each monitoring well, groundwater sample collection will proceeded once all indicator parameters have stabilized for three consecutive readings.

Groundwater monitoring and reporting will be performed on a quarterly basis, unless otherwise specified. Following the receipt of laboratory analytical reports, the Atlas Geologist/Scientist will prepare a groundwater monitoring report summarizing methods, procedures, QA/QC results, analytical results, groundwater flow, static water levels and any concentration trend analysis. The quarterly monitoring reports will be submitted electronically to the EGLE PM within 5 business day of the receipt of the laboratory analytical reports.

Soil Vapor Monitoring Point Installation, Monitoring and Reporting

The Atlas technician will provide oversight of approved drilling subcontractor during the advancement of soil vapor monitoring points (points or sub slab pins) for long term monitoring of soil vapor. The Atlas Project Manager and Assignment Manager will work with the EGLE PM to propose soil vapor monitoring points and obtain approval prior to placement. Soil vapor monitoring points (SVMP) will be installed in general accordance with EGLE Standard Operating Procedure for the Installation of a Soil Gas Probe/Vapor Monitoring Point to Support Vapor Intrusion Investigations Revision #1 February 13, 2013 and as outline in the 2022 Tank and Soil ISID RFP, Attachment II Scope of Work. Atlas will wait a minimum of 48-hours following the installation of soil vapor monitoring points and a minimum of 72-hours after any rain event before sampling is conducted. The monitoring points will be purged of three casing volumes at a maximum rate of 100 ml/minute (approximately 3-minutes) prior to sample collection. A shut-in test and leak detection test will be performed utilizing helium and PX Model MGD-2002 Multi Gas Leak Detector to ensure no atmospheric air is being extracted during sample collection. Atlas will utilizing a Landtec Gem5000 Gas Analyzer, Ion Science Ltd PhoCheck TIGER PID to collect oxygen, carbon dioxide, methane, and VOC readings from each vapor pin. Atlas will document field activities, measurements and site conditions such as weather, temperature and air pressure on soil gas data collection forms.

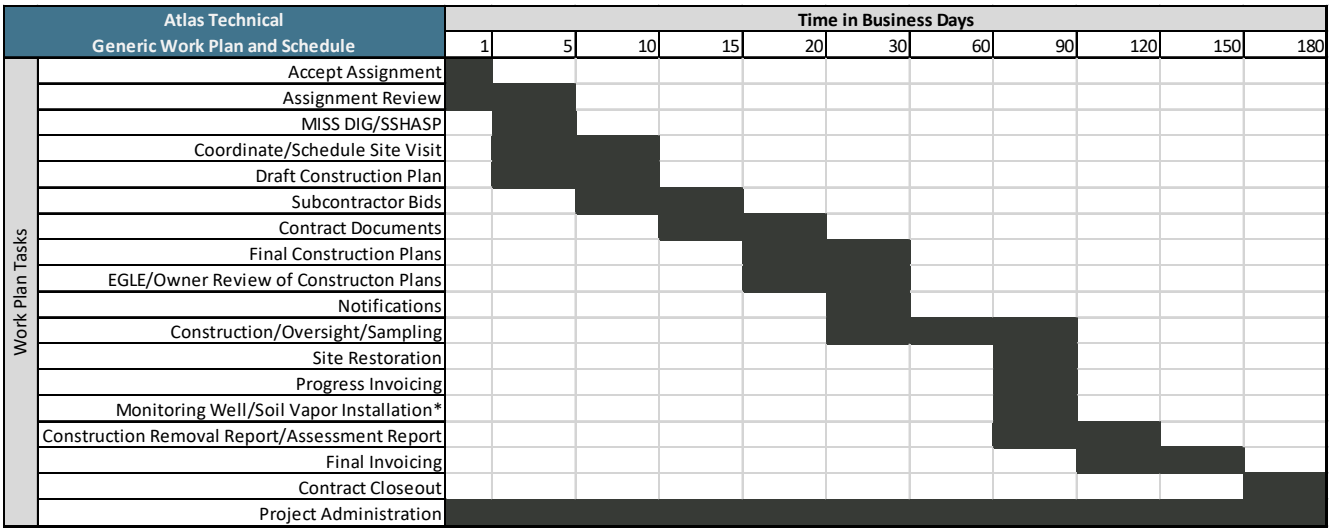
Soil vapor monitoring and reporting will be performed on a quarterly basis, unless otherwise specified. Following the receipt of laboratory analytical reports, Atlas Geologist/Scientist will prepare a soil vapor monitoring report summarizing methods, procedures, QA/QC results, analytical results, field parameters, and any concentration trend analysis. The quarterly monitoring reports will be submitted electronically to EGLE PM within 5 business day of the receipt of the laboratory analytical reports.

Waste Handling and Disposal

Atlas will make every attempt to ensure that all waste generated during UST Removals, UST close-in-place, excavations, dewatering, or groundwater monitoring well installation and monitoring activities are removed from the site upon generation. In the event that waste disposal cannot be direct loaded and hauled offsite to an approved landfill, Atlas will ensure waste is collected and temporary stored in accordance with applicable laws and regulations. The Atlas Project Manager will coordinate a temporary onsite storage location with the EGLE PM and property owner prior to generating waste streams. Atlas will contract a licensed waste hauler to properly characterize, transport and dispose of all waste streams. The Atlas technician will ensure waste is properly documented and tracked with disposal tracking logs and manifests.

SCHEDULE

Atlas anticipates the following generic schedule and timeline based on anticipated work plan task to be completed under the 2022 Tank and Soil ISID Contract.



* Assumes wells and vapor installation after removal activities

I- 5 – QUESTIONNAIRE

Atlas completed the DTMB Questionnaire for Professional Services is provided as prior to this response.

I- 6 – REFERENCES

Atlas' references where work has been conducted at Part 213 and Part 201 sites in Michigan, which are comparable to the type of work necessary for the 2022 Tank, and Soil Site Assignments is provided in the DTMB Questionnaire for Professional Services, Article 2: Prior Experience.

PART 2 – COST

Based upon Atlas' review of the RFP, Atlas understands that specific cost for individual projects will be obtained at the time of the individual project assignment and shall carefully interface with all phases/tasks of the work plan requested at that time.

II-1 –IDENTIFICATION OF PERSONNEL AND ESTIMATED COMPENSATION

In accordance with the 2022 Tank and Soil ISID RFP, Atlas has prepared the Position, Classification and Employee Billing Rate Information Table. The table includes hourly billing rates for employees completing tasks on assigned projects based on the estimated contract duration and DTMB's Guidelines for Position Classifications as provided. Atlas has included a **3% yearly increase**, effective in year 2024.

Table 2: Atlas Key Personnel Position, Classification, and Billing Rate

Employee(s) Name	Position / Classification	Year 2022	Year 2023	Year 2024	Year 2025
Joshua Schuyler	Project Manager	$ 140	$ 140	$ 144	$ 149
Ron Santos	Professional Engineer	$ 175	$ 175	$ 180	$ 186
April Hehir	Assignment Manager	$ 115	$ 115	$ 118	$ 122
Jessica Davis	Scientist	$ 85	$ 85	$ 88	$ 90
Joshua Samson	Geologist	$ 85	$ 85	$ 88	$ 90
Dylan Schuberg	Staff Engineer	$ 85	$ 85	$ 88	$ 90
Brian Weir	Technician	$ 75	$ 75	$ 77	$ 80
Nick Priehs	Technician	$ 75	$ 75	$ 77	$ 80
Andrew Michalek	Technician	$ 75	$ 75	$ 77	$ 80
Jason Conant	Technical Review & QA/QC	$ 125	$ 125	$ 129	$ 133
Michael Hauswirth	Health and Safety	$ 95	$ 95	$ 98	$ 101
Jeanette Howell	Assignment Manager	$ 115	$ 115	$ 118	$ 122
Laura Sleeper	Technical Review & QA/QC	$ 125	$ 125	$ 129	$ 133
John Kerr	Professional Engineer	$ 175	$ 175	$ 180	$ 186
Madelyn Haas	Technician	$ 75	$ 75	$ 77	$ 80
Macy Wingate	Geotechnical Engineer	$ 95	$ 95	$ 98	$ 101
CADD	CADD Operator	$ 70	$ 70	$ 72	$ 74
Administration	Administrator	$ 55	$ 55	$ 57	$ 58

II-2 –UNIT PRICES

In accordance with the 2022 Tank and Soil ISID RFP, Atlas has presented our qualifications and prepared a unit pricing sheet for all ten (10) designated Districts in Michigan.

- Bay City
- Cadillac
- Gaylord
- Grand Rapids
- Jackson
- Kalamazoo
- Lansing
- SE Michigan
- UP - East
- UP - West

Individual unit costs sheets for each district are provided in the following pages. These cost sheets provide unit prices for the potential maximum cost at an individual Site Assignment in each district. The actual units may vary per project assignment and will be determined at the time of assignment. Atlas will obtain competitive bids on each assignment from pre-qualified contractors for multiple services/tasks in order to reduce duplication of costs within units (mobilization, waste characterization, transportation and disposal on individual tanks, etc.)

2022 Tank & Soil Removal ISID Unit Pricing			
BIDDER NAME: ATC Group Services dba Atlas Technical			
DISTRICT: WESTERN U.P. - UNIT PRICING			
Line Item	**Description**	**Units**	**Unit Price**
1a	Project Administration	% of D&C	5%
2	**Professional Services**		
2a	Site Visit	Lump Sum	$1,755.00
2b	Excavation Plans/Drawings	Lump Sum	$5,100.00
2c	UST Removal/Excavation Oversight	Day	$1,475.00
2d	Construction/Removal Report	Lump Sum	$1,875.00
2e	Notification to Remove and UST registration	Lump Sum	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	Lump Sum	$1,515.00
2g	Monitoring Well Abandonment	Lineal Foot	$46.00
2h	Monitor Well Installation - Hollow Stem Auger	Lineal Foot	$125.00
2i	Mobilization and Demobilization - Hollow Stem Auger Drilling	Lump Sum	$5,500.00
2j	Monitor Well Installation – Geoprobe	Lineal Foot	$110.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	Lump Sum	$4,000.00
2l	Groundwater Monitoring and Reporting	Event	$2,220.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	Lineal Foot	$78.00
2n	Sub Slab Soil Gas Vapor Pin Installation	Each	$572.00
2o	Soil Vapor Monitoring and Reporting	Event	$1,850.00
3	**UST System Close in Place (includes removing liquids and sludges, cleaning and filling with an inert solid material)**		
3a	0 - 1000 gallon	Tank	$4,600.00
3b	1001 - 4000 gallon	Tank	$6,095.00
3c	4001 - 6000 gallon	Tank	$8,280.00
3d	6001 - 8000 gallon	Tank	$10,120.00
3e	8001 - 10,000 gallon	Tank	$12,075.00
3f	10,001 - 12,000 gallon	Tank	$14,777.50
3g	12, 001 - 15,000 gallon	Tank	$17,451.25
3h	15,001 - 20,000 gallon	Tank	$21,131.25
4	**UST System Removal and Disposal (includes purging, cleaning and all associated piping)**		
4a	0 - 1000 gallon	Tank	$6,790.75
4b	1001 - 4000 gallon	Tank	$8,337.50
4c	4001 - 6000 gallon	Tank	$9,602.50
4d	6001 - 8000 gallon	Tank	$12,339.50
4e	8001 - 10,000 gallon	Tank	$15,410.00
4f	10,001 - 12,000 gallon	Tank	$20,975.00
4g	12, 001 - 15,000 gallon	Tank	$21,361.25
4h	15,001 - 20,000 gallon	Tank	$24,725.00
5	**Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill**		
5a	0- 250 tons	Ton	$122.70
5b	251 - 500 tons	Ton	$115.50
5c	501 - 1000 tons	Ton	$105.00
5d	1001 - 2000 tons	Ton	$98.10
5e	> 2000 tons	Ton	$95.70
6	**Waste Characterization and Disposal**	**Units**	
6a	Non- Hazardous Liquid	Gallon	$1.50
6b	Hazardous Liquid	Gallon	$8.00
6c	Hazardous Solid / Sludge	Gallon	$8.00
6d	55-gallon drum removal - Non-Hazardous Solid/Sludge	Drum	$1,300.00
6e	55-gallon drum removal - Hazardous Solid/Sludge	Drum	$2,200.00
7	**Miscellaneous**		
7a	Vac Truck and Operator	Day	$3,200.00
7b	Site Preparation Including Excavation Sloping and Overburden Stockpiling	Cubic yard	$14.00
7c	Clearing and Chipping Dense & Woody Vegetation	Day	$4,300.00
7d	Provisionary Allowance	Allowance	$10,000.00
7e	Concrete Disposal/Recycling	Sq. Foot	$1.40
7f	Asphalt Disposal/Recycling	Sq. Foot	$1.75
7g	5,000-gallon Frac Tank	Day	$690.00
7h	Air Monitoring	Day	$175.00
8	**Site Restoration**		
8a	22a Gravel	Ton	$64.44
8b	Crushed Limestone	Ton	$52.20
8c	Asphalt Paving (4" Thick)	Sq. Foot	$12.60
8d	Concrete	cubic yard	$16.98
8e	2" Topsoil and Seeding	Sq. Foot	$3.30
	Subtotal Construction		
9	**Mobilization, Demobilization and General Conditions**	% of construction	6%
	Subtotal Design & Construction (D&C)		

2022 Tank & Soil Removal ISID Unit Pricing			
BIDDER NAME: ATC Group Services dba Atlas Technical			
DISTRICT: EASTERN U.P. - UNIT PRICING			
Line Item	**Description**	**Units**	**Unit Price**
1a	Project Administration	% of D&C	5%
2	**Professional Services**		
2a	Site Visit	Lump Sum	$1,355.00
2b	Excavation Plans/Drawings	Lump Sum	$4,600.00
2c	UST Removal/Excavation Oversight	Day	$1,475.00
2d	Construction/Removal Report	Lump Sum	$1,875.00
2e	Notification to Remove and UST registration	Lump Sum	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	Lump Sum	$1,515.00
2g	Monitoring Well Abandonment	Lineal Foot	$46.00
2h	Monitor Well Installation - Hollow Stem Auger	Lineal Foot	$125.00
2i	Mobilization and Demobilization - Hollow Stem Auger Drilling	Lump Sum	$5,500.00
2j	Monitor Well Installation – Geoprobe	Lineal Foot	$110.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	Lump Sum	$4,000.00
2l	Groundwater Monitoring and Reporting	Event	$2,220.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	Lineal Foot	$78.00
2n	Sub Slab Soil Gas Vapor Pin Installation	Each	$572.00
2o	Soil Vapor Monitoring and Reporting	Event	$1,850.00
3	**UST System Close in Place (includes removing liquids and sludges, cleaning and filling with an inert solid material)**		
3a	0 - 1000 gallon	Tank	$4,600.00
3b	1001 - 4000 gallon	Tank	$6,095.00
3c	4001 - 6000 gallon	Tank	$8,280.00
3d	6001 - 8000 gallon	Tank	$10,120.00
3e	8001 - 10,000 gallon	Tank	$12,075.00
3f	10,001 - 12,000 gallon	Tank	$14,777.50
3g	12, 001 - 15,000 gallon	Tank	$17,451.25
3h	15,001 - 20,000 gallon	Tank	$21,131.25
4	**UST System Removal and Disposal (includes purging, cleaning and all associated piping)**		
4a	0 - 1000 gallon	Tank	$4,375.75
4b	1001 - 4000 gallon	Tank	$6,675.75
4c	4001 - 6000 gallon	Tank	$7,072.50
4d	6001 - 8000 gallon	Tank	$7,739.50
4e	8001 - 10,000 gallon	Tank	$10,005.00
4f	10,001 - 12,000 gallon	Tank	$12,005.00
4g	12, 001 - 15,000 gallon	Tank	$15,352.50
4h	15,001 - 20,000 gallon	Tank	$17,135.00
5	**Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill**		
5a	0- 250 tons	Ton	$95.10
5b	251 - 500 tons	Ton	$91.50
5c	501 - 1000 tons	Ton	$88.20
5d	1001 - 2000 tons	Ton	$86.70
5e	> 2000 tons	Ton	$83.70
6	**Waste Characterization and Disposal**	**Units**	
6a	Non- Hazardous Liquid	Gallon	$1.50
6b	Hazardous Liquid	Gallon	$8.00
6c	Hazardous Solid / Sludge	Gallon	$8.00
6d	55-gallon drum removal - Non-Hazardous Solid/Sludge	Drum	$1,300.00
6e	55-gallon drum removal - Hazardous Solid/Sludge	Drum	$2,200.00
7	**Miscellaneous**		
7a	Vac Truck and Operator	Day	$3,200.00
7b	Site Preparation Including Excavation Sloping and Overburden Stockpiling	Cubic yard	$14.00
7c	Clearing and Chipping Dense & Woody Vegetation	Day	$4,300.00
7d	Provisionary Allowance	Allowance	$10,000.00
7e	Concrete Disposal/Recycling	Sq. Foot	$1.40
7f	Asphalt Disposal/Recycling	Sq. Foot	$1.75
7g	5,000-gallon Frac Tank	Day	$618.00
7h	Air Monitoring	Day	$175.00
8	**Site Restoration**		
8a	22a Gravel	Ton	$64.44
8b	Crushed Limestone	Ton	$52.20
8c	Asphalt Paving (4" Thick)	Sq. Foot	$12.60
8d	Concrete	cubic yard	$16.98
8e	2" Topsoil and Seeding	Sq. Foot	$2.70
	Subtotal Construction		
9	**Mobilization, Demobilization and General Conditions**	% of construction	6%
	Subtotal Design & Construction (D&C)		

2022 Tank & Soil Removal ISID Unit Pricing			
BIDDER NAME: ATC Group Services dba Atlas Technical			
DISTRICT: GAYLORD - UNIT PRICING			
Line Item	**Description**	**Units**	**Unit Price**
1a	Project Administration	% of D&C	5%
2	**Professional Services**		
2a	Site Visit	Lump Sum	$855.00
2b	Excavation Plans/Drawings	Lump Sum	$3,700.00
2c	UST Removal/Excavation Oversight	Day	$975.00
2d	Construction/Removal Report	Lump Sum	$1,875.00
2e	Notification to Remove and UST registration	Lump Sum	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	Lump Sum	$1,345.00
2g	Monitoring Well Abandonment	Lineal Foot	$46.00
2h	Monitor Well Installation - Hollow Stem Auger	Lineal Foot	$125.00
2i	Mobilization and Demobilization - Hollow Stem Auger Drilling	Lump Sum	$2,500.00
2j	Monitor Well Installation – Geoprobe	Lineal Foot	$110.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	Lump Sum	$1,350.00
2l	Groundwater Monitoring and Reporting	Event	$1,720.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	Lineal Foot	$78.00
2n	Sub Slab Soil Gas Vapor Pin Installation	Each	$572.00
2o	Soil Vapor Monitoring and Reporting	Event	$1,350.00
3	**UST System Close in Place (includes removing liquids and sludges, cleaning and filling with an inert solid material)**		
3a	0 - 1000 gallon	Tank	$4,200.00
3b	1001 - 4000 gallon	Tank	$5,565.00
3c	4001 - 6000 gallon	Tank	$7,560.00
3d	6001 - 8000 gallon	Tank	$9,240.00
3e	8001 - 10,000 gallon	Tank	$11,025.00
3f	10,001 - 12,000 gallon	Tank	$13,492.50
3g	12, 001 - 15,000 gallon	Tank	$15,933.75
3h	15,001 - 20,000 gallon	Tank	$19,293.75
4	**UST System Removal and Disposal (includes purging, cleaning and all associated piping)**		
4a	0 - 1000 gallon	Tank	$3,995.25
4b	1001 - 4000 gallon	Tank	$6,095.25
4c	4001 - 6000 gallon	Tank	$6,457.50
4d	6001 - 8000 gallon	Tank	$7,066.50
4e	8001 - 10,000 gallon	Tank	$9,135.00
4f	10,001 - 12,000 gallon	Tank	$11,135.00
4g	12, 001 - 15,000 gallon	Tank	$14,017.50
4h	15,001 - 20,000 gallon	Tank	$15,645.00
5	**Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill**		
5a	0- 250 tons	Ton	$84.00
5b	251 - 500 tons	Ton	$81.00
5c	501 - 1000 tons	Ton	$77.00
5d	1001 - 2000 tons	Ton	$74.00
5e	> 2000 tons	Ton	$71.00
6	**Waste Characterization and Disposal**	**Units**	
6a	Non- Hazardous Liquid	Gallon	$1.00
6b	Hazardous Liquid	Gallon	$5.00
6c	Hazardous Solid / Sludge	Gallon	$5.00
6d	55-gallon drum removal - Non-Hazardous Solid/Sludge	Drum	$1,000.00
6e	55-gallon drum removal - Hazardous Solid/Sludge	Drum	$1,910.00
7	**Miscellaneous**		
7a	Vac Truck and Operator	Day	$2,200.00
7b	Site Preparation Including Excavation Sloping and Overburden Stockpiling	Cubic Yards	$12.00
7c	Clearing and Chipping Dense & Woody Vegetation	Day	$4,000.00
7d	Provisionary Allowance	Allowance	$10,000.00
7e	Concrete Disposal/Recycling	Sq. Foot	$1.15
7f	Asphalt Disposal/Recycling	Sq. Foot	$1.20
7g	5,000-gallon Frac Tank	Day	$475.00
7h	Air Monitoring	Day	$175.00
8	**Site Restoration**		
8a	22a Gravel	Ton	$47.96
8b	Crushed Limestone	Ton	$45.43
8c	Asphalt Paving (4" Thick)	Sq. Foot	$9.20
8d	Concrete	cubic yard	$12.25
8e	2" Topsoil and Seeding	Sq. Foot	$2.59
	Subtotal Construction		
9	**Mobilization, Demobilization and General Conditions**	% of construction	6%
	Subtotal Design & Construction (D&C)		

2022 Tank & Soil Removal ISID Unit Pricing			
BIDDER NAME: ATC Group Services dba Atlas Technical			
DISTRICT: CADILLAC - UNIT PRICING			
Line Item	**Description**	**Units**	**Unit Price**
1a	Project Administration	% of D&C	5%
2	**Professional Services**		
2a	Site Visit	Lump Sum	$855.00
2b	Excavation Plans/Drawings	Lump Sum	$3,700.00
2c	UST Removal/Excavation Oversight	Day	$975.00
2d	Construction/Removal Report	Lump Sum	$1,875.00
2e	Notification to Remove and UST registration	Lump Sum	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	Lump Sum	$1,345.00
2g	Monitoring Well Abandonment	Lineal Foot	$46.00
2h	Monitor Well Installation - Hollow Stem Auger	Lineal Foot	$125.00
2i	Mobilization and Demobilization - Hollow Stem Auger Drilling	Lump Sum	$2,200.00
2j	Monitor Well Installation – Geoprobe	Lineal Foot	$110.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	Lump Sum	$1,250.00
2l	Groundwater Monitoring and Reporting	Event	$1,720.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	Lineal Foot	$78.00
2n	Sub Slab Soil Gas Vapor Pin Installation	Each	$572.00
2o	Soil Vapor Monitoring and Reporting	Event	$1,350.00
3	**UST System Close in Place (includes removing liquids and sludges, cleaning and filling with an inert solid material)**		
3a	0 - 1000 gallon	Tank	$4,200.00
3b	1001 - 4000 gallon	Tank	$5,565.00
3c	4001 - 6000 gallon	Tank	$7,560.00
3d	6001 - 8000 gallon	Tank	$9,240.00
3e	8001 - 10,000 gallon	Tank	$11,025.00
3f	10,001 - 12,000 gallon	Tank	$13,492.50
3g	12, 001 - 15,000 gallon	Tank	$15,933.75
3h	15,001 - 20,000 gallon	Tank	$19,293.75
4	**UST System Removal and Disposal (includes purging, cleaning and all associated piping)**		
4a	0 - 1000 gallon	Tank	$3,995.25
4b	1001 - 4000 gallon	Tank	$6,095.25
4c	4001 - 6000 gallon	Tank	$6,457.50
4d	6001 - 8000 gallon	Tank	$7,066.50
4e	8001 - 10,000 gallon	Tank	$9,135.00
4f	10,001 - 12,000 gallon	Tank	$11,135.00
4g	12, 001 - 15,000 gallon	Tank	$14,017.50
4h	15,001 - 20,000 gallon	Tank	$15,645.00
5	**Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill**		
5a	0- 250 tons	Ton	$84.00
5b	251 - 500 tons	Ton	$81.00
5c	501 - 1000 tons	Ton	$77.00
5d	1001 - 2000 tons	Ton	$74.00
5e	> 2000 tons	Ton	$71.00
6	**Waste Characterization and Disposal**	**Units**	
6a	Non- Hazardous Liquid	Gallon	$1.00
6b	Hazardous Liquid	Gallon	$5.00
6c	Hazardous Solid / Sludge	Gallon	$5.00
6d	55-gallon drum removal - Non-Hazardous Solid/Sludge	Drum	$1,000.00
6e	55-gallon drum removal - Hazardous Solid/Sludge	Drum	$1,910.00
7	**Miscellaneous**		
7a	Vac Truck and Operator	Day	$2,200.00
7b	Site Preparation Including Excavation Sloping and Overburden Stockpiling	Cubic yard	$12.00
7c	Clearing and Chipping Dense & Woody Vegetation	Day	$4,000.00
7d	Provisionary Allowance	Allowance	$10,000.00
7e	Concrete Disposal/Recycling	Sq. Foot	$1.15
7f	Asphalt Disposal/Recycling	Sq. Foot	$1.20
7g	5,000-gallon Frac Tank	Day	$475.00
7h	Air Monitoring	Day	$175.00
8	**Site Restoration**		
8a	22a Gravel	Ton	$47.96
8b	Crushed Limestone	Ton	$45.43
8c	Asphalt Paving (4" Thick)	Sq. Foot	$9.20
8d	Concrete	cubic yard	$12.25
8e	2" Topsoil and Seeding	Sq. Foot	$2.59
	Subtotal Construction		
9	**Mobilization, Demobilization and General Conditions**	% of construction	6%
	Subtotal Design & Construction (D&C)		

2022 Tank & Soil Removal ISID Unit Pricing			
BIDDER NAME: ATC Group Services dba Atlas Technical			
DISTRICT: BAY CITY - UNIT PRICING			
Line Item	**Description**	**Units**	**Unit Price**
1a	Project Administration	% of D&C	5%
2	**Professional Services**		
2a	Site Visit	Lump Sum	$855.00
2b	Excavation Plans/Drawings	Lump Sum	$3,700.00
2c	UST Removal/Excavation Oversight	Day	$975.00
2d	Construction/Removal Report	Lump Sum	$1,875.00
2e	Notification to Remove and UST registration	Lump Sum	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	Lump Sum	$1,345.00
2g	Monitoring Well Abandonment	Lineal Foot	$46.00
2h	Monitor Well Installation - Hollow Stem Auger	Lineal Foot	$125.00
2i	Mobilization and Demobilization - Hollow Stem Auger Drilling	Lump Sum	$1,950.00
2j	Monitor Well Installation – Geoprobe	Lineal Foot	$110.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	Lump Sum	$1,150.00
2l	Groundwater Monitoring and Reporting	Event	$1,720.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	Lineal Foot	$78.00
2n	Sub Slab Soil Gas Vapor Pin Installation	Each	$572.00
2o	Soil Vapor Monitoring and Reporting	Event	$1,350.00
3	**UST System Close in Place (includes removing liquids and sludges, cleaning and filling with an inert solid material)**		
3a	0 - 1000 gallon	Tank	$4,200.00
3b	1001 - 4000 gallon	Tank	$5,565.00
3c	4001 - 6000 gallon	Tank	$7,560.00
3d	6001 - 8000 gallon	Tank	$9,240.00
3e	8001 - 10,000 gallon	Tank	$11,025.00
3f	10,001 - 12,000 gallon	Tank	$13,492.50
3g	12, 001 - 15,000 gallon	Tank	$15,933.75
3h	15,001 - 20,000 gallon	Tank	$19,293.75
4	**UST System Removal and Disposal (includes purging, cleaning and all associated piping)**		
4a	0 - 1000 gallon	Tank	$3,995.25
4b	1001 - 4000 gallon	Tank	$6,095.25
4c	4001 - 6000 gallon	Tank	$6,457.50
4d	6001 - 8000 gallon	Tank	$7,066.50
4e	8001 - 10,000 gallon	Tank	$9,135.00
4f	10,001 - 12,000 gallon	Tank	$11,135.00
4g	12, 001 - 15,000 gallon	Tank	$14,017.50
4h	15,001 - 20,000 gallon	Tank	$15,645.00
5	**Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill**		
5a	0- 250 tons	Ton	$84.00
5b	251 - 500 tons	Ton	$81.00
5c	501 - 1000 tons	Ton	$77.00
5d	1001 - 2000 tons	Ton	$74.00
5e	> 2000 tons	Ton	$71.00
6	**Waste Characterization and Disposal**	**Units**	
6a	Non- Hazardous Liquid	Gallon	$1.00
6b	Hazardous Liquid	Gallon	$5.00
6c	Hazardous Solid / Sludge	Gallon	$5.00
6d	55-gallon drum removal - Non-Hazardous Solid/Sludge	Drum	$1,000.00
6e	55-gallon drum removal - Hazardous Solid/Sludge	Drum	$1,910.00
7	**Miscellaneous**		
7a	Vac Truck and Operator	Day	$2,200.00
7b	Site Preparation Including Excavation Sloping and Overburden Stockpiling	Cubic yard	$12.00
7c	Clearing and Chipping Dense & Woody Vegetation	Day	$4,000.00
7d	Provisionary Allowance	Allowance	$10,000.00
7e	Concrete Disposal/Recycling	Sq. Foot	$1.15
7f	Asphalt Disposal/Recycling	Sq. Foot	$1.20
7g	5,000-gallon Frac Tank	Day	$475.00
7h	Air Monitoring	Day	$175.00
8	**Site Restoration**		
8a	22a Gravel	Ton	$47.96
8b	Crushed Limestone	Ton	$45.43
8c	Asphalt Paving (4" Thick)	Sq. Foot	$9.20
8d	Concrete	cubic yard	$12.25
8e	2" Topsoil and Seeding	Sq. Foot	$2.59
	Subtotal Construction		
9	**Mobilization, Demobilization and General Conditions**	% of construction	6%
	Subtotal Design & Construction (D&C)		

2022 Tank & Soil Removal ISID Unit Pricing			
BIDDER NAME: ATC Group Services dba Atlas Technical			
DISTRICT: GRAND RAPIDS - UNIT PRICING			
Line Item	**Description**	**Units**	**Unit Price**
1a	Project Administration	% of D&C	5%
2	**Professional Services**		
2a	Site Visit	Lump Sum	$855.00
2b	Excavation Plans/Drawings	Lump Sum	$3,700.00
2c	UST Removal/Excavation Oversight	Day	$975.00
2d	Construction/Removal Report	Lump Sum	$1,875.00
2e	Notification to Remove and UST registration	Lump Sum	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	Lump Sum	$1,345.00
2g	Monitoring Well Abandonment	Lineal Foot	$46.00
2h	Monitor Well Installation - Hollow Stem Auger	Lineal Foot	$125.00
2i	Mobilization and Demobilization - Hollow Stem Auger Drilling	Lump Sum	$2,300.00
2j	Monitor Well Installation – Geoprobe	Lineal Foot	$110.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	Lump Sum	$1,500.00
2l	Groundwater Monitoring and Reporting	Event	$1,720.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	Lineal Foot	$78.00
2n	Sub Slab Soil Gas Vapor Pin Installation	Each	$572.00
2o	Soil Vapor Monitoring and Reporting	Event	$1,350.00
3	**UST System Close in Place (includes removing liquids and sludges, cleaning and filling with an inert solid material)**		
3a	0 - 1000 gallon	Tank	$4,200.00
3b	1001 - 4000 gallon	Tank	$5,565.00
3c	4001 - 6000 gallon	Tank	$7,560.00
3d	6001 - 8000 gallon	Tank	$9,240.00
3e	8001 - 10,000 gallon	Tank	$11,025.00
3f	10,001 - 12,000 gallon	Tank	$13,492.50
3g	12, 001 - 15,000 gallon	Tank	$15,933.75
3h	15,001 - 20,000 gallon	Tank	$19,293.75
4	**UST System Removal and Disposal (includes purging, cleaning and all associated piping)**		
4a	0 - 1000 gallon	Tank	$3,995.25
4b	1001 - 4000 gallon	Tank	$6,095.25
4c	4001 - 6000 gallon	Tank	$6,457.50
4d	6001 - 8000 gallon	Tank	$7,066.50
4e	8001 - 10,000 gallon	Tank	$9,135.00
4f	10,001 - 12,000 gallon	Tank	$11,135.00
4g	12, 001 - 15,000 gallon	Tank	$14,017.50
4h	15,001 - 20,000 gallon	Tank	$15,645.00
5	**Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill**		
5a	0- 250 tons	Ton	$84.00
5b	251 - 500 tons	Ton	$81.00
5c	501 - 1000 tons	Ton	$77.00
5d	1001 - 2000 tons	Ton	$74.00
5e	> 2000 tons	Ton	$71.00
6	**Waste Characterization and Disposal**	**Units**	
6a	Non- Hazardous Liquid	Gallon	$1.00
6b	Hazardous Liquid	Gallon	$5.00
6c	Hazardous Solid / Sludge	Gallon	$5.00
6d	55-gallon drum removal - Non-Hazardous Solid/Sludge	Drum	$1,000.00
6e	55-gallon drum removal - Hazardous Solid/Sludge	Drum	$1,910.00
7	**Miscellaneous**		
7a	Vac Truck and Operator	Day	$2,200.00
7b	Site Preparation Including Excavation Sloping and Overburden Stockpiling	Cubic yard	$12.00
7c	Clearing and Chipping Dense & Woody Vegetation	Day	$4,000.00
7d	Provisionary Allowance	Allowance	$10,000.00
7e	Concrete Disposal/Recycling	Sq. Foot	$1.15
7f	Asphalt Disposal/Recycling	Sq. Foot	$1.20
7g	5,000-gallon Frac Tank	Day	$475.00
7h	Air Monitoring	Day	$175.00
8	**Site Restoration**		
8a	22a Gravel	Ton	$47.96
8b	Crushed Limestone	Ton	$45.43
8c	Asphalt Paving (4" Thick)	Sq. Foot	$9.20
8d	Concrete	cubic yard	$12.25
8e	2" Topsoil and Seeding	Sq. Foot	$2.59
	Subtotal Construction		
9	**Mobilization, Demobilization and General Conditions**	% of construction	6%
	Subtotal Design & Construction (D&C)		

2022 Tank & Soil Removal ISID Unit Pricing			
BIDDER NAME: ATC Group Services dba Atlas Technical			
DISTRICT: LANSING - UNIT PRICING			
Line Item	**Description**	**Units**	**Unit Price**
1a	Project Administration	% of D&C	5%
2	**Professional Services**		
2a	Site Visit	Lump Sum	$855.00
2b	Excavation Plans/Drawings	Lump Sum	$3,700.00
2c	UST Removal/Excavation Oversight	Day	$975.00
2d	Construction/Removal Report	Lump Sum	$1,875.00
2e	Notification to Remove and UST registration	Lump Sum	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	Lump Sum	$1,345.00
2g	Monitoring Well Abandonment	Lineal Foot	$46.00
2h	Monitor Well Installation - Hollow Stem Auger	Lineal Foot	$125.00
2i	Mobilization and Demobilization - Hollow Stem Auger Drilling	Lump Sum	$2,300.00
2j	Monitor Well Installation – Geoprobe	Lineal Foot	$110.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	Lump Sum	$1,500.00
2l	Groundwater Monitoring and Reporting	Event	$1,720.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	Lineal Foot	$78.00
2n	Sub Slab Soil Gas Vapor Pin Installation	Each	$572.00
2o	Soil Vapor Monitoring and Reporting	Event	$1,350.00
3	**UST System Close in Place (includes removing liquids and sludges, cleaning and filling with an inert solid material)**		
3a	0 - 1000 gallon	Tank	$4,800.00
3b	1001 - 4000 gallon	Tank	$6,360.00
3c	4001 - 6000 gallon	Tank	$8,640.00
3d	6001 - 8000 gallon	Tank	$10,560.00
3e	8001 - 10,000 gallon	Tank	$12,600.00
3f	10,001 - 12,000 gallon	Tank	$15,420.00
3g	12, 001 - 15,000 gallon	Tank	$18,210.00
3h	15,001 - 20,000 gallon	Tank	$22,050.00
4	**UST System Removal and Disposal (includes purging, cleaning and all associated piping)**		
4a	0 - 1000 gallon	Tank	$4,566.00
4b	1001 - 4000 gallon	Tank	$6,966.00
4c	4001 - 6000 gallon	Tank	$7,380.00
4d	6001 - 8000 gallon	Tank	$8,076.00
4e	8001 - 10,000 gallon	Tank	$10,440.00
4f	10,001 - 12,000 gallon	Tank	$10,440.00
4g	12, 001 - 15,000 gallon	Tank	$16,020.00
4h	15,001 - 20,000 gallon	Tank	$17,880.00
5	**Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill**		
5a	0- 250 tons	Ton	$84.00
5b	251 - 500 tons	Ton	$81.00
5c	501 - 1000 tons	Ton	$77.00
5d	1001 - 2000 tons	Ton	$74.00
5e	> 2000 tons	Ton	$71.00
6	**Waste Characterization and Disposal**	**Units**	
6a	Non- Hazardous Liquid	Gallon	$1.00
6b	Hazardous Liquid	Gallon	$5.00
6c	Hazardous Solid / Sludge	Gallon	$5.00
6d	55-gallon drum removal - Non-Hazardous Solid/Sludge	Drum	$1,000.00
6e	55-gallon drum removal - Hazardous Solid/Sludge	Drum	$1,910.00
7	**Miscellaneous**		
7a	Vac Truck and Operator	Day	$2,200.00
7b	Site Preparation Including Excavation Sloping and Overburden Stockpiling	Cubic yard	$12.00
7c	Clearing and Chipping Dense & Woody Vegetation	Day	$4,000.00
7d	Provisionary Allowance	Allowance	$10,000.00
7e	Concrete Disposal/Recycling	Sq. Foot	$1.15
7f	Asphalt Disposal/Recycling	Sq. Foot	$1.20
7g	5,000-gallon Frac Tank	Day	$475.00
7h	Air Monitoring	Day	$175.00
8	**Site Restoration**		
8a	22a Gravel	Ton	$47.96
8b	Crushed Limestone	Ton	$45.43
8c	Asphalt Paving (4" Thick)	Sq. Foot	$9.20
8d	Concrete	cubic yard	$12.25
8e	2" Topsoil and Seeding	Sq. Foot	$2.59
	Subtotal Construction		
9	**Mobilization, Demobilization and General Conditions**	% of construction	6%
	Subtotal Design & Construction (D&C)		

2022 Tank & Soil Removal ISID Unit Pricing			
BIDDER NAME: ATC Group Services dba Atlas Technical			
DISTRICT: KALAMAZOO - UNIT PRICING			
Line Item	**Description**	**Units**	**Unit Price**
1a	Project Administration	% of D&C	5%
2	**Professional Services**		
2a	Site Visit	Lump Sum	$855.00
2b	Excavation Plans/Drawings	Lump Sum	$3,700.00
2c	UST Removal/Excavation Oversight	Day	$975.00
2d	Construction/Removal Report	Lump Sum	$1,875.00
2e	Notification to Remove and UST registration	Lump Sum	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	Lump Sum	$1,345.00
2g	Monitoring Well Abandonment	Lineal Foot	$46.00
2h	Monitor Well Installation - Hollow Stem Auger	Lineal Foot	$125.00
2i	Mobilization and Demobilization - Hollow Stem Auger Drilling	Lump Sum	$2,300.00
2j	Monitor Well Installation – Geoprobe	Lineal Foot	$110.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	Lump Sum	$1,500.00
2l	Groundwater Monitoring and Reporting	Event	$1,720.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	Lineal Foot	$78.00
2n	Sub Slab Soil Gas Vapor Pin Installation	Each	$572.00
2o	Soil Vapor Monitoring and Reporting	Event	$1,350.00
3	**UST System Close in Place (includes removing liquids and sludges, cleaning and filling with an inert solid material)**		
3a	0 - 1000 gallon	Tank	$4,200.00
3b	1001 - 4000 gallon	Tank	$5,565.00
3c	4001 - 6000 gallon	Tank	$7,560.00
3d	6001 - 8000 gallon	Tank	$9,240.00
3e	8001 - 10,000 gallon	Tank	$11,025.00
3f	10,001 - 12,000 gallon	Tank	$13,492.50
3g	12, 001 - 15,000 gallon	Tank	$15,933.75
3h	15,001 - 20,000 gallon	Tank	$19,293.75
4	**UST System Removal and Disposal (includes purging, cleaning and all associated piping)**		
4a	0 - 1000 gallon	Tank	$3,995.25
4b	1001 - 4000 gallon	Tank	$6,095.25
4c	4001 - 6000 gallon	Tank	$6,457.50
4d	6001 - 8000 gallon	Tank	$7,066.50
4e	8001 - 10,000 gallon	Tank	$9,135.00
4f	10,001 - 12,000 gallon	Tank	$11,135.00
4g	12, 001 - 15,000 gallon	Tank	$14,017.50
4h	15,001 - 20,000 gallon	Tank	$15,645.00
5	**Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill**		
5a	0- 250 tons	Ton	$84.00
5b	251 - 500 tons	Ton	$81.00
5c	501 - 1000 tons	Ton	$77.00
5d	1001 - 2000 tons	Ton	$74.00
5e	> 2000 tons	Ton	$71.00
6	**Waste Characterization and Disposal**	**Units**	
6a	Non- Hazardous Liquid	Gallon	$1.00
6b	Hazardous Liquid	Gallon	$5.00
6c	Hazardous Solid / Sludge	Gallon	$5.00
6d	55-gallon drum removal - Non-Hazardous Solid/Sludge	Drum	$1,000.00
6e	55-gallon drum removal - Hazardous Solid/Sludge	Drum	$1,910.00
7	**Miscellaneous**		
7a	Vac Truck and Operator	Day	$2,200.00
7b	Site Preparation Including Excavation Sloping and Overburden Stockpiling	Cubic yard	$12.00
7c	Clearing and Chipping Dense & Woody Vegetation	Day	$4,000.00
7d	Provisionary Allowance	Allowance	$10,000.00
7e	Concrete Disposal/Recycling	Sq. Foot	$1.15
7f	Asphalt Disposal/Recycling	Sq. Foot	$1.20
7g	5,000-gallon Frac Tank	Day	$475.00
7h	Air Monitoring	Day	$175.00
8	**Site Restoration**		
8a	22a Gravel	Ton	$47.96
8b	Crushed Limestone	Ton	$45.43
8c	Asphalt Paving (4" Thick)	Sq. Foot	$9.20
8d	Concrete	cubic yard	$12.25
8e	2" Topsoil and Seeding	Sq. Foot	$2.59
	Subtotal Construction		
9	**Mobilization, Demobilization and General Conditions**	% of construction	6%
	Subtotal Design & Construction (D&C)		

2022 Tank & Soil Removal ISID Unit Pricing			
BIDDER NAME: ATC Group Services dba Atlas Technical			
DISTRICT: JACKSON - UNIT PRICING			
Line Item	**Description**	**Units**	**Unit Price**
1a	Project Administration	% of D&C	5%
2	**Professional Services**		
2a	Site Visit	Lump Sum	$855.00
2b	Excavation Plans/Drawings	Lump Sum	$3,700.00
2c	UST Removal/Excavation Oversight	Day	$975.00
2d	Construction/Removal Report	Lump Sum	$1,875.00
2e	Notification to Remove and UST registration	Lump Sum	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	Lump Sum	$1,345.00
2g	Monitoring Well Abandonment	Lineal Foot	$46.00
2h	Monitor Well Installation - Hollow Stem Auger	Lineal Foot	$125.00
2i	Mobilization and Demobilization - Hollow Stem Auger Drilling	Lump Sum	$2,300.00
2j	Monitor Well Installation – Geoprobe	Lineal Foot	$110.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	Lump Sum	$1,500.00
2l	Groundwater Monitoring and Reporting	Event	$1,720.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	Lineal Foot	$78.00
2n	Sub Slab Soil Gas Vapor Pin Installation	Each	$572.00
2o	Soil Vapor Monitoring and Reporting	Event	$1,350.00
3	**UST System Close in Place (includes removing liquids and sludges, cleaning and filling with an inert solid material)**		
3a	0 - 1000 gallon	Tank	$4,800.00
3b	1001 - 4000 gallon	Tank	$6,360.00
3c	4001 - 6000 gallon	Tank	$8,640.00
3d	6001 - 8000 gallon	Tank	$10,560.00
3e	8001 - 10,000 gallon	Tank	$12,600.00
3f	10,001 - 12,000 gallon	Tank	$15,420.00
3g	12, 001 - 15,000 gallon	Tank	$18,210.00
3h	15,001 - 20,000 gallon	Tank	$22,050.00
4	**UST System Removal and Disposal (includes purging, cleaning and all associated piping)**		
4a	0 - 1000 gallon	Tank	$4,566.00
4b	1001 - 4000 gallon	Tank	$6,966.00
4c	4001 - 6000 gallon	Tank	$7,380.00
4d	6001 - 8000 gallon	Tank	$8,076.00
4e	8001 - 10,000 gallon	Tank	$10,440.00
4f	10,001 - 12,000 gallon	Tank	$10,440.00
4g	12, 001 - 15,000 gallon	Tank	$16,020.00
4h	15,001 - 20,000 gallon	Tank	$17,880.00
5	**Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill**		
5a	0- 250 tons	Ton	$84.00
5b	251 - 500 tons	Ton	$81.00
5c	501 - 1000 tons	Ton	$77.00
5d	1001 - 2000 tons	Ton	$74.00
5e	> 2000 tons	Ton	$71.00
6	**Waste Characterization and Disposal**	**Units**	
6a	Non- Hazardous Liquid	Gallon	$1.00
6b	Hazardous Liquid	Gallon	$5.00
6c	Hazardous Solid / Sludge	Gallon	$5.00
6d	55-gallon drum removal - Non-Hazardous Solid/Sludge	Drum	$1,000.00
6e	55-gallon drum removal - Hazardous Solid/Sludge	Drum	$1,910.00
7	**Miscellaneous**		
7a	Vac Truck and Operator	Day	$2,200.00
7b	Site Preparation Including Excavation Sloping and Overburden Stockpiling	Cubic yard	$12.00
7c	Clearing and Chipping Dense & Woody Vegetation	Day	$4,000.00
7d	Provisionary Allowance	Allowance	$10,000.00
7e	Concrete Disposal/Recycling	Sq. Foot	$1.15
7f	Asphalt Disposal/Recycling	Sq. Foot	$1.20
7g	5,000-gallon Frac Tank	Day	$475.00
7h	Air Monitoring	Day	$175.00
8	**Site Restoration**		
8a	22a Gravel	Ton	$47.96
8b	Crushed Limestone	Ton	$45.43
8c	Asphalt Paving (4" Thick)	Sq. Foot	$9.20
8d	Concrete	cubic yard	$12.25
8e	2" Topsoil and Seeding	Sq. Foot	$2.59
	Subtotal Construction		
9	**Mobilization, Demobilization and General Conditions**	% of construction	6%
	Subtotal Design & Construction (D&C)		

2022 Tank & Soil Removal ISID Unit Pricing			
BIDDER NAME: ATC Group Services dba Atlas Technical			
DISTRICT: WARREN - UNIT PRICING			
Line Item	**Description**	**Units**	**Unit Price**
1a	Project Administration	% of D&C	5%
2	**Professional Services**		
2a	Site Visit	Lump Sum	$855.00
2b	Excavation Plans/Drawings	Lump Sum	$3,700.00
2c	UST Removal/Excavation Oversight	Day	$975.00
2d	Construction/Removal Report	Lump Sum	$1,875.00
2e	Notification to Remove and UST registration	Lump Sum	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	Lump Sum	$1,345.00
2g	Monitoring Well Abandonment	Lineal Foot	$46.00
2h	Monitor Well Installation - Hollow Stem Auger	Lineal Foot	$125.00
2i	Mobilization and Demobilization - Hollow Stem Auger Drilling	Lump Sum	$2,300.00
2j	Monitor Well Installation – Geoprobe	Lineal Foot	$110.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	Lump Sum	$1,500.00
2l	Groundwater Monitoring and Reporting	Event	$1,720.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	Lineal Foot	$78.00
2n	Sub Slab Soil Gas Vapor Pin Installation	Each	$572.00
2o	Soil Vapor Monitoring and Reporting	Event	$1,350.00
3	**UST System Close in Place (includes removing liquids and sludges, cleaning and filling with an inert solid material)**		
3a	0 - 1000 gallon	Tank	$4,200.00
3b	1001 - 4000 gallon	Tank	$5,565.00
3c	4001 - 6000 gallon	Tank	$7,560.00
3d	6001 - 8000 gallon	Tank	$9,240.00
3e	8001 - 10,000 gallon	Tank	$11,025.00
3f	10,001 - 12,000 gallon	Tank	$13,492.50
3g	12, 001 - 15,000 gallon	Tank	$15,933.75
3h	15,001 - 20,000 gallon	Tank	$19,293.75
4	**UST System Removal and Disposal (includes purging, cleaning and all associated piping)**		
4a	0 - 1000 gallon	Tank	$3,995.25
4b	1001 - 4000 gallon	Tank	$6,095.25
4c	4001 - 6000 gallon	Tank	$6,457.50
4d	6001 - 8000 gallon	Tank	$7,066.50
4e	8001 - 10,000 gallon	Tank	$9,135.00
4f	10,001 - 12,000 gallon	Tank	$11,135.00
4g	12, 001 - 15,000 gallon	Tank	$14,017.50
4h	15,001 - 20,000 gallon	Tank	$15,645.00
5	**Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill**		
5a	0- 250 tons	Ton	$84.00
5b	251 - 500 tons	Ton	$81.00
5c	501 - 1000 tons	Ton	$77.00
5d	1001 - 2000 tons	Ton	$74.00
5e	> 2000 tons	Ton	$71.00
6	**Waste Characterization and Disposal**	**Units**	
6a	Non- Hazardous Liquid	Gallon	$1.00
6b	Hazardous Liquid	Gallon	$5.00
6c	Hazardous Solid / Sludge	Gallon	$5.00
6d	55-gallon drum removal - Non-Hazardous Solid/Sludge	Drum	$1,000.00
6e	55-gallon drum removal - Hazardous Solid/Sludge	Drum	$1,910.00
7	**Miscellaneous**		
7a	Vac Truck and Operator	Day	$2,200.00
7b	Site Preparation Including Excavation Sloping and Overburden Stockpiling	Cubic yard	$12.00
7c	Clearing and Chipping Dense & Woody Vegetation	Day	$4,000.00
7d	Provisionary Allowance	Allowance	$10,000.00
7e	Concrete Disposal/Recycling	Sq. Foot	$1.15
7f	Asphalt Disposal/Recycling	Sq. Foot	$1.20
7g	5,000-gallon Frac Tank	Day	$475.00
7h	Air Monitoring	Day	$175.00
8	**Site Restoration**		
8a	22a Gravel	Ton	$47.96
8b	Crushed Limestone	Ton	$45.43
8c	Asphalt Paving (4" Thick)	Sq. Foot	$9.20
8d	Concrete	cubic yard	$12.25
8e	2" Topsoil and Seeding	Sq. Foot	$2.59
	Subtotal Construction		
9	**Mobilization, Demobilization and General Conditions**	% of construction	6%
	Subtotal Design & Construction (D&C)		

II-3 –EXAMPLE PROJECT SHEETS

In accordance with the 2022 Tank and Soil ISID RFP, Atlas has presented our qualifications and prepared example project sheets for all ten (10) designated Districts in Michigan.

- Bay City
- Cadillac
- Gaylord
- Grand Rapids
- Jackson
- Kalamazoo
- Lansing
- SE Michigan
- UP - East
- UP - West

Example project sheets for each district are provided in the following pages. These cost sheets provide unit prices for the potential maximum cost at an individual Site Assignment in each district. The actual units may vary per project assignment and will be determined at the time of assignment. Atlas will obtain competitive bids on each assignment from pre-qualified contractors for multiple services/tasks in order to reduce duplication of costs within units (mobilization, waste characterization, transportation and disposal on individual tanks, etc.)

2022 Tank and Soil Removal ISID Example Site for Bidding

Bidder Name ATC Group Services dba Atlas Technical
District WESTERN U.P. - EXAMPLE SITE FOR BIDDING

Line Item	Description	Est. Quantity	Units	Unit Price	Extended Price
	MANAGEMENT				**$10,762.27**
1a	Project Mgmt/Admin	1	% of D&C	5%	$10,762.27
	DESIGN				**$54,775.00**
2	Professional Services				
2a	Site Visit	1	Lump Sum	$1,755.00	$1,755.00
2b	Excavation Plans/Drawings	1	Lump Sum	$5,100.00	$5,100.00
2c	UST Removal/Excavation Oversight	10	Day	$1,475.00	$14,750.00
2d	Construction/Removal Report	1	Lump Sum	$1,875.00	$1,875.00
2e	Notification to Remove and UST registration	1	Lump Sum	$450.00	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	1	Lump Sum	$1,515.00	$1,515.00
2g	Monitoring Well Abandonment	0	Lineal Foot	$46.00	$0.00
2h	Monitoring Well Installation - Hollow Stem Auger	0	Lineal Foot	$125.00	$0.00
2i	ilization and Demobilization - Hollow Stem Auger Drilling Equipm	0	Lump Sum	$5,500.00	$0.00
2j	Monitor Well Installation - Geoprobe	35	Lineal Foot	$110.00	$3,850.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	1	Lump Sum	$4,000.00	$4,000.00
2l	Groundwater Monitoring and Reporting	4	Event	$2,220.00	$8,880.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	30	Lineal Foot	$78.00	$2,340.00
2n	Sub Slab Soil Gas Vapor Pin Installation	5	Each	$572.00	$2,860.00
2o	Soil Vapor Monitoring and Reporting	4	Event	$1,850.00	$7,400.00
	CONSTRUCTION				
3	UST System Close-In-Place (includes removing liquids and sludges, cleaning, and filling with an inert solid material)				**$4,600.00**
3a	0 - 1000 gallon	1	Tank	$4,600.00	$4,600.00
3b	1001 - 4000 gallon	0	Tank	$6,095.00	$0.00
3c	4001 - 6000 gallon	0	Tank	$8,280.00	$0.00
3d	6001 - 8000 gallon	0	Tank	$10,120.00	$0.00
3e	8001 - 10,000 gallon	0	Tank	$12,075.00	$0.00
3f	10,001 - 12,000 gallon	0	Tank	$14,777.50	$0.00
3g	12,001 - 15,000 gallon	0	Tank	$17,451.25	$0.00
3h	15,0001 - 20,000 gallon	0	Tank	$21,131.25	$0.00
4	UST System Removal and Disposal (includes purging, cleaning, and all associated piping)				**$27,749.50**
4a	0 - 1000 gallon	0	Tank	$6,790.75	$0.00
4b	1001 - 4000 gallon	0	Tank	$8,337.50	$0.00
4c	4001 - 6000 gallon	0	Tank	$9,602.50	$0.00
4d	6001 - 8000 gallon	1	Tank	$12,339.50	$12,339.50
4e	8001 - 10,000 gallon	1	Tank	$15,410.00	$15,410.00
4f	10,001 - 12,000 gallon	0	Tank	$20,975.00	$0.00
4g	12,001 - 15,000 gallon	0	Tank	$21,361.25	$0.00
4h	15,0001 - 20,000 gallon	0	Tank	$24,725.00	$0.00
5	Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill				**$105,000.00**
5a	0 - 250 tons	0	Ton	$122.70	$0.00
5b	251 - 500 tons	0	Ton	$115.50	$0.00
5c	501 - 1000 tons	1000	Ton	$105.00	$105,000.00
5d	1001 - 2000 tons	0	Ton	$98.10	$0.00
5e	> 2000 tons	0	Ton	$95.70	$0.00
6	Waste Characterization and Disposal				**$2,050.00**
6a	Non-Hazardous Liquid	500	Gallon	$1.50	$750.00
6b	Hazardous Liquid	0	Gallon	$8.00	$0.00
6c	Hazardous Solid / Sludge	0	Gallon	$8.00	$0.00
6d	55 gallon drum removal - Non-Hazardous Solid/Sludge	1	Drum	$1,300.00	$1,300.00
6e	55 gallon drum removal - Hazardous Solid/Sludge	0	Drum	$2,200.00	$0.00
7	Miscellaneous				**$19,292.00**
7a	Vac Truck and Operator	1	Day	$3,200.00	$3,200.00
7b	Preparation Including Excavation Sloping and Overburden Stock	100	Cubic Yard	$14.00	$1,400.00
7c	Clearing and Chipping Dense & Woody Vegetation	1	Day	$4,300.00	$4,300.00
7d	Provisionary Allowance	$ 10,000.00	Allowance	NA	$10,000.00
7e	Concrete Disposal/Recycling	30	Sq. Foot	$1.40	$42.00
7f	Asphalt Disposal/Recycling	0	Sq. Foot	$1.75	$0.00
7g	5,000 gallon Frac Tank	0	Day	$690.00	$0.00
7h	Air Monitoring	2	Day	$175.00	$350.00
8	Site Restoration				**$1,778.88**
8a	22a Gravel	2	Ton	$64.44	$128.88
8b	Crushed Limestone	0	Ton	$52.20	$0.00
8c	Asphalt Paving (4" thick)	0	Sq. Foot	$12.60	$0.00
8d	Concrete	0	Sq. Foot	$16.98	$0.00
8e	2" Topsoil and Seeding	500	Sq. Foot	$3.30	$1,650.00
	Subtotal Construction				**$160,470.38**
9	**Mobilization, Demob, General Conditions**	1	% of Const.		**$0.00**
		Construction			**$160,470.38**
		TOTAL PROJECT COST			**$226,007.65**
			Management		**$10,762.27**
			Design		**$54,775.00**
			Construction		**$160,470.38**

2022 Tank and Soil Removal ISID Example Site for Bidding

Bidder Name ATC Group Services dba Atlas Technical
District EASTERN U.P. - EXAMPLE SITE FOR BIDDING

Line Item	Description	Est. Quantity	Units	Unit Price	Extended Price
	MANAGEMENT				**$9,762.12**
1a	Project Mgmt/Admin	1	% of D&C	5%	$9,762.12
	DESIGN				**$53,875.00**
2	Professional Services				
2a	Site Visit	1	Lump Sum	$1,355.00	$1,355.00
2b	Excavation Plans/Drawings	1	Lump Sum	$4,600.00	$4,600.00
2c	UST Removal/Excavation Oversight	10	Day	$1,475.00	$14,750.00
2d	Construction/Removal Report	1	Lump Sum	$1,875.00	$1,875.00
2e	Notification to Remove and UST registration	1	Lump Sum	$450.00	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	1	Lump Sum	$1,515.00	$1,515.00
2g	Monitoring Well Abandonment	0	Lineal Foot	$46.00	$0.00
2h	Monitoring Well Installation - Hollow Stem Auger	0	Lineal Foot	$125.00	$0.00
2i	ilization and Demobilization - Hollow Stem Auger Drilling Equipn	0	Lump Sum	$5,500.00	$0.00
2j	Monitor Well Installation - Geoprobe	35	Lineal Foot	$110.00	$3,850.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	1	Lump Sum	$4,000.00	$4,000.00
2l	Groundwater Monitoring and Reporting	4	Event	$2,220.00	$8,880.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	30	Lineal Foot	$78.00	$2,340.00
2n	Sub Slab Soil Gas Vapor Pin Installation	5	Each	$572.00	$2,860.00
2o	Soil Vapor Monitoring and Reporting	4	Event	$1,850.00	$7,400.00
	CONSTRUCTION				
3	UST System Close-In-Place (includes removing liquids and sludges, cleaning, and filling with an inert solid mate				**$4,600.00**
3a	0 - 1000 gallon	1	Tank	$4,600.00	$4,600.00
3b	1001 - 4000 gallon	0	Tank	$6,095.00	$0.00
3c	4001 - 6000 gallon	0	Tank	$8,280.00	$0.00
3d	6001 - 8000 gallon	0	Tank	$10,120.00	$0.00
3e	8001 - 10,000 gallon	0	Tank	$12,075.00	$0.00
3f	10,001 - 12,000 gallon	0	Tank	$14,777.50	$0.00
3g	12,001 - 15,000 gallon	0	Tank	$17,451.25	$0.00
3h	15,0001 - 20,000 gallon	0	Tank	$21,131.25	$0.00
4	UST System Removal and Disposal (includes purging, cleaning, and all associated				**$17,744.50**
4a	0 - 1000 gallon	0	Tank	$4,375.75	$0.00
4b	1001 - 4000 gallon	0	Tank	$6,675.75	$0.00
4c	4001 - 6000 gallon	0	Tank	$7,072.50	$0.00
4d	6001 - 8000 gallon	1	Tank	$7,739.50	$7,739.50
4e	8001 - 10,000 gallon	1	Tank	$10,005.00	$10,005.00
4f	10,001 - 12,000 gallon	0	Tank	$12,005.00	$0.00
4g	12,001 - 15,000 gallon	0	Tank	$15,352.50	$0.00
4h	15,0001 - 20,000 gallon	0	Tank	$17,135.00	$0.00
5	Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill				**$88,200.00**
5a	0 - 250 tons	0	Ton	$95.10	$0.00
5b	251 - 500 tons	0	Ton	$91.50	$0.00
5c	501 - 1000 tons	1000	Ton	$88.20	$88,200.00
5d	1001 - 2000 tons	0	Ton	$86.70	$0.00
5e	> 2000 tons	0	Ton	$83.70	$0.00
6	Waste Characterization and Disposal				**$2,050.00**
6a	Non-Hazardous Liquid	500	Gallon	$1.50	$750.00
6b	Hazardous Liquid	0	Gallon	$8.00	$0.00
6c	Hazardous Solid / Sludge	0	Gallon	$8.00	$0.00
6d	55 gallon drum removal - Non-Hazardous Solid/Sludge	1	Drum	$1,300.00	$1,300.00
6e	55 gallon drum removal - Hazardous Solid/Sludge	0	Drum	$2,200.00	$0.00
7	Miscellaneous				**$19,292.00**
7a	Vac Truck and Operator	1	Day	$3,200.00	$3,200.00
7b	Preparation Including Excavation Sloping and Overburden Stock	100	Cubic Yard	$14.00	$1,400.00
7c	Clearing and Chipping Dense & Woody Vegetation	1	Day	$4,300.00	$4,300.00
7d	Provisionary Allowance	$ 10,000.00	Allowance	NA	$10,000.00
7e	Concrete Disposal/Recycling	30	Sq. Foot	$1.40	$42.00
7f	Asphalt Disposal/Recycling	0	Sq. Foot	$1.75	$0.00
7g	5,000 gallon Frac Tank	0	Day	$618.00	$0.00
7h	Air Monitoring	2	Day	$175.00	$350.00
8	Site Restoration				**$1,478.88**
8a	22a Gravel	2	Ton	$64.44	$128.88
8b	Crushed Limestone	0	Ton	$52.20	$0.00
8c	Asphalt Paving (4" thick)	0	Sq. Foot	$12.60	$0.00
8d	Concrete	0	Sq. Foot	$16.98	$0.00
8e	2" Topsoil and Seeding	500	Sq. Foot	$2.70	$1,350.00
	Subtotal Construction				**$133,365.38**
9	**Mobilization, Demob, General Conditions**	1	% of Const.	6%	**$8,001.92**
		Construction			**$141,367.30**

TOTAL PROJECT COST	**$205,004.42**
Management	**$9,762.12**
Design	**$53,875.00**
Construction	**$141,367.30**

2022 Tank and Soil Removal ISID Example Site for Bidding

Bidder Name ATC Group Services dba Atlas Technical
District GAYLORD - EXAMPLE SITE FOR BIDDING

Line Item	Description	Est. Quantity	Units	Unit Price	Extended Price
	MANAGEMENT				**$8,290.76**
1a	Project Mgmt/Admin	1	% of D&C	5%	$8,290.76
	DESIGN				**$40,655.00**
2	Professional Services				
2a	Site Visit	1	Lump Sum	$855.00	$855.00
2b	Excavation Plans/Drawings	1	Lump Sum	$3,700.00	$3,700.00
2c	UST Removal/Excavation Oversight	10	Day	$975.00	$9,750.00
2d	Construction/Removal Report	1	Lump Sum	$1,875.00	$1,875.00
2e	Notification to Remove and UST registration	1	Lump Sum	$450.00	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	1	Lump Sum	$1,345.00	$1,345.00
2g	Monitoring Well Abandonment	0	Lineal Foot	$46.00	$0.00
2h	Monitoring Well Installation - Hollow Stem Auger	0	Lineal Foot	$125.00	$0.00
2i	ilization and Demobilization - Hollow Stem Auger Drilling Equipn	0	Lump Sum	$2,500.00	$0.00
2j	Monitor Well Installation - Geoprobe	35	Lineal Foot	$110.00	$3,850.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	1	Lump Sum	$1,350.00	$1,350.00
2l	Groundwater Monitoring and Reporting	4	Event	$1,720.00	$6,880.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	30	Lineal Foot	$78.00	$2,340.00
2n	Sub Slab Soil Gas Vapor Pin Installation	5	Each	$572.00	$2,860.00
2o	Soil Vapor Monitoring and Reporting	4	Event	$1,350.00	$5,400.00
	CONSTRUCTION				
3	UST System Close-In-Place (includes removing liquids and sludges, cleaning, and filling with an inert solid mate				**$4,200.00**
3a	0 - 1000 gallon	1	Tank	$4,200.00	$4,200.00
3b	1001 - 4000 gallon	0	Tank	$5,565.00	$0.00
3c	4001 - 6000 gallon	0	Tank	$7,560.00	$0.00
3d	6001 - 8000 gallon	0	Tank	$9,240.00	$0.00
3e	8001 - 10,000 gallon	0	Tank	$11,025.00	$0.00
3f	10,001 - 12,000 gallon	0	Tank	$13,492.50	$0.00
3g	12,001 - 15,000 gallon	0	Tank	$15,933.75	$0.00
3h	15,0001 - 20,000 gallon	0	Tank	$19,293.75	$0.00
4	UST System Removal and Disposal (includes purging, cleaning, and all associated				**$16,201.50**
4a	0 - 1000 gallon	0	Tank	$3,995.25	$0.00
4b	1001 - 4000 gallon	0	Tank	$6,095.25	$0.00
4c	4001 - 6000 gallon	0	Tank	$6,457.50	$0.00
4d	6001 - 8000 gallon	1	Tank	$7,066.50	$7,066.50
4e	8001 - 10,000 gallon	1	Tank	$9,135.00	$9,135.00
4f	10,001 - 12,000 gallon	0	Tank	$11,135.00	$0.00
4g	12,001 - 15,000 gallon	0	Tank	$14,017.50	$0.00
4h	15,0001 - 20,000 gallon	0	Tank	$15,645.00	$0.00
5	Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill				**$77,000.00**
5a	0 - 250 tons	0	Ton	$84.00	$0.00
5b	251 - 500 tons	0	Ton	$81.00	$0.00
5c	501 - 1000 tons	1000	Ton	$77.00	$77,000.00
5d	1001 - 2000 tons	0	Ton	$74.00	$0.00
5e	> 2000 tons	0	Ton	$71.00	$0.00
6	Waste Characterization and Disposal				**$1,500.00**
6a	Non-Hazardous Liquid	500	Gallon	$1.00	$500.00
6b	Hazardous Liquid	0	Gallon	$5.00	$0.00
6c	Hazardous Solid / Sludge	0	Gallon	$5.00	$0.00
6d	55 gallon drum removal - Non-Hazardous Solid/Sludge	1	Drum	$1,000.00	$1,000.00
6e	55 gallon drum removal - Hazardous Solid/Sludge	0	Drum	$1,910.00	$0.00
7	Miscellaneous				**$17,784.50**
7a	Vac Truck and Operator	1	Day	$2,200.00	$2,200.00
7b	Preparation Including Excavation Sloping and Overburden Stock	100	Cubic Yard	$12.00	$1,200.00
7c	Clearing and Chipping Dense & Woody Vegetation	1	Day	$4,000.00	$4,000.00
7d	Provisionary Allowance	$ 10,000.00	Allowance	NA	$10,000.00
7e	Concrete Disposal/Recycling	30	Sq. Foot	$1.15	$34.50
7f	Asphalt Disposal/Recycling	0	Sq. Foot	$1.20	$0.00
7g	5,000 gallon Frac Tank	0	Day	$475.00	$0.00
7h	Air Monitoring	2	Day	$175.00	$350.00
8	Site Restoration				**$1,389.66**
8a	22a Gravel	2	Ton	$47.96	$95.91
8b	Crushed Limestone	0	Ton	$45.43	$0.00
8c	Asphalt Paving (4" thick)	0	Sq. Foot	$9.20	$0.00
8d	Concrete	0	Sq. Foot	$12.25	$0.00
8e	2" Topsoil and Seeding	500	Sq. Foot	$2.59	$1,293.75
	Subtotal Construction				**$118,075.66**
9	**Mobilization, Demob, General Conditions**	1	% of Const.	6%	**$7,084.54**
		Construction			**$125,160.20**
		TOTAL PROJECT COST			**$174,105.96**

Management	**$8,290.76**
Design	**$40,655.00**
Construction	**$125,160.20**

2022 Tank and Soil Removal ISID Example Site for Bidding

Bidder Name ATC Group Services dba Atlas Technical
District CADILLAC - EXAMPLE SITE FOR BIDDING

Line Item	Description	Est. Quantity	Units	Unit Price	Extended Price
	MANAGEMENT				**$8,285.76**
1a	Project Mgmt/Admin	1	% of D&C	5%	$8,285.76
	DESIGN				**$40,555.00**
2	Professional Services				
2a	Site Visit	1	Lump Sum	$855.00	$855.00
2b	Excavation Plans/Drawings	1	Lump Sum	$3,700.00	$3,700.00
2c	UST Removal/Excavation Oversight	10	Day	$975.00	$9,750.00
2d	Construction/Removal Report	1	Lump Sum	$1,875.00	$1,875.00
2e	Notification to Remove and UST registration	1	Lump Sum	$450.00	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	1	Lump Sum	$1,345.00	$1,345.00
2g	Monitoring Well Abandonment	0	Lineal Foot	$46.00	$0.00
2h	Monitoring Well Installation - Hollow Stem Auger	0	Lineal Foot	$125.00	$0.00
2i	ilization and Demobilization - Hollow Stem Auger Drilling Equipn	0	Lump Sum	$2,200.00	$0.00
2j	Monitor Well Installation - Geoprobe	35	Lineal Foot	$110.00	$3,850.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	1	Lump Sum	$1,250.00	$1,250.00
2l	Groundwater Monitoring and Reporting	4	Event	$1,720.00	$6,880.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	30	Lineal Foot	$78.00	$2,340.00
2n	Sub Slab Soil Gas Vapor Pin Installation	5	Each	$572.00	$2,860.00
2o	Soil Vapor Monitoring and Reporting	4	Event	$1,350.00	$5,400.00
	CONSTRUCTION				
3	UST System Close-In-Place (includes removing liquids and sludges, cleaning, and filling with an inert solid mate				**$4,200.00**
3a	0 - 1000 gallon	1	Tank	$4,200.00	$4,200.00
3b	1001 - 4000 gallon	0	Tank	$5,565.00	$0.00
3c	4001 - 6000 gallon	0	Tank	$7,560.00	$0.00
3d	6001 - 8000 gallon	0	Tank	$9,240.00	$0.00
3e	8001 - 10,000 gallon	0	Tank	$11,025.00	$0.00
3f	10,001 - 12,000 gallon	0	Tank	$13,492.50	$0.00
3g	12,001 - 15,000 gallon	0	Tank	$15,933.75	$0.00
3h	15,0001 - 20,000 gallon	0	Tank	$19,293.75	$0.00
4	UST System Removal and Disposal (includes purging, cleaning, and all associated				**$16,201.50**
4a	0 - 1000 gallon	0	Tank	$3,995.25	$0.00
4b	1001 - 4000 gallon	0	Tank	$6,095.25	$0.00
4c	4001 - 6000 gallon	0	Tank	$6,457.50	$0.00
4d	6001 - 8000 gallon	1	Tank	$7,066.50	$7,066.50
4e	8001 - 10,000 gallon	1	Tank	$9,135.00	$9,135.00
4f	10,001 - 12,000 gallon	0	Tank	$11,135.00	$0.00
4g	12,001 - 15,000 gallon	0	Tank	$14,017.50	$0.00
4h	15,0001 - 20,000 gallon	0	Tank	$15,645.00	$0.00
5	Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill				**$77,000.00**
5a	0 - 250 tons	0	Ton	$84.00	$0.00
5b	251 - 500 tons	0	Ton	$81.00	$0.00
5c	501 - 1000 tons	1000	Ton	$77.00	$77,000.00
5d	1001 - 2000 tons	0	Ton	$74.00	$0.00
5e	> 2000 tons	0	Ton	$71.00	$0.00
6	Waste Characterization and Disposal				**$1,500.00**
6a	Non-Hazardous Liquid	500	Gallon	$1.00	$500.00
6b	Hazardous Liquid	0	Gallon	$5.00	$0.00
6c	Hazardous Solid / Sludge	0	Gallon	$5.00	$0.00
6d	55 gallon drum removal - Non-Hazardous Solid/Sludge	1	Drum	$1,000.00	$1,000.00
6e	55 gallon drum removal - Hazardous Solid/Sludge	0	Drum	$1,910.00	$0.00
7	Miscellaneous				**$17,784.50**
7a	Vac Truck and Operator	1	Day	$2,200.00	$2,200.00
7b	Preparation Including Excavation Sloping and Overburden Stock	100	Cubic Yard	$12.00	$1,200.00
7c	Clearing and Chipping Dense & Woody Vegetation	1	Day	$4,000.00	$4,000.00
7d	Provisionary Allowance	$ 10,000.00	Allowance	NA	$10,000.00
7e	Concrete Disposal/Recycling	30	Sq. Foot	$1.15	$34.50
7f	Asphalt Disposal/Recycling	0	Sq. Foot	$1.20	$0.00
7g	5,000 gallon Frac Tank	0	Day	$475.00	$0.00
7h	Air Monitoring	2	Day	$175.00	$350.00
8	Site Restoration				**$1,389.66**
8a	22a Gravel	2	Ton	$47.96	$95.91
8b	Crushed Limestone	0	Ton	$45.43	$0.00
8c	Asphalt Paving (4" thick)	0	Sq. Foot	$9.20	$0.00
8d	Concrete	0	Sq. Foot	$12.25	$0.00
8e	2" Topsoil and Seeding	500	Sq. Foot	$2.59	$1,293.75
	Subtotal Construction				**$118,075.66**
9	**Mobilization, Demob, General Conditions**	1	% of Const.	6.00%	**$7,084.54**
		Construction			**$125,160.20**
		TOTAL PROJECT COST			**$174,000.96**

Management	**$8,285.76**
Design	**$40,555.00**
Construction	**$125,160.20**

2022 Tank and Soil Removal ISID Example Site for Bidding

Bidder Name ATC Group Services dba Atlas Technical
District BAY CITY - EXAMPLE SITE FOR BIDDING

Line Item	Description	Est. Quantity	Units	Unit Price	Extended Price
	MANAGEMENT				**$8,280.76**
1a	Project Mgmt/Admin	1	% of D&C	5%	$8,280.76
	DESIGN				**$40,455.00**
2	Professional Services				
2a	Site Visit	1	Lump Sum	$855.00	$855.00
2b	Excavation Plans/Drawings	1	Lump Sum	$3,700.00	$3,700.00
2c	UST Removal/Excavation Oversight	10	Day	$975.00	$9,750.00
2d	Construction/Removal Report	1	Lump Sum	$1,875.00	$1,875.00
2e	Notification to Remove and UST registration	1	Lump Sum	$450.00	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	1	Lump Sum	$1,345.00	$1,345.00
2g	Monitoring Well Abandonment	0	Lineal Foot	$46.00	$0.00
2h	Monitoring Well Installation - Hollow Stem Auger	0	Lineal Foot	$125.00	$0.00
2i	ilization and Demobilization - Hollow Stem Auger Drilling Equipn	0	Lump Sum	$1,950.00	$0.00
2j	Monitor Well Installation - Geoprobe	35	Lineal Foot	$110.00	$3,850.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	1	Lump Sum	$1,150.00	$1,150.00
2l	Groundwater Monitoring and Reporting	4	Event	$1,720.00	$6,880.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	30	Lineal Foot	$78.00	$2,340.00
2n	Sub Slab Soil Gas Vapor Pin Installation	5	Each	$572.00	$2,860.00
2o	Soil Vapor Monitoring and Reporting	4	Event	$1,350.00	$5,400.00
	CONSTRUCTION				
3	UST System Close-In-Place (includes removing liquids and sludges, cleaning, and filling with an inert solid mate				**$4,200.00**
3a	0 - 1000 gallon	1	Tank	$4,200.00	$4,200.00
3b	1001 - 4000 gallon	0	Tank	$5,565.00	$0.00
3c	4001 - 6000 gallon	0	Tank	$7,560.00	$0.00
3d	6001 - 8000 gallon	0	Tank	$9,240.00	$0.00
3e	8001 - 10,000 gallon	0	Tank	$11,025.00	$0.00
3f	10,001 - 12,000 gallon	0	Tank	$13,492.50	$0.00
3g	12,001 - 15,000 gallon	0	Tank	$15,933.75	$0.00
3h	15,0001 - 20,000 gallon	0	Tank	$19,293.75	$0.00
4	UST System Removal and Disposal (includes purging, cleaning, and all associated				**$16,201.50**
4a	0 - 1000 gallon	0	Tank	$3,995.25	$0.00
4b	1001 - 4000 gallon	0	Tank	$6,095.25	$0.00
4c	4001 - 6000 gallon	0	Tank	$6,457.50	$0.00
4d	6001 - 8000 gallon	1	Tank	$7,066.50	$7,066.50
4e	8001 - 10,000 gallon	1	Tank	$9,135.00	$9,135.00
4f	10,001 - 12,000 gallon	0	Tank	$11,135.00	$0.00
4g	12,001 - 15,000 gallon	0	Tank	$14,017.50	$0.00
4h	15,0001 - 20,000 gallon	0	Tank	$15,645.00	$0.00
5	Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill				**$77,000.00**
5a	0 - 250 tons	0	Ton	$84.00	$0.00
5b	251 - 500 tons	0	Ton	$81.00	$0.00
5c	501 - 1000 tons	1000	Ton	$77.00	$77,000.00
5d	1001 - 2000 tons	0	Ton	$74.00	$0.00
5e	> 2000 tons	0	Ton	$71.00	$0.00
6	Waste Characterization and Disposal				**$1,500.00**
6a	Non-Hazardous Liquid	500	Gallon	$1.00	$500.00
6b	Hazardous Liquid	0	Gallon	$5.00	$0.00
6c	Hazardous Solid / Sludge	0	Gallon	$5.00	$0.00
6d	55 gallon drum removal - Non-Hazardous Solid/Sludge	1	Drum	$1,000.00	$1,000.00
6e	55 gallon drum removal - Hazardous Solid/Sludge	0	Drum	$1,910.00	$0.00
7	Miscellaneous				**$17,784.50**
7a	Vac Truck and Operator	1	Day	$2,200.00	$2,200.00
7b	Preparation Including Excavation Sloping and Overburden Stock	100	Cubic Yard	$12.00	$1,200.00
7c	Clearing and Chipping Dense & Woody Vegetation	1	Day	$4,000.00	$4,000.00
7d	Provisionary Allowance	$ 10,000.00	Allowance	NA	$10,000.00
7e	Concrete Disposal/Recycling	30	Sq. Foot	$1.15	$34.50
7f	Asphalt Disposal/Recycling	0	Sq. Foot	$1.20	$0.00
7g	5,000 gallon Frac Tank	0	Day	$475.00	$0.00
7h	Air Monitoring	2	Day	$175.00	$350.00
8	Site Restoration				**$1,389.66**
8a	22a Gravel	2	Ton	$47.96	$95.91
8b	Crushed Limestone	0	Ton	$45.43	$0.00
8c	Asphalt Paving (4" thick)	0	Sq. Foot	$9.20	$0.00
8d	Concrete	0	Sq. Foot	$12.25	$0.00
8e	2" Topsoil and Seeding	500	Sq. Foot	$2.59	$1,293.75
	Subtotal Construction				**$118,075.66**
9	**Mobilization, Demob, General Conditions**	1	% of Const.	6.00%	**$7,084.54**
		Construction			**$125,160.20**
		TOTAL PROJECT COST			**$173,895.96**

Management	**$8,280.76**
Design	**$40,455.00**
Construction	**$125,160.20**

2022 Tank and Soil Removal ISID Example Site for Bidding

Bidder Name ATC Group Services dba Atlas Technical
District GRAND RAPIDS - EXAMPLE SITE FOR BIDDING

Line Item	Description	Est. Quantity	Units	Unit Price	Extended Price
	MANAGEMENT				**$8,298.26**
1a	Project Mgmt/Admin	1	% of D&C	5%	$8,298.26
	DESIGN				**$40,805.00**
2	Professional Services				
2a	Site Visit	1	Lump Sum	$855.00	$855.00
2b	Excavation Plans/Drawings	1	Lump Sum	$3,700.00	$3,700.00
2c	UST Removal/Excavation Oversight	10	Day	$975.00	$9,750.00
2d	Construction/Removal Report	1	Lump Sum	$1,875.00	$1,875.00
2e	Notification to Remove and UST registration	1	Lump Sum	$450.00	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	1	Lump Sum	$1,345.00	$1,345.00
2g	Monitoring Well Abandonment	0	Lineal Foot	$46.00	$0.00
2h	Monitoring Well Installation - Hollow Stem Auger	0	Lineal Foot	$125.00	$0.00
2i	Mobilization and Demobilization - Hollow Stem Auger Drilling Equipment	0	Lump Sum	$2,300.00	$0.00
2j	Monitor Well Installation - Geoprobe	35	Lineal Foot	$110.00	$3,850.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	1	Lump Sum	$1,500.00	$1,500.00
2l	Groundwater Monitoring and Reporting	4	Event	$1,720.00	$6,880.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	30	Lineal Foot	$78.00	$2,340.00
2n	Sub Slab Soil Gas Vapor Pin Installation	5	Each	$572.00	$2,860.00
2o	Soil Vapor Monitoring and Reporting	4	Event	$1,350.00	$5,400.00
	CONSTRUCTION				
3	UST System Close-In-Place (includes removing liquids and sludges, cleaning, and filling with an inert solid material)				**$4,200.00**
3a	0 - 1000 gallon	1	Tank	$4,200.00	$4,200.00
3b	1001 - 4000 gallon	0	Tank	$5,565.00	$0.00
3c	4001 - 6000 gallon	0	Tank	$7,560.00	$0.00
3d	6001 - 8000 gallon	0	Tank	$9,240.00	$0.00
3e	8001 - 10,000 gallon	0	Tank	$11,025.00	$0.00
3f	10,001 - 12,000 gallon	0	Tank	$13,492.50	$0.00
3g	12,001 - 15,000 gallon	0	Tank	$15,933.75	$0.00
3h	15,0001 - 20,000 gallon	0	Tank	$19,293.75	$0.00
4	UST System Removal and Disposal (includes purging, cleaning, and all associated piping)				**$16,201.50**
4a	0 - 1000 gallon	0	Tank	$3,995.25	$0.00
4b	1001 - 4000 gallon	0	Tank	$6,095.25	$0.00
4c	4001 - 6000 gallon	0	Tank	$6,457.50	$0.00
4d	6001 - 8000 gallon	1	Tank	$7,066.50	$7,066.50
4e	8001 - 10,000 gallon	1	Tank	$9,135.00	$9,135.00
4f	10,001 - 12,000 gallon	0	Tank	$11,135.00	$0.00
4g	12,001 - 15,000 gallon	0	Tank	$14,017.50	$0.00
4h	15,0001 - 20,000 gallon	0	Tank	$15,645.00	$0.00
5	Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill				**$77,000.00**
5a	0 - 250 tons	0	Ton	$84.00	$0.00
5b	251 - 500 tons	0	Ton	$81.00	$0.00
5c	501 - 1000 tons	1000	Ton	$77.00	$77,000.00
5d	1001 - 2000 tons	0	Ton	$74.00	$0.00
5e	> 2000 tons	0	Ton	$71.00	$0.00
6	Waste Characterization and Disposal				**$1,500.00**
6a	Non-Hazardous Liquid	500	Gallon	$1.00	$500.00
6b	Hazardous Liquid	0	Gallon	$5.00	$0.00
6c	Hazardous Solid / Sludge	0	Gallon	$5.00	$0.00
6d	55 gallon drum removal - Non-Hazardous Solid/Sludge	1	Drum	$1,000.00	$1,000.00
6e	55 gallon drum removal - Hazardous Solid/Sludge	0	Drum	$1,910.00	$0.00
7	Miscellaneous				**$17,784.50**
7a	Vac Truck and Operator	1	Day	$2,200.00	$2,200.00
7b	Site Preparation Including Excavation Sloping and Overburden Stockpiling	100	Cubic Yard	$12.00	$1,200.00
7c	Clearing and Chipping Dense & Woody Vegetation	1	Day	$4,000.00	$4,000.00
7d	Provisionary Allowance	$ 10,000.00	Allowance	NA	$10,000.00
7e	Concrete Disposal/Recycling	30	Sq. Foot	$1.15	$34.50
7f	Asphalt Disposal/Recycling	0	Sq. Foot	$1.20	$0.00
7g	5,000 gallon Frac Tank	0	Day	$475.00	$0.00
7h	Air Monitoring	2	Day	$175.00	$350.00
8	Site Restoration				**$1,389.66**
8a	22a Gravel	2	Ton	$47.96	$95.91
8b	Crushed Limestone	0	Ton	$45.43	$0.00
8c	Asphalt Paving (4" thick)	0	Sq. Foot	$9.20	$0.00
8d	Concrete	0	Sq. Foot	$12.25	$0.00
8e	2" Topsoil and Seeding	500	Sq. Foot	$2.59	$1,293.75
	Subtotal Construction				**$118,075.66**
9	**Mobilization, Demob, General Conditions**	1	% of Const.	6.00%	**$7,084.54**
		Construction			**$125,160.20**
		TOTAL PROJECT COST			**$174,263.46**

Management	**$8,298.26**
Design	**$40,805.00**
Construction	**$125,160.20**

2022 Tank and Soil Removal ISID Example Site for Bidding

Bidder Name ATC Group Services dba Atlas Technical
District LANSING - EXAMPLE SITE FOR BIDDING

Line Item	Description	Est. Quantity	Units	Unit Price	Extended Price
	MANAGEMENT				**$8,452.73**
1a	Project Mgmt/Admin	1	% of D&C	5.00%	$8,452.73
	DESIGN				**$40,805.00**
2	Professional Services				
2a	Site Visit	1	Lump Sum	$855.00	$855.00
2b	Excavation Plans/Drawings	1	Lump Sum	$3,700.00	$3,700.00
2c	UST Removal/Excavation Oversight	10	Day	$975.00	$9,750.00
2d	Construction/Removal Report	1	Lump Sum	$1,875.00	$1,875.00
2e	Notification to Remove and UST registration	1	Lump Sum	$450.00	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	1	Lump Sum	$1,345.00	$1,345.00
2g	Monitoring Well Abandonment	0	Lineal Foot	$46.00	$0.00
2h	Monitoring Well Installation - Hollow Stem Auger	0	Lineal Foot	$125.00	$0.00
2i	ilization and Demobilization - Hollow Stem Auger Drilling Equipn	0	Lump Sum	$2,300.00	$0.00
2j	Monitor Well Installation - Geoprobe	35	Lineal Foot	$110.00	$3,850.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	1	Lump Sum	$1,500.00	$1,500.00
2l	Groundwater Monitoring and Reporting	4	Event	$1,720.00	$6,880.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	30	Lineal Foot	$78.00	$2,340.00
2n	Sub Slab Soil Gas Vapor Pin Installation	5	Each	$572.00	$2,860.00
2o	Soil Vapor Monitoring and Reporting	4	Event	$1,350.00	$5,400.00
	CONSTRUCTION				
3	UST System Close-In-Place (includes removing liquids and sludges, cleaning, and filling with an inert solid mate				**$4,800.00**
3a	0 - 1000 gallon	1	Tank	$4,800.00	$4,800.00
3b	1001 - 4000 gallon	0	Tank	$6,360.00	$0.00
3c	4001 - 6000 gallon	0	Tank	$8,640.00	$0.00
3d	6001 - 8000 gallon	0	Tank	$10,560.00	$0.00
3e	8001 - 10,000 gallon	0	Tank	$12,600.00	$0.00
3f	10,001 - 12,000 gallon	0	Tank	$15,420.00	$0.00
3g	12,001 - 15,000 gallon	0	Tank	$18,210.00	$0.00
3h	15,0001 - 20,000 gallon	0	Tank	$22,050.00	$0.00
4	UST System Removal and Disposal (includes purging, cleaning, and all associated				**$18,516.00**
4a	0 - 1000 gallon	0	Tank	$4,566.00	$0.00
4b	1001 - 4000 gallon	0	Tank	$6,966.00	$0.00
4c	4001 - 6000 gallon	0	Tank	$7,380.00	$0.00
4d	6001 - 8000 gallon	1	Tank	$8,076.00	$8,076.00
4e	8001 - 10,000 gallon	1	Tank	$10,440.00	$10,440.00
4f	10,001 - 12,000 gallon	0	Tank	$10,440.00	$0.00
4g	12,001 - 15,000 gallon	0	Tank	$16,020.00	$0.00
4h	15,0001 - 20,000 gallon	0	Tank	$17,880.00	$0.00
5	Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill				**$77,000.00**
5a	0 - 250 tons	0	Ton	$84.00	$0.00
5b	251 - 500 tons	0	Ton	$81.00	$0.00
5c	501 - 1000 tons	1000	Ton	$77.00	$77,000.00
5d	1001 - 2000 tons	0	Ton	$74.00	$0.00
5e	> 2000 tons	0	Ton	$71.00	$0.00
6	Waste Characterization and Disposal				**$1,500.00**
6a	Non-Hazardous Liquid	500	Gallon	$1.00	$500.00
6b	Hazardous Liquid	0	Gallon	$5.00	$0.00
6c	Hazardous Solid / Sludge	0	Gallon	$5.00	$0.00
6d	55 gallon drum removal - Non-Hazardous Solid/Sludge	1	Drum	$1,000.00	$1,000.00
6e	55 gallon drum removal - Hazardous Solid/Sludge	0	Drum	$1,910.00	$0.00
7	Miscellaneous				**$17,784.50**
7a	Vac Truck and Operator	1	Day	$2,200.00	$2,200.00
7b	Preparation Including Excavation Sloping and Overburden Stock	100	Cubic Yard	$12.00	$1,200.00
7c	Clearing and Chipping Dense & Woody Vegetation	1	Day	$4,000.00	$4,000.00
7d	Provisionary Allowance	$ 10,000.00	Allowance	NA	$10,000.00
7e	Concrete Disposal/Recycling	30	Sq. Foot	$1.15	$34.50
7f	Asphalt Disposal/Recycling	0	Sq. Foot	$1.20	$0.00
7g	5,000 gallon Frac Tank	0	Day	$475.00	$0.00
7h	Air Monitoring	2	Day	$175.00	$350.00
8	Site Restoration				**$1,389.66**
8a	22a Gravel	2	Ton	$47.96	$95.91
8b	Crushed Limestone	0	Ton	$45.43	$0.00
8c	Asphalt Paving (4" thick)	0	Sq. Foot	$9.20	$0.00
8d	Concrete	0	Sq. Foot	$12.25	$0.00
8e	2" Topsoil and Seeding	500	Sq. Foot	$2.59	$1,293.75
	Subtotal Construction				**$120,990.16**
9	**Mobilization, Demob, General Conditions**	1	% of Const.	6.00%	**$7,259.41**
		Construction			**$128,249.57**
		TOTAL PROJECT COST			**$177,507.30**

Management	**$8,452.73**
Design	**$40,805.00**
Construction	**$128,249.57**

2022 Tank and Soil Removal ISID Example Site for Bidding

Bidder Name ATC Group Services dba Atlas Technical
District KALAMAZOO - EXAMPLE SITE FOR BIDDING

Line Item	Description	Est. Quantity	Units	Unit Price	Extended Price
	MANAGEMENT				**$8,298.26**
1a	Project Mgmt/Admin	1	% of D&C	5.00%	$8,298.26
	DESIGN				**$40,805.00**
2	Professional Services				
2a	Site Visit	1	Lump Sum	$855.00	$855.00
2b	Excavation Plans/Drawings	1	Lump Sum	$3,700.00	$3,700.00
2c	UST Removal/Excavation Oversight	10	Day	$975.00	$9,750.00
2d	Construction/Removal Report	1	Lump Sum	$1,875.00	$1,875.00
2e	Notification to Remove and UST registration	1	Lump Sum	$450.00	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	1	Lump Sum	$1,345.00	$1,345.00
2g	Monitoring Well Abandonment	0	Lineal Foot	$46.00	$0.00
2h	Monitoring Well Installation - Hollow Stem Auger	0	Lineal Foot	$125.00	$0.00
2i	bilization and Demobilization - Hollow Stem Auger Drilling Equipme	0	Lump Sum	$2,300.00	$0.00
2j	Monitor Well Installation - Geoprobe	35	Lineal Foot	$110.00	$3,850.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	1	Lump Sum	$1,500.00	$1,500.00
2l	Groundwater Monitoring and Reporting	4	Event	$1,720.00	$6,880.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	30	Lineal Foot	$78.00	$2,340.00
2n	Sub Slab Soil Gas Vapor Pin Installation	5	Each	$572.00	$2,860.00
2o	Soil Vapor Monitoring and Reporting	4	Event	$1,350.00	$5,400.00
	CONSTRUCTION				
3	UST System Close-In-Place (includes removing liquids and sludges, cleaning, and filling with an inert solid materi				**$4,200.00**
3a	0 - 1000 gallon	1	Tank	$4,200.00	$4,200.00
3b	1001 - 4000 gallon	0	Tank	$5,565.00	$0.00
3c	4001 - 6000 gallon	0	Tank	$7,560.00	$0.00
3d	6001 - 8000 gallon	0	Tank	$9,240.00	$0.00
3e	8001 - 10,000 gallon	0	Tank	$11,025.00	$0.00
3f	10,001 - 12,000 gallon	0	Tank	$13,492.50	$0.00
3g	12,001 - 15,000 gallon	0	Tank	$15,933.75	$0.00
3h	15,0001 - 20,000 gallon	0	Tank	$19,293.75	$0.00
4	UST System Removal and Disposal (includes purging, cleaning, and all associated pi				**$16,201.50**
4a	0 - 1000 gallon	0	Tank	$3,995.25	$0.00
4b	1001 - 4000 gallon	0	Tank	$6,095.25	$0.00
4c	4001 - 6000 gallon	0	Tank	$6,457.50	$0.00
4d	6001 - 8000 gallon	1	Tank	$7,066.50	$7,066.50
4e	8001 - 10,000 gallon	1	Tank	$9,135.00	$9,135.00
4f	10,001 - 12,000 gallon	0	Tank	$11,135.00	$0.00
4g	12,001 - 15,000 gallon	0	Tank	$14,017.50	$0.00
4h	15,0001 - 20,000 gallon	0	Tank	$15,645.00	$0.00
5	Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill				**$77,000.00**
5a	0 - 250 tons	0	Ton	$84.00	$0.00
5b	251 - 500 tons	0	Ton	$81.00	$0.00
5c	501 - 1000 tons	1000	Ton	$77.00	$77,000.00
5d	1001 - 2000 tons	0	Ton	$74.00	$0.00
5e	> 2000 tons	0	Ton	$71.00	$0.00
6	Waste Characterization and Disposal				**$1,500.00**
6a	Non-Hazardous Liquid	500	Gallon	$1.00	$500.00
6b	Hazardous Liquid	0	Gallon	$5.00	$0.00
6c	Hazardous Solid / Sludge	0	Gallon	$5.00	$0.00
6d	55 gallon drum removal - Non-Hazardous Solid/Sludge	1	Drum	$1,000.00	$1,000.00
6e	55 gallon drum removal - Hazardous Solid/Sludge	0	Drum	$1,910.00	$0.00
7	Miscellaneous				**$17,784.50**
7a	Vac Truck and Operator	1	Day	$2,200.00	$2,200.00
7b	Preparation Including Excavation Sloping and Overburden Stockp	100	Cubic Yard	$12.00	$1,200.00
7c	Clearing and Chipping Dense & Woody Vegetation	1	Day	$4,000.00	$4,000.00
7d	Provisionary Allowance	$ 10,000.00	Allowance	NA	$10,000.00
7e	Concrete Disposal/Recycling	30	Sq. Foot	$1.15	$34.50
7f	Asphalt Disposal/Recycling	0	Sq. Foot	$1.20	$0.00
7g	5,000 gallon Frac Tank	0	Day	$475.00	$0.00
7h	Air Monitoring	2	Day	$175.00	$350.00
8	Site Restoration				**$1,389.66**
8a	22a Gravel	2	Ton	$47.96	$95.91
8b	Crushed Limestone	0	Ton	$45.43	$0.00
8c	Asphalt Paving (4" thick)	0	Sq. Foot	$9.20	$0.00
8d	Concrete	0	Sq. Foot	$12.25	$0.00
8e	2" Topsoil and Seeding	500	Sq. Foot	$2.59	$1,293.75
	Subtotal Construction				**$118,075.66**
9	**Mobilization, Demob, General Conditions**	1	% of Const.	6.00%	**$7,084.54**
		Construction			**$125,160.20**
		TOTAL PROJECT COST			**$174,263.46**

Management	**$8,298.26**
Design	**$40,805.00**
Construction	**$125,160.20**

2022 Tank and Soil Removal ISID Example Site for Bidding

Bidder Name ATC Group Services dba Atlas Technical
District JACKSON - EXAMPLE SITE FOR BIDDING

Line Item	Description	Est. Quantity	Units	Unit Price	Extended Price
	MANAGEMENT				**$8,452.73**
1a	Project Mgmt/Admin	1	% of D&C	5%	$8,452.73
	DESIGN				**$40,805.00**
2	Professional Services				
2a	Site Visit	1	Lump Sum	$855.00	$855.00
2b	Excavation Plans/Drawings	1	Lump Sum	$3,700.00	$3,700.00
2c	UST Removal/Excavation Oversight	10	Day	$975.00	$9,750.00
2d	Construction/Removal Report	1	Lump Sum	$1,875.00	$1,875.00
2e	Notification to Remove and UST registration	1	Lump Sum	$450.00	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	1	Lump Sum	$1,345.00	$1,345.00
2g	Monitoring Well Abandonment	0	Lineal Foot	$46.00	$0.00
2h	Monitoring Well Installation - Hollow Stem Auger	0	Lineal Foot	$125.00	$0.00
2i	ilization and Demobilization - Hollow Stem Auger Drilling Equipn	0	Lump Sum	$2,300.00	$0.00
2j	Monitor Well Installation - Geoprobe	35	Lineal Foot	$110.00	$3,850.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	1	Lump Sum	$1,500.00	$1,500.00
2l	Groundwater Monitoring and Reporting	4	Event	$1,720.00	$6,880.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	30	Lineal Foot	$78.00	$2,340.00
2n	Sub Slab Soil Gas Vapor Pin Installation	5	Each	$572.00	$2,860.00
2o	Soil Vapor Monitoring and Reporting	4	Event	$1,350.00	$5,400.00
	CONSTRUCTION				
3	UST System Close-In-Place (includes removing liquids and sludges, cleaning, and filling with an inert solid mate				**$4,800.00**
3a	0 - 1000 gallon	1	Tank	$4,800.00	$4,800.00
3b	1001 - 4000 gallon	0	Tank	$6,360.00	$0.00
3c	4001 - 6000 gallon	0	Tank	$8,640.00	$0.00
3d	6001 - 8000 gallon	0	Tank	$10,560.00	$0.00
3e	8001 - 10,000 gallon	0	Tank	$12,600.00	$0.00
3f	10,001 - 12,000 gallon	0	Tank	$15,420.00	$0.00
3g	12,001 - 15,000 gallon	0	Tank	$18,210.00	$0.00
3h	15,0001 - 20,000 gallon	0	Tank	$22,050.00	$0.00
4	UST System Removal and Disposal (includes purging, cleaning, and all associated				**$18,516.00**
4a	0 - 1000 gallon	0	Tank	$4,566.00	$0.00
4b	1001 - 4000 gallon	0	Tank	$6,966.00	$0.00
4c	4001 - 6000 gallon	0	Tank	$7,380.00	$0.00
4d	6001 - 8000 gallon	1	Tank	$8,076.00	$8,076.00
4e	8001 - 10,000 gallon	1	Tank	$10,440.00	$10,440.00
4f	10,001 - 12,000 gallon	0	Tank	$10,440.00	$0.00
4g	12,001 - 15,000 gallon	0	Tank	$16,020.00	$0.00
4h	15,0001 - 20,000 gallon	0	Tank	$17,880.00	$0.00
5	Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill				**$77,000.00**
5a	0 - 250 tons	0	Ton	$84.00	$0.00
5b	251 - 500 tons	0	Ton	$81.00	$0.00
5c	501 - 1000 tons	1000	Ton	$77.00	$77,000.00
5d	1001 - 2000 tons	0	Ton	$74.00	$0.00
5e	> 2000 tons	0	Ton	$71.00	$0.00
6	Waste Characterization and Disposal				**$1,500.00**
6a	Non-Hazardous Liquid	500	Gallon	$1.00	$500.00
6b	Hazardous Liquid	0	Gallon	$5.00	$0.00
6c	Hazardous Solid / Sludge	0	Gallon	$5.00	$0.00
6d	55 gallon drum removal - Non-Hazardous Solid/Sludge	1	Drum	$1,000.00	$1,000.00
6e	55 gallon drum removal - Hazardous Solid/Sludge	0	Drum	$1,910.00	$0.00
7	Miscellaneous				**$17,784.50**
7a	Vac Truck and Operator	1	Day	$2,200.00	$2,200.00
7b	Preparation Including Excavation Sloping and Overburden Stock	100	Cubic Yard	$12.00	$1,200.00
7c	Clearing and Chipping Dense & Woody Vegetation	1	Day	$4,000.00	$4,000.00
7d	Provisionary Allowance	$ 10,000.00	Allowance	NA	$10,000.00
7e	Concrete Disposal/Recycling	30	Sq. Foot	$1.15	$34.50
7f	Asphalt Disposal/Recycling	0	Sq. Foot	$1.20	$0.00
7g	5,000 gallon Frac Tank	0	Day	$475.00	$0.00
7h	Air Monitoring	2	Day	$175.00	$350.00
8	Site Restoration				**$1,389.66**
8a	22a Gravel	2	Ton	$47.96	$95.91
8b	Crushed Limestone	0	Ton	$45.43	$0.00
8c	Asphalt Paving (4" thick)	0	Sq. Foot	$9.20	$0.00
8d	Concrete	0	Sq. Foot	$12.25	$0.00
8e	2" Topsoil and Seeding	500	Sq. Foot	$2.59	$1,293.75
	Subtotal Construction				**$120,990.16**
9	**Mobilization, Demob, General Conditions**	1	% of Const.	6.00%	**$7,259.41**
		Construction			**$128,249.57**
			TOTAL PROJECT COST		**$177,507.30**

Management	**$8,452.73**
Design	**$40,805.00**
Construction	**$128,249.57**

2022 Tank and Soil Removal ISID Example Site for Bidding

Bidder Name ATC Group Services dba Atlas Technical
District WARREN - EXAMPLE SITE FOR BIDDING

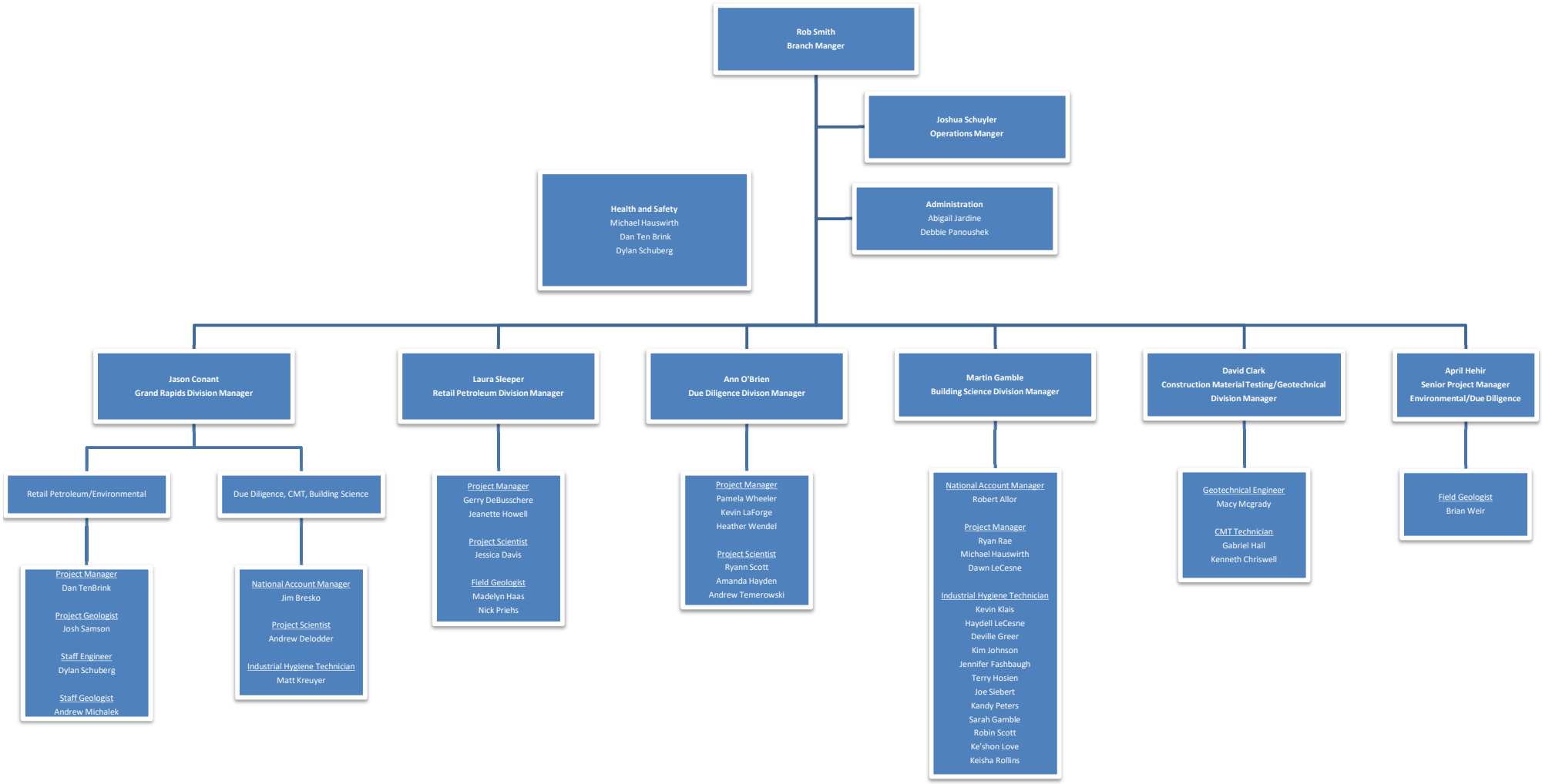
Line Item	Description	Est. Quantity	Units	Unit Price	Extended Price
	MANAGEMENT				**$8,298.26**
1a	Project Mgmt/Admin	1	% of D&C	5.00%	$8,298.26
	DESIGN				**$40,805.00**
2	Professional Services				
2a	Site Visit	1	Lump Sum	$855.00	$855.00
2b	Excavation Plans/Drawings	1	Lump Sum	$3,700.00	$3,700.00
2c	UST Removal/Excavation Oversight	10	Day	$975.00	$9,750.00
2d	Construction/Removal Report	1	Lump Sum	$1,875.00	$1,875.00
2e	Notification to Remove and UST registration	1	Lump Sum	$450.00	$450.00
2f	UST Removal (Part 211) Site Assessment and Reporting	1	Lump Sum	$1,345.00	$1,345.00
2g	Monitoring Well Abandonment	0	Lineal Foot	$46.00	$0.00
2h	Monitoring Well Installation - Hollow Stem Auger	0	Lineal Foot	$125.00	$0.00
2i	ilization and Demobilization - Hollow Stem Auger Drilling Equipn	0	Lump Sum	$2,300.00	$0.00
2j	Monitor Well Installation - Geoprobe	35	Lineal Foot	$110.00	$3,850.00
2k	Mobilization and Demobilization - Geoprobe Equipment for Monitoring Well and Soil Vapor Monitoring Point Installation	1	Lump Sum	$1,500.00	$1,500.00
2l	Groundwater Monitoring and Reporting	4	Event	$1,720.00	$6,880.00
2m	Soil Vapor Monitoring Points Installation- Geoprobe	30	Lineal Foot	$78.00	$2,340.00
2n	Sub Slab Soil Gas Vapor Pin Installation	5	Each	$572.00	$2,860.00
2o	Soil Vapor Monitoring and Reporting	4	Event	$1,350.00	$5,400.00
	CONSTRUCTION				
3	UST System Close-In-Place (includes removing liquids and sludges, cleaning, and filling with an inert solid mate				**$4,200.00**
3a	0 - 1000 gallon	1	Tank	$4,200.00	$4,200.00
3b	1001 - 4000 gallon	0	Tank	$5,565.00	$0.00
3c	4001 - 6000 gallon	0	Tank	$7,560.00	$0.00
3d	6001 - 8000 gallon	0	Tank	$9,240.00	$0.00
3e	8001 - 10,000 gallon	0	Tank	$11,025.00	$0.00
3f	10,001 - 12,000 gallon	0	Tank	$13,492.50	$0.00
3g	12,001 - 15,000 gallon	0	Tank	$15,933.75	$0.00
3h	15,0001 - 20,000 gallon	0	Tank	$19,293.75	$0.00
4	UST System Removal and Disposal (includes purging, cleaning, and all associated				**$16,201.50**
4a	0 - 1000 gallon	0	Tank	$3,995.25	$0.00
4b	1001 - 4000 gallon	0	Tank	$6,095.25	$0.00
4c	4001 - 6000 gallon	0	Tank	$6,457.50	$0.00
4d	6001 - 8000 gallon	1	Tank	$7,066.50	$7,066.50
4e	8001 - 10,000 gallon	1	Tank	$9,135.00	$9,135.00
4f	10,001 - 12,000 gallon	0	Tank	$11,135.00	$0.00
4g	12,001 - 15,000 gallon	0	Tank	$14,017.50	$0.00
4h	15,0001 - 20,000 gallon	0	Tank	$15,645.00	$0.00
5	Excavation, Transportation, and Disposal of Non-Hazardous Soil and Excavation Backfill				**$77,000.00**
5a	0 - 250 tons	0	Ton	$84.00	$0.00
5b	251 - 500 tons	0	Ton	$81.00	$0.00
5c	501 - 1000 tons	1000	Ton	$77.00	$77,000.00
5d	1001 - 2000 tons	0	Ton	$74.00	$0.00
5e	> 2000 tons	0	Ton	$71.00	$0.00
6	Waste Characterization and Disposal				**$1,500.00**
6a	Non-Hazardous Liquid	500	Gallon	$1.00	$500.00
6b	Hazardous Liquid	0	Gallon	$5.00	$0.00
6c	Hazardous Solid / Sludge	0	Gallon	$5.00	$0.00
6d	55 gallon drum removal - Non-Hazardous Solid/Sludge	1	Drum	$1,000.00	$1,000.00
6e	55 gallon drum removal - Hazardous Solid/Sludge	0	Drum	$1,910.00	$0.00
7	Miscellaneous				**$17,784.50**
7a	Vac Truck and Operator	1	Day	$2,200.00	$2,200.00
7b	Preparation Including Excavation Sloping and Overburden Stock	100	Cubic Yard	$12.00	$1,200.00
7c	Clearing and Chipping Dense & Woody Vegetation	1	Day	$4,000.00	$4,000.00
7d	Provisionary Allowance	$ 10,000.00	Allowance	NA	$10,000.00
7e	Concrete Disposal/Recycling	30	Sq. Foot	$1.15	$34.50
7f	Asphalt Disposal/Recycling	0	Sq. Foot	$1.20	$0.00
7g	5,000 gallon Frac Tank	0	Day	$475.00	$0.00
7h	Air Monitoring	2	Day	$175.00	$350.00
8	Site Restoration				**$1,389.66**
8a	22a Gravel	2	Ton	$47.96	$95.91
8b	Crushed Limestone	0	Ton	$45.43	$0.00
8c	Asphalt Paving (4" thick)	0	Sq. Foot	$9.20	$0.00
8d	Concrete	0	Sq. Foot	$12.25	$0.00
8e	2" Topsoil and Seeding	500	Sq. Foot	$2.59	$1,293.75
	Subtotal Construction				**$118,075.66**
9	**Mobilization, Demob, General Conditions**	1	% of Const.	6%	**$7,084.54**
		Construction			**$125,160.20**
			TOTAL PROJECT COST		**$174,263.46**

Management	**$8,298.26**
Design	**$40,805.00**
Construction	**$125,160.20**

APPENDIX A

Atlas Michigan Staff Organizational Chart and Skill Matrix

ATLAS TECHNICAL, MICHIGAN
ORGANIZATIONAL CHART



APPENDIX B

Sample Weekly Field Logs and Activity Report

ATLAS

Daily Activity Log

Time From:	Time To:	Personnel on Site: Name	Affiliation	Date: 9/21/21
0945	0431	Nick Prahs	Atlas	Project No.
0900	0431	Tom	Kontie	
↓	0431	Lee	↓	Project Name: Sandusky Excavation
↓	0431	Zan	↓	
				Page ____ of ____

Weather Conditions:

Notes By:

TIME	COMMENTS: Chronology of Events
0950	Reviewed & Signed H&S Plan, Performed Tailgate Safety meeting
1000	Asphalt removal
1015	Excavation & Soil removal
	• Sign on satellite map removed by city prior to arrival
	• 7-½' is high PID interval on E & S wall
	• PID trending downward moving west
	• Floor samples at 15' in visually clean gray clay w/ low PID
	Excavation dimensions as of 9/21/21
	38' N-S
	37' E-W
	Samples Collected

ID	PID	Time	Date	Depth
SW-1	64.7	1125	9/21/21	5-7'
SW-2	64.2	1130		10-12'
SW-3	1774	1213		10-12'
SW-4	1460	1250		5-7'
FS-1	2.6	1140		15'
FS-2	7.1	1414	↓	15'

TIME	COMMENTS: Chronology of Events
	12 trucks removed contaminated soil 92121-1 → 92121-12
	-2 loads of sand backfil at end of day
	left site

Drums on Site: YES ____ NO ≈ Soil ____ Water ____ NAPL ____ Total No. of Drums ____

ATLAS

Daily Activity Log

Time		Personnel on Site		Date: 9/23/21
From:	To:	Name	Affiliation	
0650	0830	Nick Prebr	Atlas	Project No.
↓	↓	Tom Kentho	Kentho	
		Lee		Project Name: DTMB Sandusky
		Zon		
				Page ____ of ____

Weather Conditions:

Notes By:

TIME	COMMENTS: Chronology of Events
0650	Arrived on site to excavation filled with water
	Attempted Securing Vac truck
0830	left site

Drums on Site: YES ____ NO ____ Soil ____ Water ____ NAPL ____ Total No. of Drums ________

FF 100.1

ATLAS

Daily Activity Log

Time		Personnel on Site		Date: 9/24/21
From:	To:	Name	Affiliation	
0645	1530	Nick Pioli	ATlas	Project No.
0740	2000	Tom Kanthe	Kanthe C	
				Project Name: Sandusky Excavation
				Page ____ of ____

Weather Conditions:

Notes By:

TIME	COMMENTS: Chronology of Events
0645	Reviewed & Signed HASP, Performed Tailgate Safety meeting
0740	Kanthe Const Arrived
	⇨ Scales at dump without power, no soil removal
1030	SET Arrived with frac tank
1115	Jeremy (EAGLE) arrived
1150	⇨ left
1200	SET left
1530	SET returned to pick up equipment, were didn't take 2nd load
1545	left site

Drums on Site: YES ____ NO ____ Soil ____ Water____ NAPL ____ Total No. of Drums ____

ATLAS

Daily Activity Log

Time		Personnel on Site		Date:
From:	To:	Name	Affiliation	9/27/21
0645	1430	Nick Prahl	Atlas	Project No.
"	"	Tom Lanthe	Lanthe	
"	"	Lee	"	Project Name:
				DTMB Sandusky
				Page ____ of ____

Weather Conditions:

Notes By:

TIME	COMMENTS: Chronology of Events
0645	Tailgate safety meeting, reviewed & Signed HASP
0650	Collected H_2O Sample SW-1
	↳ 2, 1000 ml Amber, 3 40ml Hcl voas
0900	2" Submersible pump removing H_2O from pit to frac tank
0915	1st truck arrived for excavation
1130	Low PID readings in W wall of excavation defin western extent
	3-5' : 1.4ppm
	6-8' = 1.7ppm
	10-12' = 1.0ppm
	ID PID Time Date Depth
	SW-5 546.6 1035 9/27/21 8'-12'
	SW-6 125.8 1040 " 10-12'
	~~FS~~-3 1.4 1110 " 15'
1400	Gauged frac tank
	↳ 4.0' deep → 9162 gal
1430	left site

Drums on Site: YES ____ NO ____ Soil ____ Water____ NAPL ____ Total No. of Drums ____

ATLAS

Daily Activity Log

Time		Personnel on Site		Date: 9/28/21
From:	To:	Name	Affiliation	
0650	1715	Nick Prichi	Atlas	Project No.
〃	〃	Tom Kantke	Kantke	
〃	〃	Lee	〃	Project Name: DTMB Sandusky
				Page ____ of ____

Weather Conditions:

Notes By:

TIME	COMMENTS: Chronology of Events
0650	Arrived on site
0700	Initiate safety meeting & H&S review
0715	Took Frac tank data
	↳ PID: 76.1 CO: 0.0 H_2S: 0.0 LEL: 0.0
	DTW: 4.76' DTP: 4.76' DTB: 9.0'
	Height of Fluid: 4.24 Volume of Fluid: 9794 Gal
	* Very thin layer of product <0.1' thick
0730	Truck began removing soil
1205	Trucks began bringing sand for backfill
1705	left site
	ID PID Time Date Depth
	SW-7 1.7 0925 9/28/21 6-8'
	FS-4 4.9 1150 〃 15'
	FS-5 2.1 1155 〃 15'
	FS-6 1.1 1200 〃 15'

Drums on Site: YES ____ NO ____ Soil ____ Water ____ NAPL ____ Total No. of Drums ____

ATLAS

Daily Activity Log

Time From:	Time To:	Personnel on Site: Name	Affiliation	Date: 09/29/21
0650	1530	Nick Prehs	Atlas	Project No.
"	"	Tom Kanthe	Kanthe	
"	"	Lee	"	Project Name: DTMB Sandusky
				Page ____ of ____

Weather Conditions:

Notes By:

TIME	COMMENTS: Chronology of Events
0650	Arrived on site
0700	Tailgate safety meeting & HASP review
0726	Trucks arrive Pulling soil out
1156	PID readings of Northern extent 5-7': 41.9ppm 8-10': 123.5 - 194.2ppm
1430	PID measurement of frac tank 34.0ppm
1500	Dark soils in NW corner analyzed w/ PID
	Old brick well: 2.4ppm Al well: 28.6ppm
1530	last truck leaves/left site
	*NAPL seeping from SE corner ~8-10' etop, location noted
	ID PID Time Date Depth O:S
	SW-8 22.0 0925 9/29/21 7.5' Neg
	SW-9 2[illegible]3.7 0935 " 10-12' Neg
	SS-7 3.6 1120 " 15'

Drums on Site: YES ____ NO ____ Soil ____ Water____ NAPL ____ Total No. of Drums ____

FIELD ACTIVITIES

September 21, 2021

On September 21, 2021, Atlas and Kanthe Construction LLC (Kanthe) of Pinconning, Michigan, mobilized to the Site to begin soil removal operations. Kanthe removed the asphalt cover of the Site and began removing contaminated soil. Atlas monitored soil conditions with a photoionization detector (PID) and noted that from depths of seven (7) to 12 feet bgs, PID readings were highest but trended downwards the further west soil was excavated. During operation on September 21, 2021, 12 trucks removed contaminated soil from an excavation that was measured by Atlas to be approximately 38 feet running north and south and approximately 37 feet running east and west. Before departing the Site, two (2) loads of sand backfill were added to the excavation at the end of the day.

September 23, 2021

Atlas and Kanthe returned to the Site to resume soil excavation activities. Upon arrival, Atlas discovered the open excavation had filled with water. Unable to secure the services of a vac-truck, Atlas and Kanthe left the Site.

September 24, 2021

Atlas and Kanthe returned to the Site to continue contaminated soil removal; however, Kanthe reported that the scales at the dump where soil was being taken were without power, so no soil excavation was possible. SET Environmental, Inc. (SET) arrived with a frac-truck to begin de-watering the excavation. EGLE/RRD Project Manager Jeremy Boothroyd arrived on-site. After SET departed the site with the first load of removed water (5,600 gallons), they returned to pick up equipment as they were unable to take a second load to be disposed. Atlas and Kanthe departed the Site.

September 27, 2021

Atlas and Kanthe returned to the Site and prepared to resume excavation activities. Atlas noted low PID readings in the western wall of the excavation. A submersible pump was deployed to remove water. At 1400 hours, Atlas gauged the frac tank prior to departing the Site at the end of the day and reported the depth was approximately four (4) feet, or approximately 9,162 gallons.

September 28, 2021

Atlas and Kanthe returned to the Site to resume excavation of contaminated soil. Atlas took initial readings of the frac tank, noting approximately 4.76 feet of water, or approximately 9,799 gallons. Atlas also noted a thin film of non-aqueous phase liquid (NAPL) on top of the water. As trucks removed more contaminated soil, other trucks would deposit clean backfill in the excavated areas.

September 29, 2021

Atlas and Kanthe returned to the Site to resume excavation activities. Atlas scanned soils with a PID along the northern extent of the excavation finding readings ranging from approximately 4.9 parts per million (ppm) at the five (5) to seven (7) foot depth interval to approximately 194.2 ppm at the eight (8) to ten (10) foot depth interval. Atlas also took PID readings of the frac tank (34.0 ppm). Dark-looking soil was noted in the northwest corner with PID readings ranging from 2.4 ppm by an old brick wall to 28.6 ppm at the north wall. Atlas also noticed NAPL seeping from the southeast corner of the excavation approximately eight (8) to ten (10) feet deep. Atlas noted the position of the seeping NAPL prior to departing the Site for the day.

APPENDIX C

Certification Forms and Acknowledgement

R 12/16/13

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
State Facilities Administration
Design & Construction Division

Certification of a Michigan Based Business

(Information Required Prior to Contract Award for Application
of State Preference/Reciprocity Provisions)

To qualify as a Michigan business:

Vendor must have, during the 12 months immediately preceding this bid deadline:
or
If the business is newly established, for the period the business has been in existence, it has:

(check all that apply):

- ☐ Filed a Michigan single business tax return showing a portion or all of the income tax base allocated or apportioned to the State of Michigan pursuant to the Michigan Single Business Tax Act, 1975 PA 228, MCL ˜208.1 – 208.145; or
- ☐ Filed a Michigan income tax return showing income generated in or attributed to the State of Michigan; or
- ☐ Withheld Michigan income tax from compensation paid to the bidder's owners and remitted the tax to the Department of Treasury; or

I certify that **I have personal knowledge** of such filing or withholding, that it was more than a nominal filing for the purpose of gaining the status of a Michigan business, and that it indicates a significant business presence in the state, considering the size of the business and the nature of its activities.

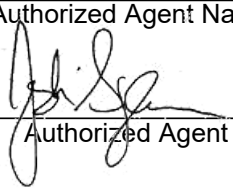
I authorize the Michigan Department of Treasury to verify that the business has or has not met the criteria for a Michigan business indicated above and to disclose the verifying information to the procuring agency.

Bidder shall also indicate one of the following:

- ☐ Bidder qualifies as a Michigan business (provide zip code:_____)
- ☐ Bidder does not qualify as a Michigan business (provide name of State:_____).
- ☒ Principal place of business is outside the State of Michigan, however service/commodity provided by a location within the State of Michigan (provide zip code:48377)

Bidder: ATC Group Services LLC (dba Atlas Technical)

Joshua Schuyler, Operations Manager, MI
Authorized Agent Name (print or type)



5/9/2022
Authorized Agent Signature & Date

Fraudulent Certification as a Michigan business is prohibited by MCL 18.1268 § 268. A BUSINESS THAT PURPOSELY OR WILLFULLY SUBMITS A FALSE CERTIFICATION THAT IT IS A MICHIGAN BUSINESS OR FALSELY INDICATES THE STATE IN WHICH IT HAS ITS PRINCIPAL PLACE OF BUSINESS IS GUILTY OF A FELONY, PUNISHABLE BY A FINE OF NOT LESS THAN $25,000 and subject to debarment under MCL 18.264.

R 12/16/13

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
State Facilities Administration
Design & Construction Division

Responsibility Certification

The bidder certifies to the best of its knowledge and belief that, within the past three (3) years, the bidder, an officer of the bidder, or an owner of a 25% or greater interest in the bidder:

(a) Has not been convicted of a criminal offense incident to the application for or performance of a contract or subcontract with the State of Michigan or any of its agencies, authorities, boards, commissions, or departments.

(b) Has not had a felony conviction in any state (including the State of Michigan).

(c) Has not been convicted of a criminal offense which negatively reflects on the bidder's business integrity, including but not limited to, embezzlement, theft, forgery, bribery, falsification, or destruction of records, receiving stolen property, negligent misrepresentation, price-fixing, bid-rigging, or a violation of state or federal anti-trust statutes.

(d) Has not had a loss or suspension of a license or the right to do business or practice a profession, the loss or suspension of which indicates dishonesty, a lack of integrity, or a failure or refusal to perform in accordance with the ethical standards of the business or profession in question.

(e) Has not been terminated for cause by the Owner.

(f) Has not failed to pay any federal, state, or local taxes.

(g) Has not failed to comply with all requirements for foreign corporations.

(h) Has not been debarred from participation in the bid process pursuant to Section 264 of 1984 PA 431, as amended, MCL 18.1264, or debarred or suspended from consideration for award of contracts by any other State or any federal Agency.

(i) Has not been convicted of a criminal offense or other violation of other state or federal law, as determined by a court of competent jurisdiction or an administrative proceeding, which in the opinion of DTMB indicates that the bidder is unable to perform responsibly or which reflects a lack of integrity that could negatively impact or reflect upon the State of Michigan, including but not limited to, any of the following offenses under or violations of:

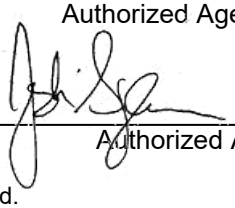
i. The Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.101 to 324.90106.
ii. A persistent and knowing violation of the Michigan Consumer Protection Act, 1976 PA 331, MCL 445.901 to 445.922.
iii. 1965 PA 166, MCL 408.551 to 408.558 (law relating to prevailing wages on state projects) and a finding that the bidder failed to pay the wages and/or fringe benefits due within the time period required.
iv. Repeated or flagrant violations of 1978 PA 390 MCL 408.471 to 408.490 (law relating to payment of wages and fringe benefits).
v. A willful or persistent violation of the Michigan Occupational Health and Safety Act, 1974, PA 154, MCL 408.10001 to 408.1094, including: a criminal conviction, repeated willful violations that are final orders, repeated violations that are final orders, and failure to abate notices that are final orders.
vi. A violation of federal or state civil rights, equal rights, or non-discrimination laws, rules, or regulations.
vii. Been found in contempt of court by a Federal Court of Appeals for failure to correct an unfair labor practice as prohibited by Section 8 of Chapter 372 of the National Labor Relations Act, 29 U. s. C. 158 (1980 PA 278, as amended, MCL 423.321 et seq).

(j) Is NOT an Iran linked business as defined in MCL 129.312.

I understand that a false statement, misrepresentation, or concealment of material facts on this certification may be grounds for rejection of this proposal or termination of the award and may be grounds for debarment.

Bidder: ATC Group Services LLC (dba Atlas Technical)

Joshua Schuyler, Operations Manager, MI
Authorized Agent Name (print or type)



5/9/2022
Authorized Agent Signature & Date

☐ I am unable to certify to the above statements. My explanation is attached.

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
State Facilities Administration
Design & Construction Division

ACKNOWLEDGMENT OF ADDENDUMS

PSC acknowledges receipt of Addenda: No. **1** dated: **4/21/2022**,

No. **2** dated: **5/10/2022** No. ___ dated: _____

APPENDIX D

Resumes for Key Personnel

Joshua Schuyler

Operations Manager, Michigan

OFFICE LOCATION
Novi, Michigan

EDUCATION
BS Resource Development / Environmental Issues and Applications, Michigan State University East Lansing, MI

CERTIFICATIONS
Certified Storm Water Operator and Soil Erosion and Sedimentation Control Inspector, Construction, #18865 / Ex 2027

Environmental Professional, ASTM E 1527-05 / All Appropriate Inquiries Standard 40CFR 312 (Michigan)

SPECIALIZED TRAINING
40-Hour HAZWOPER Training 29 CFR 1910.120 OSHA, 2000 (with annual 8 Hr Refresher)

Michigan Environmental Compliance Conference (2022)

PFAS – State of the Union (2021)

Great Lakes PFAS Summit (2019-2021)

Michigan Petroleum Storage Tank Conference, Gaylord, Detroit, MI (2019)

Great Lakes Environmental, Remediation and Redevelopment Conference (2019)

Environmental Risk Management, AIPG Workshop, June, 2019

Environmental Risk Management, AIPG Workshop, June, 2018

EXPERIENCE & RESPONSIBILITIES

Joshua is the Operations Manager for the Atlas Michigan region. He has over 22 years of comprehensive experience in the environmental consulting service industry. Mr. Schuyler is responsible for coordination of client services, proposals, project development/senior management and for providing senior level technical guidance and review for various client sites / state programs between four offices and over 40 staff.

Joshua is a lead technical resource and is the Program Manager for the State of Michigan Department of Technology, Management and Budget Indefinite Scope - Indefinite Delivery (ISID) contracts that include multiple contracts and multiple state and municipal clients (Michigan Department of Environment, Great Lakes and Energy (EGLE), Michigan Department of Corrections, and several municipal clients). Project work under these contracts includes site assessments, risk assessment/mitigation, tank removal / remedial excavation and site closure.

His expertise includes guidance and evaluation of detailed site investigations of soil gas, soil and groundwater contamination; Risk-Based Corrective Action evaluations following ASTM guidance principles; remediation technology feasibility assessments; remediation system assessment, pilot testing, installation oversight, and post remedial action monitoring. Joshua also has experience in the development and evaluation of Light Non-Aqueous Phase Liquid (LNAPL) and Vapor Intrusion Conceptual Site Models (CSMs).

Joshua previously managed the Environmental Department and was also the lead portfolio manager for a national convenience store/downstream petroleum client with an active portfolio of over 190 release project sites in the state, managed between three office locations and a staff of direct-report environmental professionals. Roles and responsibilities include senior technical reviews, client liaison, project portfolio management, prioritization of office and field schedules, coordinating site work and schedules between offices, and senior financial/budget management.

In addition, Joshua has reviewed and managed multiple Phase I and Phase II Environmental Site Assessments (ESAs), Baseline Environmental Assessments, detailed Phase II subsurface evaluations, and development of Due Care Evaluations for property acquisitions for various clients. Joshua has also managed pre-construction assessment for redevelopment including abatement, demolition plans, soil and groundwater on-site treatment and disposal, dewatering and due care obligations including vapor intrusion assessments and installation of vapor mitigation systems.

PROJECT EXPERIENCE

State of Michigan: Indefinite Scope - Indefinite Delivery - 2018 Expanded Environmental Remediation; 2017 Tank and Soil Removal Contract; 2016 Environmental Expanded Triage; 2015 Environmental Services

Program Manager responsible for the coordination, planning and implementation of environmental services under the state of Michigan's ISID contracts. Responsibilities included approving cost estimates, contractor procurement, work plan review, management of field staff and communication with several State of Michigan Departments including: Environment, Great Lakes and Energy; Michigan Department of Corrections, Michigan Department of Transportation, Management and Budget and other municipal contracts.

Various Confidential Petroleum and Industrial Clients, Remedial Investigations, 2000 to Present - Michigan and Ohio

Manages and provides technical expertise on several remedial investigation and system installation projects. Investigations included geophysical and soil gas surveys, the drilling of soil test borings using direct push and/or hollow stem auger technologies, the installation of single- and double-cased

Environmental Risk Management, AIPG Workshop, June, 2017

Environmental Risk Management, AIPG Workshop, June, 2016

Site Characterization, AIPG Workshop, June 2015

Groundwater / Surface Water Interface Characterization, Evaluation, and Compliance, AIPG Workshop, June 2014

LNAPL, AIPG Workshop, June 2012

MDEQ sponsored ITRC-Technical and Regulatory Guidance document, Evaluating LNAPL Remediation Technologies for Achieving Project Goals October 16-17, 2012

Risked-Based Corrective Action (ASTM), Michigan Department of Environmental Quality.

MDEQ Cleanup Criteria Training, Parts 201 and 213, 2007; and MDEQ Training Part 201 Amendments, 2011

HAZWOPER / OSHA 40-Hour and 8-Hour Annual Personal Protection/Safety Training, 2000 – present

MEMBERSHIPS

Vice President – Michigan Association of Environmental Professionals

Member – Association of Vapor Intrusion Professionals

HIRE DATE

05/2000

EXPERIENCE PRIOR TO JOINING ATLAS

0

monitoring well networks, and the installation of a variety of soil and groundwater remediation systems and/or in-situ technologies. These projects included retail, bulk storage terminals, former terminal, pipeline, industrial, university, municipal, public school districts, state land banks and utility.

Underground Storage Tank (UST) and Leaking Underground Storage Tank (LUST) Sites

Environmental/Petroleum Division Manager and Senior Manager/client lead and primary point of contact, responsible for oversight of environmental staff, and ultimately responsible for a significant portion of a national program involving over 150 Michigan LUST sites and other regulated facilities. Primary role responsibilities include construction oversight, management and documentation of over 100 UST removal and/or upgrade projects. These projects included management of preliminary pre-construction site assessments; estimation of soil excavation and dewatering requirements and associated management costs; implementing environmental and construction permit acquisitions, and associated compliance monitoring and reporting. Projects also included comprehensive senior technical review of subcontractor bid specifications and pricing documents; human health risk assessments; and the preparation and submittal of UST removal notifications and reports in order to maintain regulatory compliance.

Various Confidential Clients, Environmental Due Diligence: Management of Phase I / Phase II Environmental Site Assessments, Preparation of Baseline Environmental Assessments and Due Care Plans, 2000 to Present - Michigan and Ohio

The environmental assessments included properties acquired for proposed petroleum retail "new build" sites or additional property for an existing site rebuild and/or expansion. Also, completed these services for various other clients (university, public school districts, industrial and municipal).

Construction Dewatering/Soil Assessment and Management/Permitting

Completed site soil cut assessments and pre-rebuild dewatering and soil handling procedures for over 100 construction projects. Responsibilities have included permitting, UST removal notifications, dewatering pump tests, discharge permitting, treatment and discharge and soil waste profiles/disposal management and documentation.

Former Lubricant Plan Remediation and Decommissioning/Permitting

Provided Senior and direct oversight of job specifications, coordination between terminal operations and contractors. Former Lubricant Oil Plant located at an active petroleum storage and distribution terminal decommissioning – Phase 1 exterior piping removal, oil recovery, hazardous materials abatement, waste characterization, remedial activities. Phase 2 interior hazardous materials survey (ACM, lead, PCBs, oils) and abatement/remediation including mixed waste removal/disposal to prep site for future demolition.

Bulk Storage Terminal (Petroleum) Remediation, O&M, Permitting

Client Manager/Senior Oversight – Remediation System: Bulk Storage and Distribution Terminal along the Rouge River in Detroit. The site system includes a pneumatic top loading total fluids recovery system. The system recovers LNAPL and impacted water from three zones / 12 recovery wells. The LNAPL is stored in a 500-gallon AST and the water component is treated with an air stripper and granular activated carbon (GAC). The groundwater is discharged under a POTW permit with sampling for required analytical including a variety of VOCs, SVOCs, metals and PFAS. A total of 7.9 million gallons of groundwater has been recovered, treated and discharged as well as a total of over 12,000 gallons of LNAPL recovery since 2005.

Vapor Intrusion/Indoor Air Assessments and Mitigation/Remediation

Client Manager/Technical Review/Inspections – Completed numerous vapor intrusion assessments at various project sites (Residential Developments, Industrial Properties, Commercial/Store front properties, State of Michigan contracted sites, projects adjacent to former landfills, and municipal/public school properties. Scope of work included assessments of contaminants (methane, petroleum hydrocarbons, chlorinated) and development of engineering controls, mitigation/remediation (passive, active and vapor barriers). Indoor Air sampling and assessments including review of building design, HVAC processes, mechanical systems, building components, inventory of products/chemicals, staffing use/schedules, sumps, water infiltration and varying sampling protocols based on site use.

Ronald Santos, P.E.

PRINCIPAL ENGINEER

OFFICE LOCATION
Boise, ID

EDUCATION
BS, Civil Engineering, University of Alberta Edmonton, Alberta, Canada, 1992

REGISTRATION
Professional Engineer, ID, #12566, 2/2/2007

Professional Engineer, OR, #78965, 3/13/2007

Professional Engineer, WA, #53690, 5/25/2016

Professional Engineer, CA, #C59850, 7/23/1999

Professional Engineer, MI, #6201054032, 1/23/2007

Professional Engineer, NV, #027631, 4/7/2020

SPECIALIZED TRAINING
40-hour HAZWOPER Training, OSHA 29 CFR 1910.120.

8-Hour HAZWOPER Supervisor Training

10-Hour OSHA Construction Training

National Groundwater Association, MTBE Treatment Technology Design and Implementation Course

Loss Prevention System Safety Training

PROFESSIONAL AFFILIATIONS
Society of American Military Engineers

HIRE DATE
05/2019

EXPERIENCE & RESPONSIBILITIES

Ron Santos has 29 years of experience as a consultant in the environmental industry. As a senior engineer with a civil/environmental engineering background, he has extensive experience with engineering program/project management, environmental site assessments, vapor intrusion and risk assessments, implementation of remediation technologies, facility audit and compliance oversight, and safety stewardship. Ron provides technical support to all of the Western Region offices/staff. He will manage and execute projects; supervise and mentor staff; oversee the preparation of technical proposals and reports, and provide QA/QC of deliverables.

PROJECT EXPERIENCE

Tropicana East Shopping Center – Las Vegas, Nevada

Serving as the lead remediation engineer for the project. The primary constituent of concern is PCE contaminated soil and groundwater. He is responsible for optimizing groundwater pump and treatment system operations, peer reviewing remediation path forward scopes, and design of future system upgrades that will include soil vapor extraction and increasing the capacity of the existing groundwater treatment system.

Panattoni Development Company, Inc. – Madison, Tennessee

Served as the primary design engineer for a vapor mitigation system (VMS) that is being installed at a new 125,000 square foot office and distribution warehouse. The primary constituents of concern are volatile organic compounds related former manufacturing facility located at the site. VMS components include an engineered vapor barrier membrane with sub-slab vent piping and wind turbine that discharges effluent at the roof top.

Chevron, 76 Products Portfolio – California, Oregon, and Washington

Served as the portfolio manager for various petroleum facilities throughout California, Oregon and Washington. He managed the portfolio by growing the portfolio, reviewing all document submittals, attending all pre-field and quarterly meetings as available, tracking milestone and deliverable schedules, evaluating cost savings/avoidance opportunities, and stewarding safety. In addition, he managed individual sites with similar tasks and expectations as the Chevron EMC portfolio.

Chevron, Environmental Site Assessments – California, Kansas, Michigan, Oregon, and Washington

Managed environmental progress of various petroleum facilities throughout California, Oregon and Washington. He performed environmental site assessments to characterize hydrocarbon-affected soil, soil vapor, and/or groundwater plumes; performed remedial pilot tests; developed remedial actions plans in accordance with agency requirements; design and installed remedial systems; monitored/optimized onsite remedial operations; and managed closure activities.

Chevron, Richmond Refinery – Richmond California

Provided senior engineering expertise to upgrade aging GPS piping systems, replace hazardous waste closure unit caps, and inspect closure landfill units.

Air National Guard, Remediation – Oregon, California, and Idaho

Provided senior engineering expertise to assess per- and polyfluoroalkyl substances (PFAS) in soil and groundwater. Risk screening levels (RSLs) were calculated using EPA RSL online resources and tables. Special field protocols were implemented to mitigate potential PFAS cross-contamination during sampling. In addition, several in-situ remedial technologies were evaluated to address chlorinated solvent plumes that included air sparge/soil vapor extraction, multiphase extraction, in-situ chemical oxidation, and in- situ chemical reduction.

NASA, Ames Research Center Engineering Peer Reviews– Moffett Field, California

Completed engineering peer reviews to evaluate proposed remedial technology recommended to contain a chlorinated solvents plume. In addition, he completed a feasibility study that evaluated remedial technologies to address PCB, DDT, and lead affected soils. Technologies reviewed

included solidification/stabilization, vitrification, incineration, thermal desorption, gas phase chemical reduction, soil/solvent washing, dehalogenation, and sonic technology.

Remedial Engineering Program – California, Arizona, and Texas

Program manager for a remedial engineering group. He supervised an engineering team that designed, permitted, and oversaw installation/construction of various remedial groundwater and/or soil vapor extraction systems. In addition, he managed the remedial system operation and maintenance program. He was responsible for developing the engineering program; researching new treatment technologies; interfacing with agencies; reviewing design drawings, permits and reports; and providing peer review regarding remedial issues for various regions.

Mobile Remediation System Program – Various Sites, California

Program manager for mobile treatment system operations. The systems are cost- effective, mobile, high vacuum, thermal/catalytic oxidizers utilized to remove vapor and liquid-phase hydrocarbons simultaneously. He managed systems, scheduled events and operators to provide clients with quick mobilization times, evaluate remedial performance and assess optimization options.

Earth Tech, Remedial Excavation and Site Restoration – Edwards Air Force Base, California

Provided engineering services to manage and procure equipment, materials, and labor for remedial excavation and site restoration at various locations at Edwards Air Force Base. He supervised onsite excavation activities and managed project budget expenditures.

Neutrogena Corporation, Subsurface Soil Remediation – Los Angeles, California

Operated and maintained the bioremediation system to treat diesel-affected soil. The bioremediation system consisted of a regenerative blower, peristaltic pump, and nutrient/bacteria feed system. He evaluated system performance, soil remediation progress, and collected soil and groundwater samples. Managed project expenses and consulted with oversight agencies to obtain site closure.

USA Petroleum, Subsurface Soil Remediation – Los Angeles and Riverside County, California

Operated and maintained soil vapor extraction systems to treat petroleum hydrocarbon-affected soil. The systems consisted of a thermal and catalytic oxidizers and air sparge systems. He evaluated system performance, soil remediation progress, and collected soil and groundwater samples. Managed project expenses and consulted with oversight agencies for project remedial status updates.

Denver Plating, Remedial Excavation – Colton, California

Provided onsite engineering services for remedial excavation activities. He delineated extent of heavy metal-affected soil (excavation area), supervised excavation crew, coordinated the disposal of heavy metal-affected soil, and ensured health and safety protocols were followed. In addition, he oversaw collection of soil samples and analyzed laboratory results to ensure soil impacted with heavy metals was removed through excavation. He also acted as a liaison between the client and local oversight agency.

El-Rayes Environmental Corporation, Soil Bioremediation Treatability Study – Vancouver, British Columbia, Canada

Provided staff engineering services to maintain and operate a laboratory scale project for bioremediation of Bunker C affected soil. Laboratory study compared remediation efficiency of two bioengineered bacteria and existing bacteria in the project soil. He collected soil and water samples to evaluate the remediation process.

Millennia Housing Development LTD, St. Georges Tower, Asbestos Inspection - Clinton Township, Michigan

Provided a NESHAP comprehensive asbestos inspection in all 300 residential units in the 12-story senior residential facility to secure funding for renovations from the Michigan State Housing Development Authority (MSHDA).

April Hehir

Senior Project Manager

OFFICE LOCATION
Grayling, Michigan

EDUCATION
BS, Engineering Technology, Lawrence Technological University, Southfield, Michigan

A A S, Molecular Biotechnology, Lansing Community College, Lansing, Michigan

CERTIFICATIONS
State of Michigan EPA Accredited Asbestos Inspector, MI (#A51318)

State of Michigan Lead Inspector/Risk Assessor (P-07611)

OSHA 40 Hour HAZWOPER Training

Storm Water Management – Construction Site (SESC), (Certificate # 18066)

HIRE DATE
09/2016

EXPERIENCE PRIOR TO JOINING ATLAS
12 years

EXPERIENCE & RESPONSIBILITIES

April serves as a Senior Project Manager in ATC's Grayling, Michigan office. Her formal training is in engineering. Her multi-disciplinary training includes biology, chemistry, and geology, with 17 years of experience in the environmental field. This background, along with her experience in field research and site assessments, provides a solid framework for her activities with ATC.

April's responsibilities include performing project management, remedial site investigations, various types of environmental sampling and waste characterization, potable well sampling, and oversight of monitoring well installations, remedial investigations, excavation oversight, remediation system installations and oversight, brownfield redevelopment, asbestos surveys, lead assessment surveys, vapor intrusion assessments, storm water inspections, project logistics, and maintenance of monitoring equipment,.

April serves on the Crawford County Brownfield Redevelopment Authority as Secretary and Treasurer, serves as a Chair of the City of Grayling, Planning and Zoning Commission, Board Member of Maple Forest Township Zoning Board of Appeals and Board of Review, and Board Member of Roscommon County Brownfield Redevelopment Authority.

PROJECT EXPERIENCE

Confidential Leaking Underground Storage Tank Site, Gaylord District, Roscommon, Michigan

Senior Project Manager responsible for project management for leaking underground storage tank. Responsibilities included preparation of site specific construction design plan, health and safety, subcontractor procurement, coordination with EGLE PM and property owner. Oversight during initial assessment sampling, monitoring well installation, and groundwater monitoring. Responsible for Initial Assessment Report review, financial reporting, laboratory notifications, and field staff management.

2017 Tank and Soil ISID, Bay City District, Curve Bar and Grill

Senior Project Manager assisting in project management for underground storage tank closure. Responsibilities included preparation of site specific construction design plan, health and safety, subcontractor procurement, coordination with EGLE PM and property owner. Responsible for technical report review, financial reporting, laboratory notifications, and field staff management.

2017 Tank and Soil ISID, Bay City District, Former Standish Correctional Facility

Senior Project Manager assisting in project management for underground storage tank closure with source area soil removal. Responsible for subcontractor procurement, financial reporting, technical report review, construction design and planning. Responsible for coordination of subcontractor and field staff activities including daily activity reports, onsite notifications, laboratory notifications, and schedules.

2017 Tank and Soil ISID, Bay City District, Saginaw Correctional Facility

Senior Project Manager assisting in project management for underground storage tank closure with source area soil removal. Responsible for coordination of subcontractor and field staff activities including daily activity reports, onsite notifications, laboratory notifications, and schedules. Responsible for subcontractor procurement, financial reporting, technical report review, construction design and planning.

2017 Tank and Soil ISID, Cadillac District, Oaks Correctional Facility

Senior Project Manager assisting in project management for underground storage tank closure. Responsible for subcontractor procurement, waste coordination, oversight, financial reporting, technical report review, construction design and planning.

2017 Tank and Soil ISID, Lansing District, 406 N Sheldon.

Senior Project Manager assisting in project management for underground storage tank closure with source area soil removal. Project

responsibilities included oversight of field staff, subcontractor procurement, construction planning and design preparation, construction removal reporting.

2017 Tank and Soil ISID, Grand Rapids District, 959 Cherry Street SE

Senior Project Manager assisting in project management for underground storage tank closure with source area soil removal. Project responsibilities included subcontractor procurement, construction planning and design preparation, construction removal reporting.

2017 Tank and Soil ISID, Grand Rapids District, Former Spencer's Towing

Senior Project Manager assisting in project management for source area soil removal. Project responsibilities included oversight of field staff, subcontractor procurement, construction planning and design preparation, construction removal reporting.

2015 Environmental Services ISID, Cadillac District, Wash Tyme

Senior Project Manager for underground storage tank removal, source area soil removal, installation and operations of soil vapor extraction system, vapor intrusion investigation and groundwater monitoring. Conducted oversight field activities for soil vapor point installation, performed groundwater sampling, performed soil gas sampling, and conducted quarterly monitoring reports. Project Manager responsible for direct correspondence with EGLE Project Manager and property owners. Technical review of Restrictive Covenant. Provided assistance with soil vapor extraction system design, installation, operation and maintenance.

Underground Storage Tank Close In Place, Parsons Center, Lake Ann, MI

Field Geologist performed UST Site assessment soil sampling and reporting. Provided oversight of subcontractor for two UST close-in-place and removal of one AST.

2015 Environmental Services ISID, Warren District, Oakland Appliance

Project Scientist performing remediation system testing, design support and data collection. Performed pressure field extension testing and data analysis. Responsible for direct correspondence with EGLE Project Manager and property owners. Assist with sub-slab vapor mitigation system design.

2015 Environmental Services ISID, Grand Rapids District, 1849 Ruddiman Drive

Project Scientist performing remediation system testing, design support and data collection. Performed pressure field extension testing and data analysis. Responsible for direct correspondence with EGLE Project Manager and property owners. Assist with sub-slab vapor mitigation system design.

Various Confidential Petroleum Clients, Leaking Underground Storage Tank Response Investigation and Remediation

Project Geologist for LUST projects, including soil excavation oversight, contaminant delineation, and soil gas/vapor assessment in accordance with Risk-Based Corrective Action procedures. Performed UST removal oversight and verification sampling, monitoring well installation and sampling, soil vapor point installation and sampling, and monitoring well abandonment. Project management and reporting experience consist of assessment reporting, preparation of institutional controls, and groundwater monitoring reporting.

Northern Market, Brownfield Redevelopment, Grayling, Michigan

Senior Project Manager for EGLE Brownfield Grant and Loan Award for reimbursement of eligible activities during redevelopment. Performed Environmental Site Assessment (ESA) to determine if contamination was present due to RECs identified. Prepared and submitted a BEA to obtain limited liability protection under P.A. 451, Part 201. Prepare numerous work plans for EGLE approval. Facilitated the development of demolition and abatement specifications, bidding and contractor selection recommendations, lead and asbestos containing material survey, vapor intrusion investigation and system design.

Numerous Brownfield Site Assessment Grants, Michigan

Senior Project Manager for numerous Michigan Department of Environment, Great Lakes and Energy (EGLE) Site Assessment Grant awarded to Local Units of Government in Northern Michigan. Prepare work plans for eligible activities. Conducted environmental due diligence activities for potential redevelopment prior to purchasing. Prepared and submitted a Baseline Environmental Assessment (BEA) to obtain limited liability protection under P.A. 451, Part 201 by documenting to the EGLE that the Client has purchased an environmentally impaired site which is defined as a "facility". Preparation of pre-demolition Document of Due Care Compliance/Due Care Plan.

Joshua Samson

Project Geologist

OFFICE LOCATION
Grand Rapids, Michigan

EDUCATION
BS, Geology, Western Michigan University, Kalamazoo, Michigan

CERTIFICATIONS
40-Hour OSHA HAZWOPER
8-Hour Refresher
10-Hour OSHA General Industry

CPR/AED First Aid

HIRE DATE
01/2014

EXPERIENCE PRIOR TO JOINING ATLAS
0

EXPERIENCE & RESPONSIBILITIES

Joshua is a Project Geologist in Atlas's Grand Rapids Michigan office. He has over 8 years of comprehensive experience in the petroleum and environmental consulting service industries. He is responsible for the preparation of technical reports and institutional controls for various Leaking Underground Storage Tank (LUST) sites, as well as the coordination and completion of fieldwork, equipment calibration, and data evaluation.

Joshua has experience in the preparation of technical reports for submittal to the Michigan Department of Environment, Great Lakes, and Energy (Site Assessment Reports, Initial Assessment Reports, and Closure Reports). Joshua has corrective action expertise in the preparation and implementation of institutional controls including restrictive covenants, public highway institutional controls, and Michigan Department of Transportation Environmental License Agreements.

Joshua has experience in groundwater sampling equipment and procedures. He has coordinated monitoring well installation, provided oversight and collection of soil samples for various drilling projects including site assessments for LUST sites. He has installed soil gas and sub-slab vapor sampling points (indoor and outdoor) and collected air samples for assessment of indoor air inhalation risks. Additionally, he has provided training and supervision to field staff during corrective action implementation.

Joshua has provided oversight on construction/rebuild sites including UST removal oversight and sampling, coordination of contaminated soil removal with subcontractors, dewatering activities, collection of soil verification samples and compliance reporting.

PROJECT EXPERIENCE

2017 Tank and Soil ISID, Jackson District, 11112 Bartlett Road Site

Project Geologist providing oversight of the excavation and removal of impacted soils. Performed excavation oversight, verification sample collection, oversight of backfill and site restoration.

2017 Tank and Soil ISID, Saginaw Bay District, Former Darland Service

Project Geologist providing oversight of the excavation, removal of Leaking Underground Storage Tanks (LUSTs) and associated piping. Performed UST removal oversight, UST assessment sampling and reporting. Provided oversight of excavation and verification sampling, as well as backfill and site restoration.

2017 Tank and Soil ISID, Cadillac District, Former Woodland Shop & Go

Project Geologist providing drilling oversight and sampling activities associated with LUST project. Performed drilling/subcontractor oversight, monitoring well installation and sampling, soil vapor pin/point installation and sampling, soil removal and sampling, bore log generation, vertical profile logging and sampling, and assessment reporting. oversight of excavation and verification sampling, as well as backfill and site restoration.

2017 Tank and Soil ISID, Southeast Michigan District, 8101 Kercheval Ave.

Project Geologist providing oversight of the excavation, removal of Leaking Underground Storage Tanks (LUSTs) and associated piping. Performed UST removal oversight, UST assessment sampling and reporting. Provided oversight of excavation and verification sampling, as well as backfill and site restoration.

2017 Tank and Soil ISID, Lansing District, Olson Property

Project Geologist providing oversight of the excavation, removal of Leaking Underground Storage Tanks (LUSTs) and associated piping. Performed UST removal oversight, UST assessment sampling and reporting. Provided oversight of excavation and verification sampling, as well as backfill and site restoration.

2017 Tank and Soil ISID, Lansing District, 1090 E Ridgeway Ave.

Project Geologist providing oversight of the excavation, removal of Leaking Underground Storage Tanks (LUSTs) and associated piping. Performed UST removal oversight, UST assessment sampling and reporting. Provided

2017 Tank and Soil ISID, Lansing District, 406 N Sheldon.

Project Geologist assisting in project management, field oversight, reporting associated with removal of USTs and associated piping. Performed waste characterization sampling, UST removal oversight, UST assessment sampling, excavation oversight, verification sampling, and construction removal reporting.

2017 Tank and Soil ISID, Grand Rapids District, 959 Cherry Street SE

Project Geologist assisting in project management, field oversight, and reporting associated with UST abandonment. Performed waste characterization sampling, UST abandon in place activities, construction oversight and reporting.

2017 Tank and Soil ISID, Grand Rapids District, Former Spencer's Towing

Project Geologist providing oversight of the excavation and removal of impacted soils. Performed excavation oversight, verification sample collection, oversight of backfill and site restoration.

2015 Environmental Services ISID, Cadillac District, Wash Tyme

Project Geologist providing soil vapor point installation oversight, sampling, and reporting, groundwater monitoring well sampling, and assessment reporting.

Various Confidential Petroleum Clients, Leaking Underground Storage Tank Response Investigation and Remediation

Project Geologist for LUST projects, including soil excavation oversight, contaminant delineation, and soil gas/vapor assessment in accordance with Risk-Based Corrective Action procedures. Performed UST removal oversight, verification sampling, monitoring well installation and sampling, soil vapor point installation and sampling, and monitoring well abandonment. Project management and reporting experience consist of assessment reporting, preparation of institutional controls, and groundwater monitoring reporting.

Transportation Clients/Retail Petroleum Clients, Emergency Spill Response Investigations and Remediation

Served as Geologist and provided oversight, sampling and reporting for Emergency Response Spill Cleanup projects. The cleanups involve interfacing and coordination with the client, remediation contractors and regulatory agencies.

Jessica Davis

Project Scientist

OFFICE LOCATION
Novi, Michigan

EDUCATION
BS, Natural Resource Management, minor in Environmental Studies, Grand Valley State University, Grand Rapids, Michigan

CERTIFICATIONS
40-Hour OSHA HAZWOPER
8-Hour Refresher

ASTM E1739 Risk Based Corrective Action Training

CPR/AED First Aid

MISS DIG 811 Certification

HIRE DATE
10/2011

EXPERIENCE PRIOR TO JOINING ATLAS
0

EXPERIENCE & RESPONSIBILITIES

Jessica serves as a Project Scientist in Atlas's Novi, Michigan office. She has 10 years of experience in the petroleum and environmental consulting industries. She is responsible for the coordination and completion of fieldwork, permitting, laboratory supplies, and the preparation of reports for various Leaking Underground Storage Tank (LUST) Reports.

She has experience in groundwater sampling equipment and procedures. She has coordinated monitoring well installation, and collected soil samples for various projects including LUST projects and several Phase II Site Assessments. She has collected groundwater samples using the low-flow and bailer sampling methods. She has installed soil vapor intrusion sampling points both indoor and outdoor and collected air samples. She also has experience with remediation system sampling and general operation and maintenance activities. Has provided oversight during multiple pilot tests for remedial system design and future implementation.

Jessica has provided oversight on numerous construction rebuild sites including UST removal oversight and sampling, oversight of site dewatering activities, soil excavation oversight and coordination with on-site contractors and compliance reporting.

PROJECT EXPERIENCE

2017 Tank and Soil ISID, Lansing District, Nepessing Street
Project Scientist responsible for health and safety plan, UST removal oversight, over excavation oversight, and soil sampling.

2017 Tank and Soil ISID, Warren District, Five Points Market
Project Scientist responsible for health and safety plan, UST removal oversight, over excavation oversight, and soil sampling.

2017 Tank and Soil ISID, Bay City District, Former Standish Correctional Facility and Saginaw Correction Facility
Project Scientist responsible for waste profiling for both facilities.

2017 Tank and Soil ISID, Bay City District, Sandusky
Project Scientist responsible for oversight of asphalt paving, monitoring well installation with soil sampling, and surveying of the wells.

2017 Tank and Soil ISID, Jackson District, E. Michigan Ave, Jackson
Project Scientist responsible for oversight of asphalt paving, monitoring well installation with soil sampling, and drum pickup removal oversight.

2017 Tank and Soil ISID, Bay City District, Curve Bar
Project Scientist responsible for health and safety plan, oversight of closed in place UST tank, and compliance reporting.

2017 Tank and Soil ISID, Lansing District, Former Spencer's Towing - Flint
Project Scientist responsible for health and safety plan, work plan compilation, and drill bids.

2015 Environmental Services ISID, Warren District, Oakland Appliance
Project Scientist responsible for health and safety plan, initial indoor air sampling, vapor install and quarterly sampling.

2015 Environmental Services ISID, Cadillac District, Former Wash Tyme Coin Laundry
Project Scientist responsible for subcontractor procurement, coordination of survey, completion of Restrictive Covenant and data tabulation.

Confidential Petroleum Client – Charlotte, NC Various Leaking Underground Storage Tanks (LUST) Remedial Investigations, 2011 to Present - Michigan
Investigations included soil gas install and sampling, the drilling of soil test borings using direct push and/or hollow stem auger

technologies, the installation of single- and double-cased monitoring well networks, groundwater/soil sampling, and the remedial system operation and maintenance.

Confidential Petroleum Client – Enon, OH, Various Leaking Underground Storage Tanks (LUST) Remedial Investigations, 2011 to Present - Michigan

Investigations included soil gas install and sampling, the drilling of soil test borings using direct push and/or hollow stem auger technologies, the installation of single- and double-cased monitoring well networks, groundwater/soil sampling, and the installation of in-situ technologies. Responsible for health and safety plans, preliminary pre-construction site assessment; estimation of soil excavation, dewatering requirements and associate management costs; oversight of soil excavation; implementing environmental and construction permit acquisitions, dewatering permitting, setup and discharging and reporting; remedial excavations, sampling; associated compliance monitoring and reporting. Projects also included human health risk assessments; the preparation and submittal of UST removal notifications, reports in order to maintain regulatory compliance. Emergency Spill Response Investigations and Remediation / Transportation Clients throughout Michigan / 2011 - Present. Served as Staff Scientist and provided oversight, sampling and reporting for Emergency Response Spill Cleanup projects. The cleanups involve interfacing and coordination with the client, and remediation contractors.

Confidential Petroleum Client – Wilmington, DE Various Leaking Underground Storage Tanks (LUST) Remedial Investigations, 2011 to Present - Michigan

Investigations included the drilling of soil test borings using direct push and/or hollow stem auger technologies, the installation of single- and double-cased monitoring well networks, groundwater/soil sampling, and the remedial system operation and maintenance.

Confidential Petroleum Client – Knoxville, TN Various Leaking Underground Storage Tanks (LUST) Remedial Investigations, 2011 to Present - Michigan

Investigations included soil gas install, sampling, the drilling of soil test borings using direct push and/or hollow stem auger technologies, the installation of single- and double-cased monitoring well networks, groundwater/soil sampling.

Various Confidential Clients, Environmental Due Diligence: Phase II Environmental Site Assessments, Preparation of Baseline Environmental Assessments and Due Care Plans, 2011 to Present - Michigan

The environmental assessments included properties acquired for proposed petroleum retail "new build" sites or additional property for an existing site rebuild and/or expansion.

Construction Dewatering/Soil Assessment and Management/Permitting

Completed site soil cut assessments, pre-rebuild dewatering and soil handling procedures for over 50 construction projects. Responsibilities have included permitting, UST removal notifications, dewatering pump tests, discharge permitting, treatment and discharge and soil waste profiles/disposal management and documentation.

Vapor Intrusion/Indoor Air Assessments and Mitigation/Remediation

Completed numerous vapor intrusion assessments at various project sites (Residential Developments, Industrial Properties, Commercial/Store front properties, State of Michigan contracted sites, projects adjacent to former landfills, and municipal/public school properties. Scope of work included assessments of contaminants (methane, petroleum hydrocarbons, chlorinated). Indoor Air sampling and installation of indoor and outdoor vapor pins.

Assistant Project Management for Municipal Roscommon County Property

Completed waste profiling, tabulation of data, and reporting.

Assistant Project Management for municipal Genesee County property

Completed budgeting, health and safety plan, assessment of release, client correspondence, drilling coordination, groundwater sampling coordination, initial assessment and final assessment reporting.

Michigan Underground Storage Tank Authority (MUSTA) and Legacy Reimbursement Program (LRP)

Completed over 100 claims and invoice claims to MUSTA/LRP reimbursement program. Working with EGLE employees on claims and additional information.

Dylan Schuberg

Staff Engineer

OFFICE LOCATION
Grand Rapids, Michigan

EDUCATION
BS, Environmental Engineering, Michigan State University, 2018

CERTIFICATIONS
40-hour Hazardous Waste Training Certification (OSHA), original certification acquired 2018 / 8-hour Refresher (to date)

APNGA Portable Nuclear Gauge Safety & U.S. Dot Hazmat Certification, 2018

Nuclear Density Safety Certified

Certified Adult CPR and First Aid

Behavioral Based Safety Training

HIRE DATE
10/18

EXPERIENCE PRIOR TO JOINING ATLAS
Residential water sampling in Flint, MI for Michigan State University and the National Resource Defense Council (2016-2018)

EXPERIENCE & RESPONSIBILITIES

Dylan serves as a Staff Engineer in Atlas' Grand Rapids, Michigan office. As a Staff Engineer, Dylan's responsibilities include, but are not limited to remedial system design, system operations and maintenance, environmental sampling, materials testing for construction, due diligence, compliance, and oversight for asbestos containing materials abatement and house surveys. As an aspiring professional engineer, he demonstrates an analytical approach to many of the situations faced when working in the field or office. Dylan is also the company's Radiation Safety Officer (RSO) for the State of Michigan in which he coordinates with the United States Nuclear Regulatory Commission to ensure proper storage, upkeep, and bookkeeping for the company's nuclear density gauge inventory.

PROJECT EXPERIENCE

2017 Tank and Soil ISID, Grand Rapids District, Fenwick General Store

Provided oversight of the excavation and removal of impacted soils. Performed excavation oversight, verification sample collection, oversight of backfill and site restoration.

2015 Environmental Services ISID, Cadillac District, Wash Tyme

Provided oversight of soil vapor extraction system installation. Responsible for preparation of AutoCAD illustrations, system as-built, prepared process and control diagrams. Performed operation and maintenance inspections with air sampling.

2015 Environmental Services ISID, Cadillac District, Oakland Appliance

Responsible for preparation of AutoCAD illustrations, and system as-built, for sub-slab depressurization system. Performed operation and maintenance with system repairs.

Remedial System Design – Multiple Clients - Michigan, California, North Carolina, Virginia, Texas

Worked closely under the guidance of professional engineers to design and prepare sealed drawing sets utilizing AutoCAD which illustrate the installation and function of coupled or non-coupled remedial systems. He has prepared designs for vapor intrusion mitigation, groundwater extraction, soil-vapor extraction, and air sparge systems. Some of the tasks associated with these system designs include system component sizing based on area of influence and head losses from pipe flow, system pipe and product placement, depicting how the proposed system will fit into the structural design of a building, and direct communication with clients.

System Operations and Maintenance – Multiple Clients - Michigan

System operations and maintenance is performed on remedial systems located at some of our client-owned sites. The types of systems involved include air sparge, soil vapor extraction with treatment technologies, and groundwater extraction with pump and treat technologies. The duties associated with maintaining these systems include routine maintenance and repairs, system installations, taking system readings for various parameters, contractor oversight for carbon change-outs or electrical repairs, system and ambient sampling for monitoring purposes, and various other responsibilities. These tasks are all completed to ensure the system is working safely and effectively as intended.

Retail Petroleum and Transportation – Multiple Clients - Michigan and Indiana

Conducted a variety of field and office work for several different transportation/retail petroleum clients in the states of Michigan and Indiana. Some of these duties have included groundwater sampling for monitoring purposes, monitoring well installation and removal oversight, emergency response cleanup and oversight, sub-grade investigations, underground storage tank removal, and system operations and maintenance. Once the fieldwork has been completed, Dylan also utilizes AutoCAD to produce analytical figures for reports showing sample concentrations, groundwater elevations and flow, and other relevant information depending on what type of work was conducted.

Construction Materials Testing - Multiple Clients – Michigan

Has seen many construction projects through from start to finish for several different sectors including retail, industrial, and hospitality. His duties include performing geotechnical soil delineations on site prior to construction,

subgrade density testing, construction materials testing, and structural steel inspections. These measures are taken not only to verify the materials being used are consistent with their cost, but also to ensure the structure is safe.

Radiation Safety Officer (RSO) – Michigan

Is currently the Radiation Safety Officer for the company in the State of Michigan. It is necessary for the company to have a Radiation Safety Officer since some of our equipment used to measure soil density contains a radioactive source, and in turn, emits a small amount of radiation when properly handled. It is the RSO's responsibility to communicate with the United States Nuclear Regulatory Commission to ensure all standard practices are being followed when it comes to the storage, transport, and use of this equipment. The duties of the RSO include monthly safety audits, setting up semi-annual and annual maintenance for the soil density gauges, organizing quarterly dosimetry reports for gauge operators, conducting radioactive leak tests on relevant equipment, and complying with the USNRC for any information requests or audits.

Due Diligence – Multiple Clients - Michigan

In regards to Environmental Due Diligence, Conducts both qualitative investigations for Phase I Environmental Site Assessments, and quantitative investigations for Phase II Environmental Site Assessments. Some of the locations he has encountered in this line of work include golf courses, auto repair facilities, restaurants, and small businesses which have all contributed to providing a wide array of experience. He has also carried out Property Condition Assessments for large scale retail buildings, fabrication plants, and storage facilities.

Compliance – Multiple Clients - Michigan

Completes reviews for No Exposure Certifications at sites with storm water management plans. This includes reviewing the current storm water management plan for a given site, and visiting the site to ensure there are not any contaminant exposure pathways to the public via runoff. Once the investigation is complete, it can then be determined if the client qualifies for a No Exposure Certification which excludes the client from requiring a discharge permit for their runoff.

Asset Inventory Management – Multiple Clients – Michigan and Ohio

Takes part in an asset inventory and management program for several clients. This includes traveling to various retail locations, and taking inventory of all assets being used at the relevant location. This is done to greatly simplify any maintenance requests or equipment replacements as all the data associated with each piece of equipment is added to an easy to use database accessible via QR code tags.

Industrial Hygiene - Asbestos Abatement – Multiple Clients – Michigan

Prior to deconstruction/remodeling, potential asbestos containing materials must be identified in older structures. Surveys have been performed at these sites by Dylan to sample and determine which materials contain asbestos. Following the surveys, the abatement process begins, and the materials are removed. Dylan provides oversight during this process by defining containment zones based on square footages and sampling air for fiber counts to obtain clearance and ensure the safety of the abatement workers.

Brian Weir

Field Geologist

OFFICE LOCATION
Grayling, Michigan

EDUCATION
BS, Environmental Science and Earth Science, Western Michigan University, Kalamazoo, Michigan

CERTIFICATIONS
40-Hour OSHA HAZWOPER
8-Hour Refresher

CPR/AED First Aid

NAUI SCUBA

Stormwater Management-Construction Site (SESC), #C-22016

State of Michigan Asbestos Inspector (#A57007)

State of Michigan Lead Inspector Certificate (#71517-04202022-03)

State of Michigan Lead Risk-Assessor Certificate (#81517-04222022-03)

HIRE DATE
03/2020

EXPERIENCE PRIOR TO JOINING ATLAS
0

EXPERIENCE & RESPONSIBILITIES

Brian serves as a Field Geologist in Atlas's Grayling, Michigan office. His formal training is in environmental and earth science. His multi-disciplinary training includes biology, chemistry, geology, and ecology.

Brian's responsibilities include performing Underground Storage Tank Assessments, Phase I and II Environmental Site Assessments, conduct Asbestos Containing Material Surveys, assist with Lead Inspections/Risk Assessments, Vapor Intrusion Assessments, Construction Material Testing, project logistics, maintenance of monitoring equipment, remedial site investigations, various types of environmental sampling and waste characterization, and oversight of monitoring well installations and abandonment, underground storage tank removal oversight, remedial investigations, and excavation oversight.

PROJECT EXPERIENCE

2017 Tank and Soil ISID, Bay City District, Former Standish Correctional Facility

Field Geologist providing oversight of the excavation, removal of Leaking Underground Storage Tanks (LUSTs) and associated piping. Performed UST assessment sampling, waste characterization sample collection and reporting. Provided oversight of Above Ground Storage Tank (AST) installation, generator system upgrades, monitoring well installation and soil sample collection. Performed quarterly groundwater monitoring, reporting and coordinating MISS DIG.

2017 Tank and Soil ISID, Bay City District, Saginaw Correctional Facility

Field Geologist providing oversight of the removal of Leaking Underground Storage Tanks (LUSTs) and associated piping. Performed UST assessment sampling, waste characterization sample collection, coordination with MISS DIG and reporting. Provided oversight of AST installation, generator system upgrades, soil excavation, and de-watering. Performed Verification of Soil Remediation Sampling (VSR).

2017 Tank and Soil ISID, Cadillac District, Oaks Correctional Facility

Field Geologist providing oversight of the removal of Leaking Underground Storage Tank and associated piping. Performed LUST assessment sampling, waste characterization sample collection, complete notice of intent to remove and UST Registration. Performed excavation for soil remediation and VSR soil sample collection. Provided oversight for AST installation and generator system upgrades.

2015 Environmental Services ISID, Cadillac District, Former Wash Tyme Coin Laundry

Field Geologist performed Soil Vapor sampling, quarterly groundwater monitoring and reporting.

Underground Storage Tank Close In Place, Parsons Center, Lake Ann, MI

Field Geologist performed UST Site assessment soil sampling and reporting.. Provided oversight of subcontractor for two UST close-in-place and removal of one AST.

2017 Tank and Soil ISID, Lansing District, 1090 E. Ridgeway Drive, Flint, MI

Field Geologist performed Waste Characterization sampling and prepared site-specific Health and Safety Plans.

2017 Tank and Soil ISID, Bay City District, Curve Bar and Grill

Field Geologist performed waste characterization and assessment sampling for a buried UST.

2017 Tank and Soil ISID, Lansing District, 1523 Beach Street, Flint, MI

Field Geologist performed sampling of asbestos containing materials (ACMs), Lead-Based Paint (LBP) and hazardous material survey of a former grocery store in Flint, MI. Prepared site-specific Health and Safety Plan and Work Plan.

2017 Tank and Soil ISID, Various Sites, MI

Prepared eight (8) site specific Health & Safety and Work Plans, and coordinated with State of Michigan Environmental Laboratory.

Confidential Retail Petroleum Client – Enon, OH, Various Sites Michigan

Field Geologist providing oversight for monitoring well installation, soil vapor point installation and monitoring well abandonment. Performed quarterly groundwater monitoring and reporting.

Monitoring Well Abandonment, Alpena, MI

Field Geologist provided oversight for the abandonment of over forty monitoring wells. Complete well abandonment records in accordance with EGLE requirements.

Brownfield Site Assessment Grants – Roscommon, Michigan

Field Geologist for Michigan Department of Environment, Great Lakes and Energy (EGLE) Site Assessment Grant awarded to Local Units of Government in Northern Michigan. Prepare work plans for eligible activities. Conducted environmental due diligence activities for potential redevelopment prior to purchasing. Prepared and submitted a Baseline Environmental Assessment (BEA) to obtain limited liability protection under P.A. 451, Part 201 by documenting to the EGLE that the Client has purchased an environmentally impaired site which is defined as a "facility". Perform vapor intrusion investigation.

Northern Market Brownfield Redevelopment - Grayling, Michigan

Field Geologist for EGLE Brownfield Grant and Loan Award for reimbursement of eligible activities during redevelopment. Performed contractor oversight during site demolition and contaminated soil removal. Collected soil verification samples of excavation limits. Conducted Vapor Intrusion Investigation.

Numerous Clients, Phase I Environmental Site Assessments (ESAs) - Michigan

Conducted Phase I ESAs for property acquisition of vacant, commercial or industrial properties. Performed site reconnaissance, historical data review, Interpretation of historical documents, and report preparation using ASTM Standards and All Appropriate Inquiry (AAI) for site assessments.

Various Confidential Clients, Asbestos Building Survey - Michigan

Field Geologist support and direct personnel during asbestos containing material surveys. Work involved identifying potential asbestos containing materials, air monitoring during abatement activities, clearances (visual and air) after abatement was complete, and completion of reports to submit for owner documentation.

Confidential Client, Lead Air Monitoring - Michigan

Work involved conducting air monitoring during abatement activities, clearances (visual and air) after abatement was complete, and completion of reports to submit for owner documentation.

Nicholas Priehs

Field Geologist

OFFICE LOCATION
Novi, Michigan

EDUCATION
B.S., Geology, minor in Mathematics, Grand Valley State University, 2019
M.S., Geology, Louisiana State University 2022

CERTIFICATIONS
40-hour Hazardous Waste Training Certification (OSHA), original certification acquired 2021 / 8-hour Refresher (to date)

Certification in Geographic Information Systems acquired 2019 from Grand Valley State University.

CPR/AED First Aid

HIRE DATE
02/2021

EXPERIENCE PRIOR TO JOINING ATLAS
0

EXPERIENCE & RESPONSIBILITIES

Nicholas is a Field Geologist for Atlas' Novi, Michigan office. He is responsible for the coordination and completion of fieldwork, emergency response field investigations and remediation, and providing project oversight for various remediation and drilling jobs.

He has experience in groundwater sampling equipment and procedures. He has coordinated monitoring well installation, and collected soil samples for various projects including LUST projects and Phase II Site Assessments. He has installed soil vapor intrusion sampling points both indoor and outdoor and collected air samples. Nick has experience with remediation system sampling and general operation and maintenance activities and has provided oversight during pilot tests for remedial system design and future implementation.

He has provided oversight on UST removal and sampling, soil excavation oversight and coordination with on-site contractors, and underground utility vault cleanouts.

PROJECT EXPERIENCE

2017 Tank and Soil ISID, Jackson District, E. Michigan Ave, Jackson

Field Geologist responsible for oversight of soil excavation, field screening and sampling, monitoring well hollow stem installation with soil sampling, groundwater sampling, and vapor sampling.

2017 Tank and Soil ISID, Bay City District, Sandusky

Field Geologist responsible for oversight of soil excavation, field screening and sampling, monitoring well installation with soil sampling.

Confidential EPA/US Army Corp Engineer, Gibraltar, MI

Field Geologist responsible for oversight of sonic drilling, monitoring well installation, XRF screening, and soil sampling.

Confidential Petroleum Client – Charlotte, NC Various Leaking Underground Storage Tanks (LUST) Remedial Investigations, 2011 to Present - Michigan

Investigations included groundwater sampling, and the remedial system operation and maintenance.

Confidential PFAS/Petroleum Project, Ferndale, MI

Investigations included PFAS protocol groundwater sampling and vapor sampling.

Confidential Petroleum Client – Enon, OH, Various Leaking Underground Storage Tanks (LUST) Remedial Investigations, 2011 to Present - Michigan

Investigations included oversight of monitoring well installation, soil sampling, groundwater sampling, sub slab vapor installation and sampling.

Emergency Spill Response for various Confidential Petroleum Clients – Michigan and Ohio

Served as Field Geologist and provided oversight, sampling and reporting for Emergency Response Spill Cleanup projects. The cleanups involve interfacing and coordination with the client, and remediation contractors.

Vapor Intrusion/Indoor Air Assessments and Mitigation/Remediation

Completed numerous vapor intrusion assessments at various project sites (Residential Developments, Industrial Properties, Commercial/Store front properties, State of Michigan contracted sites, projects and municipal/public school properties. Scope of work included assessments of contaminants (petroleum hydrocarbons). Indoor Air sampling and installation of indoor and outdoor vapor pins.

Andrew Michalek

Field Geologist

OFFICE LOCATION
Grand Rapids, Michigan

EDUCATION
BS, Freshwater Science and Sustainability, Western Michigan University, Kalamazoo, Michigan

CERTIFICATIONS
40-Hour OSHA HAZWOPER

HIRE DATE
05/2022

EXPERIENCE PRIOR TO JOINING ATLAS
2

EXPERIENCE & RESPONSIBILITIES

Andrew serves as a Field Geologist in Atlas's Grand Rapids, Michigan office. His formal training is in Freshwater Science and Sustainability. His multi-disciplinary training includes biology, chemistry, geology, and ecology.

Andrew's responsibilities include performing Underground Storage Tank Assessments, Phase I and II Environmental Site Assessments, Vapor Intrusion Assessments, Construction Material Testing, project logistics, maintenance of monitoring equipment, remedial site investigations, various types of environmental sampling and waste characterization, and oversight of monitoring well installations and abandonment, underground storage tank removal oversight, remedial investigations, and excavation oversight.

PROJECT EXPERIENCE

Confidential Petroleum Client – Enon, OH, Leaking Underground Storage Tank Response Investigation and Remediation, Various Sites Michigan

Field Geologist for leaking underground storage tank projects. Responsibilities include groundwater monitoring, soil vapor monitoring, verification sampling, UST removal oversight, monitoring well installation oversight, and monitoring well abandonment.

Transportation Clients/Retail Petroleum Clients, Emergency Spill Response Investigations and Remediation

Field Geologist providing oversight, sampling, documentation and reporting for Emergency Response Spill Cleanup projects. The cleanups involve interfacing and coordination with the client, remediation contractors and regulatory agencies.

Jason L. Conant

Division Manager

OFFICE LOCATION
Grand Rapids, Michigan

EDUCATION
B.S., Geology, Grand Valley State University, 1999

A.S., Muskegon Community College, 1996

SPECIALIZED TRAINING
ASTM Risk-Based Corrective Action at Petroleum Release Sites Training

American Petroleum Institute WorkSafe Safety Key Certification

HAZWOPER / OSHA 40-Hour and 8-Hour Yearly Personal Protection/Safety Training

HIRE DATE
11/2008

EXPERIENCE PRIOR TO JOINING ATLAS
9 years

EXPERIENCE & RESPONSIBILITIES

Jason has more than 22 years of experience in environmental consulting related to petroleum-impacted sites including site investigation, delineation, remedial design and implementation, and extensive interaction with clients, state and federal regulatory agencies, and client subcontractors. He has significant experience with state and federal regulations including Leaking Underground Storage Tank (LUST), Resource Conservation and Recovery Act (RCRA) and ASTM Phase I and II Environmental Site Assessments.

Jason currently manages over 40 individual LUST sites in Michigan including the development of closure strategies, estimation of budgets and the implementation of corrective action plans. He provides training and supervision to field staff during corrective action implementation and technical guidance to office staff during regulatory report preparation. He also has extensive experience in the preparation of the following technical reports for submittal to the Michigan Department of Environment, Great Lakes, and Energy: Initial Assessment Reports, Final Assessment Reports, and Closure Reports.

Jason also manages more than 20 environmental construction and due diligence projects in Michigan, Indiana, and Illinois. Construction management tasks including the initiation of Phase I and II Environmental Site Assessments, coordination of asbestos and lead-based paint inspections, asbestos abatement contractor procurement, wetland delineation survey coordination, soil transportation and disposal coordination, waste disposal profile preparation, dewatering assessments and management, UST removal management and regulatory reporting.

PROJECT EXPERIENCE

2017 Tank and Soil ISID, Grand Rapids District, 959 Cherry Street SE

Senior Project Manager assisting in project management, field staff management, and reporting associated with UST abandonment. Performed waste characterization sampling, contractor procurement, construction design planning, and technical review.

2017 Tank and Soil ISID, Grand Rapids District, Former Spencer's Towing

Senior Project Manager assisting in project management, field staff management, technical review, contractor procurement, and construction design planning.

2017 Tank and Soil ISID, Cadillac District, Oaks Correctional Facility

Senior Project Manager assisting in project management, field staff management, technical review, contractor procurement, and construction design planning.

2017 Tank and Soil ISID, Cadillac District, Former Woodland Shop & Go

Senior Project Manager assisting in field staff management and technical review of construction documentation.

2015 Environmental Services ISID, Cadillac District, Wash Tyme

Senior Project Manager assisting in field staff management and technical review of restrictive covenant.

Senior Project Manager

Perform site investigation activities at retail petroleum LUST sites under P.A. 451 Part 213. Duties include management of various retail petroleum LUST sites, regulatory report writing scope-of-work preparation, site assessment, off-site access, institutional controls, and management of various investigative field activities including, but not limited to, groundwater, soil, and vapor sampling; and various subcontractor oversight activities (i.e., monitoring well installations, soil boring advancements).

Michael Hauswirth

Industrial Hygiene Project Manager

OFFICE LOCATION
Novi, Michigan

EDUCATION
BS, Fisheries and Wildlife, Minor in Science, Michigan State University, Lansing Michigan

CERTIFICATIONS
State of Michigan EPA Accredited Asbestos Management Planner, MI #A10597

State of Michigan EPA Accredited Asbestos Inspector, MI #A10597

State of Michigan Certified Lead Supervisor, MI #P-1143

Certified NIOSH 582 Asbestos Fiber Counting Techniques

OSHA 40 Hour HAZWOPER Training

OSHA Lead Training

LPA-1 Lead Paint Inspection System Training

16-hour Microbial Investigations, Assessment and Remediation in the Indoor Environment training course, Sept. 2002

PLM Asbestos Identification, McCrone Research Institute, 1992

Asbestos Contractor/Supervisor Training

Asbestos Inspector-Michigan

Asbestos Management Planner-Michigan

HIRE DATE
02/1993

EXPERIENCE PRIOR TO JOINING ATLAS
4 years

EXPERIENCE & RESPONSIBILITIES

Michael has over 29 years of Industrial Hygiene and Safety experience and serves as ATC's Michigan Safety Officer. He has performed contractor oversight at numerous asbestos, lead and mold abatement projects. His experience includes: demolition/renovation contractor oversight; conducting on-site safety audits, performing indoor air quality assessments, asbestos, lead, mold surveys; and preparing abatement plans and specifications. He has laboratory experience in PLM analysis of bulk materials documentation, sample processing and quality control for both PCM and PLM samples. Fields of expertise include: safety audits; contractor oversight; asbestos and lead inspections; project engineering; project management, on-site administration, indoor air quality investigations, and laboratory management. Polarized Light Microscopy Asbestos Identification, fiber counting, bulk sampling collection and quality control of air and bulk samples.

PROJECT EXPERIENCE

Schostak Brothers Property Management Company, Asbestos Inspection and Re-Inspection - Northville, Michigan

Asbestos inspector during demolition survey and re- inspection of approximately 20 facilities and tunnels comprising 430 acres of a vacant mental health facility. Provided coordination with facility personnel for site access, performed review of previously prepared reports, and provided project documentation preparatory to final report submission.

Detroit Public Schools Program Management Team, Asbestos Project Management - Detroit, Michigan

Primary responsibility of managing numerous contractors and a group of Industrial Hygienists during the abatement and demolition of a vacant hospital complex, coordinating abatement schedules, weekly meetings and updates to the client.

U.S. Corps of Engineers Department of the Army Europe District, Asbestos Re-Inspection – Germany

Asbestos inspector during re-inspection of 143 facilities. Provided client coordination, project documentation, and sampling activities as necessary.

U.S. Corp of Engineers Department of the Army Baltimore District, Asbestos Inspection - Maryland

Performed comprehensive asbestos survey of 133 facilities within a governmental complex. Performed sample collection, project documentation, and preliminary report preparation for each facility.

Eastern Michigan University, Asbestos Inspection - Ypsilanti, Michigan

Performed comprehensive asbestos inspection of Hoyt Hall a 10-story residential dormitory for fast paced renovation activities. Managed numerous contractors and Industrial Hygienists to complete project under strict deadlines.

Mitigation Plans, Contractor Oversight, Water Intrusion Assessments - Michigan

Performed numerous water intrusions investigations for ATC national clients. Prepared mitigation plans and provided contractor oversight during mitigation activities to ensure work is completed in strict accordance with mitigation plans.

Detroit Edison Company, Exposure Monitoring - River Rouge, Michigan

Conducted exposure sampling for coal dust, respirable silica, total and respirable dust, lead, arsenic, and fly ash. Also utilized direct reading instruments to measure ambient concentrations of ozone, carbon monoxide, flammable gases/vapors, and oxygen levels for numerous contractor trades personnel during scheduled equipment shut downs for maintenance activities.

Detroit Public Schools Program, Cass Technical High School Management Team, Hazardous Materials Inventory and Characterization - Detroit, Michigan

Conducted hazardous material characterization, segregation and disposal of hazardous materials from numerous laboratories in the old Cass Technical High School after building closed.

Oakland County Mental Health Authority, Asbestos Inspection and Abatement Specification - Waterford, Michigan
Conducted asbestos inspection and abatement specifications for renovation of purchased property for new mental health facility, provided project management during abatement and construction activities.

Confidential Client, Hospital Asbestos Abatement - Metro Detroit Area
Provided resident engineering, site supervision and compliance air monitoring during a two- year asbestos abatement project at a 1,000,000 square foot regional hospital. Renovation activities involved the main entrances of the hospital complex. Design criteria accommodated facility operations concurrent with on-going construction, as well as asbestos abatement activities.

Confidential Client, Hospital Project Plan and Specifications - Metro Detroit Area
Working in conjunction with the State Board of Mental Health, the hospital health and safety staff, as well as hospital infection control staff. Participated in the development, implementation and on-site adjustment of project plans and specifications to accommodate on-going hospital activities in the psychiatric ward of a major area hospital. Key project criteria involved the development and implementation of specific air monitoring parameters (to meet Board of Health requirements) and site security issues. Security concerns dictated the development of strict site supervision protocol. Specific areas of security concern included restriction of patient access into containment, and tampering with asbestos abatement tools and equipment.

Confidential Client, National Health Insurance Provider, Asbestos Abatement - Detroit, Michigan
Assisted in the development of novel engineering solutions necessitated by live steam, HVAC, and electrical systems within asbestos abatement areas. Fire protection system installation required the removal and replacement of asbestos containing fireproofing material. Key project activities involved three mechanical areas, including the building's transformer room, core air handling units, and their national mainframe computer power supply sources.

Confidential Client, Lead Abatement - Metro Detroit Area
Conducted lead abatement sampling for lead contaminants in air, soil, and water at a water treatment facility servicing a major metropolitan area. The sampling and analysis program incorporated personal air sampling, fugitive emissions sampling, paint debris waste characterization, and water filter media sampling.

State of Michigan Hall of Justice, Indoor Air Quality Investigation - Lansing, Michigan
Investigated mold-related health complaints in office suite, conducted biological air and bulk sampling, and provided recommendations to improve indoor air quality parameters.

Jackson Drop Forge Site, Hazardous and Toxic Waste Removal Action - Jackson, Michigan
Provided project oversight and monitoring during a fast-track hazardous waste investigation and emergency action removal project; conducted pursuant to a CERCLA Section 106 Administrative Order, by Consent, executed between U.S. EPA and responsible parties. The project involved assessment, removal, and disposal of approximately 150 drums of hazardous wastes, 1000 cubic yards of PCB solid waste and associated containers, metal plating process equipment/wastes, industrial fill, and PCB contaminated electrical transformers. Responsibilities included the implementation of health and safety plans, air monitoring and site documentation of site activities.

Confidential Property Management Firm, Indoor Air Quality and Water Intrusion Assessment - Ann Arbor, Michigan
Conducted lead and asbestos assessment, water intrusion assessments, indoor air quality, air sampling and project management for a multi-family residential facility that had experienced water damage associated with a structural fire.

Millennia Housing Development LTD, St. Georges Tower, Asbestos Inspection - Clinton Township, Michigan
Provided a NESHAP comprehensive asbestos inspection in all 300 residential units in the 12-story senior residential facility to secure funding for renovations from the Michigan State Housing Development Authority (MSHDA).

Jeanette Howell

Project Manager

OFFICE LOCATION
Novi, Michigan

EDUCATION
Bachelor's Degree in Natural Resources, University of Michigan, Ann Arbor, MI

CERTIFICATIONS
-40-Hour OSHA Certification (OSHA 29 CPR 1910.120)

-8-Hour OSHA Hazardous Waste Operations and Emergency Response Site Worker Refresher Course (OSHA 29 CFR 1910.120(e)(8))

-8-Hour OSHA Supervisor Training (OSHA 29 CFR 1910.120(e)(4))

HIRE DATE
10/2021

EXPERIENCE PRIOR TO JOINING ATLAS
19

EXPERIENCE & RESPONSIBILITIES

Ms. Howell has over 19 years of experience in environmental consulting, providing project management for retail petroleum Leaking Underground Storage Tank (LUST) sites under Michigan Department of Environment, Great Lakes, and Energy P.A. 451 Part 213. Currently, Jeanette manages sites for a major petroleum company as well as writes regulatory reports for various clients. Additionally, her varied experience at Atlas includes scope-of-work preparation, site assessment, off-site access, institutional controls, and management of various investigative field activities including, but not limited to, groundwater, soil, and vapor sampling; and various subcontractor oversight activities (i.e., monitoring well installations, soil boring advancements). She uses her knowledge of the regulations and requirements to evaluate sites and their environmental clean-up capabilities.

PROJECT EXPERIENCE

2017 Tank and Soil ISID (Bay City District Office), Former Higgins Service (92 S. Elk Street), Sandusky:
Performed scope-of-work preparation, site assessment, and report writing.

2017 Tank and Soil ISID (Jackson District Office), 2013-2015 E. Michigan Avenue, Jackson:
Performed scope-of-work preparation, site assessment, and report writing.

2017 Tank and Soil ISID (Bay City District Office), Michigan Department of Corrections Standish Correctional Facility, Standish:
Performed site assessment and regulatory reporting for submittal to the Department of Environment, Great Lakes, and Energy (EGLE).

2017 Tank and Soil ISID (Bay City District Office), Michigan Department of Corrections Saginaw Correctional Facility, Saginaw:
Performed site assessment and regulatory reporting for submittal to the Department of Environment, Great Lakes, and Energy (EGLE).

2017 Tank and Soil ISID (Cadillac District Office), Michigan Department of Corrections Oaks Correctional Facility, Manistee:
Performed site assessment and regulatory reporting for submittal to the Department of Environment, Great Lakes, and Energy (EGLE).

Project Manager: Perform site investigation activities at retail petroleum LUST sites under P.A. 451 Part 213. Duties include management of various retail petroleum LUST sites, regulatory report writing scope-of-work preparation, site assessment, off-site access, institutional controls, and management of various investigative field activities including, but not limited to, groundwater, soil, and vapor sampling; and various subcontractor oversight activities (i.e., monitoring well installations, soil boring advancements).

Laura Sleeper

Retail Petroleum Division Manager

OFFICE LOCATION
Novi, Michigan

EDUCATION
Bachelor Degree in Earth Systems Science, Eastern Michigan University, Ypsilanti, MI

CERTIFICATIONS
-40-Hour OSHA Certification (OSHA 29 CPR 1910.120)
-8-Hour OSHA Hazardous Waste Operations and Emergency Response Site Worker Refresher Course (OSHA 29 CFR 1910.120(e)(8));
-8-House OSHA Supervisor Training (OSHA 29 CFR 1910.120(e)(4))
-Heartsaver CPR, AED, and First Aid for Adults.
-Electrical Safety Training; Energy Control – Lockout Training

PROFESSIONAL AFFILIATIONS
Michigan Association of Environmental Professionals

HIRE DATE
11/2012

EXPERIENCE PRIOR TO JOINING ATLAS
5

EXPERIENCE & RESPONSIBILITIES

Ms. Sleeper has over 14 years of experience in environmental consulting, providing project management for retail petroleum Leaking Underground Storage Tank (LUST) sites under Michigan Department of Environment, Great Lakes, and Energy P.A. 451 Part 213. Currently, Laura manages sites for multiple clients, fulfilling all client required certifications and trainings, as well as managing staff in the Novi, MI environmental department. Additionally, her varied experience at Atlas include regulatory report writing, off-site access, Right-Of-Way permitting, Institutional Controls, and various investigative field activities including, but not limited to, groundwater, soil, and air sampling; system O&M; and various subcontractor oversight activities (i.e. excavations, monitoring well installations, soil boring advancements, and chemical injections). She uses her knowledge of the regulations and requirements to evaluate sites and their environmental clean-up capabilities.

PROJECT EXPERIENCE

Retail Petroleum Division Manager:
Environmental Department Manager of direct-report environmental professionals. Roles and responsibilities include senior technical reviews, project portfolio management, prioritization of office and field schedules, coordinating site work and schedules between offices, and senior financial/budget management.

Project Manager:
Management of various retail petroleum LUST sites. Managed the installation of a Pump & Treat system for a chlorinated solvent plume in Las Vegas, Nevada.

Project Environmental Scientist:
Perform site investigation activities at retail petroleum LUST sites under P.A. 451 Part 213. Duties include regulatory report writing, off-site access and Right-Of-Way permitting, Institutional Controls, and various investigative field activities including, but not limited to, groundwater, soil, and air sampling; and various subcontractor oversight activities (i.e. excavations, monitoring well installations, soil boring advancements, and chemical injections).

John A. Kerr, P.E.

Principal Geotechnical Engineer

OFFICE LOCATION
Cincinnati, OH

EDUCATION
M.S., Civil Engineering,
University of Toledo, 1983
B.S., Civil Engineering,
Tri-State University, 1979

PROFESSIONAL REGISTRATION
Professional Engineer (Ohio, 1984; Indiana, 1985; Kentucky, 1988; Pennsylvania, 1992; Michigan, 2003)

MEMBERSHIPS
American Society of Civil Engineers--Past Chairman, Geotechnical Group
American Society of Highway Engineers
Chi Epsilon

HIRE DATE
2005

EXPERIENCE PRIOR TO JOINING ATLAS
26

EXPERIENCE & RESPONSIBILITIES

Mr. Kerr is the Principal Geotechnical Engineer for Atlas Technical Consultant's Ohio operations. He is responsible for the administration and technical review of engineering projects other than those for which he is acting as project engineer. John has over 42 years of diversified experience as a geotechnical engineering consultant serving as project engineer, project manager, and designer for numerous soils and foundation projects throughout the Midwestern United States. Fields of expertise include: management and technical supervision of geotechnical studies for preliminary site evaluations; the foundation design for low to high rise buildings and other structures; earth dams and levees; slope stability studies and landslide corrections; roadways, highway embankments, and airfields. Design and interpretation of geotechnical instrumentation programs. Performance of geophysical explorations. Design of projects utilizing geosynthetics and other site improvement methods; pavement designs; foundations and slope failure investigations; soil dynamics.

PROJECT EXPERIENCE

Multiple Mixed Use Trails - City of Hamilton Beltline Trail; City of Cincinnati Wasson Way, Salem-Sutton Trails and others: Blue Ash Plainfield Road Trail; City of Franklin Clear Creek Bike Path Extension; Springboro Hazel Park Multi-use Trail Bridge

Principal or project engineer/manager for geotechnical explorations and recommendations for earthwork, pavement subgrade, single and multi-span bridge foundations, retaining walls, etc. Performed and reported on work per ODOT requirements where applicable.

Anderson Township Government Center/Park-and-Ride Retaining Wall, Cincinnati, Ohio

Design engineer-of-record for this substantial masonry-block faced tied-back steel soldier pile and lagging retaining wall installed in an unstable hillside setting to provide positive retainage of hillside and the cut/fill grade separation required for the project. Nominated for ASHE Schramm Design Award.

Ohio Riverbank Enhancements/Slope Stabilization Phases I & II/Rising Sun, Indiana

Senior project geotechnical engineer who led the design geotechnical investigation for this major enhancement to the public property on the riverfront. Provided geotechnical engineering consultation during the Phase I construction involving stabilization of the levee walk along riverfront greenspace.

Lawrenceburg Levee, Lawrenceburg Conservancy District, Lawrenceburg Indiana

Principal Engineer for third party review of construction of Whiskey River Apartments building at toe of Lawrenceburg Levee. Reviewed all earth-related phases of construction adjacent and near to the levee for compliance with plans approved by the Conservancy District and the U.S. Army Corps of Engineers. Weekly reporting of findings and observations to, and regular interactions with, the Conservancy District and the USACOE. Co-authored final summary report of construction.

Mason Montgomery Road/Bethany Road Roundabout, Mason Ohio.

Project Manager and Principal Geotechnical Consultant for the proposed to construction of a roundabout intersection at the current four-way stop intersection of Mason-Montgomery Road and Bethany Road in Mason, Ohio. Intersection improvements included pavement widening and roadway re-alignment. The subsurface investigation was performed in accordance with the Ohio Department of Transportation's (ODOT's) Specifications for Subsurface Investigations and Geotechnical Bulletin GB1.

Multiple Landslide Sites, Roadway Projects and Bridge Replacements, City of Cincinnati, and Adams, Hamilton and Butler Counties, Ohio

Acted as project engineer/manager for design, stabilization and remediation of landslides associated with major rain and

other natural events, as well as instabilities caused by man, roadway construction/reconstruction and bridge replacements. Designs included cantilevered drilled pier retaining walls, tied-back thrust blocks/grade beams and stabilizing embankments. Performed and reported on work per ODOT requirements where appropriate.

U.S. 35 Bypass/ Jackson, Ohio
Coordinated subsurface investigation and laboratory testing program per ODOT requirements for this highway passing through rugged terrain.

S.R. 73/104 Ohio River Bridge Approach/ Portsmouth, Ohio
Subsurface analysis and engineering design per ODOT requirements for embankments, bridges, and retaining structures.

Early Hill Landslide, Abandoned Mine Lands Project/ Meigs County, Ohio
Project manager for remediation design for a 5 acre landslide associated with abandoned mine works.

Abandoned Mine Reclamation at County Road #200/ Vinton County, Ohio
Analysis and recommendations for slope stability, re-grading, sedimentation, and reseeding aspects of the project.

Old St. Rd. 48, Lawrenceburg, Indiana
Provided consultation on multiple areas of roadway embankment instability. Oversaw installation and monitoring of slope inclinometers, determined likely vertical extent of failures, and evaluated remediation alternatives, assisted in contractor prequalification and monitored performance of soil nailing remedial measure.

Madelyn Haas

Staff Geologist

OFFICE LOCATION
Novi, Michigan

EDUCATION
BS, Environmental Sustainability and Resource Management, Auburn Hills, Michigan

CERTIFICATIONS
40-Hour OSHA HAZWOPER
8-Hour Refresher

CPR/AED First Aid

HIRE DATE
06/2021

EXPERIENCE PRIOR TO JOINING ATLAS
0

EXPERIENCE & RESPONSIBILITIES

Madelyn is a Field Geologist for Atlas's Novi, Michigan office. She has 11 months of experience in the petroleum and environmental consulting industries. She is responsible for the facilitation and completion of fieldwork, emergency response field investigations and remediation, and providing project oversight for various remediation and drilling jobs.

She has experience in groundwater sampling equipment and procedures. She has had the opportunity to learn the coordination of monitoring well installation, and collection of soil samples for various projects including LUST projects and Phase II Site Assessments. She has been involved in the sampling of various soil vapor intrusion points both indoor and outdoor. Maddi has experience with remediation system sampling.

She has also been trained on oversight of soil excavation oversight and coordination with on-site contractors, and underground utility vault cleanouts. She has been involved in AT&T vault sampling events.

PROJECT EXPERIENCE

2017 Tank and Soil ISID, Bay City District, Sandusky
Staff Geologist responsible for quarterly groundwater monitoring and reporting.

2015 Environmental Services ISID, Warren District, Oakland Appliance
Staff Geologist responsible indoor air sampling and quarterly vapor quarterly sampling.

Confidential Petroleum Client – Charlotte, NC Various Leaking Underground Storage Tanks (LUST) Remedial Investigations, - Michigan
Investigations include groundwater sampling through low flow techniques, the remedial system sampling, and maintenance.

Various Confidential Petroleum Client – Enon, OH, Various Leaking Underground Storage Tanks (LUST) Remedial Investigations - Michigan
Investigations included groundwater sampling through low flow and bailer techniques, soil vapor intrusion sampling points indoor, and data tabulation.

Confidential Petroleum Client – Enon, OH, Various Leaking Underground Storage Tanks (LUST) Remedial Investigations – Marysville, Michigan.
Investigations included soil gas install and sampling, the drilling of soil test borings using direct push, the installation of single- and double-cased monitoring well networks and groundwater/soil sampling.

Confidential Petroleum Client – Enon, OH, Various Leaking Underground Storage Tanks (LUST) Remedial Investigations – Lincoln Park, Michigan.
Investigations included groundwater monitoring and vapor pin monitoring.

Confidential Petroleum Client – Enon, OH, Various Leaking Underground Storage Tanks (LUST) Remedial Investigations – Port Huron, Michigan.
Investigations included groundwater sampling through low flow and bailer techniques and reporting. Installation of soil vapor intrusion points indoor and sampling vapor points.

Various Confidential Petroleum Client – Dayton, OH, Various Leaking Underground Storage Tanks (LUST) Remedial Investigations - Michigan
Investigations included groundwater sampling through low flow and bailer techniques, soil vapor intrusion sampling points indoor, and data tabulation.

Confidential Petroleum Client – Dayton, OH, Various Leaking Underground Storage Tanks (LUST) Remedial Investigations – Westland, Michigan
Investigations included soil gas install and sampling, the drilling of soil test borings using direct push, the installation of single- and double-cased monitoring well networks, and groundwater/soil sampling,

Confidential Petroleum Client – Knoxville, TN Various Leaking Underground Storage Tanks (LUST) Remedial Investigations, - Michigan

Investigations included groundwater low flow sampling techniques.

Emergency Spill Response for various Confidential Petroleum Clients – Michigan

Emergency Spill Response Investigations and Remediation / Transportation Clients throughout Michigan. Served as Staff Geologist and provided oversight, sampling and reporting for Emergency Response Spill Cleanup projects. The cleanups involve interfacing and coordination with the client, and remediation contractors.

Macy Wingate

Geotechnical Engineer

OFFICE LOCATION
Novi, Michigan

EDUCATION
BS in Civil Engineering minor in General Business, 2019
University of Toledo
Toledo, Ohio

CERTIFICATIONS
OHSA 10
40-Hour HAWOPER
Nuclear Gauge Safety by Troxler
Soils Special Inspector by ICC
Storm Water Operator by EGLE

HIRE DATE
10/2020

EXPERIENCE PRIOR TO JOINING ATLAS
2 years

EXPERIENCE & RESPONSIBILITIES

Macy has over 3.5 years of experience in both the public and private sectors. She worked for Power Engineers prior to coming to Atlas Technical Consultants. This work included designing, modeling, and testing the strength of transmission line poles under various loading and weather conditions. She has conducted many geotechnical investigations and provided recommendations for pavement section design, soil bearing capacity, and water infiltration. She is experienced in all areas of construction materials testing including the placement of engineered fill, concrete testing, asphalt testing, aggregate testing, and soils testing.

Areas of Expertise

- Construction Environmental Oversight
- Construction Materials Testing Services
- Construction Monitoring Services
- Geotechnical Engineering
- Property Condition Assessments
- Project Management Some

PROJECT EXPERIENCE

Speedway, Various Locations

Involved in tank integrity projects and complete new builds. Worked on backfill density, soil borings, excavation observation, concrete testing, and asphalt testing.

Dollar General, Various Locations

Involved with the entirety of the projects from initial geotechnical investigation of the soil through a final steel inspection of the nearly completed building. She has also completed proof rolls, footing inspections, concrete testing, asphalt density testing, backfill testing, and floor flatness and levelness testing. On a recent project in East China, Michigan, she was in charge of observation and documentation of soil stabilization.

JB Donaldson Utica Drive Project, Shelby Township, Michigan

Worked as an engineer for the 253,000 S.FT. facility. Started working out there from the very beginning with the soil boring drilling. Was also there for proof rolls, infiltration borings, utility trench backfill, concrete pavement testing, footing, interior pier inspection, concrete testing, concrete floor pad testing, weld and bolt inspection on the pre-cast walls, columns, truss, roof deck inspection, and asphalt pavement density testing.

I-75 Widening and Reconstruction, Findlay, Ohio

Field Engineer Intern - This project included reconstruction of five miles of the existing two lanes of I-75 and construction of an additional lane in each direction. The project also replaced all mainline bridges on I-75, the Harrison Street overpass, and redesigned and reconstructed the interchange with U.S. 68/State Route 15 at Lima Avenue. Macy worked as a field engineer intern and was able to witness a lot first hand including, bridge demolition, new bridge beams being placed, large bridge deck concrete pours, and retaining wall construction. She also helped the project managers with various paperwork such as keeping track of quantities, scheduling, and keeping track of equipment hours.

Iron Units LLC. Auger Cast Piles, Toledo, Ohio

Field Engineer Intern – This project was a $700 million iron ore plant built on 100 acres in Toledo, Ohio. The company Macy was working for at the time (Beaver Excavating) worked on the auger cast piles during the early stages of development. Macy was a field engineer intern as watched the auger cast piles being placed first hand. She also helped the project managers keep track of scheduling and quantities.

Shoot Point Blank, Various Locations

Worked at various locations for geopile foundations, infiltration testing, mortar and concrete testing, and steel inspections.

APPENDIX IV

SPECIAL WORKING CONDITIONS

SPECIAL WORKING CONDITIONS
DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

The assigned Work under this ISID contract will be performed at sites selected by the Department of Environment, Great Lakes, and Energy (EGLE). The DB Entity must comply with all rules and regulations pertaining to such sites and must conform to the following rules. However, each assigned site will have its own special working conditions. The State project manager will specify the additional special working conditions.

1. The DB Entity must always provide a competent Superintendent satisfactory to the Department of Environment, Great Lakes, and Energy on the work site during working hours with full authority to act for him or her. It must be the DB Entity's responsibility to furnish the Department of Environment, Great Lakes and Energy with the name, address, and telephone number of the responsible person to contact for Emergency during after hour, weekend, and holiday periods.

2. Access to and egress from the site must be via routes specifically designated by the Department of Environment, Great Lakes, and Energy authorized representative.

3. No Work must be performed at the site on Saturdays, Sundays, holidays or during night hours without the written permission from the Department of Environment, Great Lakes, and Energy.

4. Areas on the site for employee parking, toolboxes, material lay down, etc., must be assigned by the Department of Environment, Great Lakes, and Energy. All firearms, weapons, alcoholic beverages, or explosives must be removed from vehicles before entering the site;

5. Heavy equipment such as bulldozers and power shovels must be locked or immobilized in an acceptable manner when not in use. No tools, small pipe, copper, or wire must remain on the site overnight, unless locked inside shanties or tool chests. There will be no exchange, loaning or borrowing of tools, equipment or labor between the Department of Environment, Great Lakes and Energy and the DB Entity.

APPENDIX V

SPECIAL PROJECT PROCEDURES

SOIL EROSION AND SEDIMENTATION CONTROL PROJECT PROCEDURES FOR CONTRACTORS ON DTMB OWNED AND MANAGED PROPERTIES

1. Comply with Part 91, Soil Erosion and Sedimentation Control of the Natural Resources and Environmental Protection Act 1994 PA 451, as amended.

2. Contact the DTMB, SFA, Design and Construction Division to discuss the implementation of soil erosion and sedimentation control (SESC) on the Project. Phone **(517) 284-7911**; FAX **(517) 284-7971**.

3. Following the award of a contract, the Contractor will be required to prepare and issue for approval an SESC Implementation Plan, which indicates the Contractor's intended implementation of SESC on the project including a schedule and sequence. The SESC program, upon approval of the implementation plan, will issue to the Contractor an "Authorization to Proceed with Earth Change" document, which is to be posted at the job site. This document is issued in lieu of a permit from the county. Earthwork shall not begin prior to the issuance of this Authorization. Upon receipt of the Authorization document, the Contractor may begin earth change activities.

4. See below the "Checklist for Contractor's SESC Implementation Plan" for details of the required information necessary for the Contractor to create the SESC Implementation Plan. The intent of this plan is to ensure that the Contractor has reviewed and understands the SESC provisions within the plans and specifications.

5. CHECKLIST FOR CONTRACTOR'S SOIL EROSION AND SEDIMENTATION CONTROL IMPLEMENTATION PLAN (For projects that include earth changes or disturb existing vegetation):

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION, DESIGN AND CONSTRUCTION DIVISION

SOIL EROSION AND SEDIMENTATION CONTROL PROGRAM
P.O. Box 30026, Lansing, Michigan 48909

PROJECT TITLE:
PROJECT LOCATION:
PROJECT FILE NUMBER:
INDEX NUMBER:

Prior to the start of earthwork, the Contractor must submit a Soil Erosion and Sedimentation Control (SESC) Implementation Plan to the Michigan Department of Technology, Management and Budget, Soil Erosion and Sedimentation Control Program. The intent of this plan is to ensure that the Contractor has reviewed and understands the SESC provisions within the plans and specifications. The following checklist will provide Contractors with assistance in creating the SESC Implementation Plan.

The SESC Implementation Plan must include:

1. ☐ A written plan or letter demonstrating:

    - ☐ The Contractor's means and methods for the implementation of SESC provisions included within the plans and specifications and compliance with the provisions of Part 91 of PA 451 of 1994, as amended.
    - ☐ The Contractor's plan for dust control.
    - ☐ The Contractor's plan for inspection and maintenance of temporary SESCs.

2. ☐ A map, location plan, drawing, or amended copy of the Project SESC or grading plan showing:

    - ☐ The locations of any stockpiles of soil associated with the Project
    - ☐ The temporary SESC controls associated with stockpiles of soil
    - ☐ The Contractor's suggested or proposed additions or relocations of any temporary or permanent SESCs. associated with the Project plans and specifications (subject to approval by Engineer and DTMB)
    - ☐ Location of site entrances, exits and vehicle routes
    - ☐ Location of site superintendent's/project manager's site trailer or office (for SESC Inspector check-in)

3. ☐ A schedule for the installation and removal of temporary controls and the installation of permanent soil erosion and sedimentation
controls in relation to the overall construction schedule.

    Submit the above items to the above address.
    Upon approval of the Contractor's plan, an "Authorization to Proceed with Earth Change" will be issued by DTMB, Design and Construction Division.

DEMOLITION/REMODELING PROJECT PROCEDURES

Furnish all equipment, materials, labor, and services necessary to complete all building demolition required in connection with the existing building, to permit the installation of new Work. The goal of the Owner is to generate the least amount of waste or debris possible. However, inevitable waste and debris that are generated shall be reused, salvaged, or recycled, and disposal in landfills shall be minimized to the extent economically feasible. The Contractor will be required to prepare waste management plan for the collection, handling, storage, transportation, and disposal of the waste generated at the construction site for the Owner's review and approval. The Contractor will be required to produce waste management progress reports.

1. Locations: Notations are made in various places on the Drawings to call attention to building demolition which is required; however, these Drawings are not intended to show each and every item to be removed. The Contractor and the Subcontractors for the various trades must remove the materials related to their respective trades as required to permit the construction of the new Work as shown.

2. Permits: The Contractor must secure from the appropriate agencies all required permits necessary for proper execution of the work before starting work on the project site. All fees for securing the permits must be paid by the Contractor, including all inspection costs which may be legally assessed by the Bureau of Construction Codes in accordance with the authority granted under the Public Act 1980 PA 371, as amended.

3. Enclosures: Where it is necessary to make alterations to walls, floors or roof of the existing building, the Contractor must provide and maintain dustproof partitions to separate the parts where Work is being done from the adjoining parts occupied by the State Agency. Where any parts are opened and exposed to the elements, the Contractor must provide weather tight enclosures to fully protect the structure and its contents.

4. Waste Management Plan: The management plan must address waste source identification and separation, returns, reuse and salvage, recycling, landfill options, alternatives to landfilling, materials handling procedures and transportation.

5. Preparation: Protect all existing Work that is to remain and restore in an approved manner any such Work that becomes damaged.

5.1 Rubbish and debris resulting from the Work must be removed immediately from the site by the Contractor. However, any recyclable materials must be recycled; the Contractor will be required to use alternatives to landfills for waste disposal such as reuse or recycle of asphalt, bricks, concrete, masonry, plastics, paint, glass, carpet, metals, wood, drywall, insulation, and any other waste materials to the extent practical.

5.2 Unless otherwise specified, the Agency will remove existing furniture, drapery tracks, draperies, window blinds, and other equipment items, which might interfere with the new construction.

6. Coordination: Demolition work, in connection with any new unit of Work, must not be commenced until all new materials required for completion of that added item of Work are at hand.

7. Waste Management Plan Progress Reports: Submit an updated report with the payment requests. The progress reports shall include:

a. The amount of waste sent to a landfill, tipping fees paid and the total disposal cost. Include supporting documents such as manifests, weight tickets, receipts and/or invoices.
b. Records for each material recycled/reused/salvaged from the project including the amount, date removed from the job site, final destination, transportation cost, recycled materials, and the net cost/ savings.
c. Breakdown of waste by type generated to date.
d. Recycling/salvage/landfill rates.
e. Percent of waste recycled/salvaged to date.

HAZARDOUS MATERIALS PROJECT PROCEDURES

1. The Contractor must use, handle, store, dispose of, process, transport and transfer any material considered a Hazardous Material in accordance with all Federal, State, and local Laws. If the Contractor encounters material reasonably believed to be a Hazardous Material and which may present a substantial danger, the Contractor must immediately stop all affected work, give written notice to the Owner of the conditions encountered, and take appropriate health and safety precautions.

2. This project has been identified by the DTMB-SFA as having a possibility of containing Hazardous Waste materials to be legally removed from the Project job site to complete the Work as described in the Proposal and Contract. If removal of friable asbestos material is required, the Contractor must contact the Air Quality Division, Department of Environmental Quality, at **(5l7) 284-6773**, for a permit and furnish all training, labor, materials, services, insurance, and equipment necessary to carry out the removal operations of all Hazardous Materials from the Project job site, as identified by the Scope of Work, or encountered on the Project job site, in accordance with State and Federal Hazardous Waste Codes. A Contract Change Order will be written to modify the existing Contract to pay for the additional cost.

3. Environmental Hazards (air, water, land, and liquid industrial) are handled by the Waste and Hazardous Materials Division, Michigan Department of Environmental Quality (DEQ) in carrying out the requirements of the Federal Environmental Protection Agency (EPA). For general information and/or a copy of the latest regulations and publications call (517) 335-2690.

4. The Michigan Occupational Safety and Health Administration (MIOSHA) provides protection and regulations for the safety and health of workers. The Department of Licensing and Regulatory Affairs provides for the safety of workers. The Department of Community Health provides for the health of workers (517/373-3740) (TDD 517/373-3573).

4.1 Contractor must post any applicable State and/or Federal government regulations at the job site in a prominent location.
4.2 Contractor must be responsible for training their workers in safe work practices and in proper removal methods when encountering hazardous chemicals.

5. Applicable Regulations:

5.1 Natural Resources and Environmental Protection Act – PA 451 of 1994, as amended, including Part 111 – Hazardous Waste Management, Part 121 – Liquid Industrial Waste and Part 147 – PCB compounds.
5.2 RCRA, 1976 - Resource Conservation and Recovery Act: This federal statute regulates generation, transportation, treatment, storage, or disposal of hazardous wastes nationally.
5.3 TSCA, 1979 – Toxic Substances Control Act: This statute regulates the generation, transportation, storage, and disposal of industrial chemicals such as PCBs.

6. Definitions: Hazardous substances are ignitable, corrosive, reactive, and/or toxic, based on their chemical characteristics.

6.1 Under Federal and Michigan 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.

6.2 A Generator size provider of hazardous waste provides 2,200 lbs. or more/month or accumulates above 2,200 lbs.

7. Disposals: To use an off-site hazardous waste disposal facility, the Contractor must use the Uniform Hazardous Waste Manifest (shipping paper). Small quantities of hazardous waste may not be disposed of in sanitary landfills used for solid waste.

8. Federal, State, and local Laws and regulations may apply to the storage, handling and disposal of Hazardous Materials and wastes at each State Agency. Contact the **Environmental Assistance Center** of the Michigan Department of Environmental Quality (MDEQ) at **1-800-662-9278**, Fax to: 517-241-0673 or e-mail to: DEQ-EAD-env-assist@michigan.gov for general MDEQ information including direct and referral assistance on air, water and wetlands permits; contaminated site clean-ups; underground storage tank removals and remediation; hazardous and solid waste disposal; pollution prevention and recycling; and compliance-related assistance. The Center provides businesses, municipalities, and the public with a single point of access to MDEQ's environmental programs.

ASBESTOS ABATEMENT PROJECT PROCEDURES

Should this Work require the renovation or demolition of a building or structure initially constructed on or prior to 1980, the Contractor will use the attached copy of a Comprehensive Asbestos Building Survey for those portions of the building or structure being impacted and must plan his or her work to minimize disturbance of any known or assumed asbestos containing materials (ACM). In addition, if this building or structure were constructed on or prior to 1980, the Contractor's On-Site Superintendent and all Subcontractor On-Site Superintendents for trades that could potentially disturb known or assumed ACM, must, as a minimum, have and provide documentation of current Asbestos Awareness Training.

If the Comprehensive Asbestos Building Survey identifies known or assumed ACM that will potentially be disturbed as a part of the Contractor's renovation or demolition activities, the Contractor must remove, transport, and dispose of these materials at no additional cost to the Owner and prior to any other work taking place within the immediate vicinity of said material. If required, the Contractor must provide the Owner a minimum of 10 working day notification prior to the start of any asbestos abatement activities with abatement in occupied buildings being completed even if they will be conducted during off hours (nights, weekends, and state holidays).

If the Contractor encounters a suspected ACM that was not previously identified within the Comprehensive Asbestos Building Survey, the Contractor must immediately stop all affected work, give written notice to the Owner of the conditions encountered, and take appropriate health and safety precautions. If, after providing Owner notification, the Contractor is directed to sample and/or remove the suspected ACM in question, a Contract Change Order will be written to modify the existing Contract to pay for the additional cost. Any abatement shall be completed in accordance with the requirements of this Section.

If removal of ACM is required, removal must be completed by a contractor currently licensed to remove asbestos by the State of Michigan, Department of Licensing and Regulatory Affairs (DLARA) Asbestos Program and abatement must be performed in accordance with all Federal, State, and local Laws and Regulations. Prior to commencing any asbestos abatement activities, the licensed abatement contractor must submit, as required by Federal, State and Local Laws and Regulations, a "Notification of Intent to Renovate/Demolish" to both the State of Michigan, Department of Environmental Quality (DEQ), Air Quality Division and to the DLARA, Asbestos Program, to comply with National Emission Standards for Hazardous Air Pollutants (NESHAP), and the Clean Air Act (CAA). All regulated ACM must be disposed of at an approved Type II (general refuse) landfill and must be in leak-tight wrapping or containers. ACM that is non friable and is not in poor condition or will not become regulated ACM at any time can be disposed of in a Type III (construction debris) landfill.

At the completion of each abatement activity, the Contractor must perform clearance testing in accordance with National Institute for Occupational Safety and Health (NIOSH) 582 "Sampling and Evaluating Airborne Asbestos Dust". All air samples shall indicate concentrations of less than 0.01 fibers/cc for clearance to be met. Clearance testing shall be performed by a third-party Asbestos Consultant. The Asbestos Consultant selected by the Contractor shall be experienced and knowledgeable about the methods for asbestos air sampling and be able to select representative numbers and locations of samples. It is mandatory that the Asbestos Consultant's on-site hygienist performing sampling and analysis have certification that he/she has passed a NIOSH 582 or equivalent course.

The NESHAP asbestos regulations, notification form, guidelines and fact sheets are available on DEQ's web site www.michigan.gov/deq under heading Air; then click on Asbestos NESHAP Program. For guidelines on submitting notifications pursuant to the Asbestos Contractors Licensing Act, contact the DLARA, Occupational Health Division, Asbestos Program at (517) 322-1320 or visit DLARA's web site www.michigan.gov/asbestos.

LEAD ABATEMENT PROJECT PROCEDURES

Should this Work require the renovation or demolition of a building or structure, the workers are assumed to be exposed to lead or materials containing lead above acceptable levels until proven otherwise through personal air sampling and analysis. The Contractor shall take all steps necessary to assure that his/her employees, are not exposed to lead at concentrations greater than the Permissible Exposure Limit as per the State of Michigan Department of Licensing and Regulatory Affairs Occupational Health Standards Part 603 “Lead Exposure in Construction”. In addition, the Contractor shall convey this same requirement to all subcontractors that may be under his/her control.

The employer shall comply with the Michigan Lead Abatement Act, as amended, and the Lead Hazard Control rules and must communicate information concerning lead hazards according to the requirements of Michigan Occupational Safety and Health Administration (MIOSHA) Part 603 and the Occupational Safety and Health Administration’s (OSHA's) Hazard Communication Standard for the construction industry, 29 CFR 1926.59, including but not limited to safety equipment (e.g. personal fit-tested and approved respirators and protective clothing), worker rotation (on a short-cycle and regular basis), working practices (e.g. sanding, cutting, grinding, abraded, burning and heat-gun stripping of lead based paint are not allowed), the requirements concerning warning signs and labels, material safety data sheets (MSDS), and employee information and training. Employers shall comply with the requirements of 29 CFR 1926.62(l) - Employee Information and Training.

If lead or materials containing lead will be disturbed as a part of the work to be performed, the Contractor must remove, transport, and dispose of these materials at no additional cost to the Owner and prior to any other work taking place within the immediate vicinity of said material. The Contractor must provide the Owner a minimum 10 working day notification prior to the start of any lead abatement activities with abatement in occupied buildings being completed even if they will be conducted during off hours (nights, weekends, and state holidays). Abatement is defined as an activity specifically designed to permanently remove lead paint, lead-contaminated dust or other lead containing materials, the installation of a permanent enclosure or encapsulation of lead paint or other lead containing materials, the replacement of lead-painted surfaces or fixtures, the removal or covering of lead-contaminated soil, and any preparation, cleanup, disposal and post-abatement clearance testing associated with these activities. Renovation, remodeling, landscaping, or other activity, which is not designed to permanently eliminate lead paint hazards, but is instead designed to repair, restore, or remodel a structure, or housing unit even though the activity may incidentally result in a reduction or elimination of a lead paint hazard is not considered abatement.

If abatement of lead or materials containing lead is required, abatement must be completed by a currently certified Lead Abatement Contractor as certified by the State of Michigan, Department of Community Health. In addition, the Lead Abatement Contractor’s workers and supervisors must also be currently certified by the State of Michigan, Department of Community Health. Lead abatement including clearance testing shall be performed in accordance with the State of Michigan, Lead Abatement Act, Part 54A Lead Abatement and with all other Federal, State, and local Laws and Regulations that may apply. Prior to commencing any lead abatement activities, the abatement must be designed by a currently certified Lead Professional Project Designer.

At the completion of abatement, the abated area shall meet clearance requirements with clearance testing to be performed by a Clearance Technicians currently certified by the State of Michigan Department of Community Health.

For additional information about certifications, guidance, and regulations for lead hazard control activities, visit www.michigan.gov/leadsafe.

APPENDIX VI

STATE-FUNDED PROJECT PREVAILING WAGE

STATE-FUNDED PROJECT PREVAILING WAGE REQUIREMENTS

1. The DB Entity and all subcontractors must comply with all Laws pertaining to occupational classifications and shall represents and warrants that it pays all mechanics and laborers employed directly on the site of the work, unconditionally and at least once a week, and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment, computed at wage rates not less than those stated in the advertised specifications as prevailing wages based on locality, regardless of any contractual relationship which may be alleged to exist between the Contractor or subcontractor and the laborers and mechanics.
2. The DB Entity represents and warrants that Contractor will post the scale of wages to be paid in a prominent and easily accessible place at the site of the work.

***** Note: The agency should request State Prevailing Wage Provisions from DCD and obtain Wage Determinations applicable for the counties in which the Project is located.**

APPENDIX VIl

FEDERAL PROVISIONS ADDENDUM

(*Applies to projects that are funded in whole or in part by the federal government*)

STATE OF MICHIGAN
PROCUREMENT
Michigan.gov/MiProcurement

FEDERAL PROVISIONS ADDENDUM

This addendum applies to purchases that will be paid for in whole or in part with funds obtained from the federal government. The provisions below are required, and the language is not negotiable. If any provision below conflicts with the State's terms and conditions, including any attachments, schedules, or exhibits to the State's Contract, the provisions below take priority to the extent a provision is required by federal law; otherwise, the order of precedence set forth in the Contract applies. Hyperlinks are provided for convenience only; broken hyperlinks will not relieve Contractor from compliance with the law.

1. Equal Employment Opportunity

If this Contract is a "**federally assisted construction contract**" as defined in 41 CFR Part 60-1.3, and except as otherwise may be provided under 41 CFR Part 60, then during performance of this Contract, the Contractor agrees as follows:

a. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

b. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

c. The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.

d. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

e. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

f. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

g. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

h. The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: *Provided*, that if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

2. Davis-Bacon Act (Prevailing Wage)

If this Contract is a **prime construction contract** in excess of $2,000, the Contractor (and its Subcontractors) must comply with the Davis-Bacon Act (40 USC 3141-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"), and during performance of this Contract the Contractor agrees as follows:

a. All transactions regarding this contract shall be done in compliance with the Davis-Bacon Act (40 U.S.C. 3141- 3144, and 3146-3148) and the requirements of 29 C.F.R. pt. 5 as may be applicable. The contractor shall comply with 40 U.S.C. 3141-3144, and 3146-3148 and the requirements of 29 C.F.R. pt. 5 as applicable.

b. Contractors are required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor.

c. Additionally, contractors are required to pay wages not less than once a week.

3. Copeland "Anti-Kickback" Act

If this Contract is a contract for construction or repair work in excess of $2,000 where the Davis-Bacon Act applies, the Contractor must comply with the Copeland "Anti-Kickback" Act (40 USC 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work

Financed in Whole or in Part by Loans or Grants from the United States"), which prohibits the Contractor and subrecipients from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled, and during performance of this Contract the Contractor agrees as follows:

a. **Contractor**. The Contractor shall comply with 18 U.S.C. §874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into this contract.

b. **Subcontracts**. The Contractor or Subcontractor shall insert in any subcontracts the clause above and such other clauses as FEMA or the applicable federal awarding agency may by appropriate instructions require, and also a clause requiring the Subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these contract clauses.

c. **Breach**. A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a Contractor and Subcontractor as provided in 29 C.F.R. § 5.12.

4. Contract Work Hours and Safety Standards Act

If the Contract is **in excess of $100,000** and **involves the employment of mechanics or laborers**, the Contractor must comply with 40 USC 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5), as applicable, and during performance of this Contract the Contractor agrees as follows:

a. **Overtime requirements**. No Contractor or Subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than 1 ½ times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

b. **Violation; liability for unpaid wages; liquidated damages**. In the event of any violation of the clause set forth in paragraph (1) of this section the Contractor and any Subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and Subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of $27 for each calendar day on which such individual was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.

c. **Withholding for unpaid wages and liquidated damages**. The State shall upon its own action or upon written request of an authorized representative of the

Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or Subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

d. Subcontracts. The Contractor or Subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the Subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

5. Rights to Inventions Made Under a Contract or Agreement

If the Contract is funded by a federal "funding agreement" as defined under 37 CFR §401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the recipient or subrecipient must comply with 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

6. Clean Air Act and the Federal Water Pollution Control Act

If this Contract is **in excess of $150,000,** the Contractor must comply with all applicable standards, orders, and regulations issued under the Clean Air Act (42 USC 7401-7671q) and the Federal Water Pollution Control Act (33 USC 1251-1387), and during performance of this Contract the Contractor agrees as follows:

Clean Air Act

1. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
2. The Contractor agrees to report each violation to the State and understands and agrees that the State will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency or the applicable federal awarding agency, and the appropriate Environmental Protection Agency Regional Office.
3. The Contractor agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with Federal assistance provided by FEMA or the applicable federal awarding agency.

Federal Water Pollution Control Act

1. The Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
2. The Contractor agrees to report each violation to the State and understands and agrees that the State will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency or the applicable federal awarding agency, and the appropriate Environmental Protection Agency Regional Office.
3. The Contractor agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with Federal assistance provided by FEMA or the applicable federal awarding agency.

7. Debarment and Suspension

A "contract award" (see 2 CFR 180.220) must not be made to parties listed on the government-wide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (51 FR 6370; February 21, 1986) and 12689 (54 FR 34131; August 18, 1989), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

a. This Contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the Contractor is required to verify that none of the Contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

b. The Contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

c. This certification is a material representation of fact relied upon by the State. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the State, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

d. The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

8. Byrd Anti-Lobbying Amendment

Contractors who apply or bid for an award of **$100,000 or more** shall file the required certification in *Exhibit 1 – Byrd Anti-Lobbying Certification* below. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any

person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the awarding agency.

9. Procurement of Recovered Materials

Under 2 CFR 200.322, Contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act.

a. In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired:

i. Competitively within a timeframe providing for compliance with the contract performance schedule;

ii. Meeting contract performance requirements; or

iii. At a reasonable price.

b. Information about this requirement, along with the list of EPA- designated items, is available at EPA's Comprehensive Procurement Guidelines web site, https://www.epa.gov/smm/comprehensive- procurement-guideline-cpg-program.

c. The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

10. Additional FEMA Contract Provisions.

The following provisions apply to purchases that will be paid for in whole or in part with funds obtained from the Federal Emergency Management Agency (FEMA):

a. Access to Records. The following access to records requirements apply to this contract:

i. The Contractor agrees to provide the State, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.

ii. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

iii. The Contractor agrees to provide the FEMA Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.

In compliance with the Disaster Recovery Act of 2018, the State and the Contractor acknowledge and agree that no language in this contract is intended to prohibit

audits or internal reviews by the FEMA Administrator or the Comptroller General of the United States.

b. Changes.
See the provisions regarding modifications or change notice in the Contract Terms.

c. DHS Seal Logo and Flags.
The Contractor shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval.

d. Compliance with Federal Law, Regulations, and Executive Orders.
This is an acknowledgement that FEMA financial assistance will be used to fund all or a portion of the contract. The Contractor will comply with all applicable Federal law, regulations, executive orders, FEMA policies, procedures, and directives.

e. No Obligation by Federal Government.
The Federal Government is not a party to this contract and is not subject to any obligations or liabilities to the State, Contractor, or any other party pertaining to any matter resulting from the Contract."

f. Program Fraud and False or Fraudulent Statements or Related Acts
The Contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the Contractor's actions pertaining to this contract.

EXHIBIT 1
BYRD ANTI-LOBBYING CERTIFICATION

Contractor must complete this certification if the purchase will be paid for in whole or in part with funds obtained from the federal government and the purchase is greater than $100,000.

APPENDIX A, 44 C.F.R. PART 18 – CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, “Disclosure Form to Report Lobbying,” in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

   This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The Contractor, enter contractor name here, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

_____

Signature of Contractor's Authorized Official

_____

Name and Title of Contractor's Authorized Official

_____

Date

APPENDIX VIII

CERTIFICATION FORMS

(Both DB Entity and PSC must complete and submit)

NOTE: Please see pages 150 - 151 of contract for ATC Group Services LLC dba Atlas Technical's

APPENDIX IX

PAYMENT AND PERFORMANCE BONDS

PERFORMANCE BOND

SURETY COMPANY REFERENCE NO._____

That "the DB Entity," _____, a corporation ☐, individual ☐, partnership ☐, joint venture ☐ of the State of _____, qualified to do business in the State of Michigan, as Principal, and "the Surety," _____, of the State of _____, as surety, are held and bound unto the State of Michigan, "the Owner," as Obligee, in the amount of _____ Dollars ($_____), for the payment of which the DB Entity and Surety bind themselves, their respective heirs, successors, legal representatives and assigns, jointly and severally, in compliance with 1963 PA 213, as amended, MCL 129.201 et seq.

The DB Entity has entered into "the Contract" with the Owner for _____ _____, "the Work," covered by the Contract Documents, which are incorporated into this Performance Bond by this reference;

If the DB Entity faithfully performs and fulfills all the undertakings, covenants, terms, conditions, warranties, indemnifications and agreements of the Contract Documents within the Contract Time (including any authorized changes, with or without notice to the Surety) and during the Correction Period, and if the DB Entity also performs and fulfills all the undertakings, covenants, terms, conditions, warranties, indemnifications and agreements of any and all duly authorized modifications of the Contract Documents, then THIS OBLIGATION IS VOID, OTHERWISE TO REMAIN IN FULL FORCE AND EFFECT.

A. No change in Contract Price or Contract Time, "or equal" or substitution or modification of the Contract Documents (including addition, deletion, or other revision) releases the Surety of its obligations under this Performance Bond. The Surety expressly waives notice of any such change in Contract Price or Contract Time, "or equal" or substitution or modification of the Contract Documents (including addition, deletion, or other revision).

B. This Performance Bond shall be solely for the protection of the Owner and its successors, legal representatives, or assigns.

C. It is the intention of the DB Entity and Surety that they shall be bound by all terms and conditions of the Contract Documents (including, but not limited to General Conditions and this Performance Bond). However, this Performance Bond is executed pursuant to 1963 PA 213, as amended, MCL 129.201 et seq., and if any provision(s) of this Performance Bond is/are illegal, invalid or unenforceable, all other provisions of this Performance Bond shall nevertheless remain in full force and effect, and the Owner shall be protected to the full extent provided by 1963 PA 213, as amended, MCL 129.201 et seq.

IMPORTANT: The Surety shall be authorized to do business in the State of Michigan by the Department of Licensing and Regulatory Affairs – Insurance Bureau, shall be listed on the current U.S. Department of the Treasury Circular 570, and, unless otherwise authorized by the

Owner in writing, shall have at least an A– Best's rating and a Class VII or better financial size category per current A. M. Best Company ratings.

Name, Address, and Telephone of the Surety	Name and Telephone of Agent, who is either resident of, or whose principal office is maintained in the State of Michigan
_____	
_____	
_____	
_____	
_____	

Signed and sealed this _____ day of _____, 20___.

THE DB ENTITY: (Print Full Name and Sign) By:_____

WITNESS_____ Name & Title:_____

Telephone No.:_____

THE SURETY: (Print Full Name and Sign) Agent:_____

WITNESS_____ Attorney-in-Fact:_____

Telephone No.:_____

PAYMENT BOND

SURETY COMPANY REFERENCE NO._____

"the DB Entity," _____, a corporation ___, individual ___, partnership ___, joint venture ___ of the State of _____, qualified to do business in the State of Michigan, as Principal, and "the Surety," _____, of the State of _____, as surety, are held and bound unto the State of Michigan, "the Owner," as Obligee, in the amount of _____ Dollars ($_____), for the payment of which the DB Entity and Surety bind themselves, their respective heirs, successors, legal representatives and assigns, jointly and severally, in compliance with 1963 PA 213, as amended, MCL 129.201 et seq.

The DB Entity has entered into "the Contract" with the Owner for _____ _____, "the Work," covered by the Contract Documents, which are incorporated into this Payment Bond by this reference;

If the DB Entity promptly pays all claimants supplying labor or materials to the DB Entity or to the DB Entity's subcontractors in the prosecution of the Work, then THIS OBLIGATION IS VOID, OTHERWISE TO REMAIN IN FULL FORCE AND EFFECT.

A. All rights and remedies on this Payment Bond are solely for the protection of all claimants supplying labor and materials to the DB Entity or the DB Entity's subcontractors in the prosecution of the Work and shall be determined in accordance with Michigan Law.

B. No change in Contract Price or Contract Time, "or equal" or substitution or modification of the Contract Documents (including addition, deletion, or other revision) shall release the Surety of its obligations under this Payment Bond. The Surety hereby expressly waives notice of any such change in Contract Price or Contract Time, "or equal" or substitution or modification of the Contract Documents (including addition, deletion, or other revision).

C. It is the intention of the DB Entity and Surety that they shall be bound by all terms and conditions of the Contract Documents (including, but not limited to this Payment Bond). However, this Payment Bond is executed pursuant to 1963 PA 213, as amended, MCL 129.201 et seq., and if any provision(s) of this Payment Bond is/are illegal, invalid or unenforceable, all other provisions of this Payment Bond shall nevertheless remain in full force and effect, and the Owner shall be protected to the full extent provided by 1963 PA 213, as amended, MCL 129.201 et seq.

IMPORTANT: The Surety shall be authorized to do business in the State of Michigan by the Department of Licensing and Regulatory Affairs – Insurance Bureau, shall be listed on the current U.S. Department of the Treasury Circular 570, and, unless otherwise authorized by the Owner in writing, shall have at least an A– Best's rating and a Class VII or better financial size category per current A. M. Best Company ratings.

Name, Address, and Telephone of the Surety

Name and Telephone of Agent, who is either resident of, or whose principal office is maintained in the State of Michigan

_____

_____

_____

_____

_____

Signed and sealed this _____ day of _____, 20___.

THE DB ENTITY: (Print Full Name and Sign)

By:_____

WITNESS_____

Name & Title:_____

Telephone No.:_____

THE SURETY: (Print Full Name and Sign)

By:_____

Agent:_____

WITNESS_____

Attorney-in-Fact:_____

Telephone No.:_____

APPENDIX X

INSURANCE CERTIFICATES

(Both DB Entity **and** PSC **must** submit)

CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)
06/24/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Aon Risk Services Southwest, Inc.
Houston TX Office
5555 San Felipe
Suite 1500
Houston TX 77056 USA

CONTACT NAME:
PHONE (A/C. No. Ext): (866) 283-7122 **FAX (A/C. No.):** (800) 363-0105
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A:	Zurich American Ins Co	16535
INSURER B:	Steadfast Insurance Company	26387
INSURER C:		
INSURER D:		
INSURER E:		
INSURER F:		

INSURED
ATC Group Services LLC
An Atlas Company
5750 Johnston Street, Suite 400
Lafayette LA 70503 USA

COVERAGES **CERTIFICATE NUMBER:** 570094039282 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

Limits shown are as requested

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
B	X **COMMERCIAL GENERAL LIABILITY** CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT X LOC OTHER:			GPL021708506	11/13/2021	11/13/2022	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$2,000,000 $100,000 $5,000 $2,000,000 $6,000,000 $4,000,000
A	**AUTOMOBILE LIABILITY** X ANY AUTO OWNED AUTOS ONLY HIRED AUTOS ONLY SCHEDULED AUTOS NON-OWNED AUTOS ONLY			BAP 0217109-06	11/13/2021	11/13/2022	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$1,000,000
	UMBRELLA LIAB OCCUR **EXCESS LIAB** CLAIMS-MADE DED RETENTION						EACH OCCURRENCE AGGREGATE	
A	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y / N ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? N **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		WC021711106 AOS	11/13/2021	11/13/2022	X PER STATUTE OTH-ER	
A				WC730665100 WI	11/13/2021	11/13/2022	E.L. EACH ACCIDENT E.L. DISEASE-EA EMPLOYEE E.L. DISEASE-POLICY LIMIT	$1,000,000 $1,000,000 $1,000,000
B	E&O-PL-Primary			GPL021708506 CLAIMS MADE	11/13/2021	11/13/2022	Each Incident Policy Aggregate	$1,000,000 $2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: Contract No 00909 (2022 Tank and Soil Removal Services). The State of Michigan, its departments, divisions, agencies,offices, commissions, officers, employees and agents are included as Additional Insured in accordance with the policyprovisions of the General Liability and Automobile Liability policies. A Waiver of Subrogation is granted in favor ofCertificate Holder in accordance with the policy provisions of the General Liability, Automobile Liability and Workers'Compensation policies.

CERTIFICATE HOLDER

State of Michigan
Attn: Anne Watros
3111 W. St. Joseph Street
Lansing MI 48917 USA

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Aon Risk Services Southwest, Inc.

Holder Identifier : Z

Certificate No : 570094039282

AGENCY CUSTOMER ID: 570000080236
LOC #:

ADDITIONAL REMARKS SCHEDULE

AGENCY	NAMED INSURED
Aon Risk Services Southwest, Inc.	ATC Group Services LLC
POLICY NUMBER: See Certificate Number: 570094039282	
CARRIER: See Certificate Number: 570094039282 / NAIC CODE	EFFECTIVE DATE:

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: ACORD 25 **FORM TITLE:** Certificate of Liability Insurance

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER	
INSURER	
INSURER	
INSURER	

ADDITIONAL POLICIES If a policy below does not include limit information, refer to the corresponding policy on the ACORD certificate form for policy limits.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS	
	OTHER							
B	Env Contr Poll			GPL021708506	11/13/2021	11/13/2022	Each Incident	$1,000,000
							Policy Aggregate	$2,000,000

AGENCY CUSTOMER ID: 570000080236

LOC #:

ADDITIONAL REMARKS SCHEDULE

AGENCY		NAMED INSURED
Aon Risk Services Southwest, Inc.		ATC Group Services LLC
POLICY NUMBER		
See Certificate Number: 570094039282		
CARRIER	NAIC CODE	EFFECTIVE DATE:
See Certificate Number: 570094039282		

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: ACORD 25 **FORM TITLE:** Certificate of Liability Insurance

ATLAS TECHNICAL CONSULTANTS HOLDINGS LP

SCHEDULE OF NAMED INSUREDS

1 Alliance Geomatics, LLC
Alta Vista Engineering Services AG
Alta Vista Solutions Inc.
Arrow ATC Holdings, LLC
Arrow Environmental Holdings LP
Arrow Environmental Holdings, GP LLC
ATC Associates of North Carolina, PC
ATC Associates of Ohio, LP
ATC Associates, Inc.
ATC Construction Services, Inc.
ATC Engineering of Michigan, LP
ATC Engineering, LLP
ATC Environmental, Inc.
ATC Group Holdings LLC
ATC Group Partners LLC
ATC Group Services LLC
ATC Holding, Inc.
ATC Leasing Company, LLC
ATC New England Corporation
ATC Sole Member LLC
Atlantic Engineering Laboratories of New York, Inc.
Atlantic Engineering Laboratories, Inc.
Atlas Intermediate Holdings LLC
Atlas TC Holdings LLC
Atlas Technical Consultants LLC
Atlas Technical Consultants Sole Member LLC
Atlas Technical Consultants, Inc.
Bananza Industries, Inc.
BCM Engineering, Inc.
Beest Express, LLC
Caitcon, LLC
Cardno ATC (MA), Inc.
CEL Consulting, LLC
Consolidated Engineering Laboratories
Dexter ATC Field Services LLC
Dexter Field Servvices, LP
Engineering & Testing Services LLC
Engineering Services, LLC
Environmental Compliance Services, Inc.
ETS-ESC Holdings LLC
Geosphere Consultants, Inc.
HES Testing, LLC
Long Engineering, Inc.
Long Engineering, LLC
Materials Testing & Inspection, LLC
O'Neil Service Group, LLC
Oris Solutions, LLC
Pavetex Engineering, LLC (dba PaveTex)
Piedmont Geotechnical Consultants, LLC
Pipeline Environmental Services
Plant Services
Quality Assurance Engineering, Inc.
Rocky Mountain PSI, LLC
Sage ATC Environmental Consulting LLC
Sage ATC Environmental Holding LLC
Sage ATC Environmental Holdings LLC
Sage Engineering, Inc.
Sage Environmental Consulting, LP
Sage Environmental Holdings, LLC
SCST, LLC
Southwest Geophysics, LLC
The Environmental Institute
TranSmart, LLC
TranSmart Technologies, LLC
United Testing, LLC
WesTest, LLC
Wilkins Environmental Consulting, Inc.

Additional Insured-Automatic-Owners, Lessees Or Contractors

Coverage Part One-Commercial General Liability
Coverage Part Two-Contractor's Pollution Liability

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l Prem.	Return Prem.
GPL 0217085-06	11/13/2021	11/13/2022	11/13/2021	14340000	----------	----------

Named Insured and Mailing Address:

Atlas Technical Consultants, Inc.
13215 Bee Cave Pkwy,
Building A, Suite 250
Austin, TX 78738

Producer:

AON RISK SERVICES SOUTHWEST INC
5555 SAN FELIPE ST STE 1500
HOUSTON, TX 77056-2739

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the following:

Environmental Services Package Policy

☒ COVERAGE PART ONE-COMMERCIAL GENERAL LIABILITY

☒ COVERAGE PART TWO-CONTRACTOR'S POLLUTION LIABILITY

1. Who is an Insured (Section I.) in the COMMON COVERAGE PROVISIONS is amended to include as an additional insured any person(s) or organization(s) whom you are required to add as an additional insured on this policy under a written contract or written agreement.
2. The insurance provided to the additional insured person(s) or organization(s) applies only to:
   a. "Bodily injury", "property damage" or "personal and advertising injury" under COVERAGE PART ONE-COMMERCIAL GENERAL LIABILITY, COVERAGE A - BODILY INJURY AND PROPERTY DAMAGE LIABILITY and COVERAGE B - PERSONAL AND ADVERTISING INJURY LIABILITY caused, in whole or in part, by:
      (1) Your acts or omissions; or
      (2) The acts or omissions of those acting on your behalf;
      and resulting directly from:
         (a) Your ongoing operations performed for the additional insured, which is the subject of the written contract or written agreement; or
         (b) "Your work" completed as included in the "products-completed operations hazard", performed for the additional insured, which is the subject of the written contract or written agreement; and/or
   b. "Claims" arising out of a "pollution event" under COVERAGE PART TWO - CONTRACTOR'S POLLUTION LIABILITY, caused, in whole or in part, by:
      (1) Your acts or omissions; or
      (2) The acts or omissions of those acting on your behalf,
      and resulting directly from:
         (a) "Covered operations" performed for the additional insured, which is the subject of the written contract or written agreement; or

(b) "Completed operations" of the "covered operations" performed for the additional insured, which is the subject of the written contract or written agreement.

3. However, regardless of the provisions of paragraphs 1. and 2. above, the insurance afforded to such additional insured:

   a. Only applies to the extent permitted by law; and

   b. Will not be broader than that which you are required by the written contract or written agreement to provide to such additional insured.

4. With respect to the insurance afforded to the additional insured under this endorsement, the following is added to **Section III – Limits Of Insurance and Deductible**:

   The most we will pay on behalf of the additional insured is the amount of insurance:

   a. Required by the written contract or written agreement you have entered into with the additional insured; or

   b. Available under the applicable Limits of Insurance shown in the Declarations,

   whichever is less.

   This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations

5. The insurance provided to the additional insured person or organization does not apply to:

   "Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering or failure to render any professional architectural, engineering or surveying services including:

   (1) The preparing, approving or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; and

   (2) Supervisory, inspection, architectural or engineering activities.

   This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or the failure to render any architectural, engineering or surveying services.

6. The additional insured must see to it that:

   a. We are notified as soon as practicable of an "occurrence", offense or “pollution event”, as applicable, that may result in a claim;

   b. We receive written notice of a claim or "suit" as soon as practicable; and

   c. A request for defense and indemnity of the claim or "suit" will promptly be brought against any policy issued by another insurer under which the additional insured may be an insured in any capacity. This provision does not apply to insurance on which the additional insured is a Named Insured, if the written contract or written agreement requires that this coverage be primary and non-contributory.

7. For the coverage provided by this endorsement:

   a. The following paragraph is added to Paragraph 8.a. Other Insurance, Conditions (Section V.) in the COMMON COVERAGE PROVISIONS:

      Primary and Noncontributory Insurance

      This Insurance is primary to and will not seek contribution from any other insurance available to an additional insured under this endorsement provided that:

      (1) The additional insured is a Named Insured under such other insurance; and

      (2) You have agreed in a written contract or written agreement that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.

   b. The following paragraph is added to Paragraph 8.b. Other Insurance, Conditions (Section V.) in the COMMON COVERAGE PROVISIONS:

      This insurance is excess over:

Any of the other insurance, whether primary, excess, contingent or on any other basis, available to an additional insured, in which the additional insured on our policy is also covered as an additional insured on another policy providing coverage for the same "occurrence", offense, claim or "suit". This provision does not apply to any policy in which the additional insured is a Named Insured on such other policy and where our policy is required by written contract or written agreement to provide coverage to the additional insured on a primary and non-contributory basis.

8. This endorsement does not apply to an additional insured which has been added to this policy by an endorsement showing the additional insured in a Schedule of additional insureds, and which endorsement applies specifically to that identified additional insured.

ALL OTHER TERMS AND CONDITIONS OF THE POLICY SHALL APPLY AND REMAIN UNCHANGED.

Additional Insured – Automatic – Owners, Lessees Or Contractors

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.	
Policy No. GPL-0217085-06	Effective Date: 11/13/2021

This endorsement modifies insurance provided under the:

Commercial General Liability Coverage Part One, Common Coverage Provisions

A. Section **I – Who Is An Insured** is amended to include as an additional insured any person or organization whom you are required to add as an additional insured under a written contract or written agreement executed by you, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" and subject to the following:

1. If such written contract or written agreement specifically requires that you provide that the person or organization be named as an additional insured under one or both of the following endorsements:

a. The Insurance Services Office (ISO) ISO CG 20 10 (10/01 edition); or

b. The ISO CG 20 37 (10/01 edition),

such person or organization is then an additional insured with respect to such endorsement(s), but only to the extent that "bodily injury", "property damage" or "personal and advertising injury" arises out of:

(1) Your ongoing operations, with respect to Paragraph **1.a.** above; or

(2) "Your work", with respect to Paragraph **1.b.** above,

which is the subject of the written contract or written agreement.

However, solely with respect to this Paragraph **1.**, insurance afforded to such additional insured:

(a) Only applies if the "bodily injury", "property damage" or "personal and advertising injury" offense occurs during the policy period and subsequent to your execution of the written contract or written agreement; and

(b) Does not apply to "bodily injury" or "property damage" caused by "your work" and included within the "products-completed operations hazard" unless the written contract or written agreement specifically requires that you provide such coverage to such additional insured.

Solely with respect to this Paragraph **(b)**, if the written contract or written agreement provides a minimum time period for providing such coverage, and such minimum time period ends prior to the end of the policy period, this insurance shall not apply to "bodily injury", "property damage" or a "personal and advertising injury" offense which occurs during the policy period and after the end of that minimum time period.

2. If such written contract or written agreement specifically requires that you provide that the person or organization be named as an additional insured under one or both of the following endorsements:

a. The Insurance Services Office (ISO) ISO CG 20 10 (07/04 edition); or

b. The ISO CG 20 37 (07/04 edition),

such person or organization is then an additional insured with respect to such endorsement(s), but only to the extent that "bodily injury", "property damage" or "personal and advertising injury" is caused, in whole or in part, by:

(1) Your acts or omissions; or

(2) The acts or omissions of those acting on your behalf,

in the performance of:

(a) Your ongoing operations, with respect to Paragraph **2.a.** above; or

(b) "Your work" and included in the "products-completed operations hazard", with respect to Paragraph **2.b.** above,

which is the subject of the written contract or written agreement.

However, solely with respect to this Paragraph **2.**, insurance afforded to such additional insured:

(i) Only applies if the "bodily injury", "property damage" or "personal and advertising injury" offense occurs during the policy period and subsequent to your execution of the written contract or written agreement; and

(ii) Does not apply to "bodily injury" or "property damage" caused by "your work" and included within the "products-completed operations hazard" unless the written contract or written agreement specifically requires that you provide such coverage to such additional insured.

Solely with respect to this Paragraph **(ii)**, if the written contract or written agreement provides a minimum time period for providing such coverage, and such minimum time period ends prior to the end of the policy period, this insurance shall not apply to "bodily injury", "property damage" or a "personal and advertising injury" offense which occurs during the policy period and after the end of that minimum time period.

3. If neither Paragraph **1.** nor Paragraph **2.** above apply and such written contract or written agreement requires that you provide that the person or organization be named as an additional insured:

a. Under the ISO CG 20 10 (04/13 edition, any subsequent edition or if no edition date is specified); or

b. With respect to ongoing operations (if no form is specified),

such person or organization is then an additional insured only to the extent that "bodily injury", "property damage" or "personal and advertising injury" is caused, in whole or in part by:

(1) Your acts or omissions; or

(2) The acts or omissions of those acting on your behalf,

in the performance of your ongoing operations, which is the subject of the written contract or written agreement.

However, solely with respect to this Paragraph **3.**, insurance afforded to such additional insured:

(a) Only applies to the extent permitted by law;

(b) Will not be broader than that which you are required by the written contract or written agreement to provide for such additional insured; and

(c) Only applies if the "bodily injury", "property damage" or "personal and advertising injury" offense occurs during the policy period and subsequent to your execution of the written contract or written agreement.

4. If neither Paragraph **1.** nor Paragraph **2.** above apply and such written contract or written agreement requires that you provide that the person or organization be named as an additional insured:

a. Under the ISO CG 20 37 (04/13 edition, any subsequent edition or if no edition date is specified); or

b. With respect to the "products-completed operations hazard" (if no form is specified),

such person or organization is then an additional insured only to the extent that "bodily injury" or "property damage" is caused, in whole or in part by "your work" and included in the "products-completed operations hazard", which is the subject of the written contract or written agreement.

However, solely with respect to this Paragraph **4.**, insurance afforded to such additional insured:

(1) Only applies to the extent permitted by law;

(2) Will not be broader than that which you are required by the written contract or written agreement to provide for such additional insured;

(3) Only applies if the "bodily injury" or "property damage" occurs during the policy period and subsequent to your execution of the written contract or written agreement; and

(4) Does not apply to "bodily injury" or "property damage" caused by "your work" and included within the "products-completed operations hazard" unless the written contract or written agreement specifically requires that you provide such coverage to such additional insured.

Solely with respect to this Paragraph **(4)**, if the written contract or written agreement provides a minimum time period for providing such coverage, and such minimum time period ends prior to the end of the policy period, this insurance shall not apply to "bodily injury" or "property damage" which occurs during the policy period and after the end of that minimum time period.

B. Solely with respect to the insurance afforded to any additional insured referenced in Section **A.** of this endorsement, the following additional exclusion applies:

This insurance does not apply to "bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or failure to render, any professional architectural, engineering or surveying services including:

1. The preparing, approving or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or

2. Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or the failure to render any professional architectural, engineering or surveying services.

C. Solely with respect to the coverage provided by this endorsement, the following is added to Common Coverage Provisions, Section **IV – Claims Provisions,** Paragraph **2**:

The additional insured must see to it that:

(1) We are notified as soon as practicable of an "occurrence" or offense that may result in a claim;

(2) We receive written notice of a claim or "suit" as soon as practicable; and

(3) A request for defense and indemnity of the claim or "suit" will promptly be brought against any policy issued by another insurer under which the additional insured may be an insured in any capacity. This provision does not apply to insurance on which the additional insured is a Named Insured if the written contract or written agreement requires that this coverage be primary and non-contributory.

D. Solely with respect to the coverage provided by this endorsement:

1. The following is added to the **Other Insurance** Condition of Section **V – Conditions, Paragraph 8**:

Primary and Noncontributory insurance

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured provided that:

a. The additional insured is a Named Insured under such other insurance; and

b. You are required by written contract or written agreement that this insurance be primary and not seek contribution from any other insurance available to the additional insured.

2. The following paragraph is added to Paragraph **8.b.** of the **Other Insurance Condition** under Section **V –**:

This insurance is excess over:

Any of the other insurance, whether primary, excess, contingent or on any other basis, available to an additional insured, in which the additional insured on our policy is also covered as an additional insured on another policy providing coverage for the same "occurrence", offense, claim or "suit". This provision does not apply to any policy in which the additional insured is a Named Insured on such other policy and where our policy is required by a written contract or written agreement to provide coverage to the additional insured on a primary and non-contributory basis.

E. This endorsement does not apply to an additional insured which has been added to this Coverage Part by an endorsement showing the additional insured in a Schedule of additional insureds, and which endorsement applies specifically to that identified additional insured.

F. Solely with respect to the insurance afforded to an additional insured under this endorsement, the following is added to Section **III – Limits Of Insurance**:

Additional Insured – Automatic – Owners, Lessees Or Contractors Limit

The most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the written contract or written agreement referenced in Section **A.** of this endorsement; or

2. Available under the applicable Limits of Insurance shown in the Declarations,

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

All other terms, conditions, provisions and exclusions of this policy remain the same.

Waiver of Transfer of Rights of Recovery Against Others – Blanket as Required by Contract

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l Prem.	Return Prem.
GPL 0217085-06	11/13/2021	11/13/2022	11/13/2021		Included	

Named Insured and Mailing Address:

Atlas Technical Consultants, Inc.
13215 Bee Cave Pkwy,
Building A Suite 250
Austin, TX 78738

Producer:

AON Risk Solutions
5555 San Felipe, Suite 1500
Houston, TX 77056

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the following:

Environmental Services Package Policy

[X] COVERAGE PART ONE – COMMERCIAL GENERAL LIABILITY

[X] COVERAGE PART TWO – CONTRACTOR'S POLLUTION LIABILITY

[X] COVERAGE PART THREE - PROFESSIONAL LIABILITY

In consideration of the payment of premium and the Deductible by you and in reliance upon the statements in the Application made a part hereof, we agree with you, subject to all the terms, exclusions and conditions that with respect to the coverage parts indicated above Conditions (Section V.) of the COMMON COVERAGE PROVISIONS, Condition 14. Subrogation is amended by the addition of the following:

We waive any right of recovery we may have against any person or organization whom you are required to waive your right of subrogation by a written contract or written agreement executed and effective prior to the performance of your services which is the subject of such written contract or written agreement.

ALL OTHER TERMS AND CONDITIONS OF THE POLICY SHALL APPLY AND REMAIN UNCHANGED.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

DESIGNATED INSURED FOR COVERED AUTOS LIABILITY COVERAGE

This endorsement modifies insurance provided under the following:

AUTO DEALERS COVERAGE FORM
BUSINESS AUTO COVERAGE FORM
MOTOR CARRIER COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by this endorsement.

This endorsement identifies person(s) or organization(s) who are "insureds" for Covered Autos Liability Coverage under the Who Is An Insured provision of the Coverage Form. This endorsement does not alter coverage provided in the Coverage Form.

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

Named Insured: Atlas Technical Consultants, Inc.

Endorsement Effective Date: 11/13/2021

SCHEDULE

Name Of Person(s) Or Organization(s):
Any person(s) or organization(s) whom you are required by written contract.
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

Each person or organization shown in the Schedule is an "insured" for Covered Autos Liability Coverage, but only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured provision contained in Paragraph **A.1.** of Section **II** – Covered Autos Liability Coverage in the Business Auto and Motor Carrier Coverage Forms and Paragraph **D.2.** of Section **I** – Covered Autos Coverages of the Auto Dealers Coverage Form.

Coverage Extension Endorsement – Liability Only

ZURICH

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer No.	Add'l. Prem	Return Prem.
BAP 0217109-06	11/13/2021	11/13/2022	11/13/2021	14340000	-	-

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the:

Business Auto Coverage Form
Motor Carrier Coverage Form

A. Amended Who Is An Insured

1. The following is added to the **Who Is An Insured** Provision in **Section II – Covered Autos Liability Coverage**:

The following are also "insureds":

a. Any "employee" of yours is an "insured" while using a covered "auto" you don't own, hire or borrow for acts performed within the scope of employment by you. Any "employee" of yours is also an "insured" while operating an "auto" hired or rented under a contract or agreement in that "employee's" name, with your permission, while performing duties related to the conduct of your business.

b. Anyone volunteering services to you is an "insured" while using a covered "auto" you don't own, hire or borrow to transport your clients or other persons in activities necessary to your business.

c. Anyone else who furnishes an "auto" referenced in Paragraphs **A.1.a.** and **A.1.b.** in this endorsement.

d. Where and to the extent permitted by law, any person(s) or organization(s) where required by written contract or written agreement with you executed prior to any "accident", including those person(s) or organization(s) directing your work pursuant to such written contract or written agreement with you, provided the "accident" arises out of operations governed by such contract or agreement and only up to the limits required in the written contract or written agreement, or the Limits of Insurance shown in the Declarations, whichever is less.

2. The following is added to the **Other Insurance** Condition in the Business Auto Coverage Form and the **Other Insurance – Primary and Excess Insurance Provisions Condition** in the Motor Carrier Coverage Form**:**

Coverage for any person(s) or organization(s), where required by written contract or written agreement with you executed prior to any "accident", will apply on a primary and non-contributory basis and any insurance maintained by the additional "insured" will apply on an excess basis. However, in no event will this coverage extend beyond the terms and conditions of the Coverage Form.

B. Amendment – Supplementary Payments

Paragraphs **a.(2)** and **a.(4)** of the **Coverage Extensions** Provision in **Section II – Covered Autos Liability Coverage** are replaced by the following:

(2) Up to $5,000 for the cost of bail bonds (including bonds for related traffic law violations) required because of an "accident" we cover. We do not have to furnish these bonds.

(4) All reasonable expenses incurred by the "insured" at our request, including actual loss of earnings up to $500 a day because of time off from work.

C. Fellow Employee Coverage

The **Fellow Employee** Exclusion contained in **Section II – Covered Autos Liability Coverage** does not apply.

D. Driver Safety Program Liability Coverage

The following is added to the **Racing** Exclusion in **Section II – Covered Autos Liability Coverage**:

This exclusion does not apply to covered "autos" participating in a driver safety program event, such as, but not limited to, auto or truck rodeos and other auto or truck agility demonstrations.

E. Amended Duties In The Event Of Accident, Claim, Suit Or Loss

Paragraph **a.** of the **Duties In The Event Of Accident, Claim, Suit Or Loss** Condition is replaced by the following:

a. In the event of "accident", claim, "suit" or "loss", you must give us or our authorized representative prompt notice of the "accident", claim, "suit" or "loss". However, these duties only apply when the "accident", claim, "suit" or "loss" is known to you (if you are an individual), a partner (if you are a partnership), a member (if you are a limited liability company) or an executive officer or insurance manager (if you are a corporation). The failure of any agent, servant or employee of the "insured" to notify us of any "accident", claim, "suit" or "loss" shall not invalidate the insurance afforded by this policy.

Include, as soon as practicable:

(1) How, when and where the "accident" or "loss" occurred and if a claim is made or "suit" is brought, written notice of the claim or "suit" including, but not limited to, the date and details of such claim or "suit";

(2) The "insured's" name and address; and

(3) To the extent possible, the names and addresses of any injured persons and witnesses.

If you report an "accident", claim, "suit" or "loss" to another insurer when you should have reported to us, your failure to report to us will not be seen as a violation of these amended duties provided you give us notice as soon as practicable after the fact of the delay becomes known to you.

F. Waiver of Transfer Of Rights Of Recovery Against Others To Us

The following is added to the **Transfer Of Rights Of Recovery Against Others To Us** Condition:

This Condition does not apply to the extent required of you by a written contract, executed prior to any "accident" or "loss", provided that the "accident" or "loss" arises out of operations contemplated by such contract. This waiver only applies to the person or organization designated in the contract.

G. Unintentional Failure to Disclose Hazards

The following is added to the **Concealment, Misrepresentation Or Fraud** Condition:

However, we will not deny coverage under this Coverage Form if you unintentionally:

(1) Fail to disclose any hazards existing at the inception date of this Coverage Form; or

(2) Make an error, omission, improper description of "autos" or other misstatement of information.

You must notify us as soon as possible after the discovery of any hazards or any other information that was not provided to us prior to the acceptance of this policy.

H. Hired Auto – World Wide Coverage

Paragraph **7a.(5)** of the **Policy Period, Coverage Territory** Condition is replaced by the following:

(5) Anywhere in the world if a covered "auto" is leased, hired, rented or borrowed for a period of 60 days or less,

I. Bodily Injury Redefined

The definition of "bodily injury" in the **Definitions** Section is replaced by the following:

"Bodily injury" means bodily injury, sickness or disease, sustained by a person including death or mental anguish, resulting from any of these at any time. Mental anguish means any type of mental or emotional illness or disease.

J. Expected Or Intended Injury

The **Expected Or Intended Injury** Exclusion in Paragraph **B. Exclusions** under **Section II – Covered Auto Liability Coverage** is replaced by the following:

Expected Or Intended Injury

"Bodily injury" or "property damage" expected or intended from the standpoint of the "insured". This exclusion does not apply to "bodily injury" or "property damage" resulting from the use of reasonable force to protect persons or property.

All other terms, conditions, provisions and exclusions of this policy remain the same.

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

Schedule

Any person(s) or organization(s) whom you are required by written contract.

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement Effective 11/13/21 Policy No. WC 0217111-06 Endorsement No.

Insured: Atlas Technical Consultants, Inc. Premium $

Countersigned by _____

Designated Construction Project(s) Aggregate Limit

Coverage Part One – Commercial General Liability

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l Prem.	Return Prem.
GPL 0217085-06	11/13/2021	11/13/2022	11/13/2021	14340000	----------	----------

Named Insured and Mailing Address:

Atlas Technical Consultants, Inc.
13215 Bee Cave Pkwy,
Building A, Suite 250
Austin, TX 78738

Producer:

AON RISK SERVICES SOUTHWEST INC
5555 SAN FELIPE ST STE 1500
HOUSTON, TX 77056-2739

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the following:

Environmental Services Package Policy

In consideration of the payment of premium and the Deductible by you and in reliance upon the statements in the Application made a part hereof, we agree with you, subject to all the terms, exclusions and conditions that the following provisions apply to COVERAGE PART ONE - COMMERCIAL GENERAL LIABILITY only.

Schedule

Designated Construction Project(s): Construction projects as required by a written contract or written agreement executed and effective prior to providing services.

Total Designated Construction Project(s) Aggregate Limit: $6,000,000

1. For all sums which the insured becomes legally obligated to pay as "damages" caused by "occurrences" under COVERAGE A - BODILY INJURY AND PROPERTY DAMAGE in COVERAGE PART ONE - COMMERCIAL GENERAL LIABILITY and for all medical expenses caused by accidents under COVERAGE C - MEDICAL PAYMENTS in COVERAGE PART ONE - COMMERCIAL GENERAL LIABILITY which can be attributed only to ongoing operations at a single designated construction project shown in the Schedule above:

   a. A separate Designated Construction Project Aggregate Limit applies to each construction project, and that limit is equal to the amount of the Policy Aggregate Limit shown in the Declarations.

   b. The Total Designated Construction Project(s) Aggregate Limit, shown in the Schedule above, is the most we will pay for the sum of all “damages” caused by "occurrences" under COVERAGE A - BODILY INJURY AND PROPERTY DAMAGE in COVERAGE PART ONE - COMMERCIAL GENERAL LIABILITY and for all medical expenses caused by accidents under COVERAGE C - MEDICAL PAYMENTS in COVERAGE PART ONE - COMMERCIAL GENERAL LIABILITY which can be attributed only to ongoing operations at designated construction projects.

   c. The Designated Construction Project(s) Aggregate Limit is the most we will pay for the sum of all "damages" under COVERAGE A - BODILY INJURY AND PROPERTY DAMAGE in COVERAGE PART ONE - COMMERCIAL GENERAL LIABILITY, except “damages” because of “bodily injury” or “property damage” included in the “products-completed operations hazard”, and for medical expenses under COVERAGE C - MEDICAL PAYMENTS in COVERAGE PART ONE - COMMERCIAL GENERAL LIABILITY regardless of the number of:

      (1) Insureds;

(2) "Claims" made or "suits" brought; or

(3) Persons or organizations making "claims" or bringing "suits".

d. Any payments made under COVERAGE A - BODILY INJURY AND PROPERTY DAMAGE in COVERAGE PART ONE - COMMERCIAL GENERAL LIABILITY or "damages" or under COVERAGE C - MEDICAL PAYMENTS in COVERAGE PART ONE - COMMERCIAL GENERAL LIABILITY for medical expenses which can be attributed only to ongoing operations at designated construction projects shall reduce the Designated Construction Project Aggregate Limit for that designated construction project. Such payments shall also reduce the Total Designated Construction Project Aggregate Limit shown in the Schedule above. However such payments shall not reduce the Policy Aggregate Limit shown in the Declarations nor shall they reduce any other Designated Construction Project Aggregate Limit for any other designated construction project shown in the Schedule above.

e. The limits shown in the Declarations for Each Incident, Damage to Premises Rented to You and Medical Expense continue to apply. However, instead of being subject to the Policy Aggregate Limit shown in the Declarations, such limits will be subject to the applicable Designated Construction Project Aggregate Limits.

2. For all sums which the insured becomes legally obligated to pay as "damages" caused by "occurrences" under COVERAGE A - BODILY INJURY AND PROPERTY DAMAGE in COVERAGE PART ONE - COMMERCIAL GENERAL LIABILITY, and for all medical expenses caused by accidents under COVERAGE C - MEDICAL PAYMENTS in COVERAGE PART ONE - COMMERCIAL GENERAL LIABILITY, which cannot be attributed only to ongoing operations at a single designated construction project shown in the Schedule above:

   a. Any payments made under COVERAGE A - BODILY INJURY AND PROPERTY DAMAGE in COVERAGE PART ONE - COMMERCIAL GENERAL LIABILITY or "damages" or under COVERAGE C - MEDICAL PAYMENTS in COVERAGE PART ONE - COMMERCIAL GENERAL LIABILITY for medical expenses shall reduce the amount available under the Policy Aggregate Limit shown in the Declarations; and

   b. Such payments shall not reduce any Designated Construction Project Aggregate Limit or the Total Designated Construction Project Aggregate Limit.

3. When coverage for liability arising out of the "products-completed operations hazard" is provided, any payments for "damages" because of "bodily injury" or "property damage" included in the "products-completed operations hazard" will reduce the Products-Completed Operations Aggregate Limit shown in the declarations and not reduce the Designated Construction Project Aggregate Limit.

4. If the applicable designated construction project has been abandoned, delayed, or abandoned and then restarted, or if the authorized contracting parties deviate from plans, blueprints, designs, specifications or timetables, the project will still be deemed to be the same construction project.

5. The provisions of Limits of Insurance and Deductible (Section III.) in the COMMON COVERAGE PROVISIONS not otherwise modified by this endorsement shall continue to apply as stipulated.

ALL OTHER TERMS AND CONDITIONS OF THE POLICY SHALL APPLY AND REMAIN UNCHANGED.

Blanket Notification to Others of Cancellation

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l Prem.	Return Prem.
GPL 0217085-06	11/13/2021	11/13/2022	11/13/2021	14340000	----------	----------

Named Insured and Mailing Address:

Atlas Technical Consultants, Inc.
13215 Bee Cave Pkwy,
Building A, Suite 250
Austin, TX 78738

Producer:

AON RISK SERVICES SOUTHWEST INC
5555 SAN FELIPE ST STE 1500
HOUSTON, TX 77056-2739

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the:

Agribusiness Pollution Liability Insurance Policy - Claims Made and Reported Coverage
Commercial Umbrella Liability Policy
Commercial Umbrella Liability Policy – Claims Made and Reported Coverage
Contractor's Pollution Liability Insurance Policy
Contractor's Pollution Liability Insurance Policy - Claims Made and Reported Coverage
Environmental Cleanup and Liability Insurance Policy - Claims Made and Reported Coverage
Environmental Impairment Liability Insurance Policy - Claims Made and Reported Coverage
Environmental Services Package Policy
Excess Environmental Insurance Policy - Claims Made and Reported Coverage
Follow Form Excess Liability Policy
Follow Form Excess Liability Policy – Claims Made and Reported Coverage
Healthcare Pollution Liability Insurance Policy - Claims Made and Reported Coverage
Lender Environmental Collateral Protection and Liability Insurance Outstanding Loan Balance - Claims Made and Reported Coverage
Lender Environmental Collateral Protection and Liability Insurance Policy – Claims Made and Reported Coverage
Professional Consultant's Liability Insurance Policy - Claims Made and Reported Coverage
Professional Environmental Consultant's Liability Insurance Policy
Professional Environmental Consultant's Liability Insurance Policy - Claims Made and Reported Coverage
Public Entity Pollution Liability - Claims Made and Reported Coverage
Real Estate Environmental Liability Insurance Policy - Claims Made and Reported Coverage
Remediation Stop Loss
Z Choice Pollution Liability
Z Choice® Real Estate Environmental Liability - Claims Made and Reported Coverage
Z Choice™ Pollution Liability - Claims Made and Reported Coverage
Z Link® Commercial General and Pollution Liability

A. If we cancel this policy by written notice to the first Named Insured for any reason other than nonpayment of premium, we will deliver electronic notification that such policy has been cancelled to each person or organization shown in a Schedule provided to us by the First Named Insured. Such Schedule:

1. Must be initially provided to us within 15 days:

a. After the beginning of the policy period shown in the Declarations; or

b. After this endorsement has been added to policy;

2. Must contain the names and e-mail addresses of only the persons or organizations requiring notification that such Coverage Part has been cancelled;

3. Must be in an electronic format that is acceptable to us; and

4. Must be accurate.

Such Schedule may be updated and provided to us by the First Named Insured during the policy period. Such updated Schedule must comply with Paragraphs **2. 3.** and **4.** above.

B. Our delivery of the electronic notification as described in Paragraph **A.** of this endorsement will be based on the most recent Schedule in our records as of the date the notice of cancellation is mailed or delivered to the first Named Insured. Delivery of the notification as described in Paragraph **A.** of this endorsement will be completed as soon as practicable after the effective date of cancellation to the first Named Insured.

C. Proof of emailing the electronic notification will be sufficient proof that we have complied with Paragraphs **A.** and **B.** of this endorsement.

D. Our delivery of electronic notification described in Paragraphs **A.** and **B.** of this endorsement is intended as a courtesy only. Our failure to provide such delivery of electronic notification will not:

1. Extend the Coverage Part cancellation date;

2. Negate the cancellation; or

3. Provide any additional insurance that would not have been provided in the absence of this endorsement.

E. We are not responsible for the accuracy, integrity, timeliness and validity of information contained in the Schedule provided to us as described in Paragraphs **A.** and **B.** of this endorsement.

ALL OTHER TERMS AND CONDITIONS OF THE POLICY SHALL APPLY AND REMAIN UNCHANGED.

Notification to Others of Cancellation

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer No.	Add'l. Prem	Return Prem.
BAP-0217109-06	11/13/2021	11/13/2022	11/13/2021	14340000	----------	----------

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the:

Commercial Automobile Coverage Part

A. If we cancel this Coverage Part by written notice to the first Named Insured for any reason other than nonpayment of premium, we will mail or deliver a copy of such written notice of cancellation:

1. To the name and address corresponding to each person or organization shown in the Schedule below; and

2. At least 10 days prior to the effective date of the cancellation, as advised in our notice to the first Named Insured, or the longer number of days notice if indicated in the Schedule below.

B. If we cancel this Coverage Part by written notice to the first Named Insured for nonpayment of premium, we will mail or deliver a copy of such written notice of cancellation to the name and address corresponding to each person or organization shown in the Schedule below at least 10 days prior to the effective date of such cancellation.

C. If notice as described in Paragraphs **A.** or **B.** of this endorsement is mailed, proof of mailing will be sufficient proof of such notice.

SCHEDULE

Name and Address of Other Person(s) / Organization(s):	Number of Days Notice:
Any person(s) or organization(s) whom you are required by written contract.	30

All other terms and conditions of this policy remain unchanged.

NOTIFICATION TO OTHERS OF CANCELLATION ENDORSEMENT

This endorsement is used to add the following to Part Six of the policy.

PART SIX
CONDITIONS

A. If we cancel this policy by written notice to you for any reason other than nonpayment of premium, we will mail or deliver a copy of such written notice of cancellation to the name and address corresponding to each person or organization shown in the Schedule below. Notification to such person or organization will be provided at least 10 days prior to the effective date of the cancellation, as advised in our notice to you, or the longer number of days notice if indicated in the Schedule below.

B. If we cancel this policy by written notice to you for nonpayment of premium, we will mail or deliver a copy of such written notice of cancellation to the name and address corresponding to each person or organization shown in the Schedule below at least 10 days prior to the effective date of such cancellation.

C. If notice as described in Paragraphs **A.** or **B.** of this endorsement is mailed, proof of mailing will be sufficient proof of such notice.

SCHEDULE

Name and Address of Other Person(s) / Organization(s):	Number of Days Notice:
Any person(s) or organization(s) whom you are required	30
by written contract.	

All other terms and conditions of this policy remain unchanged.

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.
(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement Effective 11/13/21 Policy No. WC 0217111-06 Endorsement No.
Premium $ ----------

Insured:

Atlas Technical Consultants, Inc.

The DB Entity agrees to supply the goods or services at the price and on this contract's terms and conditions, and to assume and perform all the covenants and conditions required of the Contractor. The State of Michigan agrees to pay the DB Entity the Contract Price for the supply of the goods or services and the performance of the DB Entity's covenants.

The DB Entity shall provide the design and construction services on an as-needed basis at Various State/Client Agencies within the various locations as defined by the State of Michigan, in strict accordance with the contract and subsequent ISID assignments.

The State of Michigan shall compensate the DB ENTITY for providing services as outlined in the terms and conditions of this Contract and any subsequent ISID assignment.

This ISID contract will remain in effect for two (2) years from the date of this contract award plus an option of one (1) additional year but may be unilaterally terminated by the State of Michigan, at any time, for cause or its convenience, by written notification of the State of Michigan, to the DB Entity.

This contract does not warrant or imply to the DB Entity entitlement to perform any specific percentage (%) amount of compensation, work, or projects during the life of the contract.

The DB Entity is not to provide any design or construction services or incur any expenses until individual ISID projects are assigned to this contract and approved by the State of Michigan.

PLEASE NOTE: For this Design Build ISID contract, your permanent assigned ISID Contract Number, as noted above, must be provided on all correspondence and documents

The DB ENTITY shall provide the professional services for the Project in the sequence outlined in this Contract in accordance with the Department's approved and attached Appendix II - Project/Program Statement and be solely responsible for such services. The DB ENTITY services shall be performed in strict accordance with this Contract.

APPENDIX XI

POSITION CLASSIFICATION BILLING RATES
(Please refer to page 109 of contract)

APPENDIX XII

DISTRICT COSTS SHEETS
(Please refer to ages 117 - 137 of contract)