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October 9, 2023

Leonard R. Lepore, PE, Municipal Engineer
Township of West Orange
Director, Department of Public Works, Engineering Division
25 Lakeside Avenue
West Orange, NJ 07052

**Re: Professional Environmental and Licensed Site Remediation Services
New Area of Concern – Old Fuel Pump at Garage
West Orange Fire House #4
280 Pleasant Valley Way
Township of West Orange, Essex County, New Jersey
NJDEP Case #23-01-19-1312-46
Case Activity Number: LSR230001
Old Case #93-6-29-1721-47
PI # 014430**

Dear Mr. Lepore:

CME Associates (CME) is pleased to submit this proposal for Professional Environmental and Licensed Site Remediation Professional (LSRP) Services to provide environmental consulting services for groundwater remediation and monitoring at the Fire House No. 4, located at 280 Pleasant Valley Way (Site) in West Orange. CME is currently contracted with the Township for Professional Environmental and Licensed Site Remediation Services consulting work at the West Orange Fire House #4.

The additional services detailed in the following scope of work are required to comply with the NJDEP Technical Requirements for Site Remediation at the Site and necessary to continue to advance the project towards closure.

Background

Several investigation and remediation work activities have been undertaken since the remediation was initiated at the Site. The most recent environmental activities completed at the Site included excavating and removal of impacted soil that acts as a source of groundwater contamination at a limited area located between MW-11 and MW-4 in front of the garage doors. After completing the excavation work, replacement for monitoring wells MW-11R and MW-4R were installed.



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Previously, because of the limited overhead clearance in the building, the drilling/injection inside the garage (the up-gradient area of MW-4) was limited. The treatment application focused on the area down gradient of MW-4 and around MW-11 and MW-5. Therefore, excavation was recommended to remove soil from the area as practicable as possible without compromising the stability of the garage building. The scope of work for the excavation was planned to expedite remediation of groundwater at this area.

During the excavation activities, an underground piping was exposed indicating that an old Fuel Pumping Island was located immediately at the front of the garage doors. This area of concern is suspected to have an old discharge impacting the groundwater at the area around MW-4R and MW-11R. Based on the recent groundwater results at MW-4R that showed a rebound in contaminant concentrations, it confirmed additional area of concern impacts. Therefore, the NJDEP Hot-Line was called to notify the department of the discharge at the Fire House #4 and a new case # 23-01-19-1312-46 was issued for the exceedances in groundwater related to gasoline discharge caused by the new discovered area of concern (old Fuel Pumping Island). This step was necessary to create a new activity at the Site other than existing case for USTs.

In accordance with the NJDEP Regulations and recent guidance, additional groundwater remedial activities are required to complete the groundwater remedial investigation and remedial action at the Site.

The proposed scope of work is prepared to satisfy the New Jersey Department of Environmental Protection (NJDEP) requirements stated in the Administrative Requirements for Remediation of Contaminated Sites (ARRCS Rule, N.J.A.C. 26:C) and the Technical Requirements for Site Remediation (Tech Rule, N.J.A.C. 7:26E), in accordance with New Jersey's Site Remediation Reform Act (SRRA).

Scope of Services

Based on the remedial investigation findings, Site conditions and recent groundwater investigation, the extent of impacted groundwater should be and continue the semi-annual groundwater sampling.

CME has prepared the following scope of work to comply with the NJDEP Technical Requirements for Site Remediation at the Site and provide the consultation and project management necessary to continue to advance the project towards closure.



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Task 1: Monitoring Well Installation and Sampling

CME will retain a licensed driller to install one (1) monitoring well (MW-13) to a depth of approximately (30) feet below ground surface (bgs) to be located at the source area (Old Fueling Pump). The proposed monitoring well will be used for applying proposed High Vacuum Extraction.

The well will be completed with a flush-mount cover. Drill cuttings will be placed in drums and properly disposed off-site at a licensed facility, and development water will be drummed for off-site disposal or properly treated prior to on-site discharge. A professional licensed surveyor will survey the monitoring well. Well logs and Form A and Form B will be prepared to properly document the well construction.

Two weeks after the completion of the well installation, a groundwater sample will be collected from MW-13. The groundwater sample will be analyzed for TCL VO+15, TBA, and/or BN+15.

Task 2: Monitoring Well Gauging & Sampling (Semi-annual - Two Rounds)

Perform two semi-annual groundwater sampling events at the Site. Collect samples from the existing monitoring wells (MW-2 through MW-11R and proposed well MW-13). Groundwater samples will be obtained in accordance with the NJDEP Field Sampling Procedures Manual (August 2005). Groundwater samples will be analyzed for TCL VO+15, TBA, and/or BN+15. A QA/QC plan consisting of field and trip blank samples will be incorporated into the sampling program. Purged groundwater will be containerized in drums and disposed off-site at an approved disposal facility.

All sampling and monitoring will be performed according to the methodology specified in the most current edition of the Department's Field Sampling Procedures Manual. All samples will be analyzed by a New Jersey Certified Laboratory except those field-determined parameters specified in the monitoring program established pursuant to the oversight document.

Task 3: Application of High Vacuum Extraction (HVE) Treatment System

High Vacuum Extraction (HVE) treatment system utilizes a soil venting unit which is powered by an internal combustion engine to produce vacuum to extract groundwater and soil vapors from the extraction point. The removal of contaminated groundwater, as well as subsurface vapors, will reduce contaminant mass; as such, it will aid in overall remediation of dissolved phase groundwater contamination and residual product in soil.



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CME proposes to conduct the HVE treatment technology at proposed monitoring well (MW-13). Total of four (4) HVE treatment applications will be conducted at the Site on a monthly basis using a mobile HVE treatment unit.

Task 4: Reporting and Management

LSRP Project Management/Coordination

CME will provide effective project management services to complete the work proposed herein and will coordinate with the Township and their subcontractor(s), CME's subcontractor(s), and the NJDEP, as necessary. CME's assigned LSRP will oversee remedial activities at the Site, prepare/certify related reports, and submit the required Site Remediation Reform Act (SRRA) forms to the NJDEP. CME's LSRP will also participate in project related meetings and conference calls, as directed by the Township.

Remedial Investigation Report

The investigations will be documented in a Remedial Investigation (RIR) prepared pursuant to N.J.A.C. 7:26E-3.13. The RIR will summarize the field activities, methods, results, findings, and conclusions of the investigations. The RIR will include laboratory reports, analytical summary tables, boring logs, and maps and plans to appropriately document the sample locations and results. Based on the findings of the Remedial Investigation, recommendations will be provided for additional investigation and/or remedial action, if warranted.

Health and Safety Plan

A site-specific Health and Safety Plan (HASP) will be prepared in accordance with applicable Occupational Safety and Health Administration (OSHA) regulations and industry health and safety standards. The HASP will specify the health and safety procedures to be followed during implementation of the field activities at the Site in order to protect on site personnel and the general public, respond to emergencies, comply with environmental regulations, and prevent pollution as a result of work operations.

Quality Assurance Project Plan

A site-specific Quality Assurance Project Plan (QAPP) for the proposed investigation activities will be prepared in accordance with the requirements at N.J.A.C. 7:26E-2.2 and NJDEP guidance documents. The QAPP will specify the quality assurance (QA) and quality control (QC) procedures to be implemented during the field activities at the Site.



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Receptor Evaluation

Pursuant to N.J.A.C. 7:26E-1.12 et seq., the receptor evaluation must be initiated and updated and submitted to the NJDEP along with any key document submittal (e.g., RIR). Accordingly, CME will conduct a receptor evaluation update based on the findings of the investigations proposed herein. CME will also complete and submit the required Receptor Evaluation Form to applicable government agencies (e.g., NJDEP, health department, municipal clerk).

Remedial Action Workplan

Upon the completion of RI Phase, CME Associates will prepare a Remedial Action Workplan (RAW) to address groundwater contamination at the site in accordance with N.J.A.C. 7:26E-5.5 and applicable NJDEP guidance and timeframes. The purpose of a remedial action is to remove, treat, or isolate contamination in order to protect public health, safety and the environment. Depending on the groundwater baseline sampling results, it is anticipated that alternative remedial action including natural attenuation will be considered. The RAW will present a detailed description of the proposed remediation including the following:

- Summary of remedial investigation findings and recommendations;
- Description of areas of concern;
- Summary of previously implemented remedial measures;
- Detailed description of the remedial action technology to be used for the area of concern;
- Identification of applicable remediation standards;
- Remedial action performance monitoring and verification sampling plan;
- Quality Assurance Project Plan (QAPP) in accordance with N.J.A.C. 7:26E-2.2;
- Required permits;
- Site Restoration Plan;
- Health and Safety Plan (HASP) for remedial activities;
- Remedial action cost estimate;
- Schedule and proposed completion date for each remedial action task, pursuant to the required regulatory timeframe at N.J.A.C. 7:26E-5.8.

The RAW will be submitted to the NJDEP in accordance with the requirements at N.J.A.C. 7:26E-5.5(a). CME will complete the online remedial action workplan form and submit the RAW electronically.

Proposed Budget

The budget for completion of the proposed scope of work is **\$92,600** as indicated in the following table:



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Task	Cost
Task 1- Well Installation	\$ 10,700
Task 2- Monitoring Well Gauging & Sampling (Semi-annual - Two Rounds)	\$ 26,500
Task 3- High Vacuum Extraction (HVE) - Four rounds	\$ 28,900
Task 4- Reporting and Management	\$ 26,500
Total	\$ 92,600

The proposed budget includes approximately **\$46,000** for subcontractor's fee, including laboratory analysis, equipment cost, etc. The budget contained in this proposal is the firm's best estimate of the effort required to carry out the project as outlined in the scope of work. However, the client will be billed for the actual effort expended to implement the Scope of Services in accordance with the attached billing rates for Environmental Engineering and LSRP services. In no event will the client be billed or work performed in excess of the proposal amount without client's prior approval.

Assumptions and Limitations

The scope of work is limited to the tasks outlined above. Based on the investigation findings, additional remediation activities may be required to comply with N.J.A.C. 7:26E and close the case. We note that further activities related to site remediation may be required pursuant to N.J.A.C. 7:26C and N.J.A.C. 7:26E, which are not included in this proposal. To complete this project in accordance with regulations, CME Associates will prepare a separate proposal to further assist the Township for any additional work. We assume that the Township will directly pay NJDEP Annual Remediation Fees.

Special Conditions for LSRP Services

- The enactment of the [Site Remediation Reform Act](#) (SRRA; N.J.S.A. 58:10C-1 et seq) on May 7, 2009, and the adoption of the Administrative Requirements for the Remediation of Contaminated Sites (ARRCS; N.J.A.C. 7:26C) on November 4, 2009 require that all new remediation cases follow the provisions of SRRA. A key requirement of these rules is that a Licensed Site Remediation Professional (LSRP) must oversee all new remediation cases.
- The ARRCS requires the person responsible for conducting remediation to notify the NJDEP of any confirmed discharges of contaminants or condition of Immediate



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- Environmental Concern ("IEC"). Please note that being an LSRP, as a State licensed professional, I will thus have the obligation to report any such conditions to the NJDEP without obtaining any prior approval from the client.
- LSRP will provide the required services in accordance with SRRA and has the obligation to submit, maintain and preserve the relevant documents.
 - LSRP is not responsible for client's failure to disclose relevant information, perform SRRA obligations, fund remediation, and follow LSRP's recommended actions. Client's failure to perform these obligations may result in fines/penalties by the NJDEP.
 - The issuance of RAO by LSRP is not a guarantee or warranty that the site is free of contamination, or that it will be accepted by the NJDEP.
 - NJDEP may audit the RAO within three (3) years after the date the LSRP filed the RAO with the NJDEP. LSRP is not responsible for additional requirements imposed by NJDEP after review/audit, except to the extent they arise out of LSRP's negligence.

We appreciate the opportunity to submit this proposal and assist the Township on this project. Should you have any questions, please do not hesitate to call me at 732-951-2101, extension 103.

Respectfully submitted,

CME Associates

Behram Turan, P.E., LSRP- Principal
Director of Environmental Services

Enclosure

cc: Michael McClelland, P.E., P.P. - Partner / CME Associates