THE SCHOOL DISTRICT OF PHILADELPHIA
BOARD OF EDUCATION
Office of Capital Programs
440 North Broad Street, 3rd Floor – Suite 371
Philadelphia, PA 19130

TELEPHONE: (215) 400-4730

Addendum No. 002

Subject: **Louis H. Farrell School-Schoolyard Improvement Project**
SDP Contract No. B-065C of 2020/2021

Location: **Louis H. Farrell School**
8300 Castor Avenue
Philadelphia, Pennsylvania 19152

This Addendum, dated January 6, 2022, shall modify and become part of the Contract Documents for the work of this project. Any items not mentioned herein, or affected by, shall be performed strictly in accordance with the original documents, unless modified by prior addenda.

BIDDER QUESTIONS AND RESPONSES

1. What is the schedule in calendar days from the NTP? We need to know this in order to evaluate the schedule and potential liquidated damages. The end date without a scheduled duration and start date is not enough information to evaluate the schedule and liquidated damages.

   This project has fixed completion dates, so the time of completion is not measured in the number of calendar days from Notice to Proceed.

   Substantial Completion is required by August 24, 2022 and Final Completion by October 28, 2020.

   Although the District has up to ninety (90) days after the opening of bids to make an award, the award of a contract for this project, if one is made, is currently anticipated to occur at the April 21, 2022 Action Meeting of the Board of Education and Notice to Proceed issued by Mid-April 2022, but those dates are not guaranteed.

   As long as an Award and Notice to Proceed are made within the required time limits of the Bidding and Contract Documents, the awarded contractor is obligated to adjust his schedule and resource levels to the meet the fixed completion dates for the project.

2. Spec. Section 011145-Soil Management, Para. 1.1, C: Who pays for the Project Environmental Engineer?

   Delete Section. Project Environmental Engineer is not required.

3. Spec. Section 011145-Soil Management, Para. 1.1, G: calls for a unit price for transportation and disposal of 400 tons of material but this is not on the bid form. Please include on the bid form or advise if this should be included in our base bid price.

   Delete Section.

4. The entrance shown on the plans is not wide enough to accommodate all of our equipment. Can the fence and the existing apron be modified to our needs provided we return it to its original condition at the end of the project?

   Existing fence section(s) and driveway apron may be modified or removed as required. Work will be coordinated with SDP Construction Manager. Restoration to original condition will be required at project close-out.

5. Is there a project sign required? If yes, can you provide the specifications?

   Project sign is not required.

6. Is there a geotechnical report for this project? If yes, can we have a copy of it?

   No geotechnical evaluation of the bearing capacity or suitability of site soils was prepared for this project.

   A Soil Sampling Analysis and Summary Report prepared by Kleinfelder, dated August 3, 2021, 16 pages, was prepared to determine whether any soil removed for offsite disposal can be disposed of as "Clean Fill" under PA EPA regulations.

   It is attached for bidder information only.

7. Are there borings for this project? If yes, can we have them along with a boring location plan?

   The Kleinfelder Report does include a plan showing approximate location of borings.

8. Who is responsible for testing and inspection work?

   SDP will perform periodic construction observation. Contractor is responsible for inspections and/or testing as required per specifications (i.e. rubber safety surface impact testing, imported soil composition).

9. The existing line striping at the basketball courts is not straight and will not line up with the new striping. Do we need to include eradicating the existing lines prior to painting the new lines?

   Basketball court line striping is removed from the scope of work. Existing striping is to remain.

10. Is the metal rumble mat shown on Sheet C-501 a requirement or do contractors have the option of a traditional stone tire scrub so long as we restore the asphalt pavement?

    The rumble mat(s) are required. The construction access area is to have asphalt mill and overlay repairs, not full depth removal and replacement, in accordance with PWD permitting.

11. What is the proposed diameter of the steel eye hook posts shown on Detail 7, Sheet L-503.

    See # 12, below.

12. The eye hook post as shown on Sheet L-503 would be a custom fabricated product. There are off-the-shelf products such as the following with a pigtail head that do not match the detail exactly. Would these be acceptable?

    A readily available, prefabricated steel eye hook is intended to be used for this purpose. Height above grade and color must conform to detail.

13. On drawings # L-104 and L-103 it mentions the Farrell School will provide a Buddy Bench and the contractor will install it. Is there a detail of the Bench as it will be installed on a concrete pad?
14.

    A bench detail is not available. The bench will be surface mounted on a concrete pad using concrete anchor bolts, drilled in place.

END OF ADDENDUM #002

ATTACHMENT:

Kleinfelder Report, dated April 3, 2021, 16 pages

August 3, 2021
Kleinfelder Project No.: 20221017.001A

Mr. Steve Link, Environmental Director
School District of Philadelphia
Office of Environmental Management & Services
440 North Broad Street, 3rd Floor, Room 3053
Philadelphia, PA 19103

SUBJECT: Soil Sampling Summary
Farrell Elementary School
8300 Castor Ave
Philadelphia, Pennsylvania 19152

Dear Mr. Link:

Kleinfelder has prepared this letter report summarizing the historical site due diligence and the laboratory analytical results for investigation sampling activities conducted at the above referenced site on June 28th, 2021. The purpose of this investigation was to characterize the subsurface soil to be excavated as part of proposed construction activities at the site and to evaluate whether the excavated soil could be handled as "clean fill" per the Pennsylvania Department of Environmental Protection (PADEP) Clean Fill regulations should soil removal and off-site disposal be required. This work was performed in accordance with the email notice to proceed received from Mr. Gaeton Tavella (School District of Philadelphia Environmental Compliance Manager) dated April 29th, 2021.

SITE BACKGROUND

The Farrell Elementary School (the site) is located at 8300 Castor Avenue in the Rhawnhurst neighborhood of Philadelphia, Pennsylvania. The school was constructed in 1958 on previously undeveloped farmland. The site is bound to the north by Fox Chase Road, to the east by Castor Ave, to the south by Hoffnagle Street and to the west by Alma Street. The site is improved with a three-story main school building and two connected annex buildings. A paved parking/recreational lot is located to the east, south and west of the school buildings. It is Kleinfelder's understanding that the School District of Philadelphia is planning to improve the paved lot with greening, playground equipment, and volleyball/soccer courts.

The surrounding area is developed with a mixture of residential dwellings and commercial properties. The site location is shown on **Figure 1**.

FIELD METHODOLOGIES AND OBSERVATIONS

Soil samples were collected for chemical analyses to determine whether soil and/or fill material within the proposed limit of disturbance footprint would be classified as either clean fill or regulated fill material as per the updated January 2020 Pennsylvania Department of Environmental Protection (PADEP) Clean Fill Management Policy (historic fill sampling). The updated policy allows pre-determined

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knowledge of historic fill on properties to be analyzed via a shortened list of parameters to determine if the historic fill meets the definition of clean fill or regulated fill.

Soil sampling locations and depths were selected based on the proposed locations of playground equipment, proposed tree trenches and the proposed footprint of the paved recreation areas, (the playground equipment, tree trenches, and paved recreation areas as shown on plans provided by the School District). Soil sampling procedures, sample storage, shipment, preservation, and chain-of-custody documentation followed PADEP's accepted sampling protocols.

Soil Sampling Investigation

On June 16th, 2021, Subsurface Environmental Technologies, LLC. (SET) performed a subsurface utility scan and mark-out of the proposed limit of disturbance, including the proposed playground equipment, proposed tree pits, and the proposed paved recreation area surfaces. The utility scan and mark-out activities consisted of the use of ground penetrating radar (GPR) with a 400-megahertz (MHz) ground penetrating radar antenna to detect subsurface anomalies, an electromagnetic (EM) instrument to detect metallic anomalies as deep as 3 to 5 feet below the ground surface, and Radio Frequency (RF) generator that provides visual and audio feedback to utilities with an electrical charge. A 10-foot radius was scanned and cleared around each soil boring location and the proposed limits of disturbance and tree pits. Underground utilities and anomalies in the proposed work area were located and identified prior to drilling activities. The subsurface utility scan and mark-out identified and confirmed the location of subsurface pipelines (2 storm lines and 3 unknown lines) traversing the site. The unknown lines traversed the site from the schooling building to the northwest towards Alma Street. The storm lines traversed the site to existing storm grates located on the paved lot of the site. One storm line traversed the site from the northeast to a storm grate located in the approximate middle of the paved lot. The other storm line originated close to the building where a storm grate is located close to the corner of the school building. Two of the subsurface pipelines bisect the proposed construction area. A copy of the subsurface utility scan and mark-out report is provided **Attachment A**.

On June 28th, 2021, SET advanced twelve (12) soil borings utilizing Geoprobe® direct push technology (DPT) to five (5) feet below ground surface (bgs) in the area of proposed work (SB-1 through SB-12). Soil boring locations are shown on **Figure 2**. Continuous samples from the Geoprobe® macrocores were logged by a Kleinfelder field representative. Soil lithology was logged in accordance with the Unified Classification System (ASTM D-2487 and ASTM D-2488) and copies of the soil boring logs are included in **Attachment B**.

Fill material consisting of reddish yellow silty sand with gravel was observed beneath the asphalt surface ranging between approximately 0.5 foot and 1-foot bgs. Reddish yellow clayey lean sand was observed beneath the fill material ranging from between approximately 1 foot to 5 feet bgs. Soil borings were terminated at 5 feet bgs. Groundwater was not encountered in the soil borings advanced at the site.

During advancement of the Geoprobe® macrocores, the fill material was examined for signs of contamination and screened for volatile organic compounds (VOCs) utilizing a photoionization detector (PID) with a 10.6 eV lamp. Elevated PID readings, staining, and odors were not encountered during the investigation.

Composite Soil Sampling

Three (3), four-point composite samples (COMP-1 through COMP-3) were collected from various soil borings at varying depths within the project area. COMP-1 was collected from boring locations SB-1 through SB-3 and SB-5; COMP-2 was collected from boring locations SB-6 through SB-8 and SB-11; and COMP-3 was collected from soil boring locations SB-4, SB-9, SB-10 and SB-12 at various depths ranging from 1 to 5-feet bgs. As part of the composite sampling, three (3) grab soil samples were collected for VOC analysis from the depth intervals that exhibited the highest PID readings or areas of staining of the composite sample sets, specifically from SB-1, SB-11, and SB-12.

The composite samples were collected by homogenizing the soil from four separate intervals of varying depths from the borings using pre-cleaned and dedicated sampling tools prior to transferring the soil to laboratory pre-cleaned 8-oz glass jars and one EnCore© sampling set. The soil samples were submitted to Chemtech Laboratory (Chemtech) of Mountainside, New Jersey (PA Certification No. 68-548) for analyses of PADEP Historic Fill Parameters. Sampling procedures, sample storage, shipment, preservation, and chain-of-custody documentation followed PADEP's accepted sampling protocol.

LABORATORY ANALYTICAL RESULTS

Kleinfelder compared the soil sample results to the PADEP Clean Fill Criteria (PADEP 1/2020). The analytical results from this investigation are summarized in Tables 1 through 9 in **Attachment C**. A copy of the laboratory's analytical report is provided as **Attachment D.**

Analysis of Soil Sampling Results

The laboratory analytical results indicate that the soil samples COMP-1, COMP-2 and COMP-3 exhibited concentrations of vanadium above PADEPs Clean Fill Criteria (15 mg/kg) at 39.3 mg/kg, 37.7 mg/kg and 42.7 mg/kg, respectively. The remaining compounds were either detected at concentrations below the PADEP Clean Fill Criteria or were not detected above the laboratory's method detection limits (MDLs).

SUMMARY

Based on the historical site due diligence and laboratory analytical results from the field investigation, Kleinfelder offers the following conclusions:

1. A review of historical site information does not indicate that the previous site or surrounding area use has impacted the subsurface in the area of the proposed limit of disturbance and tree pits.

2. Vanadium concentrations were reported at 39.3 mg/kg, 37.7 mg/kg and 42.7 mg/kg mg/kg in samples COMP-1, COMP-2 and COMP-3, respectively. The PADEP Clean Fill Criteria for vanadium is 15 mg/kg. Vanadium is naturally occurring in Pennsylvania soils, often at concentrations above the Residential Direct Contact Statewide Health Standard/Clean Fill Criteria. Based on the historical due diligence, a reasonable or likely source of vanadium at the site could not be identified and therefore its presence can be attributed to naturally occurring background levels and does not warrant further investigation.

3. Soil boring locations were selected based on the proposed locations of site improvement areas supplied to Kleinfelder by the School District via email on June 1st, 2021. If design plans are updated/changed, the boring locations should be reviewed to see if additional sampling may need to be conducted. If indications of environmental contamination or concerns are observed during construction operations, the contractor should contact the School District.

LIMITATIONS

This work was performed in a manner consistent with the level of care and skill ordinarily exercised by other members of Kleinfelder's profession practicing in the same locality, under similar conditions and at the date the services are provided. Our conclusions, opinions and recommendations are based on a limited number of observations and data. It is possible that conditions could vary between or beyond the data evaluated. Kleinfelder makes no other representation, guarantee or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

Regulations and professional standards applicable to Kleinfelder's services are continually evolving. Techniques are, by necessity, often new and relatively untried. Different professionals may reasonably adopt different approaches to similar problems. As such, our services are intended to provide the School District of Philadelphia with a source of professional advice, opinions and recommendations.

This report may be used only by the School District of Philadelphia and the registered design professional in responsible charge and only for the purposes stated for this specific engagement within a reasonable time from its issuance, but in no event later than two (2) years from the date of the report.

The work performed was based on project information provided by the School District of Philadelphia. If the School District of Philadelphia does not retain Kleinfelder to review any plans and specifications, including any revisions or modifications to the plans and specifications, Kleinfelder assumes no responsibility for the suitability of our recommendations. In addition, if there are any changes in the field to the plans and specifications, the School District of Philadelphia must obtain written approval from Kleinfelder's engineer that such changes do not affect our recommendations. Failure to do so will invalidate Kleinfelder's recommendations.

Kleinfelder assumes no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury that results from preexisting hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials. Nothing contained in this report should be construed or interpreted as requiring Kleinfelder to assume the status of an owner, operator, or generator, or person who arranges for disposal, transport, storage, or treatment of hazardous materials within the meaning of any governmental statute, regulation or order. The School District of Philadelphia is solely responsible for directing notification of all governmental agencies, and the public at large, of the existence, release, treatment, or disposal of any hazardous materials observed at the project site, either before or during performance of Kleinfelder's services.

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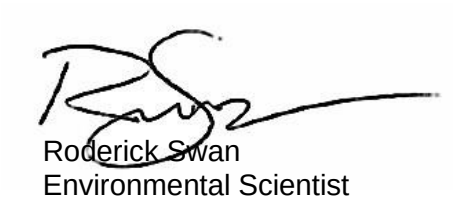
CLOSING

Please contact the undersigned at 610.594.1444 if you have questions regarding the information presented in this report.

Sincerely,
KLEINFELDER



Roderick Swan
Environmental Scientist

Reviewed by

Mark Warchol
Project Manager

Attachments
MRM/MW:e

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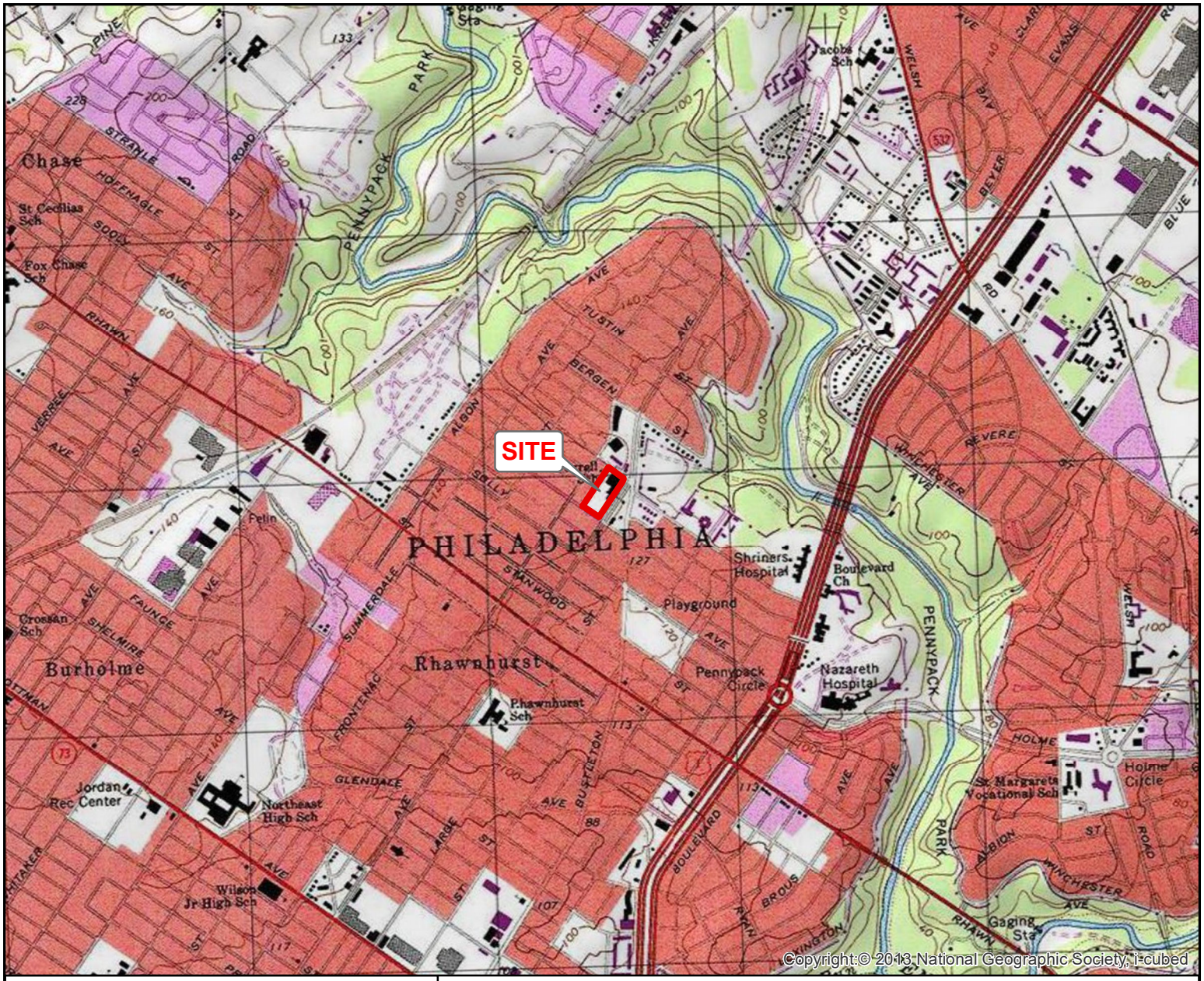
FIGURE 1

SITE LOCATION MAP



N

0 1,000 2,000 4,000

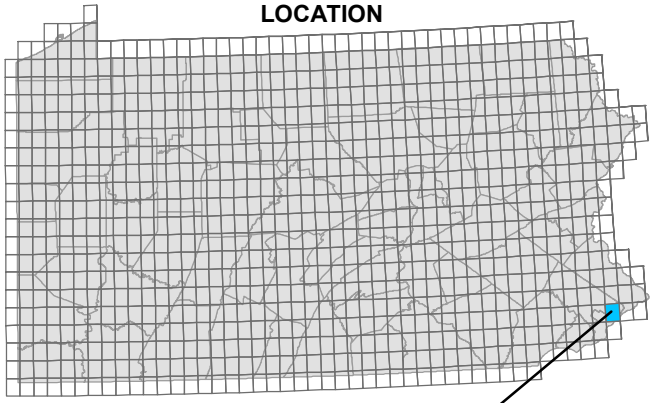
Feet (1" = 2,000')

LEGEND

Site

SITE COORDIANTES:
LATITUDE: 40.066331
LONGITUDE: -75.052356

PENNSYLVANIA QUADRANGLE LOCATION



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PROJECT NO.	20221017.001A
DRAWN:	JULY 2021
DRAWN BY:	RAS
CHECKED BY:	MAW
FILE NAME:	Figure 1_Site Location Map.mxd

SITE LOCATION MAP

FARRELL ELEMENTARY SCHOOL
8300 CASTOR AVENUE
PHILADELPHIA, PA 19152

FIGURE
1

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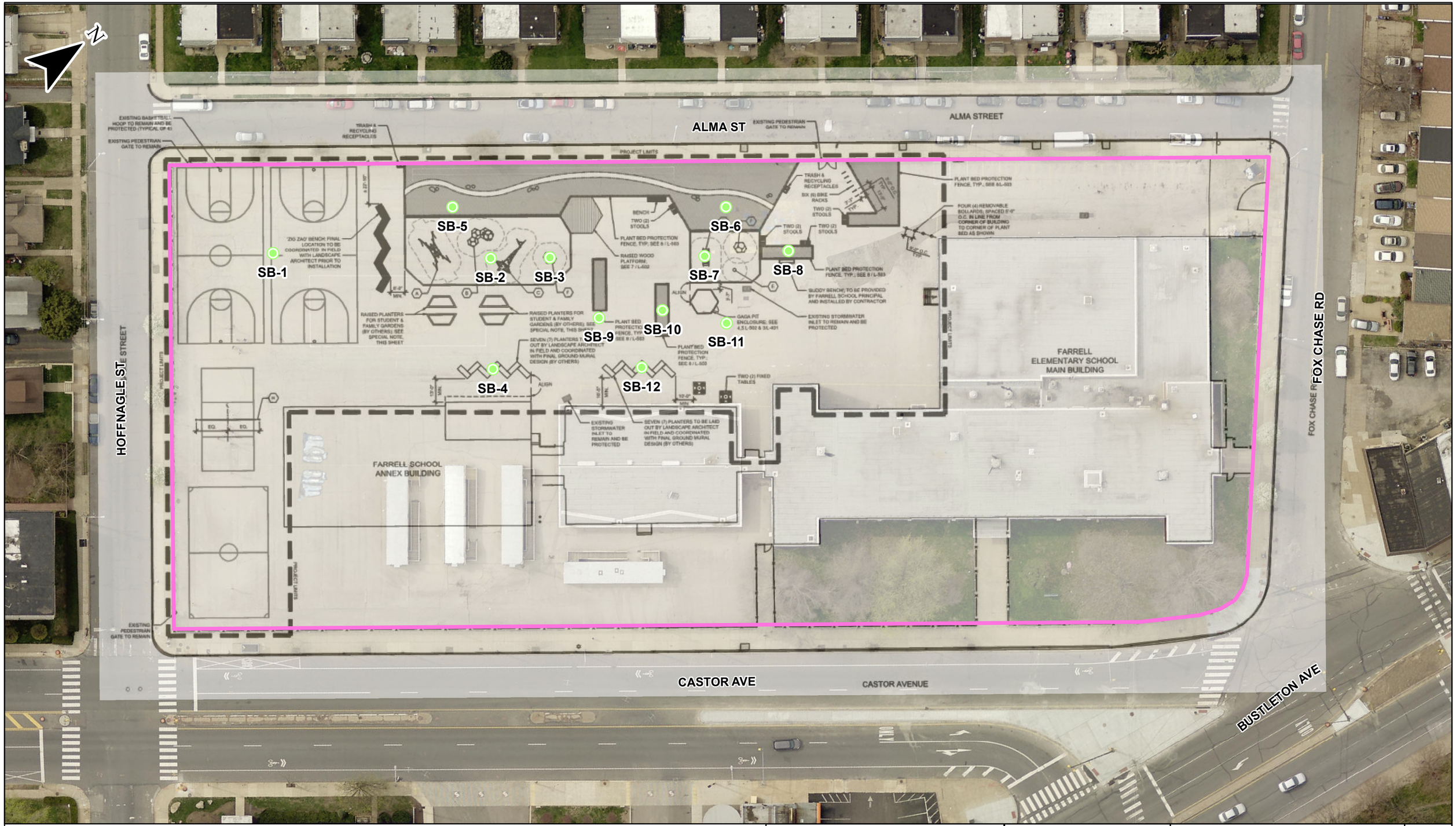
FIGURE 2

SOIL BORING LOCATION MAP



0 25 50 100 Feet

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Legend

- Site
- Proposed Soil Boring Locations

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PROJECT NO.	20221017.001A
DRAWN:	JULY 2021
DRAWN BY:	RAS
CHECKED BY:	MAW
FILE NAME:	Figure 2_Soil Borling Location.mxd

SOIL BORING LOCATION MAP

FARRELL ELEMENTARY SCHOOL
8300 CASTOR AVENUE
PHILADELPHIA, PA 19152

FIGURE
2

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ATTACHMENT A

S.E.T. GEOPHYSICAL REPORT

Subsurface Environmental Technologies, LLC
230 Route 130 South
Bordentown, New Jersey
Phone: 609-730-0005
Fax: 609-730-1222

June 24, 2021
SET Proposal No: **21-156GD**

Mr. Mark Warchol
Kleinfelder
180 Sheree Boulevard, Suite 3800
Exton, Pennsylvania 19341

Subject: Geophysical Investigation Results
Louis H. Farrell School Site
8300 Castor Avenue
Philadelphia, Pennsylvania

Dear Mr. Warchol,

Subsurface Environmental Technologies (SET) Geophysics Department presents this report to Kleinfelder of Exton, Pennsylvania describing the methods and results of a geophysical investigation conducted at the Louis H. Farrell School Site located at 8300 Castor Avenue in Philadelphia, Pennsylvania. For this project, SET surveyed an open, asphalt playground and parking lot to the west of the school buildings, as defined by Kleinfelder in the field. The field activities for this investigation were completed by SET on Wednesday June 16, 2021.

Objectives

The primary objective of this geophysical survey was to locate potential buried pipelines and anomalies prior to the initiation of intrusive activities, in order to avoid damage to equipment and pipelines, and to ensure the safety of field personnel. The geophysical data was analyzed closely for these targets. To meet the objective of the investigation, SET used the hand-held electromagnetic (HHEM), radiofrequency (RF), and ground-penetrating radar (GPR) methods.

Survey Grids

The HHEM, GPR and RF data were acquired in the scan mode over the area described above. Closely-spaced geophysical scans were collected in a gridded pattern throughout the survey area to provide optimal subsurface coverage. In the event that a buried utility or feature was detected, it's position was marked on the ground with spray paint, and GPS positions were acquired for placement onto a map.

Geophysical Methods

<u>Hand-Held Electromagnetic Methods</u>

The hand-held electromagnetic method uses the principle of electromagnetic induction to detect shallowly-buried metal objects such as underground storage tanks (USTs), metal utility conduits,

reinforced concrete slabs, manhole covers, and miscellaneous metal debris. To complete this task, the operator carries the hand-held radio transmitter-receiver unit above the ground and continually scans the surface. A primary coil broadcasts a radio signal from the transmitter. This primary radio signal induces secondary electrical currents in metal objects. These secondary currents, in turn, produce a magnetic field which is detected by the receiver.

The HHEM instrument SET typically uses for shallow investigations is a Fisher TW-6 pipe and cable locator by Fischer, Inc. This instrument operates by generating both a unitless meter reading and an audible signal response when near a metal object. The peak instrument response usually occurs when the unit is directly over the object.

Ground Penetrating Radar (GPR) Method

The ground-penetrating radar (GPR) method was used to provide subsurface imaging information throughout the areas of investigation. The GPR method is based upon the transmission of repetitive, radio-frequency electromagnetic (EM) pulses into the subsurface. When the transmitted energy of down-going wave contacts an interface of dissimilar electrical character, part of the energy is returned to the surface in the form of a reflected signal. This reflected signal is detected by a receiving transducer and is displayed on the screen of the GPR unit as well as being recorded on the internal hard-drive. The received GPR response remains constant as long as the electrical contrast between media is present and constant. Lateral or vertical changes in the electrical properties of the subsurface result in equivalent changes in the GPR responses. The system records a continuous image of the subsurface by plotting two-way travel time of the reflected EM pulse versus distance traveled along the ground surface. Two-way travel time values are then converted to depth using known soil velocity functions.

The GPR field procedures involved (1) instrument calibration, (2) test run completion, (3) production profile collection and recording, and (4) data storage for subsequent processing and analysis in the office. Each radar profile was examined for characteristic GPR signatures that may indicate the presence of buried targets. A Geophysical Survey System SIR System 2 and a 400 megahertz (MHz) antenna were used with a recording window of 60 nanoseconds (ns) to provide the required depth penetration and subsurface detail.

Radio-Frequency Method

The RadioDetection RD4000 multi-frequency utility locating system was used for this project. This instrument consists of a receiver/tracer and a remote transmitter, which operates at frequencies between 8 kHz and 200 kHz. The unit provides audio and visual feedback to the operator when a utility that is coupled with the transmitted signal is crossed. The transmitter produces a radio-frequency signal in the utility to be traced by either induction coupling or direct hookup. The receiver output provides measured field strength of the received signal and varies an audible pitch that is dependent upon the distance to the utility. By carefully adjusting the gain of the receiver, it is possible to determine the location of the utility and to separate it from possible adjacent utilities. In addition, the receiver can be used in 60 Hz passive mode to identify active electrical lines or lines that possess an induced current.

Results

SET has enclosed 3 figures with this report. Figure 1 is an annotated, geo-referenced orthophoto that shows the locations of buried utilities that were detected in the survey area. Figures 2 and 3 present site photographs of these same items. The results of the geophysical survey are summarized below.

Buried Utility Lines

SET detected 5 buried pipelines in the survey area. These included 2 storm lines and 3 unknown lines. The locations of the lines were marked in the field with white spray paint, and their approximate positions are shown in Figures 1 through 3. SET used the American Public Works Association (APWA) color guidelines for placing these lines on our figure. Using this system, red lines represent electric, orange lines represent telecommunication, yellow lines represent gas, blue lines represent water, green lines represent storm and sewer, and SET used magenta for unknown lines.

Asphalt Patch

SET noted a large asphalt patch in the northern part of the survey area that represented a possible, former excavation. SET collected geophysical data over this feature but did not observe any anomalous responses that would indicate buried utilities or anomalies. It may be that potential lines or anomalies are too deep (greater than 4-5 feet), too small, or non-metallic, and cannot be "seen" geophysically. Despite the lack of anomalous responses here, SET recommends that no drilling activities occur within this asphalt patch.

Data Quality

The data quality for this project was good. The HHEM, RF, and GPR responses at the site were consistent and correlated well between profiles. The interpretations presented in this report are based on observed geophysical responses, visual observations, and historical information.

If you have any questions, please contact me 609-651-3935. It was a pleasure working with you on this project, and look forward to conducting geophysical investigations for you in the future.

Sincerely,

Peter Miller

Peter T. Miller Ph.D., P.G.
Senior Geophysicist, SET

encl.: Figure 1: Annotated Geo-Referenced Orthophoto Showing Buried Utilities
Figures 2-3: Annotated Site Photographs Showing Buried Utilities

ATTACHMENT B

SOIL BORING LOGS

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ATTACHMENT C

SUMMARY TABLES

ATTACHMENT D

LABORATORY ANALYTICAL REPORT