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May 16, 2019

Dr. Brian Costello
Wilkes Barre Area School District
730 South Main Street
Wilkes-Barre, PA 18711-0376

**RE: New High School – Pagnotti Site, Plains Township
Site Background & Permitting Summary**

Dear Dr. Costello:

The Design Team recently completed the certification process for the PA Department of Education (PDE). We are pleased that after all submissions to the appropriate regulatory agencies, the PDE has issued a certificate of compliance to the Wilkes Barre Area School District for the new school facility to be located on the Pagnotti site. We congratulate you and the Board on this milestone.

The Design Team and the District provided the required information to local and state agencies regarding the site and construction of the new school, following the necessary regulations in order to assess the environmental safety of the site.

In addition, the Department of Environmental Protection (DEP) environmental oversight in approving the District's plan for use of the site has provided for control of the existing coal ash (capping to prevent exposure) and heavy metals (naturally occurring in soil) in the soil and the water. DEP's approved method is capping the site with buildings, parking and sufficient topsoil cover so that no one is in contact with the native soil - capping with buildings, asphalt and up to two feet of cover. After capping, there will be no passing of contamination by heavy metals through the air. Because the site is served by public water, occupants will not be exposed to contaminants through drinking water. In addition the groundwater has been monitored, tested and approved – additional testing of the soil will assure continued compliance. We therefore agree with DEP that the District can safely use the site as a school and adjoining athletic facilities. A summary of all activities is attached.

With regard to the former mining operations conducted at the site, and in compliance with the requirements of PA ACT 17, PADEP Bureau of Abandoned Mine Lands has determined that the site, with appropriate subsurface and foundation improvements, is suitable for construction of a new school.

We look forward to the construction and opening of the new school and appreciate the opportunity to work on this great project.

Sincerely,

Patrick J. Endler, AIA, LEED-AP
Vice President
Borton-Lawson Engineering, Inc.



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SITE BACKGROUND AND PERMITTING SUMMARY

Executive Summary

The site of the WBASD New High School, formerly the Pagnotti site, in Plains Township is suitable for its new use. The Design Team has worked closely with the prior owner as well as local and state authorities having jurisdiction to evaluate the site, to review various design and remediation solutions and to plan for public use of the new development. This collaborative process, with site permitting led by Borton-Lawson, has resulted in the issuance of the appropriate regulatory permits to allow the site to be used in a safe manner going forward.

Site Background

The subject property has been a Brownfield site for many years. Anthracite coal mining began in the early 1900's and continued through the 1960's, when the colliery was closed.

The colliery site was purchased by the Pagnotti family in 1978, when surface mining was resumed. Surface mining continued in various forms through the 1990's by various Pagnotti Family mining interests.

A surface mining anthracite coal permit was issued in 1986 to the Jeddo Highland Coal Company. The permit was updated/renewed through the years. Beginning in 2002 Northampton Fuel Supply leased the property from the Pagnotti Family to perform refuse bank mining. Most of the site was reclaimed by surface bank mining to remove the refuse culm and silt piles from the site. The culm and silt materials were transported to a co-generation plant for power production and the ash refuse from the power production was returned to fill pits on the site. 2005 was the last year recorded for ash placement on the site.

The Pennsylvania Department of Environmental Protection (DEP) was responsible for issuing the surface mining permit and renewals. In addition to monitoring the surface mining and ash placement activity, DEP also conducted groundwater monitoring prior to, during and after the ash was placed. In accordance with the regulations (5 years of groundwater monitoring), the sampling concluded in 2010. Results of the sampling were compared to DEP drinking water standards. In general the trends for the parameters tested did not show potential risk for contamination. The mining permit will be closed within several weeks, but construction will continue under the NPDES permit, discussed below.

WBASD Permitting Process

In 2014, as part of the District's original Feasibility Study, a Phase I Environmental Site Assessment (ESA) was performed at the Pagnotti property by Borton-Lawson. Due to the conditions identified at the site at that time further investigation was recommended in the form of a Phase II ESA. At that time, the site was not chosen as the District focused on District-owned properties.

In late 2016, the District began a new search for a site to purchase for development. An investigation of three new parcels began. As work progressed, the Pagnotti site was again identified for consideration, in addition to the three sites. The Pagnotti site emerged as the primary site for consideration due to numerous factors.

In August 2017, the District authorized a Phase II Environmental Site Assessment (ESA), and limited geotechnical assessment of the Pagnotti site for the purposes of PADEP Act 17.

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Phase II ESA – Borton-Lawson conducted the Phase II with Geological and Environmental Associates subconsulting; the final report was completed October 2017. This work included a subsurface investigation of the subject site to identify potential contamination sources that may affect the environmental integrity of the project. The sampling work used Geoprobe technology, a truck-mounted, hydraulically-powered, percussion/probing machine that has been specifically designed for use in the environmental industry. Forty borings were taken to a depth of 24’ or refusal.

Samples were analyzed for Volatile Organic Compounds (VOC’s), Semi Volatile Organic Compounds (SVOCs), Polychlorinated Biphenyls (PCB’s) and RCRA Metals. A total of 47 soil samples were collected. Analytical results were compiled and provided by Fairway Labs.

Based on the laboratory analysis, the concentrations for VOC’s, SVOC’s, and PCB’s were below lab detection limits throughout the property. Metals (Arsenic, Cadmium, Chromium) were reported above the residential standard in some of the samples. The concentrations of metals identified from the laboratory analysis are consistent with those that may be typically encountered in areas where historical mining operations have occurred throughout NEPA.

Phase II Recommendations: The best management practice for the higher level of metals present in the soil is the placement of an engineering control or cap. Because the ash refuse was placed back on the site, the site is not eligible under Act 2. The site development and reclamation, however, will closely follow the PA Act 2 guidelines for land reuse. PA DEP offered guidance to the Design Team in this matter at the time of the Phase II’s completion.

Pennsylvania Act 2
Also known as the Land Recycling Program, Act 2 was established by legislation in 1995. It encourages the voluntary cleanup and reuse of contaminated commercial and industrial sites. Act 2 is a model land recycling program that has been replicated by other states.

In January, 2018, the District received a peer review of Borton-Lawson’s Phase II ESA. Tetra Tech provided a letter report reviewing the Phase II. The peer review supported Borton-Lawson’s Phase II findings and recommendations. Key conclusions from the peer review include:

- Regarding the placement of an engineering control or cap: Tetra Tech concurs with this approach for pathway elimination.
- Risk Evaluation
 - Hazard assessment: Any adverse effects from contact with these materials would be required with regularity and over an extended period of time which will not be the case with the proper controls in place. Direct contact with the arsenic and cadmium will be mitigated with the engineered soil cap and other controls.
 - Exposure assessment: “there would be no pathways for direct contact with subsurface coal materials in areas where future buildings, asphalt, concrete, topsoil and grass are completed and maintained.”
 - Toxicity assessment: “A Toxicity Assessment is not necessary because exposure to potentially toxic materials in soil will be eliminated with the engineering control or cap.”
 - Risk characterization: “There will be no direct exposure with coal ash materials for the typical school receptor and no unacceptable risks with soil.”



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Geotechnical assessment –In 2017 the District entered into a geotechnical contract with GeoScience Engineering to review the geotechnical/mining feasibility of constructing a school upon the Pagnotti site. As part of the review process, a series of submissions were prepared and submitted to the PA DEP Bureau of Abandoned Mine Lands. This is part of the Act 17 approval process requirements for schools constructed in the anthracite mining areas of the Commonwealth. After the PA DEP’s preliminary assessment, a test boring program was conducted to determine the mine subsidence risk required under the law by the PA DEP. PA DEP Bureau of Abandoned Mine Lands issued the Act 17 approval letter for the Pagnotti site on August 4, 2017. After the Act 17 approval was received, GeoScience Engineering performed approximately 30 additional borings to generate a geotechnical report as well as make foundation recommendations in accordance with the requirements of the PA DEP Act 17 approval letter.

The site design is comprised of the following key features:

- Buildings, parking and other pavement which form an engineered cap.
- Topsoil/lawn/field areas to be capped to appropriate depths based on location (all areas where ash has been placed will receive a minimum four foot soil cap).

In March 2018, Borton-Lawson submitted permitting documents to the Luzerne County Conservation District and PA DEP for the National Pollutant Discharge Elimination System (NPDES) permit. This work included close coordination among the Design Team and several arms of the DEP: Waste Management, Environmental Cleanup and Brownfield Redevelopment, and Waterways and Wetlands. The NPDES approval (including significant coordination with the soil cap) was received March 7, 2019.

In summary, the Design Team worked closely with numerous specialists and key regulatory officials, notably the PA Department of Environmental Protection during the design process. The Team consulted with DEP on a regular basis from the initial Phase I through the Phase II and the remediation design, documentation and permit process. DEP and the other authorities having jurisdiction have reviewed the site data, design and proposed construction methods and issues the required permits under law for the site to be developed for the WBASD New High School. As such Borton-Lawson, GeoScience and the entire Design Team deem the site suitable for its new use.