

PRELIMINARY ASSESSMENT REPORT

GLASSBORO INTERMEDIATE SCHOOL

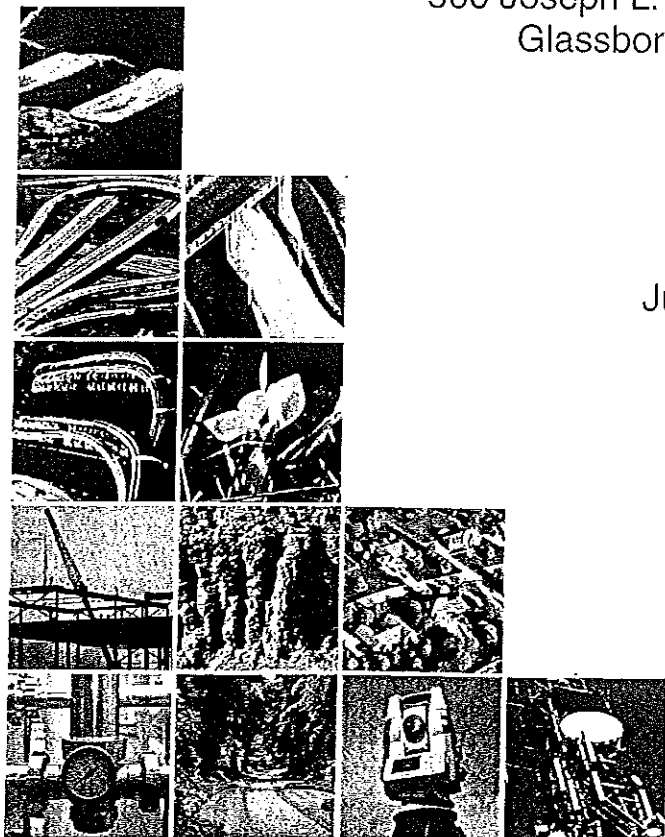
202 North Delsea Drive
Block 412, Lot 26

Borough of Glassboro, Gloucester County, New Jersey

Submitted to:

Glassboro Board of Education
560 Joseph L. Bowe Memorial Boulevard
Glassboro, New Jersey 08028

June 30, 2014





June 30, 2014

Mr. Walter Pudelko, Business Administrator/Board Secretary
GLASSBORO BOARD OF EDUCATION
560 Joseph L. Bowe Memorial Blvd.
Glassboro, New Jersey 08028

Re: Preliminary Assessment Report
GLASSBORO INTERMEDIATE SCHOOL
Block 412, Lot 26
202 North Delsea Drive
Glassboro, Gloucester County, New Jersey
FPA No. 5588.003

Dear Mr. Pudelko:

Enclosed please find our Preliminary Assessment Report for the referenced property. Our Services were performed in accordance with the scope of services authorized by you, the NJDEP *Technical Requirements for Site Remediation*, N.J.A.C. 7:26E, and the NJDEP Preliminary Assessment Guidance Document. Based upon the results of our assessment, French & Parrello Associates, PA (FPA) provides the following conclusions and recommendations:

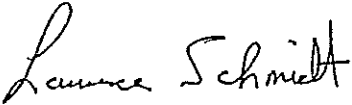
During the completion of this PA, FPA determined that there are AOCs requiring further investigation and remediation.

- AOC-1: Former 10,000 gallon Fuel Oil UST
 - 10,000 gallon UST removed circa 1990; a release was reported; soil and groundwater delineation was conducted in 2013-2014.
 - Further remediation of the soil is warranted and will be presented in a Remedial Action Work Plan.
 - The remediation of this AOC is being conducted by Glassboro Board of Education.
- AOC-2: Offsite Gasoline Service Station, 201 N. Delsea Drive
 - Soil and groundwater at the Subject Property has been impacted by this offsite source.
 - The remediation of this AOC is being conducted by NJDEP and/or Responsible party.

- AOC-3: Offsite Gasoline Service Station, 221 N. Delsea Drive
 - Soil and groundwater at the Subject Property has been impacted by this offsite source.
 - The remediation of this AOC is being conducted by NJDEP and/or Responsible party.

Respectfully submitted,

FRENCH & PARRELLO ASSOCIATES, PA



Lawrence Schmidt
Senior Environmental Specialist

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Drawing No. 1 – USGS Topographic Map
Drawing No. 2 – Tax Map
Drawing No. 3 – Aerial Site Layout Map

APPENDICES

Appendix A – Site Photographs
Appendix B – Historical Research Documentation
 (Includes Aerial Photographs, Sanborn Fire Insurance Report, City Directory
 Image Report and Radius Database Report with GeoCheck Summary as available)
Appendix C – Government Correspondence

1.0 INTRODUCTION

French & Parrello Associates, PA (FPA) was retained by the Glassboro Board of Education (GBE) to conduct a Preliminary Assessment (PA) of the Subject Property identified as Glassboro Intermediate School, 202 North Delsea Drive (Block 412, Lot 26), Borough of Glassboro, Gloucester County, New Jersey (hereinafter referred to as the Subject Property). The Subject Property location is displayed on Drawing No. 1, United States Geological Survey (USGS) Topographic Map, Drawing No. 2, Tax Map and Drawing No. 3, Site Layout Map.

This PA was performed in accordance with the New Jersey Department of Environmental Protection's (NJDEP's) *Technical Requirements for Site Remediation*, and N.J.A.C. (New Jersey Administrative Code) 7:26E - 3.1 through 3.2 (TRSR), the NJDEP Preliminary Assessment Technical Guidance Document (January 2012).

1.1 Purpose

The purpose of a PA is to identify the presence of areas of concern (AOCs). AOCs are defined by the NJDEP as any existing or former distinct location where any hazardous substance, hazardous waste, or pollutant is known or suspected to have been discharged, generated, manufactured, refined transported, stored, handled, treated, or disposed, or where any hazardous substance, hazardous waste, or pollutant has or may have migrated.

The PA is also prepared to determine if gasoline storage tanks may have been located on the Subject Property at some point in the past and to establish a timeline of the potential presence of gasoline service stations on surrounding properties. The presence or absence of each potential AOC as defined by the NJDEP is presented in Section 3.21 below.

1.2 Limitations and Exceptions

This PA reflects conditions that were visibly evident in those areas where access was available on the date of FPA's site visits. The assessment offers both information about the site and the operations performed on the Subject Property; however, visual inspection was limited to those areas of the Subject Property that were accessible during the site visit. The site reconnaissance involved visually inspecting the Subject Property and areas immediately adjacent to the Subject

Property. Photographs were taken of the Subject Property at the time of the site visit and are provided in Appendix A.

This PA report has been prepared for the sole use by the Glassboro Board of Education. Any use of the data contained in this report by anyone else, or on any other project or property, is at the user's sole risk. This PA is limited to the Subject Property. Services performed by FPA have been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation, expressed or implied, and no warranty or guarantee is included or intended in the services provided. This PA report is primarily intended as a diligent inquiry. Information used to perform this assessment is limited to reasonably-available, standard environmental database services. It is assumed this information is accurate and reliable.

The identification of non-hazardous solid waste or miscellaneous debris may be noted in the report and considered typical of site conditions. Non-hazardous solid waste generally does not constitute an AOC pursuant to the NJDEP's Technical Requirements for Site Remediation.

1.3 Deviations

No deviations from generally-accepted standards of practice are noted for this report.

2.0 SITE DESCRIPTION

2.1 Legal Description

Property Name:	Glassboro Board of Education
Address:	202 North Delsea Drive Borough of Glassboro, Gloucester County, NJ
Tax Block/Lot:	Block 412, Lot 26
NJDEP Facility ID:	018004
NJDEP Case No:	01-11-15-5555-55

2.2 Property Description

The approximate 9.52-acre Subject Property is the site of Glassboro Intermediate School. The Subject Property is located on Delsea Drive and is developed with a two story brick-faced intermediate school, paved parking and entrance drives, two out-buildings, two sheds and a large grassed play area with a running track. West of Delsea Drive the adjacent properties are primarily commercial. The areas to the south and east of the Subject Property are single family residential. A cemetery is located immediately south of the Subject Property. A public park is situated north of Fish Pond Road, which is on the north side of the Subject Property. Based on NJDEP Geo-Web mapping, the Subject Property does not contain freshwater wetlands.

3.0 HISTORIC SITE INFORMATION

3.1 Current and Former Owners/Operators

FPA conducted a diligent inquiry into the operational and ownership history at the Subject Property from 1929 to the present. In order to obtain the operational and ownership history of the Subject Property, FPA reviewed the following readily available sources of information: tax records, historic aerial photographs and interviews with staff of the Board of Education. According to historical research, the Subject Property has been owned by the Glassboro Board of Education since 1929, or earlier. Glassboro High School was constructed on the Subject Property in 1929, and converted to the Intermediate School in 1962, when a new high school was built at 560 Joseph L Bowe Boulevard.

3.2 Historical Site Operations

3.2.1 Subject Property

FPA conducted a diligent inquiry in order to determine if industrial, agricultural, or commercial operations were conducted on the Subject Property since 1930. According to historical research, the Subject Property was developed with a single family dwelling prior to the completion of the high school in 1929. The historic use of the Subject Property has been for public education.

3.2.2 Surrounding Property

FPA conducted a diligent inquiry in order to determine if commercial operations were conducted on the surrounding property which may impact the subject property. Historical records show

that that two properties on the west side of Delsea Drive identified as 201 North Delsea Drive and 221 North Delsea Drive were used for gasoline service stations from as early as 1950 to the 1980s. The property at 201 North Delsea Drive was also used as a heating oil storage and distribution facility.

3.3 Current Site Operations

FPA conducted a diligent inquiry in order to determine the most recent operations conducted on the Subject Property. Currently, the Subject Property is an intermediate school housing the Borough's seventh and eighth graders.

3.4 Aerial Photograph Review

In order to obtain a history of property use, FPA reviewed aerial photographs of the Subject Property. The review was conducted using current and historical color, black and white, and infrared aerial photographs with a scale of 1:18,000 or less of the Subject Property and the surrounding area as available, at a frequency which provided FPA with a historical perspective of Subject Property activities. FPA reviewed aerial photography dated as early as or earlier than 1930.

FPA received and reviewed aerial photographs for the following years from Environmental Data Resources, Inc. (EDR): 1933, 1940, 1954, 1965, 1975, 1981, 1990, 2002, 2006, and 2010. A 1930 black and white aerial photograph from the NJDEP was also reviewed. The aerial photographs received from EDR and NJDEP are provided in Appendix B.

A description of each aerial photograph reviewed, including the year and scale of the photo, is listed below:

1930 (NJDEP) - The Subject Property is shown with Glassboro High School in place. The building is U-shaped with wings on the north and south sides of the main building. The area to the rear of the school building is undeveloped. The surrounding area is shown as primarily agricultural to the east of Delsea Drive, and suburban type development to the west of Delsea Drive.

1933 (scale: 1" = 500') – The Subject Property and surrounding areas are shown similar to the 1930 aerial photograph. The aerial photograph shows the cemetery to the south of the Subject Property. No additional development or disturbances are discernible within the surrounding areas which could potentially contribute to the environmental condition of the Subject Property.

1940 (scale: 1" = 500') – The Subject Property and surrounding areas are shown similar to the 1933 aerial photograph. A track is now shown at the rear of the school building and a baseball field is shown north of Fish Pond Road. No additional development or disturbances are discernible within the surrounding areas which could potentially contribute to the environmental condition of the Subject Property.

1954 (scale: 1" = 500') – The Subject Property and surrounding areas are shown similar to the 1940 aerial photograph. A vocational education building is shown at the rear of the high school and second baseball field is shown north of the Subject Property. No additional development or disturbances are discernible within the surrounding areas which could potentially contribute to the environmental condition of the Subject Property.

1965 (scale: 1" = 500') – The Subject Property is shown similar to the 1954 aerial photograph. The surrounding area now shows suburban style residential development on the north, east and south sides of the Subject Property. Two gasoline service stations are shown on the west side of Delsea Drive. One of the stations (closest to the corner of Delsea and Route 322) is shown with above ground storage tanks indicative of a home heating oil terminal. Due to the quality of earlier aerial photographs, these service stations could have predated the 1965 aerial photograph. These developments are discernible within the surrounding areas and could potentially contribute to the environmental condition of the Subject Property.

1975 (scale: 1" = 500') – The Subject Property is shown similar to the 1965 aerial photograph. No additional development or disturbances are discernible within the surrounding areas which could potentially contribute to the environmental condition of the Subject Property, other than the gasoline service stations cited in the 1965 aerial photograph.

1981 (scale: 1" = 500') – The Subject Property is shown similar to the 1975 aerial photograph with the exception of two vocational education buildings at the rear of the school. No additional

development or disturbances are discernible within the surrounding areas which could potentially contribute to the environmental condition of the Subject Property, other than the gasoline service stations cited in the 1965 aerial photograph.

1990 (scale: 1" = 500') – The Subject Property is shown similar to the 1981 aerial photograph. The gasoline service station on the corner of Delsea and Rt 322 appears out of service and the site appears to have been cleared. No additional development or disturbances are discernible within the surrounding areas which could potentially contribute to the environmental condition of the Subject Property.

2002 (scale: 1" = 500') – The Subject Property is generally shown similar to the 1990 aerial photograph. No additional development or disturbances are discernible within the surrounding areas which could potentially contribute to the environmental condition of the Subject Property.

2006 (scale: 1" = 500') – The Subject Property is now shown with a building addition at the rear of the former U-shaped building. In the surrounding area, the intersection of Route 322 and Delsea Drive is now shown relocated to the north over the site of the former gasoline service station. This additional development or disturbance could potentially contribute to the environmental condition of the Subject Property.

2010 (scale: 1" = 500') – The Subject Property is shown similar to the 2006 aerial photograph and its current configuration. A cul-de-sac is now shown at the location of the former Route 322 and Delsea Drive intersection. No additional development or disturbances are discernible within the surrounding areas which could potentially contribute to the environmental condition of the Subject Property.

3.5 SANBORN® Fire Insurance Map Review

In order to obtain information regarding historical property ownership, operations, and potential AOCs, FPA requested Sanborn Fire Insurance Maps from EDR for the Subject Property, as Sanborn Maps often contain information regarding building construction and site features such as production wells, underground or aboveground storage tanks, production areas, or storage areas which can assist in the identification of AOCs. Sanborn Fire Insurance Maps were

available for the Subject Property from 1923, 1929 and 1949. The Sanborn Fire Insurance Maps received from EDR are provided in Appendix B.

FPA's review of the Sanborn Fire Insurance Maps revealed the following:

1923 - The Subject Property is shown with a dwelling and several outbuildings behind the dwelling which may be a garage or stable. Two dwellings are shown on the west side of Delsea Drive opposite the Subject Property.

1929 - The Subject Property is shown with the high school consisting of the main building and two wings. A house is shown in front of the school. The same two dwellings are shown west of Delsea Drive as in the 1923 Sanborn Map.

1949 - The Subject Property is shown with the high school building and one outbuilding at the rear of the main building. The outbuilding is labeled "Vocational Shops". The west side of Delsea Drive now shows two "filling stations", one to the north of the two dwellings and opposite the high school and the other station is on the corner of Delsea Drive and Route 322 (labeled E. West Street). The service station at 201 North Delsea Drive is also labeled "Oil Loading Station" with three oil storage tanks shown.

3.6 CITY DIRECTORY Image Report Review

In order to obtain information regarding historical property usage, operations, and potential for AOCs, FPA requested a City Directory Image Report from EDR for Delsea Drive in the vicinity of the Subject Property. City Directory image files (primarily telephone directories) were available for the years 1972, 1977, 1982, 1987, 1992, 1999, 2003, 2008, and 2013. The City Directory images received from EDR are provided in Appendix B.

1972 - The City Directory image lists T Stewarts Service Station and Glassboro American Service Station at 221 Delsea Drive and both listings have the same telephone number.

1977 - The City Directory image lists T Stewarts Service Station at 221 Delsea Drive and Clayton Service Station at 201 Delsea Drive.

1982 - The City Directory image lists Stewarts Service Station at 221 Delsea Drive and Clayton Service Station at 201 Delsea Drive.

1987 - The City Directory image lists Stewarts Service Station at 221 Delsea Drive and Clayton Service Station at 201 Delsea Drive.

1992 - City Directory contains no relevant listing for either service station.

1999 - City Directory image lists Auto Magic at 221 Delsea Drive and Route 322 Discount Gas at 201 Delsea Drive.

2003 - City Directory image lists Auto Magic at 221 Delsea Drive and Route 322 Discount Gas at 201 Delsea Drive and Glassboro School District at 202 Delsea Drive. There is also a listing for Crane Oil Company at 217 Delsea Drive.

2008 - City Directory image lists Auto Magic at 221 Delsea Drive and Glassboro School District at 202 Delsea Drive.

2013 – City Directory image lists Walgreens at 201 Delsea Drive and Crane Oil Company at 217 Delsea Drive. Glassboro Board of Education is listed at 202 Delsea Drive.

3.7 Environmental Directory Inquiry

An environmental database search of the Subject Property, and the area within a one-mile radius of the Subject Property, was conducted by Environmental Data Resources of Milford, Connecticut (EDR). A summary of the EDR environmental database search report is provided in Appendix B and the full report is attached on a Compact Disc. The EDR environmental database search generated information regarding the Subject Property and surrounding properties which are currently, or have previously been, regulated, tracked, or investigated under specific Federal or State environmental programs. The following subsections summarize the pertinent findings of the EDR government database search.

3.7.1 Subject Property

The Subject Property was identified in four listings of the databases searched. The listings relate to the 10,000 gallon UST removed in 1990, and the discovery in 2013 of contamination

emanating from an offsite source(s). The listings include NJ Hazardous Waste Site (NJHWS), NJ Release, NJ Historic Hazardous Waste Site (NJ Hist HWS) and NJ Leaking Underground Storage Tank (NJ LUST)

As reported by EDR, surrounding properties were identified in the Federal and State government databases within a one-mile radius search of the Subject Property. A review of the EDR report revealed the following:

- Within a zero (0) to one-eighth (0.125)-mile radius of the Subject Property, 13 database listings were identified.
- Within a one-eighth (0.125) to one-quarter (0.25)-mile radius of the Subject Property, 17 database listings were identified.
- Within a one-quarter (0.25) to one-half (0.5)-mile radius of the Subject Property, 46 database listings were identified.
- Within a one-half (0.5) to one (1)-mile radius of the Subject Property, 14 database listings were identified.

Several database listings were identified for sites on North Delsea Drive, directly across the street from the Subject Property. Stewarts Auto Service (221 N. Delsea Dr.) was listed as a RCRA non-generator of hazardous waste and NJ UST site. Auto Magic (221 N. Delsea Dr.) was listed as a NJ Hazardous Waste Site. FMG Glassboro Pharmacy Associates (Walgreens) (221 N. Delsea Dr.) was listed as a UST site. The listing indicated the removal of a 1000 gallon UST and a 550 gallon waste oil UST in 2010. One database listing was found for Route 322 Discount Gas (201 N. Delsea Dr.) as a historic auto station in operation until 2003.

3.7.2 Local, State, and Federal Government Inquiries

FPA submitted letters to the Municipal Clerk of the Borough of Glassboro and the Gloucester County Department of Health requesting relevant environmental data. In addition, online requests were made to the NJDEP under the Open Public Records Act (OPRA) and the USEPA under the Freedom of Information Act (FOIA). The NJDEP responded on May 28, 2014, indicating that files were on record and available for review on site. Since FPA is familiar with the NJDEP involvement with the oversight of the UST contamination and plus the source of contamination within the front lawn area, it is assumed that the NJDEP documents relate to the

submissions made by FPA on behalf of the Glassboro Board of Education and the NJDEP responses to FPA and the Board. USEPA has responded indicating that no records were found for the Subject Property.

A response was received from the Gloucester County Department of Health transmitting 2013 correspondence from the NJDEP regarding its soil sampling and indoor air sampling at the intermediate school as a result of newly discovered groundwater contamination on the front lawn of the school. The source of the contamination was not related to the school's former UST. The Borough of Glassboro has not responded as of the date of this Report. Should pertinent information be forthcoming from the Borough of Glassboro, FPA will review the information and issue a PA addendum if appropriate. Copies of the inquiry letters and responses are provided in Appendix C.

3.8 Hazardous Materials and Substances

FPA conducted a diligent inquiry into current and historical hazardous materials and substances used, stored, and generated at the Subject Property. During the May 22, 2014, site reconnaissance visit, no hazardous materials or substances were observed.

3.9 Wastewater Discharge History

FPA conducted a diligent inquiry into current and historical wastewater discharges of sanitary and industrial waste along with sanitary and industrial sludge. According to historical research, the Subject Property was used as a public school from 1929 to the present and has had no industrial related activities or discharges. A sump (AOC-A) is located in the boiler room.

3.10 Process Waste Streams

FPA conducted a diligent inquiry into current and historical process waste streams and disposal points including wastewater, rinse water and sludge from industrial process activities. No process waste streams or disposal points were observed or historically present within the Subject Property.

3.11 Radioactive Materials

FPA conducted a diligent inquiry into current and historical production processes that could have potential for radioactive materials or waste used or generated in the manufacturing process. According to historical research, no current or historical production processes have been identified which could have potential for radioactive materials or waste used or generated at the Subject Property.

3.12 Discharge History

FPA conducted a diligent inquiry into the discharge history of hazardous substances and wastes for operations at the Subject Property to determine if a known discharge occurred, and if so, the NJDEP notification of a discharge, status of the discharge, remediation conducted/completed, status of discharge closure or future activities planned to mitigate discharge. In 1990 a 10,000 gallon fuel oil containing UST was removed from the ground with oversight by the PMK Group. No closure report was submitted to the NJDEP. In 2001, as part of construction activities for an elevator shaft, a product line from the former UST was encountered and an unknown quantity of fuel oil was discharged to the ground. The spill hotline was called and Case Number 01-11-15-1555-55 was issued by the NJDEP. Subsequent site investigations have indicated that the extent of the contamination from the UST to the soil and groundwater was more extensive than the leakage from the product line.

While conducting the site investigation for the extent of the UST contamination, FPA encountered compounds associated with gasoline rather than fuel oil. FPA conducted a review of the NJDEP database and determined that there were two former gasoline service stations immediately to the west and southwest of Intermediate School across North Delsea Drive. At least one of the gas stations is an open case with the NJDEP and there was gasoline-impacted ground water identified on that property. The spill hotline was called and Case Number 13-02-04-1204-10 was issued by the NJDEP for the offsite source of contamination.

FPA personnel contacted personnel from the NJDEP's Bureau of Environmental Measurements & Site Assessment (BEMSA) concerning the discovery of gasoline impacted groundwater at the front lawn area of the Intermediate School. On April 2, 2013, the NJDEP performed its own investigation of groundwater using its own personnel. The purpose of its investigation was to

determine if groundwater was impacted across the street from the Intermediate School. The concentrations of volatile and semi-volatile organic compounds and lead found by NJDEP were indicative of a (offsite) release of gasoline to the ground water. The NJDEP identified the same gasoline constituents as FPA did in its investigation, but at higher concentrations.

The NJDEP also performed a vapor intrusion investigation within the interior of the Glassboro Intermediate School. The analytical results for the vapor intrusion investigation performed by the NJDEP were below NJDEP standards. In April 2014, the NJDEP conducted indoor air and soil gas testing for confirmatory purposes. Once again, the results for the vapor intrusion investigation performed by the NJDEP were below NJDEP standards.

3.13 Environmental Permits

FPA conducted a diligent inquiry into federal, state, and local environmental agency which would issue environmental permits for the Subject Property to determine the following: if any environmental permits exist for the Subject Property [i.e. New Jersey Air Pollution Control Permits, Underground Storage Tank Permits, New Jersey Pollutant Discharge Elimination System (NJPDES), New Jersey Solid Waste Permits, Resource Conservation and Recovery Act (RCRA) permits, or Fire Department flammable or hazardous storage permits]; the name and address of the permitting agency; the reason for the permit; the permit identification number; the application date; the date of approval, denial, or status of the application; the name and current address of the permittees; the reason for the denial, revocation, or suspension if applicable; and the permit expiration date. During the completion of this PA, documentation regarding environmental permits was not encountered.

3.14 Summary of Enforcement Action

FPA conducted a diligent inquiry into historical and current enforcement actions at the subject property, to determine if the following were issued for the Subject Property: Notices of Violation, court orders, or official notices or directive for violations of local, state, or federal environmental laws or regulations; and the following information: name and address of agency that initiated the enforcement action; date of the enforcement action; section of statute, rule, or permit allegedly violated; type of enforcement; description of the violation; and how the

violation was resolved, if applicable. According to historical research, no enforcement actions have been taken against the Subject Property.

3.15 Fill Material

FPA conducted a diligent inquiry into the presence or potential presence of fill material used at the site to replace soil or raise the topographic elevation of the site, including the dates of emplacement, type/contents of fill material, and any analytical data regarding the fill material; and to determine if the fill material is potentially or confirmed: clean fill, historic fill, or alternative fill. As part of the diligent inquiry, FPA reviewed the United States Geologic Survey Topographic Maps from 1898 to the present to determine if topographic contours in the vicinity of the Subject Property have changed through the introduction of historic fill. According to historical research, the Subject Property does not contain historic fill as the contours of the relatively level terrain in the vicinity of the Subject Property have remained constant.

3.16 Waste Disposal Areas, Dumps, and landfills

FPA conducted a diligent inquiry into the presence of onsite permitted or non-permitted landfills, waste disposal areas and/or dump areas at the Subject Property. The inquiry included an evaluation of all available waste disposal records for any onsite landfill that describes the nature, quantity, location, and date of the placement in any onsite landfill; the evaluation of records for all wastes, drums, tanks, pressurized gas cylinders, and all hazardous wastes potentially dumped or buried on the site was performed. According to historical research, no waste disposal areas, dumps or landfills are located on the Subject Property.

3.17 Previously Conducted or Ongoing Remediation

FPA conducted data gathering activities to determine if previously conducted remediation or ongoing remediation is currently being performed within the Subject Property. The data gathering activities were conducted with intentions of identifying current or past remediation, the dates of discharge, remedial actions taken, and existing sample results concerning contaminants which remain within the Subject Property, where applicable, and included the review of any investigation and remediation activities previously conducted or currently underway at the Subject Property that have not received NFA/RAO. The extent of remediation on the Subject

Property is limited to the removal of the 10,000 gallon fuel oil tank in 1990, and the conversion of the school's heating system to natural gas. FPA delineated the horizontal and vertical extent of fuel oil impacted soil, which is reported in the Remedial Investigation Report dated January 2014. The RIR also found that groundwater beneath the school was not impacted by the fuel oil release.

In addition, the NJDEP must determine if there are responsible parties who will be responsible for the remediation of offsite contamination of the Subject Property. The NJDEP also has the authority to effect the remediation with public funds.

FPA contacted the LSRP for each of the offsite gasoline stations for a project status update. The LSRP for the Auto Magic Site (PI # 005443), Mr. Pat Nocera, of ARECON Environmental, reported that the site was remediated and he issued a Response Action Outcome (RAO). Mr. Nocera also indicated that his site may have been impacted by contamination at the Route 322 Discount Gas site. Mr. Nocera has not actively worked on the site since issuing the RAO.

According to Eliza Kruger, Brilliant Environmental, Inc. the LSRP for the Route 322 Discount Gas site (PI # 004601), the site was acquired by NJDOT through Imminent Domain. Ms. Kruger indicated NJDOT planned to install groundwater monitoring wells in the near future. No other information regarding the status of remediation was provided by Ms. Kruger.

Both offsite gasoline station responsible parties were notified by NJDEP. Refer to Appendix C. for NJDEP correspondence letters.

3.18 Protectiveness Evaluation of Approved Remedies

FPA conducted a diligent inquiry to determine if remedies were previously implemented on the Subject Property, and if so, to determine if the remedy remains protective of public health, safety, and the environment. The diligent inquiry included the review of documents such as past biennial certifications and monitoring reports, where applicable,. Specific attention was paid to known changes in site conditions, site use, or new information developed since completion of previous remediation, and how those changes relate to the protectiveness of the implemented remedy. Additionally, the diligent inquiry was conducted to determine if an engineering control was used to address contamination left on site, and if so, if the engineering control is currently

being properly maintained, if the remedy addressed all of the residual soil contamination, if the remedy is working as designed, if the required biennial certifications have been submitted, and if a remedial action permit is in place. According to historical research, no remedies have been applied to the Subject Property.

3.19 Order of Magnitude

Since no remediation has occurred on the Subject Property, FPA did not conduct an evaluation of any previously identified AOC at the Subject Property for which a final remediation document was filed or issued, to compare the contaminant concentrations remaining in the AOC with the applicable remediation standards at the time of the comparison, where applicable.

3.20 Site Reconnaissance/Identification of Potential Areas of Concern

A reconnaissance of the site was conducted by a FPA representative on May 22, 2014, accompanied by Mr. Drew Sole, the Director of Buildings and Grounds for the Glassboro School District. The purpose of the reconnaissance was to visually assess the Subject Property and adjacent properties for potential AOCs. Photographs obtained during the site reconnaissance are included in Appendix A.

The Subject Property is a 9.5-acre intermediate school consisting of a two story brick faced building with a full basement built in 1929. The school facility includes two outbuildings in the rear of the main school building and two shed type buildings. The school has a front lawn area, entrance drives and a large parking lot on the east side of the property. The rear of the Subject Property has a large grassed play area including a running track. Environmental observations included monitoring wells in the interior courtyard of the school where the UST once was located and three 55 gallon drums containing drill cuttings and purge waste from the most recently installed monitoring wells. Additional monitoring wells were observed in the front and rear of the school building and one in the front lawn area. Three additional 55 gallon drums were observed in the rear parking area; again containing drill cuttings and purge waste. The drums were subsequently removed from the school property during the week of June 16, 2014. Two pad mounted transformers (AOC-B) were observed on the eastern side of the property. There

were no signs of leakage or stained concrete. Mr. Sole said that the transformers had been installed within the past 15 years.

During the site reconnaissance the FPA representative interviewed both Mr. Drew Sole and Officer Paul Kauffman, a longtime resident of the Borough of Glassboro. Police Officer Kauffman happened to be on duty at the school at the time of the site reconnaissance. Both gentlemen recalled the two filling stations that were located on the west side of Delsea Drive opposite the school property. The station at the site of the current Walgreen's Drug Store was Stewarts Garage in the 1960-1980s. The sale of gasoline ended in the mid-1970s and the garage was used only for auto repairs. Following the use of the site by Stewarts Garage, an auto detailing shop called Auto Magic occupied the site until the Walgreen's was built around 2010. The second filling station was referred to as the Citgo Station was located on the corner of Delsea Drive and Route 322. That property also included above ground storage tanks for home heating oil and was used as a distribution facility. Both Mr. Sole and Officer Kauffman thought that the Citgo Station stopped selling gasoline around 1980. They recalled a large stockpile of soil under plastic sheeting after the USTs were pulled in the mid-1980s. The soil was removed 10-15 years after its initial stockpiling. The property was then used by the NJ Department of Transportation in the relocation of the intersection of Delsea Drive and Route 322 in the time period of 2000-2004.

The below sections outline the presence or absence of AOCs by the following categories:

3.20.1 Bulk Storage Tanks and Appurtenances

During the completion of this PA, FPA conducted diligent inquiries, including site reconnaissance to determine if any of the following are currently or were formerly present within the Subject Property: aboveground storage tanks (ASTs) and associated piping; USTs and associated piping; silos; rail cars; loading and unloading areas; or piping, above ground and below ground pumping stations, sumps or pits. Excluding the former 10,000 gallon fuel oil UST, FPA did not identify bulk storage tanks or appurtenances on the Subject Property.

3.20.2 Storage and Staging Areas

During the completion of this PA, FPA conducted diligent inquiries, including site reconnaissance to determine if any of the following are currently or were formerly present within the Subject Property: storage pads including drum and/or waste storage; surface impoundments and lagoons; dumpsters; or loading docks. As a result of the site reconnaissance, it was determined that no storage and staging areas exist on the Subject Property.

3.20.3 Drainage Systems and Areas

During the completion of this PA, FPA conducted diligent inquiries, including site reconnaissance to determine if any of the following are currently or were formerly present within the Subject Property: floor drains, trenches and piping, and sumps; process area sinks and piping which receive process waste; roof leaders when process operations vent to the roof; drainage swales and culverts; storm sewer collection systems; storm water detention ponds and fire ponds; surface water bodies; septic systems leach-fields or seepage pits; or drywells and sumps. As a result of the site reconnaissance, excluding the basement sump, no drainage systems or areas exist on the Subject Property.

3.20.4 Discharge and Disposal Areas

During the completion of this PA, FPA conducted diligent inquiries, including site reconnaissance to determine if any of the following are currently or were formerly present within the Subject Property: areas of discharge defined within N.J.A.C. 7:1E; waste piles defined within N.J.A.C. 7:26; wastewater collection systems including septic systems, seepage pits, and dry wells; landfills or land-farms; spray-fields; historic fill or any other fill material; open pipe discharges; burn pits; or incinerators. Based on the site reconnaissance, it was determined that the discharge associated with the school's former UST is an AOC since it was determined through site investigation that contamination of soil and groundwater exists under the building and in near vicinity of the building.

A second AOC is the groundwater contamination on the front lawn of the Subject Property in the area close to Delsea Drive. The concentrations of volatile and semi-volatile organic compounds

and lead found by the NJDEP on School property were indicative of a (offsite) release of gasoline to the ground water.

3.20.5 Building Interior Areas with a Potential for Discharge to the Environment

During the completion of this PA, FPA conducted diligent inquiries, including site reconnaissance to determine if any of the following are currently or were formerly present within the Subject Property: loading or transfer areas; waste treatment areas; boiler rooms; air vents and ducts; chemical storage cabinets or closets; or hazardous material storage or handling areas. Based on the site reconnaissance it was determined that the heating system in the school's basement was fired by natural gas.

3.20.6 Other Potential Areas of Concern

During the completion of this PA, FPA conducted diligent inquiries, including site reconnaissance to determine if any of the following are currently or were formerly present within the Subject Property: electrical transformers and capacitors; hazardous material storage or handling areas; waste treatment areas; discolored areas; spill areas; open areas away from production areas; areas of stressed vegetation; underground piping including industrial process sewers; compressor vent discharges; non-contact cooling water discharges; areas which receive flood or storm water from potentially contaminated areas; active or inactive production wells; rail lines, spurs, or sidings; other general process and production areas that use hazardous materials. Based on the review of historic aerial photography and site reconnaissance, none of the abovementioned potential areas of concern exist on the Subject Property with the exception of two pad mounted transformers on the north side of the Subject Property. A transformer is an AOC; however in this instance there was no sign of leakage and no staining on the concrete pad. Mr. Drew Sole indicated that the transformers were relatively new and therefore there was no potential for PCB cooling oil.

3.21 Site Specific Area of Concern Details

It is understood that the above-listed potential AOCs may overlap and may not be unique to the defined category which they are listed. Additionally, it is understood that a determination for each AOC is to be made regarding whether additional remediation is required or not. Therefore,

details regarding the type, age, and dimensions of each container/area; chemical content; volume; construction materials; location; integrity (i.e. tank test reports, descriptions of drum storage pad); inventory control records for tanks only, unless a NJDEP-approved leak detection system, pursuant to N.J.A.C. 7:1E or 7:14B, has been in place and there is no discharge history for each. The identified AOCs are listed below under the following two categories:

3.21.1 AOCs that Do Not Require Further Investigation or Remediation

During the completion of this PA, FPA determined that the following AOCs are present on the Subject Property but do not require further investigation and/or remediation.

➤ AOC-A: Boiler Room Sump

- The sump water was tested, however, no fuel oil or gasoline related constituents were detected in the sample analyzed.
- Further investigation of this AOC is not warranted at this time.

➤ AOC-B: Electrical Transformers

- No leakage or staining on the pad mounted transformers was observed.
- Further investigation of this AOC is not warranted.

3.21.2 AOCs that Require Further Investigation or Remediation

During the completion of this PA, FPA determined the following AOCs require further investigation and remediation.

➤ AOC-1: Former 10,000 gallon Fuel Oil UST

- 10,000 gallon UST removed circa 1990; a release was reported; soil and groundwater delineation was conducted in 2013-2014.
- Further remediation of the soil is warranted and will be presented in a Remedial Action Workplan.
- The remediation of this AOC is being conducted by GBE.

➤ AOC-2: Offsite Gasoline Service Station, 201 N. Delsea Drive

- Soil and groundwater at the Subject Property has been impacted by this offsite source.

- The remediation of this AOC is being conducted by NJDEP and/or Responsible party.
- AOC-3: Offsite Gasoline Service Station, 221 N. Delsea Drive
 - Soil and groundwater at the Subject Property has been impacted by this offsite source.
 - The remediation of this AOC is being conducted by NJDEP and/or Responsible party.

4.0 CONCLUSIONS AND RECOMMENDATIONS

FPA was retained by the Glassboro Board of Education to conduct a PA on the Glassboro Intermediate School property located at 202 North Delsea Drive (Block 412, Lot 26), Borough of Glassboro, Gloucester County, New Jersey. Based upon the findings of this PA, soil and groundwater at the site has been impacted by and onsite fuel oil release and an offsite gasoline release or releases. FPA/GBE are currently preparing a Remedial Action Workplan to address the soil and groundwater issues associated with AOC-1: Former 10,000 gallon Fuel Oil UST.

NJDEP has notified the parties responsible for remediating AOC-2 and AOC-3 related to the offsite gasoline station.