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December 13, 2019

Mr. Jeff Wilcox
Remediation Division Bureau of
Water Protection and Land Reuse
Connecticut Department of Energy
and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Response to Agency Comments and
Revised Phase I Remedial Action Plan
Greenwich High School
10 Hillside Road
Greenwich, Connecticut
Remediation ID No. 13334

Dear Mr. Wilcox,

On behalf of the Town of Greenwich (Town), AECOM is submitting a revised Phase I Remedial Action Plan (RAP) to the Connecticut Department of Energy and Environmental Protection (CTDEEP) and United States Environmental Protection Agency (EPA) (collectively, the Agencies) and providing responses to written Agency comments on the initial draft of this Remedial Action Plan (AECOM, 2019) provided by CT DEEP in a memorandum dated October 18, 2019. The attached Phase I RAP has been revised to address both these written comments and the Agencies' comments delivered verbally at our October 16, 2019 meeting.

Written Agency Comments and Response

Written Agency comments are reproduced in italics below, followed by the Town's responses.

> ***Remediation Area 1: Fields 6 and 7***
>
> *Comments on Remedial Approach*
>
> *The Remediation Division finds acceptable the conceptual approach of using the synthetic fields as an engineered control to address exceedances of the RSR direct exposure criteria, in conjunction with the recording of an Environmental Land Use Restriction, as outlined in Part 1 of the ECVR.*
>
> *Greenwich has not requested the use of the engineered control to address any exceedances of the RSR GA PMC criteria.*
>
> *Prior to approving this approach, the Remediation Division will obtain concurrence from DEEP's and EPA Region 1 PCB office that this approach is appropriate. I believe that I understood from our October 16th meeting that they do find this approach acceptable, subject to resolution of additional information requests identified in the section below.*

Items requiring additional information

- *it is the Remediation Division's understanding that Greenwich will submit a plan to DEEP and EPA addressing the Agencies's request for better definition of the northerly extent of PCB polluted soils identified in boring AV20-SB393;*
- *it is the Remediation Division's understanding that Greenwich will provide DEEP and EPA the requested additional information on the extent of PCB pollution in the area of boring AZ26-SB387 [sic].*
- *it is the Remediation Division's understanding that Greenwich will provide EPA with additional information on the construction of the synthetic fields, including engineering cross sections, etc. It is the Remediation Division's recommendation that Greenwich forward, if it has not done so already, a copy of the Engineered Control Variance Request along with whatever information it believes responsive to EPA's request.*

The attached Phase I RAP has been revised and updated to address the comments noted above, as follows:

- Section 2 of the attached RAP presents additional data obtained by a sampling program approved by the Agencies and performed to better delineate the extent of PCB polluted soils in the area of borings AV20-SB393 and AZ28-SB387.
- Appendix F of the attached RAP presents additional information on the construction of the synthetic fields and the thickness of the clean soil cap.

Remediation Area 2: Area North of Fields 6 and 7

Comments on Remedial Approach

The Remediation Division finds acceptable the approach of removing soils within the first two feet of soil which exhibit concentrations of PCBs in excess of 1 mg/kg.

Prior to approving this approach, the Remediation Division will obtain concurrence from DEEP's PCB group and EPA's Region 1 PCB office that this approach is appropriate. I believe that I understood from our October 16th meeting that they do find this approach acceptable, subject to resolution of additional information requests identified in the section below.

Items requiring additional information

- *it is the Remediation Division's understanding that Greenwich will review existing information and provide to DEEP and EPA a determination of whether all soils with concentrations of PCBs in excess of 1 mg/kg outside of the area proposed for remediation in the Phase 1 RAP were previously removed. In particular, there was a question of whether soils in an area west of field 6 had displayed concentrations of PCBs in excess of 1 mg/kg and whether those soils had been removed previously.*
- *it will be necessary to delineate, exactly, the area encompassed by the Field 6 & 7 RAP actions and the area north of Field 6 & 7 RAP. The Agencies want to make sure it is clear what areas is covered by the Phase 1 RAP actions.*

As noted in EPA's email correspondence from October 21, 2019, the question about whether samples in the area west of Field #6 had displayed concentrations of PCBs in excess of 1 mg/kg was resolved. No such detections exist in that area following the completion of interim remedial measures performed in 2011. Figure 1-4 and Table 1-1 of the Phase I RAP provide a comprehensive summary of analytical data in the Fields #6 and #7 area in support of this finding.

Figure 1-3 and Figure 6-1 of the attached Phase I RAP depict the individual areas covered by the Phase I RAP.

Remediation Area 3: Courtyard Area ETPH Impacts

Comments on Remedial Approach

The Remediation Division cannot approve the proposed approach.

The information provided in the text and on Figure 2-3 indicate that soil with concentrations of ETPH in excess of 500 mg/kg extend to a depth of at least 3 ft. bg.

This proposed remedial approach is not approvable and must be revised. Greenwich must submit a revised proposal for this area.

Figure 2-3 in the attached Phase I RAP has been revised to indicate excavation to a depth of 4 feet below ground surface (bgs) to be consistent with the text of the RAP. The proposed remedy in the Phase I RAP is otherwise unchanged.

Remediation Area 4: Pesticide Impacts

Comments on Remedial Approach

The Remediation Division can approve the proposed approach subject to the following conditions:

- *that Greenwich accept that a determination on the final remedial plan for this area has not been approved. There remain in soils in this area, concentrations of pesticides in excess of the residential direct exposure criteria and GA pollutant mobility criteria. No plan has been proposed to address these soils, and;*
- *that Greenwich accept that if excavation to only 1 ft. bg. will be performed, this remedial approach may not address exceedances of the SEH criteria which may extend to the SEH depth of 2 ft. bg.*

The Town acknowledges this condition and will reassess this area as part of the Phase II RAP.

Remediation Area 5: Southern Area Petroleum Impacts

Comments on Remedial Approach

With respect to soils in the vicinity of boring D10-SB242, it is not clear how compliance with the GA PMC will demonstrated for those soils, consequently, the Remediation Division cannot approve the proposed approach with respect to compliance with the GA PMC.

With respect to soils in the vicinity of boring C11-SS01, the Remediation Division can approve the proposed approach.

According to the boring log for D10-SB242, the sample at interval 6 to 6.5 feet bgs was collected below the water table, and shallower samples did not contain ETPH. Therefore, the PMC does not apply to the sample containing ETPH there. Furthermore, an additional sample (D10-SB611(6-6.5)-1) was collected from this area during the 2018 Data Gaps Investigation and analysed for SPLP ETPH to evaluate the potential for groundwater impacts from soil in this area. Leachable ETPH was not detected in this the sample. These data were provided in the Comprehensive Site Investigation report dated May 2, 2019. Figures 1-8 and 2-5 of the Phase I RAP have been updated to show the location of soil boring D10-SB611(6-6.5)-1.

These responses and the attached revised Phase I RAP address the questions the Agencies have raised regarding the proposed remedial activities. Public notice of the proposed RAP and Engineered Control Variance Application is being provided this week and copies will be forwarded to you soon thereafter. We appreciate the Agencies input regarding the cleanup of the Greenwich High School property.

Sincerely,



Michael Doherty, P.E.
Project Manager

Patrick Haskell, LEP, CHMM
Technical Leader

Attachments:

Phase I Remedial Action Plan

cc: Kimberly Tisa, USEPA
Gary Trombly, CT DEEP
Amy Siebert, Greenwich Department of Public Works
Toni Jones, Greenwich Public Schools
Daniel Watson, Greenwich Public Schools
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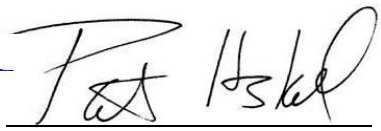
Phase I Remedial Action Plan

Greenwich High School
Greenwich, Connecticut
Remediation ID No. 13334

December 13, 2019

Quality information

Prepared by	Checked by	Approved by
		
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1. Introduction

AECOM has prepared this Phase I Remedial Action Plan (RAP) on behalf of the Town of Greenwich (Town) Department of Public Works (DPW) for the Greenwich High School property, located at 10 Hillside Road in Greenwich, Connecticut (the site). A Site Location map is provided as **Figure 1-1**. This RAP is being prepared to support replacement of artificial turf Fields 6 and 7 at the site, as well as perform targeted remediation activities within the school calendar's summer break.

This RAP covers six specific remediation areas which were investigated and found to contain soil impacts in excess of Connecticut Department of Energy and Environmental Protection's (DEEP) Remediation Standard Regulation (RSR) Criteria, Regulations of Connecticut State Agencies (RCSA) 22a-133k-1 through -3. The results of the remedial activities described herein will be combined with the results of prior site investigations to design a more comprehensive RAP for the remainder of the site.

This RAP provides a plan for the actions required to conduct remediation within the limits of the six areas:

1. Remediation Area 1: Fields 6 and 7
2. Remediation Area 2: PCB Impacts North of Field 7
3. Remediation Area 3: Courtyard Area Petroleum Impacts
4. Remediation Area 4: Pesticide Impacts Near Cider Mill Pond
5. Remediation Area 5: Southern Area Petroleum Impacts
6. Remediation Area 6: Southern Parking Lot Arsenic Impacts

Proposed remedial actions will include a combination of Engineered Controls (EC) and soil excavation and off-site disposal. The purpose of this document is to develop a remedy to support replacement of artificial turf Fields Nos. 6 and 7, which have reached the end of their useful life. Additional areas have also been identified for targeted remediation which we believe can be accomplished within the summer break. This RAP is a step towards a final site-wide remedy consistent with the Connecticut RSR's and advances the site towards compliance by addressing these areas. The remedial measures described herein will not impede any future site-wide remediation activities.

This RAP also discusses site management issues such as health and safety protocols, waste management procedures, environmental media sampling and analytical protocols, project scheduling, site security, and record-keeping protocols to support the planned remediation.

1.1 Site Description and History

The site is located at 10 Hillside Road in Greenwich, Connecticut, which is approximately 73.61 degrees west longitude and 41.04 degrees north latitude. Information obtained from the Town of Greenwich Tax Assessor's office indicates that the site is owned by the Town of Greenwich, includes 54.75 acres, and is designated by parcel number 07-4511/S. A Site Plan, depicting the current layout and pertinent site features, is included as **Figure 1-2**.

1.1.1 Site Description

The site is in an area zoned for single-family residential use (R-20) and is bounded by residential properties to the north and west, East Putnam Avenue to the south, and Hillside Road to the east. Residential properties are located beyond East Putnam Avenue and Hillside Road. The site is currently used as a public high school with associated athletic facilities. The southeast corner of the site has not been developed and remains in the same

condition as it existed prior to the Town purchasing the property except that the residences that occupied that area were demolished. Improvements include a high school building complex with multiple specific-use wings, paved parking areas; natural and synthetic turf athletic fields, tennis courts, batting cages, landscaped areas and pedestrian walkways. Utilities provided to the property include municipal water, storm drainage and sewer, electricity and communications. Heating is provided by oil-fired boilers; No. 2 fuel oil for heating is stored on-site in a 15,000-gallon underground storage tank (UST).

This report references the athletic fields extensively. A guide to the field numbering and use is provided below:

Field ID	Use	Surface
1	Football	Synthetic turf
2	Baseball	Natural grass
3	Various	Synthetic turf
4	Various	Synthetic turf
5	Softball	Natural grass
6	Various	Synthetic turf
7	Various	Synthetic turf

A fenced utility area, located between Wing B and the brook, encloses a transformer, owned and operated by Connecticut Light & Power (CL&P), switch gear cabinets, an emergency electrical generator with an integral 200-gallon diesel day tank and a steel storage container used to store maintenance vehicles and small quantities of gasoline. A 1,000-gallon diesel UST for the generator is located between the fenced area and the adjacent paved parking area. Adjacent to the fenced utility area is an evaporative cooler used by the air conditioning system. The southeast corner of the property is wooded.

West Brothers Brook flows onto the property from the northwest and is diverted into a concrete channel at the property boundary. The concrete channel follows the western property boundary, curves east between the football stadium (Field 1) and the baseball field (Field 2) before returning to a natural stream bed. The brook then widens into a small surface water impoundment in the southeast corner of the site; referred to as Cider Mill Pond. Water from the impoundment flows over two spillways in the constructed dam and exits the southeastern corner of the property via culverts constructed under East Putnam Avenue.

1.1.2 Site History

Before the Town acquired the site property in 1966, the property was used for residential purposes and was largely undeveloped. The property was originally three separate parcels which the Town purchased and combined into one parcel. Sanborn fire insurance maps indicate that, prior to 1966, the site was occupied by several residences and outbuildings along East Putnam Avenue and Hillside Road.

Two water bodies were observed on historical maps. Wetlands (referred to as Ice Pond on the 1938 and 1950 Sanborn maps) were located in the central portion of the property and an unnamed pond (currently referred to as Cider Mill Pond) is shown in the southeast corner. West Brothers Brook entered the property at the same location as it does currently, flowed southeast into the wetlands, and then beyond to Cider Mill Pond. During the initial construction phase for the high school in the late 1960s, bid documents and historical construction drawings show that the brook was rerouted along the western portion of the site into the concrete channel it currently occupies. These documents also indicate that fill was brought onto the property to fill the wetlands, to grades similar to those that currently exist, during construction of the high school buildings. The diversion of West Brothers Brook and subsequent filling terminated the function of the wetlands at the property.

The high school buildings were constructed on the eastern portion of the property, beyond the limits of the historical wetlands, on areas of shallow bedrock or bedrock outcrops.

Construction of the high school was performed between 1966 and 1972 with the main high school buildings (except as described below) eight tennis courts and athletic fields to the west of the school buildings (located in the vicinity of the former wetlands and West Brothers Brook original channel) with the school opening for use in 1970. Several improvements to the property have taken place since the initial construction of the high school:

- In the early 1970s, additional fill was imported to level an area settling in the western parking lot. This area of settling was a paved parking lot prior to the import of additional fill and was restored as such following these operations.
- In 1974, the existing athletic fields were re-graded for improved drainage as the large area of relatively flat grades were allowing storm water to pond on the surface and limiting the use of these fields. Additional re-grading of the athletic fields was performed between 1982 and 1985. Historical drawings indicate that Fields 2 through 7 were constructed in their current locations by 1994. Additional improvements to Fields 3 through 7 were completed in 2005.
- In 1975, a football stadium (Field 1) was constructed in the southwestern corner of the site, along East Putnam Avenue. In 2002, the football stadium was rebuilt with a surrounding track.
- Between 1982 and 1985, a softball field (Field 5) was constructed to the north of the high school buildings in an area which was previously undeveloped by the school.
- The Science wing addition at the high school was completed after 1994.
- The tennis courts were rebuilt in 2005 in the same location as the original courts.

Construction of the Music Instructional Space Auditorium (MISA) addition to the high school was planned to commence in mid-July 2011. However, during utility trenching activities for improvements to the parking lot and irrigation system, polychlorinated biphenyls (PCBs) were encountered in the upper 2 feet of soil. The United States Environmental Protection Agency (EPA), DEEP, and the CT Department of Public Health (DPH) were notified and the investigation activities previously described were initiated. MISA construction subsequently resumed in 2014 and the MISA construction project was completed in 2017.

1.2 Environmental Setting, Geology, and Hydrogeology

A discussion of the environmental setting and geologic conditions at the site was provided in previous investigation reports and is summarized below.

1.2.1 Environmental Setting

Most of the site has been graded to facilitate the construction of the high school, parking areas and several athletic fields. DEEP has designated groundwater beneath the site as “GA” quality. Groundwater categorized as GA is considered suitable for drinking or other domestic uses without treatment. The National Flood Insurance Rate Map for the area of the site shows that most of the site is located within Zone X, outside of the 500-year floodplain. Areas in the vicinity of West Brothers Brook are located in Zone AE, within the 100-year floodplain, with some areas designated in the 500-year floodplain. Areas adjacent to West Brothers Brook are within the regulatory floodway.

1.2.2 Geology and Hydrogeology

A comprehensive study of geology and hydrogeology at the site was recently performed and is being submitted separately as part of the Completion of Investigation Report (AECOM, 2019). In general, overburden materials

encountered during subsurface investigations include non-native fill, peat, and till. These have been observed at varying depths, with non-native fill, underlain by peat and till is prevalent in central and western portions of the site, where bedrock depth is greatest. Native soils are present on the southern portion of the site, where shallow bedrock and bedrock outcrops can be observed. Groundwater at the site is generally observed between 3 and 10 feet below ground surface (ft bgs). Groundwater flows onto the site from the northwest and northeast and flows in a south to southeasterly direction on-site toward the southeastern corner of the site, where West Brothers Brook flows beneath East Putnam Avenue.

The remedial actions described herein are not anticipated to intersect the groundwater table.

1.3 Remediation Criteria

The site is enrolled in the DEEP Voluntary Remediation Program (VRP) under Connecticut General Statutes (CGS) Section 22a-133x, and DEEP has retained oversight of the investigation and remediation of the site (DEEP lead). As such, the remediation of the site is subject to the Connecticut Remediation Standard Regulations (RSRs).

The site is also under the jurisdiction of EPA and subject to the Toxic Substances Control Act (TSCA) with regard to PCBs detected in soil. PCB-impacted soil at the site is being addressed as PCB remediation waste as defined in §761.3 of Chapter 40 of the Code of Federal Regulations, Part 761 (40 CFR 761). The Town is working directly with the EPA Region 1 PCB Coordinator and DEEP's Bureau of Materials Management and Compliance Assurance PCB Program staff with regard to investigation and remediation of PCBs.

The applicable groundwater clean-up criteria for the site are the Groundwater Protection Criteria (GWPC), Residential Volatilization Criteria (R VC), and the Surface Water Protection Criteria (SWPC). The applicable soil criteria are the Residential Direct Exposure Criteria (R DEC) and GA Pollutant Mobility Criteria (GA PMC). Where criteria have not been developed for certain constituents, recommended criteria summarized in DEEP's *Technical Support Document*: *Recommended Numeric Criteria for Common Additional Polluting Substances and certain Alternative Criteria* (DEEP, 2018) have been used for screening values, understanding that use of these values will require DEEP approval. Where these values are referenced herein, they are denoted as recommended criteria.

2. Investigation Summary

The remediation areas specific to this RAP are described in the following sections. Remediation area locations are depicted on **Figure 1-3**. Investigation data associated with the remediation was collected during investigations performed between 2011 and 2018.

2.1 Remediation Area 1: Fields 6 and 7

Remediation Area 1 includes synthetic turf Fields 6 and 7, located on the northern portion of the site. Investigation data collected from within the footprint of the fields are summarized in **Table 1-1** and shown on **Figure 1-4**.

2.1.1 Previous Investigation Summary

During initial site investigation activities, ten soil borings were advanced within the footprint of the fields and eighteen soil samples were collected from these borings and analyzed for PCBs. Six samples of the structural stone fill material underlying the fields were also collected and analyzed for PCBs during a pre-design investigation associated with field replacement. Samples from soil borings advanced at the perimeter of Fields 6 and 7 were analyzed for other constituents of concern (COCs) at the site including polycyclic aromatic hydrocarbons (PAHs), petroleum hydrocarbons (ETPH) and metals. These data and associated figures were previously provided in the Remedial Investigation (RI) Report (AECOM, 2013) and are included as Table A-1 and Figures A-1 through A-7 in **Appendix A** to this report.

Investigation results for Fields 6 and 7 show that a portion of the impacted fill material used to construct the high school (AOC-1) extends to the western portion of Field 6 and contains PCB concentrations greater than 50 milligrams per kilogram (mg/kg) at depths of approximately 11 to12 feet below grade (see **Figure 1-4**). Two such sample results were obtained, one containing PCBs at a concentration of 223 mg/kg (AT20-SB394 [11.3'–12.3']) and another containing PCBs at a concentration of 51.7 mg/kg (AV20-SB393 [11'-12']). These samples were associated with an approximately 1.5 ft thick layer of black-stained fill material similar to that encountered beneath Fields 3 and 4. The fill was not observed at shallower depths at these locations or in other borings beneath Fields 6 and 7, and PCBs were not detected above 1 mg/kg elsewhere below Field 6.

Monitoring well MW-AV17 is the nearest downgradient well to Fields 6 and 7. PCBs have only been detected in one of the past eight quarterly samples collected from well MW-AV17, which is immediately downgradient of the PCB-impacted fill material beneath Field 6. The concentration of PCBs detected at that time were two orders of magnitude below the GWPC and SWPC. This is consistent with the current site-wide Conceptual Site Model (CSM) which shows that PCB levels in groundwater only exceed the GWPC and SWPC in areas of highest soil impacts (Fields 3 and 4) where impacted fill material is approximately 10-15 ft thick. One sample collected from beneath Field 7 at a depth of 1 to 2 feet below grade contained a PCB concentration greater than 1 mg/kg. The remainder of the samples collected from within the footprint of Field 7 contained PCBs at concentrations less than 1 mg/kg or did not contain PCBs. Based on previous investigation results, soil impacts adjacent to Fields 6 and 7 in natural grass areas are limited and include PCB impacts in Remediation Area 2, which are summarized below, and other COCs, which will be addressed in the site-wide RAP. The remedial approach for this area is described in **Section 3.1**. Groundwater analytical data from monitoring well MW-AV17 is provided as Table A-2 in Appendix A.

SPLP lead was detected at a concentration above the GA PMC in a sample collected from 7 to 8 feet bgs in boring AZ20-SB251, which is located in a natural grass area west of Field 7 (**Figure 4-6**). The soil boring log indicates that this sample was collected from immediately above the groundwater table in native gray silt and sand. However, the total lead concentration reported in this sample was 17 mg/kg, which is consistent with background levels for lead in natural soil (USGS, 2007) and lower than most samples from the site that were

analyzed for metals. Additional assessment of lead in this area was performed in 2019, as described in Section 2.1.2.

2.1.2 Additional Delineation Investigation Summary

In November 2019, additional soil samples were collected at the request of DEEP and EPA to further delineate PCB impacts beneath Fields 6 and 7. Eight soil borings were advanced below the synthetic turf Fields 6 and 7. Twenty soil samples were collected from these borings and analyzed for PCBs by method SW-846 8082A. Soil boring locations and sample results are included in **Figure 1-4**. PCBs were not detected above 1 mg/kg in any of the samples collected. Refusal was obtained on weathered bedrock in borings BA23-SB808 and BA30-SB806. Soil boring logs are included as **Appendix B**.

Sample results indicate that the presence of polluted fill under Fields 6 and 7 is limited to the southwest portion of Field 6, where it was previously identified in the vicinity of soil borings AT20-SB394 and AV20-SB393. Therefore, the interpretation of the extent of fill associated with AOC-1 remains unchanged since previous investigations. The inferred extent of fill material is shown on **Figures 1-3 and 1-4**.

In November 2019, a sample was collected at AZ20-SB251 from 7 to 7.5 feet bgs (above the water table) for analysis of lead and SPLP lead to validate the result of the original sample collected at this location. The total lead concentration reported in this sample was 19 mg/kg, and the SPLP lead concentration was 0.0476 mg/L, which exceeds the GA PMC. To assess the extent of such soil, two samples collected from under Field 6 were also analyzed for lead and SPLP lead. The GA PMC for SPLP lead was exceeded in both samples, while total lead concentrations were found to be less than the R DEC. The SPLP lead concentration reported in AX21-SB800 (6.5-7.5)-1 was 0.47 mg/L and the SPLP lead concentration reported in AW19-SB803 (7-8)-1 was 0.12 mg/L. These samples are representative of soil that shows no evidence of a release.

The soil boring with the highest lead and SPLP lead concentration, AX21-SB800, is located seasonally upgradient of MW-AV17. Further discussion of lead data in this area and a compliance determination are provided in Section 6.0.

2.1.2.1 Data Quality Assurance and Data Usability Evaluation

The soil samples collected during the November 2019 investigation were analyzed by Con-Test Analytical Laboratory, a Connecticut Department of Public Health (CT DPH)-certified laboratory. The laboratory was contracted to perform the analyses in accordance with the Connecticut Reasonable Confidence Protocols (RCPs).

Each analytical report case narrative was evaluated by AECOM for potential quality concerns regarding the sample data. The Quality Control (QC) criteria specified in the CT RCPs were used to evaluate this information. The review relied upon the laboratory narrating RCP QC nonconformances, including those that may have occurred during sample shipping, receipt, processing, and analysis. Non-conformances and other sample analytical related issues identified in one or more of the laboratory analytical data packages did not change the overall usability of the collected analytical data. Laboratory analytical reports are included in **Appendix C**, and Data Usability Evaluation Worksheets are included in **Appendix D**.

2.2 Remediation Area 2: PCB Impacts North of Field 7

Remediation Area 2 includes an area located northeast of Field 7. Previous investigation data collected from this area are summarized in **Table 1-2** and shown on **Figure 1-5**. PCBs have been detected in surficial soil samples collected from this area at concentrations greater than 1 mg/kg. An interim remedial measure (IRM) was performed in 2011 to remove surficial soil impacts. However, subsequent soil sampling indicated PCB impacts remained at depths greater than the IRM excavation. AECOM performed sampling to complete the

delineation of these impacts in 2018. The maximum concentration of PCBs detected in this area was 1.44 mg/kg (excluding previously excavated samples). Other COCs were not identified at concentrations above applicable soil remediation criteria in this area. The remedial approach for this area is summarized in **Section 3.2**.

2.3 Remediation Area 3: Courtyard Area ETPH Impacts

Remediation Area 3 is located in the courtyard area between the swimming pool building and main school building. Previous investigation data collected from this area are summarized in **Table 1-3** and shown on **Figure 1-6**. Three soil borings were advanced in this area, and eight samples were collected from the borings. One sample collected from boring Z26-SB403 at a depth of 2 to 3 ft bgs contained ETPH concentrations above the R DEC and GA PMC. The boring log indicates a layer of stained soil at this interval. DDT was also detected in the 1-2 ft sample from this boring at a concentration above the recommended GA PMC. Delineation sampling has not been performed in this area. However, nearby borings indicate that the extent of ETPH impacts is limited. Other COCs were not identified at concentrations above applicable soil remediation criteria in this area. The remedial approach for this area is summarized in **Section 3.2**.

2.4 Remediation Area 4: Pesticide Impacts

Remediation Area 4 includes pesticide impacts (primarily chlordane) in the area immediately north of Cider Mill Pond. Previous investigation data collected from this area are summarized in **Table 1-4** and shown on **Figure 1-7**. Pesticide impacts associated with this area were associated with AOC-8 during the Remedial Investigation and subsequent remediation work. That AOC was identified in the Phase I as being related to pesticide use on the athletic fields and landscaping at the school, although given chlordane was primarily used as a termite treatment on wood-framed homes, it is likely associated with the former residences at the site (AOC-9). Site-wide pesticide impacts continue to be evaluated and will be addressed via the site-wide RAP.

Surficial pesticide impacts were identified in this area during initial site investigation activities performed between 2011 and 2013. Surficial samples collected from this area contained chlordane concentrations above DEEP Significant Environmental Hazard (SEH) thresholds. These impacts were initially addressed by an IRM measure preventing access through fencing and then by soil excavation, which was performed in 2014. The 2014 soil excavation was performed to remove soil having pesticide concentrations above the SEH threshold and also remove soil from 0 to 1 ft bgs that had been identified in the same area as having concentrations above the R DEC for chlordane. The 2014 excavation did not address GA PMC exceedances, and because the primary goal was to address the SEH exceedance, which was delineated by prior sampling, post-remediation sampling to verify removal of soils containing chlordane concentrations greater than the R DEC. Additional investigation work was performed in this area in 2018 to delineate extent of pesticide impacts above the R DEC and GA PMC. During the course of the investigation, additional impacts above the SEH threshold, as well as the R DEC and GA PMC were identified. The remedial approach for this area is summarized in **Section 3.2**.

2.5 Remediation Area 5: Southern Area Petroleum Impacts

Remediation Area 5 is located on the southern portion of the site, near a ticket and food service building associated with Field 1 (Cardinal Stadium Football Field). Previous investigation data collected from this area are summarized in **Table 1-5** and shown on **Figure 1-8**. Samples collected from soil borings and surficial soil indicate that soil contains ETPH concentrations above the R DEC and GA PMC at two locations. ETPH was detected in the sample from boring D10-SB242 at a concentration of 1,060 mg/kg. This sample was collected from a depth of 6 to 6.5 ft bgs. The sample collected from 0.3 to 4 ft bgs in this boring did not contain ETPH or other constituents above the R DEC or GA PMC. Therefore, the ETPH impacts at the 6 to 6.5 ft depth are inaccessible, and compliance with the R DEC will be attained by implementation of an Environmental Land

Use Restriction (ELUR) in this area. ETPH was not detected in nearby borings where sampling was performed at this approximate depth interval indicating that the impacts at this depth are well defined and limited to boring D10-SB242.

Surficial soil sample C11-SS01, collected at a depth of 0 to 0.5 ft bgs, contained ETPH at a concentration of 550 mg/kg. Sampling was performed in 2018 to define the limits of these impacts and to evaluate the validity of the previous ETPH sample result, which was flagged as biased high during data quality assessment. ETPH and PAHs were detected at concentrations below the R DEC in samples collected to horizontally define the limits of soil impacts. A sample was collected, co-located with C11-SS01, to determine if the previous result was a false-positive. Sample C11-SB610 was analyzed for ETPH as well as EPH by the Massachusetts Department of Environmental Protection (MADEP) method. While the ETPH results from the new sample were below the R DEC, the EPH result exceeded recommended screening results for the R DEC and/or GA PMC for carbon fraction and PAH constituents. Therefore, the result was determined to indicate the presence of petroleum constituent concentrations above the R DEC in this area. Based on the previous and recent investigation data obtained for this area, the petroleum impacts in surficial soil are limited to the area behind (south) of the ticket building. The remedial approach for this area is summarized in **Section 3.2**.

2.6 Remediation Area 6: Southern Parking Lot Arsenic Impacts

Remediation Area 6 is located on the eastern edge of the southern parking lot. Previous investigation data collected from this area are summarized in **Table 1-5** and shown on **Figure 1-9**. A sample collected from boring F35-SB487 at a depth of 3 to 4 feet bgs contained arsenic at a concentration of 2,590 mg/kg, which is two orders of magnitude higher than concentrations detected elsewhere on site. This sample is located beneath a curbed landscaped area. Pre-design soil sampling was performed in 2014 to delineate these impacts. The sampling results indicated that extent of impacts is localized to this area.

3. RAP Technical Approach

The remediation planned for each of the six areas addressed in this RAP is summarized below. Additional details are provided in **Section 4.0**.

3.1 Remediation Area 1: Fields 6 and 7

The technical approach for Remediation Area 1 is to utilize the synthetic turf fields, scheduled to be replaced with new fields during the summer of 2020, as an Engineered Control (EC). Soil beneath the fields is impacted by PCBs at concentrations above the R DEC and TSCA standard (1 mg/kg). The remedial objective for this area is to isolate polluted soils beneath the EC and prevent access and exposure to polluted soil beneath the fields. The extent of the proposed EC is shown on **Figure 2-1**. The EC Part I and Part II application and detailed plans for installation, monitoring, and maintenance of the EC was submitted in May 2019 and is included as **Appendix E**. Supplemental materials detailing the construction of synthetic turf Fields 6 and 7 are included as **Appendix F**. The EC will be maintained through recording an Environmental Land Use Restriction (ELUR) that will prevent disturbance of the EC without DEEP approval.

The field replacement will include the placement of marker fabric and between 3 to 14 inches of clean stone material atop the existing 4 to 8 inches of stone subbase and placement of a new drainage mat with filter fabric and cushion and grass carpet with infill over Fields 6 and 7. Following construction, a minimum depth of 12 inches of clean soil will overlie the shallowest sample in which PCBs were detected at concentrations above the R DEC (i.e., AX-28-SB387). This minimum 12 inches of clean fill is comprised of 8 inches of new stone over 4 to 8 inches of existing subbase. The existing subbase was determined to not contain PCBs in five of six samples during field turf sampling performed in 2018 (see **Table 1-1**) with the only detection being 0.12 mg/kg PCBs in AT20-E, which was collected near the southwestern corner of Field 6 (see **Figure 2-1**). **Appendix F** includes cross-sections and an isopach map of the additional clean fill being placed as part of the EC.

3.2 Remediation Areas 2 through 6

The technical approach for the remainder of the remediation areas is targeted soil excavation and off-site disposal. The remedial objective for these areas is to excavate and remove soil having COC concentrations above applicable RSR criteria. Remedial excavation details are provided below and shown on **Figures 2-2 through 2-6**.

Remediation Area	COC	Excavation Area (ft^2)	Planned Depth (ft)	Volume (yd^3)
2	PCBs	546	2	40
3	ETPH, pesticides	1127	4	125
4	Chlordane	1,570	1	58
5	ETPH, PAHs	594	1	22
6	Arsenic	80	4	12

Note: Excavation areas and quantities are subject to change during performance of the remedial action.

Remediation Area 2 is contiguous with Remediation Area 1. The combined remediation activities in these areas are intended to bring conditions into compliance with the requirements of TSCA and the RSRs in the area of Fields 6 and 7, as discussed in **Section 6.0**.

4. Summary of Project/Scope of Work

Based on the remediation alternatives discussed in **Section 2.0**, the following plan of remediation activities has been developed.

4.1 Remediation Planning

Certain elements of the remediation plan are required for all elements of the active site remediation. These are discussed in the sections below.

4.1.1 Health and Safety

All remediation work will be conducted in accordance with a site-specific HASP, which meets the requirements of 29 CFR 1910.120 and which will be specific to the types of remediation work being planned. Remediation subcontractors will be needed to perform specific activities, and on-site contractors handling impacted materials will be required to develop and follow their own HASP for their specific Site activities. Visitors to the Site would be covered by, and would be required to acknowledge understanding of, and willingness/ability to comply with the requirements of the overall site-specific HASP. All soil remediation work will be conducted by personnel with the appropriate level of safety training.

The objective of the HASP is as follows:

- To protect the health and safety of on-site personnel; and
- To limit exposure of the public to hazardous substances, pollutants, or contaminants.

The HASP includes the following elements:

- Brief Site Description;
- Site Safety Hazards;
- Chemical Compounds of Concern;
- Project Personnel;
- Site Training/Medical Surveillance Requirements;
- Personnel Protective Equipment (PPE) Requirements;
- Air and Dust Monitoring Requirements;
- Decontamination Procedures;
- Work Zones;
- Remediation Derived Waste /Handling/Management;
- Safety Data Sheets (SDSs) for Chemicals Used On-site;
- Emergency Response;
- Special Operations Safety Requirements;
- Emergency Resources; and
- Generic First Aid.

4.1.2 Notification and Certification

In accordance with §761.61(a)(3)(E), this RAP serves as the Notification by the Town to the EPA Region 1 Coordinator and will be provided to state (DEEP and CT DPH) and local environmental officials (Town Health Department). Attached in **Appendix G** is a written certification, signed by a representative of the Town, the owner of the property where the cleanup site is located, indicating that all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site are on file at the location designated in the certificate and are available for EPA inspection.

4.1.3 Permitting and Approvals

Permits required to conduct the work have been reviewed. This subsection identifies the preliminary list of applicable permits based on review of State and local regulations. Groundwater is not expected to be encountered during the RAP activities. Therefore, permits related to groundwater discharges are not discussed below. Additional design and discussions with regulators may identify additional permitting needs.

4.1.3.1 EPA Approval

EPA approval of a Risk Based Corrective Action (40 CFR § 761.61(c)). This Notification serves as the application for this Approval. All required information for the Notification is included within this RAP or previously submitted investigation reports.

Specific approvals requested of EPA include the following:

- Approval for in-place disposal of PCBs at concentrations between 50 and 300 mg/kg at depths of greater than 10 feet below Field 6;
- Approval for in-place disposal of PCBs at concentrations greater than 1 mg/kg and less than 10 mg/kg beneath a clean soil cap of greater than 1 foot at Field 7;
- Approval for an exemption from the permeability requirements referenced in 40 CFR 761.61(a)(7) for the soil cap emplaced over PCB-impacted soils beneath Fields 6 and 7;
- Approval for alternate timing to implement the deed notice to that specified at 40 CFR 761.61(a)(8); and
- Approval to manage soil excavated from Remediation Area 2 in accordance with the provisions of 40 CFR 761.61(a)(5)(v)(B)(2)(ii).

The alternate permeability requirements are requested and considered justified based on the absence of dissolved PCB impacts in the Field 6 area and the pattern of groundwater impacts at the site, which indicate that groundwater concentrations in excess of the GWPC and the decontamination standard given at 40 CFR 761.79(b)(1)(iii) are only present where contaminated materials are more extensive and contain much higher concentrations of PCBs.

A deed notice for the site will be implemented at the conclusion of remediation activities at the site. The deed notice will take the form of an Environmental Land Use Restriction (ELUR) implemented at the conclusion of the VRP remediation work.

4.1.3.2 DEEP Approval

DEEP has retained oversight of the investigation and remediation of this site. Therefore, the planned remedial actions summarized herein will require DEEP's approval prior to implementing the RAP, and the EC Variance Application attached to this RAP will also require DEEP's approval.

4.1.3.3 Local Approvals

A portion of the planned work areas are located adjacent to wetlands. As the site is owned by the Town, AECOM and the Town DPW with work with the local wetlands commission to obtain any required approvals prior to the work commencing.

4.1.3.4 DEEP Stormwater and Dewatering Permit

The DEEP General Permit for Stormwater and Dewatering Wastewaters from Construction Activities (DEP-PERD-GP-015) requires that disturbances between 1 and 5 acres meet the requirements of the stormwater general permit (GP). Disturbances of less than 1 acre do not require the filing of a permit. While the area of activities proposed for remediation is estimated to be less than one acre, the construction activities associated with the replacement of Fields 6 and 7 which will be coordinated with this remediation, are anticipated to exceed 1 acre, and, therefore, a stormwater GP will be obtained. DEEP approval of the stormwater GP is presumptive. Work performed under the stormwater GP will be in compliance with *Guidelines for Soil Erosion and Sediment Control* (DEEP, 2002).

4.1.3.5 DEEP Staging and Transfer Permit

The DEEP general permit for Contaminated Soil and/or Sediment Management (Staging and Transfer) (DEP-SW-GP-001) authorizes the staging, transfer, and temporary storage of contaminated soil or sediment and is intended to address the management of these materials when they are generated during projects that are less than two years in duration and involve the excavation of earthen material. The Contaminated Soil Management GP establishes a uniform set of environmentally protective management procedures for stockpiling soils. It not anticipated that the remediation work will trigger a requirement to submit registration or request approval for this GP. Staging of impacted material will be performed in accordance with the requirements of the General Permit.

4.1.4 Public Notification

Public notice will be made for remedial activities in accordance with the Connecticut RSRs and RCSA regulations. The public notification process will be conducted in accordance with CGS 22a-133x (i) and RSR §22a-133k-1(d). This process includes a requirement for public notice of remediation activities to be placed in an appropriate local newspaper and notification to the director of the local public health agency. The notice will be made prior to remediation activities and allow for a minimum of 45 days for public comment prior to the start of the remediation Additionally, either notice of the planned remediation activities must be mailed to each owner of record of a property which abuts the parcel, at the address for such property on the last-completed grand list for the Town, or a sign must be placed at the site which is visible from the road which states that an environmental clean-up is in progress at the site. In accordance with the referenced general statute and regulation, if a sign is posted at the site, it will be posted for a minimum of 30 days and be not be less than six feet by four feet, clearly visible from the road and include a name and telephone number of a person who can provide additional information about the project. For this project, the Town has elected to post a sign at the site providing notice of the planned remediation activities. However, the town has an ongoing public outreach program which includes publication of periodic informational updates that are posted on the Greenwich Public Schools (GPS website).

4.1.5 Site Security

Site security will be managed by the selected remediation contractor and turf replacement contractor. Work will be performed primarily during the summer 2020, during school break, which will limit the number and frequency of site visitors. During performance of the work, all unauthorized personnel will be prevented from entering active remediation areas. The individual remediation areas undergoing active remediation will be demarcated with barriers such as temporary chain link around or orange snow fencing set back from excavation areas. The latter approach is appropriate for excavations to depths of less than four feet in areas where traffic patterns would not allow accidental vehicle entry. Where vehicular traffic entry is possible or excavations exceed four feet, chain link fencing would be used.

Prior to performing remedial excavation, the general work area will be divided into three work zones to to reduce the potential spread of contaminated materials into clean areas. These three zones will be clearly delineated and will include:

- Contamination Zone (Hot Zone) – Areas believed to contain impacted materials at concentrations above the established cleanup levels. Only authorized personnel will be allowed to enter a contaminated zone.
- Decontamination Zone – A secure area will be established for decontamination of equipment and personnel and for access control in an area proximate to the Contamination Zone.
- Clean Zone – An area will be designated for clean operations. Personnel, vehicles, supplies, and supply trailers will be located in this zone. All clean activities may be carried out in this area.

4.1.6 Decontamination Plan

Decontamination of on-site heavy equipment will be performed, as necessary, to minimize the potential spreading of contamination and dust. After dry brushing construction vehicles and equipment at each individual remediation area to remove loose soils and minimize dust, the vehicles/equipment will be decontaminated, as appropriate. For general decontamination of dump trailers, a stone construction entrance may be sufficient to complete decontamination. All vehicles brought onto the site will be inspected and, if needed, will undergo decontamination/cleaning prior to use on-site. Decontamination may include high-pressure water or a steam cleaner, if needed, to remove soils. Pressure washing decontamination will be conducted on a temporary pad constructed for this purpose. Containment of decontamination fluids is discussed in **Section 4.1.7.1**.

For equipment used during remediation of PCB impacted soils, decontamination of non-porous surfaces on equipment, tools, and machinery will be performed following procedures defined in 40 CFR 761.79(c)(2). Grimy, non-porous surfaces will be decontaminated following the procedures specified in 40 CFR 761.375.

4.1.7 Waste Management

Several waste streams will be generated during remedial and field replacement activities at the site. Temporary stockpiling of materials on site may be required at times until a critical volume of material is generated to improve the economics and efficiency of transportation and disposal. PCB remediation waste will be stored in accordance with 40 CFR 761.65(c)(1)(3) or 761.65(c)(9). Storage areas and containers will be marked in accordance with 40 CFR 761.45(a).

Work activities associated with the field replacement that are expected to generate soil waste include excavation for curbing installations near gates to the field and footings for safety netting and football field goal post installations. The locations of these features are shown on design drawings prepared by Milone and MacBroom, included with the EC (**Appendix E**). Pre-characterization of this waste will be performed in-situ in the areas where soil will be generated during construction.

Prior to being transported off-site, wastes will be characterized and profiled for disposal. Soil may be sampled in-situ for waste disposal parameters to speed the management of excavated soil, or composite soil stockpile samples will be collected for waste characterization. The disposal facility will confirm acceptance of the waste prior to transport. Regulated waste will be disposed of at a facility permitted to accept such wastes.

When wastes are moved off-site, waste removal will be documented by manifest or bill of lading. The Town will be named as the generator of the waste, and a Town representative will sign waste profile forms and manifests. The waste disposal subcontractor will prepare disposal manifests or bills of lading and documentation. The disposal documentation will be included in the remedial action report.

4.1.7.1 Decontamination Fluids

Decontamination fluids generated from construction equipment will be temporarily containerized in DOT drums for appropriate management. Containerized fluids will be labeled with the date of generation, contents, and source of decontamination fluid.

4.1.7.2 Soil Management

For off-site soil disposal, the receiving facilities will be chosen based on waste characterization results, tipping fees, hauling fees, and the disposal facility's operating permit. Any stockpiles of contaminated soil designated for off-site disposal which are not actively being generated or removed will be covered with weatherproof tarps or poly sheeting secured with sand bags or other ballast.

PCB remediation waste is expected to be live-loaded or staged in lined roll-off containers, pending shipment off-site. If PCB remediation waste is stockpiled, the stockpile will be constructed in accordance with 40 CFR 761.65(c)(9) using 20 mil poly sheeting as both cover and liner, bermed to prevent run-on and contain stormwater.

During remedial excavation, material segregation will be conducted based on existing data and field observations. Additional segregation may be performed based on the results of stockpile sample analysis. After the excavated material is sufficiently and appropriately segregated, it will be managed accordingly. Trucks will be loaded to within load limits and proper shipping papers will be provided prior to transport.

4.1.7.3 Personal Protective Equipment and General Solid Waste

Other solid materials (such as plastic sheeting and hay bales) used during remediation activities will be segregated from other waste streams. If solid materials come into contact with contaminated materials, the solid materials will be disposed along with the contaminated materials. If the solid materials do not come into contact with contaminated materials, they will be disposed as municipal solid waste. Personal protective equipment (PPE) used during the work will be disposed as municipal solid waste.

4.1.7.4 Synthetic Turf Field Replacement Waste

Waste generated by the synthetic turf field replacement construction activities that occur subsequent to the completion of remediation will be managed by the field replacement contractor. Because turf field replacement will involve the placement of fill over the existing synthetic turf fields, rather than the removal of field materials or underlying fill, the turf field replacement contractor's activities are not expected to contact or require management of impacted soil.

4.2 Soil Remediation Technical Approach

There are six proposed remediation areas on the site. The general technical approach is described in the subsections below.

4.2.1 Pre- and Post-Construction Survey

Site work will include pre- and post-excavation surveys. A pre-design survey of the work area will be performed to characterize the ground surface contours and current landmark locations. The pre- and post-excavation surveys will ensure that the location of non-impacted samples that were obtained during prior investigation activities to delineate the remediation areas, are clearly marked in the field. Post-construction surveys are needed for purposes of as-built documentation and for verification that the planned excavation achieved the desired limits. Surveys may be performed using conventional survey equipment and/or hand-held global positioning system (GPS) devices. Local relative measurements may also be recorded to supplement survey data, as required. Survey results will be recorded on post-construction record drawings.

4.2.2 Site Preparation

The following Site preparation activities will be conducted:

- Utility identification and demarcation;
- Contractor mobilization and installation of temporary facilities (soil stockpile areas, decontamination areas, clean fill stockpile areas, access roads, sanitary facilities);
- Construction of soil and materials staging areas;
- Installation of temporary erosion controls; and
- Demarcation of proposed work activities and Work Zones.

4.2.2.1 Sedimentation and Erosion Controls

Prior to the performance of any clearing or earthwork activities, an erosion and sedimentation control system (straw bales or wattles and/or silt fence) will be installed around the proposed limits of disturbance and will be inspected for approval. Site erosion and sedimentation controls will be installed and maintained in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control and any local requirements. To prevent off-site migration of materials, all equipment will be decontaminated prior to leaving the site, and excavation work will not be performed during heavy precipitation events. See **Section 4.1.6** for decontamination procedures.

The location of the proposed soil erosion and sediment control measures and details for construction will be shown on the construction drawings. To maintain the effectiveness of the soil erosion and sediment control measures throughout remedial construction activities, these features will be inspected regularly. If sediment deposits reach one-half the height of the barrier, sediments will be removed from the barrier and managed by removal for on-site management or off-site disposal, as applicable based on the source of the accumulated sediments.

4.2.2.2 Staging Areas

Staging areas will be constructed and used for the duration of the project. Staging areas will be located strategically at the site, depending on the proximity of the remediation areas being excavated. Multiple staging areas may be prepared to allow for segregation of impacted materials, based on its management strategy, and for storage of debris, clean fill and materials used in the performance of remediation. Material staging areas containing soil or impacted materials will be managed to prevent dust generation and run-off and run-on of water.

4.2.2.3 Temporary Facilities

Temporary facilities installed during the work may include decontamination facilities, portable sanitary facilities, temporary storage units and temporary fencing. Temporary facilities may be coordinated with the field replacement contractor to the extent practicable.

4.2.2.4 Traffic Flow

Traffic control will be managed using portable traffic-control-warning signs, markings, and barriers and, as required, construction personnel to guide access around the construction areas. Prior to commencing construction in each area, the proposed construction approach to traffic management will be reviewed to ensure that appropriate measures are taken to facilitate ongoing site operations while maintaining a safe working area.

4.2.3 Excavation Activities

Excavation activities will begin with the demarcation of the excavation area by survey. Once demarcated, the appropriate controls and preparation measures will be installed prior to excavation. Based on the planned excavation depths, neither support systems (shoring) nor groundwater management (dewatering) will be required during the work. Estimated excavation areas and volumes are summarized in **Section 3.2**.

Depending on requirements of the receiving facility, impacted materials may be direct loaded into trucks for off-site disposal or moved to an on-site designated stockpile/storage area for later load-out. Trucks will be loaded one at a time. Care will be taken not to overload the truck or spill impacted material during loading. A cover will be required for each load. The cover will be securely tied down and checked before a truck leaves the loading area. Each truck will be inspected and cleaned, if necessary, to avoid tracking impacted material and dust outside the loading area.

Impacted material designated for excavation will be characterized to meet disposal facility requirements, either by pre-characterization in-situ or by stockpile sampling. Impacted material transported off-site for disposal will be accompanied by a waste manifest that is signed by a Town representative for each truck load. A licensed hauler will be required. Approved waste profiles and disposal agreements will be completed prior to transport for off-site disposal.

Backfilling of excavation areas will not be conducted until it has been demonstrated that remediation objectives have been achieved. Verification sampling is discussed in **Section 4.2.4.1**. Barricades will be maintained around excavation areas for each excavation until backfilling is complete.

As discussed in **Section 4.1.7**, localized excavation activities are planned to be performed by the Town's field replacement contractor, including excavating for new curbing and ramps at the access gates and football goal post and safety netting installations. Soil generated during these activities will be managed in accordance with applicable regulations. AECOM establish requirements for the contractor soil management plan and provide oversight to ensure proper management of impacted soil, if any are generated.

4.2.4 Verification and Waste Characterization Sampling

This section outlines the approach for waste pre-characterization sampling, off-site disposal, and verification sampling to confirm that the remediation meets the cleanup objectives.

4.2.4.1 Verification Sampling

Post-excavation verification, or confirmation, sampling will be performed in Remediation Areas 2 through 6. Sampling will be performed to confirm that the remedial objectives for each area have been achieved. In

Remediation Area 2, post-excavation sampling will follow the procedures summarized in CFR §761.280 - §761.298 (Subpart O). In Remediation Areas 3 through 6, confirmation sampling will be performed at the following frequency: excavation sidewall samples will be collected every 20 linear feet (LF) of sidewall with a minimum of one sample per sidewall, and excavation bottom samples will be collected at a frequency of 1 sample per 400 square feet (SF). Soil samples will be analyzed following Connecticut Reasonable Confidence Protocols (RCP). Sampling results will be compared to the following criteria to determine if the remedial objectives have been met.

Area 2 – R DEC and GA PMC for PCBs, 1 mg/kg

Area 3 – R DEC and GA PMC for ETPH

Area 4 – SEH Threshold for chlordane

Area 5 – R DEC and GA PMC for ETPH

Area 6 – R DEC for Arsenic

Additional excavation and confirmation sampling will be performed for failed samples until the remedial objectives are met.

4.2.4.2 Waste Characterization of Excavated Soils

Waste characterization sampling will be performed to satisfy the requirements of the off-site disposal facilities. VOC samples collected for waste analysis will be collected as grab samples to avoid loss of volatiles. Samples for other analyses will be composited from representative in-situ or soil stockpile samples. The samples will be analyzed for the analytical parameters required by the disposal facility. Waste characterization samples will be collected in the appropriately preserved sample bottles supplied by the lab, placed on ice, and submitted under chain of custody via courier service for laboratory analysis. Existing in-situ analytical data will be used to characterize the PCB concentration in PCB remediation waste.

4.2.5 Backfilling

Following excavation and collection of final post-excavation confirmatory soil samples, backfilling of the excavated areas will commence. Clean fill or other appropriate materials will be used for backfill. Clean common backfill material and appropriate surface fill materials (processed gravel or other approved material) will be imported from an off-site source. Imported backfill material will be tested prior to being transported to the site. All data will be reviewed and approved prior to delivery of imported materials to the site. If clean fill cannot be obtained (e.g., pesticide-free topsoil), and analytical results are consistent with soil to be left on site, a request will be submitted to authorize reuse of polluted soil. The backfill will be compacted as appropriate.

4.2.6 Dust Control and Air Monitoring

Dust control and air monitoring is an important component of the remediation activities. The National Ambient Air Quality Standard (NAAQS) for Respirable Particulates (defined as PM_{10}) established by the EPA is a maximum concentration of 150 µg/m³. Based on this standard, community dust exposure from construction activities should not exceed 150 µg/m³ above the background level. In cases where dust-borne particles have the potential to result in exposure to COCs, a lower action level is often established. For the work proposed herein, a conservative, risk-based action level will be developed based on the potential for exposure to site COCs.

Air monitoring for dust will be performed at upwind and downwind locations in the work areas to ensure that construction activities comply with NAAQS. Handheld data loggers will be used to monitor dust levels. If air

monitoring results indicate PM_{10} concentrations greater than an action level (excluding background levels), dust suppression may need to be implemented. This could include the following:

- Applying water mist to active work areas and truck routes; and
- Applying water mist to construction equipment and materials.

Air monitoring thresholds for worker protection will be developed as part of the health and safety plan.

4.2.7 Cleanup and Demobilization

All contractor equipment, excess materials, and wastes will be demobilized following completion of soil remediation activities at the site.

4.2.8 Post Remediation Monitoring

Routine site-wide groundwater monitoring will continue at the site, and results will be used, as appropriate, to support the remedial actions and a demonstration of compliance for post-remediation monitoring. Additional wells will be installed, as needed to complete post-remediation groundwater monitoring. Additional samples may also be collected to assess PMC compliance in areas where SPLP testing was not previously performed (e.g., Areas 3 and 5).

5. Construction Contingency Procedures

This section describes construction contingency procedures needed to address potential changes in the design and to address unforeseen conditions or problems encountered in the field. Communication between field engineers, project management, and the Town will be critical for successful implementation of this RAP. Specific communication protocols and notification requirements will be included in the HASP.

5.1 Utilities

Care will be taken to identify known and suspected utilities in remediation areas. Excavation work will proceed cautiously to minimize the potential to encounter unknown utilities or disturb known utilities. In the event that utilities are known to be present or encountered during excavation, the Town will be notified to determine the type and status of the utility. If it is determined that the utility should remain, hand tools will be used to clean soil from the surface of the utilities, and the surface of the utilities will be inspected for evidence of surficial contamination. Upon completion, care will be taken when backfilling around the utilities and appropriate backfill material will be utilized to ensure appropriate utility support.

5.2 Severe Weather

In the event of severe weather, soil stockpiles will be covered with polyethylene sheeting and supported with appropriate ballast. Work will be curtailed until weather conditions improve. In the event of thunder/lightning storms, stop work policies will be followed, and personnel and subcontractors will be required to shut down equipment, cover stockpiles, and relocate to designated safe areas or leave the site.

5.3 Exceedance of Air Monitoring Action Levels

Dust mitigation measures will be employed in accordance with action levels set for the project and within the HASP. If unacceptable levels of dust are noted, work will be suspended until controls are employed and levels diminish or until climactic conditions change such that acceptable dust levels are achieved.

5.4 Safety Hazards

Should any condition arise that might represent a risk of harm to worker or public safety, work will be stopped. All employees working on the site will have stop work authority to allow time to consider potential hazards and to ensure procedures are in place to complete the work safely before proceeding.

5.5 Change in Conditions

Should unexpected conditions be observed during performance of remediation activities, work will be paused to evaluate the condition and to allow time for the field oversight engineer to consult with the project engineer, project manager, or the Town. Unexpected conditions that might require a pause in work include encountering an unexpected utility or encountering a new source of impacts or indications of impacts that are not consistent with the COCs for the remediation area. Such consultation will allow time to review whether waste segregation, sample analysis, decontamination, and safety procedures are adequate to address the new condition, prior to continuing with remediation in that area.

6. Post Remediation Conceptual Site Model

A CSM has been prepared and presented in the site investigation reports submitted in 2013 and updated in 2019 (AECOM, 2013 and AECOM, 2019). These CSMs have described releases; migration pathways; the degree, extent, and rate of migration of COCs; contaminant fate and transport; and potential receptors. Following final remediation of the site, the releases that currently exceed RSR criteria will have been mitigated such that RSR compliance for soil and ultimately groundwater can be demonstrated, and an updated CSM can be prepared to support a verification of compliance with the RSRs for the site.

The remedial activities specified in this RAP are a subset of the remedial activities that will be needed to verify site-wide compliance with the RSRs. These remediation activities will eliminate potential exposure risks to impacted soil and the potential for migration caused by precipitation infiltration into underlying groundwater. The remedial activities described for Remediation Areas 1 and 2 (see **Figure 1-3**) represent the only remediation activities necessary to achieve compliance with TSCA and the RSRs in the area of Fields 6 and 7. The area for which compliance will be achieved is depicted on **Figure 6-1**. An updated CSM for this area is presented below.

Investigation results within the footprint of Fields 6 and 7 show that a portion of the impacted fill material used to construct the high school (AOC-1) extends to the western portion of Field 6 and contains PCB concentrations greater than 50 mg/kg at depths of approximately 11 to12 feet bgs. Two such sample results were obtained, one containing PCBs at a concentration of 223 mg/kg [AT20-SB394 (11.3'–12.3')] and another containing PCBs at a concentration of 51.7 mg/kg [AV20-SB393 (11'-12')]. These samples were associated with an approximately 1.5-foot-thick layer of black-stained fill material similar to that encountered beneath Fields 3 and 4 on-site. The fill was not observed at shallower depths at these locations or in other borings beneath Fields 6 and 7, and PCBs were not detected above 1 mg/kg elsewhere below Field 6. One sample collected from beneath Field 7 at a depth of 1 to 2 feet below grade contained a PCB concentration greater than 1 mg/kg. The remainder of the samples collected from within the footprint of Fields 6 and 7 contained PCBs at concentrations less than 1 mg/kg or did not contain PCBs.

Based on investigation results, soil impacts adjacent to Fields 6 and 7 in natural grass areas are limited and include PCB impacts in shallow soil north of Field 7 at concentrations greater than 1 mg/kg and PCBs at concentrations below 1 mg/kg elsewhere. These data are summarized in **Figure 1-4.** The excavation of PCBs north of Field 7 and the construction of an EC beneath Fields 6 and 7 will attain compliance with the RSRs and TSCA regulations with approval of DEEP and EPA.

Other COCs detected in this area include:

- *Lead*: SPLP lead was detected at a concentration above the GA PMC in samples collected from 6.5 to 8 feet bgs in borings AZ20-SB251, AX21-SB800, and AW19-SB803, which are located on the south and west sides of Field 7 (**Figure 4-6**). The soil boring logs indicate that these samples were collected from immediately above the groundwater table in native gray silt and sand. These samples are representative of soil that shows no evidence of a release. The soil boring with the highest lead and SPLP lead concentration, AX21-SB800, is located seasonally upgradient of MW-AV17. Groundwater contour figures showing the direction of groundwater flow during multiple monitoring events from 2017 through 2019 are provided as Figures A-10 through A-16 in Appendix A. Lead has not been detected in groundwater samples collected from MW-AV17, despite over four quarters of seasonal groundwater monitoring. This entire area is subject to infiltration. Therefore, the groundwater data which has detection limits below the GPC and SWPC, demonstrate compliance with the GA PMC in accordance with RCSA 22a-133k-2(4)(c). Moreover, SPLP lead analysis results for soil in several areas on site that are open to infiltration exceed the GA PMC. However, despite much higher concentrations of SPLP lead (up to 5.64

mg/L) in these other areas, exceedances of the GPC are not observed at the monitoring wells in these areas, where soil has been exposed to infiltration for years and multiple years of quarterly groundwater data indicate compliance with the GPC and SWPC. Sitewide SPLP lead and groundwater analytical data are provided as Table A-4 and Table A-5, respectively, in **Appendix A**, and Figure A-9 in **Appendix A** depicts the locations of SPLP lead exceedances in soil sitewide. Based on these data, which indicate that SPLP lead data in excess of the GA PMC do not correlate to exceedances of groundwater criteria site-wide, also demonstrate compliance with the GA PMC for lead in accordance with RCSA 22a-133k-2(c)(4)(C), and remediation of leachable lead in soil is therefore not required in the Field 6 and 7 area.

- *Pesticides*: Chlordane and total DDT are present in surface soils within natural grass areas on the perimeter of Fields 6 and 7 at concentrations exceeding the GA PMC (chlordane) and recommended APS GA PMC for total DDT. Two samples were collected in 2018 from areas co-located with previous samples and were analyzed for SPLP pesticides. Leachable pesticides were not detected in the samples. Four quarters of groundwater monitoring results demonstrating compliance at MW-AV17, which is located downgradient of Field 6, are provided in **Table 6-1**. Lab reports from three quarters of this groundwater monitoring were provided in the July 2019 annual progress report, and the laboratory report that includes the sample collected from MW-AV17 is included in **Appendix C**. Analytical data for pesticides in soil is provided as Table A-3 in **Appendix A**, and Figure A-8 shows sitewide total DDT soil sample results.

7. Reporting Requirements

Oversight responsibilities will include design and subcontracting of remedial construction activities, and management of these activities, including the preparation and maintenance of construction records for as-built documentation. The responsibilities will also include documenting that the project is completed in accordance with the elements of this RAP and generally accepted industry/engineering standards.

7.1 Field Documentation

Detailed records of the construction activities will be maintained, including records of all subcontractor submittals and records of materials entering and leaving the site. This includes weight tickets from the facilities which receive impacted material from the site. Records of subcontractor submittals associated with imported materials will also be maintained, including contractor furnished products, materials, soil, and aggregate. No materials will be permitted to be imported to the site without appropriate prior approval from the Site Engineer. In addition, the following records will be maintained:

- Photographic documentation of construction activities including, but not limited to, completed remediation and excavations, previously unknown areas of contamination (if encountered), and other pertinent observations;
- Logs of daily activities, site conditions, weather, and safety meetings and observations;
- Records of changes to remediation design elements to accommodate field conditions;
- Documenting segregation (if used), storage, and accounting of wastes that may be stockpiled at the site;
- Documenting and reporting of spills, leaks, or other discharges occurring at the site;
- Documenting unknown utilities which may be encountered and/or work around utility structures and their condition prior to and following remediation;
- Documenting sampling locations and measurements taken relative to survey benchmarks;
- Documenting that erosion control measures are appropriately employed and maintained, including a maintenance record of required repairs;
- Documenting site security measures, including maintenance of a site visitor log;
- Documenting structures that are encountered, permanently removed and/or removed and replaced during excavation activities;
- Documenting treatment system operations and volumes of wastes generated;
- Maintaining waste transportation/disposal documentation; and
- Documenting decontamination procedures prior to demobilization.

7.2 Post-Remediation Reporting Requirements

Following completion of remediation activities, a Remedial Action Report (RAR) will be prepared for the site and submitted to DEEP. The RAR will describe the completed work and will contain the specific items discussed below. Record site plans or as-built drawings showing the vertical and horizontal limits of remedial excavations, and final grades upon completion of backfilling (Class A-2/T-2 survey accuracy) will be prepared. The A-2 survey information will be incorporated into the existing Class A-2 site survey and will be utilized in support of site ELURs. The following information will also be provided in the RAR:

- Sample analytical data in tabular form comparing data to RSR criteria, as applicable (e.g., for post excavation samples);

- As-built figures depicting extents of remediation, sampling locations, and remediation structures (e.g., shoring, etc.);
- Complete laboratory reports;
- Waste disposal documentation (manifests, bills-of-lading, certificates of disposal, etc.);
- Waste disposal summary indicating the weights, volumes, and disposition of excavated materials;
- Documentation of all materials incorporated into the project (sand, gravel, reuse soil etc.); and
- Select photographs of remediation activities.

8. Project Schedule

Implementation of the RAP will require DEEP approval, as the site is under DEEP lead. Elements of the RAP (Engineered Control, additional permits) will also require approval. Preliminary schedule milestones are shown below.

Milestone	Approximate Date	Notes
Submit Phase I RAP / Engineered Control Parts I and II	December 2019	Both will require DEEP approval
Public Notice of Remediation / Engineered Control	December 2019	45-day public comment period
Prepare bid documents for remediation	December 2019 to January 2020	
Issue Bid	March 2020	In accordance with Town procurement procedures
Award Contract	April to May 2020	
Site Mobilization	June 2020	Pending school schedule
Site Work	June – August 2020	
Final Restoration and Demobilization	August 2020	
Phase I Remedial Action Report	December 2020	

The field schedule is subject to the timing of these approvals, weather-related delays, and field replacement contractor schedule.

9. References

AECOM 2013. Remedial Investigation Report. Greenwich High School, Greenwich, CT. October 2013.

AECOM 2019. Completion of Investigation Report. Greenwich High School, Greenwich, CT. Rocky Hill, CT: AECOM May 2019.

DEEP 2018. Technical Support Document: Recommended Numeric Criteria for Common Additional Polluting Substances and Certain Alternative Criteria. September 20, 2018.

Tables

Table 1-1
Remediation Area 1 - Soil Analytical Data

Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	Res DEC	I/C DEC	AT17-SS133 0 - 0.25 ft AT17-SS133 (0-3) 8/11/2011 SB33302	AT17-SS133 0 - 0.5 ft AT17-SS133 8/3/2011 SB32768	AT18-SS168 0 - 0.25 ft AT18-SS157 (0-3) 8/11/2011 SB33302	AT20-A 0 - 2 ft AT20-A-071118-1 7/11/2018 18G0509	AT20-B 0 - 2 ft AT20-B-071118-1 7/11/2018 18G0509	AT20-B 0 - 2 ft DUP 20180711-B 7/11/2018 18G0509	AT20-E 0 - 2 ft AT20-E-071118-1 7/11/2018 18G0509	AT20-SB394 8.5-9.5 AT20-SB394 (8.5-9.5) 6/26/2012 SB51902	AT20-SB394 11.3-12.3 AT20-SB394 (11.3-12.3) 6/26/2012 SB51902	AT22-SB395 4-5 AT22-SB395 (4-5) 6/26/2012 SB51902	AT22-SB395 9-10 AT22-SB395 (9-10) 6/26/2012 SB51902	AT24-SB396 1 - 2 ft AT24-SB396 (1-2) 6/27/2012 SB51902	AT25 0 - 2 ft AT-25-E 11/15/2018 18K0724	AU18-SS167 0-0.25 ft AU18-SS167 0-3 8/11/2011 SB33302	AV17-SB250 0.5-1 ft AV17-SB250 (0.5-1) 12/29/2011 SB41766	AV17-SB250 3.5-4.5 ft AV17-SB250 (3.5-4.5) 12/29/2011 SB41766	AV17-SB250 5-7 ft AV17-SB250 (5-7) 12/29/2011 SB41766	AV17-SB250 10-11 ft AV17-SB250 (10-11) 12/29/2011 SB41766	AV17-SB250 13-14 ft AV17-SB250 (13-14) 12/29/2011 SB41766	AV17-SS135 0-0.25 ft AV17-SS135 0-3 8/11/2011 SS33302
ETPH (mg/kg)																								
Aliphatic Hydrocarbons (ETPH) C9-C36	500	500	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**119**	< 31.9 U	NS	NS
VOCs (ug/kg)																								
2-Butanone (MEK)	8000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**82**	NS	NS	NS
Acetone	14000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**303 J**	NS	NS	NS
Naphthalene	5600	1000000	2500000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**10.0 J**	NS	NS	NS
SVOCs (ug/kg)																								
Acenaphthylene	8400	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 UJ	NS	NS	NS
Anthracene	40000	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U	NS	NS	NS
Benzo(a)anthracene	1000	1000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U	NS	NS	NS
Benzo(a)pyrene	1000	1000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U	NS	NS	NS
Benzo(b)fluoranthene	1000	1000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U	NS	NS	NS
Benzo(g,h,i)perylene	*1000*	*8400*	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 UJ	NS	NS	NS
Benzo(k)fluoranthene	1000	8400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U	NS	NS	NS
Chrysene	*1000*	*84000*	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U	NS	NS	NS
Dibenzo(a,h)anthracene	*1000*	*1000*	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U	NS	NS	NS
Fluoranthene	5600	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 UJ	NS	NS	NS
Fluorene	5600	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U	NS	NS	NS
Indeno(1,2,3-cd)pyrene	*1000*	*1000*	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U	NS	NS	NS
Phenanthrene	4000	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U	NS	NS	NS
Pyrene	4000	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U	NS	NS	NS
Metals (mg/kg)																								
Arsenic	NE	10	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**4.92**	NS	**3.42**	**6.52**	NS	< 1.52 U	NS
Barium	NE	4700	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**170 J**	**442 J**	NS	**48.7 J**	NS
Beryllium	NE	2	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.512**	**0.621**	NS	< 0.507 U	NS
Cadmium	NE	34	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.565 U	NS	< 0.463 U	**0.94**	NS	< 0.507 U	NS
Chromium	NE	3900	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**14.4 J**	**26.1 J**	NS	**11.0 J**	NS
Copper	NE	2500	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**96.3 J-**	**270 J-**	NS	< 26.4 U	NS
Lead	NE	400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**47.8**	NS	**28.6**	**48.3**	NS	**3.02**	NS
Mercury	NE	20	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.117**	NS	**0.0736 J**	**0.179 J**	NS	**0.259 J**	NS
Nickel	NE	1400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**12.0 J**	**19.0 J**	NS	**14.4 J**	NS
Vanadium	NE	470	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**22.2**	**32.4**	NS	**14.3**	NS
Zinc	NE	20000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 88.0 UJ	**242 J**	NS	< 96.4 UJ	NS
Metals-SPLP (mg/L)																								
Arsenic	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	1	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	0.015	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	0.1	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PCBs (mg/kg)																								
Aroclor 1248	NE	NE	NE	**0.0751**	**0.167**	**0.0867**	NS	NS	NS	**0.12**	< 0.0216 U	**219**	< 0.0192 U	< 0.0254 U	< 0.0419 U	< 0.086 U	**0.0805**	NS	< 0.0220 U	< 0.024 U	< 0.0225 U	< 0.0215 U	< 0.0251 U
Aroclor 1254	NE	NE	NE	< 0.0246 U	< 0.0220 U	< 0.0225 U	NS	NS	NS	< 0.084 U	< 0.0216 U	< 2.61 U	**0.0836**	**0.459**	< 0.0419 U	< 0.086 U	< 0.0233 U	NS	< 0.0220 U	< 0.024 U	< 0.0225 U	< 0.0215 U	< 0.0251 U
Aroclor 1260	NE	NE	NE	< 0.0246 U	< 0.0220 U	< 0.0225 U	NS	NS	NS	< 0.084 U	< 0.0216 U	**4.31**	< 0.0192 U	< 0.0254 U	< 0.0210 U	< 0.086 U	< 0.0233 U	NS	< 0.0220 U	< 0.024 U	< 0.0225 U	< 0.0215 U	< 0.0251 U
Total PCB Aroclors	NE	1	10	**0.0751**	**0.167**	**0.0867**	NS	NS	NS	**0.12**	< 0.0216 U	**223.31**	**0.0836**	**0.459**	< 0.0419 U	< 0.086 U	**0.0805**	NS	< 0.0220 U	< 0.024 U	< 0.0225 U	< 0.0215 U	< 0.0251 U
PCBs-SPLP (mg/L)																								
Aroclor 1248	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total PCB Aroclors	0.0005	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Homologue PCBs (mg/kg)																								
Total Homologue PCBs	NE	1	10	NS	NS	NS	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table 1-1
Remediation Area 1 - Soil Analytical Data

Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	Res DEC	I/C DEC	AT17-SS133 0 - 0.25 ft AT17-SS133 (0-3) 8/11/2011 SB33302	AT17-SS133 0 - 0.5 ft AT17-SS133 8/3/2011 SB32768	AT18-SS168 0 - 0.25 ft AT18-SS157 (0-3) 8/11/2011 SB33302	AT20-A 0 - 2 ft AT20-A-071118-1 7/11/2018 18G0509	AT20-B 0 - 2 ft AT20-B-071118-1 7/11/2018 18G0509	AT20-B 0 - 2 ft DUP 20180711-B 7/11/2018 18G0509	AT20-E 0 - 2 ft AT20-E-071118-1 7/11/2018 18G0509	AT20-SB394 8.5-9.5 AT20-SB394 (8.5-9.5) 6/26/2012 SB51902	AT20-SB394 11.3-12.3 AT20-SB394 (11.3-12.3) 6/26/2012 SB51902	AT22-SB395 4-5 AT22-SB395 (4-5) 6/26/2012 SB51902	AT22-SB395 9-10 AT22-SB395 (9-10) 6/26/2012 SB51902	AT24-SB396 1 - 2 ft AT24-SB396 (1-2) 6/27/2012 SB51902	AT25 0 - 2 ft AT-25-E 11/15/2018 18K0724	AU18-SS167 0-0.25 ft AU18-SS167 0-3 8/11/2011 SB33302	AV17-SB250 0.5-1 ft AV17-SB250 (0.5-1) 12/29/2011 SB41766	AV17-SB250 3.5-4.5 ft AV17-SB250 (3.5-4.5) 12/29/2011 SB41766	AV17-SB250 5-7 ft AV17-SB250 (5-7) 12/29/2011 SB41766	AV17-SB250 10-11 ft AV17-SB250 (10-11) 12/29/2011 SB41766	AV17-SB250 13-14 ft AV17-SB250 (13-14) 12/29/2011 SB41766	AV17-SS135 0-0.25 ft AV17-SS135 0-3 8/11/2011 SS33302
Pesticides (ug/kg)																								
4,4-DDE (p,p)	NE	NE	NE	**7.51**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**7.59**	NS	NS	NS	NS	NS
4,4-DDT (p,p)	NE	NE	NA	< 9.90 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 9.31 U	NS	NS	NS	NS	NS
alpha-Chlordane	NE	NE	NE	< 6.19 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**6.51 J**	NS	NS	NS	NS	NS
Chlordane	66	490	NA	< 24.7 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**43**	NS	NS	NS	NS	NS
gamma-Chlordane	NE	NE	NE	< 6.19 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**6.24**	NS	NS	NS	NS	NS
Total DDx	*3*	*1800*	NA	**7.51**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**7.59**	NS	NS	NS	NS	NS
Pesticides-SPLP (ug/l)	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

This is a summary table. Only detected compounds are presented.

Bold = Analyte detected above laboratory reporting limit

Blue highlighted cells exceed Res DEC.

Light green highlighted results exceed I/C DEC.

Orange highlighted cells exceed GA PMC.

Green highlighted cells indicate a turf construction material sample.

Italicized criteria values are from DEEP's Recommended Numerical Criteria for Common Additional Polluting Substances (DEEP, 2018) and are presented for purposes of preliminary evaluation.

<0.01 = Analyte not detected above the specified laboratory reporting limit

R DEC = Residential Direct Exposure Criteria

GA PMC = Pollutant Mobility Criteria applicable to GA groundwater areas

I/C DEC = Industrial/Commercial Direct Exposure Criteria

The I/C DEC for PCBs applies to inaccessible soil.

NE = Criterion has not been established for this analyte

NS = Not sampled for the specified analyte

ND = Not detected

NA = Not applicable

ug/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

Total DDx = Sum of 4,4-DDD, 4,4-DDE and 4,4-DDT

Table 1-1
Remediation Area 1 - Soil Analytical Data

Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	Res DEC	I/C DEC	AV17-SS135 0-0.5 ft AV17-SS135 8/4/2011 SS32875	AV17-SS138 0-0.5 ft AV17-SS138 8/3/2011 SS32768	AV18-SS166 0-0.25 ft AV18-SS166 0-3 8/11/2011 SB33302	AV18-SS273 0-0.25 ft AV18-SS273 (0-3") 8/22/2011 SB33952	AV20-SB393 4.5-5 ft AV20-SB393 (4.5-5) 6/26/2012 SB51819	AV20-SB393 11-12 ft AV20-SB393 (11-12) 6/26/2012 SB51819	AV20 0 - 2 ft AV-20-E 11/15/2018 18K0724	AV22-SB392 7-8 ft AV22-SB392 (7-8) 6/26/2012 SB51819	AV22-SB392 8-9 ft AV22-SB392 (8-9) 6/26/2012 SB51819	AW19-SS165 0-0.25 ft AW19-SS165 0-3 8/11/2011 SB33302	AW19-SS274 0-0.25 ft AW19-SS274 0-3 8/22/2011 SB33952	AW19-SB803 1 - 2 ft AW19-SB803 (1-2)-1 11/13/2019 19K0759	AW19-SB803 7 - 8 ft AW19-SB803 (7-8)-1 11/13/2019 19K0759	AW19-SB803 12 - 13 ft AW19-SB803 (12-13)-1 11/13/2019 19K0759	AW22 0 - 2 ft AW-22-E 11/15/2018 18K0724	AX19-SS137 0-0.25 ft AX19-SS137 0-3 8/11/2011 SB33302	AX19-SS137 0-0.5 ft AX19-SS137 8/3/2011 SB32768	AX21-SB800 1 - 2 ft AX21-SB800 (1-2)-1 11/13/2019 19K0759	AX21-SB800 6.5 - 7.5 ft AX21-SB800 (6.5-7.5)- 11/14/2019 19K0845	AX21-SB800 11 - 12 ft AX21-SB800 (11-12)- 11/14/2019 19K0845
ETPH (mg/kg)																								
Aliphatic Hydrocarbons (ETPH) C9-C36	500	500	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
VOCs (ug/kg)																								
2-Butanone (MEK)	8000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acetone	14000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene	5600	1000000	2500000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SVOCs (ug/kg)																								
Acenaphthylene	8400	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Anthracene	40000	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Benzo(a)anthracene	1000	1000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Benzo(a)pyrene	1000	1000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Benzo(b)fluoranthene	1000	1000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Benzo(g,h,i)perylene	*1000*	*8400*	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Benzo(k)fluoranthene	1000	8400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chrysene	*1000*	*84000*	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Dibenzo(a,h)anthracene	*1000*	*1000*	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Fluoranthene	5600	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Fluorene	5600	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Indeno(1,2,3-cd)pyrene	*1000*	*1000*	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Phenanthrene	4000	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pyrene	4000	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Metals (mg/kg)																								
Arsenic	NE	10	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	NE	4700	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	NE	2	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	NE	34	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	NE	3900	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	NE	2500	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	NE	400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**46**	NS	NS	NS	NS	NS	**150**	NS	NS
Mercury	NE	20	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	NE	1400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	NE	470	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	NE	20000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Metals-SPLP (mg/L)																								
Arsenic	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	1	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	0.015	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.12**	NS	NS	NS	NS	NS	**0.47**	NS	NS
Nickel	0.1	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PCBs (mg/kg)																								
Aroclor 1248	NE	NE	NE	**0.117**	**0.378**	**0.122**	**0.12**	< 0.0232 U	**51.7**	< 0.086 U	< 0.0416 U	<0.0230 U	**0.707**	**0.139 J**	< 0.094 U	< 0.093 U	< 0.088 U	< 0.082 U	**0.117**	**0.128**	< 0.091 U	< 0.099 U	< 0.085 U
Aroclor 1254	NE	NE	NE	< 0.0225 U	< 0.0215 U	< 0.0226 U	< 0.0231 U	< 0.0232 U	< 2.43 U	< 0.086 U	< 0.0416 U	<0.0230 U	< 0.0242 U	< 0.0241 U	< 0.094 U	< 0.093 U	< 0.088 U	< 0.082 U	< 0.0240 U	< 0.0213 U	< 0.091 U	< 0.099 U	< 0.085 U
Aroclor 1260	NE	NE	NE	< 0.0225 U	< 0.0215 U	< 0.0226 U	< 0.0231 U	< 0.0232 U	< 2.43 U	< 0.086 U	< 0.0208 U	<0.0230 U	< 0.0242 U	< 0.0241 U	< 0.094 U	< 0.093 U	< 0.088 U	< 0.082 U	< 0.0240 U	< 0.0213 U	< 0.091 U	**0.27**	< 0.085 U
Total PCB Aroclors	NE	1	10	**0.117**	**0.378**	**0.122**	**0.12**	< 0.0232 U	**51.7**	< 0.086 U	< 0.0416 U	<0.0230 U	**0.707**	**0.139 J**	< 0.094 U	< 0.093 U	< 0.088 U	< 0.082 U	**0.117**	**0.128**	< 0.091 U	**0.27**	< 0.085 U
PCBs-SPLP (mg/L)																								
Aroclor 1248	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total PCB Aroclors	0.0005	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Homologue PCBs (mg/kg)																								
Total Homologue PCBs	NE	1	10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table 1-1
Remediation Area 1 - Soil Analytical Data

Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	Res DEC	I/C DEC	AV17-SS135 0-0.5 ft AV17-SS135 8/4/2011 SS32875	AV17-SS138 0-0.5 ft AV17-SS138 8/3/2011 SS32768	AV18-SS166 0-0.25 ft AV18-SS166 0-3 8/11/2011 SB33302	AV18-SS273 0-0.25 ft AV18-SS273 (0-3") 8/22/2011 SB33952	AV20-SB393 4.5-5 ft AV20-SB393 (4.5-5) 6/26/2012 SB51819	AV20-SB393 11-12 ft AV20-SB393 (11-12) 6/26/2012 SB51819	AV20 0 - 2 ft AV-20-E 11/15/2018 18K0724	AV22-SB392 7-8 ft AV22-SB392 (7-8) 6/26/2012 SB51819	AV22-SB392 8-9 ft AV22-SB392 (8-9) 6/26/2012 SB51819	AW19-SS165 0-0.25 ft AW19-SS165 0-3 8/11/2011 SB33302	AW19-SS274 0-0.25 ft AW19-SS274 0-3 8/22/2011 SB33952	AW19-SB803 1 - 2 ft AW19-SB803 (1-2)-1 11/13/2019 19K0759	AW19-SB803 7 - 8 ft AW19-SB803 (7-8)-1 11/13/2019 19K0759	AW19-SB803 12 - 13 ft AW19-SB803 (12-13)-1 11/13/2019 19K0759	AW22 0 - 2 ft AW-22-E 11/15/2018 18K0724	AX19-SS137 0-0.25 ft AX19-SS137 0-3 8/11/2011 SB33302	AX19-SS137 0-0.5 ft AX19-SS137 8/3/2011 SB32768	AX21-SB800 1 - 2 ft AX21-SB800 (1-2)-1 11/13/2019 19K0759	AX21-SB800 6.5 - 7.5 ft AX21-SB800 (6.5-7.5) 11/14/2019 19K0845	AX21-SB800 11 - 12 ft AX21-SB800 (11-12)- 11/14/2019 19K0845
Pesticides (ug/kg)																								
4,4-DDE (p,p)	NE	NE	NE	NS	NS	**14.9**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	NE	NE	NA	NS	NS	**22.8**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
alpha-Chlordane	NE	NE	NE	NS	NS	**16.3 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane	66	490	NA	NS	NS	**66.6**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
gamma-Chlordane	NE	NE	NE	NS	NS	**8.71 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total DDx	*3*	*1800*	NA	NS	NS	**37.7**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pesticides-SPLP (ug/l)	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:
This is a summary table. Only detected compounds are presented.
Bold = Analyte detected above laboratory reporting limit
Blue highlighted cells exceed Res DEC.
Light green highlighted results exceed I/C DEC.
Orange highlighted cells exceed GA PMC.
Green highlighted cells indicate a turf construction material sample.
Italicized criteria values are from DEEP's Recommended Numerical Criteria for Common Additional Polluting Substances (DEEP, 2018) and are presented for purposes of preliminary evaluation.
<0.01 = Analyte not detected above the specified laboratory reporting limit
R DEC = Residential Direct Exposure Criteria
GA PMC = Pollutant Mobility Criteria applicable to GA groundwater areas
I/C DEC = Industrial/Commercial Direct Exposure Criteria
The I/C DEC for PCBs applies to inaccessible soil.
NE = Criterion has not been established for this analyte
NS = Not sampled for the specified analyte
ND = Not detected
NA = Not applicable
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
mg/L = milligrams per liter
Total DDx = Sum of 4,4-DDD, 4,4-DDE and 4,4-DDT

Table 1-1
Remediation Area 1 - Soil Analytical Data

Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	Res DEC	I/C DEC	AX21-SB800 11 - 12 ft AX21-SB800 (11-12)-1 11/14/2019 19K0845	AX26-SB801 1 - 2 ft AX26-SB801 (1-2)-1 11/14/2019 19K0845	AX26-SB801 6 - 7 ft AX26-SB801 (6-7)-1 11/14/2019 19K0845	AX26-SB801 11 - 12 ft AX26-SB801 (11-12)-1 11/14/2019 19K0845	AX28-SB804 1 - 2 ft AX28-SB804 (1-2)-1 11/14/2019 19K0845	AX28-SB804 3 - 4 ft AX28-SB804 (3-4)-1 11/14/2019 19K0845	AX31-SB278 0 - 1 ft AX31-SB278 (0-1) 12/30/2011 SB41831	AX31-SB278 1 - 2 ft AX31-SB278 (1-2) 12/30/2011 SB41831	AX31-SS275 0 - 0.25 ft AX31-SS275 (0-3) 8/22/2011 SB33952	AY20-SS164 0 - 0.25 ft AY20 SS164 0-3 8/11/2011 SB33302	AY28 0 - 2 ft AY-28-E 11/15/2018 18K0724	AY28 0 - 2 ft AY-28-E-2 11/15/2018 18K0724	AY30-SB805 1 - 2 ft AY30-SB805 (1-2)-1 11/14/2019 19K0845	AY30-SB805 1 - 2 ft AY30-SB805 (1-2)-1 11/14/2019 19K0845	AY30-SB805 4 - 5 ft AY30-SB805 (4-5)-1 11/14/2019 19K0845	AZ20-SS138 0-0.25 ft AZ20-SS138 0-3 8/11/2018 SB33302	AZ20-SB251 2.5 - 3.5 ft AZ20-SB251(2.5-3.5)-1 12/29/2011 SB41766	AZ20-SB251 7 - 8 ft AZ20-SB251(7-8)-1 12/29/2011 SB41766	AZ20-SB251 7 - 7.5 ft AZ20-SB251RE (7-7.5 11/13/2019 19K0759	AZ26-SB391 1-2 ft AZ26-391 (1-2) 6/26/2012 SB51819	AZ26-SB391 2-3 ft AZ26-391 (2-3) 6/26/2012 SB51819
ETPH (mg/kg)																									
Aliphatic Hydrocarbons (ETPH) C9-C36	500	500	NA	NS	NS	NS	NS	NS	NS	NS	< 13.8 U	NS	**128**	NS	NS	NS	NS	NS	NS	NS	NS	< 14.6 U	NS	NS	NS
VOCs (ug/kg)																									
2-Butanone (MEK)	8000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acetone	14000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene	5600	1000000	2500000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SVOCs (ug/kg)																									
Acenaphthylene	8400	1000000	NA	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 363 UJ	NS	NS	NS
Anthracene	40000	1000000	NA	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 363 U	NS	NS	NS
Benzo(a)anthracene	1000	1000	NA	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 363 U	NS	NS	NS
Benzo(a)pyrene	1000	1000	NA	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 363 U	NS	NS	NS
Benzo(b)fluoranthene	1000	1000	NA	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 363 U	NS	NS	NS
Benzo(g,h,i)perylene	*1000*	*8400*	NA	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 363 U	NS	NS	NS
Benzo(k)fluoranthene	1000	8400	NA	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 363 U	NS	NS	NS
Chrysene	*1000*	*84000*	NA	NS	NS	NS	NS	NS	NS	NS	< 342 UJ	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 363 U	NS	NS	NS
Dibenzo(a,h)anthracene	*1000*	*1000*	NA	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 363 U	NS	NS	NS
Fluoranthene	5600	1000000	NA	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 363 U	NS	NS	NS
Fluorene	5600	1000000	NA	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 363 U	NS	NS	NS
Indeno(1,2,3-cd)pyrene	*1000*	*1000*	NA	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 363 U	NS	NS	NS
Phenanthrene	4000	1000000	NA	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 363 U	NS	NS	NS
Pyrene	4000	1000000	NA	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 363 U	NS	NS	NS
Metals (mg/kg)																									
Arsenic	NE	10	NA	NS	NS	NS	NS	NS	NS	NS	< 1.52 U	**4.76**	NS	NS	NS	NS	NS	NS	**4.44**	**4.49**	**2.72**	NS	NS	NS	
Barium	NE	4700	NA	NS	NS	NS	NS	NS	NS	NS	**803**	NS	NS	NS	NS	NS	NS	NS	**140**	**115 J**	**53.5 J**	NS	NS	NS	
Beryllium	NE	2	NA	NS	NS	NS	NS	NS	NS	NS	**1.33**	NS	NS	NS	NS	NS	NS	NS	NS	**0.669**	< 0.551 U	NS	NS	NS	
Cadmium	NE	34	NA	NS	NS	NS	NS	NS	NS	NS	< 0.506 U	NS	NS	NS	NS	NS	NS	NS	**0.724**	< 0.586 U	< 0.551 U	NS	NS	NS	
Chromium	NE	3900	NA	NS	NS	NS	NS	NS	NS	NS	**84.3**	NS	NS	NS	NS	NS	NS	NS	**34.1**	**14.4 J**	**14.6 J**	NS	NS	NS	
Copper	NE	2500	NA	NS	NS	NS	NS	NS	NS	NS	**15.7**	NS	NS	NS	NS	NS	NS	NS	NS	< 30.5 UJ	< 28.6 UJ	NS	NS	NS	
Lead	NE	400	NA	NS	NS	NS	NS	NS	NS	NS	**4.08**	NS	NS	NS	NS	NS	NS	NS	**52.9**	**48.3**	**17.3**	**19.0**	NS	NS	
Mercury	NE	20	NA	NS	NS	NS	NS	NS	NS	NS	< 0.0314 U	NS	NS	NS	NS	NS	NS	NS	**0.0779**	< 0.0335 UJ	< 0.0330 UJ	NS	NS	NS	
Nickel	NE	1400	NA	NS	NS	NS	NS	NS	NS	NS	**23.7**	NS	NS	NS	NS	NS	NS	NS	NS	**17.7 J**	**12.7 J**	NS	NS	NS	
Vanadium	NE	470	NA	NS	NS	NS	NS	NS	NS	NS	**66.8**	NS	NS	NS	NS	NS	NS	NS	NS	**31.7**	**19.2**	NS	NS	NS	
Zinc	NE	20000	NA	NS	NS	NS	NS	NS	NS	NS	**51.5**	NS	NS	NS	NS	NS	NS	NS	NS	< 111 UJ	< 105 UJ	NS	NS	NS	
Metals-SPLP (mg/L)																									
Arsenic	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.0056 J**	NS	NS	NS	
Barium	1	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.176 J**	NS	NS	NS	
Chromium	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.0285 J**	NS	NS	NS	
Lead	0.015	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.0476 J**	**0.021**	NS	NS	
Nickel	0.1	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.0299 J**	NS	NS	NS	
Vanadium	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.0404 J**	NS	NS	NS	
PCBs (mg/kg)																									
Aroclor 1248	NE	NE	NE	< 0.087 U	< 0.095 U	< 0.096 U	< 0.081 U	< 0.082 U	< 0.083 U	NS	< 0.0202 U	< 0.0239 U	< 0.0227 U	< 0.080 U	< 0.085 U	**0.098**	**0.14**	< 0.079 U	**0.0912**	< 0.487 U	**0.161**	NS	**0.162**	< 0.0208 U	
Aroclor 1254	NE	NE	NE	< 0.087 U	< 0.095 U	< 0.096 U	< 0.081 U	< 0.082 U	< 0.083 U	NS	< 0.0202 U	< 0.0239 U	< 0.0227 U	< 0.080 U	< 0.085 U	< 0.086 U	< 0.087 U	< 0.079 U	< 0.0222 U	< 0.487 U	< 0.0208 U	NS	< 0.0205 U	< 0.0208 U	
Aroclor 1260	NE	NE	NE	< 0.087 U	< 0.095 U	< 0.096 U	< 0.081 U	< 0.082 U	< 0.083 U	NS	< 0.0202 U	< 0.0239 U	< 0.0227 U	< 0.080 U	< 0.085 U	< 0.086 U	< 0.087 U	< 0.079 U	< 0.0222 U	< 0.487 U	**0.0223**	NS	< 0.0205 U	< 0.0208 U	
Total PCB Aroclors	NE	1	10	< 0.087 U	< 0.095 U	< 0.096 U	< 0.081 U	< 0.082 U	< 0.083 U	NS	< 0.0202 U	< 0.0239 U	< 0.0227 U	< 0.080 U	< 0.085 U	**0.098**	**0.14**	< 0.079 U	**0.0912**	< 0.487 U	**0.183**	NS	**0.162**	< 0.0208 U	
PCBs-SPLP (mg/L)																									
Aroclor 1248	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.000200 U	NS	NS	NS	
Total PCB Aroclors	0.0005	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.000200 U	NS	NS	NS	
Homologue PCBs (mg/kg)																									
Total Homologue PCBs	NE	1	10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

Table 1-1
Remediation Area 1 - Soil Analytical Data

Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	Res DEC	I/C DEC	AX21-SB800 11 - 12 ft AX21-SB800 (11-12)-1 11/14/2019 19K0845	AX26-SB801 1 - 2 ft AX26-SB801 (1-2)-1 11/14/2019 19K0845	AX26-SB801 6 - 7 ft AX26-SB801 (6-7)-1 11/14/2019 19K0845	AX26-SB801 11 - 12 ft AX26-SB801 (11-12)-1 11/14/2019 19K0845	AX28-SB804 1 - 2 ft AX28-SB804 (1-2)-1 11/14/2019 19K0845	AX28-SB804 3 - 4 ft AX28-SB804 (3-4)-1 11/14/2019 19K0845	AX31-SB278 0 - 1 ft AX31-SB278 (0-1) 12/30/2011 SB41831	AX31-SB278 1 - 2 ft AX31-SB278 (1-2) 12/30/2011 SB41831	AX31-SS275 0 - 0.25 ft AX31-SS275 (0-3) 8/22/2011 SB33952	AY20-SS164 0 - 0.25 ft AY20 SS164 0-3 8/11/2011 SB33302	AY28 0 - 2 ft AY-28-E 11/15/2018 18K0724	AY28 0 - 2 ft AY-28-E-2 11/15/2018 18K0724	AY30-SB805 1 - 2 ft AY30-SB805 (1-2)-1 11/14/2019 19K0845	AY30-SB805 1 - 2 ft AY30-SB805 (1-2)-1 11/14/2019 19K0845	AY30-SB805 4 - 5 ft AY30-SB805 (4-5)-1 11/14/2019 19K0845	AZ20-SS138 0-0.25 ft AZ20-SS138 0-3 8/11/2018 SB33302	AZ20-SB251 2.5 - 3.5 ft AZ20-SB251(2.5-3.5)-1 12/29/2011 SB41766	AZ20-SB251 7 - 8 ft AZ20-SB251(7-8)-1 12/29/2011 SB41766	AZ20-SB251 7 - 7.5 ft AZ20-SB251RE (7-7.5 11/13/2019 19K0759	AZ26-SB391 1-2 ft AZ26-391 (1-2) 6/26/2012 SB51819	AZ26-SB391 2-3 ft AZ26-391 (2-3) 6/26/2012 SB51819
Pesticides (ug/kg)																										
4,4-DDE (p,p)	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	< 5.54 U	NS	NS	**10.9**	NS	NS	NS	NS	NS	NS	**8.9**	NS	NS	NS	NS	NS
4,4-DDT (p,p)	NE	NE	NA	NS	NS	NS	NS	NS	NS	NS	< 8.87 U	NS	NS	< 9.87 U	NS	NS	NS	NS	NS	NS	< 9.05 U	NS	NS	NS	NS	NS
alpha-Chlordane	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	< 5.54 U	NS	NS	**6.91 J**	NS	NS	NS	NS	NS	NS	**7.24**	NS	NS	NS	NS	NS
Chlordane	66	490	NA	NS	NS	NS	NS	NS	NS	NS	< 22.2 U	NS	NS	**52.3**	NS	NS	NS	NS	NS	NS	**58.8**	NS	NS	NS	NS	NS
gamma-Chlordane	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	< 5.54 U	NS	NS	**11.5**	NS	NS	NS	NS	NS	NS	< 5.66 U	NS	NS	NS	NS	NS
Total DDx	*3*	*1800*	NA	NS	NS	NS	NS	NS	NS	NS	< 8.87	NS	NS	**10.9**	NS	NS	NS	NS	NS	NS	**8.9**	NS	NS	NS	NS	NS
Pesticides-SPLP (ug/l)	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

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The I/C DEC for PCBs applies to inaccessible soil.

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ND = Not detected

NA = Not applicable

ug/kg = micrograms per kilogram

mg/kg = miligrams per kilogram

mg/L = milligrams per liter

Total DDx = Sum of 4,4-DDD, 4,4-DDE and 4,4-DDT

Table 1-1
Remediation Area 1 - Soil Analytical Data

Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	Res DEC	I/C DEC	AZ28-SB387 1-2 ft AZ28-SB387 (1-2) 6/26/2012 SB51819	BA23-SB802 1 - 2 ft A23-SB802 (1-2) 11/13/2019 19K0759	BA23-SB808 1 - 2 ft A23-SB808 (1-2) 11/15/2019 19K0953	BA23-SB808 2.5 - 3.5 ft 23-SB808 (2.5-3.5 11/15/2019 19K0953	BA23-SB808 4 - 5 ft A23-SB808 (4-5) 11/15/2019 19K0953	BA30-SB806 1 - 2 ft A30-SB806 (1-2) 11/14/2019 19K0845	BB20-SS139 0 - 0.25 ft BB20 SS139 0-3 8/11/2011 SB33302	BB20-SS139A 0 - 1 ft BB20-SS139A(0-1) 6/25/2013 SB72106	BB21-SS162 0 - 0.25 ft BB21 SS162 0-3 8/11/2011 SB33302	BB23 0 - 2 ft BB-23-E 11/15/2018 18K0724	BB24-SB390 1 - 2 ft BB24-SB390 (1-2) 6/26/2012 SB51819	BB24-SB390 7 - 8 ft BB24-SB390 (7-8) 6/26/2012 SB51819	BB26-SB389 1 - 2 ft BB26-SB389 (1-2) 6/26/2012 SB51819	BB26-SB389 5 - 6 ft BB26-SB389 (5-6) 6/26/2012 SB51819	BB28-SB388 1 - 2 ft BB28-SB388 (1-2) 6/26/2012 SB51819	BB28-SB388 7 - 8 ft BB28-SB388 (7-8) 6/26/2012 SB51819	BC22-SS161 0 - 0.25 ft BC22 SS161 0-3 8/11/2011 SB33302	BC22-SS161A 0 - 1 ft BC22-SS161A(0-1) 6/25/2013 SB72106	BC23-SS160 0 - 0.25 ft BC23 SS160 0-3 8/11/2011 SB33302	BC24-SS159 0 - 0.25 ft BC24 SS159 0-3 8/11/2011 SB33302	BD22-SB253 0 - 1 ft BD22-SB253 (0-1) 12/30/2011 SB41831	BD22-SB253 1.5 - 2 ft BD22-SB253 (1.5-2) 12/30/2011 SB41831
ETPH (mg/kg)																											
Aliphatic Hydrocarbons (ETPH) C9-C36	500	500	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**166**	NS	**80.6**
VOCs (ug/kg)																											
2-Butanone (MEK)	8000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acetone	14000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene	5600	1000000	2500000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SVOCs (ug/kg)																											
Acenaphthylene	8400	1000000	NA	NS	NS	NS	NS	NS	NS	NS	< 930 U	**140**	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 985 U	< 73	NS	NS	NS	< 385 U
Anthracene	40000	1000000	NA	NS	NS	NS	NS	NS	NS	NS	< 930 U	**330**	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 985 U	< 73	NS	NS	NS	< 385 U
Benzo(a)anthracene	1000	1000	NA	NS	NS	NS	NS	NS	NS	NS	< 930 U	**590**	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 985 U	**93**	NS	NS	NS	< 385 U
Benzo(a)pyrene	1000	1000	NA	NS	NS	NS	NS	NS	NS	NS	< 930 U	**510**	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 985 UJ	**90**	NS	NS	NS	< 385 U
Benzo(b)fluoranthene	1000	1000	NA	NS	NS	NS	NS	NS	NS	NS	< 930 U	**680**	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 985 UJ	**120**	NS	NS	NS	< 385 U
Benzo(g,h,i)perylene	*1000*	*8400*	NA	NS	NS	NS	NS	NS	NS	NS	< 930 U	**310**	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 985 UJ	**79**	NS	NS	NS	< 385 U
Benzo(k)fluoranthene	1000	8400	NA	NS	NS	NS	NS	NS	NS	NS	< 930 U	**240**	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 985 UJ	< 73	NS	NS	NS	< 385 U
Chrysene	*1000*	*84000*	NA	NS	NS	NS	NS	NS	NS	NS	< 930 U	**560**	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 985 U	**87**	NS	NS	NS	< 385 UJ
Dibenzo(a,h)anthracene	*1000*	*1000*	NA	NS	NS	NS	NS	NS	NS	NS	< 930 U	**81**	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 985 UJ	< 73	NS	NS	NS	< 385 U
Fluoranthene	5600	1000000	NA	NS	NS	NS	NS	NS	NS	NS	< 930 U	**1300**	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 985 U	**160**	NS	NS	NS	< 385 U
Fluorene	5600	1000000	NA	NS	NS	NS	NS	NS	NS	NS	< 930 U	**100**	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 985 U	< 73	NS	NS	NS	< 385 U
Indeno(1,2,3-cd)pyrene	*1000*	*1000*	NA	NS	NS	NS	NS	NS	NS	NS	< 930 U	**390**	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 985 UJ	**79**	NS	NS	NS	< 385 U
Phenanthrene	4000	1000000	NA	NS	NS	NS	NS	NS	NS	NS	< 930 U	**880**	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 985 U	< 73	NS	NS	NS	< 385 U
Pyrene	4000	1000000	NA	NS	NS	NS	NS	NS	NS	NS	< 930 U	**1100**	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 985 U	**140**	NS	NS	NS	< 385 U
Metals (mg/kg)																											
Arsenic	NE	10	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**4.60**	NS	**3.84**	
Barium	NE	4700	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**179**	
Beryllium	NE	2	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.838**	
Cadmium	NE	34	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.687**	NS	NS	NS	< 0.553 U	
Chromium	NE	3900	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**28.8**	NS	**40.5**	
Copper	NE	2500	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**18.1**	
Lead	NE	400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**62.4**	NS	**20.5**	
Mercury	NE	20	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.102**	NS	**0.0576 J+**	
Nickel	NE	1400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**16.0**	
Vanadium	NE	470	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**35.9**	
Zinc	NE	20000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**49.5**	
Metals-SPLP (mg/L)																											
Arsenic	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Barium	1	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Chromium	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Lead	0.015	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Nickel	0.1	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Vanadium	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
PCBs (mg/kg)																											
Aroclor 1248	NE	NE	NE	**1.75**	< 0.086 U	< 0.091 U	< 0.085 U	< 0.090 U	< 0.087 U	**0.0880**	NS	**0.244**	< 0.086 U	**0.117**	< 0.0282 U	**0.268**	< 0.0475 U	**0.464**	< 0.0215 U	**0.16**	NS	**0.0893**	< 0.0221 U	NS	**0.157**	
Aroclor 1254	NE	NE	NE	**0.0289**	**0.11**	**0.13**	< 0.085 U	< 0.090 U	< 0.087 U	< 0.0238 U	NS	< 0.0240 U	< 0.086 U	**0.128**	< 0.0282 U	< 0.0207 U	< 0.0237 U	< 0.0218 U	< 0.0215 U	< 0.0234 U	NS	< 0.0248 U	< 0.0221 U	NS	< 0.0229 U	
Aroclor 1260	NE	NE	NE	< 0.0214 U	< 0.086 U	< 0.091 U	< 0.085 U	< 0.090 U	< 0.087 U	< 0.0238 U	NS	< 0.0240 U	< 0.086 U	< 0.0202 U	< 0.0282 U	< 0.0207 U	< 0.0237 U	< 0.0218 U	< 0.0215 U	< 0.0234 U	NS	< 0.0248 U	< 0.0221 U	NS	< 0.0229 U	
Total PCB Aroclors	NE	1	10	**1.7789**	**0.11**	**0.13**	< 0.085 U	< 0.090 U	< 0.087 U	**0.0880**	NS	**0.244**	< 0.086 U	**0.245**	**0.131**	**0.268**	< 0.0475 U	**0.464**	< 0.0215 U	**0.16**	NS	**0.0893**	< 0.0221 U	NS	**0.157**	
PCBs-SPLP (mg/L)																											
Aroclor 1248	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Total PCB Aroclors	0.0005	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Homologue PCBs (mg/kg)																											
Total Homologue PCBs	NE	1	10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

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Pesticides (ug/kg)																										
4,4-DDE (p,p)	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	**9.46**	NS	NS	NS	NS	NS	NS	NS	NS	NS	**11.6**	NS	< 5.27 U	NS
4,4-DDT (p,p)	NE	NE	NA	NS	NS	NS	NS	NS	NS	NS	NS	< 9.71 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	**11.2**	NS	< 8.44 U	NS
alpha-Chlordane	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	**12.6 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	**16.5 J**	NS	< 5.27 U	NS
Chlordane	66	490	NA	NS	NS	NS	NS	NS	NS	NS	NS	**77.2**	NS	NS	NS	NS	NS	NS	NS	NS	NS	**94.8**	NS	< 21.1 U	NS
gamma-Chlordane	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	**13.8**	NS	NS	NS	NS	NS	NS	NS	NS	NS	**14.7**	NS	< 5.27 U	NS
Total DDx	*3*	*1800*	NA	NS	NS	NS	NS	NS	NS	NS	NS	**9.46**	NS	NS	NS	NS	NS	NS	NS	NS	NS	**22.8**	NS	< 8.44	NS
Pesticides-SPLP (ug/l)	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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mg/kg = milligrams per kilogram

mg/L = milligrams per liter

Total DDx = Sum of 4,4-DDD, 4,4-DDE and 4,4-DDT

Table 1-1
Remediation Area 1 - Soil Analytical Data

Location ID **Depth Interval (ft bgs)** **Sample ID** **Sample Date** **SDG**	**GA PMC**	**Res DEC**	**I/C DEC**	**BD23-SS140** **0 - 0.25 ft** **BD23 SS140 0-3** **8/11/2011**	**BD23-SS140** **0 - 0.5 ft** **BD23-SS140** **8/4/2011**
ETPH (mg/kg)					
Aliphatic Hydrocarbons (ETPH) C9-C36	500	500	NA	NS	NS
VOCs (ug/kg)					
2-Butanone (MEK)	8000	500000	1000000	NS	NS
Acetone	14000	500000	1000000	NS	NS
Naphthalene	5600	1000000	2500000	NS	NS
SVOCs (ug/kg)					
Acenaphthylene	8400	1000000	NA	NS	NS
Anthracene	40000	1000000	NA	NS	NS
Benzo(a)anthracene	1000	1000	NA	NS	NS
Benzo(a)pyrene	1000	1000	NA	NS	NS
Benzo(b)fluoranthene	1000	1000	NA	NS	NS
Benzo(g,h,i)perylene	*1000*	*8400*	NA	NS	NS
Benzo(k)fluoranthene	1000	8400	NA	NS	NS
Chrysene	*1000*	*84000*	NA	NS	NS
Dibenzo(a,h)anthracene	*1000*	*1000*	NA	NS	NS
Fluoranthene	5600	1000000	NA	NS	NS
Fluorene	5600	1000000	NA	NS	NS
Indeno(1,2,3-cd)pyrene	*1000*	*1000*	NA	NS	NS
Phenanthrene	4000	1000000	NA	NS	NS
Pyrene	4000	1000000	NA	NS	NS
Metals (mg/kg)					
Arsenic	NE	10	NA	NS	NS
Barium	NE	4700	NA	NS	NS
Beryllium	NE	2	NA	NS	NS
Cadmium	NE	34	NA	NS	NS
Chromium	NE	3900	NA	NS	NS
Copper	NE	2500	NA	NS	NS
Lead	NE	400	NA	NS	NS
Mercury	NE	20	NA	NS	NS
Nickel	NE	1400	NA	NS	NS
Vanadium	NE	470	NA	NS	NS
Zinc	NE	20000	NA	NS	NS
Metals-SPLP (mg/L)					
Arsenic	0.05	NE	NE	NS	NS
Barium	1	NE	NE	NS	NS
Chromium	0.05	NE	NE	NS	NS
Lead	0.015	NE	NE	NS	NS
Nickel	0.1	NE	NE	NS	NS
Vanadium	0.05	NE	NE	NS	NS
PCBs (mg/kg)					
Aroclor 1248	NE	NE	NE	**0.0474**	**0.103**
Aroclor 1254	NE	NE	NE	< 0.0231 U	< 0.0202 U
Aroclor 1260	NE	NE	NE	< 0.0231 U	< 0.0202 U
Total PCB Aroclors	NE	1	10	**0.0474**	**0.103**
PCBs-SPLP (mg/L)					
Aroclor 1248	NE	NE	NE	NS	NS
Total PCB Aroclors	0.0005	NE	NE	NS	NS
Homologue PCBs (mg/kg)					
Total Homologue PCBs	NE	1	10	NS	NS

Table 1-1
Remediation Area 1 - Soil Analytical Data

Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	Res DEC	I/C DEC	BD23-SS140 0 - 0.25 ft BD23 SS140 0-3 8/11/2011	BD23-SS140 0 - 0.5 ft BD23-SS140 8/4/2011
Pesticides (ug/kg)					
4,4-DDE (p,p)	NE	NE	NE	NS	NS
4,4-DDT (p,p)	NE	NE	NA	NS	NS
alpha-Chlordane	NE	NE	NE	NS	NS
Chlordane	66	490	NA	NS	NS
gamma-Chlordane	NE	NE	NE	NS	NS
Total DDx	*3*	*1800*	NA	NS	NS
Pesticides-SPLP (ug/l)	NE	NE	NE	NS	NS

Notes:

This is a summary table. Only detected compounds are presented.

Bold = Analyte detected above laboratory reporting limit

Blue highlighted cells exceed Res DEC.

Light green highlighted results exceed I/C DEC.

Orange highlighted cells exceed GA PMC.

Green highlighted cells indicate a turf construction material sample.

Italicized criteria values are from DEEP's Recommended Numerical Criteria for Common Additional Polluting Substances (DEEP, 2018) and are presented for purposes of preliminary evaluation.

<0.01 = Analyte not detected above the specified laboratory reporting limit

R DEC = Residential Direct Exposure Criteria

GA PMC = Pollutant Mobility Criteria applicable to GA groundwater areas

I/C DEC = Industrial/Commercial Direct Exposure Criteria

The I/C DEC for PCBs applies to inaccessible soil.

NE = Criterion has not been established for this analyte

NS = Not sampled for the specified analyte

ND = Not detected

NA = Not applicable

ug/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

Total DDx = Sum of 4,4-DDD, 4,4-DDE and 4,4-DDT

Table 1-2
Remediation Area 2 - Soil Analytical Data

Greenwich High School
10 Hillside Road
Greenwich, CT

Location ID **Depth Interval (ft bgs)** **Sample ID** **Sample Date** **SDG**	**GA PMC**	**Res DEC**	**BB27-SB622** **1 - 2 ft** **BB27-SB622 (1-2)** **11/29/2018** **18K1266**	**BC26-SS158** **0 - 0.25 ft** **BC26 SS158 0-3** **8/11/2011** **SB33302**	**BC27-SB614** **1 - 2 ft** **BC27-SB614 (1-2)** **6/27/2018** **18F1381**	**BC27-SB615** **1 - 2 ft** **BC27-SB615 (1-2)** **6/27/2018** **18F1381**	**BC27-SB619** **1 - 2 ft** **BC27-SB619 (1-2)** **11/29/2018** **18K1266**	**BC27-SB620** **0 - 1 ft** **BC27-SB620 (0-1)** **11/29/2018** **18K1266**	**BC27-SB620** **2 - 4 ft** **BC27-SB620 (2-4)** **11/29/2018** **18K1266**
CTETPH (mg/Kg)									
Aliphatic Hydrocarbons (ETPH) C_9-C_{36}	500	500	NS	NS	NS	NS	NS	NS	NS
SVOCs (ug/Kg)									
Benzo(a)anthracene	1000	1000	NS	NS	NS	NS	NS	NS	NS
Benzo(a)pyrene	1000	1000	NS	NS	NS	NS	NS	NS	NS
Benzo(b)fluoranthene	1000	1000	NS	NS	NS	NS	NS	NS	NS
Benzo(k)fluoranthene	1000	8400	NS	NS	NS	NS	NS	NS	NS
Chrysene	*1000*	*84000*	NS	NS	NS	NS	NS	NS	NS
Fluoranthene	5600	1000000	NS	NS	NS	NS	NS	NS	NS
Phenanthrene	4000	1000000	NS	NS	NS	NS	NS	NS	NS
Pyrene	4000	1000000	NS	NS	NS	NS	NS	NS	NS
Metals (mg/Kg)									
Arsenic	NE	10	NS	NS	NS	NS	NS	NS	NS
Barium	NE	4700	NS	NS	NS	NS	NS	NS	NS
Beryllium	NE	2	NS	NS	NS	NS	NS	NS	NS
Cadmium	NE	34	NS	NS	NS	NS	NS	NS	NS
Chromium	NE	NE	NS	NS	NS	NS	NS	NS	NS
Copper	NE	2500	NS	NS	NS	NS	NS	NS	NS
Lead	NE	500	NS	NS	NS	NS	NS	NS	NS
Mercury	NE	20	NS	NS	NS	NS	NS	NS	NS
Nickel	NE	1400	NS	NS	NS	NS	NS	NS	NS
Vanadium	NE	470	NS	NS	NS	NS	NS	NS	NS
Zinc	NE	20000	NS	NS	NS	NS	NS	NS	NS
Metals-SPLP (mg/L)									
Barium	1	NE	NS	NS	NS	NS	NS	NS	NS
Cyanide (mg/Kg)									
Cyanide	NE	1400000	NS	NS	NS	NS	NS	NS	NS
PCBs (ug/Kg)									
Aroclor 1248	NE	NE	**290**	< 21.9 U	**280**	**920**	< 82	< 92	< 97
Aroclor 1254	NE	NE	**190**	< 21.9 U	**200**	**440**	< 82	**110**	< 97
Aroclor 1260	NE	NE	< 89	< 21.9 U	< 85	< 87	< 82	< 92	< 97
Total PCB Aroclors	NE	1000	**480**	< 21.9 U	**480**	**1360**	< 82	**110**	< 97
PCBs-SPLP (mg/L)									
Aroclor 1248	NE	NE	NS	NS	NS	NS	NS	NS	NS
Total PCB Aroclors	0.0005	NE	NS	NS	NS	NS	NS	NS	NS
Pesticides (ug/Kg)									
4,4-DDE (p,p)	NE	NE	NS	< 5.84 U	NS	NS	NS	NS	NS
4,4-DDT (p,p)	NE	1800	NS	< 9.34 U	NS	NS	NS	NS	NS
alpha-Chlordane	NE	NE	NS	**6.25 J**	NS	NS	NS	NS	NS
Chlordane	66	490	NS	**42.7**	NS	NS	NS	NS	NS
gamma-Chlordane	NE	NE	NS	**7.92**	NS	NS	NS	NS	NS
Total DDx	*3*	*1800*	NS	< 9.34	NS	NS	NS	NS	NS

Notes:

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Bold = Detected above reporting limit

Blue highlighted cells exceed Res DEC.

Orange highlighted cells exceed GA PMC.

Red highlighted cells indicate an excavated sample.

Res DEC = Residential Direct Exposure Criteria

GA PMC = Pollutant Mobility Criteria

ND = Not detected

NE = Criteria has not been established

NS = Not sampled for this constituent

U = Analyte not detected above given sample quantitation limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

mg/L = milligram per liter

Recommended Additional Polluting Substances (DEEP, 2018) are *italicized* .

Table 1-2
Remediation Area 2 - Soil Analytical Data

Greenwich High School
10 Hillside Road
Greenwich, CT

Location ID **Depth Interval (ft bgs)** **Sample ID** **Sample Date** **SDG**	**GA PMC**	**Res DEC**	**BC27-SS155** **0 - 0.25 ft** **BC27 SS155 0-3** **8/11/2011** **SB33302**	**BC27-SS157** **0 - 0.25 ft** **BC27 SS157 0-3** **8/11/2011** **SB33302**	**BC28-SB621** **1 - 2 ft** **BC28-SB121 (1-2)** **11/29/2018** **18K1266**	**BC28-SS153** **0 - 0.25 ft** **BC28 SS153 0-3** **8/11/2011** **SB33302**	**BC29-SS150** **0 - 0.25 ft** **BC29 SS150 0-3** **8/11/2011** **SB33302**	**BD27-SB252** **0 - 1 ft** **BD27-SB252 (0-1)-123011-1** **12/30/2011** **SB41831**	**BD27-SB252** **1.5 - 2 ft** **BD27-SB252 (1.5-2)-123011-1** **12/30/2011** **SB41831**
CTETPH (mg/Kg)									
Aliphatic Hydrocarbons (ETPH) C_9-C_{36}	500	500	NS	NS	NS	NS	NS	NS	**120**
SVOCs (ug/Kg)									
Benzo(a)anthracene	1000	1000	NS	NS	NS	NS	NS	NS	**579**
Benzo(a)pyrene	1000	1000	NS	NS	NS	NS	NS	NS	**535**
Benzo(b)fluoranthene	1000	1000	NS	NS	NS	NS	NS	NS	**616**
Benzo(k)fluoranthene	1000	8400	NS	NS	NS	NS	NS	NS	**490**
Chrysene	*1000*	*84000*	NS	NS	NS	NS	NS	NS	**537 J**
Fluoranthene	5600	1000000	NS	NS	NS	NS	NS	NS	**1310**
Phenanthrene	4000	1000000	NS	NS	NS	NS	NS	NS	**986**
Pyrene	4000	1000000	NS	NS	NS	NS	NS	NS	**984**
Metals (mg/Kg)									
Arsenic	NE	10	NS	**3.57**	NS	NS	**5.78**	NS	**4.87**
Barium	NE	4700	NS	NS	NS	NS	NS	NS	**166**
Beryllium	NE	2	NS	NS	NS	NS	NS	NS	**0.917**
Cadmium	NE	34	NS	**0.59**	NS	NS	**0.666**	NS	< 0.479 U
Chromium	NE	NE	NS	**34.8**	NS	NS	**27.3**	NS	**42.5**
Copper	NE	2500	NS	NS	NS	NS	NS	NS	**22.5**
Lead	NE	500	NS	**15.2**	NS	NS	**51.8**	NS	**44.7**
Mercury	NE	20	NS	< 0.0350 U	NS	NS	**0.106**	NS	**0.107 J+**
Nickel	NE	1400	NS	NS	NS	NS	NS	NS	**18.5**
Vanadium	NE	470	NS	NS	NS	NS	NS	NS	**38.7**
Zinc	NE	20000	NS	NS	NS	NS	NS	NS	**59.8**
Metals-SPLP (mg/L)									
Barium	1	NE	NS	NS	NS	NS	NS	NS	**0.0243 J+**
Cyanide (mg/Kg)									
Cyanide	NE	1400000	NS	NS	NS	NS	NS	NS	< 1070 UJ
PCBs (ug/Kg)									
Aroclor 1248	NE	NE	< 22.1 U	< 22.4 U	**300**	< 23.0 U	**130**	NS	**1410**
Aroclor 1254	NE	NE	< 22.1 U	< 22.4 U	**150**	< 23.0 U	< 23.5 U	NS	< 20.8 U
Aroclor 1260	NE	NE	< 22.1 U	< 22.4 U	< 84	< 23.0 U	< 23.5 U	NS	**30.2**
Total PCB Aroclors	NE	1000	< 22.1 U	< 22.4 U	**450**	< 23.0 U	**130**	NS	**1440.2**
PCBs-SPLP (mg/L)									
Aroclor 1248	NE	NE	NS	NS	NS	NS	NS	NS	**0.00129**
Total PCB Aroclors	0.0005	NE	NS	NS	NS	NS	NS	NS	**0.00129**
Pesticides (ug/Kg)									
4,4-DDE (p,p)	NE	NE	NS	NS	NS	NS	NS	< 5.70 U	NS
4,4-DDT (p,p)	NE	1800	NS	NS	NS	NS	NS	< 9.12 UJ	NS
alpha-Chlordane	NE	NE	NS	NS	NS	NS	NS	< 5.70 U	NS
Chlordane	66	490	NS	NS	NS	NS	NS	**31.6**	NS
gamma-Chlordane	NE	NE	NS	NS	NS	NS	NS	< 5.70 UJ	NS
Total DDx	*3*	*1800*	NS	NS	NS	NS	NS	< 9.12	NS

Notes:

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Red highlighted cells indicate an excavated sample.

Res DEC = Residential Direct Exposure Criteria

GA PMC = Pollutant Mobility Criteria

ND = Not detected

NE = Criteria has not been established

NS = Not sampled for this constituent

U = Analyte not detected above given sample quantitation limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

mg/L = milligram per liter

Recommended Additional Polluting Substances (DEEP, 2018) are *italicized* .

Table 1-2
Remediation Area 2 - Soil Analytical Data

Greenwich High School
10 Hillside Road
Greenwich, CT

Location ID **Depth Interval (ft bgs)** **Sample ID** **Sample Date** **SDG**	**GA PMC**	**Res DEC**	**BD27-SB616** **2 - 4 ft** **BD27-SB616 (2-4)** **6/27/2018** **18F1381**	**BD27-SB617** **1 - 2 ft** **BD27-SB617 (1-2)** **6/27/2018** **18F1381**	**BD27-SS141** **0 - 0.25 ft** **BD27 SS141 0-3** **8/11/2011**	**BD27-SS141** **0 - 0.5 ft** **BD27-SS141-080411** **8/4/2011**	**BD27-SS154** **0 - 0.25 ft** **BD27 SS154 0-3** **8/11/2011**	**BD27-SS156** **0 - 0.25 ft** **BD27 SS156 0-3** **8/11/2011**	**BD28-SB618** **1 - 2 ft** **BD28-SB618 (1-2)** **6/27/2018** **18F1381**
CTETPH (mg/Kg)									
Aliphatic Hydrocarbons (ETPH) C_9-C_{36}	500	500	NS	NS	NS	NS	NS	NS	NS
SVOCs (ug/Kg)									
Benzo(a)anthracene	1000	1000	NS	NS	NS	NS	NS	NS	NS
Benzo(a)pyrene	1000	1000	NS	NS	NS	NS	NS	NS	NS
Benzo(b)fluoranthene	1000	1000	NS	NS	NS	NS	NS	NS	NS
Benzo(k)fluoranthene	1000	8400	NS	NS	NS	NS	NS	NS	NS
Chrysene	*1000*	*84000*	NS	NS	NS	NS	NS	NS	NS
Fluoranthene	5600	1000000	NS	NS	NS	NS	NS	NS	NS
Phenanthrene	4000	1000000	NS	NS	NS	NS	NS	NS	NS
Pyrene	4000	1000000	NS	NS	NS	NS	NS	NS	NS
Metals (mg/Kg)									
Arsenic	NE	10	NS	NS	NS	NS	NS	NS	NS
Barium	NE	4700	NS	NS	NS	NS	NS	NS	NS
Beryllium	NE	2	NS	NS	NS	NS	NS	NS	NS
Cadmium	NE	34	NS	NS	NS	NS	NS	NS	NS
Chromium	NE	NE	NS	NS	NS	NS	NS	NS	NS
Copper	NE	2500	NS	NS	NS	NS	NS	NS	NS
Lead	NE	500	NS	NS	NS	NS	NS	NS	NS
Mercury	NE	20	NS	NS	NS	NS	NS	NS	NS
Nickel	NE	1400	NS	NS	NS	NS	NS	NS	NS
Vanadium	NE	470	NS	NS	NS	NS	NS	NS	NS
Zinc	NE	20000	NS	NS	NS	NS	NS	NS	NS
Metals-SPLP (mg/L)									
Barium	1	NE	NS	NS	NS	NS	NS	NS	NS
Cyanide (mg/Kg)									
Cyanide	NE	1400000	NS	NS	NS	NS	NS	NS	NS
PCBs (ug/Kg)									
Aroclor 1248	NE	NE	**190**	**340**	**761**	**829**	< 25.5 U	**180**	**440**
Aroclor 1254	NE	NE	**230**	**270**	**535**	< 20.3 U	< 25.5 U	< 23.5 U	**210**
Aroclor 1260	NE	NE	< 87	< 86	< 22.2 U	**34.5**	< 25.5 U	< 23.5 U	< 85
Total PCB Aroclors	NE	1000	**420**	**610**	**1296**	**863.5**	< 25.5 U	**180**	**650**
PCBs-SPLP (mg/L)									
Aroclor 1248	NE	NE	NS	NS	NS	NS	NS	NS	NS
Total PCB Aroclors	0.0005	NE	NS	NS	NS	NS	NS	NS	NS
Pesticides (ug/Kg)									
4,4-DDE (p,p)	NE	NE	NS	NS	**9.69**	NS	NS	NS	NS
4,4-DDT (p,p)	NE	1800	NS	NS	**12**	NS	NS	NS	NS
alpha-Chlordane	NE	NE	NS	NS	**9.96 J**	NS	NS	NS	NS
Chlordane	66	490	NS	NS	**83.9**	NS	NS	NS	NS
gamma-Chlordane	NE	NE	NS	NS	**11.2**	NS	NS	NS	NS
Total DDx	*3*	*1800*	NS	NS	**21.69**	NS	NS	NS	NS

Notes:

This is a summary table. Only detected chemicals are presented.

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Blue highlighted cells exceed Res DEC.

Orange highlighted cells exceed GA PMC.

Red highlighted cells indicate an excavated sample.

Res DEC = Residential Direct Exposure Criteria

GA PMC = Pollutant Mobility Criteria

ND = Not detected

NE = Criteria has not been established

NS = Not sampled for this constituent

U = Analyte not detected above given sample quantitation limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

mg/L = milligram per liter

Recommended Additional Polluting Substances (DEEP, 2018) are *italicized* .

Location ID **Depth Interval (ft bgs)** **Sample ID** **Sample Date** **SDG**	**GA PMC**	**Res DEC**	**BD28-SS149** **0 - 0.25 ft** **BD28 SS149 0-3** **8/11/2011**	**BD28-SS152** **0 - 0.25 ft** **BD28 SS152 0-3** **8/11/2011**	**BD29-SS142** **0 - 0.25 ft** **BD29 SS142 0-3** **8/11/2011**	**BD29-SS142** **0 - 0.5 ft** **BD29-SS142-080411** **8/4/2011**	**BE28-SS148** **0 - 0.25 ft** **BE28 SS148 0-3** **8/11/2011** **SB33302**	**BE28-SS151** **0 - 0.25 ft** **BE28 SS151 0-3** **8/11/2011** **SB33302**
CTETPH (mg/Kg)								
Aliphatic Hydrocarbons (ETPH) C_9-C_{36}	500	500	NS	NS	NS	NS	NS	**138**
SVOCs (ug/Kg)								
Benzo(a)anthracene	1000	1000	NS	< 1970 U	NS	NS	NS	NS
Benzo(a)pyrene	1000	1000	NS	< 1970 UJ	NS	NS	NS	NS
Benzo(b)fluoranthene	1000	1000	NS	< 1970 UJ	NS	NS	NS	NS
Benzo(k)fluoranthene	1000	8400	NS	< 1970 UJ	NS	NS	NS	NS
Chrysene	*1000*	*84000*	NS	< 1970 U	NS	NS	NS	NS
Fluoranthene	5600	1000000	NS	< 1970 U	NS	NS	NS	NS
Phenanthrene	4000	1000000	NS	< 1970 U	NS	NS	NS	NS
Pyrene	4000	1000000	NS	< 1970 U	NS	NS	NS	NS
Metals (mg/Kg)								
Arsenic	NE	10	NS	NS	NS	NS	NS	NS
Barium	NE	4700	NS	NS	NS	NS	NS	NS
Beryllium	NE	2	NS	NS	NS	NS	NS	NS
Cadmium	NE	34	NS	NS	NS	NS	NS	NS
Chromium	NE	NE	NS	NS	NS	NS	NS	NS
Copper	NE	2500	NS	NS	NS	NS	NS	NS
Lead	NE	500	NS	NS	NS	NS	NS	NS
Mercury	NE	20	NS	NS	NS	NS	NS	NS
Nickel	NE	1400	NS	NS	NS	NS	NS	NS
Vanadium	NE	470	NS	NS	NS	NS	NS	NS
Zinc	NE	20000	NS	NS	NS	NS	NS	NS
Metals-SPLP (mg/L)								
Barium	1	NE	NS	NS	NS	NS	NS	NS
Cyanide (mg/Kg)								
Cyanide	NE	1400000	NS	NS	NS	NS	NS	NS
PCBs (ug/Kg)								
Aroclor 1248	NE	NE	**355**	**206**	< 23.2 U	< 20.6 U	< 23.3 U	**125**
Aroclor 1254	NE	NE	< 22.1 U	< 23.9 U	< 23.2 U	< 20.6 U	< 23.3 U	< 20.9 U
Aroclor 1260	NE	NE	< 22.1 U	< 23.9 U	< 23.2 U	< 20.6 U	< 23.3 U	< 20.9 U
Total PCB Aroclors	NE	1000	**355**	**206**	< 23.2 U	< 20.6 U	< 23.3 U	**125**
PCBs-SPLP (mg/L)								
Aroclor 1248	NE	NE	NS	NS	NS	NS	NS	NS
Total PCB Aroclors	0.0005	NE	NS	NS	NS	NS	NS	NS
Pesticides (ug/Kg)								
4,4-DDE (p,p)	NE	NE	**7.22**	NS	NS	NS	NS	NS
4,4-DDT (p,p)	NE	1800	**13.9**	NS	NS	NS	NS	NS
alpha-Chlordane	NE	NE	< 5.75 U	NS	NS	NS	NS	NS
Chlordane	66	490	**38.9**	NS	NS	NS	NS	NS
gamma-Chlordane	NE	NE	< 5.75 U	NS	NS	NS	NS	NS
Total DDx	*3*	*1800*	**21.12**	NS	NS	NS	NS	NS

Notes:

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Blue highlighted cells exceed Res DEC.

Orange highlighted cells exceed GA PMC.

Red highlighted cells indicate an excavated sample.

Res DEC = Residential Direct Exposure Criteria

GA PMC = Pollutant Mobility Criteria

ND = Not detected

NE = Criteria has not been established

NS = Not sampled for this constituent

U = Analyte not detected above given sample quantitation limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

mg/L = milligram per liter

Recommended Additional Polluting Substances (DEEP, 2018) are *italicized* .

Table 1-3
Remediation Area 3 - Soil Analytical Data

Location ID	GA PMC	Res DEC	AA25-SB403	AA25-SB403	AA25-SB403	Y26-SB404	Y26-SB404	Y26-SB404	Z26-SB306	Z26-SB306
Depth Interval (ft bgs)			2 - 3 ft	4.5 - 5.5 ft	7 - 8 ft	2 - 3 ft	6 - 7 ft	7 - 8 ft	1 - 2 ft	2 - 3 ft
Sample ID			AA25-SB403(2-3)-062712-1	AA25-SB403(4.5-5.5)-062712-1	AA25-SB403(7-8)-062712-1	Y26-SB404(2-3)-062712-1	Y26-SB404(6-7)-062712-1	Y26-SB404(7-8)-062712-1	Z26-SB306(1-2)-021612-1	Z26-SB306(2-3)-021612-1
Sample Date			6/27/2012	6/27/2012	6/27/2012	6/27/2012	6/27/2012	6/27/2012	2/16/2012	2/16/2012
SDG			SB51990	SB51990	SB51990	SB51990	SB51990	SB51990	SB44035	SB44035
CTETPH (mg/Kg)										
Aliphatic Hydrocarbons (ETPH) C_9-C_{36}	500	500	NS	< 27.9 U	NS	NS	< 27.0 U	NS	NS	**806**
Metals (mg/Kg)										
Arsenic	NE	10	**2.56**	**4.21**	**1.69**	**3.79**	**1.71**	**2.57**	NS	**3.44**
Barium	NE	4700	**77.2**	**154**	**60.4**	**61.7**	**68.6**	**63.2**	NS	**100 J+**
Beryllium	NE	2	**1.3**	**0.508**	< 0.540 U	**0.665**	< 0.471 U	< 0.474 U	NS	**0.694**
Cadmium	NE	34	< 0.499 U	**0.706**	< 0.540 U	< 0.500 U	< 0.471 U	< 0.474 U	NS	< 0.514 U
Chromium	NE	NE	**16.6**	**17.8**	**15.5**	**21.6**	**24.8**	**22.9**	NS	**23.5**
Copper	NE	2500	**10.5 J**	**33.4 J**	**16.8 J**	**13.6 J**	**17.7 J**	**20.4 J**	NS	**18.5**
Lead	NE	500	**8.46 J**	**74.0 J**	**3.67 J**	**10.3 J**	**3.65 J**	**3.58 J**	NS	**26.9**
Mercury	NE	20	< 0.0321 U	**0.0495 J+**	< 0.0328 U	**0.0795 J+**	< 0.0282 U	< 0.0288 U	NS	**0.0892**
Nickel	NE	1400	**7.97 J**	**11.9 J**	**12.2 J**	**11.0 J**	**14.9 J**	**19.7 J**	NS	**11.7**
Vanadium	NE	470	**27.5**	**19.7**	**21.8**	**27.4**	**29.4**	**24.3**	NS	**28.9**
Zinc	NE	20000	**31.1**	**130**	**39.7**	**28**	**30.6**	**19.1**	NS	**60.3**
PCBs (ug/Kg)										
Aroclor 1248	NE	NE	**38.9**	< 21.9 U	NS	< 21.7 U	< 20.6 U	NS	NS	< 20.7 U
Aroclor 1254	NE	NE	< 20.5 U	< 21.9 U	NS	< 21.7 U	< 20.6 U	NS	NS	**43.5**
Total PCB Aroclors	NE	1000	**38.9**	< 21.9 U	NS	< 21.7 U	< 20.6 U	NS	NS	**43.5**
Pesticides (ug/Kg)										
4,4-DDE (p,p)	NE	NE	NS	NS	NS	NS	NS	NS	**6.75**	NS
Chlordane	66	490	NS	NS	NS	NS	NS	NS	**34.2**	NS
Total DDx	*3*	*1800*	NS	NS	NS	NS	NS	NS	**6.75**	NS

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Table 1-4
Remediation Area 4 - Soil Analytical Data

Greenwich High School
10 Hillside Road
Greenwich, CT

Location ID **Depth Interval (ft bgs)** **Sample ID** **Sample Date** **SDG**	**GA PMC**	**Res DEC**	**D31-SB633** **0 - 1 ft** **AOC-8-01-122818-1** **12/28/2018** **18L1306**	**E31-SB634** **0 - 1 ft** **AOC-8-02-122818-1** **12/28/2018** **18L1306**	**E31-SB624** **0 - 1 ft** **E31-SB624 (0-1)** **11/29/2018** **18K1266**	**E32-SB317** **0 - 0.5 ft** **E32-SB317(0-0.5)-041012-1** **4/10/2012** **SB46977**	**E32-SB317** **1 - 1.5 ft** **E32-SB317(1-1.5)-041012-1** **4/10/2012** **SB46977**	**F30-SB623** **0 - 1 ft** **F30-SB623 (0-1)** **11/29/2018** **18K1266**	**F31-SB627** **0 - 1 ft** **F31-SB627 (0-1)** **11/29/2018** **18K1267**	**G27-SB612** **0 - 1 ft** **G27-SB612 (0-1)** **7/3/2018** **18G0089**
CTETPH (mg/Kg)										
Aliphatic Hydrocarbons (ETPH) C_9-C_{36}	500	500	NS	NS	NS	NS	< 15.8 U	NS	NS	NS
SVOCs (ug/Kg)										
Fluoranthene	5600	1000000	NS	NS	NS	NS	< 391 U	NS	NS	NS
Pyrene	4000	1000000	NS	NS	NS	NS	< 391 U	NS	NS	NS
Metals (mg/Kg)										
Arsenic	NE	10	NS	NS	NS	**7.5**	NS	NS	NS	NS
Barium	NE	4700	NS	NS	NS	**71.7**	NS	NS	NS	NS
Beryllium	NE	2	NS	NS	NS	**1.07**	NS	NS	NS	NS
Chromium	NE	NE	NS	NS	NS	**24.9**	NS	NS	NS	NS
Copper	NE	2500	NS	NS	NS	**10.6**	NS	NS	NS	NS
Lead	NE	500	NS	NS	NS	**31.8**	NS	NS	NS	NS
Mercury	NE	20	NS	NS	NS	**0.154 J+**	NS	NS	NS	NS
Nickel	NE	1400	NS	NS	NS	**12**	NS	NS	NS	NS
Vanadium	NE	470	NS	NS	NS	**32.1**	NS	NS	NS	NS
Zinc	NE	20000	NS	NS	NS	**42.6**	NS	NS	NS	NS
PCBs (ug/Kg)										
Aroclor 1254	NE	NE	NS	NS	NS	**28.4**	< 22.8 U	NS	NS	NS
Total PCB Aroclors	NE	1000	NS	NS	NS	**28.4**	< 22.8 U	NS	NS	NS
Pesticides (ug/Kg)										
4,4-DDD (p,p)	NE	NE	< 67	< 5.6	< 6.4	< 9.80 U	NS	< 6.0	< 4.7	< 9.5
4,4-DDE (p,p)	NE	NE	**28**	**20**	**74**	< 6.13 U	NS	**150**	< 4.7	**30**
4,4-DDT (p,p)	NE	1800	**140**	**26**	**86**	< 9.80 U	NS	**190**	< 4.7	**22**
alpha-Chlordane	NE	NE	NS	NS	NS	< 6.13 U	NS	NS	NS	NS
Chlordane	66	490	< 330	< 28	**4000**	< 24.5 U	NS	**7800**	< 23	**960**
Endosulfan sulfate	NE	NE	**29**	**2.8**	< 13	< 9.80 U	NS	< 12	< 9.3	< 19
gamma-Chlordane	NE	NE	NS	NS	NS	< 6.13 U	NS	NS	NS	NS
Heptachlor	13	140	< 84	< 7.0	**13**	< 6.13 U	NS	**16**	< 5.8	< 12
Heptachlor epoxide	20	67	< 84	< 7.0	**210**	< 6.13 U	NS	**560**	< 5.8	**86**
Total DDx	*3*	*1800*	**168**	**46**	**160**	< 9.80	NS	**340**	< 4.7	**52**
Pesticides-SPLP (mg/L)										
4,4-DDE (p,p)	NE	NE	**0.00015**	< 0.000040	< 0.000040	NS	NS	< 0.000040	NS	< 0.000040
4,4-DDT (p,p)	NE	NE	**0.00099**	< 0.000040	< 0.000040	NS	NS	0.000058	NS	< 0.000040
Chlordane	0.0003[1]	NE	< 0.0020	< 0.00020	**0.0017**	NS	NS	**0.0031**	NS	**0.00078**
Endosulfan sulfate	NE	NE	**0.00016**	< 0.000080	< 0.000080	NS	NS	< 0.000080	NS	< 0.000080
Heptachlor epoxide	0.0002[1]	NE	< 0.00050	< 0.000050	0.00016	NS	NS	**0.00043**	NS	**0.00025**
Total DDx	*0.0001*[1]	NE	**0.00114**	< 0.000040	< 0.000040	NS	NS	**0.000058**	NS	< 0.000040

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Table 1-4
Remediation Area 4 - Soil Analytical Data

Greenwich High School
10 Hillside Road
Greenwich, CT

Location ID **Depth Interval (ft bgs)** **Sample ID** **Sample Date** **SDG**	**GA PMC**	**Res DEC**	**G28-SB611** **0 - 1 ft** **G28-SB611 (0-1)** **7/3/2018** **18G0089**	**G29-SB606** **0 - 1 ft** **G29-SB606 (0-1)** **7/3/2018** **18G0089**	**G29-SB610** **0 - 1 ft** **G29-SB610 (0-1)** **7/3/2018** **18G0089**	**G29-SB626** **1 - 2 ft** **629-SB626 (1-2)** **11/29/2018** **18K1266**	**G30-SB248** **0.5 - 4 ft** **G30-SB248(0.5-4)-1** **12/29/2011** **SB41766**	**G30-SB248** **0.5 - 4 ft** **G30-SB248(0.5-4)-2** **12/29/2011** **SB41766**	**G30-SB248** **4 - 4.5 ft** **G30-SB248(4-4.5)-1** **12/29/2011** **SB41766**	**G30-SB625** **0 - 1 ft** **630-SB625 (0-1)** **11/29/2018** **18K1266**
CTETPH (mg/Kg)										
Aliphatic Hydrocarbons (ETPH) C_9-C_{36}	500	500	NS	NS	NS	NS	**39.9**	NS	NS	NS
SVOCs (ug/Kg)										
Fluoranthene	5600	1000000	NS	NS	NS	NS	< 433 U	NS	NS	NS
Pyrene	4000	1000000	NS	NS	NS	NS	< 433 U	NS	NS	NS
Metals (mg/Kg)										
Arsenic	NE	10	NS	NS	NS	NS	**12.2**	**20.4**	**11.1**	NS
Barium	NE	4700	NS	NS	NS	NS	**257 J**	**193 J**	**422 J**	NS
Beryllium	NE	2	NS	NS	NS	NS	**1.14**	**1.36**	**1.86**	NS
Chromium	NE	NE	NS	NS	NS	NS	**54.2 J**	**45.8 J**	**65.9 J**	NS
Copper	NE	2500	NS	NS	NS	NS	**45.3 J-**	**51.3 J-**	< 33.6 UJ	NS
Lead	NE	500	NS	NS	NS	NS	**75.1**	**89.3**	**29.2**	NS
Mercury	NE	20	NS	NS	NS	NS	**0.259 J**	**0.288 J**	**0.119 J**	NS
Nickel	NE	1400	NS	NS	NS	NS	**26.8 J**	**27.1 J**	**28.2 J**	NS
Vanadium	NE	470	NS	NS	NS	NS	**54.9**	**54.1**	**62.1**	NS
Zinc	NE	20000	NS	NS	NS	NS	< 119 UJ	< 143 UJ	< 123 UJ	NS
PCBs (ug/Kg)										
Aroclor 1254	NE	NE	NS	NS	NS	NS	< 24.4 U	< 29.0 U	< 28.4 U	NS
Total PCB Aroclors	NE	1000	NS	NS	NS	NS	< 24.4 U	< 29.0 U	< 28.4 U	NS
Pesticides (ug/Kg)										
4,4-DDD (p,p)	NE	NE	< 26	< 4.8	< 100	< 5.4	< 10.4 U	< 11.8 U	NS	< 4.8
4,4-DDE (p,p)	NE	NE	**55**	**28**	**100**	**19**	< 6.48 U	< 7.36 U	NS	< 4.8
4,4-DDT (p,p)	NE	1800	**37**	**27**	< 100	**13**	< 10.4 U	< 11.8 U	NS	< 4.8
alpha-Chlordane	NE	NE	NS	NS	NS	NS	< 6.48 U	< 7.36 U	NS	NS
Chlordane	66	490	**2500**	**100**	**7400**	**110**	< 25.9 U	< 29.5 U	NS	**36**
Endosulfan sulfate	NE	NE	< 52	< 9.7	< 200	< 11	< 10.4 U	< 11.8 U	NS	< 9.6
gamma-Chlordane	NE	NE	NS	NS	NS	NS	< 6.48 U	< 7.36 U	NS	NS
Heptachlor	13	140	< 32	< 6.1	< 120	< 6.7	< 6.48 U	< 7.36 U	NS	< 6.0
Heptachlor epoxide	20	67	**210**	< 6.1	**640**	10	< 6.48 U	< 7.36 U	NS	< 6.0
Total DDx	*3*	*1800*	**92**	**55**	**100**	**32**	< 6.48	< 7.36	NS	< 4.8
Pesticides-SPLP (mg/L)										
4,4-DDE (p,p)	NE	NE	NS	< 0.000040	< 0.00020	< 0.000040	NS	NS	NS	NS
4,4-DDT (p,p)	NE	NE	NS	< 0.000040	< 0.00020	< 0.000040	NS	NS	NS	NS
Chlordane	0.0003[1]	NE	NS	< 0.00020	**0.0057**	< 0.00020	NS	NS	NS	NS
Endosulfan sulfate	NE	NE	NS	< 0.000080	< 0.00040	< 0.000080	NS	NS	NS	NS
Heptachlor epoxide	0.0002[1]	NE	NS	< 0.000050	**0.0013**	< 0.000050	NS	NS	NS	NS
Total DDx	*0.0001*[1]	NE	NS	< 0.000040	< 0.00020	< 0.000040	NS	NS	NS	NS

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Remediation Area 4 - Soil Analytical Data

Greenwich High School
10 Hillside Road
Greenwich, CT

Location ID **Depth Interval (ft bgs)** **Sample ID** **Sample Date** **SDG**	**GA PMC**	**Res DEC**	**H26-SB613** **0 - 1 ft** **H26-SB613 (0-1)** **7/3/2018** **18G0089**	**H27-SB603** **1 - 2 ft** **H27-SB603 (1-2)-1** **4/13/2018** **18D0644**	**H27-SB604** **1 - 2 ft** **H27-SB604 (1-2)** **7/3/2018** **18G0089**	**H28-SB605** **0 - 1 ft** **H28-SB605 (0-1)** **7/3/2018** **18G0089**	**H29-SB318** **0 - 0.5 ft** **H29-SB318(0-0.5)-041012-1** **4/10/2012** **SB46977**	**H29-SB318** **1.5 - 2 ft** **H29-SB318(1.5-2)-041012-1** **4/10/2012** **SB46977**	**H29-SB318** **4 - 4.5 ft** **H29-SB318(4-4.5)-041012-1** **4/10/2012** **SB46977**	**H29-SB609** **0 - 1 ft** **H29-SB609 (0-1)** **7/3/2018** **18G0089**
CTETPH (mg/Kg)										
Aliphatic Hydrocarbons (ETPH) C_9-C_{36}	500	500	NS	NS	NS	NS	NS	NS	**96.9**	NS
SVOCs (ug/Kg)										
Fluoranthene	5600	1000000	NS	NS	NS	NS	NS	NS	< 420 U	NS
Pyrene	4000	1000000	NS	NS	NS	NS	NS	NS	< 420 U	NS
Metals (mg/Kg)										
Arsenic	NE	10	NS	NS	NS	NS	**4.1**	**4.29**	NS	NS
Barium	NE	4700	NS	NS	NS	NS	**76.4**	**96.2**	NS	NS
Beryllium	NE	2	NS	NS	NS	NS	< 0.591 U	< 0.490 U	NS	NS
Chromium	NE	NE	NS	NS	NS	NS	**22.1**	**23.7**	NS	NS
Copper	NE	2500	NS	NS	NS	NS	**21.4**	**17.7**	NS	NS
Lead	NE	500	NS	NS	NS	NS	**22.1**	**30.6**	NS	NS
Mercury	NE	20	NS	NS	NS	NS	**0.0719 J+**	**0.101 J+**	NS	NS
Nickel	NE	1400	NS	NS	NS	NS	**10.6**	**11.8**	NS	NS
Vanadium	NE	470	NS	NS	NS	NS	**25.4**	**23.7**	NS	NS
Zinc	NE	20000	NS	NS	NS	NS	**47.4**	**48.7**	NS	NS
PCBs (ug/Kg)										
Aroclor 1254	NE	NE	NS	NS	NS	NS	< 23.5 U	< 21.9 U	NS	NS
Total PCB Aroclors	NE	1000	NS	NS	NS	NS	< 23.5 U	< 21.9 U	NS	NS
Pesticides (ug/Kg)										
4,4-DDD (p,p)	NE	NE	< 27	**5.3**	< 4.4	< 4.4	**18.1**	NS	NS	< 8.7
4,4-DDE (p,p)	NE	NE	**29**	**11**	< 4.4	< 4.4	< 5.85 U	NS	NS	**9.1**
4,4-DDT (p,p)	NE	1800	**35**	**5**	< 4.4	< 4.4	< 9.37 U	NS	NS	**9.9**
alpha-Chlordane	NE	NE	NS	NS	NS	NS	**17.5 J**	NS	NS	NS
Chlordane	66	490	**1800**	**26**	< 22	**96**	**180**	NS	NS	**680**
Endosulfan sulfate	NE	NE	< 53	< 9.6	< 8.7	< 8.8	< 9.37 U	NS	NS	< 17
gamma-Chlordane	NE	NE	NS	NS	NS	NS	**18.9**	NS	NS	NS
Heptachlor	13	140	< 33	< 6	< 5.5	< 5.5	< 5.85 U	NS	NS	< 11
Heptachlor epoxide	20	67	**140**	< 6	< 5.5	< 5.5	< 5.85 U	NS	NS	**20**
Total DDx	*3*	*1800*	**64**	**21.3**	< 4.4	< 4.4	**18.1**	NS	NS	**19**
Pesticides-SPLP (mg/L)										
4,4-DDE (p,p)	NE	NE	< 0.000040	< 0.000040	NS	< 0.000040	NS	NS	NS	NS
4,4-DDT (p,p)	NE	NE	< 0.000040	< 0.000040	NS	< 0.000040	NS	NS	NS	NS
Chlordane	0.0003[1]	NE	**0.00054**	< 0.00020	NS	< 0.00020	NS	NS	NS	NS
Endosulfan sulfate	NE	NE	< 0.000080	< 0.000080	NS	< 0.000080	NS	NS	NS	NS
Heptachlor epoxide	0.0002[1]	NE	**0.00019**	< 0.000050	NS	< 0.000050	NS	NS	NS	NS
Total DDx	*0.0001* [1]	NE	< 0.000040	< 0.000040	NS	< 0.000040	NS	NS	NS	NS

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Greenwich High School
10 Hillside Road
Greenwich, CT

Location ID **Depth Interval (ft bgs)** **Sample ID** **Sample Date** **SDG**	**GA PMC**	**Res DEC**	**I26-SB247** **0.5 - 2.5 ft** **I26-SB247(0.5-2.5)-1** **12/29/2011** **SB41766**	**I26-SB247** **2.5 - 3 ft** **I26-SB247(2.5-3)-1** **12/29/2011** **SB41766**	**I26-SB607** **0 - 1 ft** **I26-SB607 (0-1)** **7/3/2018** **18G0089**	**I27-SB608** **0 - 1 ft** **I27-SB608 (0-1)** **7/3/2018** **18G0089**	**SS-243** **0 - 0.25 ft** **SS-243 0-3-081511** **8/15/2011** **SB33506**	**SS-244** **0 - 0.25 ft** **SS-244 0-3-081511** **8/15/2011** **SB33506**	**SS-279** **0 - 0.25 ft** **SS-279 (0-3)** **8/22/2011** **SB33952**
CTETPH (mg/Kg)									
Aliphatic Hydrocarbons (ETPH) C_9-C_{36}	500	500	**25.7**	NS	NS	NS	NS	NS	NS
SVOCs (ug/Kg)									
Fluoranthene	5600	1000000	< 396 U	NS	NS	NS	< 192 U	**268**	NS
Pyrene	4000	1000000	< 396 U	NS	NS	NS	< 192 U	**486**	NS
Metals (mg/Kg)									
Arsenic	NE	10	**15.6**	**11.4**	NS	NS	**8.18**	**16.9**	7.6
Barium	NE	4700	**119 J**	**141 J**	NS	NS	NS	NS	NS
Beryllium	NE	2	**1.07**	**0.805**	NS	NS	NS	NS	NS
Chromium	NE	NE	**30.3 J**	**33.8 J**	NS	NS	**36.3**	**65.3**	NS
Copper	NE	2500	< 29.1 UJ	**55.5 J-**	NS	NS	NS	NS	NS
Lead	NE	500	**69.6**	**70.2**	NS	NS	**43.5**	**89.6**	NS
Mercury	NE	20	**0.250 J**	**0.214 J**	NS	NS	**0.0839**	**0.151**	NS
Nickel	NE	1400	**16.0 J**	**18.5 J**	NS	NS	NS	NS	NS
Vanadium	NE	470	**37.8**	**37.4**	NS	NS	NS	NS	NS
Zinc	NE	20000	< 106 UJ	< 112 UJ	NS	NS	NS	NS	NS
PCBs (ug/Kg)									
Aroclor 1254	NE	NE	< 23.1 U	< 24.8 U	NS	NS	< 22.7 U	< 25.3 U	NS
Total PCB Aroclors	NE	1000	< 23.1 U	< 24.8 U	NS	NS	< 22.7 U	< 25.3 U	NS
Pesticides (ug/Kg)									
4,4-DDD (p,p)	NE	NE	< 9.74 U	NS	< 24	< 4.6	< 7.99 U	< 6.81 U	< 12.5 U
4,4-DDE (p,p)	NE	NE	< 6.09 U	NS	< 24	< 4.6	**28.8**	**570**	**20.7**
4,4-DDT (p,p)	NE	1800	< 9.74 U	NS	< 24	**11**	**19.8**	**351**	**22.8**
alpha-Chlordane	NE	NE	**38.5 J**	NS	NS	NS	**460 J**	**10400 J**	**451 J**
Chlordane	66	490	**430**	NS	**1700**	**290**	**2620**	**39100**	**1940**
Endosulfan sulfate	NE	NE	< 9.74 U	NS	< 48	< 9.2	< 7.99 U	< 6.81 U	< 12.5 U
gamma-Chlordane	NE	NE	**43.6**	NS	NS	NS	**372**	**10200**	**310**
Heptachlor	13	140	< 6.09 U	NS	< 30	< 5.8	< 4.99 U	< 4.26 U	< 7.80 U
Heptachlor epoxide	20	67	< 6.09 U	NS	**73**	**21**	< 4.99 U	< 4.26 U	< 7.80 U
Total DDx	*3*	*1800*	< 9.74	NS	< 24	**11**	**48.6**	**921**	**43.5**
Pesticides-SPLP (mg/L)									
4,4-DDE (p,p)	NE	NE	NS	NS	< 0.000040	< 0.000040	NS	NS	NS
4,4-DDT (p,p)	NE	NE	NS	NS	< 0.000040	< 0.000040	NS	NS	NS
Chlordane	0.0003[1]	NE	NS	NS	**0.001**	**0.00034**	NS	NS	NS
Endosulfan sulfate	NE	NE	NS	NS	< 0.000080	< 0.000080	NS	NS	NS
Heptachlor epoxide	0.0002[1]	NE	NS	NS	**0.00014**	< 0.000050	NS	NS	NS
Total DDx	*0.0001* [1]	NE	NS	NS	< 0.000040	< 0.000040	NS	NS	NS

Notes:

This is a summary table. Only detected chemicals are presented.

<0.010 = Not detected above given laboratory reporting limit

Bold = Detected above reporting limit

Blue highlighted cells exceed Res DEC.

Orange highlighted cells exceed GA PMC.

Green highlighted cells exceed GWPC (SPLP Results).

Red highlighted cells indicate an excavated sample.

Res DEC = Residential Direct Exposure Criteria

GA PMC = Pollutant Mobility Criteria

ND = Not detected

NE = Criteria has not been established

NS = Not sampled for this constituent

U = Analyte not detected above given sample quantitation limit.

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

[1] SPLP results are compared to the Groundwater Protection Criteria

Recommended Additional Polluting Substances (DEEP, 2018) are *italicized* .

Table 1-5
Remediation Area 5 - Soil Analytical Data

Greenwich High School
10 Hillside Road
Greenwich, CT

Location ID **Depth Interval (ft bgs)** **Sample ID** **Sample Date** **SDG**	**GA PMC**	**Res DEC**	**C11-SB711** **0 - 1 ft** **AOC-13-14-01-1** **12/28/2018** **18L1306**	**C11-SB711** **0 - 1 ft** **AOC-13-14-01-2** **12/28/2018** **18L1306**	**C12-SB712** **0 - 1 ft** **AOC-13-14-02-1** **12/28/2018** **18L1306**	**C11-SB713** **0 - 1 ft** **AOC-13-14-03-1** **12/28/2018** **18L1306**	**C12-SB714** **0 - 1 ft** **AOC-13-14-04-1** **12/28/2018** **18L1306**	**C10-SB426** **4 - 5 ft** **10-SB421(4.0-5.0)070312** **7/3/2012** **SB52216**	**C10-SB426** **4 - 5 ft** **10-SB421(4.0-5.0)070312** **7/3/2012** **SB52216**	**C10-SB426** **7 - 8 ft** **10-SB421(7.0-8.0)070312** **7/3/2012** **SB52216**	**C11-SS01** **0 - 0.25 ft** **C11SS-1 0-3** **8/15/2011** **SB33547**	**C11-SS01** **0 - 0.5 ft** **C11-SS1-080511** **8/5/2011** **SB32945**	**C11-SB610** **0 - 0.5 ft** **C11-SB610 (0-0.50-1** **4/13/2018** **18D0644**
CTETPH (mg/Kg)													
Aliphatic Hydrocarbons (ETPH) C_9-C_{36}	500	500	**18**	**40**	**40**	**220**	**44**	< 28.2 U	< 27.2 U	< 27.8 U	< 12.1 U	**550 J+**	**36**
MADEP EPH (mg/kg)													
Aliphatic Hydrocarbons C_{19}-C_{36}	*20*	*1000*	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**19**
Aromatic Hydrocarbons C_{11}-C_{22}	*20*	*500*	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**46**
ETPH-SPLP (mg/L)													
ETPH-SPLP	*0.25*	*NE*	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SVOCs (ug/Kg)													
Acenaphthene	*8400*	*1000000*	< 240	< 230	< 210	< 210	< 220	NS	NS	NS	< 402 U	< 888 U	**190**
Anthracene	40000	1000000	< 240	< 230	< 210	< 210	< 220	NS	NS	NS	< 402 U	< 888 U	**450**
Benzo(a)anthracene	1000	1000	< 240	< 230	< 210	< 210	< 220	NS	NS	NS	< 402 U	< 888 U	**1500**
Benzo(a)pyrene	1000	1000	< 240	< 230	< 210	< 210	< 220	NS	NS	NS	< 402 U	< 888 U	**1500**
Benzo(b)fluoranthene	1000	1000	< 240	< 230	< 210	**250**	< 220	NS	NS	NS	< 402 U	< 888 U	**1900**
Benzo(g,h,i)perylene	*1000*	*8400*	< 240	< 230	< 210	< 210	< 220	NS	NS	NS	< 402 U	< 888 UJ	**990**
Benzo(k)fluoranthene	1000	8400	< 240	< 230	< 210	< 210	< 220	NS	NS	NS	< 402 U	< 888 U	**680**
Chrysene	*1000*	*84000*	< 240	< 230	< 210	< 210	< 220	NS	NS	NS	< 402 U	< 888 U	**1600**
Dibenzo(a,h)anthracene	*1000*	*1000*	< 240	< 230	< 210	< 210	< 220	NS	NS	NS	< 402 U	< 888 U	**240**
Fluoranthene	5600	1000000	< 240	< 230	< 210	**340**	< 220	NS	NS	NS	< 402 U	< 888 U	**3800**
Fluorene	5600	1000000	< 240	< 230	< 210	< 210	< 220	NS	NS	NS	< 402 U	< 888 U	**190**
Indeno(1,2,3-cd)pyrene	*1000*	*1000*	< 240	< 230	< 210	< 210	< 220	NS	NS	NS	< 402 U	< 888 UJ	**960**
Phenanthrene	4000	1000000	< 240	< 230	< 210	< 210	< 220	NS	NS	NS	< 402 U	< 888 U	**2200**
Pyrene	4000	1000000	< 240	< 230	< 210	**290**	< 220	NS	NS	NS	< 402 U	< 888 U	**3700**
Metals (mg/Kg)													
Arsenic	NE	10	NS	NS	NS	NS	NS	NS	NS	NS	NS	**3.75**	NS
Barium	NE	4700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	NE	2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	NE	34	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.463 U	NS
Chromium	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	**24.2**	NS
Copper	NE	2500	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	NE	500	NS	NS	NS	NS	NS	NS	NS	NS	NS	**34.1**	NS
Mercury	NE	20	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.0529**	NS
Nickel	NE	1400	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Selenium	NE	340	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Silver	NE	340	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Thallium	NE	5.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	NE	470	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	NE	20000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

This is a summary table. Only detected chemicals are presented.

<0.010 = Not detected above given laboratory reporting limit

Bold = Detected above reporting limit

Blue highlighted cells exceed Res DEC.

Orange highlighted cells exceed GA PMC.

Res DEC = Residential Direct Exposure Criteria

GA PMC = Pollution Mobility Criteria

ND = Not detected

NE = Criteria has not been established

NS = Not sampled for this constituent

U = Analyte not detected above given sample quantitation limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

Recommended Additional Polluting Substances (DEEP, 2018) are *italicized* .

SVOC results for C11-SB610 obtained via the MADEP EPH Method.

Location ID **Depth Interval (ft bgs)** **Sample ID** **Sample Date** **SDG**	**GA PMC**	**Res DEC**	**C13-SS02** **0 - 0.5 ft** **C13-SS2-080511** **8/5/2011** **SB32945**	**D10-SB242** **0.3 - 4 ft** **D10-SB242 (.3-4)-1** **12/28/2011** **SB41720**	**D10-SB242** **6 - 6.5 ft** **D10-SB242 (6-6.5)-1** **12/28/2011** **SB41720**	**D10-SB611** **6 - 6.5 ft** **D10-SB611 (6-6.5)-1** **4/13/2018** **18D0644**	**D11-SB424** **4 - 5 ft** **D11-SB424(4-5)070312-1** **7/3/2012** **SB52216**	**D11-SB424** **6 - 7 ft** **D11-SB424(6-7)070312-1** **7/3/2012** **SB52216**	**E9-SB425** **4 - 5 ft** **E9-SB425(4-5)070312-1** **7/3/2012** **SB52216**	**E9-SB425** **8 - 9 ft** **E9-SB425(8-9)070312-1** **7/3/2012** **SB52216**
CTETPH (mg/Kg)										
Aliphatic Hydrocarbons (ETPH) C_9-C_{36}	500	500	**107**	< 14.4 U	**1060**	NS	< 28.5 U	< 28.3 U	< 26.1 U	< 28.4 U
MADEP EPH (mg/kg)										
Aliphatic Hydrocarbons C_{19}-C_{36}	*20*	*1000*	NS	NS	NS	NS	NS	NS	NS	NS
Aromatic Hydrocarbons C_{11}-C_{22}	*20*	*500*	NS	NS	NS	NS	NS	NS	NS	NS
ETPH-SPLP (mg/L)										
ETPH-SPLP	*0.25*	*NE*	NS	NS	NS	< 0.073	NS	NS	NS	NS
SVOCs (ug/Kg)										
Acenaphthene	*8400*	*1000000*	< 407 U	< 357 U	NS	NS	NS	NS	NS	NS
Anthracene	40000	1000000	< 407 U	< 357 U	NS	NS	NS	NS	NS	NS
Benzo(a)anthracene	1000	1000	< 407 U	< 357 U	NS	NS	NS	NS	NS	NS
Benzo(a)pyrene	1000	1000	< 407 U	< 357 U	NS	NS	NS	NS	NS	NS
Benzo(b)fluoranthene	1000	1000	< 407 U	< 357 U	NS	NS	NS	NS	NS	NS
Benzo(g,h,i)perylene	*1000*	*8400*	< 407 UJ	< 357 U	NS	NS	NS	NS	NS	NS
Benzo(k)fluoranthene	1000	8400	< 407 U	< 357 U	NS	NS	NS	NS	NS	NS
Chrysene	*1000*	*84000*	< 407 U	< 357 U	NS	NS	NS	NS	NS	NS
Dibenzo(a,h)anthracene	*1000*	*1000*	< 407 U	< 357 U	NS	NS	NS	NS	NS	NS
Fluoranthene	5600	1000000	< 407 U	< 357 U	NS	NS	NS	NS	NS	NS
Fluorene	5600	1000000	< 407 U	< 357 U	NS	NS	NS	NS	NS	NS
Indeno(1,2,3-cd)pyrene	*1000*	*1000*	< 407 UJ	< 357 U	NS	NS	NS	NS	NS	NS
Phenanthrene	4000	1000000	< 407 U	< 357 U	NS	NS	NS	NS	NS	NS
Pyrene	4000	1000000	< 407 U	< 357 U	NS	NS	NS	NS	NS	NS
Metals (mg/Kg)										
Arsenic	NE	10	**16.2**	**2.2**	**2.43**	NS	NS	NS	NS	NS
Barium	NE	4700	NS	**77.7 J**	**66.2 J**	NS	NS	NS	NS	NS
Beryllium	NE	2	NS	**0.618**	< 0.494 U	NS	NS	NS	NS	NS
Cadmium	NE	34	< 0.549 U	**0.710 J**	**0.677 J**	NS	NS	NS	NS	NS
Chromium	NE	NE	**27.3**	**20.4 J**	**19.9 J**	NS	NS	NS	NS	NS
Copper	NE	2500	NS	**10.9 J**	**12.1 J**	NS	NS	NS	NS	NS
Lead	NE	500	**225**	**7.18 J**	**5.94 J**	NS	NS	NS	NS	NS
Mercury	NE	20	**0.174**	< 0.0319 U	< 0.0299 U	NS	NS	NS	NS	NS
Nickel	NE	1400	NS	**11.8 J**	**12.8 J**	NS	NS	NS	NS	NS
Selenium	NE	340	NS	< 1.46 U	< 1.48 U	NS	NS	NS	NS	NS
Silver	NE	340	NS	< 1.46 UJ	< 1.48 UJ	NS	NS	NS	NS	NS
Thallium	NE	5.4	NS	< 2.92 U	< 2.97 U	NS	NS	NS	NS	NS
Vanadium	NE	470	NS	**21.7 J+**	**25.9 J+**	NS	NS	NS	NS	NS
Zinc	NE	20000	NS	**29.6 J**	**27.4 J**	NS	NS	NS	NS	NS

Notes:

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<0.010 = Not detected above given laboratory reporting limit

Bold = Detected above reporting limit

Blue highlighted cells exceed Res DEC.

Orange highlighted cells exceed GA PMC.

Res DEC = Residential Direct Exposure Criteria

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NE = Criteria has not been established

NS = Not sampled for this constituent

U = Analyte not detected above given sample quantitation limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

Recommended Additional Polluting Substances (DEEP, 2018) are *italicized* .

SVOC results for C11-SB610 obtained via the MADEP EPH Method.

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**F35-SB487A** **0 - 1 ft** **35-SB487A(0-1)_062513-** **6/25/2013** **SB72106**	**F35-SB487A** **0 - 1 ft** **F35-SB487A(0-1)_062513-2** **6/25/2013** **SB72106**	**F35-SB487B** **0 - 1 ft** **F35-SB487B(0-1)_062513-1** **6/25/2013** **SB72106**	**F35-SB487** **3 - 4 ft** **F35-SB487 (3-4)-071312-1** **7/13/2012** **SB52798**	**F35-SB487** **6 - 7 ft** **F35-SB487 (6-7)-071312-1** **7/13/2012** **SB52798**	**F35 1** **0 - 0.5 ft** **F35-1 72712-1** **7/27/2012** **SB53607**	**F35 1** **7.5 - 10 ft** **F35 1 (7.5-10) 71712-1** **7/17/2012** **SB53054**
CTETPH										
Aliphatic Hydrocarbons (ETPH) C9-C36	mg/kg	500	500	NS	NS	NS	NS	**179**	NS	NS
Total Petroleum Hydrocarbons	mg/kg	500	500	NS	NS	NS	NS	**179**	NS	NS
Unidentified	mg/kg	NE	NE	NS	NS	NS	NS	**179**	NS	NS
SVOCs										
Total PAHs	ug/kg	NE	NE	NS	NS	NS	NS	< 923	NS	NS
Metals										
Antimony	mg/kg	NE	27	NS	NS	NS	< 4.86 UJ	< 4.74 UJ	NS	< 4.38
Arsenic	mg/kg	NE	10	**3.83**	**4.32**	**3.58**	**2590 J-**	< 7.11 UJ	**6.84**	**3.58**
Barium	mg/kg	NE	4700	NS	NS	NS	**94.1**	**285**	NS	**90.5**
Beryllium	mg/kg	NE	2	NS	NS	NS	**0.520**	**1.06**	NS	< 0.438
Cadmium	mg/kg	NE	34	NS	NS	NS	**0.486**	**0.786**	NS	< 0.438
Chromium	mg/kg	NE	NE	NS	NS	NS	**19.1**	**81.8**	NS	**36.2**
Copper	mg/kg	NE	2500	NS	NS	NS	**30.5 J**	**14.4 J**	NS	**22.4**
Lead	mg/kg	NE	500	NS	NS	NS	**9.54 J**	**9.42 J**	NS	**3.29**
Mercury	mg/kg	NE	20	NS	NS	NS	< 0.0321 UJ	**0.0352 J**	NS	< 0.0273
Nickel	mg/kg	NE	1400	NS	NS	NS	**8.03 J**	**22.9 J**	NS	**13.6**
Selenium	mg/kg	NE	340	NS	NS	NS	< 1.46 UJ	< 1.42 UJ	NS	< 1.31
Silver	mg/kg	NE	340	NS	NS	NS	< 1.46 U	< 1.42 U	NS	< 6.57
Thallium	mg/kg	NE	5.4	NS	NS	NS	< 2.91 U	< 2.85 U	NS	< 2.63
Vanadium	mg/kg	NE	470	NS	NS	NS	**36.9**	**57.8**	NS	**61.8**
Zinc	mg/kg	NE	20000	NS	NS	NS	**33.0**	**65.2**	NS	**57.1**
PCBs										
Total PCB Aroclors	ug/kg	NE	1000	NS	NS	NS	< 19.9 U	< 21.2 U	NS	NS

Notes:

This is a summary table. Only detected chemicals are presented.

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Bold = Detected above reporting limit

Blue highlighted cells exceed Res DEC.

Orange highlighted cells exceed GA PMC.

Res DEC = Residential Direct Exposure Criteria

GA PMC = Pollution Mobility Criteria

ND = Not detected

NE = Criteria has not been established

NS = Not sampled for this constituent

U = Analyte not detected above given sample quantitation limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

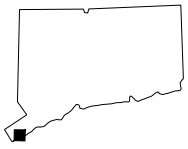
Recommended Additional Polluting Substances (DEEP, 2018) are *italicized* .

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-AV17 MW-AV17-092718-1 9/27/2018 18I1258	MW-AV17 MW-AV17-121118-1 12/11/2018 18L0484	MW-AV17 MW-AV17-041819-1 4/18/2019 19D0971	MW-AV17 MW-AV17-071819-1 7/18/2019 19G0975
Pesticides (ug/l)						
Total Pesticides	NE	NE	ND	ND	ND	ND
4,4-DDD (p,p)	NE	NE	< 0.047	< 0.040	< 0.039	< 0.040
4,4-DDE (p,p)	NE	NE	< 0.047	< 0.040	< 0.039	< 0.040
4,4-DDT (p,p)	NE	NE	< 0.047	< 0.040	< 0.039	< 0.040
Alachlor	2	NE	< 0.071	< 0.20	< 0.19	< 0.20
Aldrin	NE	NE	< 0.001	< 0.050	< 0.049	< 0.050
alpha-Chlordane	NE	NE	NA	NA	NA	NA
Chlordane	NE	NE	< 0.28	< 0.20	< 0.19	< 0.20
delta-BHC	NE	NE	< 0.024	< 0.050	< 0.049	< 0.050
Dieldrin	0.002	0.1	< 0.001	< 0.0020	< 0.0019	< 0.0020
Endosulfan I	NE	NE	< 0.047	< 0.050	< 0.049	< 0.050
Endosulfan II	NE	NE	< 0.047	< 0.080	< 0.078	< 0.080
Endosulfan sulfate	NE	NE	< 0.047	< 0.080	< 0.078	< 0.080
Endrin	NE	0.1	< 0.047	< 0.080	< 0.078	< 0.080
Endrin aldehyde	NE	NE	< 0.047	< 0.080	< 0.078	< 0.080
Endrin ketone	NE	NE	< 0.047	< 0.080	< 0.078	< 0.080
gamma-Chlordane	NE	NE	NA	NA	NA	NA
Heptachlor	0.4	0.05	< 0.024	< 0.050	< 0.049	< 0.050
Heptachlor epoxide	0.2	0.05	< 0.024	< 0.050	< 0.049	< 0.050
Hexachlorobenzene	1	0.077	NA	< 0.050	< 0.049	< 0.050
Hexachlorocyclohexane, alpha (ALPHA-BHC)	NE	NE	< 0.024	< 0.050	< 0.049	< 0.050
Hexachlorocyclohexane, beta (BETA-BHC)	NE	NE	< 0.005	< 0.050	< 0.049	< 0.050
Hexachlorocyclohexane, gamma (Lindane)	0.2	NE	< 0.024	< 0.030	< 0.029	< 0.030
Methoxychlor	40	NE	< 0.094	< 0.50	< 0.49	< 0.50
Toxaphene	3	1	< 0.94	< 1.0	< 0.97	< 1.0
Total Endosulfans	NE	NE	NA	NA	NA	NA
Total DDx	NE	NE	< 0.047	NA	NA	NA
PCB Homologs (ug/l)						
Decachlorobiphenyl (PCB-209)	NE	NE	< 0.0050	< 0.0050	< 0.0049	< 0.0051
Dichlorobiphenyl	NE	NE	< 0.0010	< 0.00099	< 0.00098	< 0.0010
Heptachlorobiphenyl	NE	NE	< 0.0030	< 0.0030	< 0.0029	< 0.0030
Hexachlorobiphenyl	NE	NE	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Monochlorobiphenyl	NE	NE	< 0.0010	< 0.00099	< 0.00098	< 0.0010
Nonachlorobiphenyl	NE	NE	< 0.0050	< 0.0050	< 0.0049	< 0.0051
Octachlorobiphenyl	NE	NE	< 0.0030	< 0.0030	< 0.0029	< 0.0030
Pentachlorobiphenyl	NE	NE	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Tetrachlorobiphenyl	NE	NE	**0.0063**	< 0.0020	< 0.0020	< 0.0020
Trichlorobiphenyl	NE	NE	< 0.0010	< 0.00099	< 0.00098	< 0.0010
Total PCB Homologues	0.5	0.5	**0.0063**	ND	ND	ND

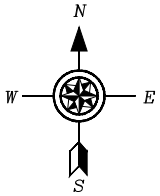
Notes:
Bold = Detected above reporting limit
Orange highlighted cells exceed GWPC.
Yellow highlighted cells exceed SWPC.
<0.01 = Not detected above the specified laboratory reporting limit
GWPC = Ground water protection criteria
SWPC = Surface water protection criteria
NE = Criterion has not been established
NS = Not Sampled for Specific Analyte
ug/L = microgram per liter
NS = Not sampled for this constituent.
mg/L = miligram per Liter

Figures





QUADRANGLE LOCATION



0 600 1500 3000

Scale in Feet

SOURCE: MAPCARD - USGS STAMFORD, CT QUAD. 1984
LAT 41.0399 LONG. -73.6127 ELEVATION = 63'

AECOM Environment
500 ENTERPRISE DRIVE, SUITE 1A
ROCKY HILL, CONNECTICUT 06067
T 860.263.5800 F 860.263.5777
www.aecom.com

AECOM

FIGURE 1-1

SITE LOCATION

GREENWICH HIGH SCOOL
10 HILLSIDE ROAD, GREENWICH, CT

DATE:	PROJECT NUMBER:	FIG. No:
APRIL 2019	60432356	1

PATH/FILENAME: P:\60225155 GREENWICH HS\900-WORK\910-CAD\20-SHEETS\2019-INTERIM REMEDIAL ACTION PLAN REPORT\60432356-SITE_LOC.DWG
Friday, April 26, 2019 2:18:36 PM
PLOT DATE:

MAPPING REFERENCE:

1. MAPPING INFORMATION SHOWN PROVIDED BY THE TOWN OF GREENWICH FROM PLANS BY DTC ENVIRONMENTAL CONSULTANTS, DATE UNKNOWN.
2. ADDITIONAL INFORMATION FROM SURVEYS AND FIELD OBSERVATION PERFORMED BY MILONE AND MACBROOM, VARIOUS DATES.
3. HORIZONTAL COORDINATE SYSTEM: CONNECTICUT STATE PLANE NAD 83.
4. VERTICAL DATUM: NGVD 29.
5. ADDITIONAL INFORMATION ADDED FROM WEST PARKING LOT EXPANSION AS BUILT DESIGN DRAWINGS BY NAFIS & YOUNG ENGINEERS, INC., DATE 01 / 14 / 2016.

LEGEND

- PROPERTY LINE
- BUILDING LINE
- RETAINING WALL
- CURB
- PAVEMENT
- GUIDE RAIL
- FENCE
- W — WATER LINE
- E — ELECTRIC LINE
- G — GAS LINE
- FBR — FIBER OPTIC LINE
- STORM SEWER PIPING
- SANITARY SEWER PIPING
- SANITARY SEWER MANHOLE
- SDMH — STORM MANHOLE
- CATCH BASIN
- ELECTRIC MANHOLE
- HYDRANT
- UTILITY POLE
- LIGHT POLE
- SIGN
- IRR — IRRIGATION PIPING
- V — SURVEILLANCE LINE
- TREE
- TREE LINE
- BRUSH LINE
- WATER
- 45 — CONTOUR (1 FT. INTERVAL)
- WETLAND LIMITS
- #XX — WETLAND FLAG
- MONITORING WELL

FIELD #1
FIELD #2
FIELD #3
FIELD #4
FIELD #5
FIELD #6
FIELD #7
WEST BROTHERS BROOK
EAST PUTNAM AVENUE (CT ROUTE 1)
PARKING LOT
STORMWATER DETENTION BASIN
1,000 GALLON UST
DIESEL GENERATOR WITH 200 GALLON AST
ELECTRIC SUBSTATION
LOCATION OF CURRENT AND FORMER 15,000 GALLON UST's
GREENWICH HIGH SCHOOL
MISA AUDITORIUM
SCIENCE WING
CIDER MILL POND
HILLSIDE ROAD

PLAN

AECOM Environment
500 ENTERPRISE DR, STE 1A
ROCKY HILL, CT 06067
(860) 263-5800
www.aecom.com

SCALE:
0 80 160 240
1" = 80'
SCALE FEET

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

GREENWICH HIGH SCHOOL
10 HILLSIDE RD
GREENWICH, CT

FIGURE 1-2
SITE PLAN
GREENWICH HIGH SCHOOL

DATE: NOVEMBER 2019

JOB 60432356
FILE NO.
CAD FILE 60432356-IRAP_EC
SHEET 1-2

PATH/FILENAME: P:\60225155 GREENWICH HS\900-WORK\910-CAD\00-SHEETS\2019-INTERIM REMEDIAL ACTION PLAN REPORT\60432356-IRAP_EC.DWG
LAST UPDATE: Thursday, November 21, 2019 3:03:24 PM
PLOT DATE: Thursday, November 21, 2019 3:08:04 PM
ARCH D - 3-7-05

AREAS OF CONCERN

- AOC 1 - FILL AREA

REMEDIATION AREA KEY

- REMEDIATION AREA 1 - FIELDS 6 & 7
- REMEDIATION AREA 2 - PCB IMPACTS NORTH OF FIELD 7
- REMEDIATION AREA 3 - COURTYARD AREA PETROLEUM IMPACTS
- REMEDIATION AREA 4 - PESTICIDE IMPACTS
- REMEDIATION AREA 5 - SOUTHERN AREA PETROLEUM IMPACTS
- REMEDIATION AREA 6 - ARSENIC IMPACTS

LEGEND

- PROPERTY LINE
- BUILDING LINE
- RETAINING WALL
- CURB
- PAVEMENT
- GUIDE RAIL
- FENCE
- WATER LINE
- ELECTRIC LINE
- GAS LINE
- FIBER OPTIC LINE
- STORM SEWER PIPING
- SANITARY SEWER PIPING
- SANITARY SEWER MANHOLE
- STORM MANHOLE
- CATCH BASIN
- ELECTRIC MANHOLE
- HYDRANT
- UTILITY POLE
- LIGHT POLE
- SIGN
- IRRIGATION PIPING
- SURVEILLANCE LINE
- TREE
- TREE LINE
- BRUSH LINE
- WATER
- CONTOUR (1 FT. INTERVAL)
- WETLAND LIMITS
- WETLAND FLAG
- MONITORING WELL

WEST BROTHERS BROOK
FIELD #1
FIELD #2
FIELD #3
FIELD #4
FIELD #5
FIELD #6
FIELD #7
AOC-1
REMEDIATION AREA 5
EAST PUTNAM AVENUE (CT ROUTE 1)
AREA OF SOIL STOCKPILE RELOCATION
PARKING LOT
STORMWATER DETENTION BASIN
1,000 GALLON UST
DIESEL GENERATOR WITH 200 GALLON AST
ELECTRIC SUBSTATION
GREENWICH HIGH SCHOOL
MISA AUDITORIUM
LOCATION OF CURRENT AND FORMER 15,000 GALLON UST's
REMEDIATION AREA 3
REMEDIATION AREA 1
REMEDIATION AREA 2
REMEDIATION AREA 4
CIDER MILL POND
REMEDIATION AREA 6
HILLSIDE ROAD

PLAN

AECOM Environment
500 ENTERPRISE DR, STE 1A
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SCALE:

1" = 80'

0 80 160 240
SCALE FEET

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

GREENWICH HIGH SCHOOL
10 HILLSIDE RD
GREENWICH, CT

FIGURE 1-3
REMEDIATION AREA OVERVIEW PLAN
GREENWICH HIGH SCHOOL

DATE: NOVEMBER 2019

JOB 60432356
FILE NO.
CAD FILE 60432356-RAP_EX
SHEET 1-3

PATH/FILENAME: P:\60225155 GREENWICH HS\00-WORK\010-CAD\20-SHEETS\2019-INTERIM REMEDIAL ACTION PLAN REPORT\60432356-RAP_EX.DWG
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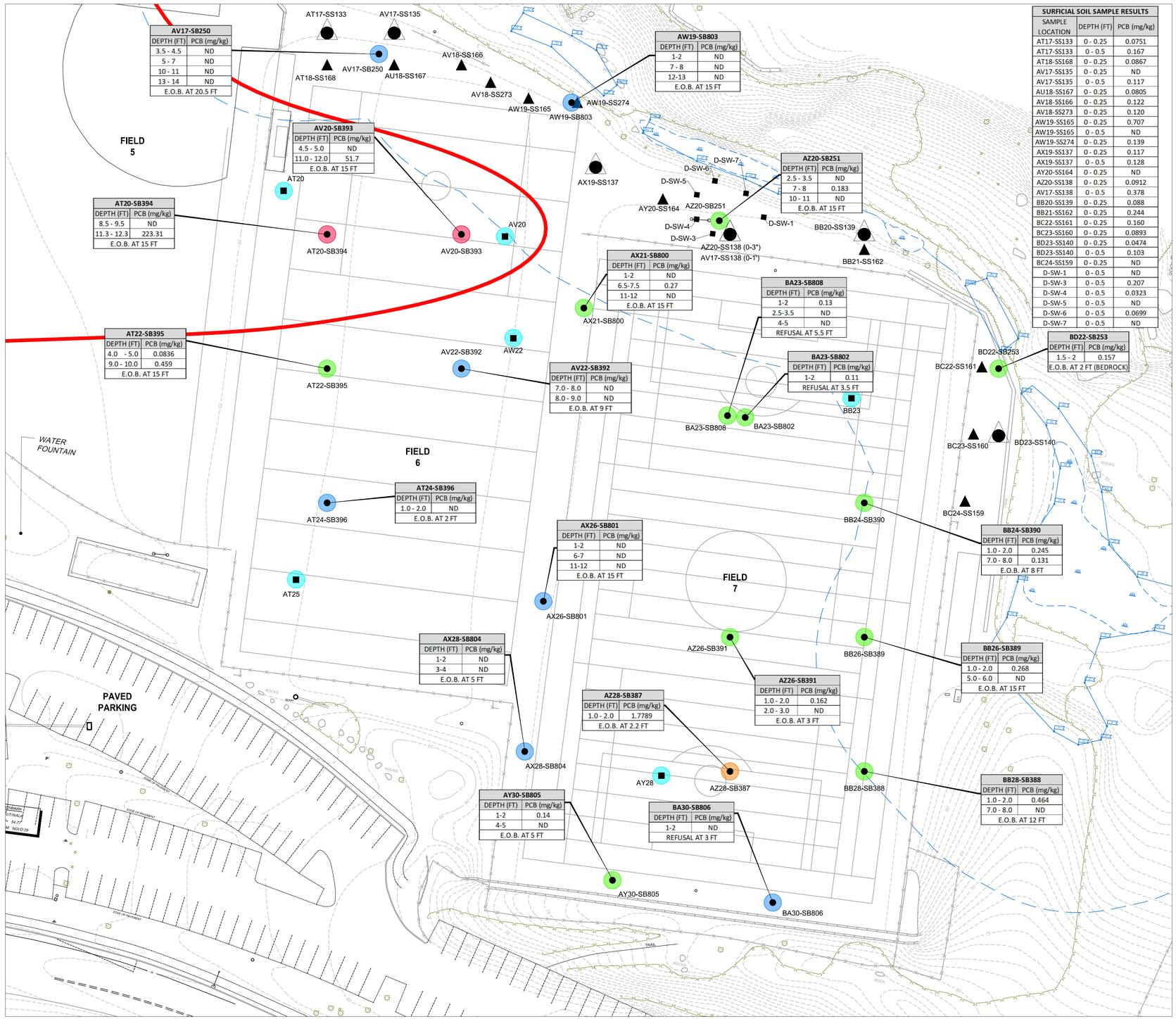
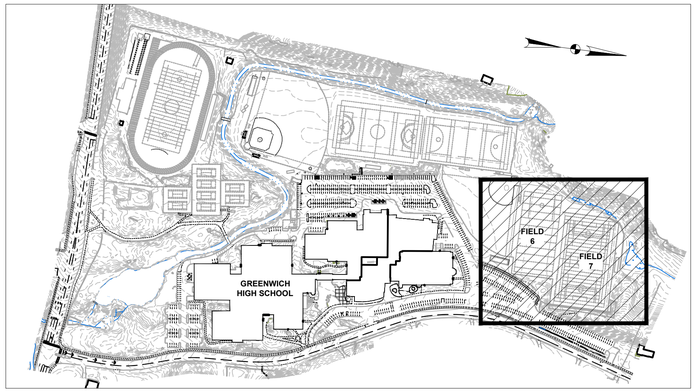
ARCH D = 3-7-05





KEY MAP

0 300' 600'

LEGEND

- WATERLINE
- TREELINE
- WETLAND FLAG
- WETLAND LINE
- WETLAND SETBACK (100 FT.)
- 43 SURFACE CONTOUR (1 FT.)
- BB24-SB390 SOIL BORING LOCATION
- BC24-SS159 SURFICIAL SOIL (0-3") SAMPLE LOCATION
- BD23-SS140 SURFICIAL SOIL (0-3" and 0-0.5") SAMPLE LOCATION
- D-SW-1 POST EXCAVATION SAMPLE LOCATION
- E.O.B. END OF BORING

KEY

- PCB's NOT DETECTED
- PCB CONCENTRATION <1 mg/kg
- PCB CONCENTRATION >1 mg/kg, <50 mg/kg
- PCB CONCENTRATION >50 mg/kg
- TURF SAMPLE LOCATION

AREAS OF CONCERN

AOC 1 - FILL AREA

PLAN

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SCALE: 0 30' 60'

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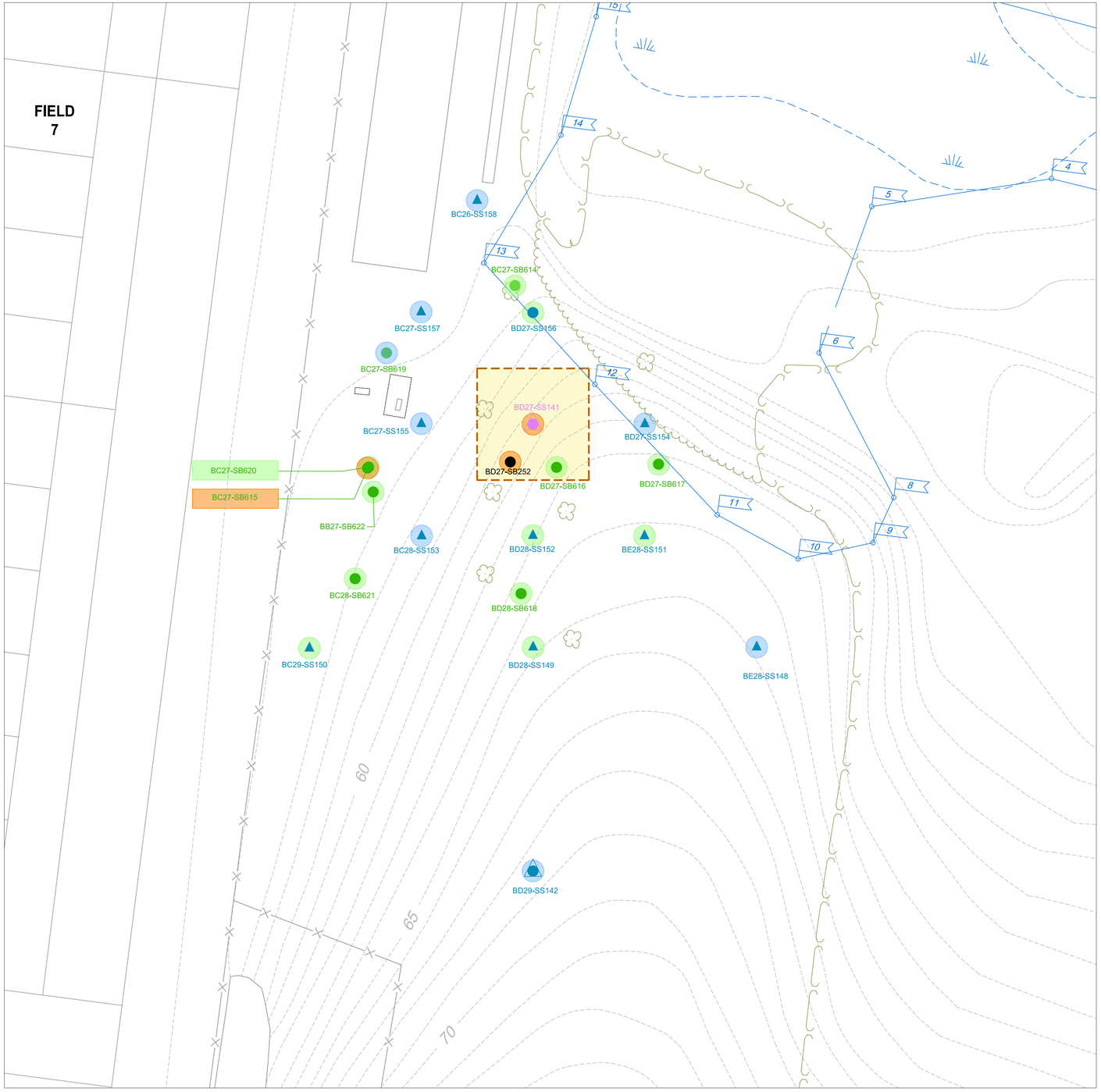
GREENWICH HIGH SCHOOL
10 HILLSIDE RD
GREENWICH, CT

FIGURE 1-4
GREENWICH HIGH SCHOOL
REMEDIATION AREA 1 INVESTIGATION DATA

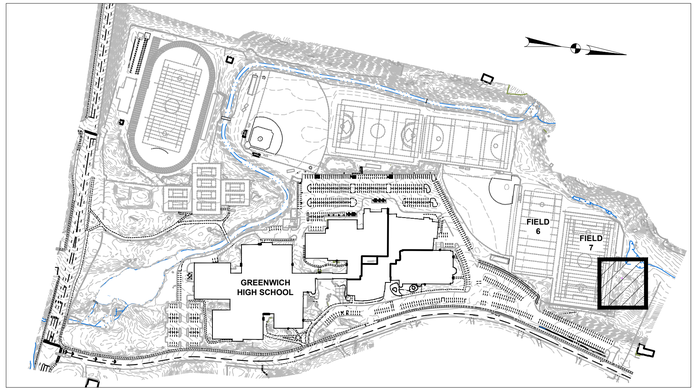
DATE: NOVEMBER 2019

JOB 60432356
FILE NO.
CAD FILE RAP_FIELDS 6&7
SHEET 1-4

PATH/FILENAME: \\USRKH2TP001\DATA\EVERYONE\60432356 GREENWICH HIGH SCHOOL REMEDIATION\900-WORK\GIS\CAD\RAP_FIELDS 6&7.DWG
LAST UPDATE: Thursday, November 21, 2019 11:07:17 AM
PLOT DATE: Thursday, November 21, 2019 11:17:43 AM
ARCH D - 3-7-05



PLAN



KEY MAP

0 300' 600'

LEGEND

- WATERLINE
- TREELINE
- WETLAND FLAG
- WETLAND LINE
- WETLAND SETBACK (100 FT.)
- SURFACE CONTOUR (1 FT.)
- 0-3" ONLY SAMPLE LOCATION (DTC)
- 0-1' ONLY SAMPLE LOCATION (DTC)
- 0-3" and 0-1' SAMPLE LOCATION (DTC)
- SAMPLE PREVIOUSLY EXCAVATED
- SOIL BORING LOCATION (AECOM - 2011)
- SOIL BORING LOCATION (AECOM - 2018)
- INTERIM REMEDIAL MEASURES EXCAVATION AREA 0-1' (DTC - 2011)

KEY

- PCB's NOT DETECTED
- PCB CONCENTRATION <1 mg/kg
- PCB CONCENTRATION >1 mg/kg, <50 mg/kg

▲ 0-3" ONLY SAMPLE LOCATION (DTC)

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SCALE:

0 10' 20'

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GREENWICH HIGH SCHOOL
10 HILLSIDE RD
GREENWICH, CT

FIGURE 1-5
REMEDIATION AREA 2 INVESTIGATION DATA
GREENWICH HIGH SCHOOL

DATE: APRIL 2019

JOB 60432356
FILE NO.
CAD FILE 60432356-RAP_DATA-2
SHEET 1-5

PATH/FILENAME: P:\60225155 GREENWICH HS\900-WORK\910-CAD\20-SHEETS\2019-INTERIM REMEDIAL ACTION PLAN REPORT\60432356-RAP_DATA-2.DWG
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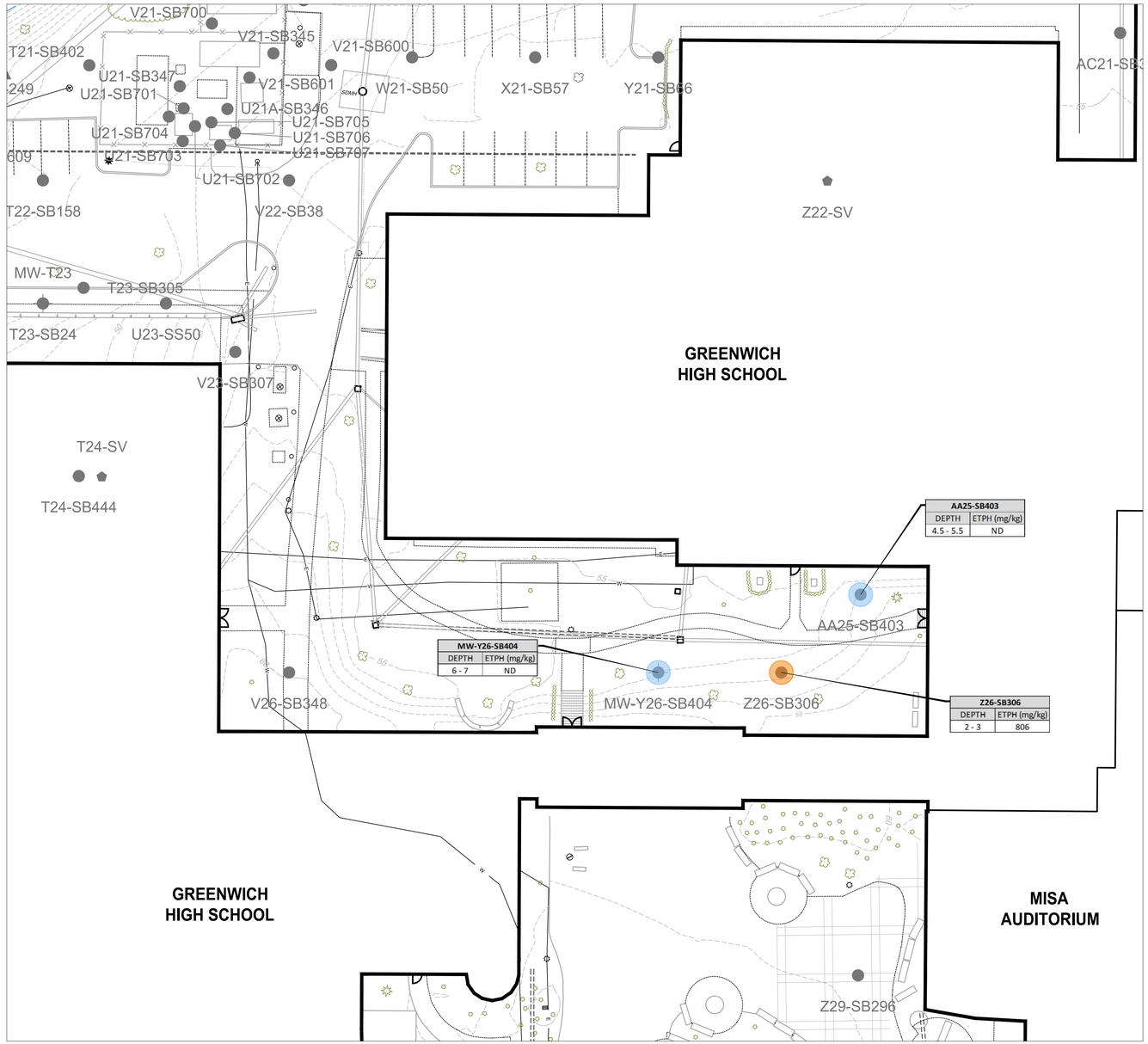
PLOT DATE: Tuesday, November 26, 2019 1:46:10 PM
ARCH D - 3-7-05

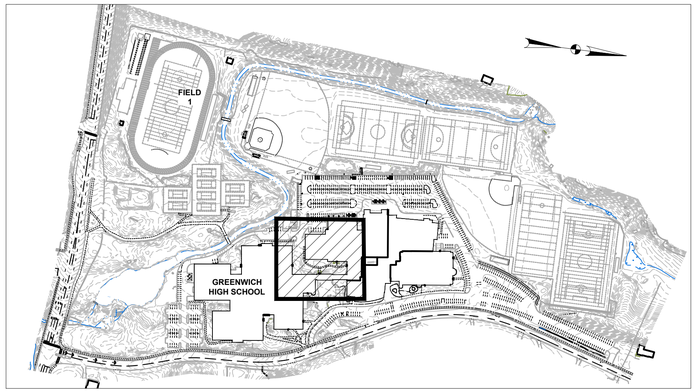


AA25-SB403	
DEPTH	ETPH (mg/kg)
4.5 - 5.5	ND

MW-Y26-SB404	
DEPTH	ETPH (mg/kg)
6 - 7	ND

Z26-SB306	
DEPTH	ETPH (mg/kg)
2 - 3	806

PLAN



KEY MAP

0 300' 600'

LEGEND

- SURFACE CONTOUR (1 FT.)
- MONITORING WELL LOCATION (AECOM)
- SOIL BORING LOCATION (AECOM - 2011)

KEY

- ETPH NOT DETECTED
- ETPH CONCENTRATION < 500 mg/kg
- ETPH CONCENTRATION >500 mg/kg

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SCALE:

0 10' 20'

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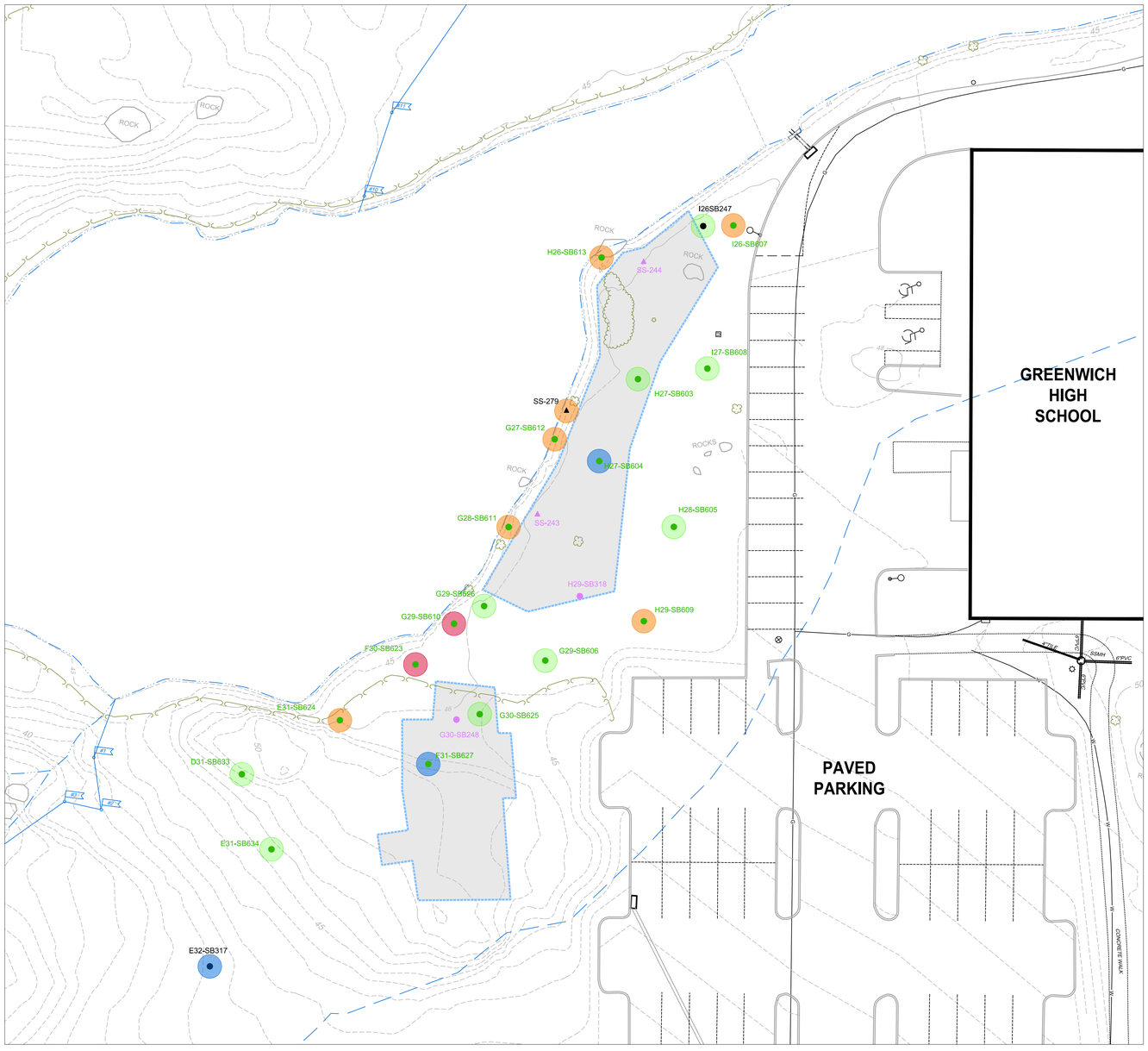
GREENWICH HIGH SCHOOL
10 HILLSIDE RD
GREENWICH, CT

FIGURE 1-6
REMEDIATION AREA 3 INVESTIGATION DATA
GREENWICH HIGH SCHOOL

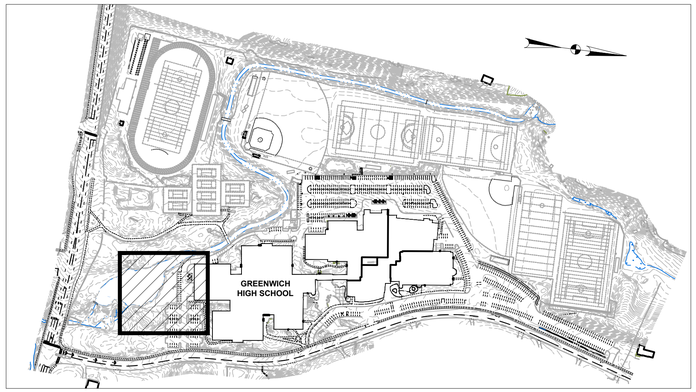
DATE: APRIL 2019

JOB 60432356
FILE NO.
CAD FILE 60432356-RAP_DATA-3
SHEET 1-6

PATH/FILENAME: P:\60225155 GREENWICH HS\900-WORK\910-CAD\00-SHEETS\2019-INTERIM REMEDIAL ACTION PLAN REPORT\60432356-RAP_DATA-3.DWG
LAST UPDATE: Friday, April 26, 2019 2:04:25 PM
PLOT DATE: Friday, April 26, 2019 2:21:10 PM
ARCH D - 3-7-05



PLAN



KEY MAP

0 300' 600'

REMEDIATION AREA KEY

REMEDIAL EXCAVATION BOUNDARY

LEGEND

- WATERLINE
- TREELINE
- WETLAND FLAG
- WETLAND LINE
- WETLAND SETBACK (100 FT.)
- SURFACE CONTOUR (1 FT.)
- 0-3" ONLY SAMPLE LOCATION (DTC)
- SAMPLE PREVIOUSLY EXCAVATED
- SOIL BORING LOCATION (AECOM - 2011)
- SOIL BORING LOCATION (AECOM - 2018)

KEY

- PESTICIDE NOT DETECTED
- PESTICIDE CONCENTRATION < RDEC
- PESTICIDE CONCENTRATION > RDEC
- PESTICIDE CONCENTRATION > SEH

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SCALE: 0 20' 40'

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GREENWICH HIGH SCHOOL
10 HILLSIDE RD
GREENWICH, CT

FIGURE 1-7
REMEDIATION AREA 4 INVESTIGATION DATA
GREENWICH HIGH SCHOOL

DATE: APRIL 2019

JOB 60432356
FILE NO.
CAD FILE 60432356-RAP_DATA-4
SHEET 1-7

PATH/FILENAME: P:\60225155 GREENWICH HS\900-WORK\910-CAD\20-SHEETS\2019-INTERIM REMEDIAL ACTION PLAN REPORT\60432356-RAP_DATA-4.DWG
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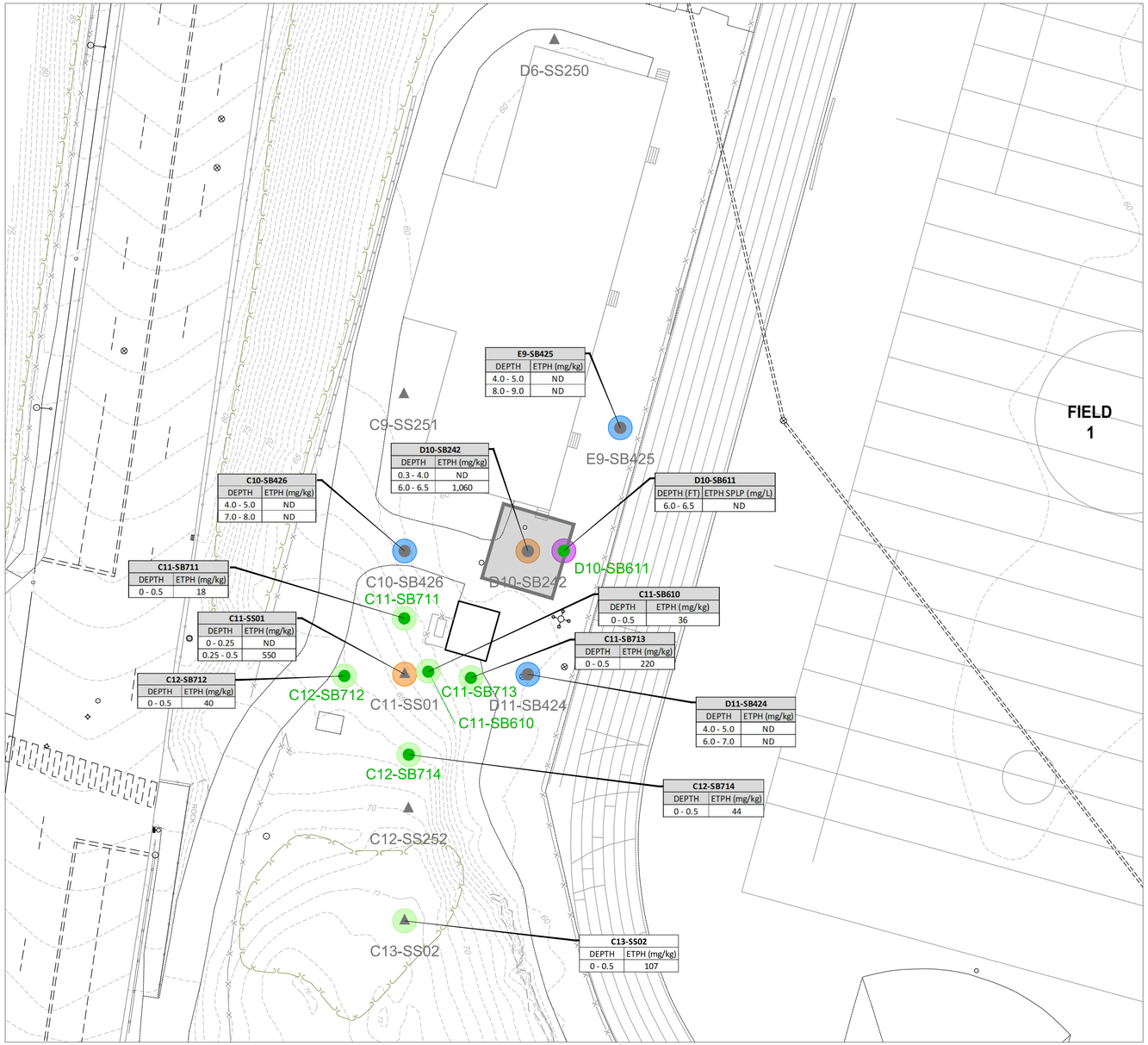
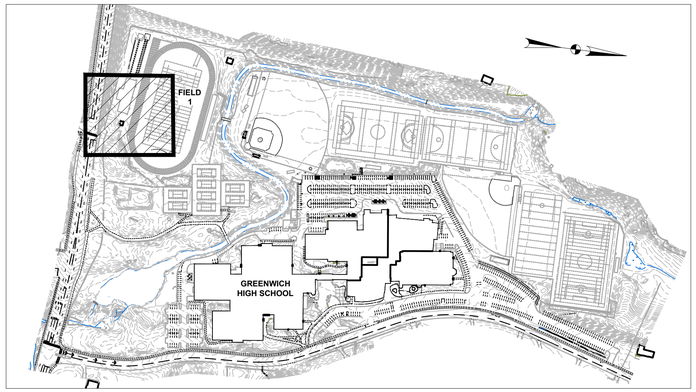
PLOT DATE: Tuesday, November 26, 2019 2:19:26 PM
ARCH D – 3-7-05





KEY MAP

0 300' 600'

AREAS OF CONCERN

AOC 14 - PARKING LOTS

LEGEND

- TREELINE
- 43 SURFACE CONTOUR (1 FT.)
- 0-3" ONLY SAMPLE LOCATION (DTC)
- SOIL BORING LOCATION (AECOM - 2011)
- SOIL BORING LOCATION (AECOM - 2018)

KEY

- ETPH NOT DETECTED
- ETPH CONCENTRATION < 500 mg/kg
- ETPH CONCENTRATION >500 mg/kg
- SPLP ETPH

PLAN

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SCALE:

0 10' 20'

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GREENWICH HIGH SCHOOL
10 HILLSIDE RD
GREENWICH, CT

FIGURE 1-8
REMEDIATION AREA 5 INVESTIGATION DATA
GREENWICH HIGH SCHOOL

REVISED: OCTOBER 2019

JOB 60432356
FILE NO.
CAD FILE 60432356-RAP_DATA-5
SHEET 1-8

PATH/FILENAME: P:\60225155 GREENWICH HS\900-WORK\910-CAD\20-SHEETS\2019-INTERIM REMEDIAL ACTION PLAN REPORT\60432356-RAP_DATA-5.DWG
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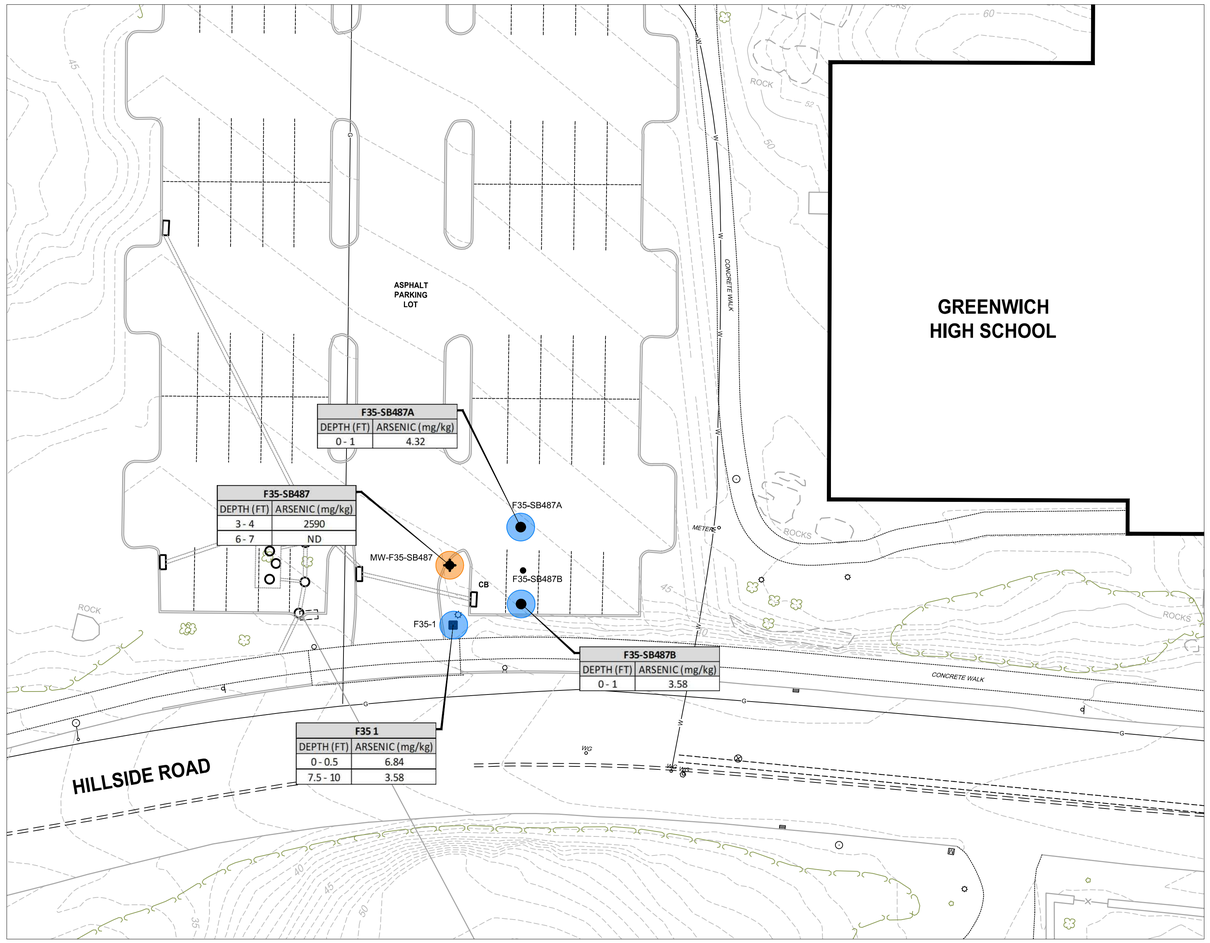
PLOT DATE: Wednesday, November 27, 2019 7:39:04 AM
ARCH D - 3-7-05



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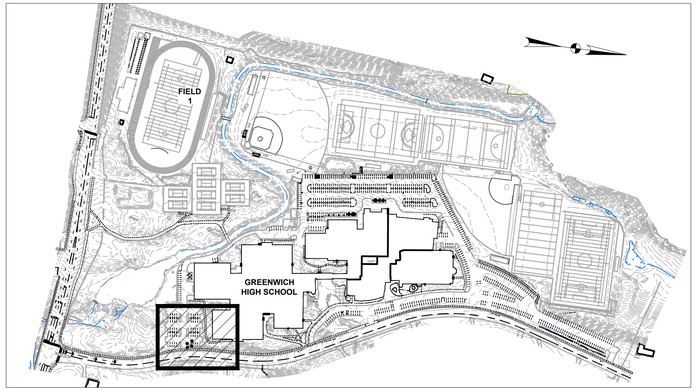

KEY MAP

0 300' 600'

LEGEND

- SURFACE CONTOUR (1 FT.)
- MONITORING WELL LOCATION (AECOM)
- SOIL BORING LOCATION (AECOM - 2011)
- ROCK SAMPLE LOCATION (AECOM)

KEY

- ARSENIC < 10 mg/kg
- ARSENIC > 10 mg/kg

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SCALE: 0 20' 40'

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GREENWICH HIGH SCHOOL
10 HILLSIDE RD
GREENWICH, CT

FIGURE 1-9
REMEDIATION AREA 6 INVESTIGATION DATA
GREENWICH HIGH SCHOOL

DATE: NOVEMBER 2019

JOB 60432356
FILE NO.
CAD FILE 60432356-RWP_DATA-6
SHEET 1-9

PATH/FILENAME: P:\60225155 GREENWICH HS\900-WORK\910-CAD\20-SHEETS\2019-INTERIM REMEDIAL ACTION PLAN REPORT\60432356-RWP_DATA-6.DWG
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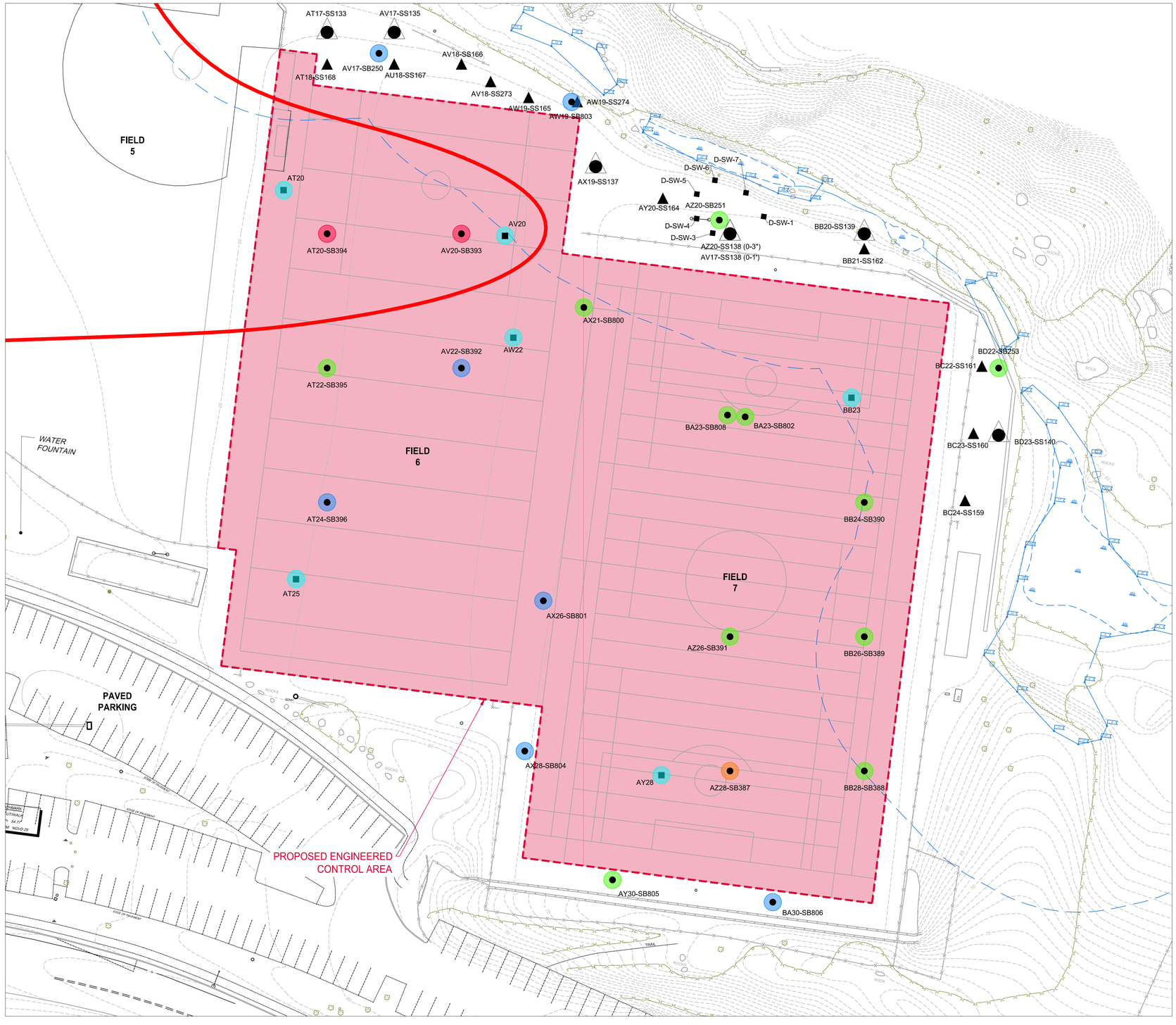
ARCH D – 3-7-05



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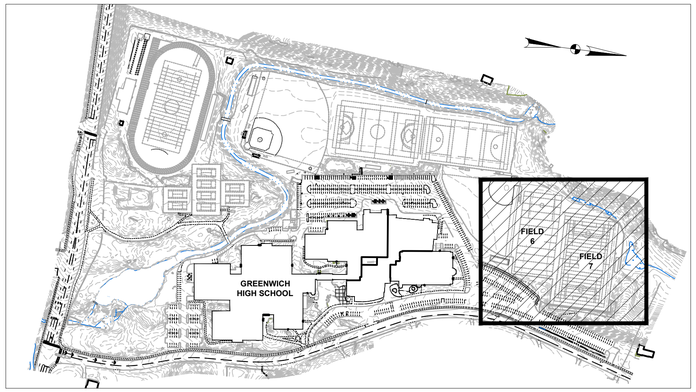

KEY MAP

0 300' 600'

LEGEND

- WATERLINE
- TREELINE
- WETLAND FLAG
- WETLAND LINE
- WETLAND SETBACK (100 FT.)
- SURFACE CONTOUR (1 FT.)
- BB24-SB390 — SOIL BORING LOCATION
- BC24-SS159 — SURFICIAL SOIL (0-3") SAMPLE LOCATION
- BD23-SS140 — SURFICIAL SOIL (0-3" and 0-0.5") SAMPLE LOCATION
- D-SW-1 — POST EXCAVATION SAMPLE LOCATION
- E.O.B. — END OF BORING

KEY

- PCB's NOT DETECTED
- PCB CONCENTRATION <1 mg/kg
- PCB CONCENTRATION >1 mg/kg, <50 mg/kg
- PCB CONCENTRATION >50 mg/kg
- TURF SAMPLE LOCATION

AREAS OF CONCERN

AOC 1 - FILL AREA

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SCALE:

0 30' 60'

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GREENWICH HIGH SCHOOL
10 HILLSIDE RD
GREENWICH, CT

FIGURE 2-1
REMEDIATION AREA 1 PROPOSED REMEDIATION
GREENWICH HIGH SCHOOL

DATE: NOVEMBER 2019

JOB 60432356
FILE NO.
CAD FILE RAP_FIELDS 6&7
SHEET 2-1

PATH/FILENAME: \\USRKHZFP001\DATA\EVERYONE\60432356 GREENWICH HIGH SCHOOL REMEDIATION\900-WORK\GIS\CAD\RAP_FIELDS 6&7.DWG
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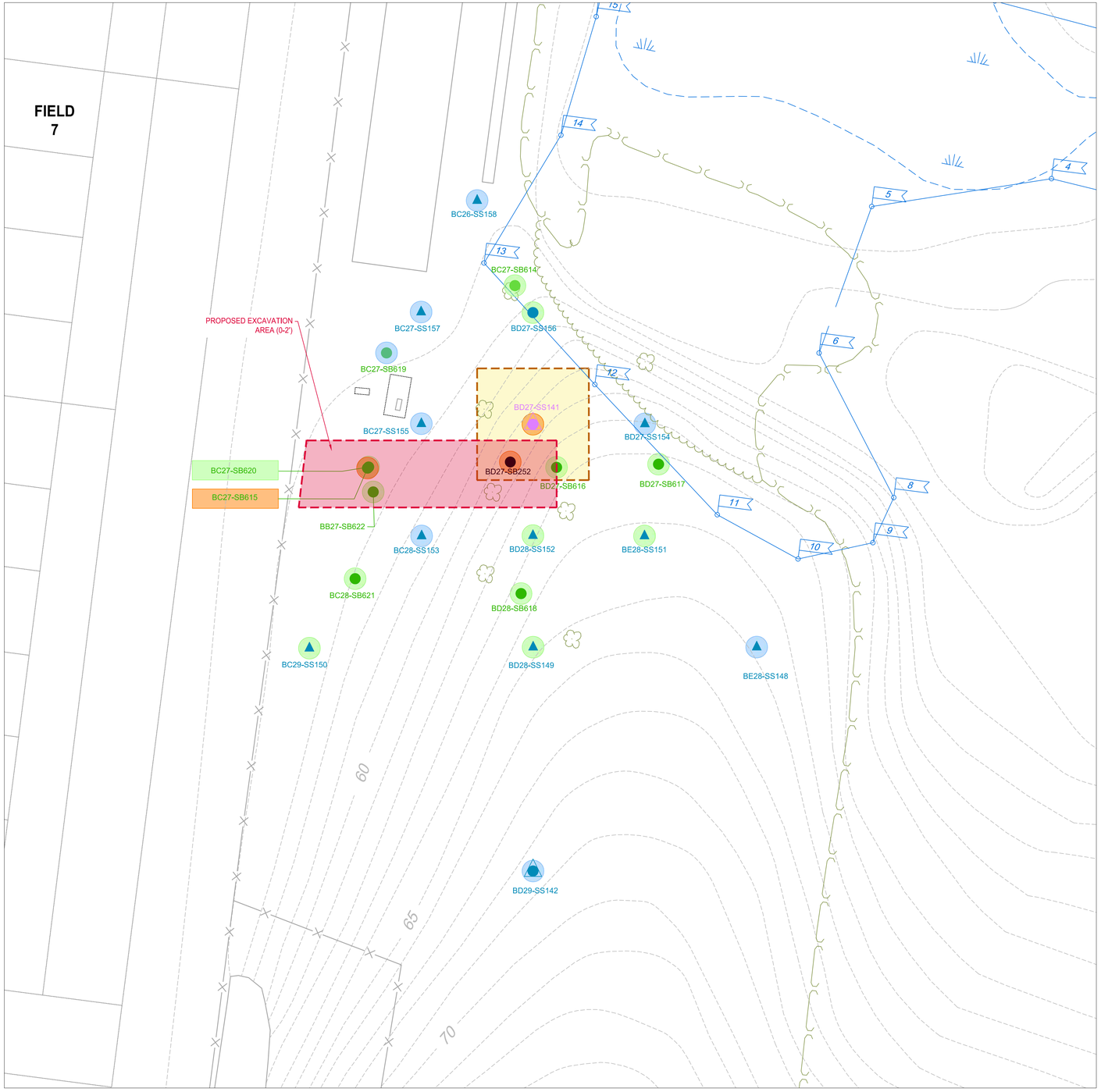
ARCH D - 3-7-05



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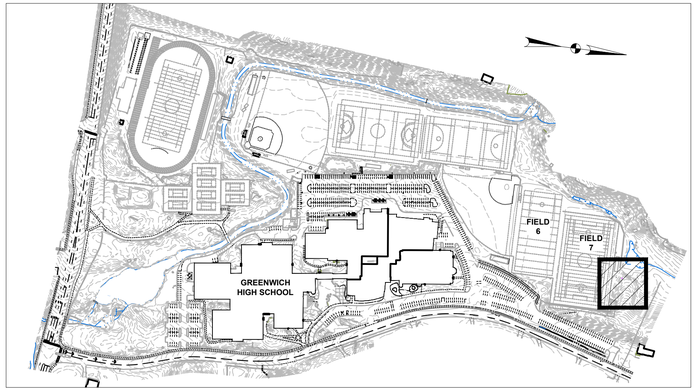

KEY MAP

0 300' 600'

LEGEND

- WATERLINE
- TREELINE
- WETLAND FLAG
- WETLAND LINE
- WETLAND SETBACK (100 FT.)
- SURFACE CONTOUR (1 FT.)
- 0-3" ONLY SAMPLE LOCATION (DTC)
- 0-1' ONLY SAMPLE LOCATION (DTC)
- 0-3" and 0-1' SAMPLE LOCATION (DTC)
- SAMPLE PREVIOUSLY EXCAVATED
- SOIL BORING LOCATION (AECOM - 2011)
- SOIL BORING LOCATION (AECOM - 2018)
- INTERIM REMEDIAL MEASURES EXCAVATION AREA 0-1' (DTC - 2011)

KEY

- PCB's NOT DETECTED
- PCB CONCENTRATION <1 mg/kg
- PCB CONCENTRATION >1 mg/kg, <50 mg/kg

▲ 0-3" ONLY SAMPLE LOCATION (DTC)

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SCALE:

0 10' 20'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

GREENWICH HIGH SCHOOL
10 HILLSIDE RD
GREENWICH, CT

FIGURE 2-2
REMEDIATION AREA 2 PROPOSED REMEDIATION
GREENWICH HIGH SCHOOL

DATE: APRIL 2019

JOB 60432356
FILE NO.
CAD FILE 60432356-RAP_DATA-2
SHEET 2-2

PATH/FILENAME: P:\60225155 GREENWICH HS\900-WORK\910-CAD\20-SHEETS\2019-INTERIM REMEDIAL ACTION PLAN REPORT\60432356-RAP_DATA-2.DWG
LAST UPDATE: Tuesday, November 26, 2019 1:31:53 PM
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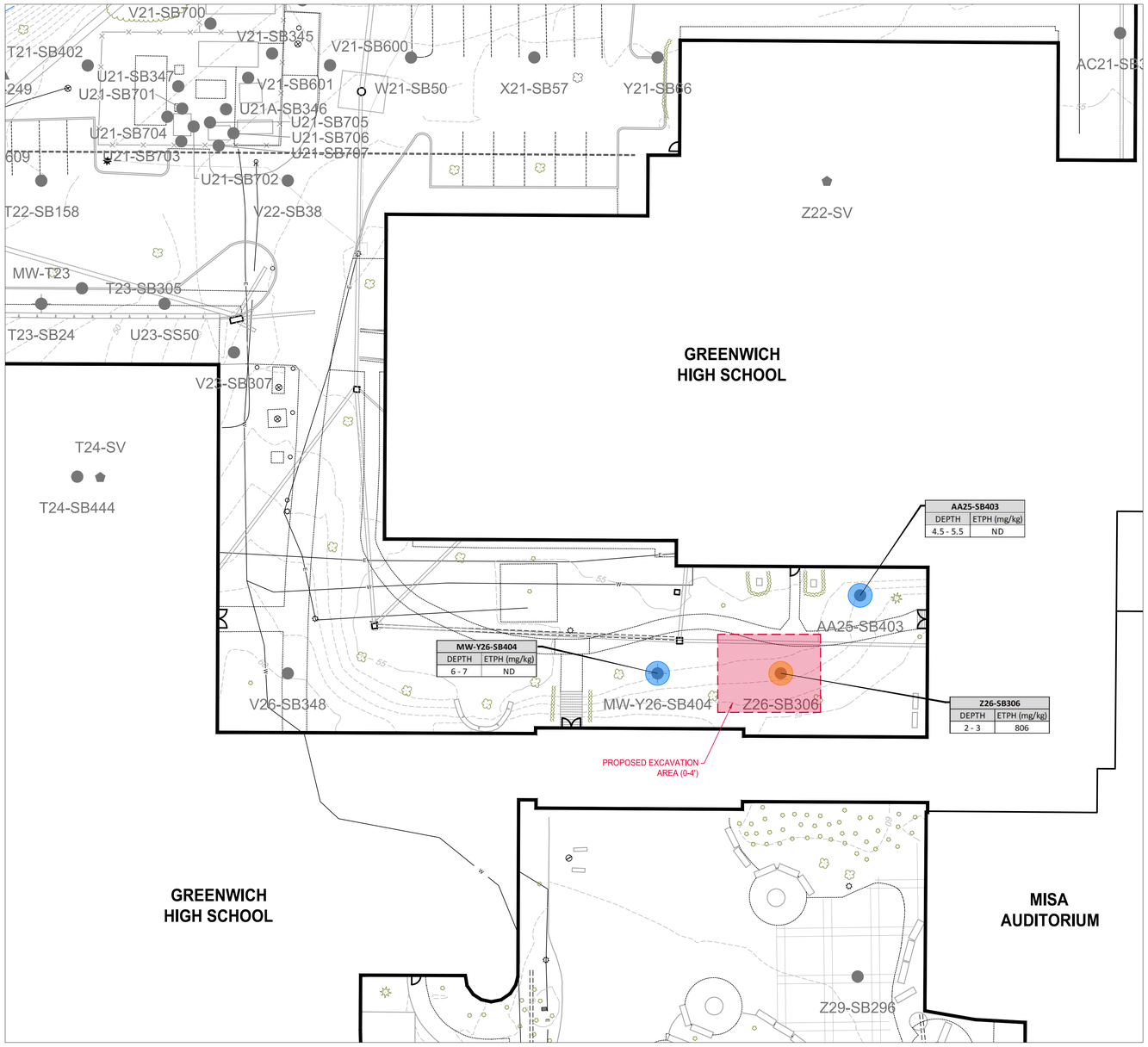
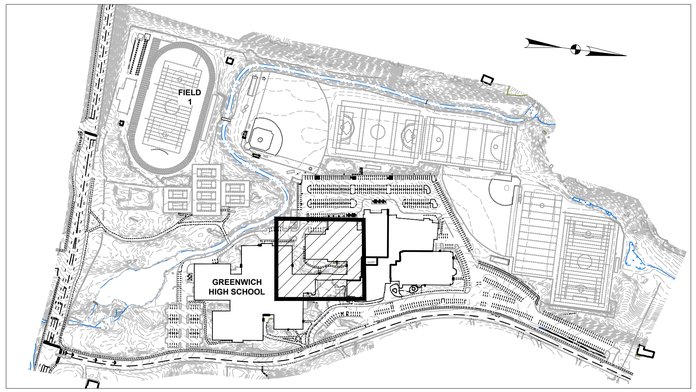
ARCH D - 3-7-05



AA25-SB403	
DEPTH	ETPH (mg/kg)
4.5 - 5.5	ND

MW-Y26-SB404	
DEPTH	ETPH (mg/kg)
6 - 7	ND

Z26-SB306	
DEPTH	ETPH (mg/kg)
2 - 3	806



KEY MAP

0 300' 600'

LEGEND

- SURFACE CONTOUR (1 FT.)
- MONITORING WELL LOCATION (AECOM)
- SOIL BORING LOCATION (AECOM - 2011)

KEY

- ETPH NOT DETECTED
- ETPH CONCENTRATION < 500 mg/kg
- ETPH CONCENTRATION >500 mg/kg

PLAN

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SCALE:

0 10' 20'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

GREENWICH HIGH SCHOOL
10 HILLSIDE RD
GREENWICH, CT

FIGURE 2-3
REMEDIATION AREA 3 PROPOSED REMEDIATION
GREENWICH HIGH SCHOOL

REVISED: OCTOBER 2019

JOB 60432356
FILE NO.
CAD FILE 60432356-RAP_DATA-3
SHEET 2-3

PATH/FILENAME: P:\60225155 GREENWICH HS\900-WORK\910-CAD\00-SHEETS\2019-INTERIM REMEDIAL ACTION PLAN REPORT\60432356-RAP_DATA-3.DWG
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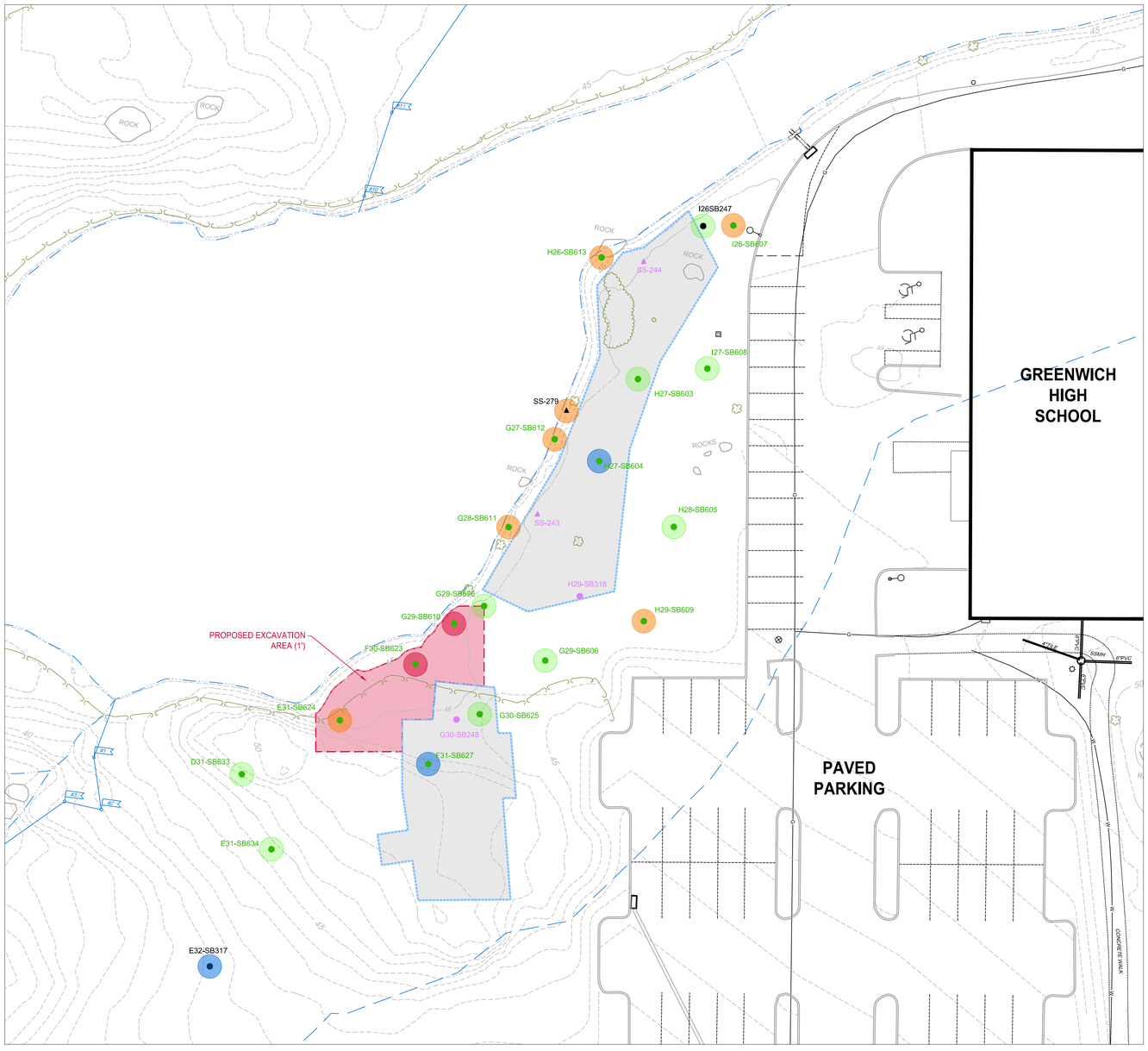
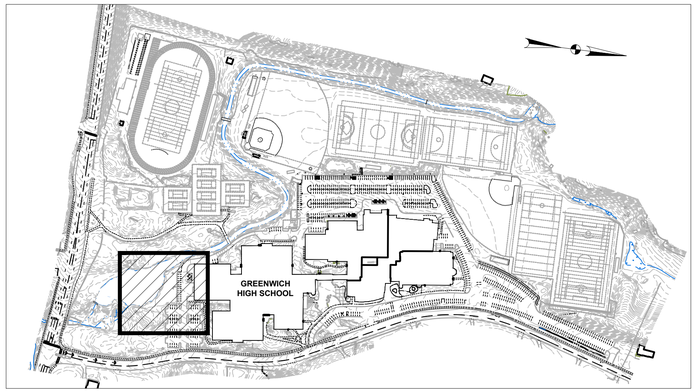
ARCH D - 3-7-05



PLAN



KEY MAP

0 300' 600'

REMEDIATION AREA KEY

REMEDIAL EXCAVATION BOUNDARY

LEGEND

- WATERLINE
- TREELINE
- WETLAND FLAG
- WETLAND LINE
- WETLAND SETBACK (100 FT.)
- SURFACE CONTOUR (1 FT.)
- 0-3" ONLY SAMPLE LOCATION (DTC)
- SAMPLE PREVIOUSLY EXCAVATED
- SOIL BORING LOCATION (AECOM - 2011)
- SOIL BORING LOCATION (AECOM - 2018)

KEY

- PESTICIDE NOT DETECTED
- PESTICIDE CONCENTRATION < RDEC
- PESTICIDE CONCENTRATION > RDEC
- PESTICIDE CONCENTRATION > SEH

AECOM Environment
500 ENTERPRISE DR, STE 1A
ROCKY HILL, CT 06067
(860) 263-5800
www.aecom.com

SCALE:

0 20' 40'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

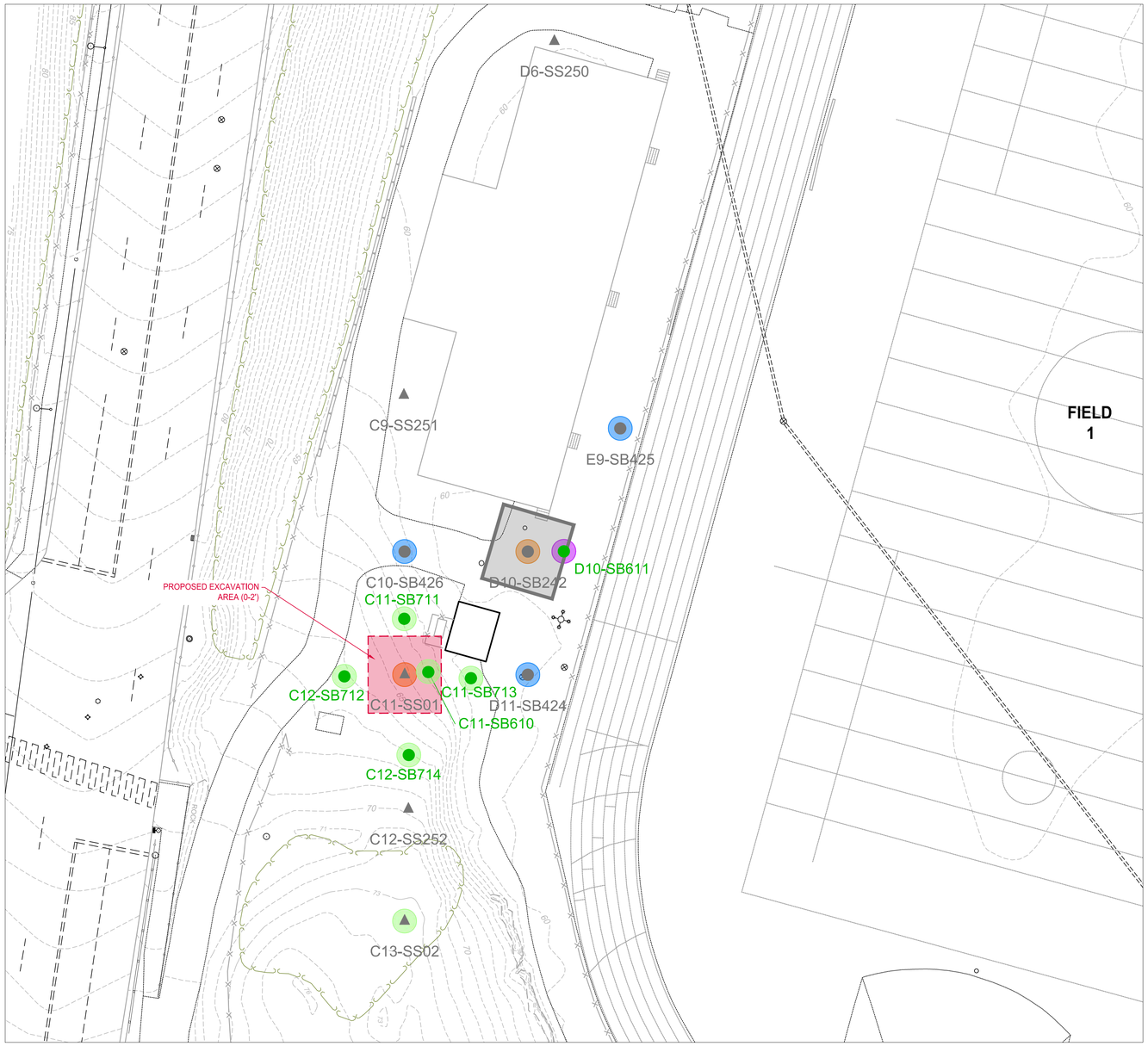
GREENWICH HIGH SCHOOL
10 HILLSIDE RD
GREENWICH, CT

FIGURE 2-4
REMEDIATION AREA 4 PROPOSED REMEDIATION
GREENWICH HIGH SCHOOL

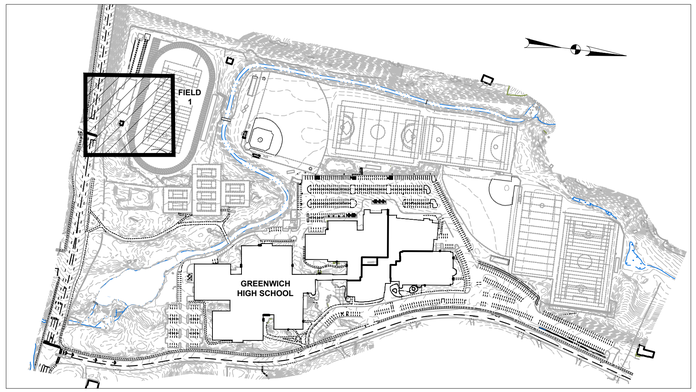
DATE: APRIL 2019

JOB 60432356
FILE NO.
CAD FILE 60432356-RAP_DATA-4
SHEET 2-4

PATH/FILENAME: P:\60225155 GREENWICH HS\900-WORK\910-CAD\20-SHEETS\2019-INTERIM REMEDIAL ACTION PLAN REPORT\60432356-RAP_DATA-4.DWG
LAST UPDATE: Tuesday, November 26, 2019 2:19:42 PM
PLOT DATE: Tuesday, November 26, 2019 2:20:00 PM
ARCH D – 3-7-05



PLAN



KEY MAP

0 300' 600'

AREAS OF CONCERN

AOC 14 - PARKING LOTS

LEGEND

- TREELINE
- SURFACE CONTOUR (1 FT.)
- 0-3" ONLY SAMPLE LOCATION (DTC)
- SOIL BORING LOCATION (AECOM - 2011)
- SOIL BORING LOCATION (AECOM - 2018)

KEY

- ETPH NOT DETECTED
- ETPH CONCENTRATION < 500 mg/kg
- ETPH CONCENTRATION >500 mg/kg
- SPLP ETPH

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SCALE:

0 10' 20'

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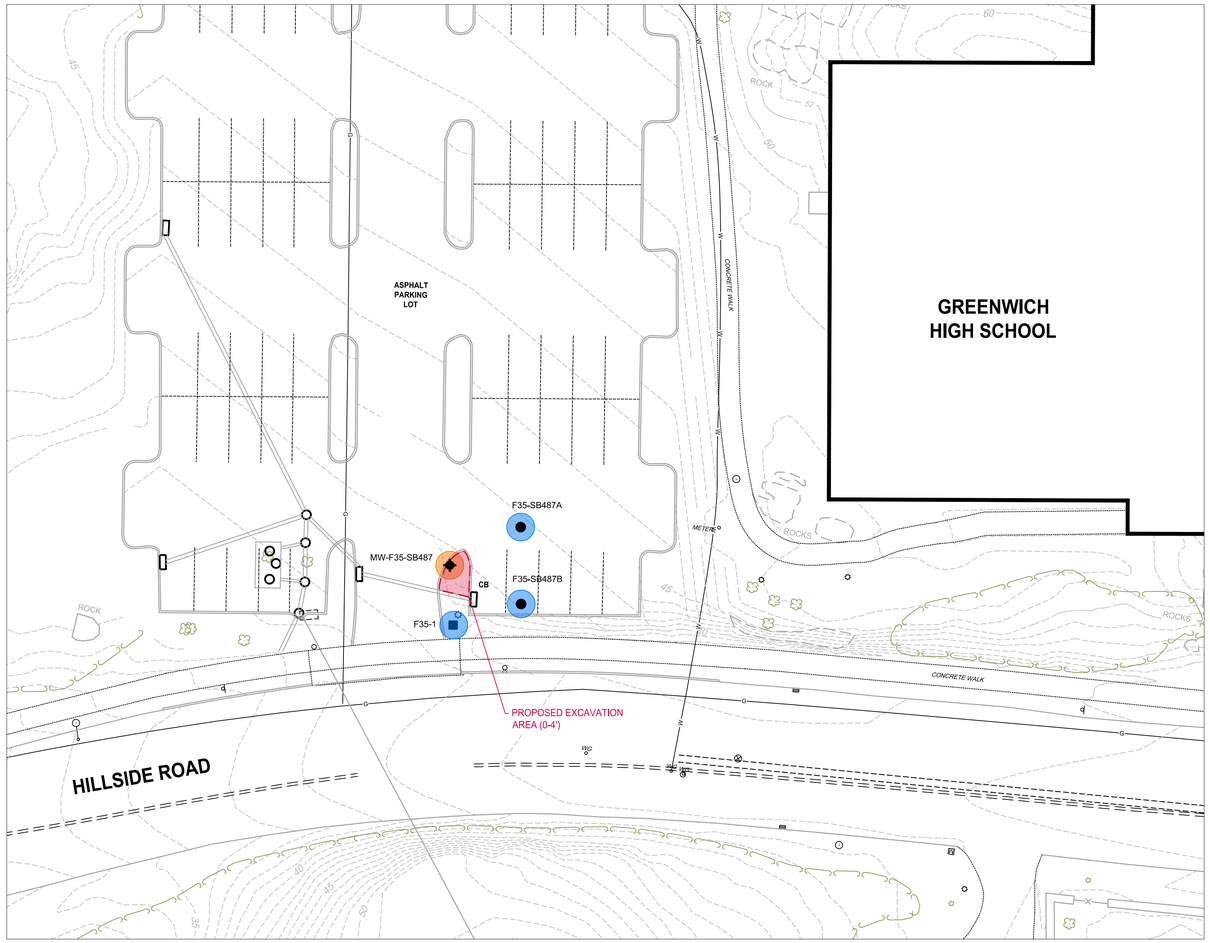
GREENWICH HIGH SCHOOL
10 HILLSIDE RD
GREENWICH, CT

FIGURE 2-5
REMEDIATION AREA 5 PROPOSED REMEDIATION
GREENWICH HIGH SCHOOL

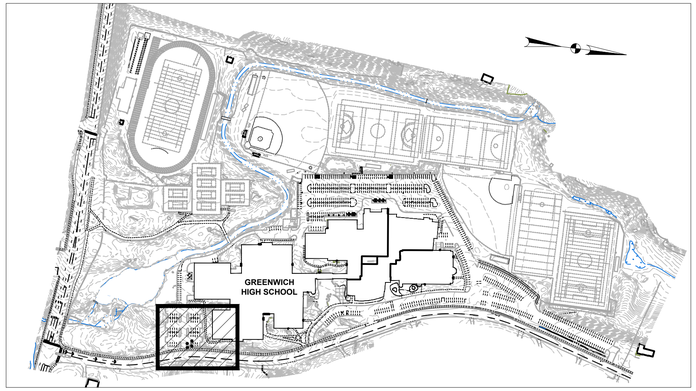
REVISED: OCTOBER 2019

JOB 60432356
FILE NO.
CAD FILE 60432356-RAP_DATA-5
SHEET 2-5

PATH/FILENAME: P:\60225155 GREENWICH HS\900-WORK\910-CAD\20-SHEETS\2019-INTERIM REMEDIAL ACTION PLAN REPORT\60432356-RAP_DATA-5.DWG
LAST UPDATE: Wednesday, November 27, 2019 7:41:01 AM
PLOT DATE: Wednesday, November 27, 2019 7:41:19 AM
ARCH D - 3-7-05



PLAN



KEY MAP

0 300' 600'

LEGEND

- SURFACE CONTOUR (1 FT.)
- MONITORING WELL LOCATION (AECOM)
- SOIL BORING LOCATION (AECOM - 2011)
- ROCK SAMPLE LOCATION (AECOM)

KEY

- ARSENIC < 10 mg/kg
- ARSENIC > 10 mg/kg

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SCALE:

0 20' 40'

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GREENWICH HIGH SCHOOL
10 HILLSIDE RD
GREENWICH, CT

FIGURE 2-6
REMEDIATION AREA 6 PROPOSED REMEDIATION
GREENWICH HIGH SCHOOL

DATE: NOVEMBER 2019

JOB 60432356
FILE NO.
CAD FILE 60432356-RAP_DATA-6
SHEET 2-6

PATH/FILENAME: P:\60225155 GREENWICH HS\900-WORK\910-CAD\20-SHEETS\2019-INTERIM REMEDIAL ACTION PLAN REPORT\60432356-RAP_DATA-6.DWG
LAST UPDATE: Friday, November 22, 2019 2:37:47 PM
PLOT DATE: Friday, November 22, 2019 2:38:04 PM
ARCH D = 3-7-05

MAPPING REFERENCE:

1. MAPPING INFORMATION SHOWN PROVIDED BY THE TOWN OF GREENWICH FROM PLANS BY DTC ENVIRONMENTAL CONSULTANTS, DATE UNKNOWN.
2. ADDITIONAL INFORMATION FROM SURVEYS AND FIELD OBSERVATION PERFORMED BY MILONE AND MACBROOM, VARIOUS DATES.
3. HORIZONTAL COORDINATE SYSTEM: CONNECTICUT STATE PLANE NAD 83.
4. VERTICAL DATUM: NGVD 29.
5. ADDITIONAL INFORMATION ADDED FROM WEST PARKING LOT EXPANSION AS BUILT DESIGN DRAWINGS BY NAFIS & YOUNG ENGINEERS, INC., DATE 01 / 14 / 2016.

LEGEND

- PROPERTY LINE
- BUILDING LINE
- RETAINING WALL
- CURB
- PAVEMENT
- GUIDE RAIL
- FENCE
- W — WATER LINE
- E — ELECTRIC LINE
- G — GAS LINE
- FBR — FIBER OPTIC LINE
- STORM SEWER PIPING
- SANITARY SEWER PIPING
- SANITARY SEWER MANHOLE
- SDMH — STORM MANHOLE
- CATCH BASIN
- ELECTRIC MANHOLE
- HYDRANT
- UTILITY POLE
- LIGHT POLE
- SIGN
- IRR — IRRIGATION PIPING
- V — SURVEILLANCE LINE
- TREE
- TREE LINE
- BRUSH LINE
- WATER
- 45 — CONTOUR (1 FT. INTERVAL)
- WETLAND LIMITS
- #XX — WETLAND FLAG
- MONITORING WELL
- AREA WHERE PHASE 1 REMEDIATION WILL ATTAIN COMPLIANCE WITH THE RSRs

FIELD #1
FIELD #2
FIELD #3
FIELD #4
FIELD #5
FIELD #6
FIELD #7
WEST BROTHERS BROOK
EAST PUTNAM AVENUE (CT ROUTE 1)
PARKING LOT
STORMWATER DETENTION BASIN
1,000 GALLON UST
DIESEL GENERATOR WITH 200 GALLON AST
ELECTRIC SUBSTATION
LOCATION OF CURRENT AND FORMER 15,000 GALLON UST's
GREENWICH HIGH SCHOOL
MISA AUDITORIUM
SCIENCE WING
CIDER MILL POND
HILLSIDE ROAD

PLAN

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www.aecom.com

AECOM

SCALE:
1" = 80'
0 80 160 240
SCALE FEET

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

GREENWICH HIGH SCHOOL
10 HILLSIDE RD
GREENWICH, CT

FIGURE 6-1
PHASE 1 REMEDIATION EXTENTS
GREENWICH HIGH SCHOOL

DATE: NOVEMBER 2019

JOB 60432356
FILE NO.
CAD FILE 60432356-RAP_PHASE-1-EXTENTS
SHEET 6-1

PATH/FILENAME: P:\60225155 GREENWICH HS\900-WORK\910-CAD\00-SHEETS\2019-INTERIM REMEDIAL ACTION PLAN REPORT\60432356-RAP_PHASE-1-EXTENTS.DWG
LAST UPDATE: Monday, December 2, 2019 10:44:49 AM
PLOT DATE: Monday, December 2, 2019 10:45:26 AM
ARCH D - 3-7-05

Appendix A

Site Investigation Data Summaries

Table A-1
Fields 6 and 7
Soil Analytical Data
Remedial Investigation Report

Greenwich High School
10 Hillside Road
Greenwich, CT

Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	Res DEC	AQ25-SS271 0 - 0.25 ft AQ25-SS271 (0-3) 8/22/2011 SB33952	AR21-SB144 1 - 2 ft AR21 SB144 1-2 8/10/2011 SB33308	AR21-SB144 2 - 3 ft AR21 SB144 2-3 8/10/2011 SB33308	AR21-SB144 5 - 6 ft AR21 SB144 5-6 8/10/2011 SB33308	AR21-SB144 6 - 7 ft AR21 SB144 6-7 8/10/2011 SB33308	AR21-SB144 10 - 11 ft AR21 SB144 10-11 8/10/2011 SB33308	AR21-SB144 16 - 17 ft AR21 SB144 16-17 8/10/2011 SB33308	AR22-SB484 3 - 4 ft AR22-SB484 (3-4)-071212- 7/12/2012 SB52798	AR22-SB484 6 - 7 ft AR22-SB484 (6-7)-071212- 7/12/2012 SB52798	AR22-SB484 14 - 15 ft R22-SB484 (14-15)-071212 7/12/2012 SB52798	AS17-SS297 0 - 0.25 ft AS17SS297 0-3 8/23/2011 SB34022	AS17-SS297 0 - 0.25 ft DUPLICATE-20-082311 8/23/2011 SB34022
CTETPH (mg/Kg)														
Aliphatic Hydrocarbons (ETPH) C9-C36	500	500	NS	NS	NS	NS	**38.1**	NS	NS	NS	**53.7**	NS	NS	NS
VOCs (ug/Kg)														
2-Butanone (MEK)	8000	500000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acetone	14000	500000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene	5600	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SVOCs (ug/Kg)														
Benzo(a)anthracene	1000	1000	NS	NS	NS	NS	< 368 U	NS	NS	NS	< 217 U	NS	NS	NS
Benzo(a)pyrene	1000	1000	NS	NS	NS	NS	< 368 U	NS	NS	NS	< 217 U	NS	NS	NS
Benzo(b)fluoranthene	1000	1000	NS	NS	NS	NS	< 368 U	NS	NS	NS	< 217 U	NS	NS	NS
Benzo(k)fluoranthene	1000	8400	NS	NS	NS	NS	< 368 U	NS	NS	NS	< 217 U	NS	NS	NS
Chrysene	*1000*	*84000*	NS	NS	NS	NS	< 368 U	NS	NS	NS	< 217 U	NS	NS	NS
Fluoranthene	5600	1000000	NS	NS	NS	NS	< 368 U	NS	NS	NS	< 217 U	NS	NS	NS
Phenanthrene	4000	1000000	NS	NS	NS	NS	< 368 U	NS	NS	NS	< 217 U	NS	NS	NS
Pyrene	4000	1000000	NS	NS	NS	NS	< 368 U	NS	NS	NS	< 217 U	NS	NS	NS
Metals (mg/Kg)														
Arsenic	NE	10	< 1.59 U	NS	NS	NS	< 1.58 U	NS	NS	< 7.62 UJ	< 9.69 UJ	< 1.53 UJ	**5.22**	NS
Barium	NE	4700	NS	NS	NS	NS	NS	NS	NS	**112**	**127**	**214**	NS	NS
Beryllium	NE	2	NS	NS	NS	NS	NS	NS	NS	**0.881**	**0.687**	**0.705**	NS	NS
Cadmium	NE	34	NS	NS	NS	NS	< 0.525 U	NS	NS	**0.618**	**0.671**	**0.711**	NS	NS
Chromium	NE	NE	NS	NS	NS	NS	**13.1**	NS	NS	**65.9**	**48.5**	**26.7**	NS	NS
Copper	NE	2500	NS	NS	NS	NS	NS	NS	NS	**15.3 J**	**25.4 J**	**8.56 J**	NS	NS
Lead	NE	500	**3.2**	NS	NS	NS	**13.9**	NS	NS	**21.1 J**	**57.0 J**	**6.05 J**	**34.3**	NS
Mercury	NE	20	NS	NS	NS	NS	< 0.0321 U	NS	NS	**0.161 J**	**0.152 J**	< 0.0329 UJ	NS	NS
Nickel	NE	1400	NS	NS	NS	NS	NS	NS	NS	**37.3 J**	**26.6 J**	**29.0 J**	NS	NS
Vanadium	NE	470	NS	NS	NS	NS	NS	NS	NS	**31.3**	**40.5**	**36.1**	NS	NS
Zinc	NE	20000	NS	NS	NS	NS	NS	NS	NS	**44.4**	**60.1**	**82.1**	NS	NS
Metals-SPLP (mg/L)														
Arsenic	0.05	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	1	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	0.05	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	0.015	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	0.1	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	0.05	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PCBs (ug/Kg)														
Aroclor 1248	NE	NE	< 19.8 U	< 25.2 U	< 23.2 U	**370**	**1410**	< 23.1 U	< 22.9 U	**230**	< 24.6 U	< 43.7 U	**163**	**158**
Aroclor 1254	NE	NE	< 19.8 U	< 25.2 U	< 23.2 U	< 22.9 U	< 20.5 U	< 23.1 U	< 22.9 U	< 22.3 U	< 24.6 U	< 21.9 U	< 22.7 U	< 22.8 U
Aroclor 1260	NE	NE	< 19.8 U	< 25.2 U	< 23.2 U	< 22.9 U	**27.6**	< 23.1 U	< 22.9 U	< 22.3 U	< 24.6 U	< 21.9 U	< 22.7 U	< 22.8 U
Aroclor 1268	NE	NE	< 19.8 U	< 25.2 U	< 23.2 U	< 22.9 U	< 20.5 U	< 23.1 U	< 22.9 U	< 22.3 U	< 24.6 U	< 21.9 U	< 22.7 U	< 22.8 U
Total PCB Aroclors	NE	1000	< 19.8 U	< 25.2 U	< 23.2 U	**370**	**1440**	< 23.1 U	< 22.9 U	**230**	< 24.6 U	< 43.7 U	**163**	**158**
PCBs-SPLP (mg/L)														
Aroclor 1248	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total PCB Aroclors	0.0005	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pesticides (ug/Kg)														
4,4-DDE (p,p)	NE	NE	NS	< 6.37 U	NS	NS	NS	NS	NS	NS	NS	NS	< 5.67 U	NS
4,4-DDT (p,p)	NE	1800	NS	< 10.2 U	NS	NS	NS	NS	NS	NS	NS	NS	< 9.07 U	NS
alpha-Chlordane	NE	NE	NS	**14.0 J**	NS	NS	NS	NS	NS	NS	NS	NS	**10.7 J**	NS
Chlordane	66	490	NS	**60.5**	NS	NS	NS	NS	NS	NS	NS	NS	**66.6**	NS
gamma-Chlordane	NE	NE	NS	**11.5 J**	NS	NS	NS	NS	NS	NS	NS	NS	**9.92 J**	NS
Total DDx	*3*	*1800*	NS	< 6.37	NS	NS	NS	NS	NS	NS	NS	NS	< 9.07	NS

Notes:

This is a summary table. Only detected chemicals are presented.

<0.010 = Not detected above given laboratory reporting limit.

Bold = Detected above reporting limit.

Blue highlighted cells exceed Res DEC.

Orange highlighted cells exceed GA PMC.

Res DEC = Residential Direct Exposure Criteria.

I/C DEC = Industrial/Commercial Direct Exposure Criteria.

GA PMC = Pollution Mobility Criteria

ND = Not detected

NE = Criteria has not been established

NS = Not sampled for this constituent

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

(4) Codified criterion for lead Res DEC is 500 ppm, but

the recommended cleanup criterion is 400 ppm to be protective of human health.

Table A-1
Fields 6 and 7
Soil Analytical Data
Remedial Investigation Report

Greenwich High School
10 Hillside Road
Greenwich, CT

Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	Res DEC	AU18-SS167 0 - 0.25 ft AU18 SS167 0-3 8/11/2011 SB33302	AV17-SB250 0.5 - 1 ft AV17-SB250(0.5-1)-1 12/29/2011 SB41766	AV17-SB250 3.5 - 4.5 ft AV17-SB250(3.5-4.5)-1 12/29/2011 SB41766	AV17-SB250 5 - 7 ft AV17-SB250(5-7)-1 12/29/2011 SB41766	AV17-SB250 10 - 11 ft AV17-SB250(10-11)-1 12/29/2011 SB41766	AV17-SB250 13 - 14 ft AV17-SB250(13-14)-1 12/29/2011 SB41766	AV28-SB232 0 - 2 ft AV28-SB232(0-2)-1 12/27/2011 SB41683	AV28-SB232 5 - 6 ft AV28-SB232(5-6)-1 12/27/2011 SB41683	AV28-SS172 0 - 0.25 ft AV28 SS172 0-3 8/11/2011 SB33302	AV28-SS173 0 - 0.25 ft AV28 SS173 0-3 8/11/2011 SB33302	AV30-SS233 0 - 0.25 ft AV30-SS233 0-3 8/11/2011 SB33374	AX31-SB278 0 - 1 ft AX31-SB278 (0-1)-123011-1 12/30/2011 SB41831
CTETPH (mg/Kg)														
Aliphatic Hydrocarbons (ETPH) C9-C36	500	500	NS	NS	NS	**119**	< 31.9 U	NS	**221**	NS	NS	**146**	NS	NS
VOCs (ug/Kg)														
2-Butanone (MEK)	8000	500000	NS	NS	NS	**82**	NS	NS	< 60.3 U	NS	NS	NS	NS	NS
Acetone	14000	500000	NS	NS	NS	**303 J**	NS	NS	< 60.3 UJ	NS	NS	NS	NS	NS
Naphthalene	5600	1000000	NS	NS	NS	**10.0 J**	NS	NS	< 6.0 U	NS	NS	NS	NS	NS
SVOCs (ug/Kg)														
Benzo(a)anthracene	1000	1000	NS	NS	NS	< 399 U	NS	NS	< 738 U	NS	NS	< 954 U	NS	NS
Benzo(a)pyrene	1000	1000	NS	NS	NS	< 399 U	NS	NS	**756**	NS	NS	< 954 U	NS	NS
Benzo(b)fluoranthene	1000	1000	NS	NS	NS	< 399 U	NS	NS	< 738 U	NS	NS	< 954 U	NS	NS
Benzo(k)fluoranthene	1000	8400	NS	NS	NS	< 399 U	NS	NS	**828**	NS	NS	< 954 U	NS	NS
Chrysene	*1000*	*84000*	NS	NS	NS	< 399 U	NS	NS	< 738 U	NS	NS	< 954 U	NS	NS
Fluoranthene	5600	1000000	NS	NS	NS	< 399 UJ	NS	NS	**1030**	NS	NS	< 954 U	NS	NS
Phenanthrene	4000	1000000	NS	NS	NS	< 399 U	NS	NS	< 738 U	NS	NS	< 954 U	NS	NS
Pyrene	4000	1000000	NS	NS	NS	< 399 U	NS	NS	**1120**	NS	NS	< 954 U	NS	NS
Metals (mg/Kg)														
Arsenic	NE	10	**4.92**	NS	**3.42**	**6.52**	NS	< 1.52 U	**5.88**	**4.49**	**6.11**	NS	**3.09**	NS
Barium	NE	4700	NS	NS	**170 J**	**442 J**	NS	**48.7 J**	**148**	**315**	NS	NS	NS	NS
Beryllium	NE	2	NS	NS	**0.512**	**0.651**	NS	< 0.507 U	**0.707**	**0.976**	NS	NS	NS	NS
Cadmium	NE	34	< 0.565 U	NS	< 0.463 U	**0.94**	NS	< 0.507 U	**1.11**	**1.22**	**0.86**	NS	< 0.547 U	NS
Chromium	NE	NE	**38.3**	NS	**14.4 J**	**26.1 J**	NS	**11.0 J**	**31.4**	**56.5**	**26.2**	NS	**52.8**	NS
Copper	NE	2500	NS	NS	**96.3 J-**	**270 J-**	NS	< 26.4 UJ	**24.3**	**20.3**	NS	NS	NS	NS
Lead	NE	500	**47.8**	NS	**28.6**	**48.3**	NS	**3.02**	**53.9**	**28.9**	**55.7**	NS	**36.8**	NS
Mercury	NE	20	**0.117**	NS	**0.0736 J**	**0.179 J**	NS	**0.259 J**	**0.0692**	**0.0676**	**0.263**	NS	**0.0486**	NS
Nickel	NE	1400	NS	NS	**12.0 J**	**19.0 J**	NS	**12.4 J**	**13.6**	**18.6**	NS	NS	NS	NS
Vanadium	NE	470	NS	NS	**22.2**	**32.4**	NS	**14.3**	**33.9**	**42.7**	NS	NS	NS	NS
Zinc	NE	20000	NS	NS	< 88.0 UJ	**242 JEB**	NS	< 96.4 UJ	**98.8**	**91.2**	NS	NS	NS	NS
Metals-SPLP (mg/L)														
Arsenic	0.05	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	1	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	0.05	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	0.015	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	0.1	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	0.05	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PCBs (ug/Kg)														
Aroclor 1248	NE	NE	**80.5**	NS	< 22.0 U	< 24.0 U	< 22.5 U	< 21.5 U	< 21.9 U	**115**	**208**	< 23.4 U	< 23.1 U	NS
Aroclor 1254	NE	NE	< 23.3 U	NS	< 22.0 U	< 24.0 U	< 22.5 U	< 21.5 U	< 21.9 U	< 22.2 U	< 22.5 U	< 23.4 U	< 23.1 U	NS
Aroclor 1260	NE	NE	< 23.3 U	NS	< 22.0 U	< 24.0 U	< 22.5 U	< 21.5 U	< 21.9 U	< 22.2 U	< 22.5 U	< 23.4 U	< 23.1 U	NS
Aroclor 1268	NE	NE	< 23.3 U	NS	< 22.0 U	< 24.0 U	< 22.5 U	< 21.5 U	< 21.9 U	< 22.2 U	< 22.5 U	< 23.4 U	< 23.1 U	NS
Total PCB Aroclors	NE	1000	**80.5**	NS	< 22.0 U	< 24.0 U	< 22.5 U	< 21.5 U	< 21.9 U	**115**	**208**	< 23.4 U	< 23.1 U	NS
PCBs-SPLP (mg/L)														
Aroclor 1248	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total PCB Aroclors	0.0005	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pesticides (ug/Kg)														
4,4-DDE (p,p)	NE	NE	NS	**7.59**	NS	NS	NS	NS	NS	NS	NS	NS	**8.62**	< 5.54 U
4,4-DDT (p,p)	NE	1800	NS	< 9.31 U	NS	NS	NS	NS	NS	NS	NS	NS	**11.8**	< 8.87 U
alpha-Chlordane	NE	NE	NS	**6.51 J**	NS	NS	NS	NS	NS	NS	NS	NS	< 4.51 U	< 5.54 U
Chlordane	66	490	NS	**43**	NS	NS	NS	NS	NS	NS	NS	NS	< 18.1 U	< 22.2 U
gamma-Chlordane	NE	NE	NS	**6.24**	NS	NS	NS	NS	NS	NS	NS	NS	< 4.51 U	< 5.54 U
Total DDx	*3*	*1800*	NS	**7.59**	NS	NS	NS	NS	NS	NS	NS	NS	**20.42**	< 8.87

Notes:

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Bold = Detected above reporting limit.

Blue highlighted cells exceed Res DEC.

Orange highlighted cells exceed GA PMC.

Res DEC = Residential Direct Exposure Criteria.

I/C DEC = Industrial/Commercial Direct Exposure Criteria.

GA PMC = Pollution Mobility Criteria

ND = Not detected

NE = Criteria has not been established

NS = Not sampled for this constituent

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

(4) Codified criterion for lead Res DEC is 500 ppm, but

the recommended cleanup criterion is 400 ppm to be protective of human health.

Table A-1
Fields 6 and 7
Soil Analytical Data
Remedial Investigation Report

Greenwich High School
10 Hillside Road
Greenwich, CT

Location ID			AX31-SB278	AY20-SS164	AY31-SS276	AZ20-SB251	AZ20-SB251	AZ20-SB251	AZ20-SS138	AZ31-SS231	BA31-SS280	BB20-SS139	BB31-SS230	BB34-SB397
Depth Interval (ft bgs)			**1 - 2 ft**	**0 - 0.25 ft**	**0 - 0.25 ft**	**2.5 - 3.5 ft**	**7 - 8 ft**	**10 - 11 ft**	**0 - 0.25 ft**	**0 - 0.25 ft**	**0 - 0.25 ft**	**0 - 0.25 ft**	**0 - 0.25 ft**	**2 - 3 ft**
Sample ID	**GA PMC**	**Res DEC**	**AX31-SB278 (1-2)-123011-1**	**AY20 SS164 0-3**	**AY31-SS276 (0-3)**	**AZ20-SB251(2.5-3.5)-1**	**AZ20-SB251(7-8)-1**	**AZ20-SB251(10-11)-1**	**AZ20 SS138 0-3**	**AZ31-SS231 0-3**	**BA31-SS280 (0-3)**	**BB20 SS139 0-3**	**BB31-SS230 0-3**	**BB34-SB397 (2-3)-062712-1**
Sample Date			**12/30/2011**	**8/11/2011**	**8/22/2011**	**12/29/2011**	**12/29/2011**	**12/29/2011**	**8/11/2011**	**8/11/2011**	**8/22/2011**	**8/11/2011**	**8/11/2011**	**6/27/2012**
SDG			**SB41831**	**SB33302**	**SB33952**	**SB41766**	**SB41766**	**SB41766**	**SB33302**	**SB33374**	**SB33952**	**SB33302**	**SB33374**	**SB51902**
CTETPH (mg/Kg)														
Aliphatic Hydrocarbons (ETPH) C9-C36	500	500	< 13.8 U	**128**	NS	NS	< 14.6 U	< 31.7 U	NS	NS	NS	NS	**230**	NS
VOCs (ug/Kg)														
2-Butanone (MEK)	8000	500000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acetone	14000	500000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene	5600	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SVOCs (ug/Kg)														
Benzo(a)anthracene	1000	1000	< 342 U	NS	NS	NS	< 363 U	NS	NS	NS	NS	< 930 U	< 539 U	NS
Benzo(a)pyrene	1000	1000	< 342 U	NS	NS	NS	< 363 U	NS	NS	NS	NS	< 930 U	< 539 U	NS
Benzo(b)fluoranthene	1000	1000	< 342 U	NS	NS	NS	< 363 U	NS	NS	NS	NS	< 930 U	< 539 U	NS
Benzo(k)fluoranthene	1000	8400	< 342 U	NS	NS	NS	< 363 U	NS	NS	NS	NS	< 930 U	< 539 U	NS
Chrysene	*1000*	*84000*	< 342 UJ	NS	NS	NS	< 363 U	NS	NS	NS	NS	< 930 U	< 539 U	NS
Fluoranthene	5600	1000000	< 342 U	NS	NS	NS	< 363 U	NS	NS	NS	NS	< 930 U	< 539 U	NS
Phenanthrene	4000	1000000	< 342 U	NS	NS	NS	< 363 U	NS	NS	NS	NS	< 930 U	< 539 U	NS
Pyrene	4000	1000000	< 342 U	NS	NS	NS	< 363 U	NS	NS	NS	NS	< 930 U	< 539 U	NS
Metals (mg/Kg)														
Arsenic	NE	10	< 1.52 U	NS	**6.11**	**4.49**	**2.72**	**2.72**	**4.44**	**9.3**	**2.83**	NS	NS	**3.13 J+**
Barium	NE	4700	**803**	NS	NS	**115 J**	**53.5 J**	**112 J**	**140**	NS	NS	NS	NS	**160**
Beryllium	NE	2	**1.33**	NS	NS	**0.669**	< 0.551 U	< 0.543 U	NS	NS	NS	NS	NS	**0.842**
Cadmium	NE	34	< 0.506 U	NS	NS	< 0.586 U	< 0.551 U	< 0.543 U	**0.724**	< 0.505 U	NS	NS	NS	< 0.530 U
Chromium	NE	NE	**84.3**	NS	NS	**14.4 J**	**14.6 J**	**21.1 J**	**34.1**	**31.8**	NS	NS	NS	**28.4**
Copper	NE	2500	**15.7**	NS	NS	< 30.5 UJ	< 28.6 UJ	**39.7 J-**	NS	NS	NS	NS	NS	**8.93**
Lead	NE	500	**4.08**	NS	NS	**48.3**	**17.3**	**47.5**	**52.9**	**49.3**	NS	NS	NS	**11.3**
Mercury	NE	20	< 0.0314 U	NS	NS	< 0.0335 UJ	< 0.0330 UJ	**0.0426 J**	**0.0779**	**0.0754**	NS	NS	NS	< 0.0331 U
Nickel	NE	1400	**23.7**	NS	NS	**17.7 J**	**12.7 J**	**14.3 J**	NS	NS	NS	NS	NS	**13.1**
Vanadium	NE	470	**66.8**	NS	NS	**31.7**	**19.2**	**25.2**	NS	NS	NS	NS	NS	**28.7**
Zinc	NE	20000	**51.5**	NS	NS	< 111 UJ	< 105 UJ	< 103 UJ	NS	NS	NS	NS	NS	**27.5**
Metals-SPLP (mg/L)														
Arsenic	0.05	NE	NS	NS	NS	NS	0.0056 J	NS	NS	NS	NS	NS	NS	NS
Barium	1	NE	NS	NS	NS	NS	0.176 J	NS	NS	NS	NS	NS	NS	NS
Chromium	0.05	NE	NS	NS	NS	NS	0.0285 J	NS	NS	NS	NS	NS	NS	NS
Lead	0.015	NE	NS	NS	NS	NS	**0.0476 J**	NS	NS	NS	NS	NS	NS	NS
Nickel	0.1	NE	NS	NS	NS	NS	0.0299 J	NS	NS	NS	NS	NS	NS	NS
Vanadium	0.05	NE	NS	NS	NS	NS	0.0404 J	NS	NS	NS	NS	NS	NS	NS
PCBs (ug/Kg)														
Aroclor 1248	NE	NE	< 20.2 U	< 22.7 U	**564**	< 487 U	**161**	< 480 U	**91.2**	< 23.2 U	NS	**88**	**67.5**	< 23.5 U
Aroclor 1254	NE	NE	< 20.2 U	< 22.7 U	< 22.3 U	< 487 U	< 20.8 U	< 480 U	< 22.2 U	< 23.2 U	NS	< 23.8 U	< 20.8 U	< 23.5 U
Aroclor 1260	NE	NE	< 20.2 U	< 22.7 U	< 22.3 U	< 487 U	**22.3**	< 480 U	< 22.2 U	< 23.2 U	NS	< 23.8 U	< 20.8 U	< 23.5 U
Aroclor 1268	NE	NE	< 20.2 U	< 22.7 U	< 22.3 U	< 487 U	< 20.8 U	< 480 U	< 22.2 U	< 23.2 U	NS	< 23.8 U	< 20.8 U	< 23.5 U
Total PCB Aroclors	NE	1000	< 20.2 U	< 22.7 U	**564**	< 487 U	**183**	< 480 U	**91.2**	< 23.2 U	NS	**88**	**67.5**	< 23.5 U
PCBs-SPLP (mg/L)														
Aroclor 1248	NE	NE	NS	NS	NS	NS	< 0.000200 U	NS	NS	NS	NS	NS	NS	NS
Total PCB Aroclors	0.0005	NE	NS	NS	NS	NS	< 0.000200 U	NS	NS	NS	NS	NS	NS	NS
Pesticides (ug/Kg)														
4,4-DDE (p,p)	NE	NE	NS	**10.9**	NS	NS	NS	NS	**8.9**	**7.19**	NS	NS	NS	NS
4,4-DDT (p,p)	NE	1800	NS	< 9.87 U	NS	NS	NS	NS	< 9.05 U	**16.3**	NS	NS	NS	NS
alpha-Chlordane	NE	NE	NS	**6.91 J**	NS	NS	NS	NS	**7.24 J**	< 5.37 U	NS	NS	NS	NS
Chlordane	66	490	NS	**52.3**	NS	NS	NS	NS	**58.8**	< 21.5 U	NS	NS	NS	NS
gamma-Chlordane	NE	NE	NS	**11.5**	NS	NS	NS	NS	< 5.66 U	< 5.37 U	NS	NS	NS	NS
Total DDx	*3*	*1800*	NS	**10.9**	NS	NS	NS	NS	**8.9**	**23.49**	NS	NS	NS	NS

Notes:

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(4) Codified criterion for lead Res DEC is 500 ppm, but

the recommended cleanup criterion is 400 ppm to be protective of human health.

Table A-1
Fields 6 and 7
Soil Analytical Data
Remedial Investigation Report

Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	Res DEC	BC22-SS161 0 - 0.25 ft BC22 SS161 0-3 8/11/2011 SB33302	BC24-SS159 0 - 0.25 ft BC24 SS159 0-3 8/11/2011 SB33302	BC27-SS157 0 - 0.25 ft BC27 SS157 0-3 8/11/2011 SB33302	BC29-SS150 0 - 0.25 ft BC29 SS150 0-3 8/11/2011 SB33302	BD22-SB253 0 - 1 ft BD22-SB253 (0-1)-123011-1 12/30/2011 SB41831	BD22-SB253 1.5 - 2 ft BD22-SB253 (1.5-2)-123011 12/30/2011 SB41831	BD27-SB252 0 - 1 ft BD27-SB252 (0-1)-123011-1 12/30/2011 SB41831	BD27-SB252 1.5 - 2 ft BD27-SB252 (1.5-2)-123011 12/30/2011 SB41831	BD28-SS152 0 - 0.25 ft BD28 SS152 0-3 8/11/2011	BE28-SS151 0 - 0.25 ft BE28 SS151 0-3 8/11/2011 SB33302
CTETPH (mg/Kg)												
Aliphatic Hydrocarbons (ETPH) C9-C36	500	500	NS	**166**	NS	NS	NS	**80.6**	NS	**120**	NS	**138**
VOCs (ug/Kg)												
2-Butanone (MEK)	8000	500000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acetone	14000	500000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene	5600	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SVOCs (ug/Kg)												
Benzo(a)anthracene	1000	1000	< 985 U	NS	NS	NS	NS	< 385 U	NS	579	< 1970 U	NS
Benzo(a)pyrene	1000	1000	< 985 UJ	NS	NS	NS	NS	< 385 U	NS	535	< 1970 UJ	NS
Benzo(b)fluoranthene	1000	1000	< 985 UJ	NS	NS	NS	NS	< 385 U	NS	616	< 1970 UJ	NS
Benzo(k)fluoranthene	1000	8400	< 985 UJ	NS	NS	NS	NS	< 385 U	NS	490	< 1970 UJ	NS
Chrysene	*1000*	*84000*	< 985 U	NS	NS	NS	NS	< 385 UJ	NS	537 J	< 1970 U	NS
Fluoranthene	5600	1000000	< 985 U	NS	NS	NS	NS	< 385 U	NS	1310	< 1970 U	NS
Phenanthrene	4000	1000000	< 985 U	NS	NS	NS	NS	< 385 U	NS	986	< 1970 U	NS
Pyrene	4000	1000000	< 985 U	NS	NS	NS	NS	< 385 U	NS	984	< 1970 U	NS
Metals (mg/Kg)												
Arsenic	NE	10	NS	**4.6**	**3.57**	**5.78**	NS	**3.84**	NS	**4.87**	NS	NS
Barium	NE	4700	NS	NS	NS	NS	NS	**179**	NS	**166**	NS	NS
Beryllium	NE	2	NS	NS	NS	NS	NS	**0.838**	NS	**0.917**	NS	NS
Cadmium	NE	34	NS	**0.687**	**0.59**	**0.666**	NS	< 0.553 U	NS	< 0.479 U	NS	NS
Chromium	NE	NE	NS	**28.8**	**34.8**	**27.3**	NS	**40.5**	NS	**42.5**	NS	NS
Copper	NE	2500	NS	NS	NS	NS	NS	**18.1**	NS	**22.5**	NS	NS
Lead	NE	500	NS	**62.4**	**15.2**	**51.8**	NS	**20.5**	NS	**44.7**	NS	NS
Mercury	NE	20	NS	**0.102**	< 0.0350 U	**0.106**	NS	**0.0576 J+**	NS	**0.107 J+**	NS	NS
Nickel	NE	1400	NS	NS	NS	NS	NS	**16**	NS	**18.5**	NS	NS
Vanadium	NE	470	NS	NS	NS	NS	NS	**35.9**	NS	**38.7**	NS	NS
Zinc	NE	20000	NS	NS	NS	NS	NS	**49.5**	NS	**59.8**	NS	NS
Metals-SPLP (mg/L)												
Arsenic	0.05	NE	NS	NS	NS	NS	NS	NS	NS	< 0.0080 U	NS	NS
Barium	1	NE	NS	NS	NS	NS	NS	NS	NS	**0.0243 J+**	NS	NS
Chromium	0.05	NE	NS	NS	NS	NS	NS	NS	NS	< 0.0100 U	NS	NS
Lead	0.015	NE	NS	NS	NS	NS	NS	NS	NS	< 0.0150 U	NS	NS
Nickel	0.1	NE	NS	NS	NS	NS	NS	NS	NS	< 0.0100 U	NS	NS
Vanadium	0.05	NE	NS	NS	NS	NS	NS	NS	NS	< 0.0100 U	NS	NS
PCBs (ug/Kg)												
Aroclor 1248	NE	NE	**160**	< 22.1 U	< 22.4 U	**130**	NS	**157**	NS	**1410**	**206**	**125**
Aroclor 1254	NE	NE	< 23.4 U	< 22.1 U	< 22.4 U	< 23.5 U	NS	< 22.9 U	NS	< 20.8 U	< 23.9 U	< 20.9 U
Aroclor 1260	NE	NE	< 23.4 U	< 22.1 U	< 22.4 U	< 23.5 U	NS	< 22.9 U	NS	**30.2**	< 23.9 U	< 20.9 U
Aroclor 1268	NE	NE	< 23.4 U	< 22.1 U	< 22.4 U	< 23.5 U	NS	< 22.9 U	NS	< 20.8 U	< 23.9 U	< 20.9 U
Total PCB Aroclors	NE	1000	**160**	< 22.1 U	< 22.4 U	**130**	NS	**157**	NS	**1440**	**206**	**125**
PCBs-SPLP (mg/L)												
Aroclor 1248	NE	NE	NS	NS	NS	NS	NS	NS	NS	**0.00129**	NS	NS
Total PCB Aroclors	0.0005	NE	NS	NS	NS	NS	NS	NS	NS	**0.00129**	NS	NS
Pesticides (ug/Kg)												
4,4-DDE (p,p)	NE	NE	NS	NS	NS	NS	< 5.27 U	NS	< 5.70 U	NS	NS	NS
4,4-DDT (p,p)	NE	1800	NS	NS	NS	NS	< 8.44 U	NS	< 9.12 UJ	NS	NS	NS
alpha-Chlordane	NE	NE	NS	NS	NS	NS	< 5.27 U	NS	< 5.70 U	NS	NS	NS
Chlordane	66	490	NS	NS	NS	NS	< 21.1 U	NS	**31.6**	NS	NS	NS
gamma-Chlordane	NE	NE	NS	NS	NS	NS	< 5.27 U	NS	< 5.70 UJ	NS	NS	NS
Total DDx	*3*	*1800*	NS	NS	NS	NS	< 8.44	NS	< 9.12	NS	NS	NS

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Table A-2
Groundwater Analytical Results
MW-AV17

Greenwich High School
10 Hillside Road
Greenwich, CT

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-AV17 MW-AV17-SB250-1 1/12/2012 SB42430	MW-AV17 MW-AV17-022312-1 2/23/2012 SB44369	MW-AV17 MW-AV17 041912-1 4/19/2012 SB47641	MW-AV17 MW-AV17-072412-1 7/24/2012 SB53379	MW-AV17 MW-AV17-021413-1 2/14/2013 SB64640	MW-AV17 MW-AV17-051613-1 5/16/2013 SB69757	MW-AV17 MW-AV17-08212013- 8/21/2013 SB75423	MW-AV17 MW-AV17-11132013- 11/13/2013 SB80244	MW-AV17 MW-AV17-04182014- 4/18/2014 SB87951	MW-AV17 MW-AV17-092314-1 9/23/2014 14090840	MW-AV17 MW-AV17-121814-1 12/18/2014 14120427	MW-AV17 MW-AV17-071515-1 7/15/2015 15070383	MW-AV17 MW-AV17-011216 1/12/2016 16010209	MW-AV17 MW-AV17-041516 4/15/2016 16040347	MW-AV17 MW-AV17-082516 8/25/2016 16080629	MW-AV17 MW-AV17-122216-1 12/22/2016 16L1122
CT ETPH (mg/l)																		
Aliphatic Hydrocarbons (ETPH) C9-C36	0.25 (1)	NE	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	0.25	NE	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	NA	NA	NA	NA	NA	NA	NA
Unidentified	NE	NE	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	NA	NA	NA	NA	NA	NA	NA
VOCs (ug/l)																		
1,2,4-Trimethylbenzene	NE	NE	< 1.0 U	< 1.0 U	< 1.0 U	< 1.00 U	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	400	NE	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	NA	NA	NA	NA	NA	NA	NA
Acetone	700	NE	< 10.0 U	< 10.0 U	< 10.0 UJ	< 10.0 U	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	NA	NA	NA	NA	NA	NA	NA
Chloroform	6	14100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.00 U	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	NA	NA	NA	NA	NA	NA	NA
Chloromethane	NE	NE	< 2.0 U	< 2.0 U	< 2.0 U	< 2.00 U	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	70	NE	< 1.0 U	< 1.0 U	< 1.0 U	< 1.00 U	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	NA	NA	NA	NA	NA	NA	NA
m,p-Xylenes	530	NE	< 2.0 U	< 2.0 U	< 2.0 U	< 2.00 U	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	NA	NA	NA	NA	NA	NA	NA
Methyl Isobutyl Ketone	350	NE	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	NA	NA	NA	NA	NA	NA	NA
Methyl Tert Butyl Ether (MTBE)	70 (2)	NE	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.00 U	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	NA	NA	NA	NA	NA	NA	NA
Naphthalene	280	NE	< 1.0 U	< 1.0 U	< 1.0 U	< 1.00 U	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	5	88	< 1.0 U	< 1.0 U	< 1.0 U	< 1.00 U	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	NE	NE	< 2.0 U	< 2.0 U	< 2.0 UJ	< 2.00 U	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	NA	NA	NA	NA	NA	NA	NA
Toluene	1000	4000000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.00 U	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	NA	NA	NA	NA	NA	NA	NA
Total Low Molecular Weight PAHs	NE	NE	< 1.0	< 1.0	< 1.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	NA	NA	NA	NA	NA	NA	NA
Total PAHs	NE	NE	NA	NA	NA	NA	< 1.00	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	530	NE	< 2.0 U	< 2.0 U	< 2.0 U	< 2.00 U	< 2.00	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	2340	< 1.0 U	< 1.0 U	< 1.0 U	< 1.00 U	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/l)																		
Total PAHs	NE	NE	< 5.21 U	< 5.56 U	< 5.26 U	< 0.050 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PAHs (ug/l)																		
1-Methylnaphthalene	NE	NE	**0.091**	< 0.050 U	< 0.050 U	NA	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NE	NE	**0.077**	< 0.050 U	< 0.050 U	NA	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	NA	NA	NA	NA	NA	NA	NA
Total PAHs	NE	NE	**0.17**	< 0.050 U	< 0.050 U	NA	< 0.050	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/l)																		
Antimony	0.006	86	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.05	0.004	< 0.0040 U	< 0.0040 U	< 0.0040 U	**0.0048**	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	NA	NA	NA	NA	NA	NA	NA
Barium	1	NE	**0.181**	**0.175**	**0.150**	**0.179**	**0.184**	**0.121**	**0.161**	**0.217**	**0.138**	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.004	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.006	< 0.0025 U	< 0.0025 U	< 0.0025 U	< 0.0025 U	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	NA	NA	NA	NA	NA	NA	NA
Calcium	NE	NE	NA	NA	NA	**45.6**	**91.5**	**72.4**	**68.6**	**73.0**	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.05	NE	< 0.0050 U	< 0.0050 U	< 0.0050 U	< 0.0050 U	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.048	< 0.0050 U	< 0.0050 U	< 0.0050 U	< 0.0050 U	< 0.0050	< 0.0050	< 0.0050	< 0.0050	**0.0085**	NA	NA	NA	NA	NA	NA	NA
Iron	NE	NE	NA	NA	NA	**37.2**	**23.4**	**21.1**	**55.8**	**83.2**	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.013	< 0.0075 U	< 0.0075 U	< 0.0075 U	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	NA	NA	NA	NA	NA	NA	NA
Magnesium	NE	NE	NA	NA	NA	**8.21**	**12.3**	**9.80**	**10.3**	**11.4**	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NE	NE	NA	NA	NA	**0.642**	**0.377**	**0.257**	**0.590**	**0.826**	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0004	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.88	< 0.0050 U	< 0.0050 U	< 0.0050 U	< 0.0050 U	< 0.0050	< 0.0050	< 0.0050	< 0.0050	**0.0118**	NA	NA	NA	NA	NA	NA	NA
Potassium	NE	NE	NA	NA	NA	**10.0**	**10.9**	**8.56**	**10.7**	**9.96**	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.05	< 0.0150 U	< 0.0150 U	< 0.0150 U	< 0.0150 U	< 0.0300	< 0.0150	< 0.0150	< 0.0150	< 0.0150	NA	NA	NA	NA	NA	NA	NA
Silver	0.036	0.012	< 0.0050 U	< 0.0050 U	< 0.0050 U	< 0.0050 U	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	NA	NA	NA	NA	NA	NA	NA
Sodium	NE	NE	NA	NA	NA	**115**	**54.8**	**35.2**	**44.0**	**32.4**	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.005	0.063	< 0.0050 U	< 0.0050 U	< 0.0050 U	< 0.0050 U	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	NA	NA	NA	NA	NA	NA	NA
Vanadium	0.05	NE	< 0.0050 U	< 0.0050 U	< 0.0050 U	< 0.0050 U	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	NA	NA	NA	NA	NA	NA	NA
Zinc	5	0.123	< 0.0068 U	< 0.0050 U	< 0.0050 U	**1.05**	**0.0148**	**0.0211**	**0.332**	**0.405**	**12.3**	NA	NA	NA	NA	NA	NA	NA
Pesticides (ug/l)																		
Total Pesticides	NE	NE	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides (ug/l)																		
Total Herbicides	NE	NE	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB Homologs (ug/l)																		
Tetrachlorobiphenyl	NE	NE	NA	< 0.00989 U	NA	< 0.01 U	< 0.01	< 0.0111	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.0102	< 0.0111	< 0.0101	< 0.0020
Total PCB Homologues	0.5	0.5	NA	< 0.0290 U	NA	< 0.025 U	< 0.025	< 0.0278	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.0255	< 0.0278	< 0.0253	< 0.0050

Notes:
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NS = Not Sampled for Specific Analyte
ug/L = microgram per liter
NS = Not sampled for this constituent..
mg/L = miligram per Liter
(1) 0.1 mg/l is the current recommended screening criteria and requires CTDEEP approval to implement. 0.25 mg/l is the proposed GWPC.
(2) 100 ug/l is the promulgated GWPC. 70 ug/l is the Drinking Water Action Level set by the Connecticut Department of Public Health.

Table A-2
Groundwater Analytical Results
MW-AV17

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-AV17 MW-AV17-20170411-1 4/11/2017 17D0505	MW-AV17 MW-AV17-081817-1 8/18/2017 17H1062	MW-AV17 MW-AV17-111517-1 11/15/2017 17K0912	MW-AV17 MW-AV17-030918-1 3/9/2018 18C0412	MW-AV17 MW-AV17-062718-1 6/27/2018 18F1384	MW-AV17 MW-AV17-092718-1 9/27/2018 18I1258	MW-AV17 MW-AV17-121118-1 12/11/2018 18L0484	MW-AV17 MW-AV17-041819-1 4/18/2019 19D0971	MW-AV17 MW-AV17-071819-1 7/18/2019 19G0975	MW-AV17 MW-AV17-102419-1 10/24/2019 19J1561
CT ETPH (mg/l)												
Aliphatic Hydrocarbons (ETPH) C9-C36	0.25 [1]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	0.25	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Unidentified	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOCs (ug/l)												
1,2,4-Trimethylbenzene	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	400	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	700	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	6	14100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	70	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylenes	530	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Isobutyl Ketone	350	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Tert Butyl Ether (MTBE)	70 [2]	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	280	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	5	88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1000	4000000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Low Molecular Weight PAHs	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	530	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	2340	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/l)												
Total PAHs	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PAHs (ug/l)												
1-Methylnaphthalene	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Acenaphthene	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/l)												
Antimony	0.006	86	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.05	0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.05	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.048	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	0.036	0.012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.005	0.063	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	0.05	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	0.123	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides (ug/l)												
Total Pesticides	NE	NE	NA	NA	NA	NA	NA	ND	ND	ND	ND	NA
Herbicides (ug/l)												
Total Herbicides	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB Homologs (ug/l)												
Tetrachlorobiphenyl	NE	NE	< 0.0020	< 0.0021 UJ	< 0.0020	< 0.0019	< 0.0020	**0.0063**	< 0.0020	< 0.0020	< 0.0020	**0.0030**
Total PCB Homologues	0.5	0.5	< 0.0050	< 0.0052 UJ	< 0.0050	< 0.0049	< 0.0050	**0.0063**	< 0.0050	< 0.0049	< 0.0051	**0.0030**

Notes:
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ug/L = microgram per liter
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mg/L = miligram per Liter
(1) 0.1 mg/l is the current recommended screening criteria and requires CTDEEP approval to implement. 0.25 mg/l is the proposed GWPC.
(2) 100 ug/l is the promulgated GWPC. 70 ug/l is the Drinking Water Action Level set by the Connecticut Department of Public Health.

Table A-3
Sitewide Pesticide
Soil Analytical Data

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**28-SB319** **0 - 0.5 ft** **28-SB319(0-0.5)-041012-1** **4/10/2012** **SB46977**	**A27-SB320** **0 - 0.5 ft** **A27-SB320(0-0.5)-041012-1** **4/10/2012** **SB46977**	**AA8-SB274** **0 - 1 ft** **AA8-SB274(0-1)-122911-1** **12/29/2011** **SB41766**	**AB16-SS81** **0 - 0.25 ft** **AB16 SS81 0-3** **8/11/2011** **SB33302**	**AB19-SB71** **2 - 3 ft** **AB19-SB71 2-3** **8/10/2011** **SB33209**	**AB19-SB71** **5 - 6 ft** **AB19-SB71 5-6** **8/10/2011** **SB33209**	**AB19-SB71** **8 - 8.5 ft** **AB19-SB71 8-8.5** **8/10/2011** **SB33209**	**AB8-SS183** **0 - 0.25 ft** **AB8 SS183 0-3** **8/11/2011** **SB33302**	**AC15-SB260** **0 - 1 ft** **AC15-SB260 (0-1)-122711-1** **12/27/2011** **SB41712**
Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 9.65 U	< 11.5 UJ	< 9.85 U	< 9.40 U	**9.19**	**19.0**	**36.2**	< 9.16 U	< 9.01 U
4,4-DDE (p,p)	ug/kg	NE	NE	**34.9**	**16.9 J**	< 6.16 U	**7.36**	**7.94**	< 5.58 U	**46.6**	**29.5**	< 5.63 U
4,4-DDT (p,p)	ug/kg	NE	1800	**16.5**	**20.7 J**	< 9.85 U	< 9.40 U	< 8.95 U	< 8.93 U	< 15.6 U	< 9.16 U	< 9.01 U
Alachlor	ug/kg	230	7700	< 6.03 U	< 7.20 U	< 6.16 U	< 5.87 U	< 5.60 U	< 5.58 U	< 9.77 U	< 5.72 U	< 5.63 U
alpha-Chlordane	ug/kg	NE	NE	**55.7**	< 7.20 U	< 6.16 U	**8.17 J**	**12.5 J**	**27.7 J**	< 9.77 U	**64.2 J**	< 5.63 U
Chlordane	ug/kg	NE	490	**275**	< 28.8 U	< 24.6 U	**69.9**	**126**	**4170**	< 39.1 U	**813**	< 22.5 U
Dieldrin	ug/kg	7	38	< 6.03 U	< 7.20 U	< 6.16 U	< 5.87 U	< 5.60 U	< 5.58 U	< 9.77 U	< 5.72 U	< 5.63 U
Endosulfan sulfate	ug/kg	NE	NE	< 9.65 U	< 11.5 U	< 9.85 U	< 9.40 U	< 8.95 U	< 8.93 U	< 15.6 U	< 9.16 U	< 9.01 U
Endrin	ug/kg	NE	20000	< 9.65 U	< 11.5 U	< 9.85 U	< 9.40 U	< 8.95 U	< 8.93 U	< 15.6 U	< 9.16 U	< 9.01 UJ
gamma-Chlordane	ug/kg	NE	NE	**43.3**	< 7.20 U	< 6.16 U	**7.29**	**24.5 J**	**27.0 J**	< 9.77 U	**69.5**	< 5.63 U
Heptachlor	ug/kg	13	140	< 6.03 U	< 7.20 U	< 6.16 U	< 5.87 U	< 5.60 U	< 5.58 U	< 9.77 U	< 5.72 U	< 5.63 U
Heptachlor epoxide	ug/kg	20	67	< 6.03 U	< 7.20 U	< 6.16 U	< 5.87 U	< 5.60 U	< 5.58 U	< 9.77 U	< 5.72 U	< 5.63 U
Methoxychlor	ug/kg	800	340000	< 9.65 U	< 11.5 U	< 9.85 U	< 9.40 U	< 8.95 U	< 8.93 U	< 15.6 U	< 9.16 U	< 9.01 U
Total DDx	ug/kg	3	1800	**51.4**	**37.6**	< 9.85	**7.36**	**17.13**	**19**	**82.8**	**29.5**	< 9.01
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS

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2013-GA/GAA PMC
Blue highlighted cells exceed 2013-RES DEC.
RES DEC = Residential Direct Exposure Criteria
GA PMC = Pollutant Mobility Criteria for GA-classified groundwater areas
NE = Criteria has not been established
NA = Not sampled for this constituent
ug/kg = microgram per kilogram
mg/l = miligram per liter

Table A-3
Sitewide Pesticide
Soil Analytical Data

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**AC15-SB260** **9.5 - 11.5 ft** **AC15-SB260 (9.5-11.5)-122711-1** **12/27/2011** **SB41712**	**AC15-SS83** **0 - 0.25 ft** **AC15 SS83 0-3** **8/11/2011** **SB33302**	**AD16-SS86** **0 - 0.5 ft** **AD16-SS86-080511** **8/5/2011** **SB32945**	**AD8-SS182** **0 - 0.25 ft** **AD8 SS182 0-3** **8/11/2011** **SB33302**	**AE16-SB291** **0 - 2 ft** **AE16-SB291(0-2)-021412-1** **2/14/2012** **SB43969**	**AE16-SS89** **0 - 0.25 ft** **AE16 SS89 0-3** **8/11/2011** **SB33302**	**AE17-SB79** **0 - 1 ft** **AE17-SB79 0-1** **8/10/2011** **SB33218**	**AE17-SB79** **10 - 11 ft** **AE17-SB79 10-11** **8/10/2011** **SB33218**	**AE17-SB79** **6 - 7 ft** **AE17-SB79 6-7** **8/10/2011** **SB33218**
Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 9.84 U	< 8.38 U	< 7.11 U	< 9.40 U	**15.6**	< 9.75 U	< 8.94 U	< 8.73 U	< 8.90 U
4,4-DDE (p,p)	ug/kg	NE	NE	< 6.15 U	< 5.24 U	**19.8**	**7.60**	**14.8**	**17.9**	< 5.59 U	< 5.45 U	< 5.56 U
4,4-DDT (p,p)	ug/kg	NE	1800	< 9.84 U	< 8.38 U	< 7.11 U	< 9.40 U	< 9.82 U	< 9.75 U	< 8.94 U	< 8.73 U	< 8.90 U
Alachlor	ug/kg	230	7700	< 6.15 U	< 5.24 U	< 4.44 U	< 5.87 U	< 6.14 U	< 6.09 U	< 5.59 U	< 5.45 U	< 5.56 U
alpha-Chlordane	ug/kg	NE	NE	< 6.15 U	< 5.24 U	**15.3 J**	**59.9 J**	**28.7 J**	**7.15 J**	**69.8**	< 5.45 U	**24.2**
Chlordane	ug/kg	NE	490	< 24.6 U	< 20.9 U	**139**	**322**	**186**	**45.1**	**473**	< 21.8 U	**134**
Dieldrin	ug/kg	7	38	< 6.15 U	< 5.24 U	< 4.44 U	< 5.87 U	< 6.14 U	< 6.09 U	< 5.59 U	< 5.45 U	< 5.56 U
Endosulfan sulfate	ug/kg	NE	NE	< 9.84 U	< 8.38 U	< 7.11 U	< 9.40 U	< 9.82 U	< 9.75 U	< 8.94 U	< 8.73 U	< 8.90 U
Endrin	ug/kg	NE	20000	< 9.84 UJ	< 8.38 U	< 7.11 U	< 9.40 U	< 9.82 U	< 9.75 U	< 8.94 U	< 8.73 U	< 8.90 U
gamma-Chlordane	ug/kg	NE	NE	< 6.15 U	< 5.24 U	**14.5**	**46.6**	**23.2**	< 6.09 U	**61.4 J**	< 5.45 U	**24.9 J**
Heptachlor	ug/kg	13	140	< 6.15 U	< 5.24 U	< 4.44 U	< 5.87 U	< 6.14 U	< 6.09 U	< 5.59 U	< 5.45 U	< 5.56 U
Heptachlor epoxide	ug/kg	20	67	< 6.15 U	< 5.24 U	< 4.44 U	< 5.87 U	< 6.14 U	< 6.09 U	< 5.59 U	< 5.45 U	< 5.56 U
Methoxychlor	ug/kg	800	340000	< 9.84 U	< 8.38 U	< 7.11 U	< 9.40 U	< 9.82 U	< 9.75 U	< 8.94 U	< 8.73 U	< 8.90 U
Total DDx	ug/kg	3	1800	< 9.84	< 8.38	**19.8**	**7.6**	**30.4**	**17.9**	< 8.94	< 8.73	< 8.90
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	< 0.000021 U	NS	< 0.000020 U
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	< 0.000021 U	NS	< 0.000020 U
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	**0.000305**	NS	**0.000190**
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	< 0.000021 U	NS	< 0.000020 U
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	< 0.000021 U	NS	< 0.000020 U
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	< 0.000021	NS	< 0.000020

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Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**AE8-SB275** **0 - 1 ft** **AE8-SB275(0-1)-122911-1** **12/29/2011** **SB41766**	**AF15-SB259** **0 - 1 ft** **AF15-SB259 (0-1)-122711-1** **12/27/2011** **SB41712**	**AF24-SB217** **0 - 1 ft** **AF-24-SB217(0-1)** **10/9/2011** **SB37166**	**AG18-SB302** **1 - 2 ft** **AG18-SB302(1-2)-021612-1** **2/16/2012** **SB44035**	**AH16-SB258** **0 - 1 ft** **AH16-SB258 (0-1)-122711-1** **12/27/2011** **SB41712**	**AH19-SB201** **0 - 0.5 ft** **AH19-SB201(0-0.5)-1** **10/2/2011** **SB36674**	**AH19-SB201** **0 - 0.5 ft** **AH19-SB201(0-0.5)-2** **10/2/2011** **SB36674**	**AH20-SB300** **1.5 - 2 ft** **AH20-SB300(1.5-2)-021612-1** **2/16/2012** **SB44035**	**AH29-SB231** **0.4 - 0.6 ft** **AH29-SB231(0.4-0.6)-1** **12/27/2011** **SB41683**
Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 11.2 U	< 9.21 U	< 8.75 U	**12.8**	< 10.3 U	< 8.51 U	< 8.17 U	< 8.76 U	< 8.09 U
4,4-DDE (p,p)	ug/kg	NE	NE	< 6.97 U	< 5.75 U	< 5.47 U	**11.9**	< 6.43 U	< 5.32 U	< 5.11 U	< 5.48 U	< 5.06 U
4,4-DDT (p,p)	ug/kg	NE	1800	< 11.2 U	< 9.21 U	< 8.75 U	< 9.08 U	< 10.3 U	< 8.51 U	< 8.17 U	< 8.76 U	< 8.09 U
Alachlor	ug/kg	230	7700	< 6.97 U	< 5.75 U	< 5.47 U	< 5.68 U	< 6.43 U	< 5.32 U	< 5.11 U	< 5.48 U	< 5.06 U
alpha-Chlordane	ug/kg	NE	NE	**9.13 J**	< 5.75 U	< 5.47 U	**45.9 J**	< 6.43 U	< 5.32 U	< 5.11 U	< 5.48 U	< 5.06 UJ
Chlordane	ug/kg	NE	490	**77.4**	< 23.0 U	< 21.9 U	**243**	< 25.7 U	< 21.3 U	< 20.4 U	< 21.9 U	< 20.2 U
Dieldrin	ug/kg	7	38	< 6.97 U	< 5.75 U	< 5.47 U	< 5.68 U	< 6.43 U	< 5.32 U	< 5.11 U	< 5.48 U	< 5.06 U
Endosulfan sulfate	ug/kg	NE	NE	< 11.2 U	< 9.21 U	< 8.75 U	< 9.08 U	< 10.3 U	< 8.51 U	< 8.17 U	< 8.76 U	< 8.09 U
Endrin	ug/kg	NE	20000	< 11.2 U	< 9.21 UJ	< 8.75 U	< 9.08 U	< 10.3 UJ	< 8.51 U	< 8.17 U	< 8.76 U	< 8.09 UJ
gamma-Chlordane	ug/kg	NE	NE	**7.17**	< 5.75 U	< 5.47 U	**47.1 J**	< 6.43 U	< 5.32 U	< 5.11 U	< 5.48 U	< 5.06 UJ
Heptachlor	ug/kg	13	140	< 6.97 U	< 5.75 U	< 5.47 U	< 5.68 U	< 6.43 U	< 5.32 U	< 5.11 U	< 5.48 U	< 5.06 U
Heptachlor epoxide	ug/kg	20	67	< 6.97 U	< 5.75 U	< 5.47 U	< 5.68 U	< 6.43 U	< 5.32 U	< 5.11 U	< 5.48 U	< 5.06 U
Methoxychlor	ug/kg	800	340000	< 11.2 U	< 9.21 U	< 8.75 U	< 9.08 U	< 10.3 U	< 8.51 U	< 8.17 U	< 8.76 U	< 8.09 U
Total DDx	ug/kg	3	1800	< 6.97	< 9.21	< 8.75	**24.7**	< 6.43	< 8.51	< 8.17	< 8.76	< 8.09
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS

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ug/kg = microgram per kilogram
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Table A-3
Sitewide Pesticide
Soil Analytical Data

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**AH9-SS177** **0 - 0.25 ft** **AH9 SS177 0-3** **8/11/2011** **SB33302**	**AI22-SB205** **0 - 1 ft** **AI22-SB205(0-1)-1** **10/2/2011** **SB36674**	**AJ15-SB257** **0 - 1 ft** **AJ15-SB257 (0-1)-122711-1** **12/27/2011** **SB41712**	**AJ16-SB103** **1 - 2 ft** **AJ16 SB103 1-2** **8/10/2011** **SB33308**	**AK10-SB276** **0 - 1 ft** **AK10-SB276(0-1)-122911-1** **12/29/2011** **SB41766**	**AK16-SS101** **0 - 0.5 ft** **AK16-SS101-080511** **8/5/2011** **SB32945**	**AL10-SS176** **0 - 0.25 ft** **AL10 SS176 0-3** **8/11/2011** **SB33302**	**AL16-SS103** **0 - 0.5 ft** **AL16-SS103-080311** **8/3/2011** **SB32768**	**AL16-SS103** **0 - 0.5 ft** **AL16-SS103-080511** **8/5/2011** **SB32945**
Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 10.3 U	< 8.46 U	< 9.19 U	< 9.18 U	< 10.1 U	< 7.22 U	< 9.38 U	< 9.53 U	**NS R**
4,4-DDE (p,p)	ug/kg	NE	NE	**17.8 J**	< 5.29 U	< 5.74 U	< 5.73 U	< 6.29 U	**8.34 J**	< 5.86 U	**30.2**	**NS R**
4,4-DDT (p,p)	ug/kg	NE	1800	< 10.3 U	< 8.46 U	< 9.19 U	< 9.18 U	< 10.1 U	**NS R**	< 9.38 U	< 9.53 U	**NS R**
Alachlor	ug/kg	230	7700	< 6.44 U	< 5.29 U	< 5.74 U	< 5.73 U	< 6.29 U	< 4.51 U	< 5.86 U	< 5.96 U	**NS R**
alpha-Chlordane	ug/kg	NE	NE	**52.5 J**	< 5.29 U	< 5.74 U	< 5.73 U	**26.6 J**	**14.2 J**	**23.5 J**	**63.1 J**	**28.8 J**
Chlordane	ug/kg	NE	490	**482**	< 21.2 U	< 23.0 U	< 22.9 U	**169**	**116**	**220 J**	**2270**	**157 J-**
Dieldrin	ug/kg	7	38	< 6.44 U	< 5.29 U	< 5.74 U	< 5.73 U	< 6.29 U	< 4.51 U	< 5.86 U	< 5.96 U	**NS R**
Endosulfan sulfate	ug/kg	NE	NE	< 10.3 U	< 8.46 U	< 9.19 U	< 9.18 U	< 10.1 U	< 7.22 U	< 9.38 U	< 9.53 U	**NS R**
Endrin	ug/kg	NE	20000	< 10.3 U	< 8.46 U	< 9.19 UJ	< 9.18 U	< 10.1 U	< 7.22 U	< 9.38 U	**10.9**	**NS R**
gamma-Chlordane	ug/kg	NE	NE	**47.4 J-**	< 5.29 U	< 5.74 U	< 5.73 U	**23.0**	**16.8**	**20.3 J**	**81.3**	**26.9 J-**
Heptachlor	ug/kg	13	140	< 6.44 U	< 5.29 U	< 5.74 U	< 5.73 U	< 6.29 U	< 4.51 U	< 5.86 U	< 5.96 U	**NS R**
Heptachlor epoxide	ug/kg	20	67	< 6.44 U	< 5.29 U	< 5.74 U	< 5.73 U	< 6.29 U	< 4.51 U	< 5.86 U	< 5.96 U	**NS R**
Methoxychlor	ug/kg	800	340000	< 10.3 U	< 8.46 U	< 9.19 U	< 9.18 U	< 10.1 U	< 7.22 U	< 9.38 U	< 9.53 U	**NS R**
Total DDx	ug/kg	3	1800	**17.8**	< 8.46	< 9.19	< 9.18	< 6.29	**8.34**	< 9.38	**30.2**	< 9.53
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Table A-3
Sitewide Pesticide
Soil Analytical Data

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**AL17-SB271** **0 - 1 ft** **AL17-SB271(0-1)-122811-1** **12/28/2011** **SB41766**	**AL17-SS104** **0 - 0.25 ft** **AL17SS104 0-3** **8/31/2011** **SB34491**	**AL18-SS105** **0 - 0.25 ft** **AL18SS105 0-3** **8/31/2011** **SB34491**	**AL20-SS267** **0 - 0.25 ft** **AL20-SS267 (0-3)** **8/22/2011** **SB33952**	**AM16-SB270** **0 - 1 ft** **AM16-SB270(0-1)-122811-1** **12/28/2011** **SB41766**	**AM16-SS108** **0 - 0.5 ft** **AM16-SS108--080311** **8/3/2011** **SB32768**	**AM16-SS108** **0 - 0.25 ft** **AM16 SS108 0-3** **8/11/2011** **SB33302**	**AM17-SS109** **0 - 0.25 ft** **AM17SS109 0-3** **8/31/2011** **SB34491**	**AM18-SS292** **0 - 0.25 ft** **AM18SS292 0-3-082311** **8/23/2011** **SB34022**
Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 10.5 U	< 10.6	< 9.80	< 8.97 U	< 9.31 U	< 9.36 U	**NS R**	< 9.21	< 9.68 U
4,4-DDE (p,p)	ug/kg	NE	NE	< 6.56 U	< 6.60	**8.28**	< 5.61 U	< 5.82 U	**39.1**	**NS R**	**10.9**	< 6.05 U
4,4-DDT (p,p)	ug/kg	NE	1800	< 10.5 U	< 10.6	< 9.80	< 8.97 U	< 9.31 U	< 9.36 U	**NS R**	< 9.21	< 9.68 U
Alachlor	ug/kg	230	7700	< 6.56 U	< 6.60	< 6.12	< 5.61 U	< 5.82 U	< 5.85 U	**NS R**	< 5.76	< 6.05 U
alpha-Chlordane	ug/kg	NE	NE	< 6.56 U	**17.1**	**7.52**	< 5.61 U	< 5.82 U	**37.8 J**	**10.9 J**	**26.0**	**8.38 J**
Chlordane	ug/kg	NE	490	< 26.2 U	**119**	**50.8**	< 22.4 U	< 23.3 U	**739**	**106 J-**	**147**	**34.4**
Dieldrin	ug/kg	7	38	< 6.56 U	< 6.60	< 6.12	< 5.61 U	< 5.82 U	< 5.85 U	**NS R**	< 5.76	< 6.05 U
Endosulfan sulfate	ug/kg	NE	NE	< 10.5 U	< 10.6	< 9.80	< 8.97 U	< 9.31 U	< 9.36 U	**NS R**	< 9.21	< 9.68 U
Endrin	ug/kg	NE	20000	< 10.5 U	< 10.6	< 9.80	< 8.97 U	< 9.31 U	< 9.36 U	**NS R**	< 9.21	< 9.68 U
gamma-Chlordane	ug/kg	NE	NE	< 6.56 U	**16.5**	**8.75**	< 5.61 U	< 5.82 U	**44.5**	**15.8 J-**	**26.7**	**8.70**
Heptachlor	ug/kg	13	140	< 6.56 U	< 6.60	< 6.12	< 5.61 U	< 5.82 U	< 5.85 U	**NS R**	< 5.76	< 6.05 U
Heptachlor epoxide	ug/kg	20	67	< 6.56 U	< 6.60	< 6.12	< 5.61 U	< 5.82 U	< 5.85 U	**NS R**	< 5.76	< 6.05 U
Methoxychlor	ug/kg	800	340000	< 10.5 U	< 10.6	< 9.80	< 8.97 U	< 9.31 U	< 9.36 U	**NS R**	< 9.21	< 9.68 U
Total DDx	ug/kg	3	1800	< 6.56	< 6.60	**8.28**	< 8.97	< 9.31	**39.1**	< 9.40	**10.9**	< 9.68
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Soil Analytical Data

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Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 8.38 U	< 9.00 U	< 9.59	< 9.77	< 8.52 U	< 11.4 U	< 8.47 U	< 10.1 U	< 10.0 U
4,4-DDE (p,p)	ug/kg	NE	NE	< 5.24 U	**6.83**	< 5.99	< 6.10	**8.99**	< 7.13 U	< 5.29 U	< 6.29 U	< 6.25 U
4,4-DDT (p,p)	ug/kg	NE	1800	< 8.38 U	< 9.00 U	< 9.59	< 9.77	< 8.52 U	< 11.4 U	< 8.47 U	< 10.1 U	< 10.0 U
Alachlor	ug/kg	230	7700	< 5.24 U	< 5.62 U	< 5.99	< 6.10	< 5.32 U	< 7.13 U	< 5.29 U	< 6.29 U	< 6.25 U
alpha-Chlordane	ug/kg	NE	NE	< 5.24 U	**57.5 J**	**7.51**	**11.7**	**32.8 J**	< 7.13 U	**5.83 J**	**6.53 J**	**12.5 J**
Chlordane	ug/kg	NE	490	< 21.0 U	**211**	**59.0**	**87.5**	**153**	< 28.5 U	**21.4**	**44.1**	**93.3**
Dieldrin	ug/kg	7	38	< 5.24 U	< 5.62 U	< 5.99	< 6.10	< 5.32 U	< 7.13 U	< 5.29 U	< 6.29 U	< 6.25 U
Endosulfan sulfate	ug/kg	NE	NE	< 8.38 U	< 9.00 U	< 9.59	< 9.77	< 8.52 U	< 11.4 U	< 8.47 U	< 10.1 U	< 10.0 U
Endrin	ug/kg	NE	20000	< 8.38 U	< 9.00 U	< 9.59	< 9.77	< 8.52 U	< 11.4 U	< 8.47 U	< 10.1 U	< 10.0 U
gamma-Chlordane	ug/kg	NE	NE	< 5.24 U	**33.9 J**	**8.60**	**11.0**	**22.5 J**	< 7.13 U	**7.56**	**6.38**	**12.8 J**
Heptachlor	ug/kg	13	140	< 5.24 U	< 5.62 U	< 5.99	< 6.10	< 5.32 U	< 7.13 U	< 5.29 U	< 6.29 U	< 6.25 U
Heptachlor epoxide	ug/kg	20	67	< 5.24 U	< 5.62 U	< 5.99	< 6.10	< 5.32 U	< 7.13 U	< 5.29 U	< 6.29 U	< 6.25 U
Methoxychlor	ug/kg	800	340000	< 8.38 U	< 9.00 U	< 9.59	< 9.77	< 8.52 U	< 11.4 U	< 8.47 U	< 10.1 U	< 10.0 U
Total DDx	ug/kg	3	1800	< 8.38	**6.83**	< 9.59	< 9.77	**8.99**	< 7.13	< 8.47	< 6.29	< 6.25
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 9.87 U	< 9.16 U	< 9.53 U	< 8.99 U	< 9.95 U	< 8.91 U	< 8.57 U	< 5.95 U	< 9.75 U
4,4-DDE (p,p)	ug/kg	NE	NE	< 6.17 U	< 5.72 U	< 5.95 U	< 5.62 U	**6.63**	< 5.57 U	< 5.36 U	< 3.72 U	< 6.09 U
4,4-DDT (p,p)	ug/kg	NE	1800	< 9.87 U	< 9.16 U	< 9.53 U	< 8.99 U	< 9.95 U	< 8.91 U	< 8.57 U	< 5.95 U	< 9.75 U
Alachlor	ug/kg	230	7700	< 6.17 U	< 5.72 U	< 5.95 U	< 5.62 U	< 6.22 U	< 5.57 U	< 5.36 U	< 3.72 U	< 6.09 U
alpha-Chlordane	ug/kg	NE	NE	**6.31 J**	**6.85**	< 5.95 U	< 5.62 U	**6.63 J**	< 5.57 U	< 5.36 U	< 3.72 U	< 6.09 U
Chlordane	ug/kg	NE	490	**45.8**	**31.8**	< 23.8 U	< 22.5 U	**48.8**	< 22.3 U	< 21.4 U	< 14.9 U	< 24.4 U
Dieldrin	ug/kg	7	38	< 6.17 U	< 5.72 U	< 5.95 U	< 5.62 U	< 6.22 U	< 5.57 U	< 5.36 U	< 3.72 U	< 6.09 U
Endosulfan sulfate	ug/kg	NE	NE	< 9.87 U	< 9.16 U	< 9.53 U	< 8.99 U	< 9.95 U	< 8.91 U	< 8.57 U	< 5.95 U	< 9.75 U
Endrin	ug/kg	NE	20000	< 9.87 U	< 9.16 U	< 9.53 U	< 8.99 UJ	< 9.95 U	< 8.91 UJ	< 8.57 U	< 5.95 U	< 9.75 UJ
gamma-Chlordane	ug/kg	NE	NE	< 6.17 U	< 5.72 U	< 5.95 U	< 5.62 U	**7.29**	< 5.57 U	< 5.36 U	< 3.72 U	< 6.09 U
Heptachlor	ug/kg	13	140	< 6.17 U	< 5.72 U	< 5.95 U	< 5.62 U	< 6.22 U	< 5.57 U	< 5.36 U	< 3.72 U	< 6.09 U
Heptachlor epoxide	ug/kg	20	67	< 6.17 U	< 5.72 U	< 5.95 U	< 5.62 U	< 6.22 U	< 5.57 U	< 5.36 U	< 3.72 U	< 6.09 U
Methoxychlor	ug/kg	800	340000	< 9.87 U	< 9.16 U	< 9.53 U	< 8.99 U	< 9.95 U	< 8.91 U	< 8.57 U	< 5.95 U	< 9.75 U
Total DDx	ug/kg	3	1800	< 9.87	< 9.16	< 9.53	< 8.99	**6.63**	< 8.91	< 8.57	< 5.95	< 9.75
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Table A-3
Sitewide Pesticide
Soil Analytical Data

Greenwich High School
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Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**AQ21-SB268** **0 - 1 ft** **AQ21-SB268 (0-1)-122811-2** **12/28/2011** **SB41712**	**AQ22-SS283** **0 - 0.25 ft** **AQ22SS283 0-3-082311** **8/23/2011** **SB34022**	**AR18-SS291** **0 - 0.25 ft** **AR18SS291 0-3-082311** **8/23/2011** **SB34022**	**AR20-SS288** **0 - 0.25 ft** **AR20SS288 0-3-082311** **8/23/2011** **SB34022**	**AR21-SB144** **1 - 2 ft** **AR21 SB144 1-2** **8/10/2011** **SB33308**	**AR26-SS272** **0 - 0.25 ft** **AR26-SS272 (0-3)** **8/22/2011** **SB33952**	**AS17-SS297** **0 - 0.25 ft** **AS17SS297 0-3** **8/23/2011** **SB34022**	**AT17-SS133** **0 - 0.25 ft** **AT17 SS133 0-3** **8/11/2011** **SB33302**	**AT27-SB612** **0 - 0.5 ft** **AT27-SB612 (0-0.5)-1** **4/12/2018** **18D0644**
Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 8.74 U	< 10.6 U	< 8.65 U	< 9.72 U	< 10.2 U	< 9.07 U	< 9.07 U	< 9.90 U	NS
4,4-DDE (p,p)	ug/kg	NE	NE	< 5.46 U	< 6.60 U	< 5.41 U	< 6.07 U	< 6.37 U	**6.23**	< 5.67 U	**7.51**	NS
4,4-DDT (p,p)	ug/kg	NE	1800	< 8.74 U	< 10.6 U	< 8.65 U	< 9.72 U	< 10.2 U	< 9.07 U	< 9.07 U	< 9.90 U	NS
Alachlor	ug/kg	230	7700	< 5.46 U	< 6.60 U	< 5.41 U	< 6.07 U	< 6.37 U	< 5.67 U	< 5.67 U	< 6.19 U	NS
alpha-Chlordane	ug/kg	NE	NE	< 5.46 U	< 6.60 U	< 5.41 U	< 6.07 U	**14.0 J**	**9.97 J**	**10.7 J**	< 6.19 U	NS
Chlordane	ug/kg	NE	490	< 21.9 U	< 26.4 U	< 21.6 U	< 24.3 U	**60.5**	**38.7**	**66.6**	< 24.7 U	NS
Dieldrin	ug/kg	7	38	< 5.46 U	< 6.60 U	< 5.41 U	< 6.07 U	< 6.37 U	< 5.67 U	< 5.67 U	< 6.19 U	NS
Endosulfan sulfate	ug/kg	NE	NE	< 8.74 U	< 10.6 U	< 8.65 U	< 9.72 U	< 10.2 U	< 9.07 U	< 9.07 U	< 9.90 U	NS
Endrin	ug/kg	NE	20000	< 8.74 UJ	< 10.6 U	< 8.65 U	< 9.72 U	< 10.2 U	< 9.07 U	< 9.07 U	< 9.90 U	NS
gamma-Chlordane	ug/kg	NE	NE	< 5.46 U	< 6.60 U	< 5.41 U	< 6.07 U	**11.5 J**	**9.04**	**9.92 J**	< 6.19 U	NS
Heptachlor	ug/kg	13	140	< 5.46 U	< 6.60 U	< 5.41 U	< 6.07 U	< 6.37 U	< 5.67 U	< 5.67 U	< 6.19 U	NS
Heptachlor epoxide	ug/kg	20	67	< 5.46 U	< 6.60 U	< 5.41 U	< 6.07 U	< 6.37 U	< 5.67 U	< 5.67 U	< 6.19 U	NS
Methoxychlor	ug/kg	800	340000	< 8.74 U	< 10.6 U	< 8.65 U	< 9.72 U	< 10.2 U	< 9.07 U	< 9.07 U	< 9.90 U	NS
Total DDx	ug/kg	3	1800	< 8.74	< 6.60	< 8.65	< 9.72	< 6.37	**6.23**	< 9.07	**7.51**	NS
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	< 0.000040
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	< 0.000040
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	< 0.00020
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	< 0.000080
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	< 0.000050
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	< 0.000040

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Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 9.31 U	< 9.69 U	< 8.87 U	NS	< 8.60 U	< 7.22 U	< 8.87 U	< 9.87 U	< 9.05 U
4,4-DDE (p,p)	ug/kg	NE	NE	**7.59**	**14.9**	< 5.54 U	NS	< 5.38 U	**8.62**	< 5.54 U	**10.9**	**8.90**
4,4-DDT (p,p)	ug/kg	NE	1800	< 9.31 U	**22.8**	**9.41 J**	NS	**15.4**	**11.8**	< 8.87 U	< 9.87 U	< 9.05 U
Alachlor	ug/kg	230	7700	< 5.82 U	< 6.06 U	< 5.54 U	NS	< 5.38 U	< 4.51 U	< 5.54 U	< 6.17 U	< 5.66 U
alpha-Chlordane	ug/kg	NE	NE	**6.51 J**	**16.3 J**	**12.2 J**	NS	**21.1**	< 4.51 U	< 5.54 U	**6.91 J**	**7.24 J**
Chlordane	ug/kg	NE	490	**43.0**	**66.6**	**75.6**	NS	**81.1**	< 18.1 U	< 22.2 U	**52.3**	**58.8**
Dieldrin	ug/kg	7	38	< 5.82 U	< 6.06 U	< 5.54 U	NS	< 5.38 U	< 4.51 U	< 5.54 U	< 6.17 U	< 5.66 U
Endosulfan sulfate	ug/kg	NE	NE	< 9.31 U	< 9.69 U	< 8.87 U	NS	< 8.60 U	< 7.22 U	< 8.87 U	< 9.87 U	< 9.05 U
Endrin	ug/kg	NE	20000	< 9.31 U	< 9.69 U	< 8.87 U	NS	< 8.60 U	< 7.22 U	< 8.87 U	< 9.87 U	< 9.05 U
gamma-Chlordane	ug/kg	NE	NE	**6.24**	**8.71 J**	**9.99**	NS	**14.1**	< 4.51 U	< 5.54 U	**11.5**	< 5.66 U
Heptachlor	ug/kg	13	140	< 5.82 U	< 6.06 U	< 5.54 U	NS	< 5.38 U	< 4.51 U	< 5.54 U	< 6.17 U	< 5.66 U
Heptachlor epoxide	ug/kg	20	67	< 5.82 U	< 6.06 U	< 5.54 U	NS	< 5.38 U	< 4.51 U	< 5.54 U	< 6.17 U	< 5.66 U
Methoxychlor	ug/kg	800	340000	< 9.31 U	< 9.69 U	< 8.87 U	NS	< 8.60 U	< 7.22 U	< 8.87 U	< 9.87 U	< 9.05 U
Total DDx	ug/kg	3	1800	**7.59**	**37.7**	**9.41**	NS	**15.4**	**20.42**	< 8.87	**10.9**	**8.9**
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	< 0.000040	NS	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	< 0.000040	NS	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS	< 0.00020	NS	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	< 0.000080	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	< 0.000050	NS	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS	< 0.000040	NS	NS	NS	NS	NS

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Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 8.59 U	< 9.71 U	< 9.89 U	< 9.34 U	< 8.44 U	< 9.12 U	< 9.20 U	< 7.88 U	< 8.37 U
4,4-DDE (p,p)	ug/kg	NE	NE	**7.19**	**9.46**	**11.6**	< 5.84 U	< 5.27 U	< 5.70 U	**7.22**	< 4.92 U	< 5.23 U
4,4-DDT (p,p)	ug/kg	NE	1800	**16.3**	< 9.71 U	**11.2**	< 9.34 U	< 8.44 U	< 9.12 UJ	**13.9**	< 7.88 U	< 8.37 U
Alachlor	ug/kg	230	7700	< 5.37 U	< 6.07 U	< 6.18 U	< 5.84 U	< 5.27 U	< 5.70 U	< 5.75 U	< 4.92 U	< 5.23 U
alpha-Chlordane	ug/kg	NE	NE	< 5.37 U	**12.6 J**	**16.5 J**	**6.25 J**	< 5.27 U	< 5.70 U	< 5.75 U	< 4.92 U	< 5.23 U
Chlordane	ug/kg	NE	490	< 21.5 U	**77.2**	**94.8**	**42.7**	< 21.1 U	**31.6**	**38.9**	< 19.7 U	< 20.9 U
Dieldrin	ug/kg	7	38	< 5.37 U	< 6.07 U	< 6.18 U	< 5.84 U	< 5.27 U	< 5.70 U	< 5.75 U	< 4.92 U	< 5.23 U
Endosulfan sulfate	ug/kg	NE	NE	< 8.59 U	< 9.71 U	< 9.89 U	< 9.34 U	< 8.44 U	< 9.12 U	< 9.20 U	< 7.88 U	< 8.37 U
Endrin	ug/kg	NE	20000	< 8.59 U	< 9.71 U	< 9.89 U	< 9.34 U	< 8.44 U	< 9.12 U	< 9.20 U	< 7.88 U	< 8.37 U
gamma-Chlordane	ug/kg	NE	NE	< 5.37 U	**13.8**	**14.7**	**7.92**	< 5.27 U	< 5.70 UJ	< 5.75 U	< 4.92 U	< 5.23 U
Heptachlor	ug/kg	13	140	< 5.37 U	< 6.07 U	< 6.18 U	< 5.84 U	< 5.27 U	< 5.70 U	< 5.75 U	< 4.92 U	< 5.23 U
Heptachlor epoxide	ug/kg	20	67	< 5.37 U	< 6.07 U	< 6.18 U	< 5.84 U	< 5.27 U	< 5.70 U	< 5.75 U	< 4.92 U	< 5.23 U
Methoxychlor	ug/kg	800	340000	< 8.59 U	< 9.71 U	< 9.89 U	< 9.34 U	< 8.44 U	< 9.12 U	< 9.20 U	< 7.88 U	< 8.37 U
Total DDx	ug/kg	3	1800	**23.49**	**9.46**	**22.8**	< 9.34	< 8.44	< 9.12	**21.12**	< 7.88	< 8.37
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 67	< 10.4 U	< 8.10 U	< 9.30 U	< 6.4	< 5.6	< 9.80 U	< 8.46 U	< 6.0
4,4-DDE (p,p)	ug/kg	NE	NE	**28**	**18.2 J**	< 5.06 U	< 5.81 U	**74**	NS	< 6.13 U	**5.41**	**150**
4,4-DDT (p,p)	ug/kg	NE	1800	**140**	**NS R**	< 8.10 U	< 9.30 U	**86**	**26**	< 9.80 U	< 8.46 U	**190**
Alachlor	ug/kg	230	7700	< 330	< 6.51 U	< 5.06 U	< 5.81 U	< 32	< 28	< 6.13 U	< 5.29 U	< 30
alpha-Chlordane	ug/kg	NE	NE	NS	< 6.51 U	< 5.06 U	< 5.81 U	NS	NS	< 6.13 U	**51.3 J**	NS
Chlordane	ug/kg	NE	490	< 330	**34.1**	< 20.2 U	< 23.2 U	**4000**	< 28	< 24.5 U	**194**	**7800**
Dieldrin	ug/kg	7	38	< 67	**6.98**	< 5.06 U	< 5.81 U	< 6.4	< 5.6	< 6.13 U	< 5.29 U	< 6.0
Endosulfan sulfate	ug/kg	NE	NE	**29**	< 10.4 U	< 8.10 U	< 9.30 U	< 13	**2.8**	< 9.80 U	< 8.46 U	< 12
Endrin	ug/kg	NE	20000	< 130	< 10.4 U	< 8.10 U	< 9.30 U	< 13	< 11	< 9.80 U	< 8.46 U	< 12
gamma-Chlordane	ug/kg	NE	NE	NS	< 6.51 U	< 5.06 U	< 5.81 U	NS	NS	< 6.13 U	**39.1 J**	NS
Heptachlor	ug/kg	13	140	< 84	< 6.51 U	< 5.06 U	< 5.81 U	**13**	< 7.0	< 6.13 U	< 5.29 U	**16**
Heptachlor epoxide	ug/kg	20	67	< 84	< 6.51 U	< 5.06 U	< 5.81 U	**210**	< 7.0	< 6.13 U	< 5.29 U	**560**
Methoxychlor	ug/kg	800	340000	< 840	< 10.4 U	< 8.10 U	< 9.30 U	< 81	< 70	< 9.80 U	< 8.46 U	< 75
Total DDx	ug/kg	3	1800	**168**	**18.2**	< 8.10	< 9.30	**160**	**28.8**	< 9.80	**5.41**	**340**
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	**0.00015**	NS	NS	NS	< 0.000040	< 0.000040	NS	NS	< 0.000040
4,4-DDT (p,p)	mg/l	NE	NE	**0.00099**	NS	NS	NS	< 0.000040	< 0.000040	NS	NS	**0.000058**
Chlordane	mg/l	NE	NE	< 0.0020	NS	NS	NS	**0.0017**	< 0.00020	NS	NS	**0.0031**
Endosulfan sulfate	mg/l	NE	NE	**0.00016**	NS	NS	NS	< 0.000080	< 0.000080	NS	NS	< 0.000080
Heptachlor epoxide	mg/l	NE	NE	< 0.000050	NS	NS	NS	**0.00016**	< 0.000050	NS	NS	**0.00043**
Total DDx	mg/l	NE	NE	**0.00114**	NS	NS	NS	< 0.000040	< 0.000040	NS	NS	**0.000058**

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Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 4.7	< 7.79 U	NS	NS	NS	NS	NS	NS	NS
4,4-DDE (p,p)	ug/kg	NE	NE	< 4.7	**6.09 J**	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	ug/kg	NE	1800	< 4.7	**NS R**	NS	NS	NS	NS	NS	NS	NS
Alachlor	ug/kg	230	7700	< 23	< 4.87 U	NS	NS	NS	NS	NS	NS	NS
alpha-Chlordane	ug/kg	NE	NE	NS	**10.2 J**	NS	NS	NS	NS	NS	NS	NS
Chlordane	ug/kg	NE	490	< 23	**89.6**	< 30.9 UJ	**143**	**494**	**135**	**965**	**10600**	**11600**
Dieldrin	ug/kg	7	38	< 4.7	< 4.87 U	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	ug/kg	NE	NE	< 9.3	< 7.79 U	NS	NS	NS	NS	NS	NS	NS
Endrin	ug/kg	NE	20000	< 9.3	< 7.79 U	NS	NS	NS	NS	NS	NS	NS
gamma-Chlordane	ug/kg	NE	NE	NS	**10.8 J**	NS	NS	NS	NS	NS	NS	NS
Heptachlor	ug/kg	13	140	< 5.8	< 4.87 U	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	ug/kg	20	67	< 5.8	< 4.87 U	NS	NS	NS	NS	NS	NS	NS
Methoxychlor	ug/kg	800	340000	< 58	< 7.79 U	NS	NS	NS	NS	NS	NS	NS
Total DDx	ug/kg	3	1800	< 4.7	**6.09**	NS	NS	NS	NS	NS	NS	NS
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS

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NE = Criteria has not been established
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ug/kg = microgram per kilogram
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Table A-3
Sitewide Pesticide
Soil Analytical Data

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**Field-2 SW-20** **0 - 0.5 ft** **FIELD-2 SW-20** **10/24/2011** **SB38012**	**Field-2 SW-21** **0 - 0.5 ft** **FIELD-2 SW-21** **10/24/2011** **SB38012**	**Field-2 SW-22** **0 - 0.5 ft** **FIELD-2 SW-22** **10/24/2011** **SB38012**	**Field-2 SW-4B** **0 - 0.5 ft** **DUPLICATE-5-102411** **10/24/2011** **SB38012**	**Field-2 SW-4B** **0 - 0.5 ft** **FIELD-2 SW-4B** **10/24/2011** **SB38012**	**G24-SB244** **3 - 3.5 ft** **G24-SB244(3.0-3.5)-1** **12/28/2011** **SB41766**	**G27-SB612** **0 - 1 ft** **G27-SB612 (0-1)** **7/3/2018** **18G0089**	**G28-SB611** **0 - 1 ft** **G28-SB611 (0-1)** **7/3/2018** **18G0089**	**G29-SB606** **0 - 1 ft** **G29-SB606 (0-1)** **7/3/2018** **18G0089**
Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	NS	NS	NS	NS	NS	< 10.1 U	< 9.5	< 26	< 4.8
4,4-DDE (p,p)	ug/kg	NE	NE	NS	NS	NS	NS	NS	< 6.30 U	**30**	**55**	**28**
4,4-DDT (p,p)	ug/kg	NE	1800	NS	NS	NS	NS	NS	< 10.1 U	**22**	**37**	**27**
Alachlor	ug/kg	230	7700	NS	NS	NS	NS	NS	< 6.30 U	< 47	< 130	< 24
alpha-Chlordane	ug/kg	NE	NE	NS	NS	NS	NS	NS	< 6.30 U	NS	NS	NS
Chlordane	ug/kg	NE	490	**66.2**	< 24.7 U	< 28.0 U	< 29.4 UJ	**63.3 J**	< 25.2 U	**960**	**2500**	**100**
Dieldrin	ug/kg	7	38	NS	NS	NS	NS	NS	< 6.30 U	< 9.5	< 26	< 4.8
Endosulfan sulfate	ug/kg	NE	NE	NS	NS	NS	NS	NS	< 10.1 U	< 19	< 52	< 9.7
Endrin	ug/kg	NE	20000	NS	NS	NS	NS	NS	< 10.1 U	< 19	< 52	< 9.7
gamma-Chlordane	ug/kg	NE	NE	NS	NS	NS	NS	NS	< 6.30 U	NS	NS	NS
Heptachlor	ug/kg	13	140	NS	NS	NS	NS	NS	< 6.30 U	< 12	< 32	< 6.1
Heptachlor epoxide	ug/kg	20	67	NS	NS	NS	NS	NS	< 6.30 U	**86**	**210**	< 6.1
Methoxychlor	ug/kg	800	340000	NS	NS	NS	NS	NS	< 10.1 U	< 120	< 320	< 61
Total DDx	ug/kg	3	1800	NS	NS	NS	NS	NS	< 6.30	**52**	**92**	**55**
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	< 0.000040	NS	< 0.000040
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	< 0.000040	NS	< 0.000040
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	**0.00078**	NS	< 0.00020
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	< 0.000080	NS	< 0.000080
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	**0.00025**	NS	< 0.000050
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	< 0.000040	NS	< 0.000040

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Sitewide Pesticide
Soil Analytical Data

Greenwich High School
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Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**G29-SB610** **0 - 1 ft** **G29-SB610 (0-1)** **7/3/2018** **18G0089**	**G29-SB626** **1 - 2 ft** **629-SB626 (1-2)** **11/29/2018** **18K1266**	**G30-SB625** **0 - 1 ft** **630-SB625 (0-1)** **11/29/2018** **18K1266**	**H26-SB613** **0 - 1 ft** **H26-SB613 (0-1)** **7/3/2018** **18G0089**	**H27-SB603** **1 - 2 ft** **H27-SB603 (1-2)-1** **4/13/2018** **18D0644**	**H27-SB604** **1 - 1 ft** **H27-SB604 (1-2)** **7/3/2018** **18G0089**	**H28-SB605** **0 - 1 ft** **H28-SB605 (0-1)** **7/3/2018** **18G0089**	**H29-SB609** **0 - 1 ft** **H29-SB609 (0-1)** **7/3/2018** **18G0089**	**I26-SB247** **0.5 - 2.5 ft** **I26-SB247(0.5-2.5)-1** **12/29/2011** **SB41766**
Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 100	< 5.4	< 4.8	< 27	**5.3**	< 4.4	< 4.4	< 8.7	< 9.74 U
4,4-DDE (p,p)	ug/kg	NE	NE	**100**	**19**	< 4.8	**29**	**11**	< 4.4	< 4.4	**9.1**	< 6.09 U
4,4-DDT (p,p)	ug/kg	NE	1800	< 100	**13**	< 4.8	**35**	**5**	< 4.4	< 4.4	**9.9**	< 9.74 U
Alachlor	ug/kg	230	7700	< 500	< 27	< 24	< 130	< 24	< 22	< 22	< 44	< 6.09 U
alpha-Chlordane	ug/kg	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	**38.5 J**
Chlordane	ug/kg	NE	490	**7400**	**110**	**36**	**1800**	**26**	< 22	**96**	**680**	**430**
Dieldrin	ug/kg	7	38	< 100	< 5.4	< 4.8	< 27	< 4.8	< 4.4	< 4.4	< 8.7	< 6.09 U
Endosulfan sulfate	ug/kg	NE	NE	< 200	< 11	< 9.6	< 53	< 9.6	< 8.7	< 8.8	< 17	< 9.74 U
Endrin	ug/kg	NE	20000	< 200	< 11	< 9.6	< 53	< 9.6	< 8.7	< 8.8	< 17	< 9.74 U
gamma-Chlordane	ug/kg	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	**43.6**
Heptachlor	ug/kg	13	140	< 120	< 6.7	< 6.0	< 33	< 6	< 5.5	< 5.5	< 11	< 6.09 U
Heptachlor epoxide	ug/kg	20	67	**640**	**10**	< 6.0	**140**	< 6	< 5.5	< 5.5	**20**	< 6.09 U
Methoxychlor	ug/kg	800	340000	< 1200	< 67	< 60	< 330	< 60	< 55	< 55	< 110	< 9.74 U
Total DDx	ug/kg	3	1800	**100**	**32**	< 4.8	**64**	**21.3**	< 4.4	< 4.4	**19**	< 9.74
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	< 0.00020	< 0.000040	NS	< 0.000040	< 0.000040	NS	< 0.000040	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	< 0.00020	< 0.000040	NS	< 0.000040	< 0.000040	NS	< 0.000040	NS	NS
Chlordane	mg/l	NE	NE	**0.0057**	< 0.00020	NS	**0.00054**	< 0.00020	NS	< 0.00020	NS	NS
Endosulfan sulfate	mg/l	NE	NE	< 0.00040	< 0.000080	NS	< 0.000080	< 0.000080	NS	< 0.000080	NS	NS
Heptachlor epoxide	mg/l	NE	NE	**0.0013**	< 0.000050	NS	**0.00019**	< 0.000050	NS	< 0.000050	NS	NS
Total DDx	mg/l	NE	NE	< 0.00020	< 0.000040	NS	< 0.000040	< 0.000040	NS	< 0.000040	NS	NS

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Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**I26-SB607** **0 - 1 ft** **I26-SB607 (0-1)** **7/3/2018** **18G0089**	**I27-SB608** **0 - 1 ft** **I27-SB608 (0-1)** **7/3/2018** **18G0089**	**L14-SS17** **0 - 0.5 ft** **L14-SS17-080511** **8/5/2011** **SB32945**	**M22-SB246** **1 - 2.5 ft** **M22-SB246(1-2.5)-1** **12/28/2011** **SB41766**	**N4-SS20** **0 - 0.5 ft** **N4-SS20-080511** **8/5/2011** **SB32945**	**NSP-04** **0 - 0.5 ft** **NSP-4-082411** **8/24/2011** **SB34103**	**NSP-05** **0 - 0.5 ft** **NSP-5082411** **8/24/2011** **SB34103**	**P 1A** **0 - 0.5 ft** **P 1A-04152014-1** **4/15/2014** **SB87659**	**P-1 Base-1** **0 - 0.5 ft** **P-1 BASE-1 07242014-1** **7/24/2014** **SB93361**
Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 24	< 4.6	< 7.94 U	< 11.1 U	< 7.36 U	< 8.71	< 8.41	< 9.51	**88.2**
4,4-DDE (p,p)	ug/kg	NE	NE	< 24	< 4.6	< 4.96 U	< 6.93 U	< 4.60 U	**7.21**	< 5.26	< 5.94	**26.6**
4,4-DDT (p,p)	ug/kg	NE	1800	< 24	**11**	< 7.94 U	< 11.1 U	< 7.36 U	< 8.71	< 8.41	< 9.51	**28.1**
Alachlor	ug/kg	230	7700	< 120	< 23	< 4.96 U	< 6.93 U	< 4.60 U	< 5.44	< 5.26	< 5.94	< 5.95
alpha-Chlordane	ug/kg	NE	NE	NS	NS	< 4.96 U	< 6.93 U	< 4.60 U	< 5.44	< 5.26	**641**	**478**
Chlordane	ug/kg	NE	490	**1700**	**290**	**26.1**	< 27.7 U	< 18.4 U	< 21.8	< 21.0	**1680**	**2080**
Dieldrin	ug/kg	7	38	< 24	< 4.6	< 4.96 U	< 6.93 U	< 4.60 U	< 5.44	< 5.26	< 5.94	< 5.95
Endosulfan sulfate	ug/kg	NE	NE	< 48	< 9.2	< 7.94 U	< 11.1 U	< 7.36 U	< 8.71	< 8.41	< 9.51	< 9.52
Endrin	ug/kg	NE	20000	< 48	< 9.2	< 7.94 U	< 11.1 U	< 7.36 U	< 8.71	< 8.41	< 9.51	< 9.52
gamma-Chlordane	ug/kg	NE	NE	NS	NS	**5.45**	< 6.93 U	< 4.60 U	< 5.44	< 5.26	**341**	**371**
Heptachlor	ug/kg	13	140	< 30	< 5.8	< 4.96 U	< 6.93 U	< 4.60 U	< 5.44	< 5.26	< 5.94	< 5.95
Heptachlor epoxide	ug/kg	20	67	**73**	**21**	< 4.96 U	< 6.93 U	< 4.60 U	< 5.44	< 5.26	< 5.94	< 5.95
Methoxychlor	ug/kg	800	340000	< 300	< 58	< 7.94 U	< 11.1 U	< 7.36 U	< 8.71	< 8.41	< 9.51	< 9.52
Total DDx	ug/kg	3	1800	< 24	**11**	< 7.94	< 6.93	< 7.36	**7.21**	< 8.41	ND	**142.9**
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	< 0.000040	< 0.000040	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	< 0.000040	< 0.000040	NS	NS	NS	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	**0.0010**	**0.00034**	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	< 0.000080	< 0.000080	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	**0.00014**	< 0.000050	NS	NS	NS	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	< 0.000040	< 0.000040	NS	NS	NS	NS	NS	NS	NS

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Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	**34.3**	< 8.90	< 8.49	< 9.50	< 9.38	< 8.44 U	< 8.36 U	NS	**157**
4,4-DDE (p,p)	ug/kg	NE	NE	**13.8**	< 5.56	< 5.31	< 5.94	< 5.87	< 5.27 U	< 5.23 U	NS	**17.2**
4,4-DDT (p,p)	ug/kg	NE	1800	**14.5**	< 8.90	< 8.49	< 9.50	< 9.38	< 8.44 U	< 8.36 U	< 10.4	**16.4**
Alachlor	ug/kg	230	7700	< 5.64	< 5.56	< 5.31	< 5.94	< 5.87	< 5.27 U	< 5.23 U	< 6.51	< 6.68
alpha-Chlordane	ug/kg	NE	NE	**217**	**30.8**	**14.7**	**29.7**	< 5.87	< 5.27 U	< 5.23 U	**21.6**	**973**
Chlordane	ug/kg	NE	490	**857**	**153**	**61.6**	**84.9**	< 23.5	< 21.1 U	< 20.9 U	**72.3**	**2080**
Dieldrin	ug/kg	7	38	< 5.64	< 5.56	< 5.31	< 5.94	< 5.87	< 5.27 U	< 5.23 U	< 6.51	< 6.68
Endosulfan sulfate	ug/kg	NE	NE	< 9.02	< 8.90	< 8.49	< 9.50	< 9.38	< 8.44 U	< 8.36 U	< 10.4	< 10.7
Endrin	ug/kg	NE	20000	< 9.02	< 8.90	< 8.49	< 9.50	< 9.38	< 8.44 U	< 8.36 U	< 10.4	< 10.7
gamma-Chlordane	ug/kg	NE	NE	**158**	**25.3**	**11.2**	**21.5**	< 5.87	< 5.27 U	< 5.23 U	NS	**496**
Heptachlor	ug/kg	13	140	< 5.64	< 5.56	< 5.31	< 5.94	< 5.87	< 5.27 U	< 5.23 U	< 6.51	< 6.68
Heptachlor epoxide	ug/kg	20	67	< 5.64	< 5.56	< 5.31	< 5.94	< 5.87	< 5.27 U	< 5.23 U	< 6.51	< 6.68
Methoxychlor	ug/kg	800	340000	< 9.02	< 8.90	< 8.49	< 9.50	< 9.38	< 8.44 U	< 8.36 U	< 10.4	< 10.7
Total DDx	ug/kg	3	1800	**62.6**	< 8.90	< 8.49	< 9.50	< 9.38	< 8.44	< 8.36	ND	**190.6**
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	< 0.000003
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	< 0.000004
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	**0.000857**
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	< 0.000003
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	< 0.000004

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Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	**33.2**	**31.2**	< 9.48	**44.1**	< 9.11	< 8.93	< 9.24	< 9.35	< 8.33
4,4-DDE (p,p)	ug/kg	NE	NE	**7.18**	**8.22**	NS	< 6.66	< 5.69	**6.21**	< 5.78	< 5.84	< 5.21
4,4-DDT (p,p)	ug/kg	NE	1800	< 10.5	**15.5**	< 9.48	**10.8**	< 9.11	< 8.93	< 9.24	< 9.35	< 8.33
Alachlor	ug/kg	230	7700	< 6.57	< 5.78	< 5.93	< 6.66	< 5.69	< 5.58	< 5.78	< 5.84	< 5.21
alpha-Chlordane	ug/kg	NE	NE	**182**	**295**	< 5.93	**183**	< 5.69	**10.4**	**11.8**	**11.9**	**8.97**
Chlordane	ug/kg	NE	490	**705**	**1440**	**27.9**	**710**	< 22.8	**61.9**	**64.7**	**71.9**	**48.9**
Dieldrin	ug/kg	7	38	< 6.57	< 5.78	< 5.93	< 6.66	< 5.69	< 5.58	< 5.78	< 5.84	< 5.21
Endosulfan sulfate	ug/kg	NE	NE	< 10.5	< 9.24	< 9.48	< 10.7	< 9.11	< 8.93	< 9.24	< 9.35	< 8.33
Endrin	ug/kg	NE	20000	< 10.5	< 9.24	< 9.48	< 10.7	< 9.11	< 8.93	< 9.24	< 9.35	< 8.33
gamma-Chlordane	ug/kg	NE	NE	**133**	**246**	**14.6**	**164**	< 5.69	**6.88**	**11.3**	**10.5**	**6.65**
Heptachlor	ug/kg	13	140	< 6.57	< 5.78	< 5.93	< 6.66	< 5.69	< 5.58	< 5.78	< 5.84	< 5.21
Heptachlor epoxide	ug/kg	20	67	< 6.57	< 5.78	< 5.93	< 6.66	< 5.69	< 5.58	< 5.78	< 5.84	< 5.21
Methoxychlor	ug/kg	800	340000	< 10.5	< 9.24	< 9.48	< 10.7	< 9.11	< 8.93	< 9.24	< 9.35	< 8.33
Total DDx	ug/kg	3	1800	**40.38**	**54.92**	ND	**54.9**	ND	**6.21**	ND	ND	ND
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Table A-3
Sitewide Pesticide
Soil Analytical Data

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**P-1R** **0 - 0.5 ft** **P-1R-06232014-1** **6/23/2014** **SB91699**	**P-1SW-1** **0 - 0.5 ft** **P-1SW-1 07242014-1** **7/24/2014** **SB93361**	**P-1SW-1** **0 - 0.5 ft** **P-1SW-1 07242014-2** **7/24/2014** **SB93361**	**P-1SW-2** **0 - 0.5 ft** **P-1SW-2 07242014-1** **7/24/2014** **SB93361**	**P9-SB290** **0 - 2 ft** **P9-SB290(0-2)-021412-1** **2/14/2012** **SB43969**	**P9-SS213** **0 - 0.25 ft** **P9-SS213 0-3** **8/12/2011** **SB33374**	**Q11-SS200** **0 - 0.25 ft** **Q11-SS200 0-3** **8/12/2011** **SB33374**	**Q14-SS224** **0 - 0.25 ft** **Q14-SS224 0-3** **8/12/2011** **SB33374**	**Q23-SB323** **0 - 0.5 ft** **Q23-SB323 (0-0.5) 041012-1** **4/10/2012** **SB47196**
Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	**25.4**	**12.8**	**10.7**	< 8.55	< 8.99 U	< 9.82 U	< 9.34 U	< 7.76 U	< 10.3 U
4,4-DDE (p,p)	ug/kg	NE	NE	**6.53**	**6.16**	< 5.78	< 5.34	< 5.62 U	< 6.14 U	< 5.83 U	< 4.85 U	< 6.41 U
4,4-DDT (p,p)	ug/kg	NE	1800	< 10.4	< 9.32	< 9.25	< 8.55	< 8.99 U	< 9.82 U	< 9.34 U	< 7.76 U	< 10.3 U
Alachlor	ug/kg	230	7700	< 6.51	< 5.82	< 5.78	< 5.34	< 5.62 U	< 6.14 U	< 5.83 U	< 4.85 U	< 6.41 U
alpha-Chlordane	ug/kg	NE	NE	**60.0**	**40.1**	**42.3**	**31.3**	< 5.62 U	< 6.14 U	**14.8 J**	NS	< 6.41 U
Chlordane	ug/kg	NE	490	**283**	**163**	**182**	**165**	< 22.5 U	< 24.5 U	< 23.3 U	< 19.4 U	< 25.7 U
Dieldrin	ug/kg	7	38	< 6.51	< 5.82	< 5.78	< 5.34	< 5.62 U	< 6.14 U	< 5.83 U	< 4.85 U	< 6.41 U
Endosulfan sulfate	ug/kg	NE	NE	< 10.4	< 9.32	< 9.25	< 8.55	< 8.99 U	< 9.82 U	< 9.34 U	< 7.76 U	< 10.3 U
Endrin	ug/kg	NE	20000	< 10.4	< 9.32	< 9.25	< 8.55	< 8.99 U	< 9.82 U	< 9.34 U	< 7.76 U	< 10.3 U
gamma-Chlordane	ug/kg	NE	NE	**39.4**	**31.6**	**33.6**	**32.0**	< 5.62 U	**6.65**	**11.1**	< 4.85 U	< 6.41 U
Heptachlor	ug/kg	13	140	< 6.51	< 5.82	< 5.78	< 5.34	< 5.62 U	< 6.14 U	< 5.83 U	< 4.85 U	< 6.41 U
Heptachlor epoxide	ug/kg	20	67	< 6.51	< 5.82	< 5.78	< 5.34	< 5.62 U	< 6.14 U	< 5.83 U	< 4.85 U	< 6.41 U
Methoxychlor	ug/kg	800	340000	< 10.4	< 9.32	< 9.25	< 8.55	< 8.99 U	< 9.82 U	< 9.34 U	< 7.76 U	< 10.3 U
Total DDx	ug/kg	3	1800	**31.93**	**18.96**	**10.7**	< 8.55	< 8.99	< 9.82	< 9.34	< 7.76	< 6.41
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 8.45 U	< 7.35 U	< 9.89 U	< 8.09 U	< 9.22 U	< 8.86 U	< 11.1 U	< 9.47 U	< 10.3 U
4,4-DDE (p,p)	ug/kg	NE	NE	< 5.28 U	< 4.59 U	< 6.18 U	< 5.05 U	< 5.76 U	< 5.54 U	< 6.94 U	< 5.92 U	< 6.44 U
4,4-DDT (p,p)	ug/kg	NE	1800	< 8.45 U	< 7.35 U	< 9.89 U	< 8.09 U	< 9.22 U	< 8.86 U	< 11.1 U	< 9.47 U	< 10.3 U
Alachlor	ug/kg	230	7700	< 5.28 U	< 4.59 U	< 6.18 U	< 5.05 U	< 5.76 U	< 5.54 U	< 6.94 U	< 5.92 U	< 6.44 U
alpha-Chlordane	ug/kg	NE	NE	**8.64 J**	**28.0 J**	**8.07 J**	< 5.05 U	< 5.76 U	< 5.54 U	< 6.94 U	**15.6 J**	**14.0 J**
Chlordane	ug/kg	NE	490	**73.3**	**134**	**48.3**	**29.5**	< 23.1 U	< 22.1 U	< 27.7 U	**49.9**	**105**
Dieldrin	ug/kg	7	38	< 5.28 U	< 4.59 U	< 6.18 U	< 5.05 U	< 5.76 U	< 5.54 U	< 6.94 U	< 5.92 U	< 6.44 U
Endosulfan sulfate	ug/kg	NE	NE	< 8.45 U	< 7.35 U	< 9.89 U	< 8.09 U	< 9.22 U	< 8.86 U	< 11.1 U	< 9.47 U	< 10.3 U
Endrin	ug/kg	NE	20000	< 8.45 U	< 7.35 U	< 9.89 U	< 8.09 U	< 9.22 U	< 8.86 U	< 11.1 U	< 9.47 U	< 10.3 U
gamma-Chlordane	ug/kg	NE	NE	**9.36**	**27.3 J**	**7.08**	**5.29**	< 5.76 U	< 5.54 U	< 6.94 U	**13.0**	**14.1**
Heptachlor	ug/kg	13	140	< 5.28 U	< 4.59 U	< 6.18 U	< 5.05 U	< 5.76 U	< 5.54 U	< 6.94 U	< 5.92 U	< 6.44 U
Heptachlor epoxide	ug/kg	20	67	< 5.28 U	< 4.59 U	< 6.18 U	< 5.05 U	< 5.76 U	< 5.54 U	< 6.94 U	< 5.92 U	< 6.44 U
Methoxychlor	ug/kg	800	340000	< 8.45 U	< 7.35 U	< 9.89 U	< 8.09 U	< 9.22 U	< 8.86 U	< 11.1 U	< 9.47 U	< 10.3 U
Total DDx	ug/kg	3	1800	< 8.45	< 7.35	< 9.89	< 8.09	< 9.22	< 8.86	< 6.94	< 9.47	< 6.44
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Greenwich High School
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Greenwich, Connecticut

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Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 8.24 UJ	< 9.28 U	< 8.91 U	< 8.34 U	NS	< 8.30 U	< 7.34 U	< 6.89 U	< 8.57 U
4,4-DDE (p,p)	ug/kg	NE	NE	**6.00 J-**	< 5.80 U	< 5.57 U	< 5.21 U	NS	**5.27**	< 4.59 U	< 4.31 U	< 5.36 U
4,4-DDT (p,p)	ug/kg	NE	1800	**10.9 J-**	< 9.28 U	< 8.91 U	< 8.34 U	NS	**10.4**	**7.35**	< 6.89 U	**22.5**
Alachlor	ug/kg	230	7700	< 5.15 UJ	< 5.80 U	< 5.57 U	< 5.21 U	NS	< 5.19 U	< 4.59 U	< 4.31 U	< 5.36 U
alpha-Chlordane	ug/kg	NE	NE	**12.0 J**	< 5.80 U	< 5.57 U	**9.55 J**	NS	< 5.19 U	< 4.59 U	< 4.31 U	< 5.36 U
Chlordane	ug/kg	NE	490	**62.0 J-**	< 23.2 U	< 22.3 U	**38.0**	NS	< 20.7 U	< 18.3 U	< 17.2 U	< 21.4 U
Dieldrin	ug/kg	7	38	< 5.15 UJ	< 5.80 U	< 5.57 U	< 5.21 U	NS	< 5.19 U	< 4.59 U	< 4.31 U	< 5.36 U
Endosulfan sulfate	ug/kg	NE	NE	< 8.24 UJ	< 9.28 U	< 8.91 U	< 8.34 U	NS	< 8.30 U	< 7.34 U	< 6.89 U	< 8.57 U
Endrin	ug/kg	NE	20000	< 8.24 UJ	< 9.28 U	< 8.91 U	< 8.34 U	NS	< 8.30 U	< 7.34 U	< 6.89 U	< 8.57 U
gamma-Chlordane	ug/kg	NE	NE	**11.7 J-**	< 5.80 U	< 5.57 U	**8.45**	NS	< 5.19 U	< 4.59 U	< 4.31 U	< 5.36 U
Heptachlor	ug/kg	13	140	< 5.15 UJ	< 5.80 U	< 5.57 U	< 5.21 U	NS	< 5.19 U	< 4.59 U	< 4.31 U	< 5.36 U
Heptachlor epoxide	ug/kg	20	67	< 5.15 UJ	< 5.80 U	< 5.57 U	< 5.21 U	NS	< 5.19 U	< 4.59 U	< 4.31 U	< 5.36 U
Methoxychlor	ug/kg	800	340000	< 8.24 UJ	< 9.28 U	< 8.91 U	< 8.34 U	NS	< 8.30 U	< 7.34 U	< 6.89 U	< 8.57 U
Total DDx	ug/kg	3	1800	**16.9**	< 9.28	< 8.91	< 8.34	NS	**15.67**	**7.35**	< 6.89	**22.5**
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	< 0.000040	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	< 0.000040	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	< 0.00020	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	< 0.000080	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	< 0.000050	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	< 0.000040	NS	NS	NS	NS

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Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 14.4 U	< 10.4 U	< 7.88 U	< 7.75 U	< 8.60 U	< 9.48 U	< 8.78 U	< 9.79 U	< 12.5 U
4,4-DDE (p,p)	ug/kg	NE	NE	**33.3**	**17.8**	< 4.93 U	< 4.84 U	< 5.38 U	< 5.92 U	< 5.49 U	< 6.12 U	**20.7**
4,4-DDT (p,p)	ug/kg	NE	1800	< 14.4 U	< 10.4 U	< 7.88 U	< 7.75 U	< 8.60 U	< 9.48 U	< 8.78 U	< 9.79 U	**22.8**
Alachlor	ug/kg	230	7700	< 9.02 U	< 6.48 U	**5.15**	< 4.84 U	< 5.38 U	< 5.92 U	< 5.49 U	< 6.12 U	< 7.80 U
alpha-Chlordane	ug/kg	NE	NE	< 9.02 U	< 6.48 U	**8.65 J**	< 4.84 U	< 5.38 UJ	< 5.92 U	< 5.49 U	< 6.12 U	**451 J**
Chlordane	ug/kg	NE	490	< 36.1 U	< 25.9 U	**56.9**	< 19.4 U	**26.7**	< 23.7 U	< 22.0 U	< 24.5 U	**1940**
Dieldrin	ug/kg	7	38	< 9.02 U	< 6.48 U	< 4.93 U	< 4.84 U	< 5.38 U	< 5.92 U	< 5.49 U	< 6.12 U	< 7.80 U
Endosulfan sulfate	ug/kg	NE	NE	< 14.4 U	< 10.4 U	< 7.88 U	< 7.75 U	< 8.60 U	< 9.48 U	< 8.78 U	< 9.79 U	< 12.5 U
Endrin	ug/kg	NE	20000	< 14.4 U	< 10.4 U	< 7.88 U	< 7.75 U	< 8.60 U	< 9.48 U	< 8.78 U	< 9.79 U	< 12.5 U
gamma-Chlordane	ug/kg	NE	NE	< 9.02 U	< 6.48 U	**9.17**	< 4.84 U	< 5.38 UJ	< 5.92 U	< 5.49 U	< 6.12 U	**310**
Heptachlor	ug/kg	13	140	< 9.02 U	< 6.48 U	< 4.93 U	< 4.84 U	< 5.38 U	< 5.92 U	< 5.49 U	< 6.12 U	< 7.80 U
Heptachlor epoxide	ug/kg	20	67	< 9.02 U	< 6.48 U	< 4.93 U	< 4.84 U	< 5.38 U	< 5.92 U	< 5.49 U	< 6.12 U	< 7.80 U
Methoxychlor	ug/kg	800	340000	< 14.4 U	< 10.4 U	< 7.88 U	< 7.75 U	< 8.60 U	< 9.48 U	< 8.78 U	< 9.79 U	< 12.5 U
Total DDx	ug/kg	3	1800	**33.3**	**17.8**	< 7.88	< 7.75	< 8.60	< 9.48	< 8.78	< 9.79	**43.5**
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**SSP-01** **0 - 0.5 ft** **SSP-1082411** **8/24/2011** **SB34103**	**T12-SS146** **0 - 0.5 ft** **T12-SS146-080511** **8/5/2011** **SB32945**	**T13-SS38** **0 - 0.25 ft** **T13SS38 0-3** **8/31/2011** **SB34491**	**T22-SB158** **2 - 3 ft** **T22-SB158 2-3** **8/10/2011** **SB33209**	**T22-SB158** **3 - 4 ft** **T22-SB158 3-4** **8/10/2011** **SB33209**	**T23-SB24** **2 - 3 ft** **T23-SB24 2-3** **8/10/2011** **SB33209**	**Topsoil** **0 - 0.5 ft** **TOPSOIL** **9/27/2011** **SB36256**	**U12-SS195** **0 - 0.25 ft** **U12-SS195 0-3** **8/12/2011** **SB33374**	**U13-SS45** **0 - 0.25 ft** **U13-SS45 0-3** **8/12/2011** **SB33374**
Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 8.65	< 6.14 U	< 8.85	< 9.73 U	**15.6**	< 9.42 U	< 10.1 U	< 11.1 UJ	< 11.1 UJ
4,4-DDE (p,p)	ug/kg	NE	NE	< 5.41	< 3.84 U	< 5.53	< 6.08 U	**10.4**	< 5.89 U	< 6.32 U	< 6.93 UJ	< 6.94 UJ
4,4-DDT (p,p)	ug/kg	NE	1800	< 8.65	< 6.14 U	< 8.85	< 9.73 U	< 8.93 U	< 9.42 U	< 10.1 U	< 11.1 UJ	< 11.1 UJ
Alachlor	ug/kg	230	7700	< 5.41	< 3.84 U	< 5.53	< 6.08 U	< 5.58 U	< 5.89 U	< 6.32 U	< 6.93 UJ	< 6.94 UJ
alpha-Chlordane	ug/kg	NE	NE	**7.08**	< 3.84 U	< 5.53	**6.40**	< 5.58 U	**15.2 J**	< 6.32 U	**21.6 J**	< 6.94 UJ
Chlordane	ug/kg	NE	490	**28.5**	< 15.4 U	< 22.1	**30.3**	< 22.3 U	**58.2**	< 25.3 U	**70.1 J-**	< 27.7 UJ
Dieldrin	ug/kg	7	38	< 5.41	< 3.84 U	< 5.53	< 6.08 U	< 5.58 U	< 5.89 U	< 6.32 U	< 6.93 UJ	< 6.94 UJ
Endosulfan sulfate	ug/kg	NE	NE	< 8.65	< 6.14 U	< 8.85	< 9.73 U	< 8.93 U	< 9.42 U	< 10.1 U	< 11.1 UJ	< 11.1 UJ
Endrin	ug/kg	NE	20000	< 8.65	< 6.14 U	< 8.85	< 9.73 U	< 8.93 U	< 9.42 U	< 10.1 U	< 11.1 UJ	< 11.1 UJ
gamma-Chlordane	ug/kg	NE	NE	**7.20**	< 3.84 U	< 5.53	< 6.08 U	< 5.58 U	**15.0**	< 6.32 U	**18.3 J-**	< 6.94 UJ
Heptachlor	ug/kg	13	140	< 5.41	< 3.84 U	< 5.53	< 6.08 U	< 5.58 U	< 5.89 U	< 6.32 U	< 6.93 UJ	< 6.94 UJ
Heptachlor epoxide	ug/kg	20	67	< 5.41	< 3.84 U	< 5.53	< 6.08 U	< 5.58 U	< 5.89 U	< 6.32 U	< 6.93 UJ	< 6.94 UJ
Methoxychlor	ug/kg	800	340000	< 8.65	< 6.14 U	< 8.85	< 9.73 U	< 8.93 U	< 9.42 U	< 10.1 U	< 11.1 UJ	< 11.1 UJ
Total DDx	ug/kg	3	1800	< 8.65	< 6.14	< 8.85	< 9.73	**26**	< 9.42	< 6.32	< 6.93	< 6.94
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS

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NE = Criteria has not been established
NA = Not sampled for this constituent
ug/kg = microgram per kilogram
mg/l = miligram per liter

Table A-3
Sitewide Pesticide
Soil Analytical Data

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**U14-SS46** **0 - 0.25 ft** **U14SS46 0-3** **8/31/2011** **SB34491**	**U15-SS47** **0 - 0.25 ft** **U15-SS47 0-3** **8/12/2011** **SB33374**	**U21A-SB346** **0.5 - 1 ft** **U21A-SB346(0.5-1)-040912-1** **4/9/2012** **SB46864**	**V10-SS145** **0 - 0.5 ft** **V10-SS145-080511** **8/5/2011** **SB32945**	**V14-SS52** **0 - 0.25 ft** **V14-SS52 0-3** **8/12/2011** **SB33374**	**V15-SS299** **0 - 0.25 ft** **V15SS299 0-3-082311** **8/23/2011** **SB34022**	**V16-SB34** **2 - 3 ft** **V16-SB34 2-3** **8/10/2011** **SB33209**	**V16-SB34** **7 - 8 ft** **V16-SB34 7-8** **8/10/2011** **SB33209**	**V17-SS55** **0 - 0.25 ft** **V17-SS55 0-3** **8/11/2011** **SB33374**
Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 8.19	< 9.35 UJ	< 8.65 U	< 9.89 U	< 8.96 UJ	< 9.23 U	**39.7**	< 18.2 U	< 8.37 U
4,4-DDE (p,p)	ug/kg	NE	NE	< 5.12	< 5.84 UJ	< 5.41 U	**6.40 J**	**5.67 J-**	< 5.77 U	**14.5 J**	< 11.4 U	< 5.23 U
4,4-DDT (p,p)	ug/kg	NE	1800	< 8.19	< 9.35 UJ	< 8.65 U	**NS R**	< 8.96 UJ	< 9.23 U	**56.4**	< 18.2 U	< 8.37 U
Alachlor	ug/kg	230	7700	< 5.12	< 5.84 UJ	< 5.41 U	< 6.18 U	< 5.60 UJ	< 5.77 U	< 6.28 U	< 11.4 U	< 5.23 U
alpha-Chlordane	ug/kg	NE	NE	**8.10**	**9.40 J**	< 5.41 U	**7.47 J**	**10.2 J**	**8.10 J**	< 6.28 U	< 11.4 U	< 5.23 U
Chlordane	ug/kg	NE	490	**76.8**	**34.6 J-**	< 21.6 U	**27.7**	**103 J-**	**28.3**	< 25.1 U	< 45.6 U	< 20.9 U
Dieldrin	ug/kg	7	38	< 5.12	< 5.84 UJ	< 5.41 U	< 6.18 U	< 5.60 UJ	< 5.77 U	< 6.28 U	< 11.4 U	< 5.23 U
Endosulfan sulfate	ug/kg	NE	NE	< 8.19	< 9.35 UJ	< 8.65 U	< 9.89 U	< 8.96 UJ	< 9.23 U	< 10.0 U	< 18.2 U	< 8.37 U
Endrin	ug/kg	NE	20000	< 8.19	< 9.35 UJ	< 8.65 U	< 9.89 U	< 8.96 UJ	< 9.23 U	< 10.0 U	< 18.2 U	< 8.37 U
gamma-Chlordane	ug/kg	NE	NE	**8.11**	**11.1 J-**	< 5.41 U	**7.06**	**10.0 J**	**7.17**	< 6.28 U	< 11.4 U	< 5.23 U
Heptachlor	ug/kg	13	140	< 5.12	< 5.84 UJ	< 5.41 U	< 6.18 U	< 5.60 UJ	< 5.77 U	< 6.28 U	< 11.4 U	< 5.23 U
Heptachlor epoxide	ug/kg	20	67	< 5.12	< 5.84 UJ	< 5.41 U	< 6.18 U	< 5.60 UJ	< 5.77 U	< 6.28 U	< 11.4 U	< 5.23 U
Methoxychlor	ug/kg	800	340000	< 8.19	< 9.35 UJ	< 8.65 U	< 9.89 U	< 8.96 UJ	< 9.23 U	**20.2**	< 18.2 U	< 8.37 U
Total DDx	ug/kg	3	1800	< 8.19	< 9.35	< 8.65	**6.4**	**5.67**	< 9.23	**110.6**	< 18.2	< 8.37
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Table A-3
Sitewide Pesticide
Soil Analytical Data

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**V22-SB38** **1 - 1.5 ft** **V22-SB38 1-1.5** **8/10/2011** **SB33209**	**V6-SS222** **0 - 0.25 ft** **V6-SS222 0-3** **8/12/2011** **SB33374**	**W11-SS59** **0 - 0.25 ft** **W11-SS59 0-3** **8/12/2011** **SB33374**	**W15-SS300** **0 - 0.25 ft** **W15SS300 0-3-082311** **8/23/2011** **SB34022**	**W21-SB50** **1 - 1.7 ft** **W21-SB50 1-1.7** **8/10/2011** **SB33209**	**WPT-S** **0 - 0 ft** **WPT-S-081911** **8/19/2011** **SB33942**	**X14-SS65** **0 - 0.25 ft** **X14-SS65 0-3** **8/12/2011** **SB33374**	**X15-SS66** **0 - 0.5 ft** **X15-SS66-080511** **8/5/2011** **SB32945**	**X21-SB57** **1 - 2 ft** **X21-SB57 1-2** **8/10/2011** **SB33209**
Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 8.75 U	< 10.8 U	< 10.2 U	< 10.2 U	< 9.04 U	< 8.62 U	< 12.0 U	< 6.93 U	< 8.54 U
4,4-DDE (p,p)	ug/kg	NE	NE	< 5.47 U	< 6.73 U	< 6.38 U	< 6.36 U	**9.40**	**6.59 J**	< 7.49 U	< 4.33 U	< 5.34 U
4,4-DDT (p,p)	ug/kg	NE	1800	< 8.75 U	< 10.8 U	< 10.2 U	**17.6**	< 9.04 U	< 8.62 U	< 12.0 U	< 6.93 U	< 8.54 U
Alachlor	ug/kg	230	7700	< 5.47 U	< 6.73 U	< 6.38 U	< 6.36 U	< 5.65 U	< 5.39 U	< 7.49 U	< 4.33 U	< 5.34 U
alpha-Chlordane	ug/kg	NE	NE	< 5.47 U	**13.5 J**	**31.2 J**	**131 J**	< 5.65 U	< 5.39 U	**34.1 J**	**43.2 J**	**9.53**
Chlordane	ug/kg	NE	490	< 21.9 U	**39.0**	**96.9**	**299**	< 22.6 U	< 21.5 U	**101**	**213**	**61.9**
Dieldrin	ug/kg	7	38	< 5.47 U	< 6.73 U	< 6.38 U	< 6.36 U	< 5.65 U	< 5.39 U	< 7.49 U	< 4.33 U	< 5.34 U
Endosulfan sulfate	ug/kg	NE	NE	< 8.75 U	< 10.8 U	< 10.2 U	< 10.2 U	< 9.04 U	< 8.62 U	< 12.0 U	< 6.93 U	< 8.54 U
Endrin	ug/kg	NE	20000	< 8.75 U	< 10.8 U	< 10.2 U	< 10.2 U	< 9.04 U	< 8.62 U	< 12.0 U	< 6.93 U	< 8.54 U
gamma-Chlordane	ug/kg	NE	NE	< 5.47 U	**11.3**	**19.9**	**102**	< 5.65 U	< 5.39 U	**30.0**	**28.5**	**6.74**
Heptachlor	ug/kg	13	140	< 5.47 U	< 6.73 U	< 6.38 U	< 6.36 U	< 5.65 U	< 5.39 U	< 7.49 U	< 4.33 U	< 5.34 U
Heptachlor epoxide	ug/kg	20	67	< 5.47 U	< 6.73 U	< 6.38 U	< 6.36 U	< 5.65 U	< 5.39 U	< 7.49 U	< 4.33 U	< 5.34 U
Methoxychlor	ug/kg	800	340000	< 8.75 U	< 10.8 U	< 10.2 U	< 10.2 U	< 9.04 U	< 8.62 U	< 12.0 U	< 6.93 U	< 8.54 U
Total DDx	ug/kg	3	1800	< 8.75	< 6.73	< 6.38	**17.6**	**9.4**	**6.59**	< 7.49	< 6.93	< 8.54
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Table A-3
Sitewide Pesticide
Soil Analytical Data

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**X21-SB57** **2 - 2.5 ft** **X21-SB57 2-2.5** **8/10/2011** **SB33209**	**X8-SS214** **0 - 0.25 ft** **X8-SS214 0-3** **8/12/2011** **SB33374**	**Y13-SS308** **0 - 0.25 ft** **Y13SS308 0-3-082311** **8/23/2011** **SB34022**	**Y16-SB63** **2 - 3 ft** **Y16-SB63 2-3** **8/10/2011** **SB33218**	**Y21-SB66** **0 - 0.5 ft** **DUPLICATE-10** **8/10/2011** **SB33209**	**Y21-SB66** **2 - 2.7 ft** **Y21-SB66 2-2.7** **8/10/2011** **SB33209**	**Y21-SB66** **6 - 7 ft** **Y21-SB66 6-7** **8/10/2011** **SB33209**	**Y7-SB273** **0 - 1 ft** **Y7-SB273(0-1)-122911-1** **12/29/2011** **SB41766**	**Y9-SS315** **0 - 0.25 ft** **Y9SS315 0-3-082311** **8/23/2011** **SB34022**
Pesticides												
4,4-DDD (p,p)	ug/kg	NE	NE	< 8.60 U	< 10.5 U	< 11.5 U	< 8.92 U	**514**	**65.8**	< 9.07 U	< 8.97 U	< 10.7 U
4,4-DDE (p,p)	ug/kg	NE	NE	< 5.38 U	< 6.59 U	< 7.16 U	**6.05**	**74.6**	**30.6**	< 5.67 U	< 5.61 U	**10.0**
4,4-DDT (p,p)	ug/kg	NE	1800	< 8.60 U	< 10.5 U	< 11.5 U	< 8.92 U	**9.03 J**	< 10.2 U	< 9.07 U	< 8.97 U	< 10.7 U
Alachlor	ug/kg	230	7700	< 5.38 U	< 6.59 U	< 7.16 U	< 5.58 U	< 5.60 U	< 6.41 U	< 5.67 U	< 5.61 U	< 6.71 U
alpha-Chlordane	ug/kg	NE	NE	**6.64 J**	**151 J**	< 7.16 U	< 5.58 U	< 5.60 U	**36.9**	< 5.67 U	< 5.61 U	**24.1 J**
Chlordane	ug/kg	NE	490	**156**	**307**	< 28.6 U	< 22.3 U	**44.5 J**	**351**	< 22.7 U	< 22.4 U	**151**
Dieldrin	ug/kg	7	38	< 5.38 U	< 6.59 U	< 7.16 U	< 5.58 U	< 5.60 U	< 6.41 U	< 5.67 U	< 5.61 U	< 6.71 U
Endosulfan sulfate	ug/kg	NE	NE	< 8.60 U	< 10.5 U	< 11.5 U	< 8.92 U	< 8.96 U	< 10.2 U	< 9.07 U	< 8.97 U	< 10.7 U
Endrin	ug/kg	NE	20000	< 8.60 U	< 10.5 U	< 11.5 U	< 8.92 U	< 8.96 U	< 10.2 U	< 9.07 U	< 8.97 U	< 10.7 U
gamma-Chlordane	ug/kg	NE	NE	< 5.38 U	**90.2**	< 7.16 U	< 5.58 U	< 5.60 U	**24.8 J**	< 5.67 U	< 5.61 U	**18.6**
Heptachlor	ug/kg	13	140	< 5.38 U	< 6.59 U	< 7.16 U	< 5.58 U	< 5.60 U	< 6.41 U	< 5.67 U	< 5.61 U	< 6.71 U
Heptachlor epoxide	ug/kg	20	67	< 5.38 U	< 6.59 U	< 7.16 U	< 5.58 U	< 5.60 U	< 6.41 U	< 5.67 U	< 5.61 U	< 6.71 U
Methoxychlor	ug/kg	800	340000	< 8.60 U	< 10.5 U	< 11.5 U	< 8.92 U	< 8.96 U	< 10.2 U	< 9.07 U	< 8.97 U	< 10.7 U
Total DDx	ug/kg	3	1800	< 8.60	< 6.59	< 7.16	**6.05**	**597.63**	**96.4**	< 9.07	< 8.97	**10**
Pesticides-SPLP												
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Table A-3
Sitewide Pesticide
Soil Analytical Data

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**Z14-SB272** **0 - 1 ft** **Z14-SB272(0-1)-122911-1** **12/29/2011** **SB41766**	**Z26-SB306** **1 - 2 ft** **Z26-SB306(1-2)-021612-1** **2/16/2012** **SB44035**	**Z8-SS316** **0 - 0.25 ft** **Z8SS316 0-3-082311** **8/23/2011** **SB34022**
Pesticides						
4,4-DDD (p,p)	ug/kg	NE	NE	< 9.63 U	< 8.96 U	< 11.1 U
4,4-DDE (p,p)	ug/kg	NE	NE	< 6.02 U	**6.75**	< 6.91 U
4,4-DDT (p,p)	ug/kg	NE	1800	< 9.63 U	< 8.96 U	< 11.1 U
Alachlor	ug/kg	230	7700	< 6.02 U	< 5.60 U	< 6.91 U
alpha-Chlordane	ug/kg	NE	NE	< 6.02 U	< 5.60 U	**27.1 J**
Chlordane	ug/kg	NE	490	< 24.1 U	**34.2**	**69.3**
Dieldrin	ug/kg	7	38	< 6.02 U	< 5.60 U	< 6.91 U
Endosulfan sulfate	ug/kg	NE	NE	< 9.63 U	< 8.96 U	< 11.1 U
Endrin	ug/kg	NE	20000	< 9.63 U	< 8.96 U	< 11.1 U
gamma-Chlordane	ug/kg	NE	NE	< 6.02 U	< 5.60 U	**17.1**
Heptachlor	ug/kg	13	140	< 6.02 U	< 5.60 U	< 6.91 U
Heptachlor epoxide	ug/kg	20	67	< 6.02 U	< 5.60 U	< 6.91 U
Methoxychlor	ug/kg	800	340000	< 9.63 U	< 8.96 U	< 11.1 U
Total DDx	ug/kg	3	1800	< 9.63	**6.75**	< 6.91
Pesticides-SPLP						
4,4-DDE (p,p)	mg/l	NE	NE	NS	NS	NS
4,4-DDT (p,p)	mg/l	NE	NE	NS	NS	NS
Chlordane	mg/l	NE	NE	NS	NS	NS
Endosulfan sulfate	mg/l	NE	NE	NS	NS	NS
Heptachlor epoxide	mg/l	NE	NE	NS	NS	NS
Total DDx	mg/l	NE	NE	NS	NS	NS

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Table A-4
Sitewide Soil Analytical Data
SPLP Lead

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**AA8-SB274** **4.5 - 5 ft** **AA8-SB274(4.5-5)-122911-1** **12/29/2011** **SB41766**	**AC15-SB260** **9.5 - 11.5 ft** **AC15-SB260 (9.5-11.5)-122711-1** **12/27/2011** **SB41712**	**AC19-SB76** **6 - 7 ft** **AC19-SB76 6-7** **8/10/2011** **SB33209**	**AE19-SB263** **6 - 7 ft** **AE19-SB263 (6-7)-122811-1** **12/28/2011** **SB41712**	**AF15-SB259** **6 - 7.5 ft** **AF15-SB259 (6-7.5)-122711-1** **12/27/2011** **SB41712**	**AH16-SB258** **6 - 7.5 ft** **AH16-SB258 (6-7.5)-122711-1** **12/27/2011** **SB41712**
Metals (mg/kg)									
Lead	mg/kg	NE	500	**3600**	**883 J**	**1590**	**1940 J**	**1850 J**	**1110 J**
Metals-SPLP (mg/L)									
Lead	mg/l	0.015	NE	**0.0729 J**	< 0.0075 U	**1.35 J**	< 0.0075 U	< 0.0075 U	**0.0366**

Notes:
<0.010 = Not detected above given laboratory reporting limit
Bold = Detected above reporting limit
Bold Italics = Not detected value exceeds criteria
Yellw highlighted cells exceed 2013-GA/GAA PMC
Blue highlighted cells exceed 2013-RES DEC
RES DEC = Residential Direct Exposure Criteria
GA PMC = Pollutant Mobility Criteria for GA-classified groundwater areas
NE = Criteria has not been established
NA = Not sampled for this constituent
mg/kg = milligrams per kilogram
mg/l = milligrams per liter

Table A-4
Sitewide Soil Analytical Data
SPLP Lead

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**AJ13-SB432** **5 - 6 ft** **AJ13-SB432 (5-6) 070512-1** **7/5/2012** **SB52304**	**AJ15-SB257** **3 - 5 ft** **AJ15-SB257 (3-5)-122711-2** **12/27/2011** **SB41712**	**AL20-SB267** **8 - 9 ft** **AL20-SB267 (8-9)-122811-1** **12/28/2011** **SB41712**	**AOC-2-ESW** **1 - 1 ft** **AOC-2-ESW-1** **8/12/2013** **SB74823**	**AOC-2-NSW** **1 - 1 ft** **AOC-2-NSW-1** **8/12/2013** **SB74823**	**AOC-2-SSW** **1 - 1 ft** **AOC-2-SSW-1** **8/12/2013** **SB74823**
Metals (mg/kg)									
Lead	mg/kg	NE	500	**141**	**849 J**	**139 J**	**73.9**	**291**	**381**
Metals-SPLP (mg/L)									
Lead	mg/l	0.015	NE	**0.996**	**0.0164**	**0.0097**	**0.0300**	**0.0290**	< 0.0150

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Table A-4
Sitewide Soil Analytical Data
SPLP Lead

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**AOC-2-WSW** **1 - 1 ft** **AOC-2-WSW-1** **8/12/2013** **SB74823**	**AOC-3-2-BOT** **1 - 1 ft** **AOC-3-2-BOT-1** **8/14/2013** **SB74979**	**AOC-3-BOT1** **8 - 8 ft** **AOC-3-BOT1(8)-1** **8/7/2013** **SB74515**	**AOC-3-BOT2** **8 - 8 ft** **AOC-3-BOT2(8)-1** **8/7/2013** **SB74515**	**AOC-3-ESW1** **4 - 4 ft** **AOC-3-ESW1(4)-1** **8/7/2013** **SB74515**	**AOC-3-ESW2** **4 - 4 ft** **AOC-3-ESW2(4)-1** **8/7/2013** **SB74515**
Metals (mg/kg)									
Lead	mg/kg	NE	500	**28.4**	**12.6**	**76.9**	**4100**	**286**	**168**
Metals-SPLP (mg/L)									
Lead	mg/l	0.015	NE	< 0.0150	< 0.0150	< 0.0150	< 0.0150	**0.0873**	**0.0244**

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Table A-4
Sitewide Soil Analytical Data
SPLP Lead

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**AOC-3-NSW1** **4 - 4 ft** **AOC-3-NSW1(4)-1** **8/7/2013** **SB74515**	**AOC-3-NSW2** **4 - 4 ft** **AOC-3-NSW2(4)-1** **8/7/2013** **SB74515**	**AOC-3-SSW1** **4 - 4 ft** **AOC-3-SSW1(4)-1** **8/7/2013** **SB74515**	**AOC-3-SSW2** **4 - 4 ft** **AOC-3-SSW2(4)-1** **8/7/2013** **SB74515**	**AOC-3-WSW1** **4 - 4 ft** **AOC-3-WSW1(4)-1** **8/7/2013** **SB74515**	**AOC-3-WSW2** **4 - 4 ft** **AOC-3-WSW2(4)-1** **8/7/2013** **SB74515**
Metals (mg/kg)									
Lead	mg/kg	NE	500	**104**	**65.6**	**26.6**	**155**	**44.5**	**457**
Metals-SPLP (mg/L)									
Lead	mg/l	0.015	NE	**0.0234**	< 0.0150	< 0.0150	**0.0190**	< 0.0150	**0.0496**

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mg/kg = milligrams per kilogram
mg/l = milligrams per liter

Table A-4
Sitewide Soil Analytical Data
SPLP Lead

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**AP16-SB269** **5 - 6 ft** **AP16-SB269 (5-6)-122811-1** **12/28/2011** **SB41712**	**AX21-SB800** **6.5 - 7.5 ft** **AX21-SB800 (6.5-7.5)-1** **11/14/2019** **19K0845**	**AW19-SB803** **7 - 8 ft** **AW19-SB803 (7-8)-1** **11/13/2019** **19K0759**	**AW32-SB254** **2 - 4 ft** **AW32-SB254 (2-4)-123011-1** **12/30/2011** **SB41831**	**AZ20-SB251** **7 - 8 ft** **AZ20-SB251(7-8)-1** **12/29/2011** **SB41766**	**AZ20-SB251** **7 - 7.5 ft** **AZ20-SB251RE (7-7.5)-1** **11/13/2019** **19K0759**
Metals (mg/kg)									
Lead	mg/kg	NE	500	**13.0 J**	**150**	**46**	**142 J+**	**17.3**	**19.0**
Metals-SPLP (mg/L)									
Lead	mg/l	0.015	NE	< 0.0075 U	**0.47**	**0.12**	< 0.0150 U	**0.0476 J**	**0.021**

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mg/kg = milligrams per kilogram
mg/l = milligrams per liter

Table A-4
Sitewide Soil Analytical Data
SPLP Lead

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**BD27-SB252** **1.5 - 2 ft** **BD27-SB252 (1.5-2)-123011-1** **12/30/2011** **SB41831**	**D19-SB607** **0 - 1 ft** **D19-SB607 (0-1)-1** **4/12/2018** **18D0545**	**G30-SB248** **4 - 4.5 ft** **G30-SB248(4-4.5)-1** **12/29/2011** **SB41766**	**O12-SB238** **2.5 - 3 ft** **O12-SB238 (2.5-3)-1** **12/28/2011** **SB41720**	**Q23-SB608** **2 - 4 ft** **Q23-SB608 (2-4)-1** **4/12/2018** **18D0545**	**S15-SB237** **2.5 - 3.5 ft** **S15-SB237 (2.5-3.5)-1** **12/28/2011** **SB41720**
Metals (mg/kg)									
Lead	mg/kg	NE	500	**44.7**	**29**	**29.2**	**29.3 J**	**14**	**957 J**
Metals-SPLP (mg/L)									
Lead	mg/l	0.015	NE	< 0.0150 U	**0.06**	< 0.0150 U	< 0.0075 U	**0.11**	**0.471**

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mg/l = milligrams per liter

Table A-4
Sitewide Soil Analytical Data
SPLP Lead

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Depth Interval Sample ID Sample Date SDG	Unit	2013-GA/GAA PMC	2013-RES DEC	S21-SB609 3 - 5 ft S21-SB609 (3-5) 6/27/2018 18F1381	U13-SB233 7 - 8 ft U13-SB233(7-8)-1 12/27/2011 SB41683	V16-SB34 2 - 3 ft V16-SB34 2-3 8/10/2011 SB33209	V21-SB345 5 - 6 ft V21-SB345(5-6)-040912-1 4/9/2012 SB46864	V21-SB600 5 - 6 ft V21-SB600 (5-6)-1 4/12/2018 18D0545	V21-SB601 5 - 6 ft V21-SB601 (5-6)-1 4/12/2018 18D0545
Metals (mg/kg)									
Lead	mg/kg	NE	500	**77**	**3980**	**3320**	**1400 J**	**15**	**45**
Metals-SPLP (mg/L)									
Lead	mg/l	0.015	NE	**0.67**	**0.0350**	< 0.0150 UJ	**0.0801**	**0.0092**	**0.015**

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mg/kg = milligrams per kilogram
mg/l = milligrams per liter

Table A-4
Sitewide Soil Analytical Data
SPLP Lead

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**V21-SB601** **6 - 8 ft** **V21-SB601 (6-8)-1** **4/12/2018** **18D0545**	**V21-SB700** **0 - 2 ft** **V21-SB700** **6/26/2018** **18F1319**	**V9-SB234** **2.5 - 4.5 ft** **V9-SB234 (2.5-4.5)-1** **12/27/2011** **SB41720**	**X17-SB266** **3 - 4 ft** **X17-SB266 (3-4)-122811-1** **12/28/2011** **SB41712**	**Y14-SB314** **9 - 10 ft** **Y14-SB314(9-10)-040912-1** **4/9/2012** **SB46946**	**Y15-SB310** **10 - 11 ft** **Y15-SB310(10-11)-040912-1** **4/9/2012** **SB46946**
Metals (mg/kg)									
Lead	mg/kg	NE	500	**23**	**1600**	**2020 J**	**5640 J**	**1590 J**	**1460 J**
Metals-SPLP (mg/L)									
Lead	mg/l	0.015	NE	**0.2**	**0.55**	**0.0382 J**	**0.0204**	< 0.0150 U	**0.230**

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RES DEC = Residential Direct Exposure Criteria
GA PMC = Pollutant Mobility Criteria for GA-classified groundwater areas
NE = Criteria has not been established
NA = Not sampled for this constituent
mg/kg = milligrams per kilogram
mg/l = milligrams per liter

Table A-4
Sitewide Soil Analytical Data
SPLP Lead

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID **Depth Interval** **Sample ID** **Sample Date** **SDG**	**Unit**	**2013-GA/GAA PMC**	**2013-RES DEC**	**Y16-SB63** **3 - 3.7 ft** **Y16-SB63 3-3.7** **8/10/2011** **SB33218**	**Y16-SB63** **5 - 6 ft** **Y16-SB63 5-6** **8/10/2011** **SB33218**	**Y21-SB66** **0 - 0.5 ft** **DUPLICATE-10** **8/10/2011** **SB33209**	**Y7-SB273** **3 - 5 ft** **Y7-SB273(3-5)-122911-1** **12/29/2011** **SB41766**	**Y9-SB359** **2 - 3 ft** **Y9-SB359 (2-3)-041112-1** **4/11/2012** **SB47192**	**Z16-SB311** **6.5 - 7.5 ft** **Z16-SB311(6.5-7.5)-040912-1** **4/9/2012** **SB46946**
Metals (mg/kg)									
Lead	mg/kg	NE	500	**2750**	**1020**	NS	**2130**	**5880**	**867 J**
Metals-SPLP (mg/L)									
Lead	mg/l	0.015	NE	**0.556**	< 0.0150 U	< 0.0150 U	**0.0136 J**	**5.64**	< 0.0150 U

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GA PMC = Pollutant Mobility Criteria for GA-classified groundwater areas
NE = Criteria has not been established
NA = Not sampled for this constituent
mg/kg = milligrams per kilogram
mg/l = milligrams per liter

Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	L25 MW-L25-072612-1 7/26/2012 12070542	MW-28 MW-28-042012-1 4/20/2012 SB47769	MW-28 MW-28-072612-1 7/26/2012 12070542	MW-28 MW-28-021313-1 2/13/2013 SB64486	MW-28 MW-28-051413-1 5/14/2013 SB69540	MW-28 MW-28-08192013-1 8/19/2013 SB75322	MW-28 MW-28-11122013-1 11/12/2013 SB80164	MW-28 MW-28-04162014-1 4/16/2014 SB87783	MW-28 MW-28-090214-1 9/2/2014 SB95674	MW-28 MW-28-121614-1 12/16/2014 SC01285	MW-28 MW-28-071415-1 7/14/2015 GBJ46776	MW-28 MW-28-102915 10/29/2015 GBK15889	MW-28 MW-28-011416 1/14/2016 16010233	MW-28 MW-28-041316 4/13/2016 16040311	MW-28 MW-28-082316 8/23/2016 GBN96755	MW-28 MW-28-122216-1 12/22/2016 16L1122	MW-28 MW-28-20170411-1 4/11/2017 17D0505
Total Metals (mg/l)																			
Lead	0.015	0.013	< 0.0075 U	< 0.0075 U	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.002	**0.003**	**0.005**	< 0.002	< 0.002	< 0.002	< 0.002
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD (p,p)	NE	NE	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE (p,p)	NE	NE	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT (p,p)	NE	NE	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NE	NE	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	< 0.006 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NE	NE	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
This is a summary table.
Only site-specific pesticides of concern are shown.
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Orange highlighted cells exceed GWPC.
Yellow highlighted cells exceed SWPC.
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GWPC = Ground water protection criteria.
SWPC = Surface water protection criteria.
NE = Criterion has not been established
NA = Not analyzed for specific consituent
ug/L = microgram per liter
mg/L = milligram per Liter

Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-28 MW-28-081617-1 8/16/2017 17H0897	MW-28 MW-28-111517-1 11/15/2017 17K0912	MW-28 MW-28-030618-1 3/6/2018 18C0227	MW-28 MW-28-062918-1 6/29/2018 18G0022	MW-28 MW-28-092818-1 9/28/2018 18I1338	MW-28 MW-28-121018-1 12/10/2018 18L0420	MW-28 MW-28-041519-1 4/15/2019 19D0788	MW-28 MW-28-071519-1 7/15/2019 19G0662	MW-28 MW-28-102219-1 10/22/2019 19J1349	MW-35 MW-35-072612-1 7/26/2012 12070542	MW-35 MW-35-021313-1 2/13/2013 SB64486	MW-35 MW-35-051413-1 5/14/2013 SB69540	MW-35 MW-35-08192013-1 8/19/2013 SB75322	MW-35 MW-35-11142013-1 11/14/2013 SB80319	MW-35 MW-35-04162014-1 4/16/2014 SB87783	MW-35 MW-35-090514 9/5/2014 SB95848	MW-35 MW-35-121614-1 12/16/2014 SC01285
Total Metals (mg/l)																			
Lead	0.015	0.013	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.0050	< 0.0010	< 0.00050	< 0.00050	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD (p,p)	NE	NE	NA	NA	NA	NA	< 0.047	< 0.039	< 0.040	< 0.040	< 0.040	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE (p,p)	NE	NE	NA	NA	NA	NA	< 0.047	< 0.039	< 0.040	< 0.040	< 0.040	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT (p,p)	NE	NE	NA	NA	NA	NA	< 0.047	< 0.039	< 0.040	< 0.040	< 0.040	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	NA	NA	NA	< 0.28	< 0.20	< 0.20	< 0.20	< 0.20	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	NA	NA	NA	< 0.047	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA

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NE = Criterion has not been established
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ug/L = microgram per liter
mg/L = milligram per Liter

Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-35 MW-35-071415-1 7/14/2015 GBJ46776	MW-35 MW-35-102915 10/29/2015 GBK15889	MW-35 MW-35-011416 1/14/2016 GBK53183	MW-35 MW-35-041316 4/13/2016 16040311	MW-35 MW-35-082316 8/23/2016 GBN96755	MW-35 MW-35-122216-1 12/22/2016 16L1122	MW-35 MW-35-20170411-1 4/11/2017 17D0505	MW-35 MW-35-081617-1 8/16/2017 17H0897	MW-35 MW-35-111617-1 11/16/2017 17K1027	MW-35 MW-35-030618-1 3/6/2018 18C0227	MW-35 MW-35-062918-1 6/29/2018 18G0022	MW-35 MW-35-092818-1 9/28/2018 18I1338	MW-35 MW-35-121018-1 12/10/2018 18L0420	MW-35 MW-35-041519-1 4/15/2019 19D0788	MW-35 MW-35-071519-1 7/15/2019 19G0662	MW-35 MW-35-102219-1 10/22/2019 19J1349	MW-AA12 MW-AA12-072512-1 7/25/2012 SB53469
Total Metals (mg/l)																			
Lead	0.015	0.013	**0.008**	**0.003**	**0.011**	< 0.002	< 0.002	**0.003**	**0.005**	< 0.002	**0.002**	**0.01**	< 0.002	**0.030**	**0.022**	**0.029**	**0.0017**	**0.0012**	**0.0366**
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	NA
4,4-DDD (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.047	NA	< 0.040	< 0.040	< 0.040	NA
4,4-DDE (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.047	NA	< 0.040	< 0.040	< 0.040	NA
4,4-DDT (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.047	NA	< 0.040	< 0.040	< 0.040	NA
alpha-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.28	NA	< 0.20	< 0.20	< 0.20	NA
gamma-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.047	NA	NA	NA	ND	NA

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<0.01 = Not detected above the specified laboratory reporting lim
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NE = Criterion has not been established
NA = Not analyzed for specific consituent
ug/L = microgram per liter
mg/L = milligram per Liter

Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-AA12 MW-AA12-021513-1 2/15/2013 SB64640	MW-AA12 MW-AA12-071515-1 7/15/2015 GBJ47837	MW-AA12 MW-AA12-102915 10/29/2015 GBK15889	MW-AA12 MW-AA12-011216 1/12/2016 GBK52448	MW-AA12 MW-AA12-041416 4/14/2016 16040313	MW-AA12 MW-AA12-082416 8/24/2016 GBN97446	MW-AA12 MW-AA12-20170411-1 4/11/2017 17D0505	MW-AA12 MW-AA12-082417-1 8/24/2017 GBY92749	MW-AA12 MW-AA12-030818-1 3/8/2018 18C0412	MW-AA12 MW-AA12-062718-1 6/27/2018 18F1460	MW-AA12 MW-AA12-041819-1 4/18/2019 19D0971	MW-AA12 MW-AA12-071619-1 7/16/2019 19G0888	MW-AA12 MW-AA12-102319-1 10/23/2019 19J1470	MW-AA19 MW-AA19-SB264-1 1/12/2012 SB42430	MW-AA19 MW-AA19-022312-1 2/23/2012 SB44327	MW-AA19 MW-AA19-041912-1 4/19/2012 SB47769	MW-AA19 MW-AA19-072612-1 7/26/2012 12070542
Total Metals (mg/l)																			
Lead	0.015	0.013	< 0.0075	**0.002**	< 0.002	**0.005**	**0.003**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	**0.0018**	**0.0031**	**0.0015**	< 0.0075 U	< 0.0075 U	< 0.0075 U	< 0.0075 U
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA
4,4-DDD (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.004 U	NA	< 0.004 U	NA
4,4-DDE (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.002 U	NA	< 0.002 U	NA
4,4-DDT (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.004 U	NA	< 0.004 U	NA
alpha-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.002 U	NA	< 0.002 U	NA
Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.007 U	NA	< 0.007 U	NA
gamma-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.002 U	NA	< 0.002 U	NA
Total DDx	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.004 U	NA	< 0.004 U	NA

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Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-AA19 MW-AA19-021213-1 2/12/2013 SB64486	MW-AA19 MW-AA19-051513-1 5/15/2013 SB69668	MW-AA19 MW-AA19-08212013-1 8/21/2013 SB75423	MW-AA19 MW-AA19-11112013-1 11/11/2013 SB80164	MW-AA19 MW-AA19-04172014-1 4/17/2014 SB87951	MW-AE8 MW-AE8-022312-1 2/23/2012 SB44369	MW-AE8 MW-AE8 041912-1 4/19/2012 SB47641	MW-AE8 MW-AE8-041912-1 4/19/2012 SB47769	MW-AE8 MW-AE8-072512-1 7/25/2012 SB53469	MW-AE8 MW-AE8-021413-1 2/14/2013 SB64588	MW-AE8 MW-AE8-051513-1 5/15/2013 SB69668	MW-AE8 MW-AE8-08202013-1 8/20/2013 SB75423	MW-AE8 MW-AE8-11132013-1 11/13/2013 SB80244	MW-AE8 MW-AE8-04172014-1 4/17/2014 SB87951	MW-AE8 MW-AE8-090414-1 9/4/2014 SB95779	MW-AE8 MW-AE8-121714-1 12/17/2014 SC01370	MW-AE8 MW-AE8-071415-1 7/14/2015 GBJ46776
Total Metals (mg/l)																			
Lead	0.015	0.013	< 0.0075	**0.0081**	**0.0114**	**0.0099**	< 0.0075	< 0.0075 U	< 0.0075 U	NA	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.002
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	< 0.007 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	NA	NA	NA	NA	NA	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-AE8 MW-AE8-102715 10/27/2015 GBK15071	MW-AE8 MW-AE8-011216 1/12/2016 16010232	MW-AE8 MW-AE8-041416 4/14/2016 16040313	MW-AE8 MW-AE8-082416 8/24/2016 GBN97446	MW-AE8 MW-AE8-122116-1 12/21/2016 16L1029	MW-AE8 MW-AE8-20170411-1 4/11/2017 17D0409	MW-AE8 MW-AE8-081617-1 8/16/2017 17H0897	MW-AE8 MW-AE8-111417-1 11/14/2017 17K0813	MW-AE8 MW-AE8-030818-1 3/8/2018 18C0412	MW-AE8 MW-AE8-062718-1 6/27/2018 18F1384	MW-AE8 MW-AE8-092618-1 9/26/2018 18I1195	MW-AE8 MW-AE8-121318-41 12/13/2018 18L0663	MW-AE8 MW-AE8-041719-1 4/17/2019 19D0928	MW-AE8 MW-AE8-071719-1 7/17/2019 19G0888	MW-AE8 MW-AE8-102319-1 10/23/2019 19J1628	MW-AG10 MW-AG10-072512-1 7/25/2012 SB53469	MW-AG10 MW-AG10-021413-1 2/14/2013 SB64588
Total Metals (mg/l)																			
Lead	0.015	0.013	**0.002**	**0.005**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.0050	< 0.0010	**0.00055**	**0.00071**	< 0.0075 U	< 0.0075
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-AG10 MW-AG10-051513-1 5/15/2013 SB69668	MW-AG10 MW-AG10-08222013-1 8/22/2013 SB75529	MW-AG10 MW-AG10-11132013-1 11/13/2013 SB80244	MW-AG10 MW-AG10-04172014-1 4/17/2014 SB87931	MW-AG30 MW-AG30-072412-1 7/24/2012 SB53379	MW-AG30 MW-AG30-021513-1 2/15/2013 SB64640	MW-AG30 MW-AG30-051613-1 5/16/2013 SB69757	MW-AG30 MW-AG30-08212013-1 8/21/2013 SB75423	MW-AG30 MW-AG30-04162014-1 4/16/2014 SB87931	MW-AG30 MW-AG30-090314-1 9/3/2014 SB95674	MW-AG30 MW-AG30-121614-1 12/16/2014 SC01285	MW-AG30 MW-AG30-071315-1 7/13/2015 GBJ46776	MW-AG30 MW-AG30-102915 10/29/2015 GBK15889	MW-AG30 MW-AG30-011316 1/13/2016 16010233	MW-AG30 MW-AG30-041316 4/13/2016 16040311	MW-AG30 MW-AG30-082416 8/24/2016 16080629	MW-AG30 MW-AG30-122216-1 12/22/2016 16L1122
Total Metals (mg/l)																			
Lead	0.015	0.013	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	**0.005**	< 0.002	**0.003**	**0.006**	< 0.002	< 0.002
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-AG30 MW-AG30-20170412-1 4/12/2017 17D0505	MW-AH16 MW-AH16-SB258-1 1/12/2012 SB42430	MW-AH16 MW-AH16-SB258-2 1/12/2012 SB42430	MW-AH16 MW-AH16-022312-1 2/23/2012 SB44369	MW-AH16 MW-AH16 041912-1 4/19/2012 SB47641	MW-AH16 MW-AH16-072612-1 7/26/2012 12070542	MW-AH16 MW-AH16-021413-1 2/14/2013 SB64588	MW-AH16 MW-AH16-051613-1 5/16/2013 SB69757	MW-AH16 MW-AH16-08212013-1 8/21/2013 SB75423	MW-AH16 MW-AH16-11142013-1 11/14/2013 SB80319	MW-AH16 MW-AH16-04172014-1 4/17/2014 SB87951	MW-AH16 MW-AH16-090214-1 9/2/2014 SB95674	MW-AH16 MW-AH16-121814-1 12/18/2014 SC01493	MW-AH16R MW-AH16R-102815 10/28/2015 GBK15071	MW-AH16R MW-AH16R-011216 1/12/2016 GBK52448	MW-AH16R MW-AH16R-041316 4/13/2016 16040311	MW-AH16R MW-AH16R-082416 8/24/2016 16080629
Total Metals (mg/l)																			
Lead	0.015	0.013	**0.013**	< 0.0075 U	< 0.0075 U	< 0.0075 U	< 0.0075 U	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075	**0.0202**	**0.0756**	**0.0112**	< 0.0075	**0.021**	**0.005**	**0.003**	**0.010**
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	ND	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD (p,p)	NE	NE	NA	< 0.022 U	< 0.021 UJ	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE (p,p)	NE	NE	NA	< 0.011 U	< 0.011 UJ	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT (p,p)	NE	NE	NA	< 0.022 U	< 0.021 UJ	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NE	NE	NA	< 0.011 U	< 0.011 UJ	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	< 0.035 U	< 0.035 UJ	NA	< 0.007 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NE	NE	NA	< 0.011 U	< 0.011 UJ	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	< 0.022 U	< 0.021 U	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-AH16R MW-AH16R-122116-1 12/21/2016 16L1029	MW-AH16R MW-AH16R-20170412 4/12/2017 17D0505	MW-AH16R MW-AH16R-081517-1 8/15/2017 GBY85227	MW-AH16R MW-AH16R-111517-1 11/15/2017 17K0912	MW-AH16R MW-AH16R-030618-1 3/6/2018 18C0227	MW-AH16R MW-AH16R-062818-1 6/28/2018 18F1460	MW-AH16R MW-AH16R-092718-1 9/27/2018 18I1258	MW-AH16R MW-AH16R-121218-1 12/12/2018 18L0583	MW-AH16R MW-AH16R-041619-1 4/16/2019 19D0862	MW-AH16R MW-AH16R-071619-1 7/16/2019 19G0869	MW-AH16R MW-AH16R-102419-1 10/24/2019 19J1561	MW-AJ13 MW-AJ13-072512-1 7/25/2012 SB53469	MW-AJ13 MW-AJ13-072512-2 7/25/2012 SB53469	MW-AJ13 MW-AJ13-021413-1 2/14/2013 SB64588	MW-AJ13 MW-AJ13-021413-2 2/14/2013 SB64588	MW-AJ13 MW-AJ13-051613-1 5/16/2013 SB69757	MW-AJ13 MW-AJ13-051613-2 5/16/2013 SB69757
Total Metals (mg/l)																			
Lead	0.015	0.013	**0.002**	< 0.002	**0.012**	**0.003**	< 0.002	< 0.002	< 0.002	< 0.0050	< 0.0010	**0.00051**	**0.0013**	< 0.0075 U	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075	< 0.0075
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table A-5
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Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-AJ13 MW-AJ13-08212013-1 8/21/2013 SB75529	MW-AJ13 MW-AJ13-08212013-1 8/21/2013 SB75529	MW-AJ13 MW-AJ13-11132013-1 11/13/2013 SB80244	MW-AJ13 MW-AJ13-11132013-1 11/13/2013 SB80244	MW-AJ13 MW-AJ13-121714-1 12/17/2014 SC01370	MW-AJ13 MW-AJ13-071515-1 7/15/2015 GBJ47837	MW-AJ13 MW-AJ13-102815 10/28/2015 GBK15071	MW-AJ13 MW-AJ13-011216 1/12/2016 16010209	MW-AJ13 MW-AJ13-041316 4/13/2016 16040311	MW-AJ13 MW-AJ13-082416 8/24/2016 GBN97446	MW-AJ13 MW-AJ13-20170411-1 4/11/2017 17D0409	MW-AJ13 MW-AJ13-082917-1 8/24/2017 GBY92749	MW-AJ13 MW-AJ13-111417-1 11/14/2017 17K0813	MW-AJ13 MW-AJ13-030818-1 3/6/2018 18C0346	MW-AJ13 MW-AJ13-062718-1 6/27/2018 GCA79842	MW-AJ13 MW-AJ13-092718-1 9/27/2018 18I1258	MW-AJ13 MW-AJ13-121218-1 12/12/2018 18L0583
Total Metals (mg/l)																			
Lead	0.015	0.013	< 0.0075	< 0.0075	< 0.0075	< 0.0075	**0.0110**	**0.002**	**0.003**	< 0.002	**0.002**	< 0.002	**0.002**	< 0.002	< 0.002	**0.004**	< 0.002	< 0.002	< 0.0050
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-AJ13 MW-AJ13-041819-1 4/18/2019 19D0971	MW-AJ13 MW-AJ13-071819-1 7/18/2019 19G0975	MW-AJ13 MW-AJ13-102419-1 10/24/2019 19J1561	MW-AJ19 MW-AJ19-022312-1 2/23/2012 SB44327	MW-AJ19 MW-AJ19-042012-1 4/20/2012 SB47769	MW-AJ19 MW-AJ19-072412-1 7/24/2012 SB53379	MW-AJ19 MW-AJ19-021213-1 2/12/2013 SB64419	MW-AJ19 MW-AJ19-051613-1 5/16/2013 SB69757	MW-AJ19 MW-AJ19-08212013-I 8/21/2013 SB75529	MW-AJ19 MW-AJ19-11142013-I 11/14/2013 SB80319	MW-AJ19 MW-AJ19-04182014-I 4/18/2014 SB87951	MW-AM16 MW-AM16-022312-1 2/23/2012 SB44369	MW-AM16 MW-AM16 041912-1 4/19/2012 SB47641	MW-AM16 MW-AM16-072412-1 7/24/2012 SB53379	MW-AM16 MW-AM16-021413-1 2/14/2013 SB64640	MW-AM16 MW-AM16-051613-1 5/16/2013 SB69757	MW-AM16 MW-AM16-08212013- 8/21/2013 SB75423
Total Metals (mg/l)																			
Lead	0.015	0.013	< 0.0010	< 0.00050	< 0.00050	< 0.0075 U	< 0.0075 U	**0.0232**	< 0.0075	< 0.0075	**0.0916**	< 0.0075	**0.0086**	< 0.0075 U	< 0.0075 U	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
4,4-DDD (p,p)	NE	NE	NA	NA	NA	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	< 0.004 U	NA	NA	NA	NA
4,4-DDE (p,p)	NE	NE	NA	NA	NA	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	< 0.002 U	NA	NA	NA	NA
4,4-DDT (p,p)	NE	NE	NA	NA	NA	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	< 0.004 U	NA	NA	NA	NA
alpha-Chlordane	NE	NE	NA	NA	NA	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	< 0.002 U	NA	NA	NA	NA
Chlordane	NE	NE	NA	NA	NA	NA	< 0.007 U	NA	NA	NA	NA	NA	NA	NA	< 0.007 U	NA	NA	NA	NA
gamma-Chlordane	NE	NE	NA	NA	NA	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	< 0.002 U	NA	NA	NA	NA
Total DDx	NE	NE	NA	NA	NA	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	< 0.004 U	NA	NA	NA	NA

Notes:
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NA = Not analyzed for specific consituent
ug/L = microgram per liter
mg/L = milligram per Liter

Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-AM16 MW-AM16-11132013-1 11/13/2013 SB80244	MW-AM16 MW-AM16-04172014-1 4/17/2014 SB87931	MW-AM16 MW-AM16R-092718-1 9/27/2018 18I1258	MW-AM16 MW-AM16-121118-1 12/11/2018 18L0484	MW-AM16 MW-AM16-041819-1 4/18/2019 19D0971	MW-AM16 MW-AM16-071819-1 7/18/2019 19G0975	MW-AM21 MW-AM21-072412-1 7/24/2012 SB53379	MW-AM21 MW-AM21-021213-1 2/12/2013 SB64419	MW-AM21 MW-AM21-051513-1 5/15/2013 SB69668	MW-AM21 MW-AM21-08212013-1 8/21/2013 SB75423	MW-AM21 MW-AM21-11122013-1 11/12/2013 SB80244	MW-AM21 MW-AM21-04172014-1 4/17/2014 SB87951	MW-AP11 MW-AP11-021413-1 2/14/2013 SB64640	MW-AP11 MW-AP11-051513-1 5/15/2013 SB69757	MW-AP28 MW-AP28-022312-1 2/23/2012 SB44369	MW-AP28 MW-AP28-042012-1 4/20/2012 SB47769	MW-AP28 MW-AP28-072312-1 7/23/2012 SB53282
Total Metals (mg/l)																			
Lead	0.015	0.013	< 0.0075	< 0.0075	NA	NA	NA	NA	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075 U	< 0.0075 U	< 0.0075 U
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
4,4-DDD (p,p)	NE	NE	NA	NA	< 0.049	< 0.039	< 0.039	< 0.042	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.004 U	NA
4,4-DDE (p,p)	NE	NE	NA	NA	< 0.049	< 0.039	< 0.039	< 0.042	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.002 U	NA
4,4-DDT (p,p)	NE	NE	NA	NA	< 0.049	< 0.039	< 0.039	< 0.042	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.004 U	NA
alpha-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.002 U	NA
Chlordane	NE	NE	NA	NA	< 0.29	< 0.20	< 0.20	< 0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.007 U	NA
gamma-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.002 U	NA
Total DDx	NE	NE	NA	NA	< 0.049	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.004 U	NA

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Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-AP28 MW-AP28-051513-1 5/15/2013 SB69757	MW-AP28 MW-AP28-08212013-1 8/21/2013 SB75423	MW-AP28 MW-AP28-04162014-1 4/16/2014 SB87783	MW-AV17 MW-AV17-SB250-1 1/12/2012 SB42430	MW-AV17 MW-AV17-022312-1 2/23/2012 SB44369	MW-AV17 MW-AV17 041912-1 4/19/2012 SB47641	MW-AV17 MW-AV17-072412-1 7/24/2012 SB53379	MW-AV17 MW-AV17-021413-1 2/14/2013 SB64640	MW-AV17 MW-AV17-051613-1 5/16/2013 SB69757	MW-AV17 MW-AV17-08212013-1 8/21/2013 SB75423	MW-AV17 MW-AV17-11132013-1 11/13/2013 SB80244	MW-AV17 MW-AV17-04182014-1 4/18/2014 SB87951	MW-AV17 MW-AV17-092718-1 9/27/2018 18I1258	MW-AV17 MW-AV17-121118-1 12/11/2018 18L0484	MW-AV17 MW-AV17-041819-1 4/18/2019 19D0971	MW-AV17 MW-AV17-071819-1 7/18/2019 19G0975	MW-BB34 MW-BB34-072312-1 7/23/2012 SB53282
Total Metals (mg/l)																			
Lead	0.015	0.013	< 0.0075	< 0.0075	< 0.0075	< 0.0075 U	< 0.0075 U	< 0.0075 U	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	NA	NA	NA	NA	< 0.0075 U
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	NA
4,4-DDD (p,p)	NE	NE	NA	NA	NA	< 0.004 U	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	< 0.047	< 0.040	< 0.039	< 0.040	NA
4,4-DDE (p,p)	NE	NE	NA	NA	NA	< 0.002 U	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	< 0.047	< 0.040	< 0.039	< 0.040	NA
4,4-DDT (p,p)	NE	NE	NA	NA	NA	< 0.004 U	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	< 0.047	< 0.040	< 0.039	< 0.040	NA
alpha-Chlordane	NE	NE	NA	NA	NA	< 0.002 U	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	NA	NA	< 0.007 U	NA	< 0.007 U	NA	NA	NA	NA	NA	NA	< 0.28	< 0.20	< 0.19	< 0.20	NA
gamma-Chlordane	NE	NE	NA	NA	NA	< 0.002 U	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	NA	NA	< 0.004 U	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	< 0.047	NA	NA	NA	NA

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Table A-5
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Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-BB34 MW-BB34-021213-1 2/12/2013 SB64419	MW-BB34 MWBB34-051413-1 5/14/2013 SB69668	MW-BB34 W-BB34-08212013- 8/21/2013 SB75423	MW-BB34 W-BB34-11122013- 11/12/2013 SB80164	MW-BB34 W-BB34-04162014- 4/16/2014 SB87783	MW-D4 MW-D4-041519-1 4/15/2019 19D0788	MW-D4 MW-D4-071519-1 7/15/2019 19G0662	MW-D4 MW-D4-102219-1 10/22/2019 19J1349	MW-F35 MW-F35-072612-1 7/26/2012 12070542	MW-F35 MW-F35-021313-1 2/13/2013 SB64486	MW-F35 MW-F35-051413-1 5/14/2013 SB69540	MW-F35 MW-F35-08192013-1 8/19/2013 SB75322	MW-F35 MW-F35-11122013-1 11/12/2013 SB80164	MW-F35 MW-F35-04162014-1 4/16/2014 SB87783	MW-F35 MW-F35-121018-1 12/10/2018 18L0420	MW-H29 MW-H29-041519-1 4/15/2019 19D0788	MW-H29 MW-H29-071519-1 7/15/2019 19G0662
Total Metals (mg/l)																			
Lead	0.015	0.013	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0010	< 0.00050	< 0.00050	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	NA	**0.0013**	< 0.00050
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND
4,4-DDD (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.040	< 0.039	< 0.038
4,4-DDE (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.040	< 0.039	< 0.038
4,4-DDT (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.040	< 0.039	< 0.038
alpha-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.19	< 0.19
gamma-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-H29 MW-H29-102219-1 10/22/2019 19J1349	MW-L25 MW-L25-021313-1 2/13/2013 SB64486	MW-L25 MW-L25-051413-1 5/14/2013 SB69540	MW-L25 MW-L25-08192013-1 8/19/2013 SB75322	MW-L25 MW-L25-11122013-1 11/12/2013 SB80164	MW-L25 MW-L25-04162014-1 4/16/2014 SB87783	MW-L25 MW-L25-071619-1 7/16/2019 19G0869	MW-L25 MW-L2S-102219-1 10/22/2019 19J1349	MW-N22 MW-N22-041619-1 4/16/2019 19D0862	MW-N22 MW-N22-071619-1 7/16/2019 19G0869	MW-N22 MW-N22-102319-1 10/23/2019 19J1470	MW-P11 MW-P11-072412-1 7/24/2012 SB53469	MW-P11 MW-P11-021313-1 2/13/2013 SB64588	MW-P11 MW-P11-051413-1 5/14/2013 SB69540	MW-P11 MW-P11-08202013-1 8/20/2013 SB75322	MW-P11 MW-P11-11122013-1 11/12/2013 SB80164	MW-P11 MW-P11-04182014-1 4/18/2014 SB87951
Total Metals (mg/l)																			
Lead	0.015	0.013	**0.0014**	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.00050	< 0.00050	< 0.0010	< 0.00050	< 0.00050	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075
Pesticides (ug/l)																			
Total Pesticides	NE	NE	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD (p,p)	NE	NE	< 0.040	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE (p,p)	NE	NE	< 0.040	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT (p,p)	NE	NE	< 0.040	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	< 0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-P7 MW-P7-022312-1 2/23/2012 SB44327	MW-P7 MW-P7-041912-1 4/19/2012 SB47769	MW-P7 MW-P7-072412-1 7/24/2012 SB53469	MW-P7 MW-P7-021313-1 2/13/2013 SB64486	MW-P7 MW-P7-051413-1 5/14/2013 SB69540	MW-P7 MW-P7-08202013-1 8/20/2013 SB75322	MW-P7 MW-P7-11122013-1 11/12/2013 SB80244	MW-P7 MW-P7-04182014-1 4/18/2014 SB87951	MW-P7 MW-P7-090214-1 9/2/2014 SB95674	MW-P7 MW-P7-121714-1 12/17/2014 SC01370	MW-P7 MW-P7-071415-1 7/14/2015 GBJ46776	MW-P7 MW-P7-071415-2 7/14/2015 GBJ46776	MW-P7 MW-P 7-102715 10/27/2015 GBK14343	MW-P7 MW-PS 7-102715 10/27/2015 GBK14343	MW-P7 DUP-2-011216 1/12/2016 GBK51911	MW-P7 MW-P7-011216 1/12/2016 GBK51911	MW-P7 MW-P7-041316 4/13/2016 16040311
Total Metals (mg/l)																			
Lead	0.015	0.013	< 0.0075 U	< 0.0075 U	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.002	< 0.002	< 0.002	< 0.002	**0.002**	< 0.002	< 0.002
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD (p,p)	NE	NE	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE (p,p)	NE	NE	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT (p,p)	NE	NE	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NE	NE	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	< 0.007 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NE	NE	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-P7 MW-P7-041316-02 4/13/2016 16040311	MW-P7 MW-P7-082416 8/24/2016 16080598	MW-P7 MW-P7-122116-1 12/21/2016 16L1029	MW-P7 MW-P7-20170411-1 4/11/2017 17D0409	MW-P7 MW-P7-081517-1 8/15/2017 17H0897	MW-P7 MW-P7-111517-1 11/15/2017 17K0912	MW-P7 MW-P7-030618-1 3/6/2018 18C0227	MW-P7 MW-P7-062818-1 6/28/2018 18F1460	MW-P7 MW-P7-092518-1 9/25/2018 18I1109	MW-P7 MW-P7-121318-1 12/13/2018 18L0663	MW-P7 MW-P7-041619-1 4/16/2019 19D0862	MW-P7 MW-P7-071619-1 7/16/2019 19G0869	MW-P7 MW-P7-102419-1 10/24/2019 19J1529	MW-R20 MW-R20-072612-1 7/26/2012 12070542	MW-R20 MW-R20-021313-1 2/13/2013 SB64486	MW-R20 MW-R20-051413-1 5/14/2013 SB69540	MW-R20 MW-R20-08202013-1 8/20/2013 SB75322
Total Metals (mg/l)																			
Lead	0.015	0.013	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.0050	< 0.0010	< 0.00050	< 0.00050	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Lead and Pesticides

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10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-R20 MW-R20-11132013-1 11/13/2013 SB80319	MW-R20 MW-R20-04162014-1 4/16/2014 SB87783	MW-S15 MW-S15-SB237-1 1/12/2012 SB42430	MW-S15 MW-S15-022312-1 2/23/2012 SB44327	MW-S15 MW-S15-022312-2 2/23/2012 SB44327	MW-S15 MW-S15 041912-1 4/19/2012 SB47641	MW-S15 MW-S15 041912-2 4/19/2012 SB47641	MW-S15 MW-S15-072512-1 7/25/2012 12070542	MW-S15 MW-S15-072512-2 7/25/2012 12070542	MW-S15 MW-S15-021313-1 2/13/2013 SB64486	MW-S15 MW-S15-021313-2 2/13/2013 SB64486	MW-S15 MW-S15-051513-1 5/15/2013 SB69668	MW-S15 MW-S15-051513-2 5/15/2013 SB69668	MW-S15 MW-S15-08202013-1 8/20/2013 SB75322	MW-S15 MW-S15-08202013-2 8/20/2013 SB75322	MW-S15 MW-S15-11122013-1 11/12/2013 SB80164	MW-S15 MW-S15-11122013-2 11/12/2013 SB80164
Total Metals (mg/l)																			
Lead	0.015	0.013	< 0.0075	< 0.0075	< 0.0075 U	< 0.0075 U	< 0.0075 U	< 0.0075 U	< 0.0075 U	< 0.0075 U	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	ND	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD (p,p)	NE	NE	NA	NA	< 0.004 U	NA	NA	< 0.004 U	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE (p,p)	NE	NE	NA	NA	< 0.002 U	NA	NA	< 0.002 U	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT (p,p)	NE	NE	NA	NA	< 0.004 U	NA	NA	< 0.004 U	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NE	NE	NA	NA	< 0.002 U	NA	NA	< 0.002 U	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	NA	< 0.007 U	NA	NA	< 0.007 U	< 0.007 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NE	NE	NA	NA	< 0.002 U	NA	NA	< 0.002 U	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	NA	< 0.004 U	NA	NA	< 0.004 U	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ug/L = microgram per liter
mg/L = milligram per Liter

Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-S15 MW-S15-04182014-1 4/18/2014 SB87951	MW-S15 MW-S15-04182014-2 4/18/2014 SB87951	MW-S15 MW-S15-090414-1 9/4/2014 SB95779	MW-S15 MW-S15-090414-2 9/4/2014 SB95779	MW-S15 MW-S15-121714-1 12/17/2014 SC01370	MW-S15 MW-S15-121714-2 12/17/2014 SC01370	MW-S15 MW-S15-071415-1 7/14/2015 GBJ46776	MW-S15 MW-S15-102715 10/27/2015 GBK14343	MW-S15 MW-S15-011216 1/12/2016 16010232	MW-S15 MW-S15-041416 4/14/2016 16040313	MW-S15 MW-S15-082416 8/24/2016 GBN97446	MW-S15 MW-S15-DUP-08241 8/24/2016 GBN97446	MW-S15 MW-S15-122116-1 12/21/2016 16L1029	MW-S15 MW-S15-122116-2 12/21/2016 16L1029	MW-S15 MW-S15-20170410-1 4/10/2017 17D0409	MW-S15 MW-S15-20170410-2 4/10/2017 17D0409	MW-S15 MW-S15-081517-1 8/15/2017 17H0897
Total Metals (mg/l)																			
Lead	0.015	0.013	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	**0.003**	< 0.002	**0.004**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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NE = Criterion has not been established
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ug/L = microgram per liter
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Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-S15 MW-S15-081517-2 8/15/2017 17H0897	MW-S15 MW-S15-111517-1 11/15/2017 17K0912	MW-S15 MW-S15-111517-2 11/15/2017 17K0912	MW-S15 MW-S15-030618-1 3/6/2018 18C0227	MW-S15 MW-S15-030618-2 3/6/2018 18C0227	MW-S15 MW-S15-062818-1 6/28/2018 18F1460	MW-S15 MW-S15-062818-2 6/28/2018 18F1460	MW-S15 MW-S15 092518-1 9/25/2018 GCB38518	MW-S15 MW-S15 092518-2 9/25/2018 GCB38518	MW-S15 MW-S15-121318-1 12/13/2018 18L0663	MW-S15 MW-S15-121318-2 12/13/2018 18L0663	MW-S15 MW-S15-041619-1 4/16/2019 19D0862	MW-S15 MW-S15-041619-2 4/16/2019 19D0862	MW-S15 MW-S15-071619-1 7/16/2019 19G0869	MW-S15 MW-S15-071719-2 7/16/2019 19G0869	MW-S15 MW-S15-102319-1 10/23/2019 19J1470	MW-S15 MW-S15-102319-2 10/23/2019 19J1470
Total Metals (mg/l)																			
Lead	0.015	0.013	< 0.002	< 0.002	**0.002**	**0.001**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,4-DDD (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	< 0.047	< 0.047	< 0.039	< 0.040	< 0.038	< 0.040	< 0.039	< 0.039	< 0.040	< 0.040
4,4-DDE (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	< 0.047	< 0.047	< 0.039	< 0.040	< 0.038	< 0.040	< 0.039	< 0.039	< 0.040	< 0.040
4,4-DDT (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	< 0.047	< 0.047	< 0.039	< 0.040	< 0.038	< 0.040	< 0.039	< 0.039	< 0.040	< 0.040
alpha-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	< 0.28	< 0.28	< 0.19	< 0.20	< 0.19	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
gamma-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	NA	NA	NA	NA	NA	NA	< 0.047	< 0.047	NA	NA	NA	NA	NA	NA	ND	ND

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Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-T23 MW-T23-072612-1 7/26/2012 12070542	MW-T23 MW-T23-021313-1 2/13/2013 SB64588	MW-T23 MW-T23-051413-1 5/14/2013 SB69668	MW-T23 MW-T23-08212013-1 8/21/2013 SB75529	MW-T23 MW-T23-04162014-1 4/16/2014 SB87783	MW-U20 MW-U20-041719-1 4/17/2019 19D0928	MW-U20 MW-U20-071619-1 7/16/2019 19G0888	MW-U20 MW-U20-111319-1 11/13/2019 19K0760	MW-V12 MW-V12-072512-1 7/25/2012 12070542	MW-V12 MW-V12-021413-1 2/14/2013 SB64588	MW-V12 MW-V12-051513-1 5/15/2013 SB69668	MW-V12 MW-V12-08202013-1 8/20/2013 SB75322	MW-V12 MW-V12-11132013-1 11/13/2013 SB80244	MW-V18 MW-V18-072512-1 7/25/2012 12070542	MW-V18 MW-V18-021213-1 2/12/2013 SB64419	MW-V18 MW-V18-051413-1 5/14/2013 SB69540	MW-V18 MW-V18-08202013-1 8/20/2013 SB75322
Total Metals (mg/l)																			
Lead	0.015	0.013	**0.0196**	**0.0226**	**0.0492**	**0.0858**	**0.0949**	**0.0011**	**0.011**	**0.0026**	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-V18 MW-V18-11112013-1 11/11/2013 SB80164	MW-V18 MW-V18-04162014-1 4/16/2014 SB87931	MW-X17 MW-X17-022312-1 2/23/2012 SB44327	MW-X17 MW-X17-041912-1 4/19/2012 SB47769	MW-X17 MW-X17-072512-1 7/25/2012 SB53550	MW-X17 MW-X17-021213-1 2/12/2013 SB64419	MW-X17 MW-X17-051513-1 5/15/2013 SB69668	MW-X17 MW-X17-08202013-1 8/20/2013 SB75322	MW-X17 MW-X17-11112013-1 11/11/2013 SB80164	MW-X17 MW-X17-04162014-1 4/16/2014 SB87931	MW-X17 MW-X17-041619-1 4/16/2019 19D0862	MW-X17 MW-X17-071619-1 7/16/2019 19G0869	MW-X17 MW-X17-102419-1 10/24/2019 19J1561	MW-Y15 MW-Y15 041912-1 4/19/2012 SB47641	MW-Y15 MW-Y15-072512-1 7/25/2012 SB53469	MW-Y15 MW-Y15-021413-1 2/14/2013 SB64588	MW-Y15 MW-Y15-051513-1 5/15/2013 SB69668
Total Metals (mg/l)																			
Lead	0.015	0.013	< 0.0075	< 0.0075	< 0.0075 U	< 0.0075 U	< 0.0075 U	< 0.0075	**0.0119**	**0.0125**	**0.0112**	< 0.0075	< 0.0010	< 0.00050	< 0.00050	< 0.0075 U	**0.0120**	**0.0096**	**0.0570**
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
4,4-DDD (p,p)	NE	NE	NA	NA	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.004 U	NA	NA	NA
4,4-DDE (p,p)	NE	NE	NA	NA	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.002 U	NA	NA	NA
4,4-DDT (p,p)	NE	NE	NA	NA	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.004 U	NA	NA	NA
alpha-Chlordane	NE	NE	NA	NA	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.002 U	NA	NA	NA
Chlordane	NE	NE	NA	NA	NA	< 0.007 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.007 U	NA	NA	NA
gamma-Chlordane	NE	NE	NA	NA	NA	< 0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.002 U	NA	NA	NA
Total DDx	NE	NE	NA	NA	NA	< 0.004 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.004 U	NA	NA	NA

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Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-Y15 MW-Y15-08202013-1 8/20/2013 SB75322	MW-Y15 MW-Y15-11122013-1 11/12/2013 SB80244	MW-Y15 MW-Y15-04172014-1 4/17/2014 SB87931	MW-Y15 MW-Y15-090414-1 9/4/2014 SB95779	MW-Y15 MW-Y15-121714-1 12/17/2014 SC01370	MW-Y15 MW-Y5-071515-1 7/15/2015 GBJ47837	MW-Y15 MW-Y15-102715 10/27/2015 GBK15071	MW-Y15 MW-Y15-011216 1/12/2016 16010232	MW-Y15 MW-Y15-041416 4/14/2016 16040313	MW-Y15 MW-Y15-082416 8/24/2016 GBN97446	MW-Y15 MW-Y15-122116-1 12/21/2016 16L1029	MW-Y15 MW-Y15-20170412-1 4/12/2017 17D0505	MW-Y15 MW-Y15-082917-1 8/24/2017 GBY92749	MW-Y15 MW-Y15-111417-1 11/14/2017 17K0813	MW-Y15 MW-Y15-030618-1 3/6/2018 18C0227	MW-Y15 MW-Y15-062618-1 6/26/2018 18F1321	MW-Y15 MW-Y15-092618-1 9/26/2018 18I1195
Total Metals (mg/l)																			
Lead	0.015	0.013	**0.186**	**0.0102**	< 0.0075	< 0.0075	< 0.0075	**0.005**	**0.009**	**0.010**	**0.021**	**0.002**	**0.020**	**0.004**	< 0.002	< 0.002	**0.007**	< 0.002	**0.002**
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
4,4-DDD (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.047
4,4-DDE (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.047
4,4-DDT (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.047
alpha-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.28
gamma-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.047

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Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Greenwich High School
10 Hillside Road
Greenwich, Connecticut

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-Y15 MW-Y15-121218-1 12/12/2018 18L0583	MW-Y15 MW-Y15-041719-1 4/17/2019 19D0928	MW-Y15 MW-Y15-071719-1 7/17/2019 19G0888	MW-Y15 MW-Y15-102319-1 10/23/2019 19J1470	MW-Y26 MW-Y26-072612-1 7/26/2012 12070542	MW-Y26 MW-Y26-021213-1 2/12/2013 SB64486	MW-Y26 MW-Y26-051413-1 5/14/2013 SB69540	MW-Y26 MW-Y26-08202013-1 8/20/2013 SB75322	MW-Y26 MW-Y26-11112013-1 11/11/2013 SB80164	MW-Y26 MW-Y26-04162014-1 4/16/2014 SB87931	MW-Y9 MW-Y9 041912-1 4/19/2012 SB47641	MW-Y9 MW-Y9-072512-1 7/25/2012 SB53469	MW-Y9 MW-Y9-021413-1 2/14/2013 SB64588	MW-Y9 MW-Y9-051513-1 5/15/2013 SB69668	MW-Y9 MW-Y9-08202013-1 8/20/2013 SB75423	MW-Y9 MW-Y9-11132013-1 11/13/2013 SB80244	MW-Y9 MW-Y9-04172014-1 4/17/2014 SB87931
Total Metals (mg/l)																			
Lead	0.015	0.013	< 0.0050	< 0.0010	**0.0020**	**0.0015**	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075 U	< 0.0075 U	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075
Pesticides (ug/l)																			
Total Pesticides	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
4,4-DDD (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.004 U	NA	NA	NA	NA	NA	NA
4,4-DDE (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.002 U	NA	NA	NA	NA	NA	NA
4,4-DDT (p,p)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.004 U	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.002 U	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.007 U	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.002 U	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.004 U	NA	NA	NA	NA	NA	NA

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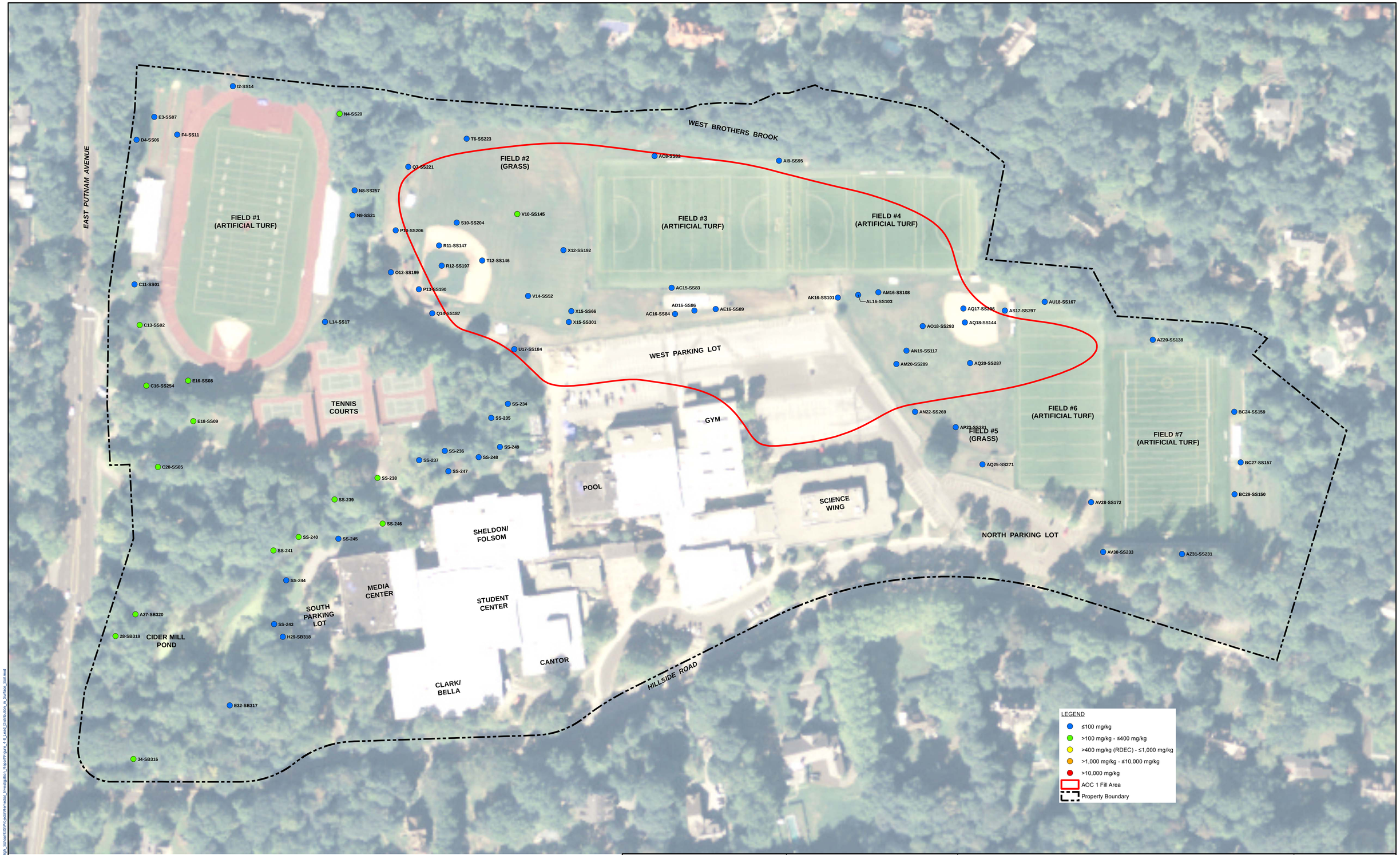
Table A-5
Sitewide Groundwater Analytical Data
Lead and Pesticides

Location ID Sample ID Sample Date SDG	GWPC	SWPC	MW-Y9 MW-Y9-082417-1 8/24/2017 GBY92749	MW-Y9 MW-Y9-111417-1 11/14/2017 17K0813	MW-Y9 MW-Y9-030618-1 3/6/2018 18C0346	MW-Y9 MW-Y9-062618-1 6/26/2018 18F1321	MW-Y9 MW-Y9-092618-1 9/26/2018 18I1195	MW-Y9 MW-Y9-121218-1 12/12/2018 18L0583	MW-Y9 MW-Y9-041719-1 4/17/2019 19D0928	MW-Y9 MW-Y9-071719-1 7/17/2019 19G0888	MW-Y9 MW-Y9-102319-1 10/23/2019 19J1470
Total Metals (mg/l)											
Lead	0.015	0.013	**0.003**	**0.004**	**0.002**	< 0.002	**0.007**	< 0.0050	**0.0028**	**0.00058**	**0.00099**
Pesticides (ug/l)											
Total Pesticides	NE	NE	NA	NA	NA	NA	ND	ND	ND	ND	ND
4,4-DDD (p,p)	NE	NE	NA	NA	NA	NA	< 0.047	< 0.040	< 0.040	< 0.044	< 0.040
4,4-DDE (p,p)	NE	NE	NA	NA	NA	NA	< 0.047	< 0.040	< 0.040	< 0.044	< 0.040
4,4-DDT (p,p)	NE	NE	NA	NA	NA	NA	< 0.047	< 0.040	< 0.040	< 0.044	< 0.040
alpha-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NE	NE	NA	NA	NA	NA	< 0.28	< 0.20	< 0.20	< 0.22	< 0.20
gamma-Chlordane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total DDx	NE	NE	NA	NA	NA	NA	< 0.047	NA	NA	NA	ND

Notes:
This is a summary table.
Only site-specific pesticides of concern are shown.
Bold = Detected above reporting limit
Orange highlighted cells exceed GWPC.
Yellow highlighted cells exceed SWPC.
<0.01 = Not detected above the specified laboratory reporting lim
GWPC = Ground water protection criteria.
SWPC = Surface water protection criteria.
NE = Criterion has not been established
NA = Not analyzed for specific consituent
ug/L = microgram per liter
mg/L = milligram per Liter



LEGEND

- ≤100 mg/kg
- >100 mg/kg - ≤400 mg/kg
- >400 mg/kg (RDEC) - ≤1,000 mg/kg
- >1,000 mg/kg - ≤10,000 mg/kg
- >10,000 mg/kg
- AOC 1 Fill Area
- Property Boundary

SOURCE:
2010 AERIAL ORTHOPHOTO FROM STATE OF CONNECTICUT
DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION.

AECOM Environment
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(860) 263-5800
www.aecom.com

SCALE:
1" = 80'
0 40 80 160 240 Feet
SCALE

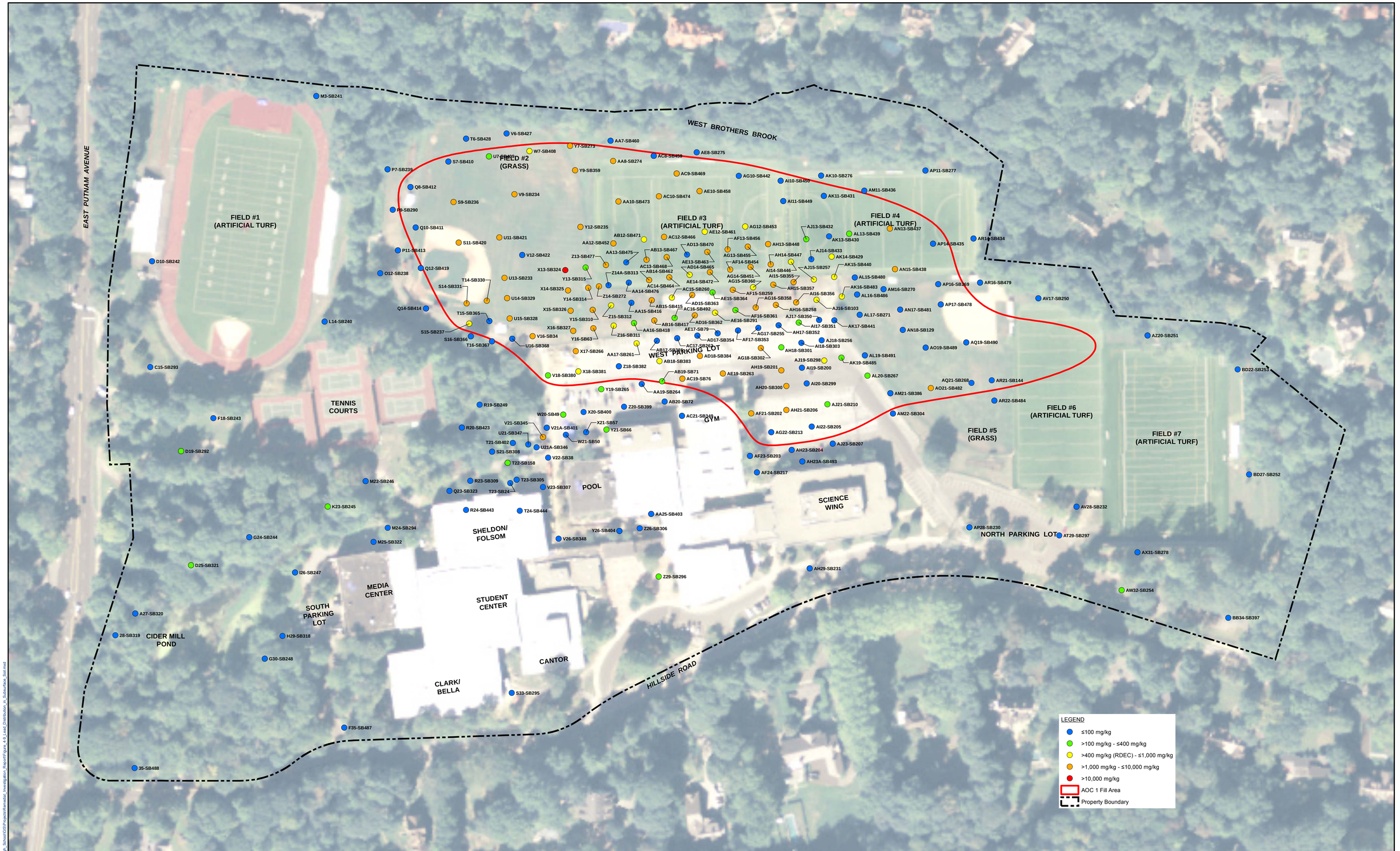
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

FIGURE A-1
LEAD DISTRIBUTION IN SURFACE SOIL (DEPTH INTERVAL 0-1')
REMEDIAL INVESTIGATION REPORT

JOB 60225155
FILE NO.
CAD FILE
SHEET

Path: J:\Ind_Services\Project Files\Greenwich_High_School\GIS\Projects\Remedial_Investigation_Report\Figure_4-8_Lead_Distribution_in_Surface_Soil.mxd



SOURCE:
2010 AERIAL ORTHOPHOTO FROM STATE OF CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION.

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AECOM

N

SCALE:

1" = 80' 0 40 80 160 240 Feet
SCALE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

FIGURE A-2
LEAD DISTRIBUTION IN SUBSURFACE SOIL (DEPTH INTERVAL 1-15')
REMEDIAL INVESTIGATION REPORT

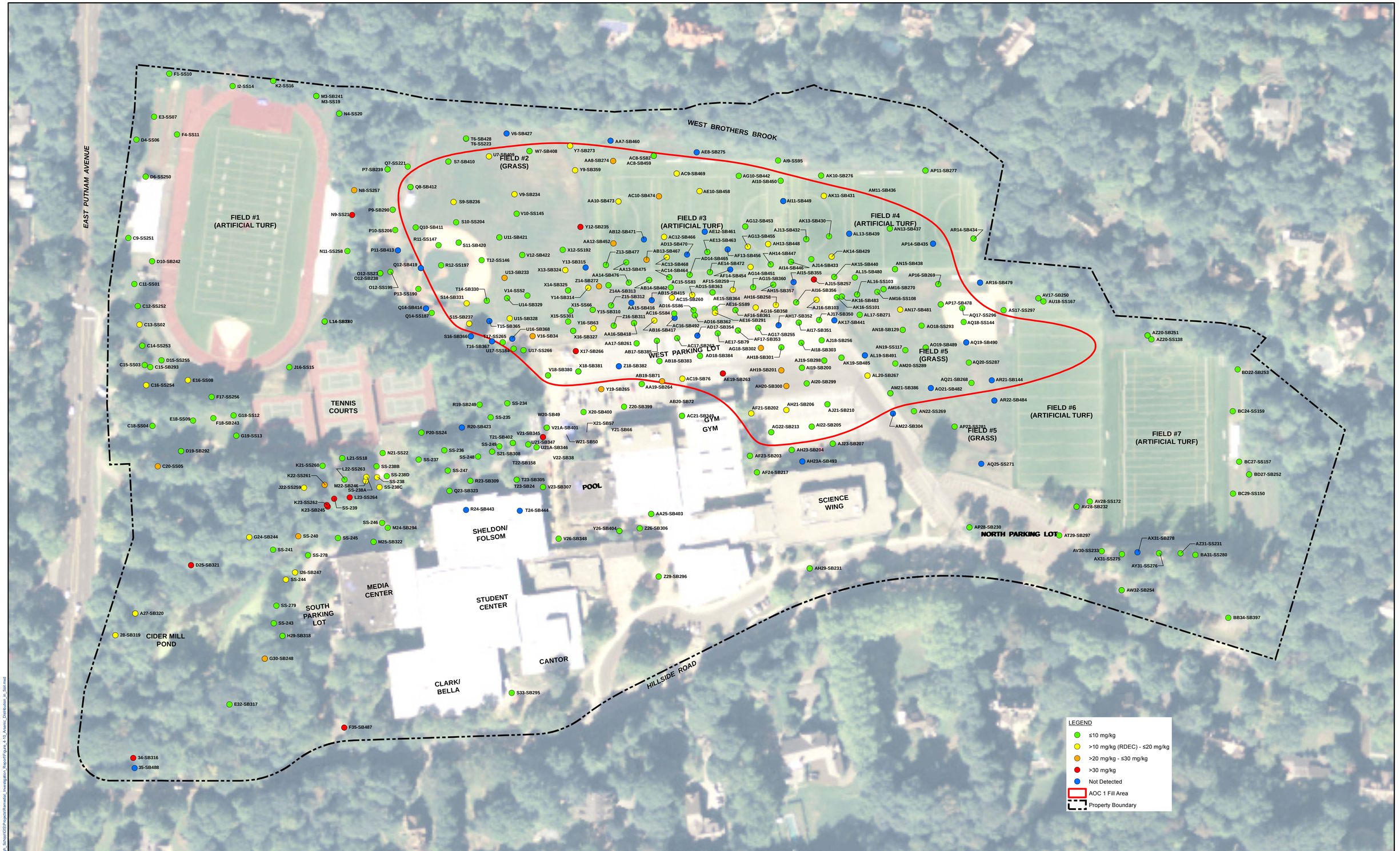
JOB 60225155

FILE NO.

CAD FILE

SHEET

Path: J:\Hall_Service\Project Files\Greenwich_High_School\GIS\Projects\Remedial_Investigation_Report\Figure_4-2_Lead_Distribution_in_Subsurface_Soil.mxd



SOURCE:
2010 AERIAL ORTHOPHOTO FROM STATE OF CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION.

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www.aecom.com

SCALE:

1" = 80' (0, 40, 80, 160, 240 Feet)

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

FIGURE A-3
ARSENIC DISTRIBUTION IN SOIL
REMEDIAL INVESTIGATION REPORT

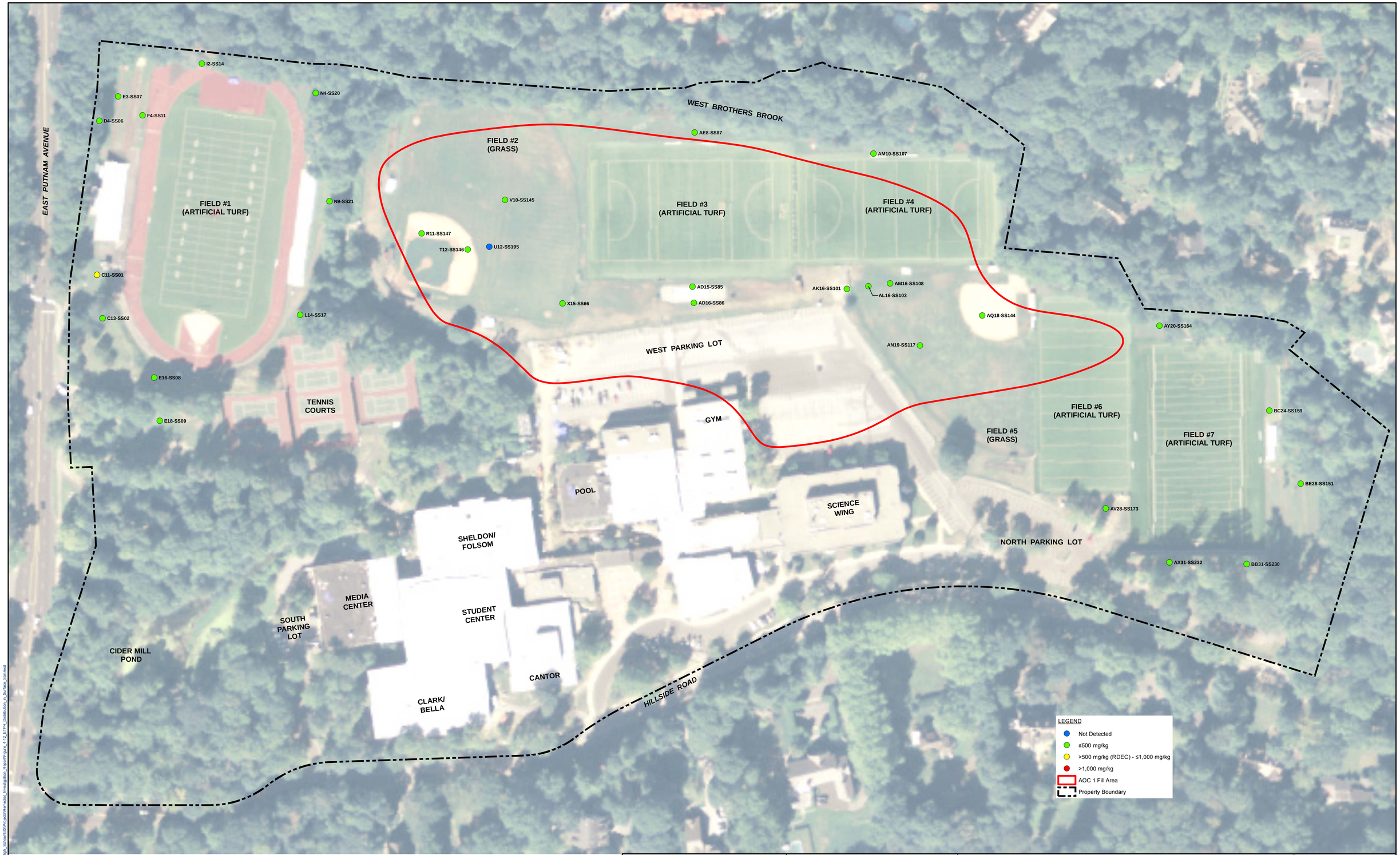
JOB 60225155

FILE NO.

CAD FILE

SHEET

Path: J:\Hall_Service\Project Files\Greenwich_High_School\GIS\Projects\Remedial_Investigation_Report\Figure_A-10_Arsenic_Distribution_in_Soil.mxd



SOURCE:
2010 AERIAL ORTHOPHOTO FROM STATE OF CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION.

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AECOM

N

SCALE:

1" = 80'

0 40 80 160 240 Feet

SCALE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

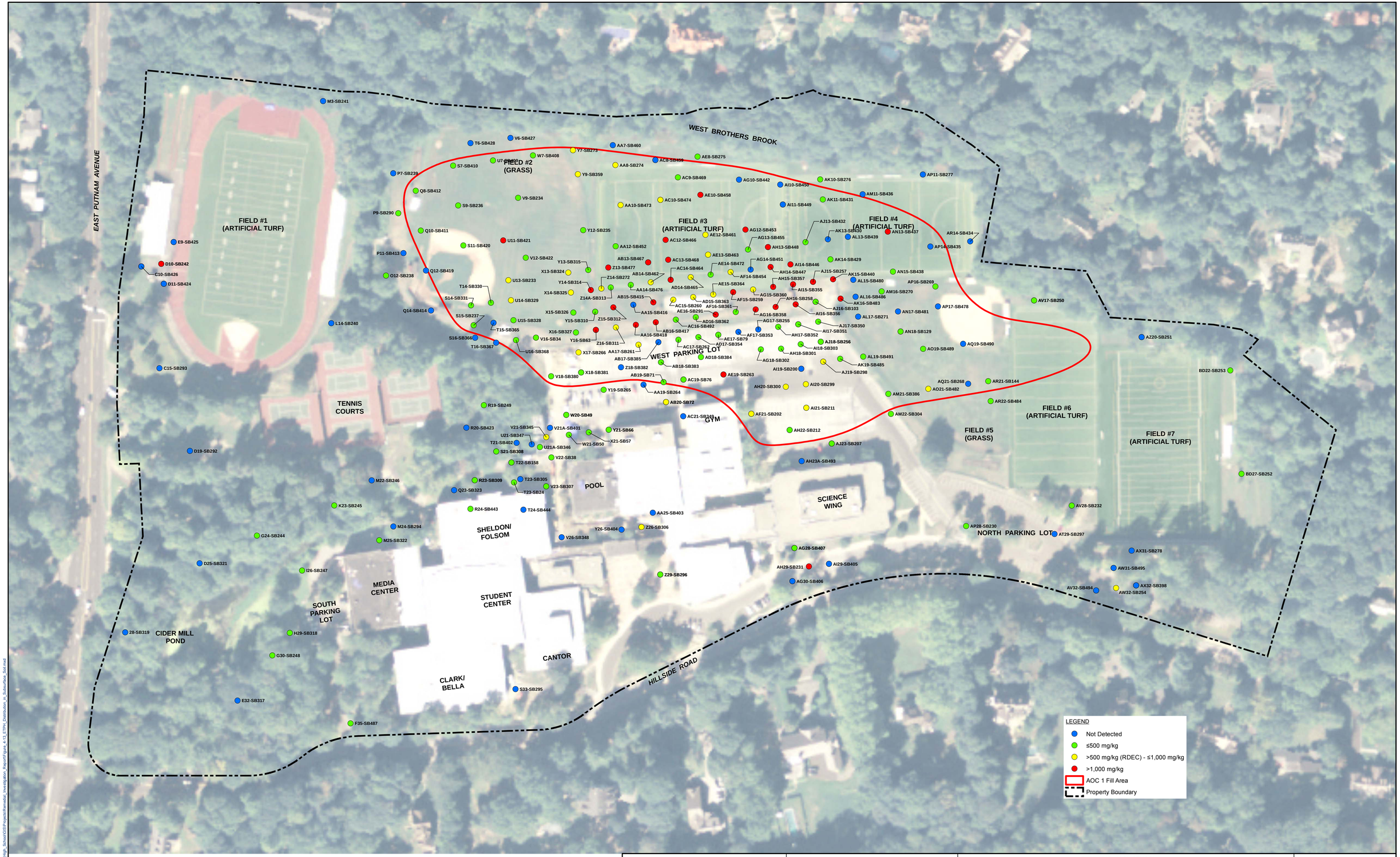
FIGURE A-4
ETPH DISTRIBUTION IN SURFACE SOIL
(DEPTH INTERVAL 0-1')
REMEDIAL INVESTIGATION REPORT

JOB 60225155

FILE NO.

CAD FILE

SHEET



SOURCE:
2010 AERIAL ORTHOPHOTO FROM STATE OF CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION.

AECOM Environment
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(860) 263-5800
www.aecom.com

SCALE:

1" = 80'

0 40 80 160 240 Feet

SCALE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

FIGURE A-5
ETPH DISTRIBUTION IN SUBSURFACE SOIL (DEPTH INTERVAL 1-15')
REMEDIAL INVESTIGATION REPORT

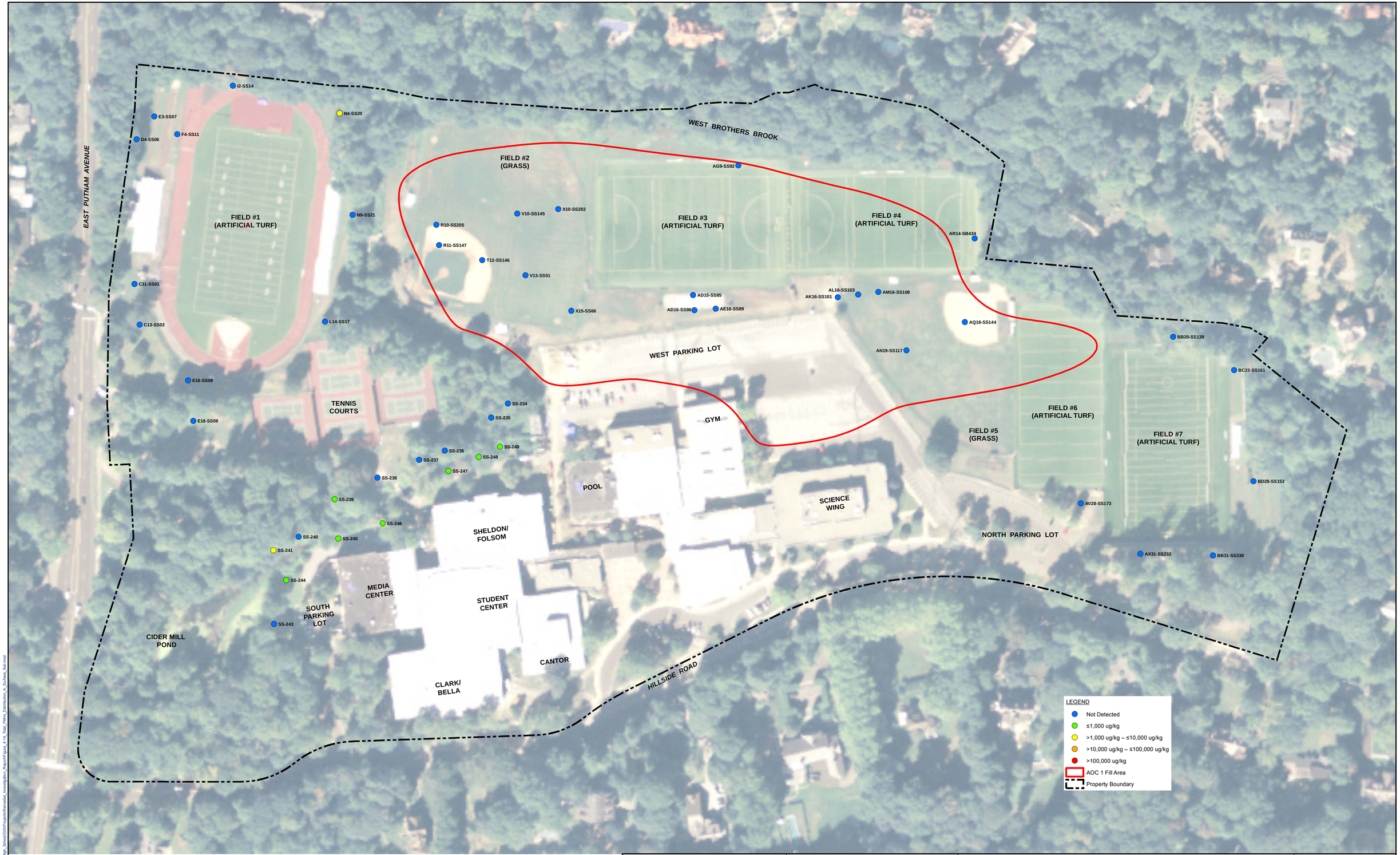
JOB 60225155

FILE NO.

CAD FILE

SHEET

Path: J:\Hist_Service\Project Files\Greenwich_High_School\GIS\Projects\Remedial_Investigation_Report\Figure_A-13_ETPH_Distribution_in_Subsurface_Soil.mxd



SOURCE:
2010 AERIAL ORTHOPHOTO FROM STATE OF CONNECTICUT
DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION.

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AECOM

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SCALE:

1" = 80'

0 40 80 160 240 Feet

SCALE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

FIGURE A-6

TOTAL PAHs DISTRIBUTION IN SURFACE SOIL (DEPTH INTERVAL 0-1')
REMEDIAL INVESTIGATION REPORT

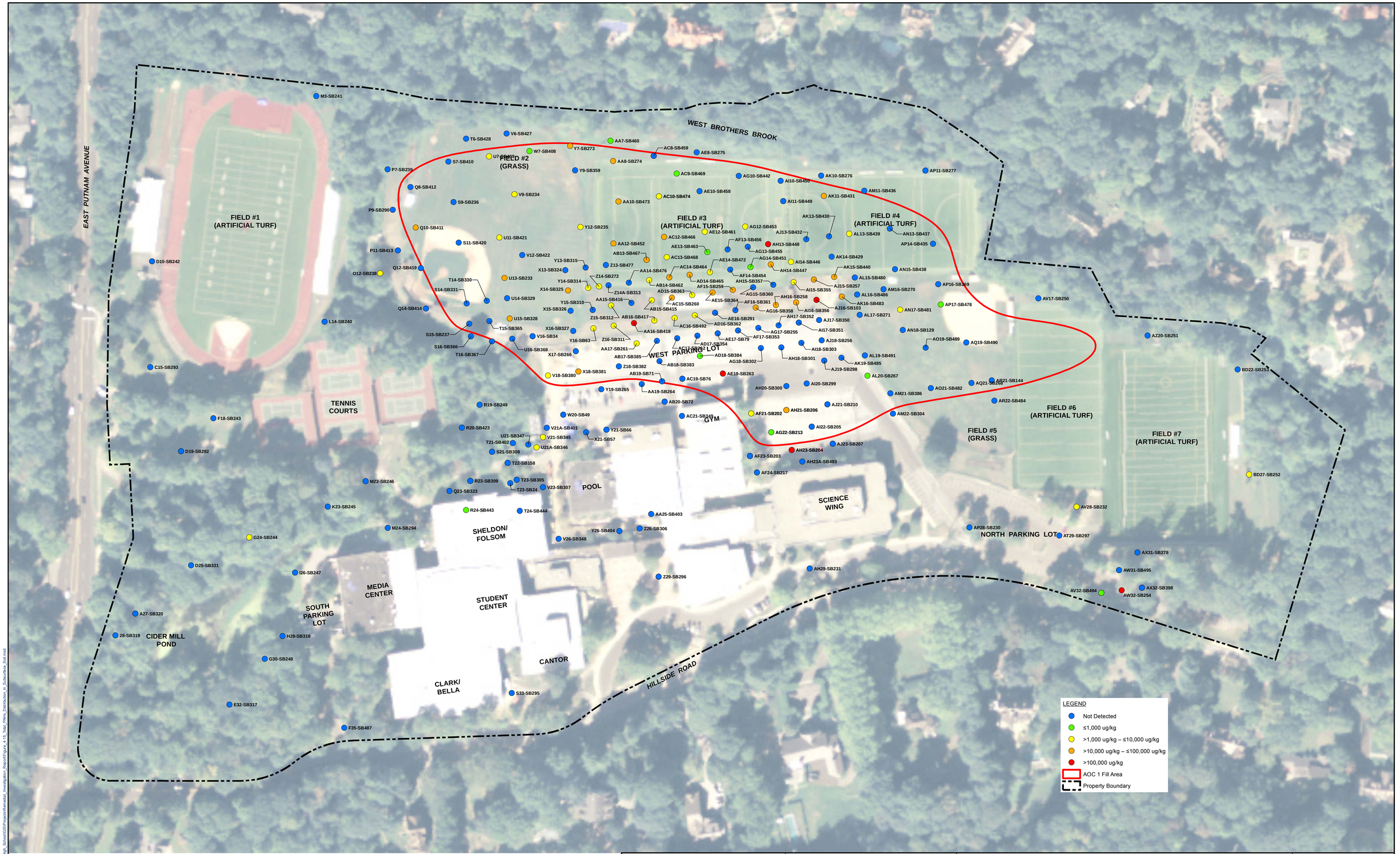
JOB 60225155

FILE NO.

CAD FILE

SHEET

Path: J:\Hall_Service\Project Files\Greenwich_High_School\03\Project\Remedial_Investigation_Report\Figure_A-14_Total_PAHs_Distribution_in_Surface_Soil.mxd



SOURCE:
2010 AERIAL ORTHOPHOTO FROM STATE OF CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION.

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(860) 263-5800
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SCALE:
1" = 80'
0 40 80 160 240 Feet
SCALE

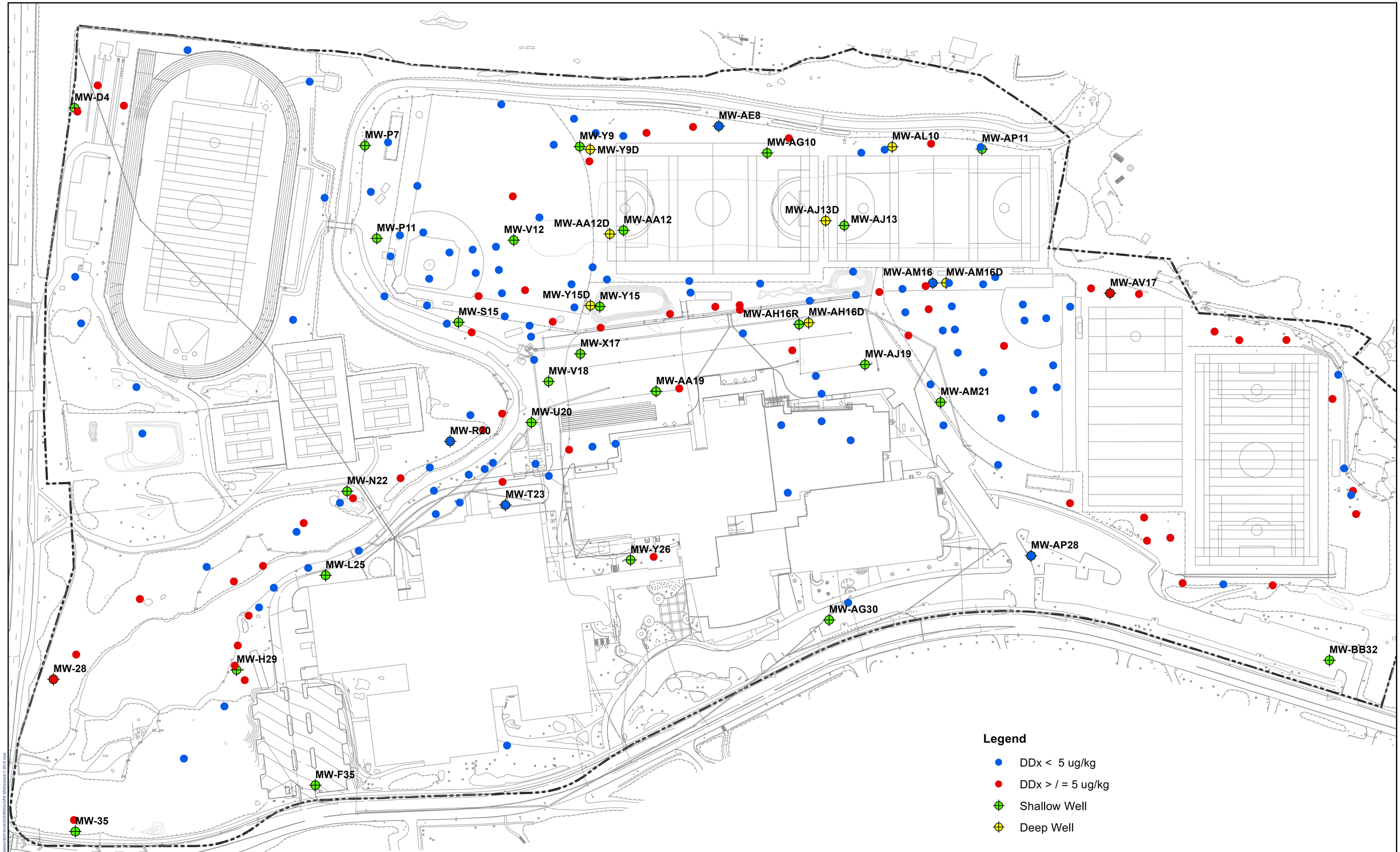
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

FIGURE A-7
TOTAL PAHs DISTRIBUTION IN SOIL (DEPTH INTERVAL 1-15')
REMEDIAL INVESTIGATION REPORT

JOB 60225155
FILE NO.
CAD FILE
SHEET

Path: J:\Hall_Service\Project Files\Greenwich_High_School\GIS\Projects\Remedial_Investigation_Report\Figure_4-15_Total_PAHs_Distribution_on_Soil\surface_Soil.mxd



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(860) 263-5800
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AECOM

N

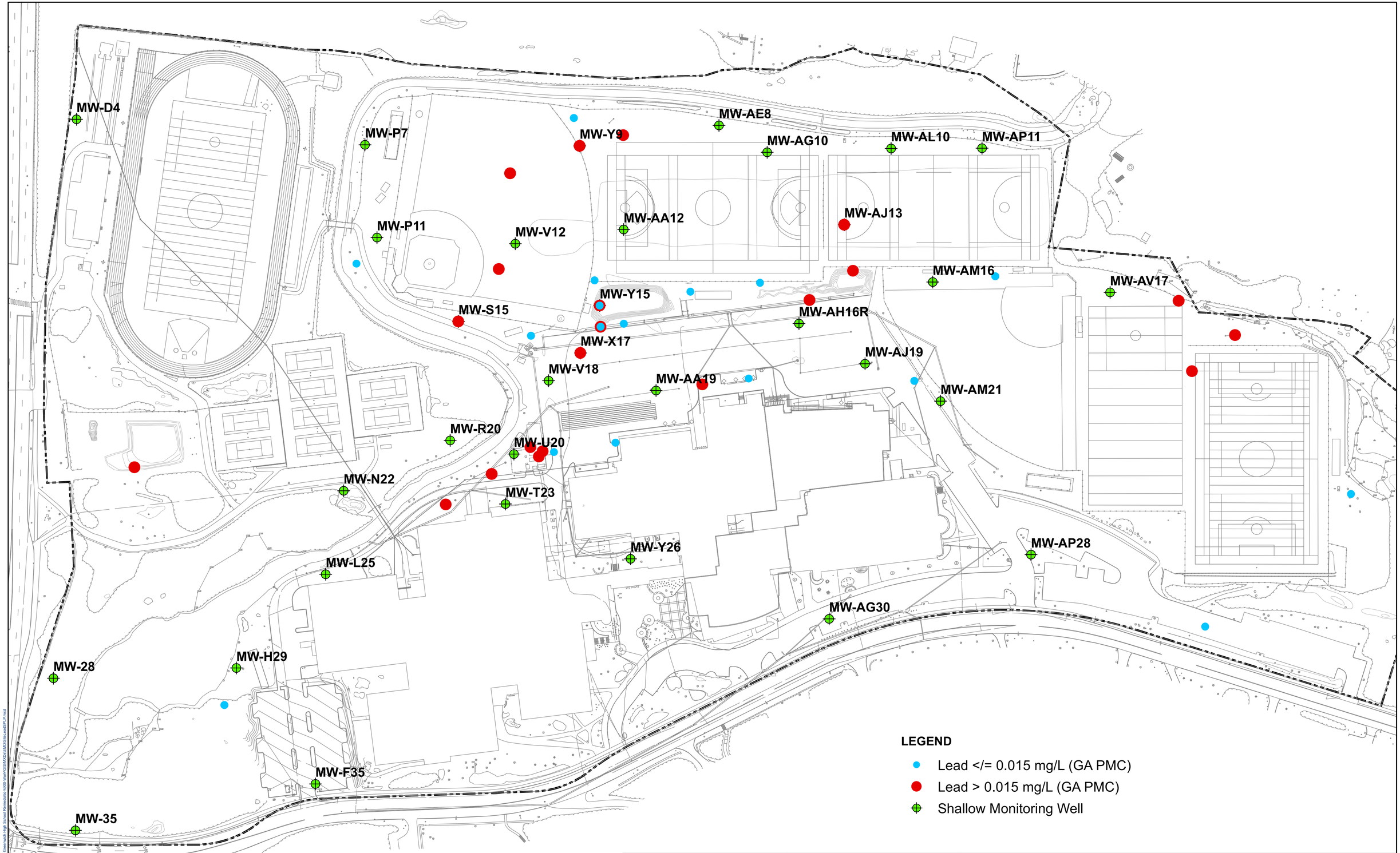
SCALE:
0 35 70 140 210 Feet
1" = 70' SCALE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

SITE-WIDE TOTAL DDx SOIL SAMPLE RESULTS
GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

PROJECT NUMBER:
60432356

FIGURE:
A-8



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(860) 263-5800
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AECOM

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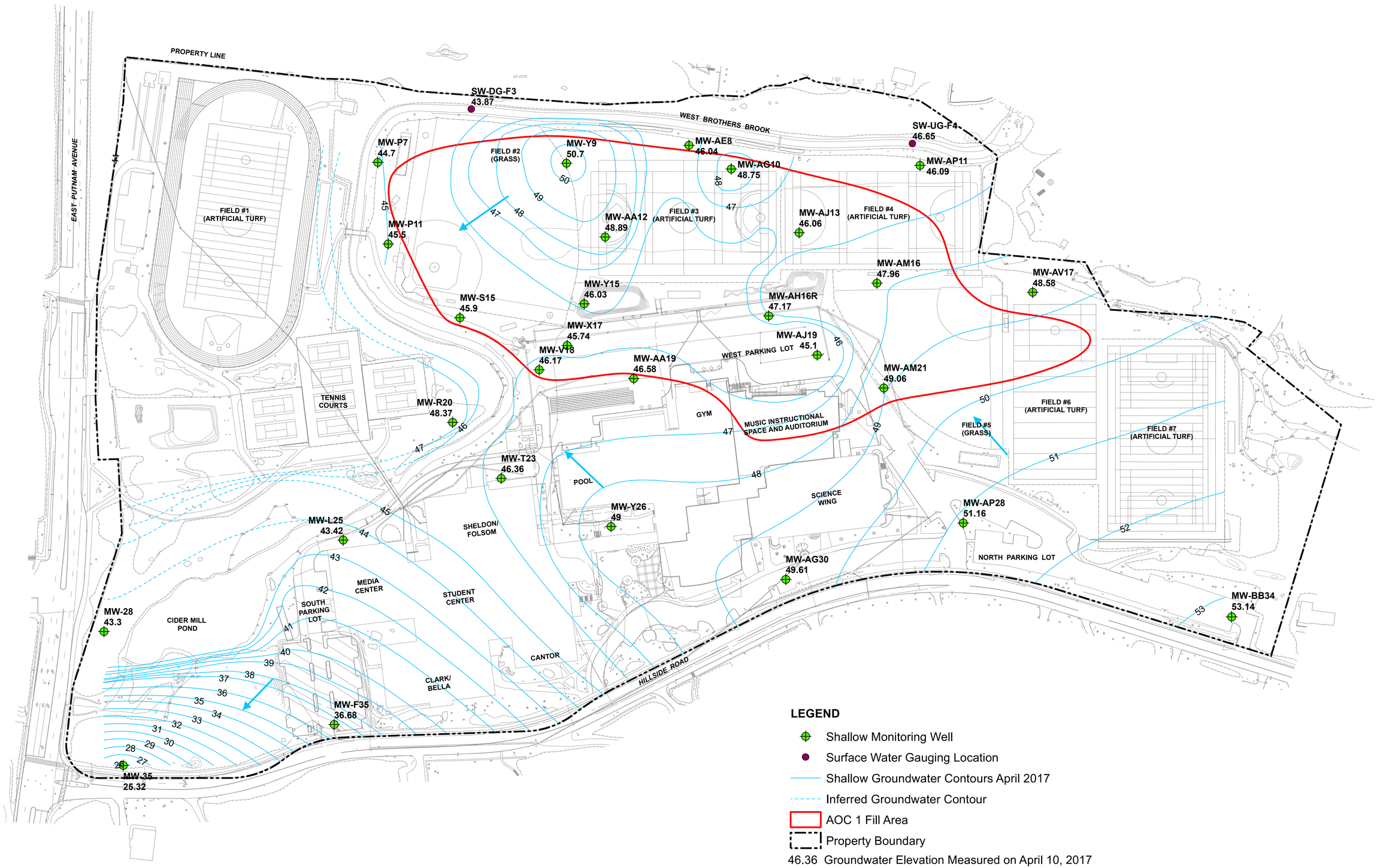
SCALE:
0 35 70 140 210 Feet
1" = 70' SCALE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

SITE-WIDE LEAD SPLP SAMPLE RESULTS
GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

PROJECT NUMBER:
60432356

FIGURE:
A-9



LEGEND

- Shallow Monitoring Well
- Surface Water Gauging Location
- Shallow Groundwater Contours April 2017
- Inferred Groundwater Contour
- AOC 1 Fill Area
- Property Boundary
- 46.36 Groundwater Elevation Measured on April 10, 2017

GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

SOURCE:
2010 AERIAL ORTHOPHOTO FROM STATE OF CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION.

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SCALE:
1" = 80'
0 40 80 160 240 Feet
SCALE

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FIGURE A-10
APRIL 2017
SHALLOW OVERBURDEN GROUNDWATER CONTOURS

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FILE NO.
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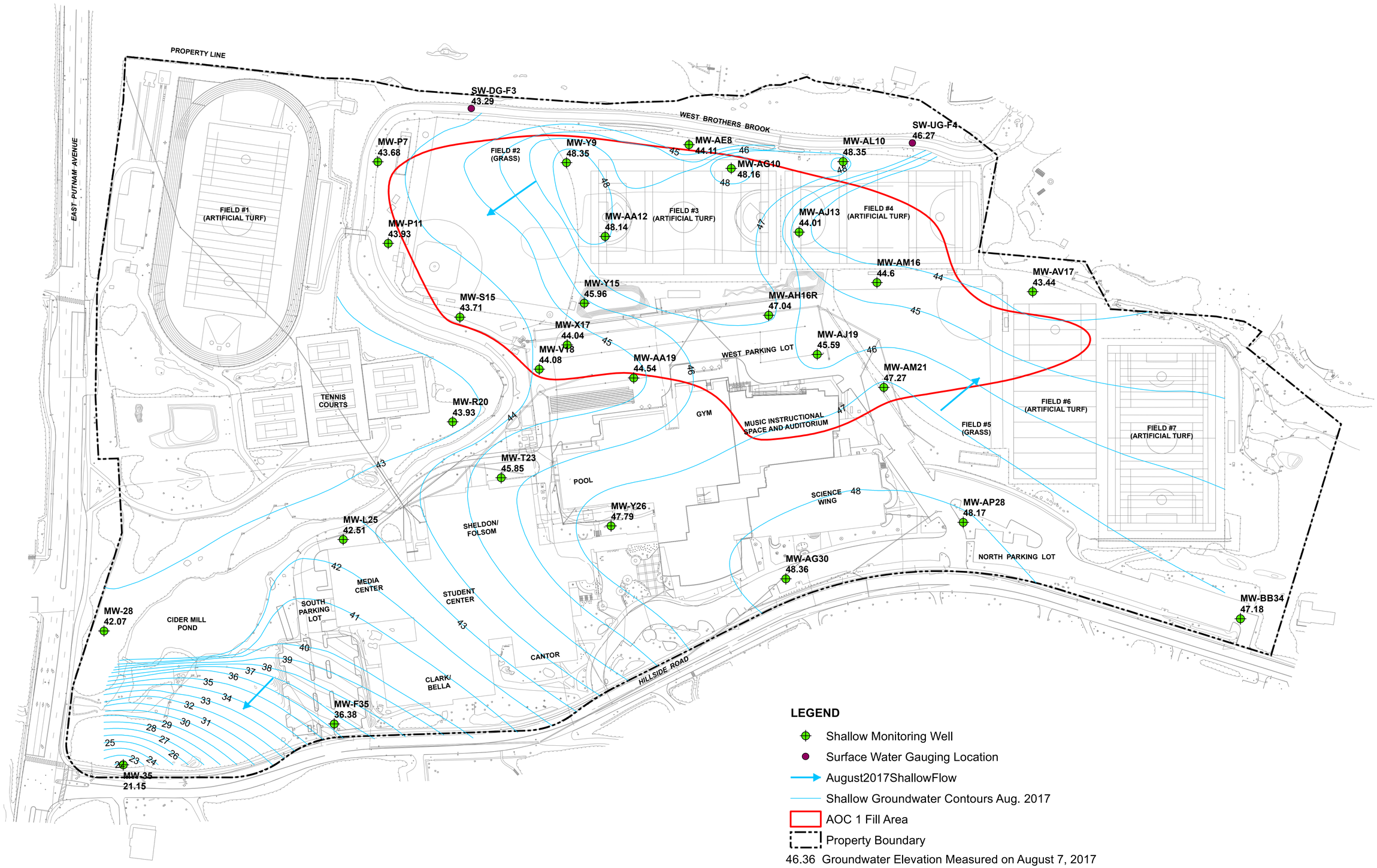
Path: X:\60432366 Greenwich High School Remediation\900-Work\GIS\MXD\ArcHydro Report GPK Edits\Figure 17_April 2017 Contours.mxd



LEGEND

- Shallow Monitoring Well
- Surface Water Gauging Location
- August2017ShallowFlow
- Shallow Groundwater Contours Aug. 2017
- AOC 1 Fill Area
- Property Boundary
- 46.36 Groundwater Elevation Measured on August 7, 2017

GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

SOURCE:
2010 AERIAL ORTHOPHOTO FROM STATE OF CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION.

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SCALE:
1" = 80'
0 40 80 160 240 Feet
SCALE

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FIGURE A-11
AUGUST 2017
SHALLOW OVERBURDEN GROUNDWATER CONTOURS

JOB 60225155
FILE NO.
CAD FILE
SHEET

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PROPERTY LINE

EAST PUTNAM AVENUE

SW-DG-F3
43.47

WEST BROTHERS BROOK

SW-UG-F4
46.66

MW-P7
43.91

MW-Y9
48.55

MW-AE8
44.59

MW-AG10
47.51

MW-AL10
45.32

FIELD #2
(GRASS)

FIELD #1
(ARTIFICIAL TURF)

MW-P11
44.17

MW-AA12
47.07

FIELD #3
(ARTIFICIAL TURF)

MW-AJ13
44.49

FIELD #4
(ARTIFICIAL TURF)

MW-AM16
44.56

MW-AV17
44.82

MW-Y15
46.48

MW-S15
44.03

MW-AH16R
46.62

MW-X17
44.33

MW-V18
44.48

WEST PARKING LOT

MW-AJ19
44.9

MW-AA19
44.77

MW-AM21
44.71

TENNIS
COURTS

MW-R20
45.75

GYM

MUSIC INSTRUCTIONAL
SPACE AND AUDITORIUM

FIELD #5
(GRASS)

FIELD #6
(ARTIFICIAL TURF)

FIELD #7
(ARTIFICIAL TURF)

MW-T23
45.98

POOL

MW-Y26
47.88

SCIENCE
WING

MW-AP28
48.21

MW-L25
43.01

SHELDON/
FOLSOM

NORTH PARKING LOT

MW-AG30
48.42

MW-BB34
46.77

MEDIA
CENTER

STUDENT
CENTER

SOUTH
PARKING
LOT

MW-28
42.79

CIDER MILL
POND

CANTOR

HILLSIDE ROAD

CLARK/
BELLA

MW-F35
36.43

MW-35
23.68

LEGEND

- Shallow Monitoring Well
- Surface Water Gauging Location
- Shallow Groundwater Contours Nov. 2017 (NAD83)
- Inferred Groundwater Contour
- AOC 1 Fill Area
- Property Boundary
- 46.36 Groundwater Elevation Measured on Nov. 13, 2017

GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

SOURCE:
2010 AERIAL ORTHOPHOTO FROM STATE OF CONNECTICUT
DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION.

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SCALE:

1" = 80'

0 40 80 160 240 Feet
SCALE

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FIGURE A-12
NOVEMBER 2017
SHALLOW OVERBURDEN GROUNDWATER CONTOURS

JOB 60225155
FILE NO.
CAD FILE
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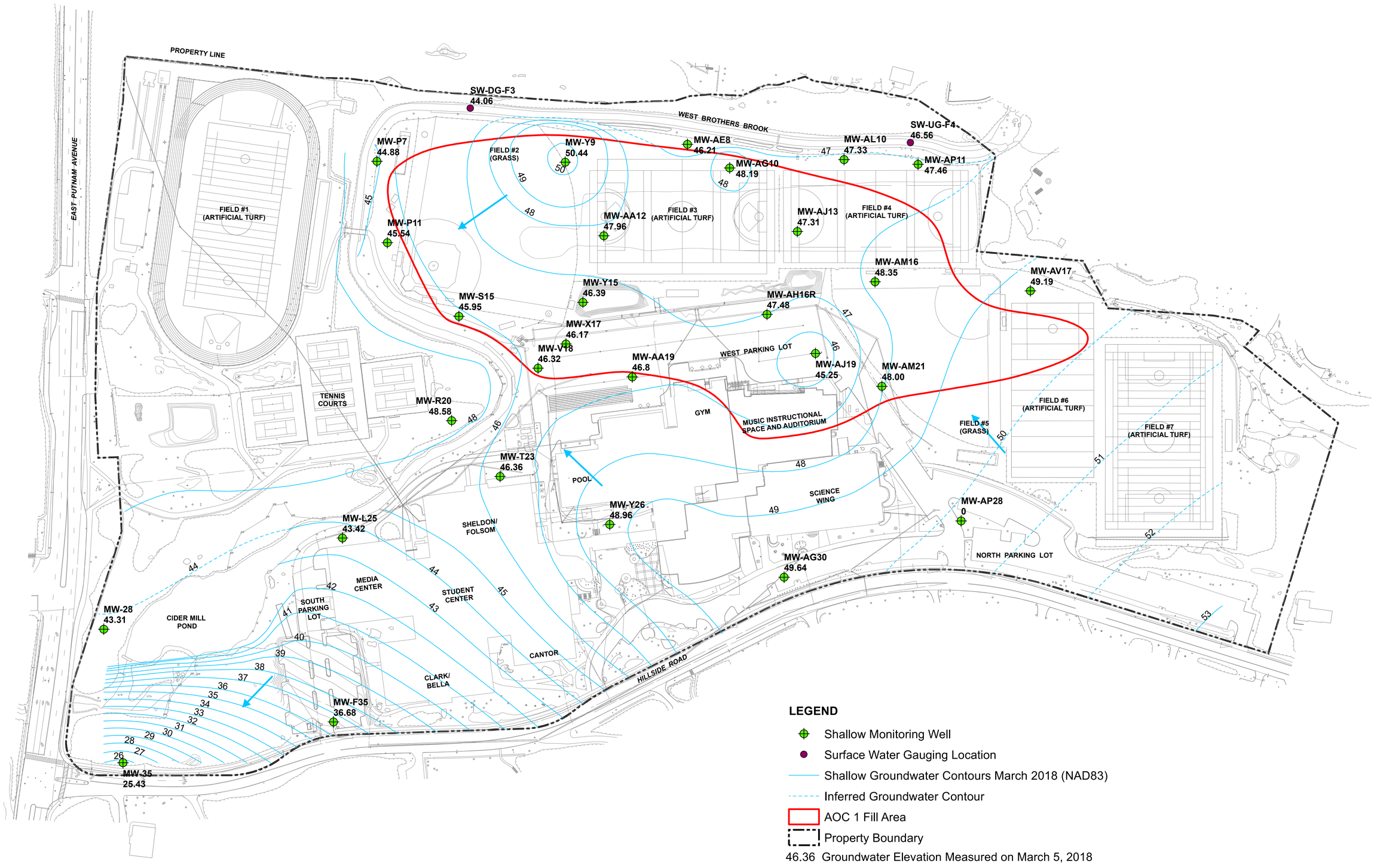

LEGEND

- Shallow Monitoring Well
- Surface Water Gauging Location
- Shallow Groundwater Contours March 2018 (NAD83)
- Inferred Groundwater Contour
- AOC 1 Fill Area
- Property Boundary
- 46.36 Groundwater Elevation Measured on March 5, 2018

GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

SOURCE:
2010 AERIAL ORTHOPHOTO FROM STATE OF CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION.

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SCALE:

1" = 80'

0 40 80 160 240 Feet

SCALE

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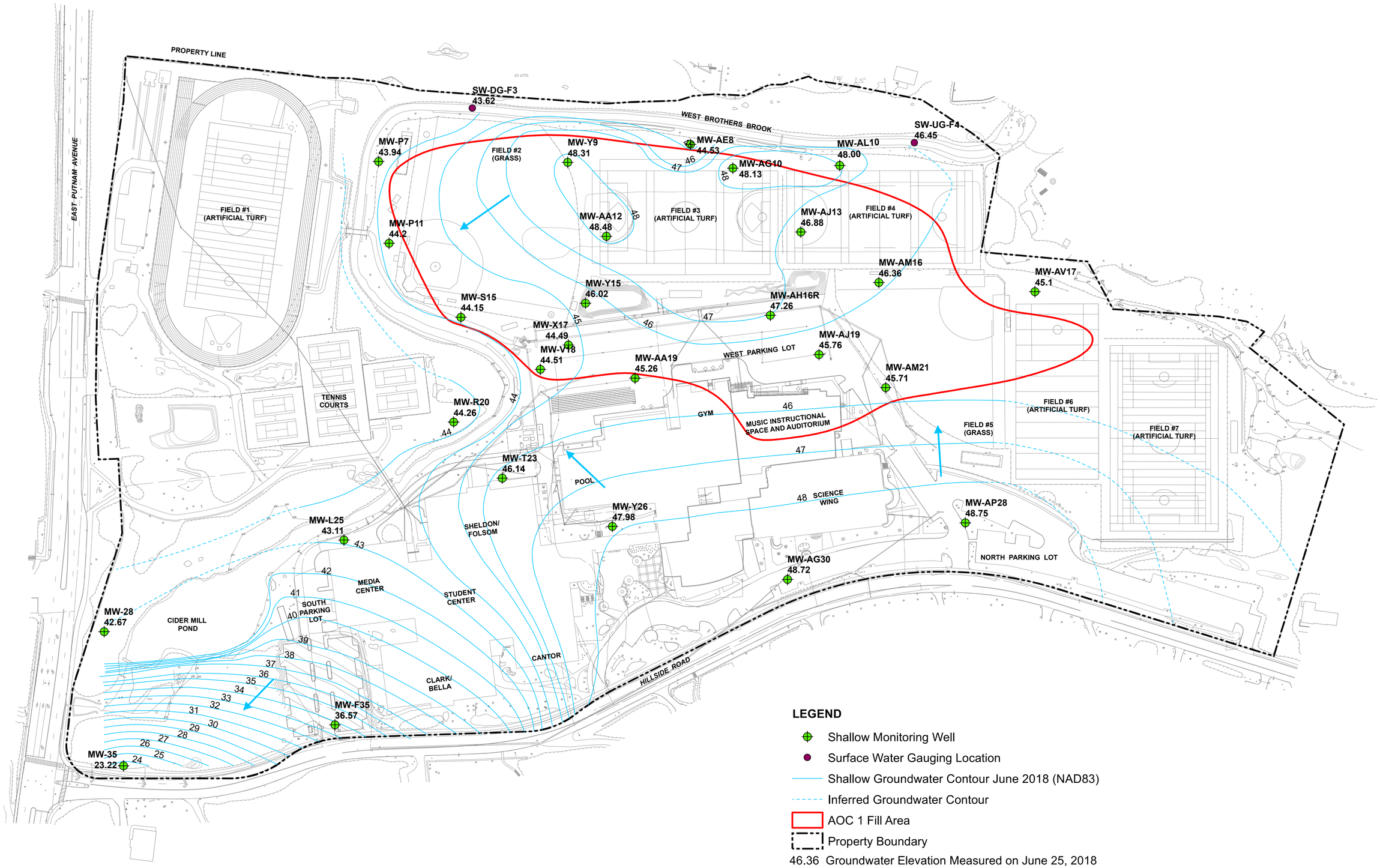
FIGURE A-13
MARCH 2018
SHALLOW OVERBURDEN GROUNDWATER CONTOURS

JOB 60225155
FILE NO.
CAD FILE
SHEET

Path: X:\60432366 Greenwich High School Remediation\900-Work\GIS\MXD\e-Hydro Report GPK Edits\Figure 22_March 2018 Contours.mxd



LEGEND

- Shallow Monitoring Well
- Surface Water Gauging Location
- Shallow Groundwater Contour June 2018 (NAD83)
- Inferred Groundwater Contour
- AOC 1 Fill Area
- Property Boundary
- 46.36 Groundwater Elevation Measured on June 25, 2018

GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

SOURCE:
2010 AERIAL ORTHOPHOTO FROM STATE OF CONNECTICUT
DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION

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(860) 263-5800
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AECOM

N

SCALE:

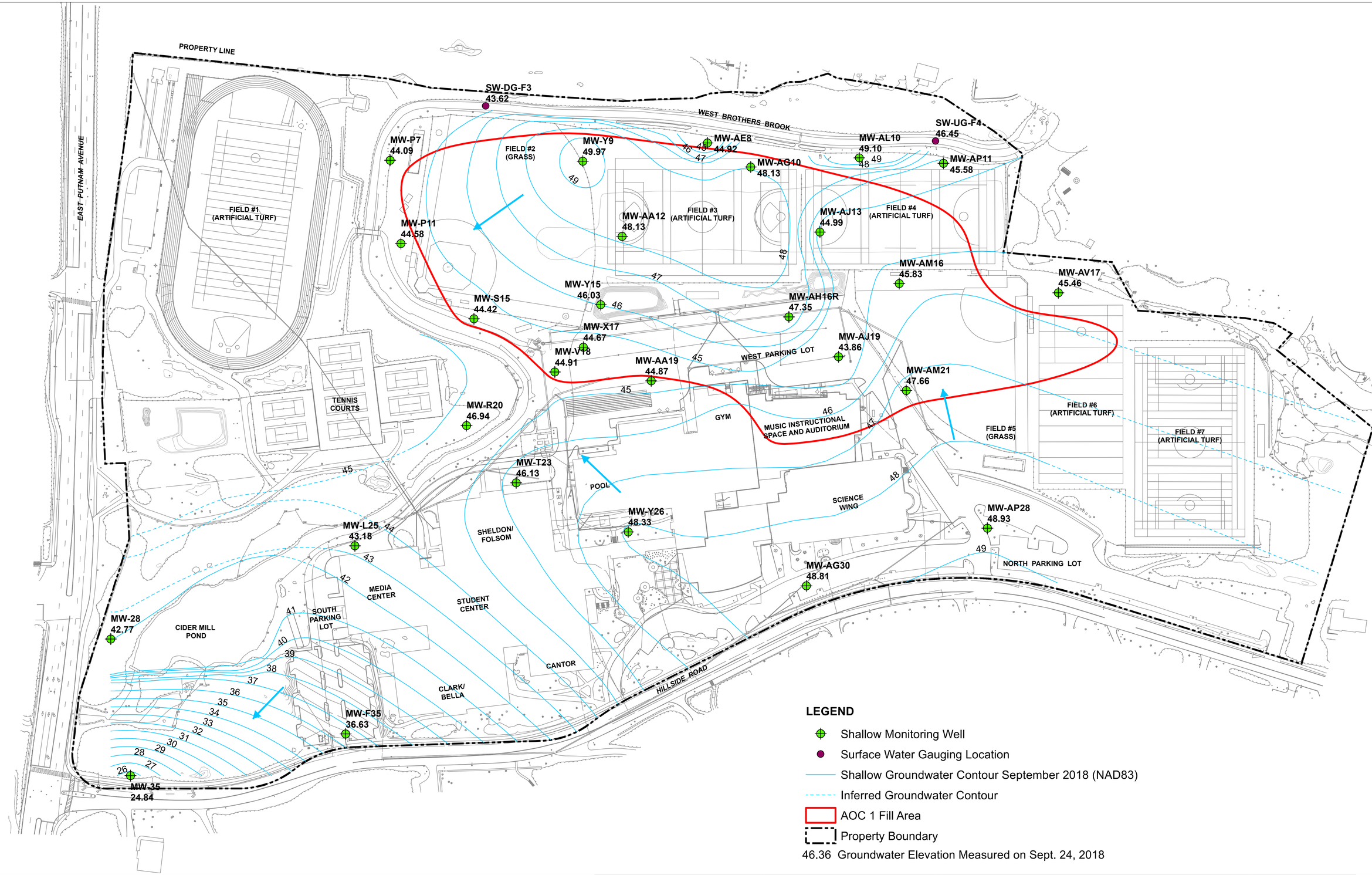
1" = 80' SCALE 0 40 80 160 240 Feet

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

FIGURE A-14
JUNE 2018
SHALLOW OVERBURDEN GROUNDWATER CONTOURS

JOB 60225155
FILE NO.
CAD FILE
SHEET

Path: X:\60432366 Greenwich High School Remediation\900-Work\GIS\MXD\Hydro Report GPR Edits\Figure A-24_June 2018 Contours.mxd



LEGEND

- Shallow Monitoring Well
- Surface Water Gauging Location
- Shallow Groundwater Contour September 2018 (NAD83)
- Inferred Groundwater Contour
- AOC 1 Fill Area
- Property Boundary
- 46.36 Groundwater Elevation Measured on Sept. 24, 2018

GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

SOURCE:
2010 AERIAL ORTHOPHOTO FROM STATE OF CONNECTICUT
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SCALE:
1" = 80'
0 40 80 160 240 Feet
SCALE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

FIGURE A-15
SEPTEMBER 2018
SHALLOW OVERBURDEN GROUNDWATER CONTOURS

JOB 60225155
FILE NO.
CAD FILE
SHEET

Path: X:\60432366 Greenwich High School Remediation\900-Work\GIS\MXDs\Hydro Report GIPK Edits\Figure 2A_September 2018 Contours.mxd

PROPERTY LINE

EAST PUTNAM AVENUE

WEST BROTHERS BROOK

FIELD #1 (ARTIFICIAL TURF)

FIELD #2 (GRASS)

FIELD #3 (ARTIFICIAL TURF)

FIELD #4 (ARTIFICIAL TURF)

FIELD #5 (GRASS)

FIELD #6 (ARTIFICIAL TURF)

FIELD #7 (ARTIFICIAL TURF)

TENNIS COURTS

WEST PARKING LOT

GYM

MUSIC INSTRUCTIONAL SPACE AND AUDITORIUM

POOL

SCIENCE WING

SHELDON/ FOLSOM

MEDIA CENTER

STUDENT CENTER

SOUTH PARKING LOT

CIDER MILL POND

CANTOR

CLARK/ BELLA

NORTH PARKING LOT

HILLSIDE ROAD

MW-P7 44.89

MW-Y9 50.97

MW-AE8 45.72

MW-AG10 48.47

OF-DGF3

MW-AP11 46.48

OF-UGF4

MW-P11 45.05

MW-AA12 50.33

MW-AJ13 46.39

MW-AM16 46.51

MW-AV17 46.78

MW-Y15 46.73

MW-S15 45.26

MW-AH16R 48.12

MW-X17 45.15

MW-V18 45.4

MW-AA19 45.87

MW-AJ19 44.88

MW-AM21 47.46

MW-R20 48.59

MW-T23 46.33

MW-Y26 48.4

MW-AP28 49.73

MW-L25 44.44

MW-AG30 49.18

MW-28 43.57

MW-F35 36.7

MW-35 24.71

44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 50 49 48 47 46 45

LEGEND

- Shallow Monitoring Well
- Outfall Pipe Location
- Shallow Groundwater Contours April 2019 (NAD 83)
- Inferred Groundwater Contour
- AOC 1 Fill Area
- Property Boundary

46.36 Groundwater Elevation Measure on April 15, 2019

MW-AJ19* Measured on April 16, 2019 due to flooding

GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

SOURCE:
2010 AERIAL ORTHOPHOTO FROM STATE OF CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION.

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ROCKY HILL, CT 06067
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SCALE:

1" = 80'

0 40 80 160 240 Feet

SCALE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

FIGURE A-16
APRIL 2019
SHALLOW OVERBURDEN GROUNDWATER CONTOURS

JOB 60225155

FILE NO.

CAD FILE

SHEET

Path: X:\60432356 Greenwich High School Remediation\900-Work\GIS\MXD\April 2019 Contours.mxd

Appendix B

November 2019 Investigation Soil Boring Logs

Boring Log

Boring ID: AZ20-SB251RE

			Client	Town of Greenwich			***Sheet:***	1 *of* 1	
			Project Number:	60432356			*Drilling Method:*	Hand Auger/Direct Push	
			Site:	Greenwich High School			*Ground Elev.:*	NA	
Project Manager:	Dan Seremet		*Logged By:*	E. Doerfler/M.Kenney	*Date Started:*	11/13/2019	*Depth of Boring:*	10	
Drilling Co.:	AARCO		*Driller:*	Nick Turro	*Date Finished:*	11/13/2019	*Water Level:*	NA	

Depth	*Elevation*	*Lab Sample ID*	*Recovery*	*Moisture*	*PID*	*Classification of Material*
feet	*feet*		*inches*		*ppm*	
				Damp	0.0	0-0.5': SP; Brown, m-f SAND, little f gravel, little silt, damp, no OST (topsoil), snow fencing at 0.5'
				Damp	0.0	0.5-2.5': SM; Brownish Gray, SILTY SAND, little fine gravel, trace concrete, trace metal, damp
			NA	Damp	0.0	2.5-3': SM; Gray, SILTY SAND, trace fine gravel, damp
				Damp	0.0	3-5': SM; Brown, SILTY SAND, trace fine gravel, damp
5				Damp	0.0	
					0.0	5-6': SM; Brown, SILTY SAND, little f gravel, trace clay, no odor
					0.0	6-7.5': SM; Gray, SILT, some m-f sand, very dense, trace f gravel, no odor
			46/60		0.0	7.5-8': COBBLE
					0.0	8-9.5': SM; Brownish Gray, SILT, some m-f sand, no odor
10					0.5	9.5-10': OL; Brownish Black, SILTY CLAY, organic odor (organic clay)

Boring Log

Boring ID: AX21-SB800

		Client	Town of Greenwich			***Sheet:***	1 *of* 1
		Project Number:	60432356			*Drilling Method:*	Hand Auger/Direct Push
		Site:	Greenwich High School			*Ground Elev.:*	NA
Project Manager:	Dan Seremet	*Logged By:*	E. Doerfler/M.Kenney	*Date Started:*	11/13/2019	*Depth of Boring:*	15
Drilling Co.:	AARCO	*Driller:*	Nick Turro	*Date Finished:*	11/14/2019	*Water Level:*	NA

Depth	*Elevation*	*Lab Sample ID*	*Recovery*	*Moisture*	*PID*	*Classification of Material*
feet	*feet*		*inches*		*ppm*	
5		AX21-SB800(1-2)-1	NA	Moist	0.0	0-4': SM; Brown, SILTY SAND, some c-f gravel, moist, no odor Hand Clearing Refusal due to cobble at 4 ft bgs, switched to rig 4-5': SP; Brownish Gray, m-f SAND, little silt, trace f gravel, moist, no odor, wet at 4'
10		AX21-SB800(6.5-7.5)-1	36/60	Wet	0.0	5-6.5': SAA 6.5-8.5': SM; Dark Brown to Black, SILTY SAND, trace c sand, trace f gravel 8.5-8.75': COBBLE 8.75-10': ML; Dark Brown, SILT, trace m-f sand, moist, organic smell
15		AX21-SB800(11-12)-1 AX21-SB800(11-12)-2	51/60	Wet	0.0	10-10.5': SM; Gray, m-f SAND, some silt, wet, no odor 10.5-12': SP; Brown, m-f SAND, little silt, little black fine gravel, no odor 12-12.25': COBBLE 12.25-13': SP; Gray, m-f SAND, some silt, trace clay, trace gravel (crushed rock), no odor 13-15': ML; Gray, SILT, little m-f sand, little clay, moist, organic odor

Boring Log

Boring ID: AX26-SB801

		Client	Town of Greenwich			***Sheet:***	1 *of* 1
		Project Number:	60432356			*Drilling Method:*	Hand Auger/Direct Push
		Site:	Greenwich High School			*Ground Elev.:*	NA
Project Manager:	Dan Seremet	*Logged By:*	E. Doerfler/M.Kenney	*Date Started:*	11/14/2019	*Depth of Boring:*	15
Drilling Co.:	AARCO	*Driller:*	Nick Turro	*Date Finished:*	11/14/2019	*Water Level:*	NA

Depth	*Elevation*	*Lab Sample ID*	*Recovery*	*Moisture*	*PID*	*Classification of Material*
feet	*feet*		*inches*		*ppm*	
		AX26-SB801(1-2)-1	NA	Damp	0.0 0.0 0.0	0-2.5': GP; Brownish Gray, GRAVELLY SAND, trace silt, damp, no OST, hand clearing to 2.5 complete, switched to rig
5			23/30	Moist	0.0	2.5-5': SM; Dark Gray, SILT, some m-f sand, trace gravel, moist, no OST, wood at 3' and 4.75'
		AX26-SB801(6-7)-1	37/60	Moist Wet	0.0	5-5.75': SM; Dark Gray, SILT, some m-f sand, trace gravel, moist, no OST 5.75-9.25': SM; Gray, SILT, little fine sand, trace clay, black wood at 14", no odor
10						9.25-10': SM; Light Gray, SILT, little m-f sand, wet, no odor
		AX26-SB801(11-12)-1	41/60	Wet	0.0	10-15': SM; Gray, SILTY SAND, trace gravel, wet, no odor, two cobbles located between 11.5-12'
15						

Boring Log

Boring ID: BA23-SB802

		Client	Town of Greenwich				***Sheet:***	1 *of* 1
		Project Number:	60432356				*Drilling Method:*	Hand Auger/Direct Push
		Site:	Greenwich High School				*Ground Elev.:*	NA
Project Manager:	Dan Seremet	*Logged By:*	E. Doerfler/M.Kenney	*Date Started:*	11/13/2019		*Depth of Boring:*	3.5
Drilling Co.:	AARCO	*Driller:*	Nick Turro	*Date Finished:*	11/14/2019		*Water Level:*	NA

Depth	*Elevation*	*Lab Sample ID*	*Recovery*	*Moisture*	*PID*	*Classification of Material*
feet	*feet*		*inches*		*ppm*	
5		BA23-SB802(1-2)-1	NA		0.0 0.0 0.0 0.0 0.0	0-3': SP; Grayish Brown, c-f SAND, little silt, little gravel 3-3.5': SP; Brown, m-f SAND, little silt, little f gravel, little cobbles Hand and rig refusal at 3.5 ft bgs (rock)

Boring Log

Boring ID: AW19-SB803

		Client	Town of Greenwich			***Sheet:***	1 *of* 1
		Project Number:	60432356			*Drilling Method:*	Hand Auger/Direct Push
		Site:	Greenwich High School			*Ground Elev.:*	NA
Project Manager:	Dan Seremet	*Logged By:*	E. Doerfler/M.Kenney	*Date Started:*	11/13/2019	*Depth of Boring:*	15
Drilling Co.:	AARCO	*Driller:*	Nick Turro	*Date Finished:*	11/13/2019	*Water Level:*	NA

Depth	*Elevation*	*Lab Sample ID*	*Recovery*	*Moisture*	*PID*	*Classification of Material*
feet	*feet*		*inches*		*ppm*	
5		AW19-SB803(1-2)-1	NA	Damp Damp Damp Damp Mosit	0.0	0-4': SM; Brown, SILTY SAND, some gravel, top 1" gravel subbase, some cobbles found from 2'-3' 4-5': SM; Dark Gray, SILT, little m-f sand, trace f gravel, moist
10		AW19-SB803(7-8)-1	36/60	Moist	0.0	5-6.25': SM; Brown, SILTY SAND, some f gravel, moist, no odor 6.25-6.5': COBBLE 6.5-8.25': SM; Dark gray to Black, SILT, little m-f sand, trace f gravel, moist, no odor 8.25-10' OL; Dark gray to Black, CLAY, little silt, moist, slight organic odor
15		AW19-SB803(12-13)-1	45/60	Wet	0.0	10-11.5': SAA 11.5-11.75': SP; Brown, GRAVELLY SAND, wet, no odor 11.75-12': COBBLE 12-14.5': SP; Gray, GRAVELLY SAND, wet, no odor 14.5-15': SP; Brown, GRAVELLY SAND, wet, no odor

Boring Log

Boring ID: AX28-SB804

		Client	Town of Greenwich			***Sheet:***	1 *of* 1
		Project Number:	60432356			*Drilling Method:*	Hand Auger/Direct Push
		Site:	Greenwich High School			*Ground Elev.:*	NA
Project Manager:	Dan Seremet	*Logged By:*	E. Doerfler/M.Kenney	*Date Started:*	11/13/2019	*Depth of Boring:*	5
Drilling Co.:	AARCO	*Driller:*	Nick Turro	*Date Finished:*	11/14/2019	*Water Level:*	NA

Depth	*Elevation*	*Lab Sample ID*	*Recovery*	*Moisture*	*PID*	*Classification of Material*
feet	*feet*		*inches*		*ppm*	
5		AX28-SB804(1-2)1 AX28-SB804(3-4)1	NA 24/30	Damp	0.0 0.0 0.0 0.0	0-1': SP; Brown, c-f SAND, some gravel, little silt, damp 1-2.5': GP; Gravel, some c-f sand, hand clearing refusal at 2.5', switched to rig 2.5-4.25': SP; Brown and Dark Gray, m-f SAND, little gravel, little silt 4.25-5': Rock (possibly weathered bedrock)

Boring Log

Boring ID: AY30-SB805

		Client	Town of Greenwich			***Sheet:***	1 *of* 1
		Project Number:	60432356			*Drilling Method:*	Hand Auger/Direct Push
		Site:	Greenwich High School			*Ground Elev.:*	NA
Project Manager:	Dan Seremet	*Logged By:*	E. Doerfler/M.Kenney	*Date Started:*	11/14/2019	*Depth of Boring:*	5
Drilling Co.:	AARCO	*Driller:*	Nick Turro	*Date Finished:*	11/14/2019	*Water Level:*	NA

Depth	*Elevation*	*Lab Sample ID*	*Recovery*	*Moisture*	*PID*	*Classification of Material*
feet	*feet*		*inches*		*ppm*	
5		AY30-SB805(1-2)-1 AY30-SB805(1-2)-2 AY30-SB805(3-4)-1	NA 28/30		0.0 0.0 0.0	0-2.5': SP; Brown, c-f SAND, some gravel, trace silt, no odor, hand clearing to 2.5' complete, switched to rig 2.5-3.5': SAA 3.5-5': Weathered bedrock

AECOM

Boring Log

Boring ID: BA23-SB806

		Client	Town of Greenwich			***Sheet:***	1 *of* 1
		Project Number:	60432356			*Drilling Method:*	Hand Auger/Direct Push
		Site:	Greenwich High School			*Ground Elev.:*	NA
Project Manager:	Dan Seremet	*Logged By:*	E. Doerfler/M.Kenney	*Date Started:*	11/14/2019	*Depth of Boring:*	3
Drilling Co.:	AARCO	*Driller:*	Nick Turro	*Date Finished:*	11/14/2019	*Water Level:*	NA

Depth	*Elevation*	*Lab Sample ID*	*Recovery*	*Moisture*	*PID*	*Classification of Material*
feet	*feet*		*inches*		*ppm*	
5		BA23-SB806(1-2)-1	NA		0.0 0.0 0.0	0-1': SP; Brown, c-f, SAND, some gravel, trace silt, no OST 1-2.5': SP; Brown, c-f SAND, some gravel, little silt, no OST, hand clearing to 2.5' complete, switched to rig Rig refusal at 3 ft bgs (possible bedrock). Crushed rock in tip. No recovery in core.

Boring Log

Boring ID: BA23-SB808

	Client	Town of Greenwich			***Sheet:***	1 *of* 1	
	Project Number:	60432356			*Drilling Method:*	Hand Auger/Direct Push	
	Site:	Greenwich High School			*Ground Elev.:*	NA	
Project Manager:	Dan Seremet	*Logged By:*	E. Doerfler	*Date Started:*	11/15/2019	*Depth of Boring:*	5.5
Drilling Co.:	AARCO	*Driller:*	Nick Turro	*Date Finished:*	11/15/2019	*Water Level:*	NA

Depth	*Elevation*	*Lab Sample ID*	*Recovery*	*Moisture*	*PID*	*Classification of Material*
feet	*feet*		*inches*		*ppm*	
5		BA23-SB808(1-2)-1 BA23-SB808(2.5-3.5)-1 BA23-SB808(4-5)-1	NA 30/30	Damp Damp Damp Damp Damp	0.0	0-1': SP; Brown, GRAVELLY SAND, damp, no OST 1-2': SP; Brown, c-f SAND, some gravel, little silt, damp, no OST 2-2.5': SP; Brown, c-f SAND, some gravel, little silt, damp, no OST, hand clearing to 2.5' complete, switch to rig 2.5'-3': SP; Black, m-f SAND, some gravel, trace silt, damp, slight organic odor 3-3.25': Rock 3.25-3.5': SP; Brown, c-f SAND, some gravel, no OST 3.5-5': SP, Brown, m-f, SAND, little silt, trace black rocks (possibly cinders), damp, no OST
10			0/6			Rig refusal at 5.5 ft bgs 5-5.5': Rock, no recovery in sample

Appendix C

Analytical Laboratory Reports

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

November 18, 2019

Dan Seremet
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0500
Laboratory Work Order Number: 19K0759

Enclosed are results of analyses for samples received by the laboratory on November 13, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kaitlyn A. Feliciano
Project Manager

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Dan Seremet

REPORT DATE: 11/18/2019

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356.0500

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 19K0759

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
AZ20-SB251RE (7-7.5)-1	19K0759-01	Soil		SM 2540G	
				SW-846 1312	
				SW-846 6010D	
				SW-846 6020B	
AW19-SB803 (1-2)-1	19K0759-02	Soil		SM 2540G	
				SW-846 8082A	
AW19-SB803 (7-8)-1	19K0759-03	Soil		SM 2540G	
				SW-846 8082A	
AW19-SB803 (12-13)-1	19K0759-04	Soil		SM 2540G	
				SW-846 8082A	
AX21-SB800 (1-2)-1	19K0759-05	Soil		SM 2540G	
				SW-846 8082A	
BA23-SB802 (1-2)-1	19K0759-06	Soil		SM 2540G	
				SW-846 8082A	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 6010, only Pb was requested and reported.

For method 6020, only Pb was requested and reported.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0759

Date Received: 11/13/2019

Field Sample #: AZ20-SB251RE (7-7.5)-1 | Sampled: 11/13/2019 09:10

Sample ID: 19K0759-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	19	0.53	mg/Kg dry	1		SW-846 6010D	11/14/19	11/15/19 17:18	MJH

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0759

Date Received: 11/13/2019

Field Sample #: AZ20-SB251RE (7-7.5)-1 | Sampled: 11/13/2019 09:10

Sample ID: 19K0759-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	91.3		% Wt	1		SM 2540G	11/14/19	11/14/19 15:25	ADB

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0759

Date Received: 11/13/2019

Field Sample #: AZ20-SB251RE (7-7.5)-1 | Sampled: 11/13/2019 09:10

Sample ID: 19K0759-01

Sample Matrix: Soil

SPLP - Metals Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	21	2.5	µg/L	5		SW-846 6020B	11/15/19	11/15/19 18:38	MJH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0759

Date Received: 11/13/2019

Field Sample #: AW19-SB803 (1-2)-1 | Sampled: 11/13/2019 09:41

Sample ID: 19K0759-02

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.094	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 17:45	TG
Aroclor-1221 [1]	ND	0.094	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 17:45	TG
Aroclor-1232 [1]	ND	0.094	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 17:45	TG
Aroclor-1242 [1]	ND	0.094	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 17:45	TG
Aroclor-1248 [1]	ND	0.094	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 17:45	TG
Aroclor-1254 [1]	ND	0.094	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 17:45	TG
Aroclor-1260 [1]	ND	0.094	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 17:45	TG
Aroclor-1262 [1]	ND	0.094	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 17:45	TG
Aroclor-1268 [1]	ND	0.094	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 17:45	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	115	30-150		11/15/19 17:45
Decachlorobiphenyl [2]	93.3	30-150		11/15/19 17:45
Tetrachloro-m-xylene [1]	97.1	30-150		11/15/19 17:45
Tetrachloro-m-xylene [2]	92.5	30-150		11/15/19 17:45

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0759

Date Received: 11/13/2019

Field Sample #: AW19-SB803 (1-2)-1 | Sampled: 11/13/2019 09:41

Sample ID: 19K0759-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.7		% Wt	1		SM 2540G	11/14/19	11/14/19 15:25	ADB

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0759

Date Received: 11/13/2019

Field Sample #: AW19-SB803 (7-8)-1 | Sampled: 11/13/2019 10:45

Sample ID: 19K0759-03

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 17:58	TG
Aroclor-1221 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 17:58	TG
Aroclor-1232 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 17:58	TG
Aroclor-1242 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 17:58	TG
Aroclor-1248 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 17:58	TG
Aroclor-1254 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 17:58	TG
Aroclor-1260 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 17:58	TG
Aroclor-1262 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 17:58	TG
Aroclor-1268 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 17:58	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	99.6	30-150		11/15/19 17:58
Decachlorobiphenyl [2]	95.5	30-150		11/15/19 17:58
Tetrachloro-m-xylene [1]	97.3	30-150		11/15/19 17:58
Tetrachloro-m-xylene [2]	90.8	30-150		11/15/19 17:58

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0759

Date Received: 11/13/2019

Field Sample #: AW19-SB803 (7-8)-1 | Sampled: 11/13/2019 10:45

Sample ID: 19K0759-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.8		% Wt	1		SM 2540G	11/14/19	11/14/19 15:25	ADB

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0759

Date Received: 11/13/2019

Field Sample #: AW19-SB803 (12-13)-1 | Sampled: 11/13/2019 10:55

Sample ID: 19K0759-04

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:10	TG
Aroclor-1221 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:10	TG
Aroclor-1232 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:10	TG
Aroclor-1242 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:10	TG
Aroclor-1248 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:10	TG
Aroclor-1254 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:10	TG
Aroclor-1260 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:10	TG
Aroclor-1262 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:10	TG
Aroclor-1268 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:10	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	101	30-150		11/15/19 18:10
Decachlorobiphenyl [2]	93.7	30-150		11/15/19 18:10
Tetrachloro-m-xylene [1]	102	30-150		11/15/19 18:10
Tetrachloro-m-xylene [2]	96.9	30-150		11/15/19 18:10

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0759

Date Received: 11/13/2019

Field Sample #: AW19-SB803 (12-13)-1 | Sampled: 11/13/2019 10:55

Sample ID: 19K0759-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.5		% Wt	1		SM 2540G	11/14/19	11/14/19 15:25	ADB

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0759

Date Received: 11/13/2019

Field Sample #: AX21-SB800 (1-2)-1 | Sampled: 11/13/2019 11:37

Sample ID: 19K0759-05

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:23	TG
Aroclor-1221 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:23	TG
Aroclor-1232 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:23	TG
Aroclor-1242 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:23	TG
Aroclor-1248 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:23	TG
Aroclor-1254 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:23	TG
Aroclor-1260 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:23	TG
Aroclor-1262 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:23	TG
Aroclor-1268 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:23	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	96.7	30-150		11/15/19 18:23
Decachlorobiphenyl [2]	87.8	30-150		11/15/19 18:23
Tetrachloro-m-xylene [1]	96.3	30-150		11/15/19 18:23
Tetrachloro-m-xylene [2]	90.0	30-150		11/15/19 18:23

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0759

Date Received: 11/13/2019

Field Sample #: AX21-SB800 (1-2)-1 | Sampled: 11/13/2019 11:37

Sample ID: 19K0759-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.9		% Wt	1		SM 2540G	11/14/19	11/14/19 15:26	ADB

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0759

Date Received: 11/13/2019

Field Sample #: BA23-SB802 (1-2)-1 | Sampled: 11/13/2019 13:20

Sample ID: 19K0759-06

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:40	TG
Aroclor-1221 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:40	TG
Aroclor-1232 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:40	TG
Aroclor-1242 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:40	TG
Aroclor-1248 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:40	TG
Aroclor-1254 [2]	0.11	0.086	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:40	TG
Aroclor-1260 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:40	TG
Aroclor-1262 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:40	TG
Aroclor-1268 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	11/14/19	11/15/19 18:40	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	86.1	30-150		11/15/19 18:40
Decachlorobiphenyl [2]	79.9	30-150		11/15/19 18:40
Tetrachloro-m-xylene [1]	94.4	30-150		11/15/19 18:40
Tetrachloro-m-xylene [2]	89.7	30-150		11/15/19 18:40

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0759

Date Received: 11/13/2019

Field Sample #: BA23-SB802 (1-2)-1 | Sampled: 11/13/2019 13:20

Sample ID: 19K0759-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	92.6		% Wt	1		SM 2540G	11/14/19	11/14/19 15:26	ADB

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Sample Extraction Data

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
19K0759-01 [AZ20-SB251RE (7-7.5)-1]	B245999	11/14/19
19K0759-02 [AW19-SB803 (1-2)-1]	B245999	11/14/19
19K0759-03 [AW19-SB803 (7-8)-1]	B245999	11/14/19
19K0759-04 [AW19-SB803 (12-13)-1]	B245999	11/14/19
19K0759-05 [AX21-SB800 (1-2)-1]	B245999	11/14/19
19K0759-06 [BA23-SB802 (1-2)-1]	B245999	11/14/19

Prep Method: SW-846 3050B-SW-846 6010D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19K0759-01 [AZ20-SB251RE (7-7.5)-1]	B246056	1.54	50.0	11/14/19

Prep Method: SW-846 3010A-SW-846 6020B **Leachates were extracted on 11/14/2019 per SW-846 1312 in Batch B246040**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
19K0759-01 [AZ20-SB251RE (7-7.5)-1]	B246166	50.0	50.0	11/15/19

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19K0759-02 [AW19-SB803 (1-2)-1]	B245982	10.0	10.0	11/14/19
19K0759-03 [AW19-SB803 (7-8)-1]	B245982	10.0	10.0	11/14/19
19K0759-04 [AW19-SB803 (12-13)-1]	B245982	10.0	10.0	11/14/19
19K0759-05 [AX21-SB800 (1-2)-1]	B245982	10.0	10.0	11/14/19
19K0759-06 [BA23-SB802 (1-2)-1]	B245982	10.0	10.0	11/14/19

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QUALITY CONTROL

Polychlorinated Biphenyls with 3540 Soxhlet Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B245982 - SW-846 3540C										
Blank (B245982-BLK1)				Prepared: 11/14/19 Analyzed: 11/15/19						
Aroclor-1016	ND	0.020	mg/Kg wet							
Aroclor-1016 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1221	ND	0.020	mg/Kg wet							
Aroclor-1221 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1232	ND	0.020	mg/Kg wet							
Aroclor-1232 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1242	ND	0.020	mg/Kg wet							
Aroclor-1242 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1248	ND	0.020	mg/Kg wet							
Aroclor-1248 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1254	ND	0.020	mg/Kg wet							
Aroclor-1254 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1260	ND	0.020	mg/Kg wet							
Aroclor-1260 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1262	ND	0.020	mg/Kg wet							
Aroclor-1262 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1268	ND	0.020	mg/Kg wet							
Aroclor-1268 [2C]	ND	0.020	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.209*		mg/Kg wet	0.200		105	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.202*		mg/Kg wet	0.200		101	30-150			
Surrogate: Tetrachloro-m-xylene	*0.196*		mg/Kg wet	0.200		97.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.186*		mg/Kg wet	0.200		93.2	30-150			
LCS (B245982-BS1)				Prepared: 11/14/19 Analyzed: 11/15/19						
Aroclor-1016	0.18	0.020	mg/Kg wet	0.200		91.8	40-140			
Aroclor-1016 [2C]	0.18	0.020	mg/Kg wet	0.200		88.4	40-140			
Aroclor-1260	0.18	0.020	mg/Kg wet	0.200		91.9	40-140			
Aroclor-1260 [2C]	0.17	0.020	mg/Kg wet	0.200		83.9	40-140			
Surrogate: Decachlorobiphenyl	*0.216*		mg/Kg wet	0.200		108	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.209*		mg/Kg wet	0.200		104	30-150			
Surrogate: Tetrachloro-m-xylene	*0.202*		mg/Kg wet	0.200		101	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.192*		mg/Kg wet	0.200		95.9	30-150			
LCS Dup (B245982-BSD1)				Prepared: 11/14/19 Analyzed: 11/15/19						
Aroclor-1016	0.18	0.020	mg/Kg wet	0.200		90.4	40-140	1.57	30	
Aroclor-1016 [2C]	0.18	0.020	mg/Kg wet	0.200		87.9	40-140	0.534	30	
Aroclor-1260	0.18	0.020	mg/Kg wet	0.200		89.5	40-140	2.60	30	
Aroclor-1260 [2C]	0.16	0.020	mg/Kg wet	0.200		82.1	40-140	2.19	30	
Surrogate: Decachlorobiphenyl	*0.209*		mg/Kg wet	0.200		105	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.200*		mg/Kg wet	0.200		100	30-150			
Surrogate: Tetrachloro-m-xylene	*0.196*		mg/Kg wet	0.200		98.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.187*		mg/Kg wet	0.200		93.3	30-150			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B246056 - SW-846 3050B										
Blank (B246056-BLK1)				Prepared: 11/14/19 Analyzed: 11/15/19						
Lead	ND	0.50	mg/Kg wet							
LCS (B246056-BS1)				Prepared: 11/14/19 Analyzed: 11/15/19						
Lead	104	1.5	mg/Kg wet	111		93.9	82.3-117.1			
LCS Dup (B246056-BSD1)				Prepared: 11/14/19 Analyzed: 11/15/19						
Lead	107	1.4	mg/Kg wet	111		96.3	82.3-117.1	2.52	30	
MRL Check (B246056-MRL1)				Prepared: 11/14/19 Analyzed: 11/15/19						
Lead	0.466	0.50	mg/Kg wet	0.495		94.1	80-120			

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QUALITY CONTROL

SPLP - Metals Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B246166 - SW-846 3010A										
Blank (B246166-BLK1)				Prepared & Analyzed: 11/15/19						
Lead	ND	2.5	µg/L							
LCS (B246166-BS1)				Prepared & Analyzed: 11/15/19						
Lead	514	5.0	µg/L	500		103	80-120			
LCS Dup (B246166-BSD1)				Prepared & Analyzed: 11/15/19						
Lead	522	5.0	µg/L	500		104	80-120	1.55	20	
Matrix Spike (B246166-MS1)	**Source: 19K0759-01**			Prepared & Analyzed: 11/15/19						
Lead	543	5.0	µg/L	500	21.0	104	75-125			

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

BA23-SB802 (1-2)-1

Lab Sample ID: 19K0759-06 Date(s) Analyzed: 11/15/2019 11/15/2019

Instrument ID (1): ECD5 Instrument ID (2): ECD5

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1254	1	0.000	-0.030	0.030	0.087	
	2	0.000	-0.030	0.030	0.11	23.4

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B245982-BS1 Date(s) Analyzed: 11/15/2019 11/15/2019

Instrument ID (1): ECD5 Instrument ID (2): ECD5

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	-0.030	0.030	0.18	
	2	0.000	-0.030	0.030	0.18	0.0
Aroclor-1260	1	0.000	-0.030	0.030	0.18	
	2	0.000	-0.030	0.030	0.17	5.7

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B245982-BSD1 Date(s) Analyzed: 11/15/2019 11/15/2019

Instrument ID (1): ECD5 Instrument ID (2): ECD5

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	-0.030	0.030	0.18	
	2	0.000	-0.030	0.030	0.18	0.0
Aroclor-1260	1	0.000	-0.030	0.030	0.18	
	2	0.000	-0.030	0.030	0.16	11.8

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Lead	CT,NH,NY,AIHA,ME,VA,NC
SW-846 8082A in Soil	
Aroclor-1016	CT,NH,NY,ME,NC,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1221	CT,NH,NY,ME,NC,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1232	CT,NH,NY,ME,NC,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1242	CT,NH,NY,ME,NC,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1248	CT,NH,NY,ME,NC,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1254	CT,NH,NY,ME,NC,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1260	CT,NH,NY,ME,NC,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1262	NY,NC,VA,PA
Aroclor-1262 [2C]	NY,NC,VA,PA
Aroclor-1268	NY,NC,VA,PA
Aroclor-1268 [2C]	NY,NC,VA,PA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2020
MA	Massachusetts DEP	M-MA100	06/30/2020
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2020
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2020
RI	Rhode Island Department of Health	LAO00112	12/30/2019
NC	North Carolina Div. of Water Quality	652	12/31/2019
NJ	New Jersey DEP	MA007 NELAP	06/30/2020
FL	Florida Department of Health	E871027 NELAP	06/30/2020
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2020
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2019
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2020
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2020
NC-DW	North Carolina Department of Health	25703	07/31/2020
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2020

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 2_06262019

Page 1 of 1

HAF

Company Name: ACCOM
Address: 500 Enterprise Dr. Rocky Hill, CT
Phone:
Project Name: Greenwich High School
Project Location: Greenwich, CT
Project Number: 60432356
Project Manager: Dan Seremet
Con-Test Quote Name/Number:
Invoice Recipient: Dan Seremet
Sampled By: E.Doerfler M.Kenney

Turnaround Time Requested (TAT)
7-Day ☐ 10-Day ☐
PFAS 10-Day (std) ☐ Due Date:

Rush Approval Required
1-Day ☐ 3-Day ☒
2-Day ☐ 4-Day ☐

Report Delivery
Format: PDF ☒ EXCEL ☒
Other: EDD - EQUIS
CLP Like Data Pkg Required: ☐
Email To: danseremet@accom.com, elizabeth.doerfler@accom.com
Fax To #:

Discrete Aqueous Samples
○ Field Filtered
○ Lab to Filter

Grab/Composite Samples
○ Field Filtered
○ Lab to Filter

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Lead	SPLP Lead	PCBs 8082
1	AA20-SB25IRE(7-7.5)-1	11/13/19	0910	Grab	S	U		1				X	X	
2	AW19-SB803(1-2)-1	11/13/19	0941	Grab	S	U		1						X
3	AW19-SB803(7-8)-1	11/13/19	1045	Grab	S	U		1						X
4	AW19-SB803(12-13)-1	11/13/19	1055	Grab	S	U		1						X
5	AX21-SB800(1-2)-1	11/13/19	1137	Grab	S	U		1						X
6	BA23-SB802(1-2)-1	11/13/19	1320	Grab	S	U		1						X

[2]Preservation Code

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Contest is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time:
	11/13/19 1440
Received by: (signature)	Date/Time:
Tom Marie	11/13/19 1440
Relinquished by: (signature)	Date/Time:
Tom Marie	11/13/19 1815
Received by: (signature)	Date/Time:
	11/13/19 18:15
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:

Detection Limit Requirements
MA
RDEC, GA PMC
Other

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☒ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☒ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

PCB ONLY
☒ Soxhlet
☐ Non Soxhlet

Comments:

Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine wha analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Cor Test values your partnership on each project and will try to assist with missing information, but will not b held accountable.

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I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client AECOM

Received By mf Date 11/13/19 Time 18:15

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____

Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 5 Actual Temp - 2.8

By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? N/A Were Samples Tampered with? N/A

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T

Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F

Are there Rushes? T Who was notified? _____

Are there Short Holds? F Who was notified? Mike M.

Is there enough Volume? T Who was notified? _____

Is there Headspace where applicable? N/A MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? N/A Acid _____ Base _____

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	6
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Con-Test Analytical Laboratory

Client: AECOM Environment - Rocky Hill, CT

Project Location: Greenwich, CT

Project Number: 19K0759

Laboratory Sample ID(s):

19K0759-01 thru 19K0759-06

Sample Date(s):

11/13/2019

List RCP Methods Used:

SW-846 1312, SW-846 6010D, SW-846 6020B, SW-846 8082A

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1A	Were the method specified preservation and holding time requirements met?	☑ Yes ☐ No
1B	VPH and EPH Methods only: Was the VPH and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)?	☐ Yes ☐ No ☑ N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	☑ Yes ☐ No
3	Were samples received at an appropriate temperature (< 6 degrees C.)?	☑ Yes ☐ No ☐ N/A
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	☑ Yes ☐ No
5A	Were reporting limits specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5B	Were these reporting limits met?	☑ Yes ☐ No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☐ Yes ☑ No
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	☑ Yes ☐ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence."
This form may not be altered and all questions must be answered.

Lisa A. Worthington

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Lisa Worthington **Position:** Technical Representative

Printed Name: Lisa A. Worthington **Date:** 11/18/19

Name of Laboratory: Con-Test Analytical Laboratory

This certification form is to be used for RCP methods only.

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

November 19, 2019

Dan Seremet
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0500
Laboratory Work Order Number: 19K0845

Enclosed are results of analyses for samples received by the laboratory on November 14, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kaitlyn A. Feliciano
Project Manager

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con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Dan Seremet

REPORT DATE: 11/19/2019

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356.0500

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 19K0845

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
AX21-SB800 (6.5-7.5)-1	19K0845-01	Soil		SM 2540G	
				SW-846 8082A	
AX21-SB800 (11-12)-1	19K0845-02	Soil		SM 2540G	
				SW-846 8082A	
AX21-SB800 (11-12)-2	19K0845-03	Soil		SM 2540G	
				SW-846 8082A	
AX26-SB801 (1-2)-1	19K0845-04	Soil		SM 2540G	
				SW-846 8082A	
AX26-SB801 (6-7)-1	19K0845-05	Soil		SM 2540G	
				SW-846 8082A	
AX26-SB801 (11-12)-1	19K0845-06	Soil		SM 2540G	
				SW-846 8082A	
AX28-SB804 (1-2)-1	19K0845-07	Soil		SM 2540G	
				SW-846 8082A	
AX28-SB804 (3-4)-1	19K0845-08	Soil		SM 2540G	
				SW-846 8082A	
BA30-SB806 (1-2)-1	19K0845-09	Soil		SM 2540G	
				SW-846 8082A	
AY30-SB805 (1-2)-1	19K0845-10	Soil		SM 2540G	
				SW-846 8082A	
AY30-SB805 (1-2)-2	19K0845-11	Soil		SM 2540G	
				SW-846 8082A	
AY30-SB805 (4-5)-1	19K0845-12	Soil		SM 2540G	
				SW-846 8082A	

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8082A

Qualifications:

MS-12

Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:

Aroclor-1016
B246230-MS1, B246230-MSD1

Aroclor-1016 [2C]
B246230-MS1, B246230-MSD1

Aroclor-1260
B246230-MS1, B246230-MSD1

Aroclor-1260 [2C]
B246230-MS1, B246230-MSD1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AX21-SB800 (6.5-7.5)-1 | Sampled: 11/14/2019 09:00

Sample ID: 19K0845-01

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.099	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 19:38	TG
Aroclor-1221 [1]	ND	0.099	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 19:38	TG
Aroclor-1232 [1]	ND	0.099	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 19:38	TG
Aroclor-1242 [1]	ND	0.099	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 19:38	TG
Aroclor-1248 [1]	ND	0.099	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 19:38	TG
Aroclor-1254 [1]	ND	0.099	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 19:38	TG
Aroclor-1260 [2]	0.27	0.099	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 19:38	TG
Aroclor-1262 [1]	ND	0.099	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 19:38	TG
Aroclor-1268 [1]	ND	0.099	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 19:38	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	86.4	30-150		11/18/19 19:38
Decachlorobiphenyl [2]	101	30-150		11/18/19 19:38
Tetrachloro-m-xylene [1]	88.0	30-150		11/18/19 19:38
Tetrachloro-m-xylene [2]	104	30-150		11/18/19 19:38

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AX21-SB800 (6.5-7.5)-1 | Sampled: 11/14/2019 09:00

Sample ID: 19K0845-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	79.3		% Wt	1		SM 2540G	11/15/19	11/15/19 19:31	ADB

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AX21-SB800 (11-12)-1 | Sampled: 11/14/2019 09:05

Sample ID: 19K0845-02

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:01	TG
Aroclor-1221 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:01	TG
Aroclor-1232 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:01	TG
Aroclor-1242 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:01	TG
Aroclor-1248 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:01	TG
Aroclor-1254 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:01	TG
Aroclor-1260 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:01	TG
Aroclor-1262 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:01	TG
Aroclor-1268 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:01	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	107	30-150		11/18/19 15:01
Decachlorobiphenyl [2]	126	30-150		11/18/19 15:01
Tetrachloro-m-xylene [1]	103	30-150		11/18/19 15:01
Tetrachloro-m-xylene [2]	123	30-150		11/18/19 15:01

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AX21-SB800 (11-12)-1 | Sampled: 11/14/2019 09:05

Sample ID: 19K0845-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.3		% Wt	1		SM 2540G	11/15/19	11/15/19 19:32	ADB

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AX21-SB800 (11-12)-2 | Sampled: 11/14/2019 09:06

Sample ID: 19K0845-03

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:18	TG
Aroclor-1221 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:18	TG
Aroclor-1232 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:18	TG
Aroclor-1242 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:18	TG
Aroclor-1248 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:18	TG
Aroclor-1254 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:18	TG
Aroclor-1260 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:18	TG
Aroclor-1262 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:18	TG
Aroclor-1268 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:18	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	103	30-150		11/18/19 15:18
Decachlorobiphenyl [2]	121	30-150		11/18/19 15:18
Tetrachloro-m-xylene [1]	102	30-150		11/18/19 15:18
Tetrachloro-m-xylene [2]	123	30-150		11/18/19 15:18

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AX21-SB800 (11-12)-2 | Sampled: 11/14/2019 09:06

Sample ID: 19K0845-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.3		% Wt	1		SM 2540G	11/15/19	11/15/19 19:32	ADB

con-test® ANALYTICAL LABORATORY
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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AX26-SB801 (1-2)-1 | Sampled: 11/14/2019 10:22

Sample ID: 19K0845-04

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:36	TG
Aroclor-1221 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:36	TG
Aroclor-1232 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:36	TG
Aroclor-1242 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:36	TG
Aroclor-1248 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:36	TG
Aroclor-1254 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:36	TG
Aroclor-1260 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:36	TG
Aroclor-1262 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:36	TG
Aroclor-1268 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:36	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	90.0	30-150		11/18/19 15:36
Decachlorobiphenyl [2]	106	30-150		11/18/19 15:36
Tetrachloro-m-xylene [1]	87.6	30-150		11/18/19 15:36
Tetrachloro-m-xylene [2]	103	30-150		11/18/19 15:36

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AX26-SB801 (1-2)-1 | Sampled: 11/14/2019 10:22

Sample ID: 19K0845-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.9		% Wt	1		SM 2540G	11/15/19	11/15/19 19:32	ADB

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AX26-SB801 (6-7)-1 | Sampled: 11/14/2019 10:41

Sample ID: 19K0845-05

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.096	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:53	TG
Aroclor-1221 [1]	ND	0.096	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:53	TG
Aroclor-1232 [1]	ND	0.096	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:53	TG
Aroclor-1242 [1]	ND	0.096	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:53	TG
Aroclor-1248 [1]	ND	0.096	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:53	TG
Aroclor-1254 [1]	ND	0.096	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:53	TG
Aroclor-1260 [1]	ND	0.096	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:53	TG
Aroclor-1262 [1]	ND	0.096	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:53	TG
Aroclor-1268 [1]	ND	0.096	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 15:53	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	101	30-150		11/18/19 15:53
Decachlorobiphenyl [2]	118	30-150		11/18/19 15:53
Tetrachloro-m-xylene [1]	99.1	30-150		11/18/19 15:53
Tetrachloro-m-xylene [2]	119	30-150		11/18/19 15:53

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AX26-SB801 (6-7)-1 | Sampled: 11/14/2019 10:41

Sample ID: 19K0845-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	80.1		% Wt	1		SM 2540G	11/15/19	11/15/19 19:32	ADB

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AX26-SB801 (11-12)-1 | Sampled: 11/14/2019 10:45

Sample ID: 19K0845-06

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.081	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:11	TG
Aroclor-1221 [1]	ND	0.081	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:11	TG
Aroclor-1232 [1]	ND	0.081	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:11	TG
Aroclor-1242 [1]	ND	0.081	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:11	TG
Aroclor-1248 [1]	ND	0.081	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:11	TG
Aroclor-1254 [1]	ND	0.081	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:11	TG
Aroclor-1260 [1]	ND	0.081	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:11	TG
Aroclor-1262 [1]	ND	0.081	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:11	TG
Aroclor-1268 [1]	ND	0.081	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:11	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	97.8	30-150		11/18/19 16:11
Decachlorobiphenyl [2]	114	30-150		11/18/19 16:11
Tetrachloro-m-xylene [1]	95.5	30-150		11/18/19 16:11
Tetrachloro-m-xylene [2]	115	30-150		11/18/19 16:11

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AX26-SB801 (11-12)-1 | Sampled: 11/14/2019 10:45

Sample ID: 19K0845-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	92.5		% Wt	1		SM 2540G	11/15/19	11/15/19 19:32	ADB

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AX28-SB804 (1-2)-1 | Sampled: 11/14/2019 11:40

Sample ID: 19K0845-07

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.082	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:28	TG
Aroclor-1221 [1]	ND	0.082	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:28	TG
Aroclor-1232 [1]	ND	0.082	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:28	TG
Aroclor-1242 [1]	ND	0.082	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:28	TG
Aroclor-1248 [2]	ND	0.082	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:28	TG
Aroclor-1254 [1]	ND	0.082	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:28	TG
Aroclor-1260 [1]	ND	0.082	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:28	TG
Aroclor-1262 [1]	ND	0.082	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:28	TG
Aroclor-1268 [1]	ND	0.082	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:28	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	96.3	30-150		11/18/19 16:28
Decachlorobiphenyl [2]	111	30-150		11/18/19 16:28
Tetrachloro-m-xylene [1]	97.2	30-150		11/18/19 16:28
Tetrachloro-m-xylene [2]	113	30-150		11/18/19 16:28

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AX28-SB804 (1-2)-1 | Sampled: 11/14/2019 11:40

Sample ID: 19K0845-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	93.6		% Wt	1		SM 2540G	11/15/19	11/15/19 0:00	ADB

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AX28-SB804 (3-4)-1 | Sampled: 11/14/2019 11:53

Sample ID: 19K0845-08

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.083	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:46	TG
Aroclor-1221 [1]	ND	0.083	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:46	TG
Aroclor-1232 [1]	ND	0.083	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:46	TG
Aroclor-1242 [1]	ND	0.083	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:46	TG
Aroclor-1248 [1]	ND	0.083	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:46	TG
Aroclor-1254 [1]	ND	0.083	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:46	TG
Aroclor-1260 [1]	ND	0.083	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:46	TG
Aroclor-1262 [1]	ND	0.083	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:46	TG
Aroclor-1268 [1]	ND	0.083	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 16:46	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	102	30-150		11/18/19 16:46
Decachlorobiphenyl [2]	120	30-150		11/18/19 16:46
Tetrachloro-m-xylene [1]	100	30-150		11/18/19 16:46
Tetrachloro-m-xylene [2]	120	30-150		11/18/19 16:46

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AX28-SB804 (3-4)-1 | Sampled: 11/14/2019 11:53

Sample ID: 19K0845-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	95.4		% Wt	1		SM 2540G	11/15/19	11/15/19 19:33	ADB

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: BA30-SB806 (1-2)-1 | Sampled: 11/14/2019 12:42

Sample ID: 19K0845-09

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:03	TG
Aroclor-1221 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:03	TG
Aroclor-1232 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:03	TG
Aroclor-1242 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:03	TG
Aroclor-1248 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:03	TG
Aroclor-1254 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:03	TG
Aroclor-1260 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:03	TG
Aroclor-1262 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:03	TG
Aroclor-1268 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:03	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	86.7	30-150		11/18/19 17:03
Decachlorobiphenyl [2]	101	30-150		11/18/19 17:03
Tetrachloro-m-xylene [1]	91.8	30-150		11/18/19 17:03
Tetrachloro-m-xylene [2]	109	30-150		11/18/19 17:03

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: BA30-SB806 (1-2)-1 | Sampled: 11/14/2019 12:42

Sample ID: 19K0845-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	91.6		% Wt	1		SM 2540G	11/15/19	11/15/19 19:33	ADB

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AY30-SB805 (1-2)-1 | Sampled: 11/14/2019 13:25

Sample ID: 19K0845-10

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:21	TG
Aroclor-1221 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:21	TG
Aroclor-1232 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:21	TG
Aroclor-1242 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:21	TG
Aroclor-1248 [2]	0.098	0.086	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:21	TG
Aroclor-1254 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:21	TG
Aroclor-1260 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:21	TG
Aroclor-1262 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:21	TG
Aroclor-1268 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:21	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	86.3	30-150		11/18/19 17:21
Decachlorobiphenyl [2]	99.9	30-150		11/18/19 17:21
Tetrachloro-m-xylene [1]	91.9	30-150		11/18/19 17:21
Tetrachloro-m-xylene [2]	109	30-150		11/18/19 17:21

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AY30-SB805 (1-2)-1 | Sampled: 11/14/2019 13:25

Sample ID: 19K0845-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	91.2		% Wt	1		SM 2540G	11/15/19	11/15/19 19:34	ADB

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AY30-SB805 (1-2)-2 | Sampled: 11/14/2019 13:26

Sample ID: 19K0845-11

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:38	TG
Aroclor-1221 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:38	TG
Aroclor-1232 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:38	TG
Aroclor-1242 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:38	TG
Aroclor-1248 [2]	0.14	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:38	TG
Aroclor-1254 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:38	TG
Aroclor-1260 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:38	TG
Aroclor-1262 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:38	TG
Aroclor-1268 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:38	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	95.5	30-150		11/18/19 17:38
Decachlorobiphenyl [2]	111	30-150		11/18/19 17:38
Tetrachloro-m-xylene [1]	101	30-150		11/18/19 17:38
Tetrachloro-m-xylene [2]	122	30-150		11/18/19 17:38

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AY30-SB805 (1-2)-2 | Sampled: 11/14/2019 13:26

Sample ID: 19K0845-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	91.6		% Wt	1		SM 2540G	11/15/19	11/15/19 19:34	ADB

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AY30-SB805 (4-5)-1 | Sampled: 11/14/2019 13:40

Sample ID: 19K0845-12

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.079	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:56	TG
Aroclor-1221 [1]	ND	0.079	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:56	TG
Aroclor-1232 [1]	ND	0.079	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:56	TG
Aroclor-1242 [1]	ND	0.079	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:56	TG
Aroclor-1248 [1]	ND	0.079	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:56	TG
Aroclor-1254 [1]	ND	0.079	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:56	TG
Aroclor-1260 [1]	ND	0.079	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:56	TG
Aroclor-1262 [1]	ND	0.079	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:56	TG
Aroclor-1268 [1]	ND	0.079	mg/Kg dry	4		SW-846 8082A	11/15/19	11/18/19 17:56	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	86.2	30-150		11/18/19 17:56
Decachlorobiphenyl [2]	100	30-150		11/18/19 17:56
Tetrachloro-m-xylene [1]	92.7	30-150		11/18/19 17:56
Tetrachloro-m-xylene [2]	112	30-150		11/18/19 17:56

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0845

Date Received: 11/14/2019

Field Sample #: AY30-SB805 (4-5)-1 | Sampled: 11/14/2019 13:40

Sample ID: 19K0845-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	99.5		% Wt	1		SM 2540G	11/15/19	11/15/19 19:34	ADB

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Sample Extraction Data

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
19K0845-01 [AX21-SB800 (6.5-7.5)-1]	B246142	11/15/19
19K0845-02 [AX21-SB800 (11-12)-1]	B246142	11/15/19
19K0845-03 [AX21-SB800 (11-12)-2]	B246142	11/15/19
19K0845-04 [AX26-SB801 (1-2)-1]	B246142	11/15/19
19K0845-05 [AX26-SB801 (6-7)-1]	B246142	11/15/19
19K0845-06 [AX26-SB801 (11-12)-1]	B246142	11/15/19
19K0845-07 [AX28-SB804 (1-2)-1]	B246142	11/15/19
19K0845-08 [AX28-SB804 (3-4)-1]	B246142	11/15/19
19K0845-09 [BA30-SB806 (1-2)-1]	B246142	11/15/19
19K0845-10 [AY30-SB805 (1-2)-1]	B246142	11/15/19
19K0845-11 [AY30-SB805 (1-2)-2]	B246142	11/15/19
19K0845-12 [AY30-SB805 (4-5)-1]	B246142	11/15/19

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19K0845-02 [AX21-SB800 (11-12)-1]	B246091	10.5	10.0	11/15/19
19K0845-03 [AX21-SB800 (11-12)-2]	B246091	10.2	10.0	11/15/19
19K0845-04 [AX26-SB801 (1-2)-1]	B246091	10.3	10.0	11/15/19
19K0845-05 [AX26-SB801 (6-7)-1]	B246091	10.4	10.0	11/15/19
19K0845-06 [AX26-SB801 (11-12)-1]	B246091	10.7	10.0	11/15/19
19K0845-07 [AX28-SB804 (1-2)-1]	B246091	10.4	10.0	11/15/19
19K0845-08 [AX28-SB804 (3-4)-1]	B246091	10.1	10.0	11/15/19
19K0845-09 [BA30-SB806 (1-2)-1]	B246091	10.0	10.0	11/15/19
19K0845-10 [AY30-SB805 (1-2)-1]	B246091	10.2	10.0	11/15/19
19K0845-11 [AY30-SB805 (1-2)-2]	B246091	10.0	10.0	11/15/19
19K0845-12 [AY30-SB805 (4-5)-1]	B246091	10.2	10.0	11/15/19

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19K0845-01 [AX21-SB800 (6.5-7.5)-1]	B246230	10.2	10.0	11/16/19

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QUALITY CONTROL

Polychlorinated Biphenyls with 3540 Soxhlet Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B246091 - SW-846 3540C										
Blank (B246091-BLK1)				Prepared: 11/15/19 Analyzed: 11/18/19						
Aroclor-1016	ND	0.020	mg/Kg wet							
Aroclor-1016 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1221	ND	0.020	mg/Kg wet							
Aroclor-1221 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1232	ND	0.020	mg/Kg wet							
Aroclor-1232 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1242	ND	0.020	mg/Kg wet							
Aroclor-1242 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1248	ND	0.020	mg/Kg wet							
Aroclor-1248 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1254	ND	0.020	mg/Kg wet							
Aroclor-1254 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1260	ND	0.020	mg/Kg wet							
Aroclor-1260 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1262	ND	0.020	mg/Kg wet							
Aroclor-1262 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1268	ND	0.020	mg/Kg wet							
Aroclor-1268 [2C]	ND	0.020	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.189*		mg/Kg wet	0.200		94.5	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.222*		mg/Kg wet	0.200		111	30-150			
Surrogate: Tetrachloro-m-xylene	*0.181*		mg/Kg wet	0.200		90.7	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.213*		mg/Kg wet	0.200		107	30-150			
LCS (B246091-BS1)				Prepared: 11/15/19 Analyzed: 11/18/19						
Aroclor-1016	0.18	0.020	mg/Kg wet	0.200		92.0	40-140			
Aroclor-1016 [2C]	0.21	0.020	mg/Kg wet	0.200		103	40-140			
Aroclor-1260	0.16	0.020	mg/Kg wet	0.200		80.0	40-140			
Aroclor-1260 [2C]	0.20	0.020	mg/Kg wet	0.200		98.0	40-140			
Surrogate: Decachlorobiphenyl	*0.201*		mg/Kg wet	0.200		100	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.236*		mg/Kg wet	0.200		118	30-150			
Surrogate: Tetrachloro-m-xylene	*0.193*		mg/Kg wet	0.200		96.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.228*		mg/Kg wet	0.200		114	30-150			
LCS Dup (B246091-BSD1)				Prepared: 11/15/19 Analyzed: 11/18/19						
Aroclor-1016	0.18	0.020	mg/Kg wet	0.200		89.9	40-140	2.32	30	
Aroclor-1016 [2C]	0.20	0.020	mg/Kg wet	0.200		102	40-140	1.34	30	
Aroclor-1260	0.15	0.020	mg/Kg wet	0.200		77.1	40-140	3.62	30	
Aroclor-1260 [2C]	0.19	0.020	mg/Kg wet	0.200		92.8	40-140	5.47	30	
Surrogate: Decachlorobiphenyl	*0.190*		mg/Kg wet	0.200		95.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.223*		mg/Kg wet	0.200		112	30-150			
Surrogate: Tetrachloro-m-xylene	*0.188*		mg/Kg wet	0.200		93.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.223*		mg/Kg wet	0.200		111	30-150			

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QUALITY CONTROL

Polychlorinated Biphenyls with 3540 Soxhlet Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B246230 - SW-846 3540C										
Blank (B246230-BLK1)				Prepared: 11/16/19 Analyzed: 11/18/19						
Aroclor-1016	ND	0.020	mg/Kg wet							
Aroclor-1016 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1221	ND	0.020	mg/Kg wet							
Aroclor-1221 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1232	ND	0.020	mg/Kg wet							
Aroclor-1232 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1242	ND	0.020	mg/Kg wet							
Aroclor-1242 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1248	ND	0.020	mg/Kg wet							
Aroclor-1248 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1254	ND	0.020	mg/Kg wet							
Aroclor-1254 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1260	ND	0.020	mg/Kg wet							
Aroclor-1260 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1262	ND	0.020	mg/Kg wet							
Aroclor-1262 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1268	ND	0.020	mg/Kg wet							
Aroclor-1268 [2C]	ND	0.020	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.181*		mg/Kg wet	0.200		90.3	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.211*		mg/Kg wet	0.200		105	30-150			
Surrogate: Tetrachloro-m-xylene	*0.176*		mg/Kg wet	0.200		87.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.202*		mg/Kg wet	0.200		101	30-150			
LCS (B246230-BS1)				Prepared: 11/16/19 Analyzed: 11/18/19						
Aroclor-1016	0.18	0.020	mg/Kg wet	0.200		89.8	40-140			
Aroclor-1016 [2C]	0.20	0.020	mg/Kg wet	0.200		99.9	40-140			
Aroclor-1260	0.15	0.020	mg/Kg wet	0.200		76.8	40-140			
Aroclor-1260 [2C]	0.19	0.020	mg/Kg wet	0.200		93.8	40-140			
Surrogate: Decachlorobiphenyl	*0.188*		mg/Kg wet	0.200		93.8	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.219*		mg/Kg wet	0.200		109	30-150			
Surrogate: Tetrachloro-m-xylene	*0.185*		mg/Kg wet	0.200		92.3	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.214*		mg/Kg wet	0.200		107	30-150			
LCS Dup (B246230-BSD1)				Prepared: 11/16/19 Analyzed: 11/18/19						
Aroclor-1016	0.17	0.020	mg/Kg wet	0.200		86.1	40-140	4.24	30	
Aroclor-1016 [2C]	0.19	0.020	mg/Kg wet	0.200		96.0	40-140	4.00	30	
Aroclor-1260	0.16	0.020	mg/Kg wet	0.200		77.6	40-140	0.953	30	
Aroclor-1260 [2C]	0.19	0.020	mg/Kg wet	0.200		93.3	40-140	0.558	30	
Surrogate: Decachlorobiphenyl	*0.194*		mg/Kg wet	0.200		97.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.226*		mg/Kg wet	0.200		113	30-150			
Surrogate: Tetrachloro-m-xylene	*0.191*		mg/Kg wet	0.200		95.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.218*		mg/Kg wet	0.200		109	30-150			

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QUALITY CONTROL

Polychlorinated Biphenyls with 3540 Soxhlet Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B246230 - SW-846 3540C											
Matrix Spike (B246230-MS1)	**Source: 19K0845-01**			Prepared: 11/16/19 Analyzed: 11/18/19							
Aroclor-1016	1.3	0.10	mg/Kg dry	0.250	ND	**511**	*	40-140			MS-12
Aroclor-1016 [2C]	1.2	0.10	mg/Kg dry	0.250	ND	**471**	*	40-140			MS-12
Aroclor-1260	0.63	0.10	mg/Kg dry	0.250	0.26	**152**	*	40-140			MS-12
Aroclor-1260 [2C]	0.78	0.10	mg/Kg dry	0.250	0.27	**203**	*	40-140			MS-12
Surrogate: Decachlorobiphenyl	*0.178*		mg/Kg dry	0.250		71.2		30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.210*		mg/Kg dry	0.250		84.1		30-150			
Surrogate: Tetrachloro-m-xylene	*0.216*		mg/Kg dry	0.250		86.6		30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.250*		mg/Kg dry	0.250		100		30-150			
Matrix Spike Dup (B246230-MSD1)	**Source: 19K0845-01**			Prepared: 11/16/19 Analyzed: 11/18/19							
Aroclor-1016	2.0	0.10	mg/Kg dry	0.250	ND	**813**	*	40-140	45.6	50	MS-12
Aroclor-1016 [2C]	1.7	0.10	mg/Kg dry	0.250	ND	**700**	*	40-140	39.0	50	MS-12
Aroclor-1260	0.61	0.10	mg/Kg dry	0.250	0.26	**142**	*	40-140	3.71	50	MS-12
Aroclor-1260 [2C]	0.74	0.10	mg/Kg dry	0.250	0.27	**189**	*	40-140	4.53	50	MS-12
Surrogate: Decachlorobiphenyl	*0.203*		mg/Kg dry	0.250		81.3		30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.238*		mg/Kg dry	0.250		95.2		30-150			
Surrogate: Tetrachloro-m-xylene	*0.235*		mg/Kg dry	0.250		94.0		30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.269*		mg/Kg dry	0.250		108		30-150			

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B246142 - % Solids										
Duplicate (B246142-DUP1)	**Source: 19K0845-01**			Prepared & Analyzed: 11/15/19						
% Solids	81.6		% Wt		79.3			2.89	20	
Duplicate (B246142-DUP2)	**Source: 19K0845-10**			Prepared & Analyzed: 11/15/19						
% Solids	92.1		% Wt		91.2			0.945	20	

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

AX21-SB800 (6.5-7.5)-1

Lab Sample ID: 19K0845-01 Date(s) Analyzed: 11/18/2019 11/18/2019

Instrument ID (1): ECD 9 Instrument ID (2): ECD 9

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1260	1	0.000	-0.030	0.030	0.26	
	2	0.000	-0.030	0.030	0.27	3.8

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

AY30-SB805 (1-2)-2

Lab Sample ID: 19K0845-11 Date(s) Analyzed: 11/18/2019 11/18/2019

Instrument ID (1): ECD 9 Instrument ID (2): ECD 9

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	-0.030	0.030	0.11	
	2	0.000	-0.030	0.030	0.14	24.0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B246091-BS1 Date(s) Analyzed: 11/18/2019 11/18/2019

Instrument ID (1): ECD 9 Instrument ID (2): ECD 9

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	-0.030	0.030	0.18	
	2	0.000	-0.030	0.030	0.21	15.4
Aroclor-1260	1	0.000	-0.030	0.030	0.16	
	2	0.000	-0.030	0.030	0.20	22.2

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B246091-BSD1 Date(s) Analyzed: 11/18/2019 11/18/2019

Instrument ID (1): ECD 9 Instrument ID (2): ECD 9

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	-0.030	0.030	0.18	
	2	0.000	-0.030	0.030	0.20	10.5
Aroclor-1260	1	0.000	-0.030	0.030	0.15	
	2	0.000	-0.030	0.030	0.19	23.5

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B246230-BS1 Date(s) Analyzed: 11/18/2019 11/18/2019

Instrument ID (1): ECD 9 Instrument ID (2): ECD 9

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	-0.030	0.030	0.18	
	2	0.000	-0.030	0.030	0.20	10.5
Aroclor-1260	1	0.000	-0.030	0.030	0.15	
	2	0.000	-0.030	0.030	0.19	23.5

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B246230-BSD1 Date(s) Analyzed: 11/18/2019 11/18/2019

Instrument ID (1): ECD 9 Instrument ID (2): ECD 9

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	-0.030	0.030	0.17	
	2	0.000	-0.030	0.030	0.19	11.1
Aroclor-1260	1	0.000	-0.030	0.030	0.16	
	2	0.000	-0.030	0.030	0.19	17.1

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

Matrix Spike

Lab Sample ID: B246230-MS1 Date(s) Analyzed: 11/18/2019 11/18/2019

Instrument ID (1): ECD 9 Instrument ID (2): ECD 9

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	-0.030	0.030	1.3	
	2	0.000	-0.030	0.030	1.2	8.0
Aroclor-1260	1	0.000	-0.030	0.030	0.63	
	2	0.000	-0.030	0.030	0.78	21.3

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

Matrix Spike Dup

Lab Sample ID: B246230-MSD1 Date(s) Analyzed: 11/18/2019 11/18/2019

Instrument ID (1): ECD 9 Instrument ID (2): ECD 9

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	-0.030	0.030	2.0	
	2	0.000	-0.030	0.030	1.7	16.2
Aroclor-1260	1	0.000	-0.030	0.030	0.61	
	2	0.000	-0.030	0.030	0.74	19.3

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
MS-12	Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Soil	
Aroclor-1016	CT,NH,NY,ME,NC,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1221	CT,NH,NY,ME,NC,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1232	CT,NH,NY,ME,NC,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1242	CT,NH,NY,ME,NC,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1248	CT,NH,NY,ME,NC,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1254	CT,NH,NY,ME,NC,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1260	CT,NH,NY,ME,NC,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1262	NY,NC,VA,PA
Aroclor-1262 [2C]	NY,NC,VA,PA
Aroclor-1268	NY,NC,VA,PA
Aroclor-1268 [2C]	NY,NC,VA,PA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2020
MA	Massachusetts DEP	M-MA100	06/30/2020
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2020
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2020
RI	Rhode Island Department of Health	LAO00112	12/30/2019
NC	North Carolina Div. of Water Quality	652	12/31/2019
NJ	New Jersey DEP	MA007 NELAP	06/30/2020
FL	Florida Department of Health	E871027 NELAP	06/30/2020
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2020
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2019
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2020
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2020
NC-DW	North Carolina Department of Health	25703	07/31/2020
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2020

con-test ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
39 Spruce Street
East Longmeadow, MA 01028

19/10845

CHAIN OF CUSTODY RECORD

KAF

Company Name: AECOM
Address: 500 Enterprise Dr. Rocky Hill, CT
Phone:
Project Name: Greenwich High Schools
Project Location: 60432756
Project Number: Greenwich, CT
Project Manager: Dan Seremet
Con-Test Quote Name/Number:
Invoice Recipient: Dan Seremet
Sampled By: E Doerfler, M. Kenney

Requested Turnaround Time: 7-Day ☐ 10-Day ☐ PFAS 10-Day (std) ☐ Due Date:
Rush Approval Required: 1-Day ☐ 3-Day ☒ 2-Day ☐ 4-Day ☐
Data Delivery: Format: PDF ☒ EXCEL ☒ Other: EDD-EQUIS CLP Like Data Pkg Required: ☐ Email To: dan.seremet@aecom.com, elizabeth.doerfler@aecom.com Fax To #:
Dissolved Metals Samples: ○ Field Filtered ○ Lab to Filter
Orthophosphate Samples: ○ Field Filtered ○ Lab to Filter

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	PCBs 8082	[2] Preservation Code
1	AX21-SB800(6.5-7.5)-1	11/14/19	0900	Grab	S	U		1				X	
2	AX21-SB800(11-12)-1	11/14/19	0905	Grab	S	U		1				X	
3	AX21-SB800(11-12)-2	11/14/19	0906	Grab	S	U		1				X	
4	AX26-SB801(1-2)-1	11/14/19	1022	Grab	S	U		1				X	
5	AX26-SB801(6-7)-1	11/14/19	1041	Grab	S	U		1				X	
6	AX26-SB801(11-12)-1	11/14/19	1045	Grab	S	U		1				X	
7	AX28-SB804(1-2)-1	11/14/19	1140	Grab	S	U		1				X	
8	AX28-SB804(3-4)-1	11/14/19	1153	Grab	S	U		1				X	
9	BA30-SB806(1-2)-1	11/14/19	1242	Grab	S	U		1				X	
10	AY30-SB805(1-2)-1	11/14/19	1325	Grab	S	U		1				X	

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Contest is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time:
	11/14/19 1537
Received by: (signature)	Date/Time:
	11/14/19 1537
Relinquished by: (signature)	Date/Time:
	11/14/19 810
Received by: (signature)	Date/Time:
3.5	11/14/19 2010
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments: AX21-SB800(6.5-7.5)-1 MS/MSD for PCBs

Detection Limit Requirements: PQL | CT GA PMC, RDEC | Other
Special Requirements: ☐ MA MCP Required; MCP Certification Form Required; ☒ CT RCP Required; RCP Certification Form Required; ☐ MA State DW Required; PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity: Government ☐ Federal ☐ City ☐ Municipality ☐ 21 J ☐ Brownfield ☐ MWRA ☒ School ☐ MBTA ☐ WRTA ☐

Other: ☐ Chromatogram ☐ AIHA-LAP,LLC

PCB ONLY: ☒ Soxhlet ☐ Non Soxhlet

Comments:

Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con Test values your partnership on each project and will try to assist with missing information, but will not b held accountable.

Table of Contents

con-test ANALYTICAL LABORATORY
Phone: 413-525-2332 1911845
Fax: 413-525-6405
Email: info@contestlabs.com
39 Spruce Street
East Longmeadow, MA 01028

CHAIN OF CUSTODY RECORD

Company Name: AECOM
Address: 500 Enterprise Dr. Rocky Hill, CT
Phone:
Project Name: Greenwich High School
Project Location: Greenwich, CT
Project Number: 60432356
Project Manager: Dan Serenet
Con-Test Quote Name/Number:
Invoice Recipient: Dan Serenet
Sampled By: E. Doerfler M. Kenney

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date:

Rush Approval Required
1-Day ☐ 3-Day ☒
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: EDP - EQUIS
CLP Like Data Pkg Required: ☐
Email To: elizabeth.doerfler@aecom.com
Fax To #:

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1] Matrix Code	Conc Code	2 T A	PCBs 8082	# of Containers	[2] Preservation Code	[3] Container Code
11	AY30-SB805(1-2)_2	11/14/19	1326		X	S	U	2 T A	X			
12	AY30-SB805(4-5) -1	11/14/19	1340		X	S	U	2 T A	X			

ANALYSIS REQUESTED

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Comments:

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	11/14/19	Date/Time: 1533
Received by: (signature)	11/14/19	Date/Time: 1533
Relinquished by: (signature)	11/14/19	Date/Time: 810
Received by: (signature)	3.5	Date/Time: 11/14/19 20:10
Relinquished by: (signature)		Date/Time:
Received by: (signature)		Date/Time:

Detection Limit Requirements
MA:
CT: RDEC, GA
PMC
Other:

Special Requirements
☐ MA MCP Required
☐ MCP Certification Form Required
☒ CT RCP Required
☐ RCP Certification Form Required
☐ MA State DW Required
PWSID #

con-test ANALYTICAL LABORATORY www.contestlabs.com
NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☒ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☒ Soxhlet
☐ Non Soxhlet

Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client AECOM

Received By mp Date 11/14/19 Time 20:10

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____

Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 5 Actual Temp - 3.5

By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? N/A Were Samples Tampered with? N/A

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T

Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? T Who was notified? Ashly

Are there Short Holds? F Who was notified? _____

Is there enough Volume? T

Is there Headspace where applicable? N/A MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? N/A Acid _____ Base _____

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	12
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Con-Test Analytical Laboratory

Client: AECOM Environment - Rocky Hill, CT

Project Location: Greenwich, CT

Project Number: 19K0845

Laboratory Sample ID(s):

19K0845-01 thru 19K0845-12

Sample Date(s):

11/14/2019

List RCP Methods Used:

SW-846 8082A

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1A	Were the method specified preservation and holding time requirements met?	☑ Yes ☐ No
1B	VPH and EPH Methods only: Was the VPH and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)?	☐ Yes ☐ No ☑ N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	☑ Yes ☐ No
3	Were samples received at an appropriate temperature (< 6 degrees C.)?	☑ Yes ☐ No ☐ N/A
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	☑ Yes ☐ No
5A	Were reporting limits specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5B	Were these reporting limits met?	☑ Yes ☐ No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☑ Yes ☐ No
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	☑ Yes ☐ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence."
This form may not be altered and all questions must be answered.

Lisa A. Worthington

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Lisa Worthington **Position:** Technical Representative

Printed Name: Lisa A. Worthington **Date:** 11/19/19

Name of Laboratory: Con-Test Analytical Laboratory

This certification form is to be used for RCP methods only.

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

November 19, 2019

Dan Seremet
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0500
Laboratory Work Order Number: 19K0953

Enclosed are results of analyses for samples received by the laboratory on November 15, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kaitlyn A. Feliciano
Project Manager

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B246230 12

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con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Dan Seremet

REPORT DATE: 11/19/2019

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356.0500

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 19K0953

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
BA23-SB808 (1-2)-1	19K0953-01	Soil		SM 2540G	
				SW-846 8082A	
BA23-SB808 (2.5-3.5)-1	19K0953-02	Soil		SM 2540G	
				SW-846 8082A	
BA23-SB808 (4-5)-1	19K0953-03	Soil		SM 2540G	
				SW-846 8082A	

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0953

Date Received: 11/15/2019

Field Sample #: BA23-SB808 (1-2)-1 | Sampled: 11/15/2019 08:00

Sample ID: 19K0953-01

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:13	TG
Aroclor-1221 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:13	TG
Aroclor-1232 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:13	TG
Aroclor-1242 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:13	TG
Aroclor-1248 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:13	TG
Aroclor-1254 [2]	0.13	0.091	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:13	TG
Aroclor-1260 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:13	TG
Aroclor-1262 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:13	TG
Aroclor-1268 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:13	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	81.3	30-150		11/18/19 20:13
Decachlorobiphenyl [2]	96.3	30-150		11/18/19 20:13
Tetrachloro-m-xylene [1]	89.6	30-150		11/18/19 20:13
Tetrachloro-m-xylene [2]	104	30-150		11/18/19 20:13

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0953

Date Received: 11/15/2019

Field Sample #: BA23-SB808 (1-2)-1 | Sampled: 11/15/2019 08:00

Sample ID: 19K0953-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.6		% Wt	1		SM 2540G	11/16/19	11/17/19 8:39	AVF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0953

Date Received: 11/15/2019

Field Sample #: BA23-SB808 (2.5-3.5)-1 | Sampled: 11/15/2019 08:30

Sample ID: 19K0953-02

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:31	TG
Aroclor-1221 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:31	TG
Aroclor-1232 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:31	TG
Aroclor-1242 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:31	TG
Aroclor-1248 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:31	TG
Aroclor-1254 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:31	TG
Aroclor-1260 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:31	TG
Aroclor-1262 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:31	TG
Aroclor-1268 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:31	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	84.1	30-150		11/18/19 20:31
Decachlorobiphenyl [2]	103	30-150		11/18/19 20:31
Tetrachloro-m-xylene [1]	92.9	30-150		11/18/19 20:31
Tetrachloro-m-xylene [2]	105	30-150		11/18/19 20:31

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0953

Date Received: 11/15/2019

Field Sample #: BA23-SB808 (2.5-3.5)-1 | Sampled: 11/15/2019 08:30

Sample ID: 19K0953-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	91.2		% Wt	1		SM 2540G	11/16/19	11/17/19 8:39	AVF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0953

Date Received: 11/15/2019

Field Sample #: BA23-SB808 (4-5)-1 | Sampled: 11/15/2019 08:32

Sample ID: 19K0953-03

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:48	TG
Aroclor-1221 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:48	TG
Aroclor-1232 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:48	TG
Aroclor-1242 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:48	TG
Aroclor-1248 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:48	TG
Aroclor-1254 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:48	TG
Aroclor-1260 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:48	TG
Aroclor-1262 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:48	TG
Aroclor-1268 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	11/16/19	11/18/19 20:48	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	71.8	30-150		11/18/19 20:48
Decachlorobiphenyl [2]	86.4	30-150		11/18/19 20:48
Tetrachloro-m-xylene [1]	84.3	30-150		11/18/19 20:48
Tetrachloro-m-xylene [2]	98.1	30-150		11/18/19 20:48

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K0953

Date Received: 11/15/2019

Field Sample #: BA23-SB808 (4-5)-1 | Sampled: 11/15/2019 08:32

Sample ID: 19K0953-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	88.7		% Wt	1		SM 2540G	11/16/19	11/17/19 8:39	AVF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
19K0953-01 [BA23-SB808 (1-2)-1]	B246258	11/16/19
19K0953-02 [BA23-SB808 (2.5-3.5)-1]	B246258	11/16/19
19K0953-03 [BA23-SB808 (4-5)-1]	B246258	11/16/19

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19K0953-01 [BA23-SB808 (1-2)-1]	B246230	10.0	10.0	11/16/19
19K0953-02 [BA23-SB808 (2.5-3.5)-1]	B246230	10.3	10.0	11/16/19
19K0953-03 [BA23-SB808 (4-5)-1]	B246230	10.0	10.0	11/16/19

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QUALITY CONTROL

Polychlorinated Biphenyls with 3540 Soxhlet Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B246230 - SW-846 3540C										
Blank (B246230-BLK1)				Prepared: 11/16/19 Analyzed: 11/18/19						
Aroclor-1016	ND	0.020	mg/Kg wet							
Aroclor-1016 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1221	ND	0.020	mg/Kg wet							
Aroclor-1221 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1232	ND	0.020	mg/Kg wet							
Aroclor-1232 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1242	ND	0.020	mg/Kg wet							
Aroclor-1242 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1248	ND	0.020	mg/Kg wet							
Aroclor-1248 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1254	ND	0.020	mg/Kg wet							
Aroclor-1254 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1260	ND	0.020	mg/Kg wet							
Aroclor-1260 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1262	ND	0.020	mg/Kg wet							
Aroclor-1262 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1268	ND	0.020	mg/Kg wet							
Aroclor-1268 [2C]	ND	0.020	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.181*		mg/Kg wet	0.200		90.3	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.211*		mg/Kg wet	0.200		105	30-150			
Surrogate: Tetrachloro-m-xylene	*0.176*		mg/Kg wet	0.200		87.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.202*		mg/Kg wet	0.200		101	30-150			
LCS (B246230-BS1)				Prepared: 11/16/19 Analyzed: 11/18/19						
Aroclor-1016	0.18	0.020	mg/Kg wet	0.200		89.8	40-140			
Aroclor-1016 [2C]	0.20	0.020	mg/Kg wet	0.200		99.9	40-140			
Aroclor-1260	0.15	0.020	mg/Kg wet	0.200		76.8	40-140			
Aroclor-1260 [2C]	0.19	0.020	mg/Kg wet	0.200		93.8	40-140			
Surrogate: Decachlorobiphenyl	*0.188*		mg/Kg wet	0.200		93.8	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.219*		mg/Kg wet	0.200		109	30-150			
Surrogate: Tetrachloro-m-xylene	*0.185*		mg/Kg wet	0.200		92.3	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.214*		mg/Kg wet	0.200		107	30-150			
LCS Dup (B246230-BSD1)				Prepared: 11/16/19 Analyzed: 11/18/19						
Aroclor-1016	0.17	0.020	mg/Kg wet	0.200		86.1	40-140	4.24	30	
Aroclor-1016 [2C]	0.19	0.020	mg/Kg wet	0.200		96.0	40-140	4.00	30	
Aroclor-1260	0.16	0.020	mg/Kg wet	0.200		77.6	40-140	0.953	30	
Aroclor-1260 [2C]	0.19	0.020	mg/Kg wet	0.200		93.3	40-140	0.558	30	
Surrogate: Decachlorobiphenyl	*0.194*		mg/Kg wet	0.200		97.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.226*		mg/Kg wet	0.200		113	30-150			
Surrogate: Tetrachloro-m-xylene	*0.191*		mg/Kg wet	0.200		95.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.218*		mg/Kg wet	0.200		109	30-150			

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

BA23-SB803 (1-2)-1

Lab Sample ID: 19K0953-01 Date(s) Analyzed: 11/18/2019 11/18/2019

Instrument ID (1): ECD 9 Instrument ID (2): ECD 9

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1254	1	0.000	-0.030	0.030	0.10	
	2	0.000	-0.030	0.030	0.13	26.1

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B246230-BS1 Date(s) Analyzed: 11/18/2019 11/18/2019

Instrument ID (1): ECD 9 Instrument ID (2): ECD 9

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	-0.030	0.030	0.18	
	2	0.000	-0.030	0.030	0.20	10.5
Aroclor-1260	1	0.000	-0.030	0.030	0.15	
	2	0.000	-0.030	0.030	0.19	23.5

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B246230-BSD1 Date(s) Analyzed: 11/18/2019 11/18/2019

Instrument ID (1): ECD 9 Instrument ID (2): ECD 9

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	-0.030	0.030	0.17	
	2	0.000	-0.030	0.030	0.19	11.1
Aroclor-1260	1	0.000	-0.030	0.030	0.16	
	2	0.000	-0.030	0.030	0.19	17.1

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Soil	
Aroclor-1016	CT,NH,NY,ME,NC,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1221	CT,NH,NY,ME,NC,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1232	CT,NH,NY,ME,NC,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1242	CT,NH,NY,ME,NC,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1248	CT,NH,NY,ME,NC,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1254	CT,NH,NY,ME,NC,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1260	CT,NH,NY,ME,NC,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1262	NY,NC,VA,PA
Aroclor-1262 [2C]	NY,NC,VA,PA
Aroclor-1268	NY,NC,VA,PA
Aroclor-1268 [2C]	NY,NC,VA,PA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2020
MA	Massachusetts DEP	M-MA100	06/30/2020
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2020
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2020
RI	Rhode Island Department of Health	LAO00112	12/30/2019
NC	North Carolina Div. of Water Quality	652	12/31/2019
NJ	New Jersey DEP	MA007 NELAP	06/30/2020
FL	Florida Department of Health	E871027 NELAP	06/30/2020
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2020
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2019
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2020
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2020
NC-DW	North Carolina Department of Health	25703	07/31/2020
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2020

19K0953

con-test ANALYTICAL LABORATORY

KAF

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

http://www.contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 2_06262019

Page 1 of 1

Company Name: AECOM
Address: 500 Enterprise Dr. Rocky Hill, CT
Phone:
Project Name: Greenwich High School
Project Location: Greenwich CT
Project Number: 60432356
Project Manager: Dan Seremet
Con-Test Quote Name/Number:
Invoice Recipient: Dan Seremet
Sampled By: E. Dorfler

Requested Turnaround Time
7-Day ☐ 10-Day ☐
PFAS 10-Day (std) ☐ Due Date:

Rush Approval Required
1-Day ☐ 3-Day ☒
2-Day ☐ 4-Day ☐

Reserve Matrix Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: EDD - EQuIS
CLP Like Data Pkg Required: ☐
Email To: elizabeth.dorfler@aecom.com
Fax To #:

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	PCB 8082	[2] Preservation Code
01	BA23-SB803(1-2)-1	11/15/19	0900	GRAB	S	U		1				X	
02	BA23-SB808(2.5-3.5)-1	11/15/19	0830	GRAB	S	U		1				X	
03	BA23-SB808(4-5)-1	11/15/19	0832	GRAB	S	U		1				X	

Relinquished by: (signature) — Date/Time: 11/15/19 1159
Received by: (signature) — Date/Time: 11/15/19 11:59
Relinquished by: (signature) — Date/Time: 11/15/19 7:10
Received by: (signature) — Date/Time: 11/15/19 1910
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:

Client Comments:

Data Quality Limits Requirements
MA
CT RCP
GA RMC
Other

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☒ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☒ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

PCB ONLY
☒ Soxhlet
☐ Non Soxhlet

Comments:

Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con Test values your partnership on each project and will try to assist with missing information, but will not b held accountable.

Counter Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Contest is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

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Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client AECOM

Received By RLF Date 11/15/19 Time 1910

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____
Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 2 Actual Temp - 5.1°C
By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? NA Were Samples Tampered with? NA
Was COC Relinquished ? T Does Chain Agree With Samples? T
Are there broken/leaking/loose caps on any samples? F
Is COC in ink/ Legible? T Were samples received within holding time? T
Did COC include all pertinent Information? Client T Analysis T Sampler Name T
Project T ID's T Collection Dates/Times T
Are Sample labels filled out and legible? T
Are there Lab to Filters? F Who was notified? _____
Are there Rushes? T Who was notified? Mike.
Are there Short Holds? F Who was notified? _____
Is there enough Volume? T
Is there Headspace where applicable? NA MS/MSD? F
Proper Media/Containers Used? T Is splitting samples required? F
Were trip blanks received? F On COC? F
Do all samples have the proper pH? Acid NA Base NA

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	3
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Con-Test Analytical Laboratory

Client: AECOM Environment - Rocky Hill, CT

Project Location: Greenwich, CT

Project Number: 19K0953

Laboratory Sample ID(s):

19K0953-01 thru 19K0953-03

Sample Date(s):

11/15/2019

List RCP Methods Used:

SW-846 8082A

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1A	Were the method specified preservation and holding time requirements met?	☑ Yes ☐ No
1B	VPH and EPH Methods only: Was the VPH and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)?	☐ Yes ☐ No ☑ N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	☑ Yes ☐ No
3	Were samples received at an appropriate temperature (< 6 degrees C.)?	☑ Yes ☐ No ☐ N/A
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	☑ Yes ☐ No
5A	Were reporting limits specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5B	Were these reporting limits met?	☑ Yes ☐ No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☑ Yes ☐ No
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	☐ Yes ☑ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence."
This form may not be altered and all questions must be answered.

Lisa A. Worthington

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Lisa Worthington **Position:** Technical Representative

Printed Name: Lisa A. Worthington **Date:** 11/19/19

Name of Laboratory: Con-Test Analytical Laboratory

This certification form is to be used for RCP methods only.

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November 26, 2019

Dan Seremet
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0500
Laboratory Work Order Number: 19K1131

Enclosed are results of analyses for samples received by the laboratory on November 19, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kaitlyn A. Feliciano
Project Manager

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B246595 9

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AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Dan Seremet

REPORT DATE: 11/26/2019

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356.0500

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 19K1131

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
AW19-SB803 (7-8)-1	19K1131-01	Soil		SM 2540G SW-846 6010D SW-846 6020B	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 6020, only Pb was requested and reported.

For method 6010, only Pb was requested and reported.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K1131

Date Received: 11/19/2019

Field Sample #: AW19-SB803 (7-8)-1 | Sampled: 11/13/2019 10:45

Sample ID: 19K1131-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	46	0.58	mg/Kg dry	1		SW-846 6010D	11/20/19	11/21/19 23:24	TBC

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K1131

Date Received: 11/19/2019

Field Sample #: AW19-SB803 (7-8)-1 | Sampled: 11/13/2019 10:45

Sample ID: 19K1131-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.8		% Wt	1		SM 2540G	11/20/19	11/20/19 9:15	JS

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K1131

Date Received: 11/19/2019

Field Sample #: AW19-SB803 (7-8)-1 | Sampled: 11/13/2019 10:45

Sample ID: 19K1131-01

Sample Matrix: Soil

SPLP - Metals Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	120	2.5	µg/L	5		SW-846 6020B	11/21/19	11/21/19 19:15	MJH

con-test® ANALYTICAL LABORATORY
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Sample Extraction Data

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
19K1131-01 [AW19-SB803 (7-8)-1]	B246536	11/20/19

Prep Method: SW-846 3050B-SW-846 6010D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19K1131-01 [AW19-SB803 (7-8)-1]	B246595	1.50	50.0	11/20/19

Prep Method: SW-846 3010A-SW-846 6020B **Leachates were extracted on 11/20/2019 per SW-846 1312 in Batch B246575**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
19K1131-01 [AW19-SB803 (7-8)-1]	B246678	50.0	50.0	11/21/19

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B246595 - SW-846 3050B										
Blank (B246595-BLK1)				Prepared: 11/20/19 Analyzed: 11/21/19						
Lead	ND	0.50	mg/Kg wet							
LCS (B246595-BS1)				Prepared: 11/20/19 Analyzed: 11/21/19						
Lead	111	1.5	mg/Kg wet	111		99.7	82.3-117.1			
LCS Dup (B246595-BSD1)				Prepared: 11/20/19 Analyzed: 11/21/19						
Lead	99.2	1.5	mg/Kg wet	111		89.4	82.3-117.1	10.9	30	
MRL Check (B246595-MRL1)				Prepared: 11/20/19 Analyzed: 11/21/19						
Lead	0.543	0.49	mg/Kg wet	0.491		110	80-120			

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QUALITY CONTROL

SPLP - Metals Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B246678 - SW-846 3010A										
Blank (B246678-BLK1)				Prepared & Analyzed: 11/21/19						
Lead	ND	2.5	µg/L							
LCS (B246678-BS1)				Prepared & Analyzed: 11/21/19						
Lead	520	5.0	µg/L	500		104	80-120			
LCS Dup (B246678-BSD1)				Prepared & Analyzed: 11/21/19						
Lead	517	5.0	µg/L	500		103	80-120	0.529	20	

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Lead	CT,NH,NY,AIHA,ME,VA,NC

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2020
MA	Massachusetts DEP	M-MA100	06/30/2020
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2020
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2020
RI	Rhode Island Department of Health	LAO00112	12/30/2019
NC	North Carolina Div. of Water Quality	652	12/31/2019
NJ	New Jersey DEP	MA007 NELAP	06/30/2020
FL	Florida Department of Health	E871027 NELAP	06/30/2020
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2020
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2019
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2020
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2020
NC-DW	North Carolina Department of Health	25703	07/31/2020
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2020

19K1131 mmk 11/19/19

con-test ANALYTICAL LABORATORY

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Fax: 413-525-6405
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mmk CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 2_06262019

Page 1 of 1

HAF

Company: Arcom
Address: 500 Enterprise Dr. Rocky Hill, CT
Phone:
Project Name: Greenwich High School
Project Location: Greenwich, CT
Project Number: 60482356
Project Manager: Dan Seremet
Con-Test Quote Name/Number:
Invoice Recipient: Dan Seremet
Sampled By: E. Doerfler, M. Kenney

Turnaround Time
~~7-Day~~ Early ☒ | 10-Day ☐
PFAS 10-Day (std) ☐ | Due Date:

RUSH - Approval Required
1-Day ☐ | 3-Day ~~☒~~
2-Day ☐ | 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: EDD - EQUIS
CLP Like Data Pkg Required: ☐
Email To: dansermet@arcom.com, elizabeth.doerfler@arcom.com
Fax To #:

Additional Charges for Samples
Field Filtered ○
Lab to Filter ○

Additional Charges for Samples
Field Filtered ○
Lab to Filter ○

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Lead	SPLP Lead	PCB 8082
1	~~AA20-SB25RE(7.5)-1~~	11/13/19	0910	Grab	S	U		1						
2	AW19-SB9903(1-2)-1	11/13/19	0941	Grab	S	U		1				X	X	
-01 *3	AW19-SB803(7-8)-1	11/13/19	1045	Grab	S	U		1						X
4	AW19-SB803(12-13)-1	11/13/19	1055	Grab	S	U		1				X	X	X
5	AX21-SB800(1-2)-1	11/13/19	1137	Grab	S	U		1						X
6	BA23-SB802(1-2)-1	11/13/19	1320	Grab	S	U		1						X

Relinquished by: (signature) — Date/Time: 11/13/19 1440
Received by: (signature) Tom Marsi — Date/Time: 11/13/19 1440
Relinquished by: (signature) Tom Marsi — Date/Time: 11/13/19 1815
Received by: (signature) — Date/Time: 11/13/19 18:15
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:

Client Comments: * Activate -03 per client for Lead + SPLP Lead - 5day
11/19/19 mmk

Lab Comments:

Preservation Unit Requirements
Temp
Other: RDEC, GA pmc

Special Requirements
MA MCP Required ☐
MCP Certification Form Required ☐
CT RCP Required ☒
RCP Certification Form Required ☐
MA State DW Required ☐
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ | Municipality ☒ | MWRA ☐ | WRTA ☐
Federal ☐ | 21 J ☐ | School ☐
City ☐ | Brownfield ☐ | MBTA ☐

Other: Chromatogram ☐ | AIHA-LAP,LLC ☐

PCB ONLY: Soxhlet ☒ | Non Soxhlet ☐

Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con-Test values your partnership on each project and will try to assist with missing information, but will not be held accountable.

Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Contest is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[2] Preservation Code

Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

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Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client AECOM

Received By MP Date 11/13/19 Time 18:15

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____

Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 5 Actual Temp - 2.8

By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? N/A Were Samples Tampered with? N/A

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T

Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F

Are there Rushes? T Who was notified? _____

Are there Short Holds? F Who was notified? M. Hem

Is there enough Volume? T Who was notified? _____

Is there Headspace where applicable? N/A MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? N/A Acid _____ Base _____

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	6
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Con-Test Analytical Laboratory

Client: AECOM Environment - Rocky Hill, CT

Project Location: Greenwich, CT

Project Number: 19K1131

Laboratory Sample ID(s):

19K1131-01

Sample Date(s):

11/13/2019

List RCP Methods Used:

SW-846 1312, SW-846 6010D, SW-846 6020B

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1A	Were the method specified preservation and holding time requirements met?	☑ Yes ☐ No
1B	VPH and EPH Methods only: Was the VPH and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)?	☐ Yes ☐ No ☑ N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	☑ Yes ☐ No
3	Were samples received at an appropriate temperature (< 6 degrees C.)?	☑ Yes ☐ No ☐ N/A
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	☑ Yes ☐ No
5A	Were reporting limits specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5B	Were these reporting limits met?	☑ Yes ☐ No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☐ Yes ☑ No
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	☐ Yes ☑ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence."
This form may not be altered and all questions must be answered.

Lisa A. Worthington

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Lisa Worthington **Position:** Technical Representative

Printed Name: Lisa A. Worthington **Date:** 11/26/19

Name of Laboratory: Con-Test Analytical Laboratory

This certification form is to be used for RCP methods only.

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

November 26, 2019

Dan Seremet
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0500
Laboratory Work Order Number: 19K1133

Enclosed are results of analyses for samples received by the laboratory on November 19, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kaitlyn A. Feliciano
Project Manager

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AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Dan Seremet

REPORT DATE: 11/26/2019

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356.0500

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 19K1133

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
AX21-SB800 (6.5-7.5)-1	19K1133-01	Soil		SM 2540G SW-846 6010D SW-846 6020B	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 6020, only Pb was requested and reported.
For method 6010, only Pb was requested and reported.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 19K1133

Date Received: 11/19/2019

Field Sample #: AX21-SB800 (6.5-7.5)-1 | Sampled: 11/14/2019 09:00

Sample ID: 19K1133-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	150	0.63	mg/Kg dry	1		SW-846 6010D	11/20/19	11/21/19 23:29	TBC

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K1133

Date Received: 11/19/2019

Field Sample #: AX21-SB800 (6.5-7.5)-1 | Sampled: 11/14/2019 09:00

Sample ID: 19K1133-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	79.3		% Wt	1		SM 2540G	11/20/19	11/20/19 9:15	JS

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Project Location: Greenwich, CT | Sample Description: | Work Order: 19K1133

Date Received: 11/19/2019

Field Sample #: AX21-SB800 (6.5-7.5)-1 | Sampled: 11/14/2019 09:00

Sample ID: 19K1133-01

Sample Matrix: Soil

SPLP - Metals Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	470	2.5	µg/L	5		SW-846 6020B	11/21/19	11/21/19 19:18	MJH

con-test® ANALYTICAL LABORATORY
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Sample Extraction Data

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
19K1133-01 [AX21-SB800 (6.5-7.5)-1]	B246536	11/20/19

Prep Method: SW-846 3050B-SW-846 6010D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19K1133-01 [AX21-SB800 (6.5-7.5)-1]	B246595	1.50	50.0	11/20/19

Prep Method: SW-846 3010A-SW-846 6020B **Leachates were extracted on 11/20/2019 per SW-846 1312 in Batch B246575**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
19K1133-01 [AX21-SB800 (6.5-7.5)-1]	B246678	50.0	50.0	11/21/19

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Lead	111	1.5	mg/Kg wet	111		99.7	82.3-117.1			
LCS Dup (B246595-BSD1)				Prepared: 11/20/19 Analyzed: 11/21/19						
Lead	99.2	1.5	mg/Kg wet	111		89.4	82.3-117.1	10.9	30	
MRL Check (B246595-MRL1)				Prepared: 11/20/19 Analyzed: 11/21/19						
Lead	0.543	0.49	mg/Kg wet	0.491		110	80-120			

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QUALITY CONTROL

SPLP - Metals Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Blank (B246678-BLK1)				Prepared & Analyzed: 11/21/19						
Lead	ND	2.5	µg/L							
LCS (B246678-BS1)				Prepared & Analyzed: 11/21/19						
Lead	520	5.0	µg/L	500		104	80-120			
LCS Dup (B246678-BSD1)				Prepared & Analyzed: 11/21/19						
Lead	517	5.0	µg/L	500		103	80-120	0.529	20	

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
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RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Lead	CT,NH,NY,AIHA,ME,VA,NC

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2020
MA	Massachusetts DEP	M-MA100	06/30/2020
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2020
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2020
RI	Rhode Island Department of Health	LAO00112	12/30/2019
NC	North Carolina Div. of Water Quality	652	12/31/2019
NJ	New Jersey DEP	MA007 NELAP	06/30/2020
FL	Florida Department of Health	E871027 NELAP	06/30/2020
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2020
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2019
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2020
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2020
NC-DW	North Carolina Department of Health	25703	07/31/2020
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2020

19K1133 mmk 11/19/19

http://www.contestlabs.com

Doc # 381 Rev 2_06262019

con-test ANALYTICAL LABORATORY

Phone: 413-525-2332 ~~1640845~~
Fax: 413-525-6405
Email: info@contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Page 1 of 2

KAF

Company Name: AECOM
Address: 500 Enterprise Dr. Rocky Hill, CT
Phone:
Project Name: Greenwich High School
Project Location: 60432356
Project Number: Greenwich, CT
Project Manager: Dan Seremet
Con-Test Quote Name/Number:
Invoice Recipient: Dan Seremet
Sampled By: E Doerfler, M. Kenney

Requested Turnaround Time
~~7-Day~~ 5day ☐ 10-Day ☐
PFAS 10-Day (std) ☐ Due Date:

Disposed Matrix Samples
○ Field Filtered
○ Lab to Filter

Rush Approval Required
1-Day ☐ 3-Day ☒
2-Day ☐ 4-Day ☐

Oversize Samples
○ Field Filtered
○ Lab to Filter

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: EDD-EQUIS
CLP Like Data Pkg Required: ☐
Email To: dan.seremet@aecom.com, elizabeth.doerfler@aecom.com
Fax To #:

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	PCBs 8082	Lead Total	Lead SPLP
-01 ~~1~~	AX21-SB800(6.5-7.5)-1	11/14/19	0900	Grab	S	U		1				X	X	X
2	AX21-SB800(11-12)-1	11/14/19	0905	Grab	S	U		1				X		
3	AX21-SB800(11-12)-2	11/14/19	0906	Grab	S	U		1				X		
4	AX26-SB801(1-2)-1	11/14/19	1022	Grab	S	U		1				X		
5	AX26-SB801(6-7)-1	11/14/19	1041	Grab	S	U		1				X		
6	AX26-SB801(11-12)-1	11/14/19	1045	Grab	S	U		1				X		
7	AX28-SB804(1-2)-1	11/14/19	1140	Grab	S	U		1				X		
8	AX28-SB804(3-4)-1	11/14/19	1153	Grab	S	U		1				X		
9	BA30-SB806(1-2)-1	11/14/19	1242	Grab	S	U		1				X		
10	AY30-SB805(1-2)-1	11/14/19	1325	Grab	S	U		1				X		

[2] Preservation Code

Courier Use Only
Total Number Of:
VIALS_____
GLASS_____
PLASTIC_____
BACTERIA_____
ENCORE_____

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Contest is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time:
[signature]	11/14/19 1537
Received by: (signature) [signature]	11/14/19 1537
Relinquished by: (signature) [signature]	11/14/19 810
Received by: (signature) [signature] 3.5	11/14/19 20:10
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments: AX21-SB800(6.5-7.5)-1 MS/MSD for PCBs

Detection Limit Requirements
MA
CT GA PMC, RDEL
Other

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☒ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☒ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

PCB ONLY
☒ Soxhlet
☐ Non Soxhlet

Lab Comments: *Activate -01 for Lead + Lead SPLP per client 11/19/19 mmk - 5day tat per client

Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con-Test values your partnership on each project and will try to assist with missing information, but will not be held accountable.

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http://www.contestlabs.com Doc # 381 Rev 1_03242017

con-test ANALYTICAL LABORATORY

Phone: 413-525-2332 19/10845
Fax: 413-525-6405
Email: info@contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Page 2 of 2

Company Name: AECOM
Address: 500 Enterprise Dr. Rocky Hill, CT
Phone:
Project Name: Greenwich High School
Project Location: Greenwich, CT
Project Number: 60432356
Project Manager: Dan Seremet
Con-Test Quote Name/Number:
Invoice Recipient: Dan Seremet
Sampled By: E. Doerfler M. Kenney

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☒
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: EDP - EQUIS
CLP Like Data Pkg Required: ☐
Email To: elizabeth.doerfler@
Fax To #: aecom.com

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	Matrix Code	Conc Code	PCBs 8082										
11	AY30-SB805(1-2)_2	11/14/19	1326		X	S	U	X										
12	AY30-SB805(4-5)-1	11/14/19	1340		X	S	U	X										

# of Containers
[2] Preservation Code
[3] Container Code

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] **Container Codes:**
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Comments:

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time:
[signature]	11/14/19 1533
Received by: (signature) (B)	11/14/19 1533
Relinquished by: (signature) (B)	11/14/19 810
Received by: (signature) [signature] 3.5	11/14/19 2040
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Detection Limit Requirements
MA
CT RDEC, GA
PMC
Other

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☒ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

con-test ANALYTICAL LABORATORY www.contestlabs.com
NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☒ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

PCB ONLY
☒ Soxhlet
☐ Non Soxhlet

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client AECOM

Received By mf Date 11/14/19 Time 20:10

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____

Direct from Sampling _____ Ambient _____ Melted Ice _____

By Gun # 5 Actual Temp - 3.5

Were samples within Temperature? 2-6°C T By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? N/A Were Samples Tampered with? N/A

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T

Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F

Are there Rushes? T Who was notified? _____

Are there Short Holds? F Who was notified? Ashley

Is there enough Volume? T Who was notified? _____

Is there Headspace where applicable? N/A MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? N/A Acid _____ Base _____

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	12
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Con-Test Analytical Laboratory

Client: AECOM Environment - Rocky Hill, CT

Project Location: Greenwich, CT

Project Number: 19K1133

Laboratory Sample ID(s):

19K1133-01

Sample Date(s):

11/14/2019

List RCP Methods Used:

SW-846 1312, SW-846 6010D, SW-846 6020B

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1A	Were the method specified preservation and holding time requirements met?	☑ Yes ☐ No
1B	VPH and EPH Methods only: Was the VPH and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)?	☐ Yes ☐ No ☑ N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	☑ Yes ☐ No
3	Were samples received at an appropriate temperature (< 6 degrees C.)?	☑ Yes ☐ No ☐ N/A
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	☑ Yes ☐ No
5A	Were reporting limits specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5B	Were these reporting limits met?	☑ Yes ☐ No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☐ Yes ☑ No
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	☐ Yes ☑ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence."
This form may not be altered and all questions must be answered.

Lisa A. Worthington

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Lisa Worthington **Position:** Technical Representative

Printed Name: Lisa A. Worthington **Date:** 11/26/19

Name of Laboratory: Con-Test Analytical Laboratory

This certification form is to be used for RCP methods only.

Appendix D

Data Usability Evaluation Worksheets

DATA USABILITY EVALUATION WORKSHEET

Project Name: Greenwich High School
Laboratory: Con-Test Analytical Laboratory

Sample Delivery Group Number: 19K0759
Date Samples Collected: 11/13/2019
Number of Samples Collected: 1
Analysis: SW846 6010D
Reviewer: Elizabeth Doerfler

Describe the intended use of the data:
The data will be used for the evaluation of pre-design investigation. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

Nonconformance DQA Review Elements	Criteria	Briefly Summarize DQA Nonconformances
Laboratory Report Inspection		Complete
Reasonable Confidence Evaluation	You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes.	Meets criteria.
Chain of Custody Evaluation	Analyses agree with COC	COC accompanied samples, analyses agree with COC.
Sample Preservation and Holding Time Evaluation	< 6 ° C 180 days Mercury 28 days	2.8°C
Percent Solids	> 30%	Meets criteria.
Field Duplicate	Soils RPD ≤ 50% for results >2x Reporting Limit	Field duplicate not collected.
Method Blank	< RLs	Meets criteria.
Equipment Blanks	< RLs	None taken.
Initial and Continuing Calibration	ICV, CCV ±10% of true value	No issues narrated.
Laboratory Control Samples (Blank Spike)	LCS recoveries ±20% for aqueous media	Meets criteria.

	and within vendor control (95% confidence limits) for solids	
Site Specific Matrix Spikes and Matrix Spike Duplicates	MS percent recovery 75-125% MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL	MS/MSD not included in this data set.
Quantitation Limits	Dilutions	No dilutions.
Other QC data		For method 6010, only Pb was requested and reported.

DATA USABILITY EVALUATION WORKSHEET

Project Name: Greenwich High School
Laboratory: Con-Test Analytical Laboratory

Sample Delivery Group Number: 19K0759
Date Samples Collected: 11/13/2019
Number of Samples Collected: 1
Analysis: SW846 6020B
Reviewer: Elizabeth Doerfler

Describe the intended use of the data:
The data will be used for verification of the completion of remediation. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

Nonconformance DQA Review Elements	Criteria	Briefly Summarize DQA Nonconformances
Laboratory Report Inspection		Complete
Reasonable Confidence Evaluation	You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes.	Meets criteria.
Chain of Custody Evaluation	Analyses agree with COC	COC accompanied samples, analyses agree with COC.
Sample Preservation and Holding Time Evaluation	< 6 ° C 180 days Mercury 28 days	2.8°C
Percent Solids	> 30%	Meets criteria.
Field Duplicate	Soils RPD ≤ 50% for results >2x Reporting Limit	Field duplicate not collected.
Method Blank	< RLs	Meets criteria.
Equipment Blanks	< RLs	None taken.
Initial and Continuing Calibration	"r" ≥ 0.995 ICV, CCV ±10% of true value	No issues narrated.

Laboratory Control Samples (Blank Spike)	LCS recoveries ±20% for aqueous media and within vendor control (95% confidence limits) for solids	Meets criteria.
Site Specific Matrix Spikes and Matrix Spike Duplicates	MS percent recovery 75-125% MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL	MS Source: 19K0759-01 Meets criteria
Quantitation Limits	Dilutions	19K0759-01; AZ20-SB251RE (7-7.5)-1: Sample results for Lead from 5x dilution.
Other QC data		For method 6020, only Pb was requested and reported.

DATA USABILITY EVALUATION WORKSHEET

Project Name: Greenwich High School
Laboratory: Con-Test Analytical Laboratory

Sample Delivery Group Number: 19K0759
Date Samples Collected: 11/13/2019
Number of Samples Collected: 5
Analysis: SW846 8082A
Reviewer: Elizabeth Doerfler

Describe the intended use of the data:
The data will be used for the evaluation of pre-design investigation. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

Nonconformance DQA Review Elements	Criteria	Briefly Summarize DQA Nonconformances
Laboratory Report Inspection		Complete
Reasonable Confidence Evaluation	You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes.	Meets criteria.
Chain of Custody Evaluation	Analyses agree with COC	COC accompanied samples, analyses agree with COC.
Sample Preservation and Holding Time Evaluation	< 6 ° C Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil)	2.8°C
Percent Solids	> 30%	Meets criteria.
Field Duplicate	Soils RPD ≤ 50% for results >2x Reporting Limit	Field duplicate not collected.
Method Blank	< RLs	Meets criteria.
Equipment Blanks	< RLs	None taken.
Initial and Continuing Calibration	% RSD ≤ 20%, "r" ≥ 0.990 % difference or drift ≤ 15%	No issues narrated.

Laboratory Control Samples (Blank Spike)	Percent recovery 40-140%	Meets criteria.
Surrogates	Percent recovery 30-150%	Meets criteria.
Site Specific Matrix Spikes and Matrix Spike Duplicates	Percent recovery 40-140%	MS/MSD not included in this data set.
Quantitation Limits	Dilutions	19K0759-02; AW19-SB803 (1-2)-1: Sample results from 4x dilution. 19K0759-03; AW19-SB803 (7-8)-1: Sample results from 4x dilution. 19K0759-04; AW19-SB803 (12-13)-1: Sample results from 4x dilution. 19K0759-05; AX21-SB800 (1-2)-1: Sample results from 4x dilution. 19K0759-06; BA23-SB802 (1-2)-1: Sample results from 4x dilution.
Other QC data		NA

DATA USABILITY EVALUATION WORKSHEET

Project Name: Greenwich High School
Laboratory: Con-Test Analytical Laboratory

Sample Delivery Group Number: 19K0845
Date Samples Collected: 11/14/2019
Number of Samples Collected: 12
Analysis: SW846 8082A
Reviewer: Elizabeth Doerfler

Describe the intended use of the data:
The data will be used for the evaluation of pre-design investigation. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

Nonconformance DQA Review Elements	Criteria	Briefly Summarize DQA Nonconformances
Laboratory Report Inspection		Complete
Reasonable Confidence Evaluation	You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes.	Meets criteria.
Chain of Custody Evaluation	Analyses agree with COC	COC accompanied samples, analyses agree with COC.
Sample Preservation and Holding Time Evaluation	< 6 ° C Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil)	3.5°C
Percent Solids	> 30%	Meets criteria.
Field Duplicate	Soils RPD ≤ 50% for results >2x Reporting Limit	19K0845-02; AX21-SB800 (11-12)-1 and 19K0845-03; AX21-SB800 (11-12)-2: Meets criteria 19K0845-10; AY30-SB805 (1-2)-1 and 19K0845-11; AY30-SB805 (1-2)-2: Meets criteria (results <2x RL)
Method Blank	< RLs	Meets criteria.
Equipment Blanks	< RLs	None taken.
Initial and Continuing Calibration	% RSD ≤ 20%, "r" ≥ 0.990 % difference or drift ≤ 15%	No issues narrated.

Laboratory Control Samples (Blank Spike)	Percent recovery 40-140%	Meets criteria.
Surrogates	Percent recovery 30-150%	Meets criteria.
Site Specific Matrix Spikes and Matrix Spike Duplicates	Percent recovery 40-140%	Source: 19K0845-01 MS-12 Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated. Analyte & Samples(s) Qualified: Aroclor-1016 B246230-MS1, B246230-MSD1 Aroclor-1016 [2C] B246230-MS1, B246230-MSD1 Aroclor-1260 B246230-MS1, B246230-MSD1 Aroclor-1260 [2C] B246230-MS1, B246230-MSD1
Quantitation Limits	Dilutions	19K0845-01; AX21-SB800 (6.5-7.5)-1: Sample results from 4x dilution. 19K0845-02; AX21-SB800 (11-12)-1: Sample results from 4x dilution. 19K0845-03; AX21-SB800 (11-12)-2: Sample results from 4x dilution. 19K0845-04; AX26-SB801 (1-2)-1: Sample results from 4x dilution. 19K0845-05; AX26-SB801 (6-7)-1: Sample results from 4x dilution. 19K0845-06; AX26-SB801 (11-12)-1: Sample results from 4x dilution. 19K0845-07; AX28-SB804 (1-2)-1: Sample results from 4x dilution. 19K0845-08; AX28-SB804 (3-4)-1: Sample results from 4x dilution. 19K0845-09; BA30-SB806 (1-2)-1: Sample results from 4x dilution. 19K0845-10; AY30-SB805 (1-2)-1: Sample results from 4x dilution. 19K0845-11; AY30-SB805 (1-2)-2: Sample results from 4x dilution.

		19K0845-12; AY30-SB805 (4-5)-1: Sample results from 4x dilution.
Other QC data		NA

DATA USABILITY EVALUATION WORKSHEET

Project Name: Greenwich High School
Laboratory: Con-Test Analytical Laboratory

Sample Delivery Group Number: 19K0953
Date Samples Collected: 11/15/2019
Number of Samples Collected: 3
Analysis: SW846 8082A
Reviewer: Elizabeth Doerfler

Describe the intended use of the data:
The data will be used for the evaluation of pre-design investigation. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

Nonconformance DQA Review Elements	Criteria	Briefly Summarize DQA Nonconformances
Laboratory Report Inspection		Complete
Reasonable Confidence Evaluation	You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes.	Meets criteria.
Chain of Custody Evaluation	Analyses agree with COC	COC accompanied samples, analyses agree with COC.
Sample Preservation and Holding Time Evaluation	< 6 ° C Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil)	5.1°C
Percent Solids	> 30%	Meets criteria.
Field Duplicate	Soils RPD ≤ 50% for results >2x Reporting Limit	Field duplicate sample not collected.
Method Blank	< RLs	Meets criteria.
Equipment Blanks	< RLs	None taken.
Initial and Continuing Calibration	% RSD ≤ 20%, "r" ≥ 0.990 % difference or drift ≤ 15%	No issues narrated.

Laboratory Control Samples (Blank Spike)	Percent recovery 40-140%	Meets criteria.
Surrogates	Percent recovery 30-150%	Meets criteria.
Site Specific Matrix Spikes and Matrix Spike Duplicates	Percent recovery 40-140%	MS/MSD not included in this data set.
Quantitation Limits	Dilutions	19K0953-01; BA23-SB808 (1-2)-1: Sample results from 4x dilution. 19K0953-02; BA23-SB808 (2.5-3.5)-1: Sample results from 4x dilution. 19K0953-03; BA23-SB808 (4-5)-1: Sample results from 4x dilution.
Other QC data		NA

DATA USABILITY EVALUATION WORKSHEET

Project Name: Greenwich High School
Laboratory: Con-Test Analytical Laboratory

Sample Delivery Group Number: 19K1131
Date Samples Collected: 11/13/2019
Number of Samples Collected: 1
Analysis: SW846 6010D
Reviewer: Elizabeth Doerfler

Describe the intended use of the data:
The data will be used for the evaluation of pre-design investigation. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

Nonconformance DQA Review Elements	Criteria	Briefly Summarize DQA Nonconformances
Laboratory Report Inspection		Complete
Reasonable Confidence Evaluation	You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes.	Meets criteria.
Chain of Custody Evaluation	Analyses agree with COC	COC accompanied samples, analyses agree with COC. Lead analysis requested via email.
Sample Preservation and Holding Time Evaluation	< 6 ° C 180 days Mercury 28 days	2.8°C
Percent Solids	> 30%	Meets criteria.
Field Duplicate	Soils RPD ≤ 50% for results >2x Reporting Limit	Field duplicate not collected.
Method Blank	< RLs	Meets criteria.
Equipment Blanks	< RLs	None taken.
Initial and Continuing Calibration	ICV, CCV ±10% of true value	No issues narrated.
Laboratory Control Samples (Blank Spike)	LCS recoveries ±20% for aqueous media	Meets criteria.

	and within vendor control (95% confidence limits) for solids	
Site Specific Matrix Spikes and Matrix Spike Duplicates	MS percent recovery 75-125% MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL	MS/MSD not included in this data set.
Quantitation Limits	Dilutions	No dilutions.
Other QC data		For method 6010, only Pb was requested and reported.

DATA USABILITY EVALUATION WORKSHEET

Project Name: Greenwich High School
Laboratory: Con-Test Analytical Laboratory

Sample Delivery Group Number: 19K1131
Date Samples Collected: 11/13/2019
Number of Samples Collected: 1
Analysis: SW846 6020B
Reviewer: Elizabeth Doerfler

Describe the intended use of the data:
The data will be used for verification of the completion of remediation. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

Nonconformance DQA Review Elements	Criteria	Briefly Summarize DQA Nonconformances
Laboratory Report Inspection		Complete
Reasonable Confidence Evaluation	You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes.	Meets criteria.
Chain of Custody Evaluation	Analyses agree with COC	COC accompanied samples, analyses agree with COC. SPLP Lead analysis requested via email.
Sample Preservation and Holding Time Evaluation	< 6 ° C 180 days Mercury 28 days	2.8°C
Percent Solids	> 30%	Meets criteria.
Field Duplicate	Soils RPD ≤ 50% for results >2x Reporting Limit	Field duplicate not collected.
Method Blank	< RLs	Meets criteria.
Equipment Blanks	< RLs	None taken.
Initial and Continuing Calibration	"r" ≥ 0.995 ICV, CCV ±10% of true value	No issues narrated.

Laboratory Control Samples (Blank Spike)	LCS recoveries ±20% for aqueous media and within vendor control (95% confidence limits) for solids	Meets criteria.
Site Specific Matrix Spikes and Matrix Spike Duplicates	MS percent recovery 75-125% MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL	MS/MSD not included in this data set.
Quantitation Limits	Dilutions	19K1131-01; AW19-SB803 (7-8)-1: Sample results for Lead from 5x dilution.
Other QC data		For method 6020, only Pb was requested and reported.

DATA USABILITY EVALUATION WORKSHEET

Project Name: Greenwich High School
Laboratory: Con-Test Analytical Laboratory

Sample Delivery Group Number: 19K1133
Date Samples Collected: 11/14/2019
Number of Samples Collected: 1
Analysis: SW846 6010D
Reviewer: Elizabeth Doerfler

Describe the intended use of the data:
The data will be used for the evaluation of pre-design investigation. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

Nonconformance DQA Review Elements	Criteria	Briefly Summarize DQA Nonconformances
Laboratory Report Inspection		Complete
Reasonable Confidence Evaluation	You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes.	Meets criteria.
Chain of Custody Evaluation	Analyses agree with COC	COC accompanied samples, analyses agree with COC. Lead analysis requested via email.
Sample Preservation and Holding Time Evaluation	< 6 ° C 180 days Mercury 28 days	3.5°C
Percent Solids	> 30%	Meets criteria.
Field Duplicate	Soils RPD ≤ 50% for results >2x Reporting Limit	Field duplicate not collected.
Method Blank	< RLs	Meets criteria.
Equipment Blanks	< RLs	None taken.
Initial and Continuing Calibration	ICV, CCV ±10% of true value	No issues narrated.
Laboratory Control Samples (Blank Spike)	LCS recoveries ±20% for aqueous media	Meets criteria.

	and within vendor control (95% confidence limits) for solids	
Site Specific Matrix Spikes and Matrix Spike Duplicates	MS percent recovery 75-125% MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL	MS/MSD not included in this data set.
Quantitation Limits	Dilutions	No dilutions.
Other QC data		For method 6010, only Pb was requested and reported.

DATA USABILITY EVALUATION WORKSHEET

Project Name: Greenwich High School
Laboratory: Con-Test Analytical Laboratory

Sample Delivery Group Number: 19K1133
Date Samples Collected: 11/14/2019
Number of Samples Collected: 1
Analysis: SW846 6020B
Reviewer: Elizabeth Doerfler

Describe the intended use of the data:
The data will be used for verification of the completion of remediation. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

Nonconformance DQA Review Elements	Criteria	Briefly Summarize DQA Nonconformances
Laboratory Report Inspection		Complete
Reasonable Confidence Evaluation	You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes.	Meets criteria.
Chain of Custody Evaluation	Analyses agree with COC	COC accompanied samples, analyses agree with COC. SPLP Lead analysis requested via email.
Sample Preservation and Holding Time Evaluation	< 6 ° C 180 days Mercury 28 days	3.5°C
Percent Solids	> 30%	Meets criteria.
Field Duplicate	Soils RPD ≤ 50% for results >2x Reporting Limit	Field duplicate not collected.
Method Blank	< RLs	Meets criteria.
Equipment Blanks	< RLs	None taken.
Initial and Continuing Calibration	"r" ≥ 0.995 ICV, CCV ±10% of true value	No issues narrated.

Laboratory Control Samples (Blank Spike)	LCS recoveries ±20% for aqueous media and within vendor control (95% confidence limits) for solids	Meets criteria.
Site Specific Matrix Spikes and Matrix Spike Duplicates	MS percent recovery 75-125% MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL	MS/MSD not included in this data set.
Quantitation Limits	Dilutions	19K1133-01; AX21-SB800 (6.5-7.5)-1: Sample results for Lead from 5x dilution.
Other QC data		For method 6020, only Pb was requested and reported.

Appendix E

Engineered Control Application Parts I and II



Application for Engineered Control Variance

Fields 6 & 7
Greenwich High School
Remediation ID # 13334

Town of Greenwich

May 3, 2019

Quality information

Prepared by



Matthew Rood, LEP

Reviewed by



Patrick Haskell, LEP, CHMM

Reviewed by



Michael Doherty, P.E.

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1. Introduction

AECOM was contracted by the Town of Greenwich to provide engineering and consulting services for the investigation and remediation of Greenwich High School, located at 10 Hillside Road in Greenwich, Connecticut (the Site). This request for approval of an Engineered Control (EC) applies to portions of the remediation design documented in an Interim Remedial Action Plan (IRAP), which is being submitted coincident with this Application for Engineered Control Variance of polluted soil (hereinafter referred to as the EC Variance). This EC Variance application is being submitted in accordance with Section 22a-133k-2(f) of the Connecticut Department of Energy and Environmental Protection (DEEP) Remediation Standard Regulations (RSR) to address exceedances of Residential Direct Exposure Criteria (R DEC). **Figure 1** depicts the Site location.

This document presents the information required in support of Parts 1 and 2 of EC Variance Application for Fields #6 and #7 at the Site. Soil containing polychlorinated biphenyls (PCBs) at concentrations above the R DEC of 1 milligram-per-kilogram (mg/kg) is located beneath these fields. This EC Variance application is being submitted to seek approval to use the synthetic turf and associated construction components for Fields #6 and #7 to limit exposure to impacted soil beneath these fields. The location of the proposed EC is depicted on **Figure 2**. This document conforms to the requirements of the RSRs and the DEEP Guidance Document titled "Engineered Controls pursuant to Section 22a-133k-2(f)(2)(B) of the Connecticut RSRs February 2009 Rev. 2010, Rev. 2013."

AECOM has previously obtained EPA and DEEP approval for permeable soil caps overlying PCB impacts at several sites in Connecticut. The field turf and underlying soil provides an improved barrier relative to soil alone, and the Town has received approval for an EC incorporating a similar synthetic turf field at the former Cos Cob Power Plant, now the Cos Cob Park.

1.1 Site Identification

The 54.75-acre Site is located at 10 Hillside Road in Greenwich, Connecticut, which is located at approximately 73.61 degrees west longitude and 41.04 degrees north latitude. Based on information from the Town of Greenwich Tax Assessor's Office, the Site is owned by the Town of Greenwich and is designated by parcel number 07-4511/S. A Site Location Plan is included as **Figure 1**. A Site Plan, depicting the current layout and pertinent site features, is included as **Figure 2.**

The Site is in an area zoned for single-family residential use (R-20) and is bound by residential properties to the north and west, East Putnam Avenue to the south, and Hillside Road to the east. Residential properties are located beyond East Putnam Avenue and Hillside Road. The Site is currently used as a public high school with associated athletic facilities. The southeast corner of the Site has not been developed and remains in the same condition as it existed prior to the Town purchasing the property, except that the residences that occupied portions of that area were demolished. Improvements to the property include a high school building complex with multiple specific-use wings, paved parking areas; natural and synthetic turf athletic fields, tennis courts, batting cages, landscaped areas, and pedestrian walkways. Utilities provided to the property include municipal water, storm drainage, sewer, electricity, and communications. Heating is provided by oil-fired boilers. No. 2 fuel oil for heating is stored on-site in a 15,000-gallon underground storage tank (UST). The current Site features are shown on **Figure 2.**

Before the Town acquired the high school property in 1966, portions of the property were used for residential purposes and much of the property was undeveloped. The property was originally three separate parcels which the Town purchased and combined into one parcel. Sanborn fire insurance maps indicate that, prior to 1966, the Site was occupied by several residences and outbuildings, which were primarily located along East Putnam Avenue and Hillside Road.

Two water bodies were observed on historical maps. Wetlands (referred to as Ice Pond on the 1938 and 1950 Sanborn maps) were located in the central portion of the property and an unnamed pond (currently named Cider Mill Pond) was located in the southeast corner. West Brothers Brook entered the property at the same location as it does currently, flowed southeast into the wetlands, and then beyond to Cider Mill Pond.

Bid documents and historical construction drawings from the initial phase of construction of the high school show that the brook was rerouted along the western portion of the Site into the concrete channel it currently occupies in the late 1960s. These documents also indicate that, during construction of the high school buildings, fill was brought onto the

property to fill the wetlands to grades similar to those that currently exist. The high school buildings were constructed on the eastern portion of the property, beyond the limits of the historical wetlands, on areas of shallow bedrock or bedrock outcrops.

Development of the high school occurred between 1966 and 1972 with the construction the original buildings, eight tennis courts, and athletic Fields #2, #3 and #4, the latter of which located to the west of the school buildings in the vicinity of the former wetlands. The school opened for use in 1970. Several improvements to the property have taken place since the initial construction of the high school:

- In the early 1970s, additional fill was imported to level an area in the western parking lot that had settled.
- In 1974, the athletic fields were re-graded for improved drainage as the large area of relatively flat grades were allowing storm water to pond on the surface and limiting the use of these fields. Additional re-grading of the athletic fields was performed between 1982 and 1985. Historical drawings indicate that Fields #2 through #7 were constructed in their current locations by 1994. Additional improvements to Fields #3, #4, #6 and #7 were completed in 2005, when the current synthetic turf fields were installed.
- In 1975, a football stadium (Field #1) was constructed in the southwestern corner of the Site, along East Putnam Avenue. In 2002, the football stadium was rebuilt with a surrounding track.
- Between 1982 and 1985, a softball field (Field #5) was constructed to the north of the high school buildings in an area which was previously undeveloped by the school.
- The science wing addition at the high school, which is located at the northeast end of the school building complex, was completed after 1994.
- The tennis courts were rebuilt in 2005 in the same location as the original courts.

Construction of the Musical Instructional Space and Auditorium (MISA) addition to the high school was planned to commence in mid-July 2011. However, during utility trenching activities for improvements to the parking lot and irrigation system, PCBs were encountered in the upper two feet of soil. The EPA, DEEP, and the Connecticut Department of Public Health (DPH) were notified and the investigation activities previously described were initiated. MISA construction subsequently resumed in 2012, and the MISA construction project was completed in 2017.

1.2 Regulatory Status & Applicable Criteria

The Site is enrolled in the DEEP Voluntary Remediation Program (VRP) under Connecticut General Statutes (CGS) Section 22a-133x, and DEEP has retained oversight of the investigation and remediation of the Site (DEEP-lead). As such, the remediation of the Site is subject to the RSRs.

The Site is also under the jurisdiction of EPA and subject to the Toxic Substances Control Act (TSCA) with regard to PCBs detected in soil. PCB-impacted soil at the Site is being managed as PCB remediation waste as defined in §761.3 of Chapter 40 of the Code of Federal Regulations, Part 761 (40 CFR 761). The Town is working directly with the EPA Region 1 PCB Coordinator and DEEP's Bureau of Materials Management and Compliance Assurance PCB Program staff with regard to investigation and remediation of PCBs.

The applicable soil criteria are the Residential Direct Exposure Criteria (R DEC) and GA Pollutant Mobility Criteria (GA PMC). The purpose of this EC Variance is to address exceedances of the R DEC for PCBs. PMC compliance is understood to be demonstrable without the use of an EC.

1.3 Background Information

Remediation Area 1 includes Fields #6 and #7, which are synthetic turf athletic fields located on the northern portion of the Site. Planning for replacement of these fields is underway and the Town hopes to complete the replacement during summer break in 2019 or 2020. Previous investigation data collected from within the footprint of the fields are summarized in **Table 1** and shown on **Figure 2**. Ten soil borings were advanced within the footprint of the fields, and eighteen soil samples were collected from these borings and analyzed for total PCBs. These data and associated figures are provided in the RI report (AECOM, 2013) and Completion of Investigation Report (AECOM, 2019a).

Site investigation activities were performed between 2012 and 2018 and summarized in the Remedial Investigation Report (AECOM, 2013) and Completion of Investigation Report (AECOM, 2019). Results for Fields #6 and #7 show that a portion of the PCB-impacted fill material used to construct the high school (AOC-1) extends beneath the western portion of Field #6, and two samples of this material contained PCB concentrations greater than 50 mg/kg at depths of approximately 11 to12 feet below grade (see **Table 1**). In addition, one soil sample collected from beneath Field #7 at a depth of 1 to 2 feet below grade contained PCBs at a concentration greater than 1 mg/kg. The remainder of the samples collected from within the footprint of these fields contained PCBs at concentrations less than 1 mg/kg or did not contain PCBs. PCB impacts in grass areas located adjacent to Fields #6 and #7 will also be addressed in the site-wide RAP. Based on the information collected during site investigation activities, COCs related to other AOCs at the Site will not affect the integrity or operation of the proposed EC, nor will the EC prevent remediation of those other AOCs.

2. Environmental Setting and Receptors

Most of the Site was graded in the 1960s to facilitate the construction of the high school, parking areas, athletic fields, and other improvements. The National Flood Insurance Rate Map, dated June 18, 2010, identified that the majority of the Site is located within Zone X, outside of the 500-year floodplain. Portions of the Site in the vicinity of West Brothers Brook are located in Zone AE, which indicates those areas are within the 100-year floodplain.

2.1 Geology

Bedrock at the Site ranges from outcrops, visible at the groundwater surface, to approximately 60 feet below grade in the central portions of the Site near Fields #3 and #4. Bedrock geology includes metamorphic, medium-grained, foliated gneiss. Bedrock is overlain by native glacial till, peat (from the former wetlands) and fill material to grade. The fill material (AOC-1) is located beneath portions of Fields #2, #3, #4, #5, and #6 and beneath the western parking lot. The thickness of the fill varies across the site and, based on the investigation data collected to date, reaches a maximum thickness of approximately 15 feet in areas beneath Fields #3 and #4.

2.2 Groundwater

Groundwater at the Site has been observed in shallow overburden materials that include till, fill, and wetland (peat or highly organic) deposits. The thickness of the fill material encountered varies greatly across the Site, which influences the groundwater levels observed in monitoring wells and flow direction across the Site. Groundwater flows onto the Site from the north and northeast, is mounded in central-western portion of the Site where natural discharge to West Brothers Brook is impeded by the concrete culvert, and flows southeast on southern portions of the Site. Groundwater in the area of Fields #6 and #7 generally flows in a westerly, southwesterly direction with localized discharge to the wetlands bordering the field area.

2.3 Surface Water

Two water bodies have been observed on historical maps. The central-western portion of the property was formerly a wetland, and the pond that is currently referred to as Cider Mill Pond has been present since before 1938. West Brothers Brook historically entered the property at the same location as it does currently, flowed southeast through the wetlands and then beyond to Cider Mill Pond.

Construction of the high school resulted in the wetlands being filled and West Brothers Brook being diverted through a concrete lined channel to accommodate playing fields and other improvements associated with the school. West Brothers Brook enters the Site from the northwest corner of Field #4. On-site, the surface water flow is controlled within a concrete channel. Initially the flow is to the south past Fields #4, #3 and #2, and then curves around Field #2 to the east and northeast. The concrete channel then makes a sharp turn, and West Brothers Brook is re-directed to the southeast. The concrete channel ends halfway around this turn, and the stream then follows an earthen channel. Cracks have been observed in the concrete channel, and minor to moderate leakage into the structure occurs.

The southern portion of West Brothers Brook is controlled by a man-made boulder dam that forms Cider Mill Pond just south of the school buildings. At staff gage (SG-A29), which is located at the toe of the dam, the surface water level drops approximately 15 feet and flows to three reinforced concrete pipes that allow surface water to exit the property and pass under East Putnam Avenue.

The banks of West Brothers Brook downstream of Cider Mill Pond at the Greenwich High School property are located within the 100-year flood plain as mapped by the Federal Emergency Management Association.

2.4 Receptors

A drinking water well survey was performed in 2012; a human health risk assessment was submitted to the DEEP in 2013; and an ecological risk assessment was submitted to the DEEP in 2013 and updated in 2018. The results of these activities and documents indicate that soil impacts that will remain following installation of the proposed EC do not pose a significant risk to human health or the environment. Furthermore, failure of the proposed EC would not present a significant short-term risk if it were to occur.

.

3. Summary of Investigation Results for Area of the Engineered Control

The primary sources of potential impacts in the area of the Fields #6 and #7 include indirect impacts from the fill material that is primarily located beneath Fields #2 through #5 and the western parking lot and impacts related to the historical residences previously located near the eastern end of Fields #6 and #7. This fill material is present in a thin layer at a depth of greater than 10 feet below grade beneath the western end of Field #6. Aside from that fill material, the primary mechanism by which PCBs came to be located in the vicinity of Fields #6 and #7 was likely incidental transport of impacted soil when Fields #6 and #7 were constructed. Because the PCB contamination associated with the fill material was not known at the time of construction, minor amounts of PCBs may have been relocated and came to be located near ground surface outside of the AOC 1 fill area.

During initial site investigation activities performed by Diversified Technology Consultants (DTC), PCBs, dichlorodiphenyltrichloroethane (DDT), and chlordane were detected in shallow soil samples located east of Field #6 and north, east, and west of Field #7. PCBs were also detected in shallow soil beneath a portion of Field #7 and at a depth of approximately 11 to 12 feet below grade beneath the western end of Field #6. Concentrations of chlordane and DDT were below the R DEC and DEEP's recommended R DEC for additional polluting substances, respectively, but exceeded the GA PMC and DEEP's recommended GA PMC for total DDT at some locations. In 2018, the area of highest pesticide concentrations was sampled and analyzed for SPLP pesticides, and no leachable pesticides were detected. Thus, the Phase III concluded that compliance for pesticides was obtained in this area. ETPH, PAHs, and metals were also detected in samples associated with this area at concentrations below applicable RSR Criteria with one exception. A single sample collected near the water table, containing lead at concentrations consistent with background, returned an SPLP lead result of 0.0476 milligrams per liter. This SPLP analysis was J-flagged as an estimated value due to a poor lab control sample result and is considered an anomalous result, given the absence of an identified source for anthropogenic lead at this location and based on SPLP results from areas where lead was detected at higher concentrations. Analytical data for the area are shown on **Table A-1** in **Appendix A**, and sample locations are depicted on **Figure A-1**.

In 2011, four focused interim remedial measures (IMRs) were performed to remove PCBs from surface soil located east of Field #6 and #7 and north and west of Field #7. The areas of the IRMs are shown on **Figure A-2** in **Appendix A**. Concentrations of PCBs in shallow soil in the IRM areas ranged from 1.296 to 12.44 mg/kg. Such results were limited to the top three inches of soil. Deeper samples did not contain PCBs at concentrations greater than 1 mg/kg.

The IRMs were performed pursuant to an EPA approval issued pursuant to 40 CFR 761.61(a) and (c). Following excavation, samples were collected along the sidewalls of the excavations to verify cleanup in accordance with the approved IRM plan, and upon verification of results, the excavations were backfilled and restored.

Following completion of the IRM activities, investigation of deeper soils was performed in these areas by AECOM. In the area north of Field #7, a sample collected from 1.5 to 2 feet bgs (BD27-SB252) contained PCBs greater than 1 mg/kg. The area of impacts was delineated in 2018, and remediation of this area is planned prior to construction of the EC. Details of the planned excavation are provided in the IRAP (AECOM, 2019b).

The soil to be capped by the proposed EC includes a thin layer of fill present beneath the western end of Field #6, which is represented by two samples, AT20-SB394 (11.3 to 12.3 feet bgs) and AV20-SB393 (11 to 12 feet bgs), which contain 223.31 and 51.7 mg/kg PCBs, respectively. These samples were taken from a 1 to 1.5-foot thick layer of fill consisting of cinders with varying amounts of silt and sand, similar to that understood to be the primary source of PCBs at the Site. This layer was not encountered at AT22-SB395, AV17-SB250, or AZ20-SB251, all of which extended to the native peat layer that was part of the historic wetlands at the site.

In addition, soil beneath the eastern portion of Field #7 contains PCBs at concentrations greater than 1 mg/kg, but less than 10 mg/kg. This soil is present at a depth of 1 to 2 feet bgs at boring AZ28-SB387. This soil is also proposed to be left in place under the EC, and will be left at a depth of greater than 2 feet bgs following construction of the EC.

Due to the low concentrations in shallow soil, the depth of the source material, and the absence of groundwater impacts in this portion of the site, an Engineered Control consisting of the athletic fields and the underlying clean soil is considered an effective means of preventing exposure and mitigating risk in this portion of the site.

4. Description of Engineered Control

This application for an Engineered Control Variance is for the use of synthetic turf athletic fields and the existing underlying soil as a cap over an area of impacted soil. The current synthetic turf fields are nearing the end of their useful life and are the Town is hoping to replace the fields during the summer of 2019 or 2020. The new fields will be an essentially level, slightly crowned permanent structure comprised of stone, synthetic drainage materials, and a cushion layer overlain by synthetic turf fibers and in-fill materials. Construction details are summarized below.

4.1 Engineered Control Design

The EC consists of a synthetic turf and adjacent grass-covered areas over compacted sub-grade soil in the areas of Fields #6 and #7. The layout for the synthetic turf area is shown on **Figure2**. Detailed design drawings are included in **Appendix B**. The new fields will be constructed by removing the existing synthetic turf, crumb rubber infill, cushion layer, and drainage mat and leaving the structural stone base in place and constructing the new fields at an elevation of 6 to 14 inches higher than the existing fields, with the exception of the eastern edge of Field #7, where the curbing will be two to five inches higher than the existing curb. The increased elevation will result from the placement of additional fill to improve the grading and drainage of the fields. The replacement synthetic turf will be of similar composition to the existing synthetic turf, and when complete, the EC will consist of the following layers (from top to bottom).

1. Synthetic turf fibers
2. Silicon-based infill
3. Shock pad (permeable field cushion)
4. Processed aggregate stone base drainage layer
5. Geotextile fabric
6. Existing processed aggregate stone base
7. Existing geotextile fabric

4.1.1 Health and Safety

The health and safety of the project team members and the public will be of paramount importance during construction. The remedial engineer and contractors who manage impacted media will prepare separate site-specific health and safety plans (HASPs) to address the health and safety of their employees and the general public during construction. The Site oversight contractor's HASP will include provisions for site access control, dust control, materials management, and decontamination, among other items, and workers at visitors to the Site will be required to review and acknowledge the provisions of the applicable HASP. Task hazard analyses may be prepared and discussed to identify potential safety issues identified during the course of the work, and daily tailgate safety meetings will be held to coordinate activities between contractors on site to identify changing conditions that might affect employee or public health and safety.

4.1.2 Permitting

Construction of the EC is anticipated to require a permit from the Town of Greenwich Inland Wetlands Agency. The permit application will be prepared pursuant to the Inland Wetlands and Watercourses Act (CGS 22a-36 to 45) and the Town of Greenwich Inland Wetlands and Watercourses Regulations. The permit is expected to be required for work affecting the upland review area adjacent to the wetlands at the northwest corner of Fields #6 and #7.

4.1.3 Sedimentation and Erosion Control

A straw bale/silt fence combination or straw wattle barrier will be installed downhill of areas proposed to be disturbed by the construction activities to minimize the effects of erosion and prevent runoff of sediment to protect the adjacent wetland areas. In addition, vehicle tracking pads will be installed at the transition between paved roads and dirt access ways to minimize the potential for tracking of soil and help control the generation of dust associated with vehicle traffic. Lastly, catch basin inlet protection will be employed in the parking areas nearest the project area to minimize the conveyance of sediment into existing drainage features. The above sedimentation and erosion control measures will be inspected and maintained as required throughout construction to ensure their efficacy.

4.1.4 Site Preparation

The area to be covered with the EC will re-graded in preparation for construction to achieve desired grades and drainage slopes and to ensure stability and structural integrity of the EC. This regrading will include installation of curbing at the edges of the synthetic turf fields to support the intended increase in grade. The details of curb construction are shown on drawing Sheet SD-4 in **Appendix B**. Soil excavated for curb construction and nearby excavation (e.g., fence gates) will be sampled *in-situ* to characterize the material for waste disposal purposes and to verify that PCB Remediation Waste does not exist in areas proximate to other remediation areas. Details of the management of soils excavated for construction of the field curbs are provided in the IRAP (AECOM, 2019b).

4.1.5 Stormwater Controls

Stormwater on the replacement synthetic turf fields will be conveyed in a similar fashion to the existing synthetic turf fields. That is, stormwater will be conveyed to curtain drains at the perimeter of the fields, which are constructed of perforated pipe nestled in permeable stone fill. These drains are sloped to flow west towards West Brothers Brook, where water is discharged to the brook via a series of outfall pipes.

4.1.6 Public Notice

Following submittal of this EC Variance application, public notice will be provided in accordance with RCSA 22a-133k-2(f)(2)(B). Public notice will consist of the publication of a notice in a local newspaper and the mailing of letters to the property owners abutting the Greenwich High School property.

4.1.7 Implementation Schedule

The installation of the new synthetic turf on Fields #6 and #7 is proposed for the summer of 2019 while school is not in session. Construction and restoration is expected to be completed by October 2019, and a construction completion report will be submitted within 120 days of the completion of construction.

4.2 Post-Construction Activities

The following activities will be performed to ensure the effectiveness and long-term reliability of the EC.

4.2.1 Responsibilities for Monitoring and Maintenance

The proposed EC will be maintained through implementation of an Environmental Land Use Restriction (ELUR) that encompasses the limits of the EC area. The ELUR will require that the turf and surrounding ground cover within the EC area be maintained and that the property owner assures that the EC is inspected and repaired as needed. If the turf must be repaired due to routine wear or other failure, the work must be done in accordance with Connecticut ELUR Regulations including but not limited to an appropriate ELUR release and pre-approved soil management plan. Details of the activities required during restoration of the turf fields are described in Section 3.2.2.

The extent of the EC can be determined in the field by the easily observed boundary of the fenced playing field area, the dimensions and coordinates shown on **Figure 2.** This area will be recorded on an Class A-2 survey for the Site, as required by the ELUR regulations Section 22a-133q-1(d)(2).

4.2.2 Inspection, Monitoring and Maintenance Plan

The duration of physical inspection and maintenance will be for the lifetime of the EC. The maintenance and monitoring will be conducted by the Town and/or its designated representative, who will document the results of the inspection, including compiling a photographic log. An example inspection and monitoring form is included in **Appendix C**. The Town will notify DEEP if failure of the EC occurs, or if unscheduled maintenance must be performed to ensure its integrity. Annual inspection and maintenance reports will be submitted to DEEP. Inspection, monitoring and maintenance activities will be reported on an annual basis.

The EC will be inspected on an annual basis for its lifetime. These inspections will assess the synthetic turf surface for signs of deterioration and will typically be performed in the spring following the winter season. Evaluations associated with the synthetic turf athletic field will include inspections of the integrity of the playing surface and identification of differential settlement, as well as testing of the field for safety. Maintenance activities to be conducted during the typical life span of the playing surface layer (approximately 15 years) will include the placement of additional infill materials. While the playing surface will be replaced approximately every 15 years for purposes of ensuring player safety, relative to the function of the field shock pad (i.e., cushion layer), the lifespan of the field for purposes of preventing access to underlying soil is anticipated to be 30 to 50 years.

The playing surface will be renovated at the end of its service life (i.e., when the shock pad has lost its spring), including the removal and replacement of the infill material, synthetic turf, and shock pad. Minor grading and placement of additional dynamic stone subbase materials may also occur at this time. However, no excavation of materials will be performed, and the 10 to 20 inches of stone base will remain in place above impacted soil throughout the maintenance process. The field area will be closed to use during the renovation period.

4.2.3 Intended Future Use for Fields 6 & 7

The future use of the Site will remain as it is currently used, as an athletic facility for the school and community. The area of the EC will be maintained as athletic fields comprised of synthetic turf. An ELUR will be recorded that requires inspection and maintenance of the EC area.

4.2.4 Reporting

Following completion of EC construction, a construction completion report will be prepared to document the construction activities and will include as-built drawings and identify any design variances. An annual post-closure maintenance and monitoring report for the EC area will be submitted or incorporated into the annual status reports being submitted to DEEP under the Connecticut VRP.

5. Financial Assurance Plan

In accordance with RSR Section 22a-13k-2(f)(2)(B)(vi), the Town of Greenwich is required to provide a financial mechanism to allow the integrity of the EC to be maintained.

Task	Quantity	Unit	Unit Cost[1]	Total Cost[2]	Notes
Annual Inspection	1	Day	$500	$500	
Annual DEEP reporting	1	Ea	$500	$500	Part of annual site monitoring and maintenance report
Miscellaneous EC maintenance	30	Ea	$2,500	$75,000	Includes annual addition of crumb rubber infill material and miscellaneous field repairs (30 years)
Synthetic turf field renovation	1	LS	$500,000	$500,000	Assume 30-year replacement for lifespan of turf as barrier. Playing surface will be replaced approximately every 15 years for purposes of recreational playability.

Notes:

1. Total cost before inflation.

2. The amount required in the account and the cumulative total for the engineered controls maintenance and monitoring to be covered by the financial assurance instrument is provided in **Table 2**. The amount of the surety in the 5th year will be maintained in effect for the next twenty-five years. According to the U.S. Department of Commerce, the current inflation rate is 1.1%. Per DEEP guidance, an inflation rate of 3% is used in the financial calculator.

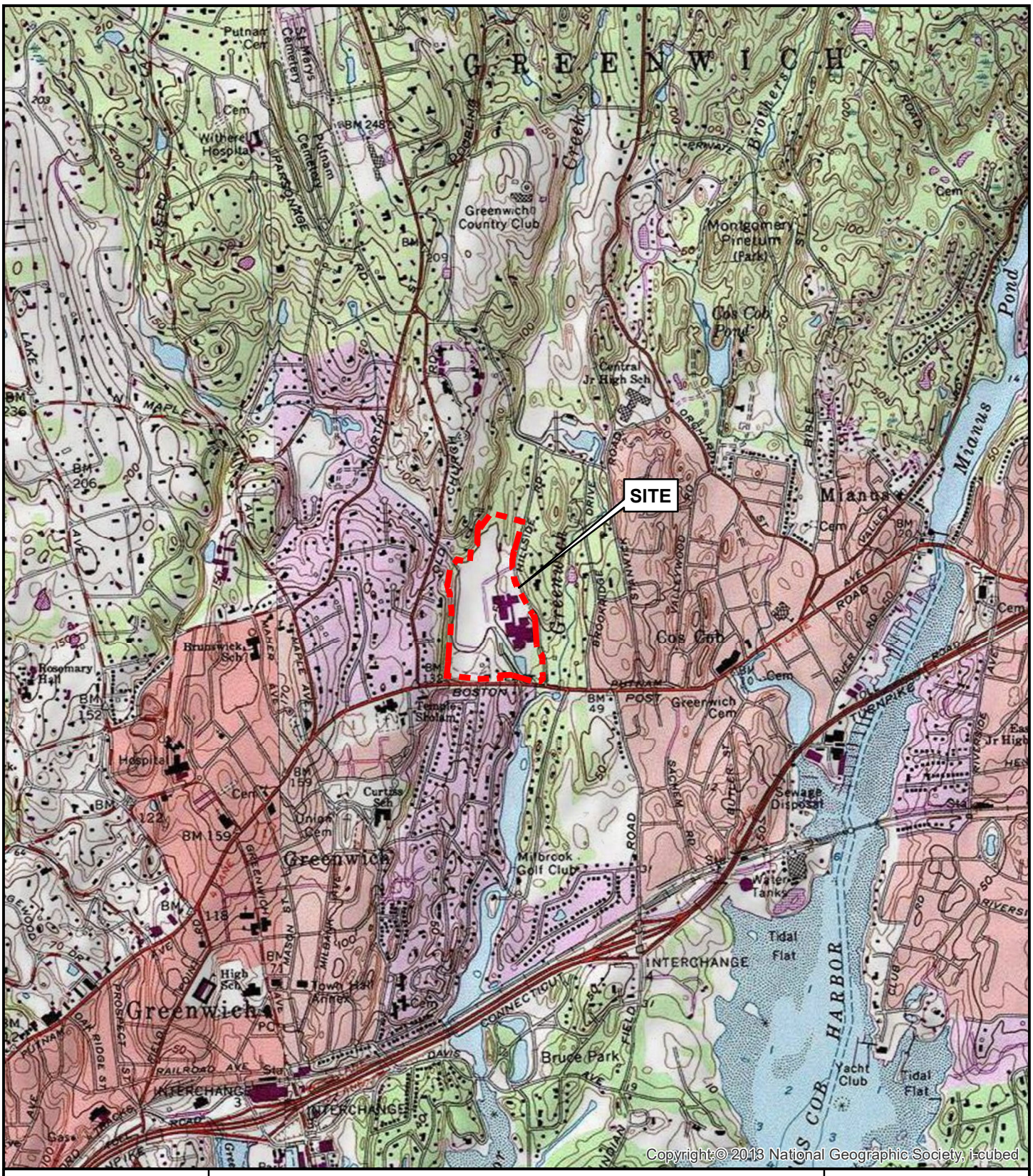
6. References

AECOM, 2013. Remedial Investigation Report. Greenwich High School. February 2013.

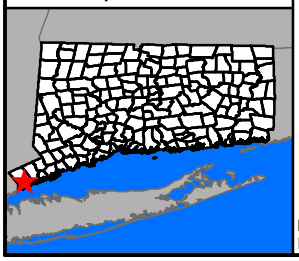
AECOM, 2019a. Completion of Investigation Report. April 2019.

AECOM, 2019b. Interim Remedial Action Plan. Greenwich High School, Greenwich, Connecticut. April 2019.

Figures



Map Location



SITE LOCATION MAP
GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

0 500 1,000 2,000 3,000 4,000 5,000 6,000 Feet

0 100 200 400 600 800 1,000 1,200 1,400 1,600 Meters

Map Projection: State Plane, NAD 83, Feet.
Image Source: National Geographic Society Quadrangle: Stamford, CT.

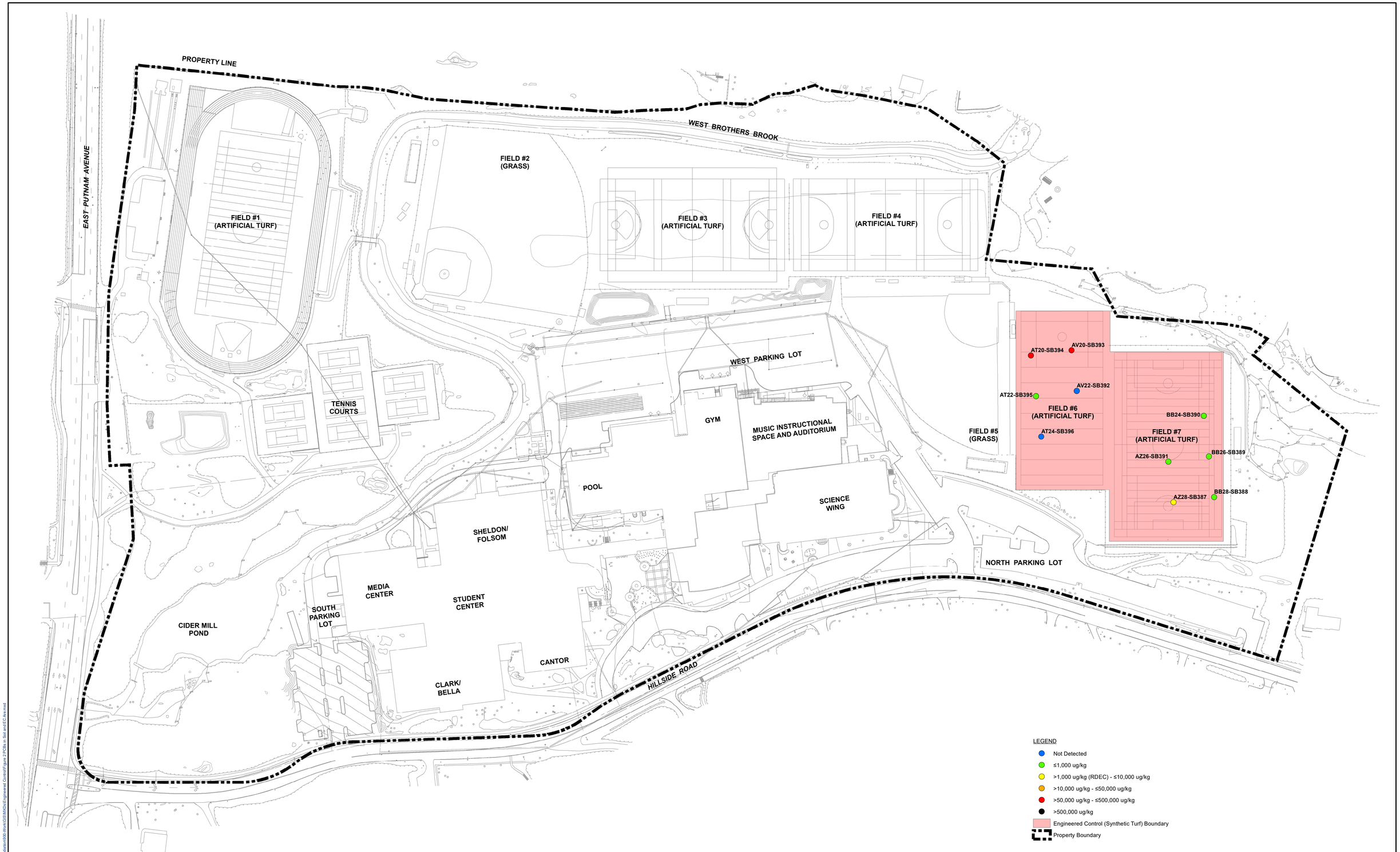
Scale: 1:24,000

AECOM

Figure 1

Project #: 60432356

Path: X:\60432356 Greenwich High School Remediation\900-Work\GIS\MXDs\Engineered Control\Figure 1 Site Locus.mxd



SOURCE:
2010 AERIAL ORTHOPHOTO FROM STATE OF CONNECTICUT
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SCALE:

1" = 80' 0 40 80 160 240 Feet
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GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

FIGURE 2
PCB DISTRIBUTION IN SOIL \ ENGINEERED CONTROL AREA
ENGINEERED CONTROL APPLICATION

JOB 60432356
FILE NO.
CAD FILE
SHEET

Path: X:\60432356 Greenwich High School Remediation\900-Work\GIS\MXD\Engineered Control\Figure 2 PCBs in Soil and EC Are.mxd

Tables

Table 1
Total PCBs in Soil
Fields #6 #7
Greenwich High School

Field Number	6	6	6	6	6	6	6	6	6	7
Location ID	**AT20-SB394**	**AT20-SB394**	**AT22-SB395**	**AT22-SB395**	**AV20-SB393**	**AV20-SB393**	**AV22-SB392**	**AV22-SB392**	**AT24-SB396**	**BB24-SB390**
Depth Interval (ft bgs)	**8.5-9.5**	**11.3-12.3**	**4-5**	**9-10**	**4.5-5**	**11-12**	**7-8**	**8-9**	**1-2**	**1-2**
Sample ID	AT20-SB394 (8.5-9.5)-062612-1	AT20-SB394 (11.3-12.3)-062612-1	AT22-SB395 (4-5)-062712-1	AT22-SB395 (9-10)-062712-1	AV20-SB393 (4.5-5)-062612-1	AV20-SB393 (11-12)-062612-1	AV22-SB392 (7-8)-062612-1	AV22-SB392 (8-9)-062612-1	AT24-SB396 (1-2)-062712-1	BB24-SB390 (1-2)-062612-1
Sample Date	**6/26/2012**	**6/26/2012**	**6/27/2012**	**6/27/2012**	**6/26/2012**	**6/26/2012**	**6/26/2012**	**6/26/2012**	**6/27/2012**	**6/26/2012**
SDG	SB51902	SB51902	SB51902	SB51902	SB51819	SB51819	SB51819	SB51819	SB51902	SB51819
PCBs (ug/Kg)										
Aroclor 1016	<21.6 U	<2610 U	<19.2 U	<25.4 U	<23.2 U	<2430 U	<20.8 U	<23.0 U	<21.0 U	<20.2 U
Aroclor 1221	<21.6 U	<2610 U	<19.2 U	<25.4 U	<23.2 U	<2430 U	<20.8 U	<23.0 U	<21.0 U	<20.2 U
Aroclor 1232	<21.6 U	<2610 U	<19.2 U	<25.4 U	<23.2 U	<2430 U	<20.8 U	<23.0 U	<21.0 U	<20.2 U
Aroclor 1242	<21.6 U	<2610 U	<19.2 U	<25.4 U	<23.2 U	<2430 U	<20.8 U	<23.0 U	<21.0 U	<20.2 U
Aroclor 1248	<21.6 U	**219,000**	<19.2 U	<25.4 U	<23.2 U	**51,700**	<41.6 U	<23.0 U	<41.9 U	**117**
Aroclor 1254	<21.6 U	<2610 U	**83.6**	**459**	<23.2 U	<2430 U	<41.6 U	<23.0 U	<41.9 U	**128**
Aroclor 1260	<21.6 U	**4,310**	<19.2 U	<25.4 U	<23.2 U	<2430 U	<20.8 U	<23.0 U	<21.0 U	<20.2 U
Aroclor 1262	<21.6 U	<2610 U	<19.2 U	<25.4 U	<23.2 U	<2430 U	<20.8 U	<23.0 U	<21.0 U	<20.2 U
Aroclor 1268	<21.6 U	<2610 U	<19.2 U	<25.4 U	<23.2 U	<2430 U	<20.8 U	<23.0 U	<21.0 U	<20.2 U
Total PCBs	<21.6 U	**223,310**	**83.6**	**459**	<23.2 U	**51,700**	<41.6 U	<23.0 U	<41.9 U	**245**

Bold indicates detection
Yellow indicated R DEC Exceedance

Table 1
Total PCBs in Soil
Fields #6 #7
Greenwich High School

Field Number	7	7	7	7	7	7	7	7
Location ID	**BB26-SB389**	**BB26-SB389**	**BB26-SB389**	**BB28-SB388**	**BB28-SB388**	**AZ26-SB391**	**AZ26-SB391**	**AZ28-SB387**
Depth Interval (ft bgs)	**1-2**	**5-6**	**5-6**	**1-2**	**7-8**	**1-2**	**2-3**	**1-2**
Sample ID	BB26-SB389 (1-2)-062612-1	BB26-SB389 (5-6)-062612-1	BB26-SB389 (5-6)-062612-2	BB28-SB388 (1-2)-062612-1	BB28-SB388 (7-8)-062612-1	AZ26-SB391 (1-2)-062612-1	AZ26-SB391 (2-3)-062612-1	AZ28-SB387 (1-2)-062612-1
Sample Date	**6/26/2012**	**6/26/2012**	**6/26/2012**	**6/26/2012**	**6/26/2012**	**6/26/2012**	**6/26/2012**	**6/26/2012**
SDG	SB51819	SB51819	SB51819	SB51819	SB51819	SB51819	SB51819	SB51819
PCBs (ug/Kg)								
Aroclor 1016	<20.7 U	<47.7 U	<47.2 U	<21.8 U	<21.5 U	<20.5 U	<20.8 U	<21.4 U
Aroclor 1221	<20.7 U	<47.7 U	<47.2 U	<21.8 U	<21.5 U	<20.5 U	<20.8 U	<21.4 U
Aroclor 1232	<20.7 U	<47.7 U	<47.2 U	<21.8 U	<21.5 U	<20.5 U	<20.8 U	<21.4 U
Aroclor 1242	<20.7 U	<47.7 U	<47.2 U	<21.8 U	<21.5 U	<20.5 U	<20.8 U	<21.4 U
Aroclor 1248	**268**	<47.7 U	<47.2 U	**464**	<21.5 U	**162**	<20.8 U	**1,750**
Aroclor 1254	<20.7 U	<23.8 U	<23.6 U	<21.8 U	<21.5 U	<20.5 U	<20.8 U	<21.4 U
Aroclor 1260	<20.7 U	<23.8 U	<23.6 U	<21.8 U	<21.5 U	<20.5 U	<20.8 U	**28.9**
Aroclor 1262	<20.7 U	<23.8 U	<23.6 U	<21.8 U	<21.5 U	<20.5 U	<20.8 U	<21.4 U
Aroclor 1268	<20.7 U	<23.8 U	<23.6 U	<21.8 U	<21.5 U	<20.5 U	<20.8 U	<21.4 U
Total PCBs	**268**	<47.7 U	<47.2 U	**464**	<21.5 U	**162**	<20.8 U	**1,778.9**

Bold indicates detection
Yellow indicated R DEC Exceedance

Table 2
Financial Assurance Calculator
Field #6 and #7 Engineered Control
Greenwich High School

	Current Year $	Current Year $ Plus 15 % contingency	Cost of rehab adjusted for Annual Inflation over 30 years
Annual rehab cost (provided by consultant)	$0	$0	$0
Second replacement cost at year 30 (provided by consultant)	$500,000	$575,000	$1,355,025
A line item breakdown showing derivation of these costs should be provided.			

Divide Cost by 30yrs

Year 1	Year 2	Year 3	Year 4	Year 5	Years 6-30
$0	$0	$0	$0	$0	$0
$45,168	$90,335	$135,503	$180,670	$225,838	$225,838

	Current Year $	Plus 15 % contingency
Annual M&M - including repairs (provided by consultant)	$3,500	$4,025
Including quarterly inspection by third party, completion of inspection checklist, regular maintenance of control such as repairing cracks, clearing drains, any required sampling and analyses associated with the control, and annual reporting to DEP.		

Cumulative Annual M&M Adjusted for Annual Inflation

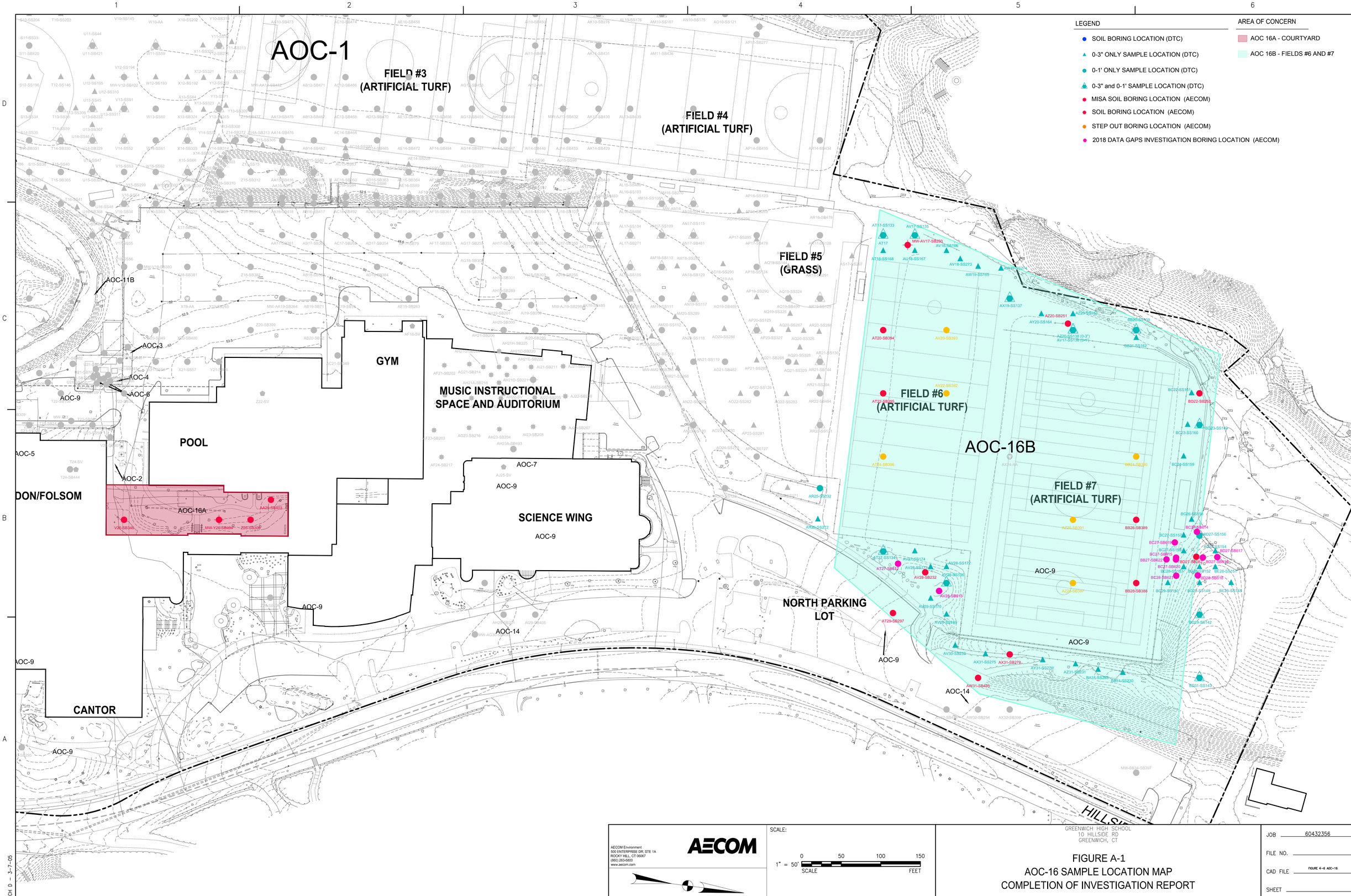
Year 1	Year 2	Year 3	Year 4	Year 5	Years 6-30
$4,025	$8,171	$12,441	$16,839	$21,369	$21,369

Total Value of Surety (Sum of yearly value for replacement costs and annual M&M. Total Value accrues over 5 years until final value is achieved.)

Year 1	Year 2	Year 3	Year 4	Year 5	Years 6-30
$49,193	$98,506	$147,943	$197,509	$247,207	$247,207

Input anticipated inflation rate as a decimal value (for example 3% should be input as 0.03)	0.03

Appendix A EC Area Investigation Data



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SCALE:
1" = 50'
0 50 100 150
SCALE FEET

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GREENWICH HIGH SCHOOL
10 HILLSIDE RD
GREENWICH, CT

FIGURE A-1
AOC-16 SAMPLE LOCATION MAP
COMPLETION OF INVESTIGATION REPORT

JANUARY 2019

JOB 60432356
FILE NO.
CAD FILE FIGURE 4-6 AOC-16
SHEET

PATH/FILENAME: \\USAB72FP001\DATA\PROJECTS\60225155 GREENWICH HS\900-WORK\910-CAD\20-SHEETS\2019-COMPLETION OF INVESTIGATION REPORT\FIGURE 5-6 AOC-16.DWG
LAST UPDATE: Thursday, February 21, 2019 3:45:25 PM
PLOT DATE: Friday, March 01, 2019 9:42:35 AM
ARCH D - 3-7-05

REMEDIATION AREA KEY

SOUTHERN AREAS

- REMEDIAL EXCAVATION BOUNDARY

WESTERN PARKING AREA

- DETENTION BASIN SOIL EXCAVATION
- WESTERN PARKING LOT EXPANSION EXCAVATION
- SITE LIGHTING AND UTILITY EXCAVATION

MISA AND INTERIM AREAS

- APPROXIMATE MISA REMEDIAL EXCAVATION AREAS
- INTERIM REMEDIAL EXCAVATION AREAS

FIELD #1
FIELD #2
FIELD #3
FIELD #4
FIELD #5
FIELD #6
FIELD #7
WEST BROTHERS BROOK
EAST PUTNAM AVENUE
EAST PUTNAM AVENUE (CT ROUTE 1)
PARKING LOT
GREENWICH HIGH SCHOOL
CIDER MILL POND
HILLSIDE ROAD

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ROCKY HILL, CT 06067
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SCALE:
0 80 160 240
1" = 80'
SCALE FEET

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GREENWICH HIGH SCHOOL
10 HILLSIDE RD
GREENWICH, CT

FIGURE A-2
INTERIM REMEDIAL MEASURES AND PREVIOUS REMEDIATION AREAS

JANUARY 2019

JOB 60432356
FILE NO.
CAD FILE 2017-SITE AORS
SHEET 1 OF 1

PATH/FILENAME: P:\60225155 GREENWICH HS\900-WORK\910-CAD\00-SHEETS\2017-FIGURES\2017-SITE AORS.DWG
LAST UPDATE: Friday, April 07, 2017 4:48:26 PM
PLOT DATE: Friday, April 07, 2017 4:48:49 PM
ARCH D – 3-7-05

Table A-1
Soil Analytical Data
Fields #6 and #7 Area
Greenwich High School

AOC Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	R DEC	I/C DEC	AOC-16B AR25-SS132 0 - 0.5 ft AR25-SS132 8/3/2011 SB32875	AOC-16B AR26-SS272 0 - 0.25 ft AR26-SS272 (0-3) 8/22/2011 SB33952	AOC-16B AT17-SS133 0 - 0.25 ft AT17-SS133 (0-3) 8/11/2011 SB33302	AOC-16B AT17-SS133 0 - 0.5 ft AT17-SS133 8/3/2011 SB32768	AOC-16B AT18-SS168 0 - 0.25 ft AT18-SS157 (0-3) 8/11/2011 SB33302	AOC-16B AT20-SB394 8.5-9.5 AT20-SB394 (8.5-9.5) 6/26/2012 SB51902	AOC-16B AT20-SB394 11.3-12.3 AT20-SB394 (11.3-12.3) 6/26/2012 SB51902	AOC-16B AT22-SB395 4-5 AT22-SB395 (4-5) 6/26/2012 SB51902	AOC-16B AT22-SB395 9-10 AT22-SB395 (9-10) 6/26/2012 SB51902	AOC-16B AT24-SB396 1 - 2 ft AT24-SB396 (1-2) 6/27/2012 SB51902	AOC-16B AT27-SB612 0 - 0.5 ft AT27-SB612 (0-0.5) 4/12/2018 18D0644	AOC-16B AT27-SS134 0 - 0.25 ft AT27 SS134 0-3 8/11/2011 SB33302	AOC-16B AT27-SS134 0 - 0.5 ft AT27-SS134 8/3/2011 SB32875	AOC-16B AU18-SS167 0-0.25 ft AU18-SS167 0-3 8/11/2011 SB33302	AOC-16B AV17-SB250 0.5-1 ft AV17-SB250 (0.5-1) 12/29/2011 SB41766	AOC-16B AV17-SB250 3.5-4.5 ft AV17-SB250 (3.5-4.5) 12/29/2011 SB41766	AOC-16B AV17-SB250 5-7 ft AV17-SB250 (5-7) 12/29/2011 SB41766
ETPH (mg/kg)																					
Aliphatic Hydrocarbons (ETPH) C9-C36	500	500	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**119**
VOCs (ug/kg)																					
2-Butanone (MEK)	8000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**82**
Acetone	14000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**303 J**
Naphthalene	5600	1000000	2500000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**10.0 J**
SVOCs (ug/kg)																					
Acenaphthylene	8400	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 UJ
Anthracene	40000	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U
Benzo(a)anthracene	1000	1000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U
Benzo(a)pyrene	1000	1000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U
Benzo(b)fluoranthene	1000	1000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U
Benzo(g,h,i)perylene	*1000*	*8400*	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 UJ
Benzo(k)fluoranthene	1000	8400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U
Chrysene	*1000*	*84000*	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U
Dibenzo(a,h)anthracene	*1000*	*1000*	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U
Fluoranthene	5600	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 UJ
Fluorene	5600	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U
Indeno(1,2,3-cd)pyrene	*1000*	*1000*	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U
Phenanthrene	4000	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U
Pyrene	4000	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 399 U
Metals (mg/kg)																					
Arsenic	NE	10	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**4.92**	NS	**3.42**	**6.52**
Barium	NE	4700	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**170 J**	**442 J**
Beryllium	NE	2	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.512**	**0.621**
Cadmium	NE	34	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.565 U	NS	< 0.463 U	**0.94**
Chromium	NE	3900	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**14.4 J**	**26.1 J**
Copper	NE	2500	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**96.3 J-**	**270 J-**
Lead	NE	400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**47.8**	NS	**28.6**	**48.3**
Mercury	NE	20	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.117**	NS	**0.0736 J**	**0.179 J**
Nickel	NE	1400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**12.0 J**	**19.0 J**
Vanadium	NE	470	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**22.2**	**32.4**
Zinc	NE	20000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 88.0 UJ	**242 J**
Metals-SPLP (mg/L)																					
Arsenic	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	1	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	0.015	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	0.1	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide (mg/kg)																					
Cyanide	NE	1400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 1.19 UJ
PCBs (mg/kg)																					
Aroclor 1248	NE	NE	NE	< 0.0219 U	**0.175**	**0.0751**	**0.167**	**0.0867**	< 0.0216 U	**219**	< 0.0192 U	< 0.0254 U	< 0.0419 U	NS	< 0.0225 U	< 0.0212 U	**0.0805**	NS	< 0.0220 U	< 0.024 U
Aroclor 1254	NE	NE	NE	< 0.0219 U	< 0.0214 U	< 0.0246 U	< 0.0220 U	< 0.0225 U	< 0.0216 U	< 2.61 U	**0.0836**	**0.459**	< 0.0419 U	NS	< 0.0225 U	< 0.0212 U	< 0.0233 U	NS	< 0.0220 U	< 0.024 U
Aroclor 1260	NE	NE	NE	< 0.0219 U	< 0.0214 U	< 0.0246 U	< 0.0220 U	< 0.0225 U	< 0.0216 U	**4.31**	< 0.0192 U	< 0.0254 U	< 0.0210 U	NS	< 0.0225 U	< 0.0212 U	< 0.0233 U	NS	< 0.0220 U	< 0.024 U
Total PCB Aroclors	NE	1	10	< 0.0219 U	**0.175**	**0.0751**	**0.167**	**0.0867**	< 0.0216 U	**223.31**	**0.0836**	**0.459**	< 0.0419 U	NS	< 0.0225 U	< 0.0212 U	**0.0805**	NS	< 0.0220 U	< 0.024 U
PCBs-SPLP (mg/L)																					
Aroclor 1248	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total PCB Aroclors	0.0005	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table A-1
Soil Analytical Data
Fields #6 and #7 Area
Greenwich High School

AOC				AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B
Location ID				AR25-SS132	AR26-SS272	AT17-SS133	AT17-SS133	AT18-SS168	AT20-SB394	AT20-SB394	AT22-SB395	AT22-SB395	AT24-SB396	AT27-SB612	AT27-SS134	AT27-SS134	AU18-SS167	AV17-SB250	AV17-SB250	AV17-SB250
Depth Interval (ft bgs)	GA PMC	R DEC	I/C DEC	0 - 0.5 ft	0 - 0.25 ft	0 - 0.25 ft	0 - 0.5 ft	0 - 0.25 ft	8.5-9.5	11.3-12.3	4-5	9-10	1 - 2 ft	0 - 0.5 ft	0 - 0.25 ft	0 - 0.5 ft	0-0.25 ft	0.5-1 ft	3.5-4.5 ft	5-7 ft
Sample ID				AR25-SS132	AR26-SS272 (0-3)	AT17-SS133 (0-3)	AT17-SS133	AT18-SS157 (0-3)	AT20-SB394 (8.5-9.5)	AT20-SB394 (11.3-12.3)	AT22-SB395 (4-5)	AT22-SB395 (9-10)	AT24-SB396 (1-2)	AT27-SB612 (0-0.5)	AT27 SS134 0-3	AT27-SS134	AU18-SS167 0-3	AV17-SB250 (0.5-1)	AV17-SB250 (3.5-4.5)	AV17-SB250 (5-7)
Sample Date				8/3/2011	8/22/2011	8/11/2011	8/3/2011	8/11/2011	6/26/2012	6/26/2012	6/26/2012	6/26/2012	6/27/2012	4/12/2018	8/11/2011	8/3/2011	8/11/2011	12/29/2011	12/29/2011	12/29/2011
SDG				SB32875	SB33952	SB33302	SB32768	SB33302	SB51902	SB51902	SB51902	SB51902	SB51902	18D0644	SB33302	SB32875	SB33302	SB41766	SB41766	SB41766
Pesticides (ug/kg)																				
4,4-DDE (p,p)	NE	NE	NE	NS	**6.23**	**7.51**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**7.59**	NS	NS
4,4-DDT (p,p)	*3*	*1800*	NA	NS	< 9.07 U	< 9.90 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 9.31 U	NS	NS
alpha-Chlordane	NE	NE	NE	NS	**9.97 J**	< 6.19 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**6.51 J**	NS	NS
Chlordane	66	490	NA	NS	**38.7**	< 24.7 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**43**	NS	NS
gamma-Chlordane	NE	NE	NE	NS	**9.04**	< 6.19 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**6.24**	NS	NS
Total DDx	*3*	*1800*	NA	NS	**6.23**	**7.51**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**7.59**	NS	NS
Pesticides-SPLP (ug/l)				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	NS	NS	NS	NS	NS	NS

Notes:
This is a summary table. Only detected compounds are presented.
Bold = Analyte detected above laboratory reporting limit.
Yellow highlighted results exceed GA PMC.
Blue highlighted results exceed RES DEC.
Green highlighted results exceed I/C DEC.
Italicized criteria values are from DEEP's Recommended Numerical Criteria for Common Additional Polluting Substances (DEEP, 2018) and are presented for purposes of preliminary evaluation.
<0.01 = Analyte not detected above the specified laboratory reporting limit.
R DEC = Residential Direct Exposure Criteria
GA PMC = Pollutant Mobility Criteria applicable to GA groundwater areas
I/C DEC = Industrial/Commercial Direct Exposure Criteria
The I/C DEC for PCBs applies to inaccessible soil.
NE = Criterion has not been established for this analyte
NS = Not sampled for the specified analyte
ND = None detected
NA = Not applicable
ug/kg = micrograms per kilogram
mg/kg = miligrams per kilogram
mg/L = milligrams per liter

Table A-1
Soil Analytical Data
Fields #6 and #7 Area
Greenwich High School

AOC Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	R DEC	I/C DEC	AOC-16B AV17-SB250 10-11 ft AV17-SB250 (10-11) 12/29/2011 SB41766	AOC-16B AV17-SB250 13-14 ft AV17-SB250 (13-14) 12/29/2011 SB41766	AOC-16B AV17-SS135 0-0.25 ft AV17-SS135 0-3 8/11/2011 SS33302	AOC-16B AV17-SS135 0-0.5 ft AV17-SS135 8/4/2011 SS32875	AOC-16B AV17-SS138 0-0.5 ft AV17-SS138 8/3/2011 SS32768	AOC-16B AV18-SS166 0-0.25 ft AV18-SS166 0-3 8/11/2011 SB33302	AOC-16B AV18-SS273 0-0.25 ft AV18-SS273 (0-3") 8/22/2011 SB33952	AOC-16B AV20-SB393 4.5-5 ft AV20-SB393 (4.5-5) 6/26/2012 SB51819	AOC-16B AV20-SB393 11-12 ft AV20-SB393 (11-12) 6/26/2012 SB51819	AOC-16B AV22-SB392 7-8 ft AV22-SB392 (7-8) 6/26/2012 SB51819	AOC-16B AV22-SB392 8-9 ft AV22-SB392 (8-9) 6/26/2012 SB51819	AOC-16B AV27-SS174 0 - 0.25 ft AV27 SS174 0-3 8/11/2011 SB33302	AOC-16B AU29-SS170 0 - 3 ft AU29 SS170 0-3 8/11/2011 SB33302	AOC-16B AV28-SB232 0 - 2 ft AV28-SB232(0-2) 12/27/2011 SB41683	AOC-16B AV28-SB232 5 - 6 ft AV28-SB232(5-6) 12/27/2011 SB41683	AOC-16B AV28-SB613 0 - 0.5 ft AV28-SB613 (0-0.5) 4/12/2018 18D0644	AOC-16B AV28-SS136 0 - 0.25 ft AV28 SS136 0-3 8/11/2011 SB33302
ETPH (mg/kg)																				
Aliphatic Hydrocarbons (ETPH) C9-C36	500	500	NA	< 31.9 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**221**	NS	NS	NS
VOCs (ug/kg)																				
2-Butanone (MEK)	8000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 60.3 U	NS	NS	NS
Acetone	14000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 60.3 UJ	NS	NS	NS
Naphthalene	5600	1000000	2500000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 6.0 U	NS	NS	NS
SVOCs (ug/kg)																				
Acenaphthylene	8400	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 738 U	NS	NS	NS
Anthracene	40000	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 738 U	NS	NS	NS
Benzo(a)anthracene	1000	1000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 738 U	NS	NS	NS
Benzo(a)pyrene	1000	1000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**756**	NS	NS	NS
Benzo(b)fluoranthene	1000	1000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 738 U	NS	NS	NS
Benzo(g,h,i)perylene	*1000*	*8400*	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 738 U	NS	NS	NS
Benzo(k)fluoranthene	1000	8400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**828**	NS	NS	NS
Chrysene	*1000*	*84000*	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 738 U	NS	NS	NS
Dibenzo(a,h)anthracene	*1000*	*1000*	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 738 U	NS	NS	NS
Fluoranthene	5600	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**1030**	NS	NS	NS
Fluorene	5600	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 738 U	NS	NS	NS
Indeno(1,2,3-cd)pyrene	*1000*	*1000*	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 738 U	NS	NS	NS
Phenanthrene	4000	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 738 U	NS	NS	NS
Pyrene	4000	1000000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**1120**	NS	NS	NS
Metals (mg/kg)																				
Arsenic	NE	10	NA	NS	< 1.52 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**5.88**	**4.49**	NS	NS
Barium	NE	4700	NA	NS	**48.7 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**148**	**315**	NS	NS
Beryllium	NE	2	NA	NS	< 0.507 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.707**	**0.976**	NS	NS
Cadmium	NE	34	NA	NS	< 0.507 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**1.11**	**1.22**	NS	NS
Chromium	NE	3900	NA	NS	**11.0 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**31.4**	**56.5**	NS	NS
Copper	NE	2500	NA	NS	< 26.4 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**24.3**	**20.3**	NS	NS
Lead	NE	400	NA	NS	**3.02**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**53.9**	**28.9**	NS	NS
Mercury	NE	20	NA	NS	**0.259 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.0692**	**0.0676**	NS	NS
Nickel	NE	1400	NA	NS	**14.4 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**13.6**	**18.6**	NS	NS
Vanadium	NE	470	NA	NS	**14.3**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**33.9**	**42.7**	NS	NS
Zinc	NE	20000	NA	NS	< 96.4 UJ	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**98.8**	**91.2**	NS	NS
Metals-SPLP (mg/L)																				
Arsenic	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	1	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	0.015	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	0.1	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide (mg/kg)																				
Cyanide	NE	1400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 1.06 U	NS	NS	NS
PCBs (mg/kg)																				
Aroclor 1248	NE	NE	NE	< 0.0225 U	< 0.0215 U	< 0.0251 U	**0.117**	**0.378**	**0.122**	**0.12**	< 0.0232 U	**51.7**	< 0.0416 U	<0.0230 U	< 0.0224 U	< 0.0208 U	< 0.0219 U	**0.115**	NS	< 0.0206 U
Aroclor 1254	NE	NE	NE	< 0.0225 U	< 0.0215 U	< 0.0251 U	< 0.0225 U	< 0.0215 U	< 0.0226 U	< 0.0231 U	< 0.0232 U	< 2.43 U	< 0.0416 U	<0.0230 U	< 0.0224 U	< 0.0208 U	< 0.0219 U	< 0.0222 U	NS	< 0.0206 U
Aroclor 1260	NE	NE	NE	< 0.0225 U	< 0.0215 U	< 0.0251 U	< 0.0225 U	< 0.0215 U	< 0.0226 U	< 0.0231 U	< 0.0232 U	< 2.43 U	< 0.0208 U	<0.0230 U	< 0.0224 U	< 0.0208 U	< 0.0219 U	< 0.0222 U	NS	< 0.0206 U
Total PCB Aroclors	NE	1	10	< 0.0225 U	< 0.0215 U	< 0.0251 U	**0.117**	**0.378**	**0.122**	**0.12**	< 0.0232 U	**51.7**	< 0.0416 U	<0.0230 U	< 0.0224 U	< 0.0208 U	< 0.0219 U	**0.115**	NS	< 0.0206 U
PCBs-SPLP (mg/L)																				
Aroclor 1248	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total PCB Aroclors	0.0005	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table A-1
Soil Analytical Data
Fields #6 and #7 Area
Greenwich High School

AOC Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	R DEC	I/C DEC	AOC-16B AV17-SB250 10-11 ft AV17-SB250 (10-11) 12/29/2011 SB41766	AOC-16B AV17-SB250 13-14 ft AV17-SB250 (13-14) 12/29/2011 SB41766	AOC-16B AV17-SS135 0-0.25 ft AV17-SS135 0-3 8/11/2011 SS33302	AOC-16B AV17-SS135 0-0.5 ft AV17-SS135 8/4/2011 SS32875	AOC-16B AV17-SS138 0-0.5 ft AV17-SS138 8/3/2011 SS32768	AOC-16B AV18-SS166 0-0.25 ft AV18-SS166 0-3 8/11/2011 SB33302	AOC-16B AV18-SS273 0-0.25 ft AV18-SS273 (0-3") 8/22/2011 SB33952	AOC-16B AV20-SB393 4.5-5 ft AV20-SB393 (4.5-5) 6/26/2012 SB51819	AOC-16B AV20-SB393 11-12 ft AV20-SB393 (11-12) 6/26/2012 SB51819	AOC-16B AV22-SB392 7-8 ft AV22-SB392 (7-8) 6/26/2012 SB51819	AOC-16B AV22-SB392 8-9 ft AV22-SB392 (8-9) 6/26/2012 SB51819	AOC-16B AV27-SS174 0 - 0.25 ft AV27 SS174 0-3 8/11/2011 SB33302	AOC-16B AU29-SS170 0 - 3 ft AU29 SS170 0-3 8/11/2011 SB33302	AOC-16B AV28-SB232 0 - 2 ft AV28-SB232(0-2) 12/27/2011 SB41683	AOC-16B AV28-SB232 5 - 6 ft AV28-SB232(5-6) 12/27/2011 SB41683	AOC-16B AV28-SB613 0 - 0.5 ft AV28-SB613 (0-0.5) 4/12/2018 18D0644	AOC-16B AV28-SS136 0 - 0.25 ft AV28 SS136 0-3 8/11/2011 SB33302
Pesticides (ug/kg)																			
4,4-DDE (p,p)	NE	NE	NE	NS	NS	NS	NS	NS	**14.9**	NS	NS	NS	NS	NS	< 5.54 U	NS	NS	NS	NS	< 5.38 U
4,4-DDT (p,p)	*3*	*1800*	NA	NS	NS	NS	NS	NS	**22.8**	NS	NS	NS	NS	NS	**9.41 J**	NS	NS	NS	NS	**15.4**
alpha-Chlordane	NE	NE	NE	NS	NS	NS	NS	NS	**16.3 J**	NS	NS	NS	NS	NS	**12.2 J**	NS	NS	NS	NS	**21.1**
Chlordane	66	490	NA	NS	NS	NS	NS	NS	**66.6**	NS	NS	NS	NS	NS	**75.6**	NS	NS	NS	NS	**81.1**
gamma-Chlordane	NE	NE	NE	NS	NS	NS	NS	NS	**8.71 J**	NS	NS	NS	NS	NS	**9.99**	NS	NS	NS	NS	**14.1**
Total DDx	*3*	*1800*	NA	NS	NS	NS	NS	NS	**37.7**	NS	NS	NS	NS	NS	**9.41**	NS	NS	NS	NS	**15.4**
Pesticides-SPLP (ug/l)				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	NS

Notes:
This is a summary table. Only detected compounds are presented.
Bold = Analyte detected above laboratory reporting limit.
Yellow highlighted results exceed GA PMC.
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Italicized criteria values are from DEEP's Recommended Numerical Criteria for Common Additional Polluting Substances (DEEP, 2018) and are presented for purposes of preliminary evaluation.
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The I/C DEC for PCBs applies to inaccessible soil.
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NA = Not applicable
ug/kg = micrograms per kilogram
mg/kg = miligrams per kilogram
mg/L = milligrams per liter

Table A-1
Soil Analytical Data
Fields #6 and #7 Area
Greenwich High School

AOC Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	R DEC	I/C DEC	AOC-16B AV28-SS136 0 - 0.5 ft AV28-SS136 8/3/2011 SB32875	AOC-16B AV28-SS136 0 - 0.5 ft DUPLICATE-1 9/29/2011 SB36432	AOC-16B AV28-SS136 0 - 0.5 ft DUPLICATE-1-080311 8/3/2011 SB32768	AOC-16B AV28-SS172 0 - 0.25 ft AV28 SS172 0-3 8/11/2011 SB33302	AOC-16B AV28-SS173 0 - 0.25 ft AV28 SS173 0-3 8/11/2011 SB33302	AOC-16B AV29-SS169 0 - 0.25 ft AV29 SS169 0-3 8/11/2011 SB33302	AOC-16B AV30-SS233 0 - 0.25 ft AV30-SS233 0-3 8/11/2011 SB33374	AOC-16B AW19-SS165 0-0.25 ft AW19-SS165 0-3 8/11/2011 SB33302	AOC-16B AW19-SS274 0-0.25 ft AW19-SS274 0-3 8/22/2011 SB33952	AOC-16B AX19-SS137 0-0.25 ft AX19-SS137 0-3 8/11/2011 SB33302	AOC-16B AX19-SS137 0-0.5 ft AX19-SS137 8/3/2011 SB32768	AOC-16B AX31-SB278 0 - 1 ft AX31-SB278 (0-1) 12/30/2011 SB41831	AOC-16B AX31-SB278 1 - 2 ft AX31-SB278 (1-2) 12/30/2011 SB41831	AOC-16B AX31-SS275 0 - 0.25 ft AX31-SS275 (0-3) 8/22/2011 SB33952	AOC-16B AY20-SS164 0 - 0.25 ft AY20 SS164 0-3 8/11/2011 SB33302	AOC-16B AZ20-SS138 0-0.25 ft AZ20-SS138 0-3 8/11/2018 SB33302	AOC-16B AZ20-SB251 2.5 - 3.5 ft AZ20-SB251(2.5-3.5) 12/29/2011 SB41766	AOC-16B AZ20-SB251 7 - 8 ft AZ20-SB251(7-8) 12/29/2011 SB41766
ETPH (mg/kg)																							
Aliphatic Hydrocarbons (ETPH) C9-C36	500	500	NA	NS	NS	NS	NS	**146**	NS	NS	NS	NS	NS	NS	NS	< 13.8 U	NS	**128**	NS	NS	< 14.6 U
VOCs (ug/kg)																							
2-Butanone (MEK)	8000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acetone	14000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene	5600	1000000	2500000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SVOCs (ug/kg)																							
Acenaphthylene	8400	1000000	NA	NS	NS	NS	NS	< 954 U	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	< 363 UJ
Anthracene	40000	1000000	NA	NS	NS	NS	NS	< 954 U	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	< 363 U
Benzo(a)anthracene	1000	1000	NA	NS	NS	NS	NS	< 954 U	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	< 363 U
Benzo(a)pyrene	1000	1000	NA	NS	NS	NS	NS	< 954 U	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	< 363 U
Benzo(b)fluoranthene	1000	1000	NA	NS	NS	NS	NS	< 954 U	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	< 363 U
Benzo(g,h,i)perylene	*1000*	*8400*	NA	NS	NS	NS	NS	< 954 U	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	< 363 U
Benzo(k)fluoranthene	1000	8400	NA	NS	NS	NS	NS	< 954 U	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	< 363 U
Chrysene	*1000*	*84000*	NA	NS	NS	NS	NS	< 954 U	NS	NS	NS	NS	NS	NS	NS	< 342 UJ	NS	NS	NS	NS	< 363 U
Dibenzo(a,h)anthracene	*1000*	*1000*	NA	NS	NS	NS	NS	< 954 U	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	< 363 U
Fluoranthene	5600	1000000	NA	NS	NS	NS	NS	< 954 U	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	< 363 U
Fluorene	5600	1000000	NA	NS	NS	NS	NS	< 954 U	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	< 363 U
Indeno(1,2,3-cd)pyrene	*1000*	*1000*	NA	NS	NS	NS	NS	< 954 U	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	< 363 U
Phenanthrene	4000	1000000	NA	NS	NS	NS	NS	< 954 U	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	< 363 U
Pyrene	4000	1000000	NA	NS	NS	NS	NS	< 954 U	NS	NS	NS	NS	NS	NS	NS	< 342 U	NS	NS	NS	NS	< 363 U
Metals (mg/kg)																							
Arsenic	NE	10	NA	NS	NS	NS	**6.11**	NS	NS	**3.09**	NS	NS	NS	NS	NS	< 1.52 U	**4.76**	NS	**4.44**	**4.49**	**2.72**
Barium	NE	4700	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**803**	NS	NS	**140**	**115 J**	**53.5 J**
Beryllium	NE	2	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**1.33**	NS	NS	NS	**0.669**	< 0.551 U
Cadmium	NE	34	NA	NS	NS	NS	**0.860**	NS	NS	< 0.547 U	NS	NS	NS	NS	NS	< 0.506 U	NS	NS	**0.724**	< 0.586 U	< 0.551 U
Chromium	NE	3900	NA	NS	NS	NS	**26.2**	NS	NS	**52.8**	NS	NS	NS	NS	NS	**84.3**	NS	NS	**34.1**	**14.4 J**	**14.6 J**
Copper	NE	2500	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**15.7**	NS	NS	NS	< 30.5 UJ	< 28.6 UJ
Lead	NE	400	NA	NS	NS	NS	**55.7**	NS	NS	**36.8**	NS	NS	NS	NS	NS	**4.08**	NS	NS	**52.9**	**48.3**	**17.3**
Mercury	NE	20	NA	NS	NS	NS	**0.263**	NS	NS	**0.0486**	NS	NS	NS	NS	NS	< 0.0314 U	NS	NS	**0.0779**	< 0.0335 UJ	< 0.0330 UJ
Nickel	NE	1400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**23.7**	NS	NS	NS	**17.7 J**	**12.7 J**
Vanadium	NE	470	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**66.8**	NS	NS	NS	**31.7**	**19.2**
Zinc	NE	20000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**51.5**	NS	NS	NS	< 111 UJ	< 105 UJ
Metals-SPLP (mg/L)																					
Arsenic	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.0056 J**
Barium	1	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.176 J**
Chromium	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.0285 J**
Lead	0.015	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.0476 J**
Nickel	0.1	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.0299 J**
Vanadium	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.0404 J**
Cyanide (mg/kg)																					
Cyanide	NE	1400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PCBs (mg/kg)																					
Aroclor 1248	NE	NE	NE	< 0.0203 U	< 0.0241 U	**0.173**	**0.208**	< 0.0234 U	< 0.0237 U	< 0.0231 U	**0.707**	**0.139 J**	**0.117**	**0.128**	NS	< 0.0202 U	< 0.0239 U	< 0.0227 U	**0.0912**	< 0.487 U	**0.161**
Aroclor 1254	NE	NE	NE	< 0.0203 U	< 0.0241 U	< 0.0250 U	< 0.0225 U	< 0.0234 U	< 0.0237 U	< 0.0231 U	< 0.0242 U	< 0.0241 U	< 0.0240 U	< 0.0213 U	NS	< 0.0202 U	< 0.0239 U	< 0.0227 U	< 0.0222 U	< 0.487 U	< 0.0208 U
Aroclor 1260	NE	NE	NE	< 0.0203 U	< 0.0241 U	< 0.0250 U	< 0.0225 U	< 0.0234 U	< 0.0237 U	< 0.0231 U	< 0.0242 U	< 0.0241 U	< 0.0240 U	< 0.0213 U	NS	< 0.0202 U	< 0.0239 U	< 0.0227 U	< 0.0222 U	< 0.487 U	**0.0223**
Total PCB Aroclors	NE	1	10	< 0.0203 U	< 0.0241 U	**0.173**	**0.208**	< 0.0234 U	< 0.0237 U	< 0.0231 U	**0.707**	**0.139 J**	**0.117**	**0.128**	NS	< 0.0202 U	< 0.0239 U	< 0.0227 U	**0.0912**	< 0.487 U	**0.183**
PCBs-SPLP (mg/L)																					
Aroclor 1248	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.000200 U
Total PCB Aroclors	0.0005	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.000200 U

Table A-1
Soil Analytical Data
Fields #6 and #7 Area
Greenwich High School

AOC				AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B
Location ID				AV28-SS136	AV28-SS136	AV28-SS136	AV28-SS172	AV28-SS173	AV29-SS169	AV30-SS233	AW19-SS165	AW19-SS274	AX19-SS137	AX19-SS137	AX31-SB278	AX31-SB278	AX31-SS275	AY20-SS164	AZ20-SS138	AZ20-SB251
Depth Interval (ft bgs)	GA PMC	R DEC	I/C DEC	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.25 ft	0 - 0.25 ft	0 - 0.25 ft	0 - 0.25 ft	0-0.25 ft	0-0.25 ft	0-0.25 ft	0-0.5 ft	0 - 1 ft	1 - 2 ft	0 - 0.25 ft	0 - 0.25 ft	0-0.25 ft	2.5 - 3.5 ft
Sample ID				AV28-SS136	DUPLICATE-1	DUPLICATE-1-080311	AV28 SS172 0-3	AV28 SS173 0-3	AV29 SS169 0-3	AV30-SS233 0-3	AW19-SS165 0-3	AW19-SS274 0-3	AX19-SS137 0-3	AX19-SS137	AX31-SB278 (0-1)	AX31-SB278 (1-2)	AX31-SS275 (0-3)	AY20 SS164 0-3	AZ20-SS138 0-3	AZ20-SB251(2.5-3.5)
Sample Date				8/3/2011	9/29/2011	8/3/2011	8/11/2011	8/11/2011	8/11/2011	8/11/2011	8/11/2011	8/22/2011	8/11/2011	8/3/2011	12/30/2011	12/30/2011	8/22/2011	8/11/2011	8/11/2018	12/29/2011
SDG				SB32875	SB36432	SB32768	SB33302	SB33302	SB33302	SB33374	SB33302	SB33952	SB33302	SB32768	SB41831	SB41831	SB33952	SB33302	SB33302	SB41766
Pesticides (ug/kg)																				
4,4-DDE (p,p)	NE	NE	NE	NS	NS	NS	NS	NS	NS	**8.62**	NS	NS	NS	NS	< 5.54 U	NS	NS	**10.9**	**8.9**	NS
4,4-DDT (p,p)	*3*	*1800*	NA	NS	NS	NS	NS	NS	NS	**11.8**	NS	NS	NS	NS	< 8.87 U	NS	NS	< 9.87 U	< 9.05 U	NS
alpha-Chlordane	NE	NE	NE	NS	NS	NS	NS	NS	NS	< 4.51 U	NS	NS	NS	NS	< 5.54 U	NS	NS	**6.91 J**	**7.24**	NS
Chlordane	66	490	NA	NS	NS	NS	NS	NS	NS	< 18.1 U	NS	NS	NS	NS	< 22.2 U	NS	NS	**52.3**	**58.8**	NS
gamma-Chlordane	NE	NE	NE	NS	NS	NS	NS	NS	NS	< 4.51 U	NS	NS	NS	NS	< 5.54 U	NS	NS	**11.5**	< 5.66 U	NS
Total DDx	*3*	*1800*	NA	NS	NS	NS	NS	NS	NS	**20.42**	NS	NS	NS	NS	< 8.87	NS	NS	**10.9**	**8.9**	NS
Pesticides-SPLP (ug/l)				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

AOC				AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B	AOC-16B
Location ID				AV28-SS136	AV28-SS136	AV28-SS136	AV28-SS172	AV28-SS173	AV29-SS169	AV30-SS233	AW19-SS165	AW19-SS274	AX19-SS137	AX19-SS137	AX31-SB278	AX31-SB278	AX31-SS275	AY20-SS164	AZ20-SS138	AZ20-SB251
Depth Interval (ft bgs)	GA PMC	R DEC	I/C DEC	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.25 ft	0 - 0.25 ft	0 - 0.25 ft	0 - 0.25 ft	0-0.25 ft	0-0.25 ft	0-0.25 ft	0-0.5 ft	0 - 1 ft	1 - 2 ft	0 - 0.25 ft	0 - 0.25 ft	0-0.25 ft	2.5 - 3.5 ft
Sample ID				AV28-SS136	DUPLICATE-1	DUPLICATE-1-080311	AV28 SS172 0-3	AV28 SS173 0-3	AV29 SS169 0-3	AV30-SS233 0-3	AW19-SS165 0-3	AW19-SS274 0-3	AX19-SS137 0-3	AX19-SS137	AX31-SB278 (0-1)	AX31-SB278 (1-2)	AX31-SS275 (0-3)	AY20 SS164 0-3	AZ20-SS138 0-3	AZ20-SB251(2.5-3.5)
Sample Date				8/3/2011	9/29/2011	8/3/2011	8/11/2011	8/11/2011	8/11/2011	8/11/2011	8/11/2011	8/22/2011	8/11/2011	8/3/2011	12/30/2011	12/30/2011	8/22/2011	8/11/2011	8/11/2018	12/29/2011
SDG				SB32875	SB36432	SB32768	SB33302	SB33302	SB33302	SB33374	SB33302	SB33952	SB33302	SB32768	SB41831	SB41831	SB33952	SB33302	SB33302	SB41766

AOC				AOC-16B	AOC-16B
Location ID				AZ20-SB251	AZ20-SB251
Depth Interval (ft bgs)	GA PMC	R DEC	I/C DEC	7 - 8 ft	7 - 8 ft
Sample ID				AZ20-SB251(7-8)	AZ20-SB251(7-8)
Sample Date				12/29/2011	12/29/2011
SDG				SB41766	SB41766
Pesticides (ug/kg)					
4,4-DDE (p,p)	NE	NE	NE	NS	NS
4,4-DDT (p,p)	*3*	*1800*	NA	NS	NS
alpha-Chlordane	NE	NE	NE	NS	NS
Chlordane	66	490	NA	NS	NS
gamma-Chlordane	NE	NE	NE	NS	NS
Total DDx	*3*	*1800*	NA	NS	NS
Pesticides-SPLP (ug/l)				NS	NS

Notes:
This is a summary table. Only detected compounds are presented.
Bold = Analyte detected above laboratory reporting limit.
Yellow highlighted results exceed GA PMC.
Blue highlighted results exceed RES DEC.
Green highlighted results exceed I/C DEC.
Italicized criteria values are from DEEP's Recommended Numerical Criteria for Common Additional Polluting Substances (DEEP, 2018) and are presented for purposes of preliminary evaluation.
<0.01 = Analyte not detected above the specified laboratory reporting limit.
R DEC = Residential Direct Exposure Criteria
GA PMC = Pollutant Mobility Criteria applicable to GA groundwater areas
I/C DEC = Industrial/Commercial Direct Exposure Criteria
The I/C DEC for PCBs applies to inaccessible soil.
NE = Criterion has not been established for this analyte
NS = Not sampled for the specified analyte
ND = None detected
NA = Not applicable
ug/kg = micrograms per kilogram
mg/kg = miligrams per kilogram
mg/L = milligrams per liter

Table A-1
Soil Analytical Data
Fields #6 and #7 Area
Greenwich High School

AOC Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	R DEC	I/C DEC	AOC-16B AZ26-391 1-2 ft AZ26-391 (1-2) 6/26/2012 SB51819	AOC-16B AZ26-391 2-3 ft AZ26-391 (2-3) 6/26/2012 SB51819	AOC-16B AZ28-SB387 1-2 ft AZ28-SB387 (1-2) 6/26/2012 SB51819	AOC-16B AZ31-SS231 0-0.25 ft AZ31-SS231 0-3 8/11/2011 SB33374	AOC-16B BA31-SS280 0-0.25 ft BA31-SS280 (0-3") 8/11/2011 SB33374	AOC-16B BB20-SS139 0 - 0.25 ft BB20 SS139 0-3 8/11/2011 SB33302	AOC-16B BB20-SS139A 0 - 1 ft BB20-SS139A(0-1) 6/25/2013 SB72106	AOC-16B BB21-SS162 0 - 0.25 ft BB21 SS162 0-3 8/11/2011 SB33302	AOC-16B BB24-SB390 1 - 2 ft BB24-SB390 (1-2) 6/26/2012 SB51819	AOC-16B BB24-SB390 7 - 8 ft BB24-SB390 (7-8) 6/26/2012 SB51819	AOC-16B BB26-SB389 1 - 2 ft BB26-SB389 (1-2) 6/26/2012 SB51819	AOC-16B BB26-SB389 5 - 6 ft BB26-SB389 (5-6) 6/26/2012 SB51819	AOC-16B BB27-SB622 1 - 2 ft BB27-SB622 (1-2') 11/29/2018 18K1266	AOC-16B BB28-SB388 1 - 2 ft BB28-SB388 (1-2) 6/26/2012 SB51819	AOC-16B BB28-SB388 7 - 8 ft BB28-SB388 (7-8) 6/26/2012 SB51819	AOC-16B BB31-SS230 0 - 0.25 ft BB31-SS230 0-3 8/11/2011 SB33374	AOC-16B BC22-SS161 0 - 0.25 ft BC22 SS161 0-3 8/11/2011 SB33302
ETPH (mg/kg)																				
Aliphatic Hydrocarbons (ETPH) C9-C36	500	500	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**230**	NS
VOCs (ug/kg)																				
2-Butanone (MEK)	8000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acetone	14000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene	5600	1000000	2500000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SVOCs (ug/kg)																				
Acenaphthylene	8400	1000000	NA	NS	NS	NS	NS	NS	< 930 U	**140**	NS	NS	NS	NS	NS	NS	NS	NS	< 539 U	< 985 U
Anthracene	40000	1000000	NA	NS	NS	NS	NS	NS	< 930 U	**330**	NS	NS	NS	NS	NS	NS	NS	NS	< 539 U	< 985 U
Benzo(a)anthracene	1000	1000	NA	NS	NS	NS	NS	NS	< 930 U	**590**	NS	NS	NS	NS	NS	NS	NS	NS	< 539 U	< 985 U
Benzo(a)pyrene	1000	1000	NA	NS	NS	NS	NS	NS	< 930 U	**510**	NS	NS	NS	NS	NS	NS	NS	NS	< 539 U	< 985 UJ
Benzo(b)fluoranthene	1000	1000	NA	NS	NS	NS	NS	NS	< 930 U	**680**	NS	NS	NS	NS	NS	NS	NS	NS	< 539 U	< 985 UJ
Benzo(g,h,i)perylene	*1000*	*8400*	NA	NS	NS	NS	NS	NS	< 930 U	**310**	NS	NS	NS	NS	NS	NS	NS	NS	< 539 U	< 985 UJ
Benzo(k)fluoranthene	1000	8400	NA	NS	NS	NS	NS	NS	< 930 U	**240**	NS	NS	NS	NS	NS	NS	NS	NS	< 539 U	< 985 UJ
Chrysene	*1000*	*84000*	NA	NS	NS	NS	NS	NS	< 930 U	**560**	NS	NS	NS	NS	NS	NS	NS	NS	< 539 U	< 985 U
Dibenzo(a,h)anthracene	*1000*	*1000*	NA	NS	NS	NS	NS	NS	< 930 U	**81**	NS	NS	NS	NS	NS	NS	NS	NS	< 539 U	< 985 UJ
Fluoranthene	5600	1000000	NA	NS	NS	NS	NS	NS	< 930 U	**1300**	NS	NS	NS	NS	NS	NS	NS	NS	< 539 U	< 985 U
Fluorene	5600	1000000	NA	NS	NS	NS	NS	NS	< 930 U	**100**	NS	NS	NS	NS	NS	NS	NS	NS	< 539 U	< 985 U
Indeno(1,2,3-cd)pyrene	*1000*	*1000*	NA	NS	NS	NS	NS	NS	< 930 U	**390**	NS	NS	NS	NS	NS	NS	NS	NS	< 539 U	< 985 UJ
Phenanthrene	4000	1000000	NA	NS	NS	NS	NS	NS	< 930 U	**880**	NS	NS	NS	NS	NS	NS	NS	NS	< 539 U	< 985 U
Pyrene	4000	1000000	NA	NS	NS	NS	NS	NS	< 930 U	**1100**	NS	NS	NS	NS	NS	NS	NS	NS	< 539 U	< 985 U
Metals (mg/kg)																				
Arsenic	NE	10	NA	NS	NS	NS	**9.9**	**2.83**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	NE	4700	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	NE	2	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	NE	34	NA	NS	NS	NS	< 0.505 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	NE	3900	NA	NS	NS	NS	**31.8**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	NE	2500	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	NE	400	NA	NS	NS	NS	**49.3**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	NE	20	NA	NS	NS	NS	**0.0754**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	NE	1400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	NE	470	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	NE	20000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Metals-SPLP (mg/L)																				
Arsenic	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	1	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	0.015	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	0.1	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide (mg/kg)																				
Cyanide	NE	1400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PCBs (mg/kg)																				
Aroclor 1248	NE	NE	NE	**0.162**	< 0.0208 U	**1.75**	< 0.0232 U	NS	**0.0880**	NS	**0.244**	**0.117**	< 0.0282 U	**0.268**	< 0.0475 U	**0.29**	**0.464**	< 0.0215 U	**0.0675**	**0.16**
Aroclor 1254	NE	NE	NE	< 0.0205 U	< 0.0208 U	**0.0289**	< 0.0232 U	NS	< 0.0238 U	NS	< 0.0240 U	**0.128**	< 0.0282 U	< 0.0207 U	< 0.0237 U	**0.19**	< 0.0218 U	< 0.0215 U	< 0.0208 U	< 0.0234 U
Aroclor 1260	NE	NE	NE	< 0.0205 U	< 0.0208 U	< 0.0214 U	< 0.0232 U	NS	< 0.0238 U	NS	< 0.0240 U	< 0.0202 U	< 0.0282 U	< 0.0207 U	< 0.0237 U	< 0.089	< 0.0218 U	< 0.0215 U	< 0.0208 U	< 0.0234 U
Total PCB Aroclors	NE	1	10	**0.162**	< 0.0208 U	**1.7789**	< 0.0232 U	NS	**0.0880**	NS	**0.244**	**0.245**	**0.131**	**0.268**	< 0.0475 U	**0.48**	**0.464**	< 0.0215 U	**0.0675**	**0.16**
PCBs-SPLP (mg/L)																				
Aroclor 1248	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total PCB Aroclors	0.0005	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Soil Analytical Data
Fields #6 and #7 Area
Greenwich High School

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Pesticides (ug/kg)																				
4,4-DDE (p,p)	NE	NE	NE	NS	NS	NS	**7.19**	NS	NS	NS	**9.46**	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	*3*	*1800*	NA	NS	NS	NS	**16.3**	NS	NS	NS	< 9.71 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
alpha-Chlordane	NE	NE	NE	NS	NS	NS	< 5.37 U	NS	NS	NS	**12.6 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane	66	490	NA	NS	NS	NS	< 21.5 U	NS	NS	NS	**77.2**	NS	NS	NS	NS	NS	NS	NS	NS	NS
gamma-Chlordane	NE	NE	NE	NS	NS	NS	< 5.37 U	NS	NS	NS	**13.8**	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total DDx	*3*	*1800*	NA	NS	NS	NS	**23.49**	NS	NS	NS	**9.46**	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pesticides-SPLP (ug/l)				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Yellow highlighted results exceed GA PMC.
Blue highlighted results exceed RES DEC.
Green highlighted results exceed I/C DEC.
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The I/C DEC for PCBs applies to inaccessible soil.
NE = Criterion has not been established for this analyte
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Soil Analytical Data
Fields #6 and #7 Area
Greenwich High School

AOC Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	R DEC	I/C DEC	AOC-16B BC22-SS161A 0 - 1 ft BC22-SS161A(0-1) 6/25/2013 SB72106	AOC-16B BC23-SS160 0 - 0.25 ft BC23 SS160 0-3 8/11/2011 SB33302	AOC-16B BC24-SS159 0 - 0.25 ft BC24 SS159 0-3 8/11/2011 SB33302	AOC-16B BC26-SS158 0 - 0.25 ft BC26 SS158 0-3 8/11/2011 SB33302	AOC-16B BC27-SB614 1 - 2 ft BC27-SB614 (1-2) 6/27/2018 18F1381	AOC-16B BC27-SB615 1 - 2 ft BC27-SB615 (1-2) 6/27/2018 18F1381	AOC-16B BC27-SB619 1 - 2 ft BC27-SB619 (1-2') 11/29/2018 18K1266	AOC-16B BC27-SB620 0 - 1 ft BC27-SB620 (0-1') 11/29/2018 18K1266	AOC-16B BC27-SB620 2-4 ft BC27-SB620 (2-4') 11/29/2018 18K1266	AOC-16B BC27-SS155 0 - 0.25 ft BC27 SS155 0-3 8/11/2011 SB33302	AOC-16B BC27-SS157 0 - 0.25 ft BC27 SS157 0-3 8/11/2011 SB33302	AOC-16B BC28-SS153 0 - 0.25 ft BC28 SS153 0-3 8/11/2011 SB33302	AOC-16B BC28-SB121 1 - 2 ft BC28-SB121 (1-2') 11/29/2018 18K1266	AOC-16B BC29-SS150 0 - 0.25 ft BC29 SS150 0-3 8/11/2011 SB33302	AOC-16B BD22-SB253 0 - 1 ft BD22-SB253 (0-1) 12/30/2011 SB41831	AOC-16B BD22-SB253 1.5 - 2 ft BD22-SB253 (1.5-2) 12/30/2011 SB41831	AOC-16B BD23-SS140 0 - 0.25 ft BD23 SS140 0-3 8/11/2011
ETPH (mg/kg)																				
Aliphatic Hydrocarbons (ETPH) C9-C36	500	500	NA	NS	NS	**166**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**80.6**	NS
VOCs (ug/kg)																				
2-Butanone (MEK)	8000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acetone	14000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene	5600	1000000	2500000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SVOCs (ug/kg)																				
Acenaphthylene	8400	1000000	NA	< 73	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 385 U	NS
Anthracene	40000	1000000	NA	< 73	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 385 U	NS
Benzo(a)anthracene	1000	1000	NA	**93**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 385 U	NS
Benzo(a)pyrene	1000	1000	NA	**90**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 385 U	NS
Benzo(b)fluoranthene	1000	1000	NA	**120**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 385 U	NS
Benzo(g,h,i)perylene	*1000*	*8400*	NA	**79**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 385 U	NS
Benzo(k)fluoranthene	1000	8400	NA	< 73	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 385 U	NS
Chrysene	*1000*	*84000*	NA	**87**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 385 UJ	NS
Dibenzo(a,h)anthracene	*1000*	*1000*	NA	< 73	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 385 U	NS
Fluoranthene	5600	1000000	NA	**160**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 385 U	NS
Fluorene	5600	1000000	NA	< 73	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 385 U	NS
Indeno(1,2,3-cd)pyrene	*1000*	*1000*	NA	**79**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 385 U	NS
Phenanthrene	4000	1000000	NA	< 73	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 385 U	NS
Pyrene	4000	1000000	NA	**140**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 385 U	NS
Metals (mg/kg)																				
Arsenic	NE	10	NA	NS	NS	**4.60**	NS	NS	NS	NS	NS	NS	**3.57**	NS	NS	**5.78**	NS	**3.84**	NS	
Barium	NE	4700	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**179**	NS	
Beryllium	NE	2	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.838**	NS	
Cadmium	NE	34	NA	NS	NS	**0.687**	NS	NS	NS	NS	NS	NS	**0.590**	NS	NS	**0.666**	NS	< 0.553 U	NS	
Chromium	NE	3900	NA	NS	NS	**28.8**	NS	NS	NS	NS	NS	NS	**34.8**	NS	NS	**27.3**	NS	**40.5**	NS	
Copper	NE	2500	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**18.1**	NS	
Lead	NE	400	NA	NS	NS	**62.4**	NS	NS	NS	NS	NS	NS	**15.2**	NS	NS	**51.8**	NS	**20.5**	NS	
Mercury	NE	20	NA	NS	NS	**0.102**	NS	NS	NS	NS	NS	NS	NS	< 0.0350 U	NS	NS	**0.106**	NS	**0.0576 J+**	NS
Nickel	NE	1400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**16.0**	NS
Vanadium	NE	470	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**35.9**	NS
Zinc	NE	20000	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**49.5**	NS
Metals-SPLP (mg/L)																				
Arsenic	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	1	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	0.015	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	0.1	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	0.05	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide (mg/kg)																				
Cyanide	NE	1400	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PCBs (mg/kg)																				
Aroclor 1248	NE	NE	NE	NS	**0.0893**	< 0.0221 U	< 0.0219 U	**0.28**	**0.92**	< 0.082	< 0.092	< 0.097	< 0.0221 U	< 0.0224 U	< 0.0230 U	**0.30**	**0.13**	NS	**0.157**	**0.0474**
Aroclor 1254	NE	NE	NE	NS	< 0.0248 U	< 0.0221 U	< 0.0219 U	**0.20**	**0.44**	< 0.082	**0.11**	< 0.097	< 0.0221 U	< 0.0224 U	< 0.0230 U	**0.15**	< 0.0235 U	NS	< 0.0229 U	< 0.0231 U
Aroclor 1260	NE	NE	NE	NS	< 0.0248 U	< 0.0221 U	< 0.0219 U	< 0.085	< 0.087	< 0.082	< 0.092	< 0.097	< 0.0221 U	< 0.0224 U	< 0.0230 U	< 0.084	< 0.0235 U	NS	< 0.0229 U	< 0.0231 U
Total PCB Aroclors	NE	1	10	NS	**0.0893**	< 0.0221 U	< 0.0219 U	**0.48**	**1.36**	< 0.082	**0.11**	< 0.097	< 0.0221 U	< 0.0224 U	< 0.0230 U	**0.45**	**0.13**	NS	**0.157**	**0.0474**
PCBs-SPLP (mg/L)																				
Aroclor 1248	NE	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total PCB Aroclors	0.0005	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table A-1
Soil Analytical Data
Fields #6 and #7 Area
Greenwich High School

AOC Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	R DEC	I/C DEC	AOC-16B BC22-SS161A 0 - 1 ft BC22-SS161A(0-1) 6/25/2013 SB72106	AOC-16B BC23-SS160 0 - 0.25 ft BC23 SS160 0-3 8/11/2011 SB33302	AOC-16B BC24-SS159 0 - 0.25 ft BC24 SS159 0-3 8/11/2011 SB33302	AOC-16B BC26-SS158 0 - 0.25 ft BC26 SS158 0-3 8/11/2011 SB33302	AOC-16B BC27-SB614 1 - 2 ft BC27-SB614 (1-2) 6/27/2018 18F1381	AOC-16B BC27-SB615 1 - 2 ft BC27-SB615 (1-2) 6/27/2018 18F1381	AOC-16B BC27-SB619 1 - 2 ft BC27-SB619 (1-2') 11/29/2018 18K1266	AOC-16B BC27-SB620 0 - 1 ft BC27-SB620 (0-1') 11/29/2018 18K1266	AOC-16B BC27-SB620 2-4 ft BC27-SB620 (2-4') 11/29/2018 18K1266	AOC-16B BC27-SS155 0 - 0.25 ft BC27 SS155 0-3 8/11/2011 SB33302	AOC-16B BC27-SS157 0 - 0.25 ft BC27 SS157 0-3 8/11/2011 SB33302	AOC-16B BC28-SS153 0 - 0.25 ft BC28 SS153 0-3 8/11/2011 SB33302	AOC-16B BC28-SB121 1 - 2 ft BC28-SB121 (1-2') 11/29/2018 18K1266	AOC-16B BC29-SS150 0 - 0.25 ft BC29 SS150 0-3 8/11/2011 SB33302	AOC-16B BD22-SB253 0 - 1 ft BD22-SB253 (0-1) 12/30/2011 SB41831	AOC-16B BD22-SB253 1.5 - 2 ft BD22-SB253 (1.5-2) 12/30/2011 SB41831	AOC-16B BD23-SS140 0 - 0.25 ft BD23 SS140 0-3 8/11/2011
Pesticides (ug/kg)																				
4,4-DDE (p,p)	NE	NE	NE	NS	**11.6**	NS	< 5.84 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 5.27 U	NS	NS
4,4-DDT (p,p)	*3*	*1800*	NA	NS	**11.2**	NS	< 9.34 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 8.44 U	NS	NS
alpha-Chlordane	NE	NE	NE	NS	**16.5 J**	NS	**6.25 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 5.27 U	NS	NS
Chlordane	66	490	NA	NS	**94.8**	NS	**42.7**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 21.1 U	NS	NS
gamma-Chlordane	NE	NE	NE	NS	**14.7**	NS	**7.92**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 5.27 U	NS	NS
Total DDx	*3*	*1800*	NA	NS	**22.8**	NS	< 9.34	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 8.44	NS	NS
Pesticides-SPLP (ug/l)				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:
This is a summary table. Only detected compounds are presented.
Bold = Analyte detected above laboratory reporting limit.
Yellow highlighted results exceed GA PMC.
Blue highlighted results exceed RES DEC.
Green highlighted results exceed I/C DEC.
Italicized criteria values are from DEEP's Recommended Numerical Criteria for Common Additional Polluting Substances (DEEP, 2018) and are presented for purposes of preliminary evaluation.
<0.01 = Analyte not detected above the specified laboratory reporting limit.
R DEC = Residential Direct Exposure Criteria
GA PMC = Pollutant Mobility Criteria applicable to GA groundwater areas
I/C DEC = Industrial/Commercial Direct Exposure Criteria
The I/C DEC for PCBs applies to inaccessible soil.
NE = Criterion has not been established for this analyte
NS = Not sampled for the specified analyte
ND = None detected
NA = Not applicable
ug/kg = micrograms per kilogram
mg/kg = miligrams per kilogram
mg/L = milligrams per liter

Table A-1
Soil Analytical Data
Fields #6 and #7 Area
Greenwich High School

AOC Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	R DEC	I/C DEC	AOC-16B BD23-SS140 0 - 0.5 ft BD23-SS140 8/4/2011	AOC-16B BD27-SB252 0 - 1 ft BD27-SB252 (0-1) 12/30/2011 SB41831	AOC-16B BD27-SB252 1.5 - 2 ft BD27-SB252 (1.5-2) 12/30/2011 SB41831	AOC-16B BD27-SB616 2 - 4 ft BD27-SB616 (2-4) 6/27/2018 18F1381	AOC-16B BD27-SB617 1 - 2 ft BD27-SB617 (1-2) 6/27/2018 18F1381	AOC-16B BD27-SS154 0 - 0.25 ft BD27 SS154 0-3 8/11/2011 SB33302	AOC-16B BD27-SS156 0 - 0.25 ft BD27 SS156 0-3 8/11/2011 SB33302	AOC-16B BD28-SB618 1 - 2 ft BD28-SB618 (1-2) 6/27/2018 18F1381	AOC-16B BD28-SS149 0 - 0.25 ft BD28 SS149 0-3 8/11/2011 SB33302	AOC-16B BD28-SS152 0 - 0.25 ft BD28 SS152 0-3 8/11/2011 SB33302	AOC-16B BD29-SS142 0 - 0.25 ft BD29 SS142 0-3 8/11/2011 SB33302	AOC-16B BD29-SS142 0 - 0.5 ft BD29-SS142 8/4/2011 SB33302	AOC-16B BD31-SS143 0 - 0.25 ft BD31 SS143 0-3 8/11/2011 SB32875	AOC-16B BD31-SS143 0 - 0.5 ft BD31-SS143 8/4/2011 SB32875	AOC-16B BE28-SS148 0 - 0.25 ft BE28 SS148 0-3 8/11/2011 SB33302	AOC-16B BE28-SS151 0 - 0.25 ft BE28 SS151 0-3 8/11/2011 SB33302
ETPH (mg/kg)																			
Aliphatic Hydrocarbons (ETPH) C9-C36	500	500	NA	NS	NS	**120**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**138**
VOCs (ug/kg)																			
2-Butanone (MEK)	8000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acetone	14000	500000	1000000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene	5600	1000000	2500000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SVOCs (ug/kg)																			
Acenaphthylene	8400	1000000	NA	NS	NS	< 367 U	NS	NS	NS	NS	NS	NS	< 1970 U	NS	NS	NS	NS	NS	NS
Anthracene	40000	1000000	NA	NS	NS	< 367 U	NS	NS	NS	NS	NS	NS	< 1970 U	NS	NS	NS	NS	NS	NS
Benzo(a)anthracene	1000	1000	NA	NS	NS	**579**	NS	NS	NS	NS	NS	NS	< 1970 U	NS	NS	NS	NS	NS	NS
Benzo(a)pyrene	1000	1000	NA	NS	NS	**535**	NS	NS	NS	NS	NS	NS	< 1970 UJ	NS	NS	NS	NS	NS	NS
Benzo(b)fluoranthene	1000	1000	NA	NS	NS	**616**	NS	NS	NS	NS	NS	NS	< 1970 UJ	NS	NS	NS	NS	NS	NS
Benzo(g,h,i)perylene	*1000*	*8400*	NA	NS	NS	< 367 U	NS	NS	NS	NS	NS	NS	< 1970 UJ	NS	NS	NS	NS	NS	NS
Benzo(k)fluoranthene	1000	8400	NA	NS	NS	**490**	NS	NS	NS	NS	NS	NS	< 1970 UJ	NS	NS	NS	NS	NS	NS
Chrysene	*1000*	*84000*	NA	NS	NS	**537 J**	NS	NS	NS	NS	NS	NS	< 1970 U	NS	NS	NS	NS	NS	NS
Dibenzo(a,h)anthracene	*1000*	*1000*	NA	NS	NS	< 367 U	NS	NS	NS	NS	NS	NS	< 1970 UJ	NS	NS	NS	NS	NS	NS
Fluoranthene	5600	1000000	NA	NS	NS	**1310**	NS	NS	NS	NS	NS	NS	< 1970 U	NS	NS	NS	NS	NS	NS
Fluorene	5600	1000000	NA	NS	NS	< 367 U	NS	NS	NS	NS	NS	NS	< 1970 U	NS	NS	NS	NS	NS	NS
Indeno(1,2,3-cd)pyrene	*1000*	*1000*	NA	NS	NS	< 367 U	NS	NS	NS	NS	NS	NS	< 1970 UJ	NS	NS	NS	NS	NS	NS
Phenanthrene	4000	1000000	NA	NS	NS	**986**	NS	NS	NS	NS	NS	NS	< 1970 U	NS	NS	NS	NS	NS	NS
Pyrene	4000	1000000	NA	NS	NS	**984**	NS	NS	NS	NS	NS	NS	< 1970 U	NS	NS	NS	NS	NS	NS
Metals (mg/kg)																			
Arsenic	NE	10	NA	NS	NS	**4.87**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	NE	4700	NA	NS	NS	**166**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	NE	2	NA	NS	NS	**0.917**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	NE	34	NA	NS	NS	< 0.479 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	NE	3900	NA	NS	NS	**42.5**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	NE	2500	NA	NS	NS	**22.5**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	NE	400	NA	NS	NS	**44.7**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	NE	20	NA	NS	NS	**0.107 J+**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	NE	1400	NA	NS	NS	**18.5**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	NE	470	NA	NS	NS	**38.7**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	NE	20000	NA	NS	NS	**59.8**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Metals-SPLP (mg/L)																			
Arsenic	0.05	NE	NE	NS	NS	< 0.0080 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	1	NE	NE	NS	NS	**0.0243 J+**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	0.05	NE	NE	NS	NS	< 0.0100 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	0.015	NE	NE	NS	NS	< 0.0150 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	0.1	NE	NE	NS	NS	< 0.0100 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	0.05	NE	NE	NS	NS	< 0.0100 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide (mg/kg)																			
Cyanide	NE	1400	NA	NS	NS	< 1.07 UJ	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PCBs (mg/kg)																			
Aroclor 1248	NE	NE	NE	**0.103**	NS	**1.41**	**0.19**	**0.34**	< 0.0255 U	**0.18**	**0.44**	**0.355**	**0.206**	< 0.0232 U	< 0.0206 U	< 0.0222 U	< 0.0211 U	< 0.0233 U	**0.125**
Aroclor 1254	NE	NE	NE	< 0.0202 U	NS	< 0.0208 U	**0.23**	**0.27**	< 0.0255 U	< 0.0235 U	**0.21**	< 0.0221 U	< 0.0239 U	< 0.0232 U	< 0.0206 U	< 0.0222 U	< 0.0211 U	< 0.0233 U	< 0.0209 U
Aroclor 1260	NE	NE	NE	< 0.0202 U	NS	**0.0302**	< 0.087	< 0.086	< 0.0255 U	< 0.0235 U	< 0.085	< 0.0221 U	< 0.0239 U	< 0.0232 U	< 0.0206 U	< 0.0222 U	< 0.0211 U	< 0.0233 U	< 0.0209 U
Total PCB Aroclors	NE	1	10	**0.103**	NS	**1.44**	**0.42**	**0.61**	< 0.0255 U	**0.18**	**0.65**	**0.355**	**0.206**	< 0.0232 U	< 0.0206 U	< 0.0222 U	< 0.0211 U	< 0.0233 U	**0.125**
PCBs-SPLP (mg/L)																			
Aroclor 1248	NE	NE	NE	NS	NS	**0.00129**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total PCB Aroclors	0.0005	NE	NE	NS	NS	**0.00129**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table A-1
Soil Analytical Data
Fields #6 and #7 Area
Greenwich High School

AOC Location ID Depth Interval (ft bgs) Sample ID Sample Date SDG	GA PMC	R DEC	I/C DEC	AOC-16B BD23-SS140 0 - 0.5 ft BD23-SS140 8/4/2011	AOC-16B BD27-SB252 0 - 1 ft BD27-SB252 (0-1) 12/30/2011 SB41831	AOC-16B BD27-SB252 1.5 - 2 ft BD27-SB252 (1.5-2) 12/30/2011 SB41831	AOC-16B BD27-SB616 2 - 4 ft BD27-SB616 (2-4) 6/27/2018 18F1381	AOC-16B BD27-SB617 1 - 2 ft BD27-SB617 (1-2) 6/27/2018 18F1381	AOC-16B BD27-SS154 0 - 0.25 ft BD27 SS154 0-3 8/11/2011 SB33302	AOC-16B BD27-SS156 0 - 0.25 ft BD27 SS156 0-3 8/11/2011 SB33302	AOC-16B BD28-SB618 1 - 2 ft BD28-SB618 (1-2) 6/27/2018 18F1381	AOC-16B BD28-SS149 0 - 0.25 ft BD28 SS149 0-3 8/11/2011 SB33302	AOC-16B BD28-SS152 0 - 0.25 ft BD28 SS152 0-3 8/11/2011 SB33302	AOC-16B BD29-SS142 0 - 0.25 ft BD29 SS142 0-3 8/11/2011 SB33302	AOC-16B BD29-SS142 0 - 0.5 ft BD29-SS142 8/4/2011 SB33302	AOC-16B BD31-SS143 0 - 0.25 ft BD31 SS143 0-3 8/11/2011 SB32875	AOC-16B BD31-SS143 0 - 0.5 ft BD31-SS143 8/4/2011 SB32875	AOC-16B BE28-SS148 0 - 0.25 ft BE28 SS148 0-3 8/11/2011 SB33302	AOC-16B BE28-SS151 0 - 0.25 ft BE28 SS151 0-3 8/11/2011 SB33302
Pesticides (ug/kg)																			
4,4-DDE (p,p)	NE	NE	NE	NS	< 5.70 U	NS	NS	NS	NS	NS	NS	**7.22**	NS	NS	NS	NS	NS	NS	NS
4,4-DDT (p,p)	*3*	*1800*	NA	NS	< 9.12 UJ	NS	NS	NS	NS	NS	NS	**13.9**	NS	NS	NS	NS	NS	NS	NS
alpha-Chlordane	NE	NE	NE	NS	< 5.70 U	NS	NS	NS	NS	NS	NS	< 5.75 U	NS	NS	NS	NS	NS	NS	NS
Chlordane	66	490	NA	NS	**31.6**	NS	NS	NS	NS	NS	NS	**38.9**	NS	NS	NS	NS	NS	NS	NS
gamma-Chlordane	NE	NE	NE	NS	< 5.70 UJ	NS	NS	NS	NS	NS	NS	< 5.75 U	NS	NS	NS	NS	NS	NS	NS
Total DDx	*3*	*1800*	NA	NS	< 9.12	NS	NS	NS	NS	NS	NS	**21.12**	NS	NS	NS	NS	NS	NS	NS
Pesticides-SPLP (ug/l)				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

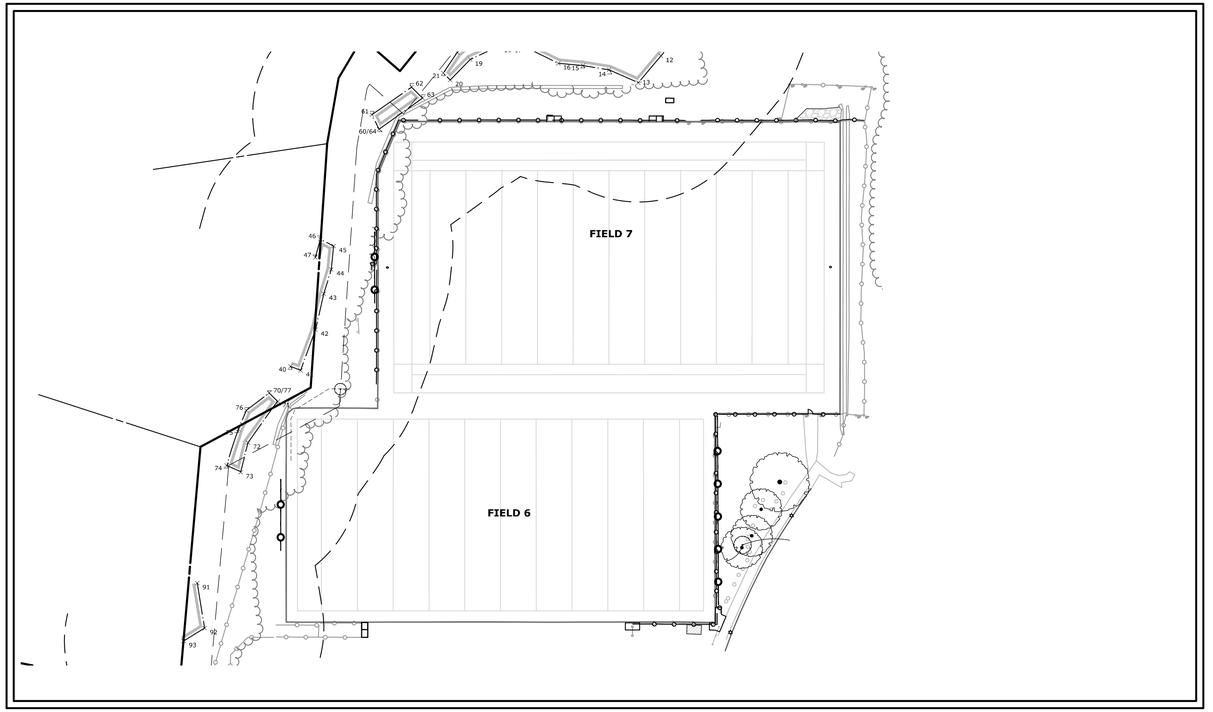
Notes:
This is a summary table. Only detected compounds are presented.
Bold = Analyte detected above laboratory reporting limit.
Yellow highlighted results exceed GA PMC.
Blue highlighted results exceed RES DEC.
Green highlighted results exceed I/C DEC.
Italicized criteria values are from DEEP's Recommended Numerical Criteria for Common Additional Polluting Substances (DEEP, 2018) and are presented for purposes of preliminary evaluation.
<0.01 = Analyte not detected above the specified laboratory reporting limit.
R DEC = Residential Direct Exposure Criteria
GA PMC = Pollutant Mobility Criteria applicable to GA groundwater areas
I/C DEC = Industrial/Commercial Direct Exposure Criteria
The I/C DEC for PCBs applies to inaccessible soil.
NE = Criterion has not been established for this analyte
NS = Not sampled for the specified analyte
ND = None detected
NA = Not applicable
ug/kg = micrograms per kilogram
mg/kg = miligrams per kilogram
mg/L = milligrams per liter

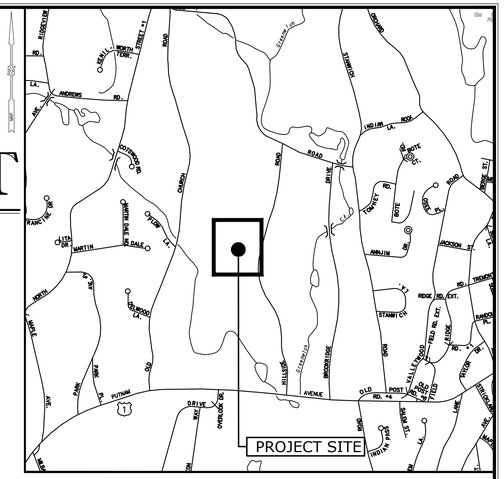
Appendix B EC Design Drawings

GREENWICH HIGH SCHOOL
SYNTHETIC TURF FIELDS 6 & 7 REPLACEMENT

10 HILLSIDE RD
GREENWICH, CONNECTICUT

BID DOCUMENTS (DRAFT)
APRIL 8, 2019





LOCATION MAP:

0' 500' 1000'
0 1/2" 1"
SCALE 1" = 1000'

CONSTRUCTION SEQUENCE

1. PRIOR TO COMMENCEMENT OF WORK A PRECONSTRUCTION MEETING SHALL BE HELD WITH TOWN STAFF AND REPRESENTATIVES OF THE ENGINEER, CONTRACTOR AND OWNER. AT THIS MEETING, ONE PERSON WILL BE PLACED IN CHARGE OF SEDIMENT AND EROSION CONTROL FOR THE ENTIRE SITE.
2. CONTRACTOR TO STAKE OUT LIMIT OF DISTURBANCE AND VEGETATION TO BE RETAINED. NO DISTURBANCE IS TO TAKE PLACE BEYOND THE LIMITS OF WORK SHOWN.
3. CONTRACTOR TO INSTALL SEDIMENT AND EROSION CONTROLS ALONG THE PERIMETER, AND STABILIZED CONSTRUCTION ENTRANCES.
4. INSTALL INLET PROTECTION IN ALL ADJACENT STORM DRAINAGE STRUCTURES.
5. INITIATE MASS EARTHWORK OPERATIONS AFTER ALL SILT FENCE & HAYBALES ARE INSTALLED. REMOVE SYNTHETIC TURF, DIMPLE SHEET, AND FENCING AND DISPOSE OF MATERIAL IN A LEGAL MANNER.
6. INITIATE MASS EARTHWORK OPERATIONS AFTER ALL SILT FENCE & HAYBALES ARE INSTALLED. CLEAR AND GRUB SITE AND STOCKPILE TOPSOIL AND OTHER EARTHEN MATERIALS. TRANSPORT MATERIALS TO LOCATION SPECIFIED BY OWNER.
7. INSTALL NEW FENCE POSTS AND FABRIC.
8. GRADE FIELD SUBGRADE AND INSTALL GEOTEXTILE FABRIC.
9. INSTALL DYNAMIC DRAINAGE STONE.
10. INSTALL SHOCK/DRAINAGE PAD AND SYNTHETIC TURF.
11. REMOVE EROSION CONTROLS ONCE SITE IS STABILIZED.

CONSTRUCTION SCHEDULE

1. CONSTRUCTION TO COMMENCE IN MAY 2020 AND BE COMPLETED BY SEPTEMBER 2020.

OPERATIONS AND MAINTENANCE REQUIREMENTS

1. SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR GREATER.
2. THE SEDIMENT AND EROSION CONTROL PLAN SHALL BE MODIFIED BY THE CONTRACTOR AT THE DIRECTION OF THE ENGINEER AND THE TOWN'S DESIGNATED REPRESENTATIVE AS NECESSITATED BY CHANGING SITE CONDITIONS.
3. INSPECTION OF THE SITE FOR EROSION SHALL CONTINUE FOR A PERIOD OF THREE MONTHS AFTER COMPLETION WHEN RAINFALLS OF ONE INCH OR MORE OCCUR.
4. ALL DEWATERING WASTE WATERS SHALL BE DISCHARGED IN A MANNER WHICH MINIMIZES THE DISCOLORATION OF THE RECEIVING WATERS.
5. THE SITE SHOULD BE KEPT CLEAN OF LOOSE DEBRIS, LITTER, AND BUILDING MATERIALS SUCH THAT NONE OF THE ABOVE ENTER WATERS OR WETLANDS.
6. A COPY OF ALL PLANS AND REVISIONS, AND THE SEDIMENT AND EROSION CONTROL PLAN SHALL BE MAINTAINED ON-SITE AT ALL TIMES DURING CONSTRUCTION.

PROJECT DATA:

AREA:	3.67 ACRES
EXISTING ZONE:	RA-1
PROPOSED USE:	HIGH SCHOOL

ZONING DATA:

	REQUIRED/ALLOWED	PROPOSED/PROVIDED
LOT AREA	4,200 S.F. PER FAMILY	4.4289 ACRES
IMPERVIOUS COVERAGE	65% MAX.	<65%-3,250 SF (±.02% INCREASE)
LOT FRONTAGE	60' MIN.	±776'
LOT SHAPE	45'x85' BOX	BOX GREATER THAN 45'x85'
FLOOR AREA RATIO	0.55	0.10
FRONT SETBACK	25' MIN.	149.6 (UPON LOT CONSOLIDATION)
REAR SETBACK	25' MIN.	±21-10"
SIDE SETBACK	5' MIN. SUM OF BOTH 15' MIN	±17'-10"
LOT COVERAGE	50% MAX.	34%
BUILDING HEIGHT	3 STORIES / 35' MAX.	43'-8"

PROJECT SITE VICINITY MAP:

0' 30' 60'
0 1/2" 1"
SCALE 1" = 60'

PREPARED BY:

MILONE & MACBROOM
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMINC.COM

PREPARED FOR:

GREENWICH PUBLIC SCHOOLS
290 GREENWICH AVENUE
GREENWICH, CT 06830

ENGINEERING/LANDSCAPE ARCHITECTURE/SURVEY:

MILONE & MACBROOM, INC.
99 REALTY DRIVE
CHESHIRE, CONNECTICUT 06410
(203) 271-1773

LIST OF DRAWINGS

NAME	TITLE
--	TITLE SHEET
IN	INDEX, NOTES, & LEGEND
EX	EXISTING CONDITIONS
RM	REMOVALS PLAN
LA	SITE PLAN - LAYOUT AND LANDSCAPING
GU	SITE PLAN - GRADING AND UTILITIES
SE-1	SEDIMENT AND EROSION CONTROL PLAN
SE-2	SEDIMENT AND EROSION CONTROL DETAILS AND SPECIFICATIONS
PRO	CURB PROFILES
SD-1	SITE DETAILS
SD-2	SITE DETAILS
SD-3	SITE DETAILS
GSD	GREENWICH STANDARD DETAILS

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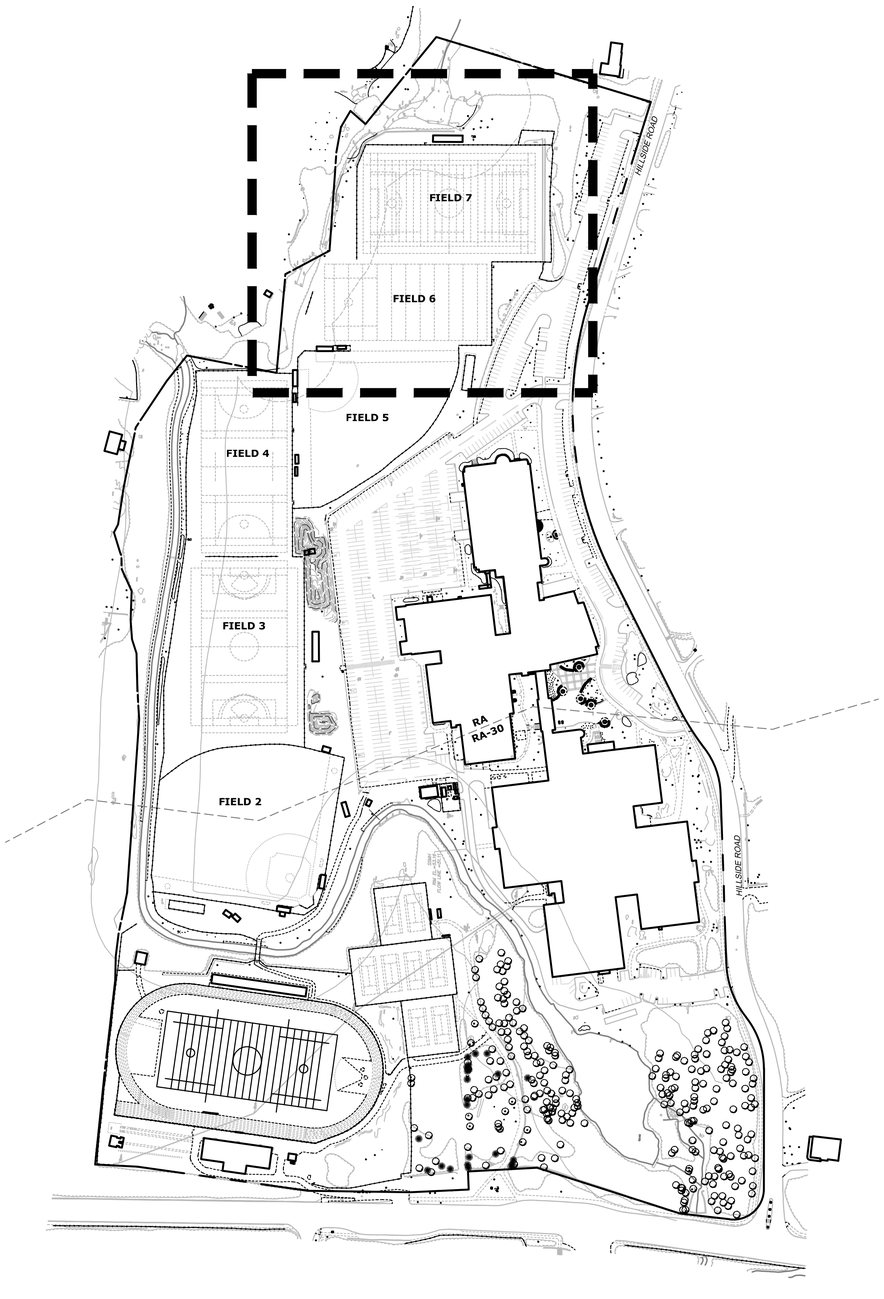
GENERAL NOTES

1. TOPOGRAPHIC INFORMATION IS TAKEN FROM MAP PREPARED BY: MILONE & MACBROOM, INC. ENTITLED: TOPOGRAPHIC SURVEY, GREENWICH HIGH SCHOOL FIELDS 6 & 7, DRAWN AT A SCALE OF 1"=30', DATED NOVEMBER 29, 2018.
2. NORTH ARROW IS BASED UPON THE CONNECTICUT COORDINATE SYSTEM (NAD 1983).
3. ELEVATIONS, CONTOURS, AND BENCHMARK ARE BASED UPON NAVD 1988.
4. INFORMATION IS TAKEN FROM A TOPOGRAPHIC SURVEY PREPARED BY ROCCO V. D'ANDREA, INC. DATED 3/19/2012.
5. INFORMATION REGARDING THE LOCATION OF EXISTING UTILITIES HAS BEEN BASED UPON AVAILABLE INFORMATION AND MAY BE INCOMPLETE, AND WHERE SHOWN SHOULD BE CONSIDERED APPROXIMATE. THE LOCATION OF ALL EXISTING UTILITIES SHOULD BE CONFIRMED PRIOR TO BEGINNING CONSTRUCTION. CALL "CALL BEFORE YOU DIG", 1-800-922-4455. ALL UTILITY LOCATIONS THAT DO NOT MATCH THE VERTICAL OR HORIZONTAL CONTROL SHOWN ON THE PLANS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.
6. MILONE & MACBROOM INC. ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF MAPS AND DATA WHICH HAVE BEEN SUPPLIED BY OTHERS.
7. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
8. SEDIMENT AND EROSION CONTROL MEASURES AS DEPICTED ON THESE PLANS AND DESCRIBED WITHIN THE SEDIMENT AND EROSION CONTROL NARRATIVE SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT COVER AND STABILIZATION IS ESTABLISHED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL CONFORM TO THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, CONNECTICUT - 2002", AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL.
9. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 6" TOPSOIL, AND BE SEEDED WITH GRASS OR SODDED, AS SHOWN ON THE PLANS.
10. ALL PROPOSED CONTOURS AND SPOT ELEVATIONS INDICATE FINISHED GRADE.
11. ALL CONSTRUCTION MATERIALS AND METHODS SHALL CONFORM TO THE TOWN OF GREENWICH REQUIREMENTS AND TO THE APPLICABLE SECTIONS OF THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION, FORM 817 AND ADDENDUMS.
12. THE PLANS REQUIRE A CONTRACTOR'S WORKING KNOWLEDGE OF LOCAL, MUNICIPAL, WATER AUTHORITY, AND STATE CODES FOR UTILITY SYSTEMS. ANY CONFLICTS BETWEEN MATERIALS AND LOCATIONS SHOWN, AND LOCAL REQUIREMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE EXECUTION OF WORK. THE ENGINEER WILL NOT BE HELD LIABLE FOR COSTS INCURRED TO IMPLEMENT OR CORRECT WORK WHICH DOES NOT CONFORM TO LOCAL CODE.
13. ALL FUEL, OIL, PAINT, OR OTHER HAZARDOUS MATERIALS USED DURING CONSTRUCTION SHOULD BE STORED IN A SECONDARY CONTAINER AND REMOVED TO A LOCKED INDOOR AREA WITH AN IMPERVIOUS FLOOR DURING NON-WORK HOURS.
14. THE CONTRACTOR MUST MAINTAIN (REPAIR/REPLACE WHEN NECESSARY) SEDIMENTATION CONTROL SYSTEMS UNTIL ALL CONSTRUCTION ACTIVITY IS COMPLETED AND ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.

SHEETS - EX, RM, LM, GU, SE-1, SE-2



LEGEND

EXISTING		PROPOSED
70	MAJOR CONTOUR	70
68	MINOR CONTOUR	68
× 70.5	SPOT GRADE	+70.5
	TREE LINE	
	STONEWALL	
	DECIDUOUS TREE	+
	CONIFEROUS TREE	
	SHRUB	
	SHRUB	
CR	CURB RAMP	
DWS	DETECTABLE WARNING SYSTEM	
LA	LANDSCAPED AREA	
	GUY WIRE	
RD	ROOF DRAIN	
ER	ELECTRIC RISER	
	LIGHT POLE	
	HYDRANT	
	WATER METER	
WG	WATER VALVE	
GG	GAS VALVE	
CB	CATCH BASIN	
DMH	DRAIN MANHOLE	D
SMH	SANITARY MANHOLE	
TMH	TELEPHONE MANHOLE	
EMH	ELECTRIC MANHOLE	
ICV	IRRIGATION CONTROL VALVES	
CO	CLEAN OUT	
	MANHOLE/YARD DRAIN/ AREA DRAIN	
S S S	SANITARY SEWER WITH MANHOLE	
	STORM DRAIN WITH CATCH BASIN	
W	WATER MAIN	
DW	DOMESTIC WATER	
FP	FIRE PROTECTION WATER	
G	GAS MAIN	
E	ELECTRIC LINE	
ETC	ELECTRIC, TELEPHONE, CABLE	
	UTILITY POLE	
	SIGN	
	IRON PIPE	
	MONUMENT	
	EDGE OF PAVEMENT WITH CURB	
	CONCRETE RETAINING WALL	
	SEAT WALL	
	SIDEWALK	
	CONTRACT LIMIT LINE	
GP	GATE POST	
	GUARD RAIL	
	PICKET FENCE	
	CHAIN LINK FENCE	
X X X X	BARBWIRE FENCE	

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DESCRIPTION	DATE	BY

INDEX NOTES & LEGEND

GREENWICH HIGH SCHOOL
SYNTHETIC TURF FIELDS 6 & 7 REPLACEMENT
10 HILLSIDE RD
GREENWICH, CONNECTICUT

CEF	CEF	RRC
DESIGNED	DRAWN	CHECKED

SCALE: 1"=150'

DATE: APRIL 8, 2019

PROJECT NO.: 5062-11

SHEET NAME: IN

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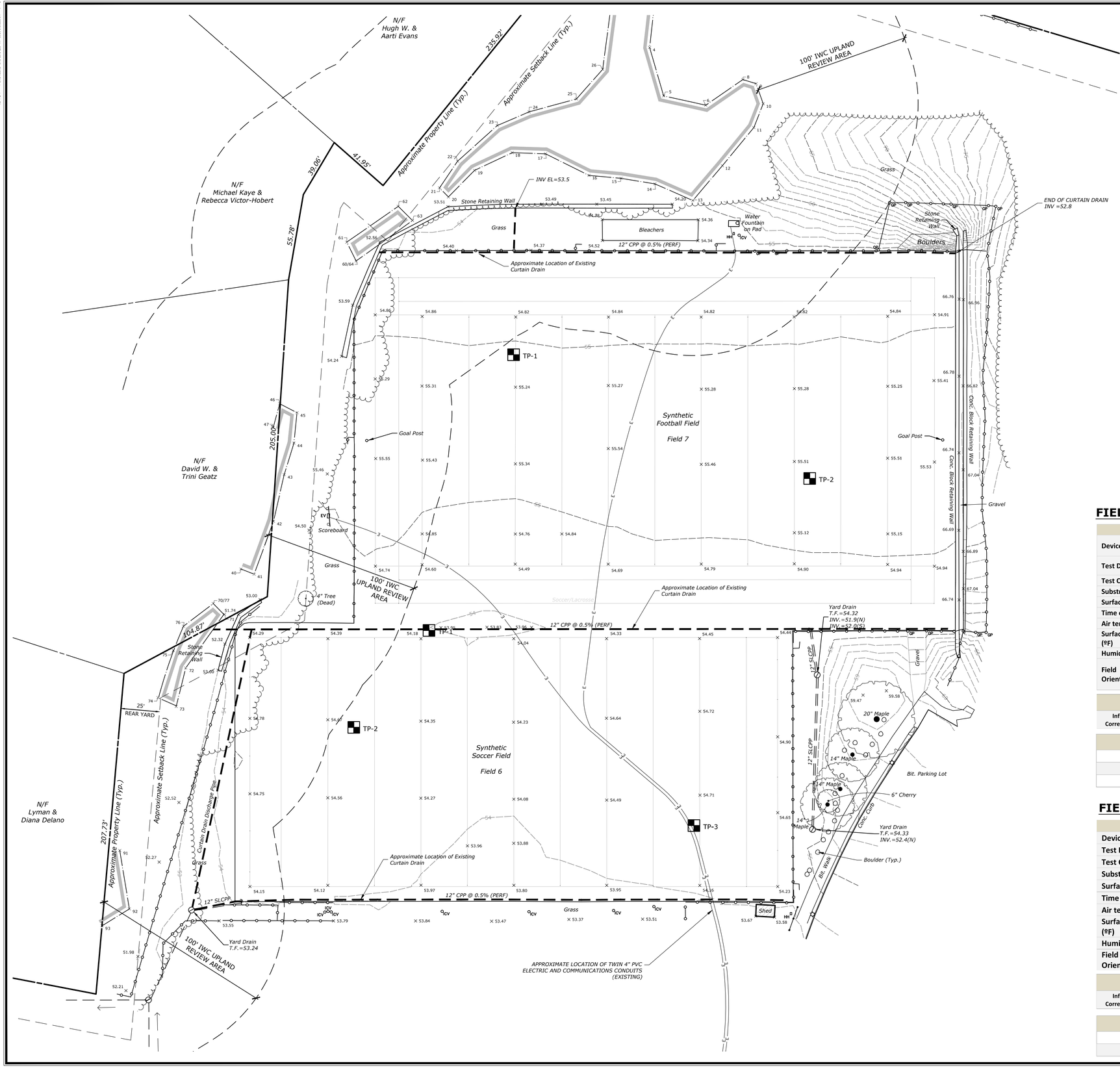

FIELD 6:

Device	Double Ring Infiltrometer	**Test Methods**	BS EN 12616:2003
Test Date:	11/15/2018	**Date of Construction:**	n/a
Test Condition:	dry	**Carpet Type:**	3g
Substrate Type:	aggregate	**Infill Type:**	SBR and Sand
Surface Name:	field 1(field hockey)	**Shockpad:**	None
Time of day	AM / PM	**Weather Conditions:**	Overcast
Air temp: (ºF)	31 / n/a	**Wind Speed: (m/s)**	0.00
Surface temp: (ºF)	30 / n/a	**Uncertainty Measurement:**	±50mm/hr
Humidity	29 / n/a	**Operator:**	Mr
Field Orientation	End A = east	**Misc Field Notes**	Drained less than 1 cm in 20 minutes. base was saturated prior to testing in some areas.

	Average	(min)	Range	(max)
Infiltration Rate w/ Correction factor (in/hr)	*< 1*	*< 1*	*to*	*< 1*

Location	Permeability Rate (in/hr)
Location #1	< 1
Location #2	< 1
Location #3	< 1

FIELD 7:

Device	Double Ring Infiltrometer	**Test Methods**	BS EN 12616:2003
Test Date:	11/15/2018	**Date of Construction:**	n/a
Test Condition:	dry	**Carpet Type:**	3g
Substrate Type:	aggregate	**Infill Type:**	SBR and Sand
Surface Name:	field 2(rugby & football)	**Shockpad:**	None
Time of day	AM / PM	**Weather Conditions:**	Overcast
Air temp: (ºF)	31 / n/a	**Wind Speed: (m/s)**	0.00
Surface temp: (ºF)	30 / n/a	**Uncertainty Measurement:**	±50mm/hr
Humidity	29 / n/a	**Operator:**	Mr
Field Orientation	End A = east	**Misc Field Notes**	None

	Average	(min)	Range	(max)
Infiltration Rate w/ Correction factor (in/hr)	*3*	*3*	*to*	*3*

Location	Permeability Rate (in/hr)
Location #1	3
Location #2	3

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EXISTING CONDITIONS

GREENWICH HIGH SCHOOL
SYNTHETIC TURF FIELDS 6 & 7 REPLACEMENT
10 HILLSIDE RD
GREENWICH, CONNECTICUT

CEF	CEF	RRC
DESIGNED	DRAWN	CHECKED

SCALE: 1"=30'

DATE: APRIL 8, 2019

PROJECT NO.: 5062-11

SHEET NAME: EX

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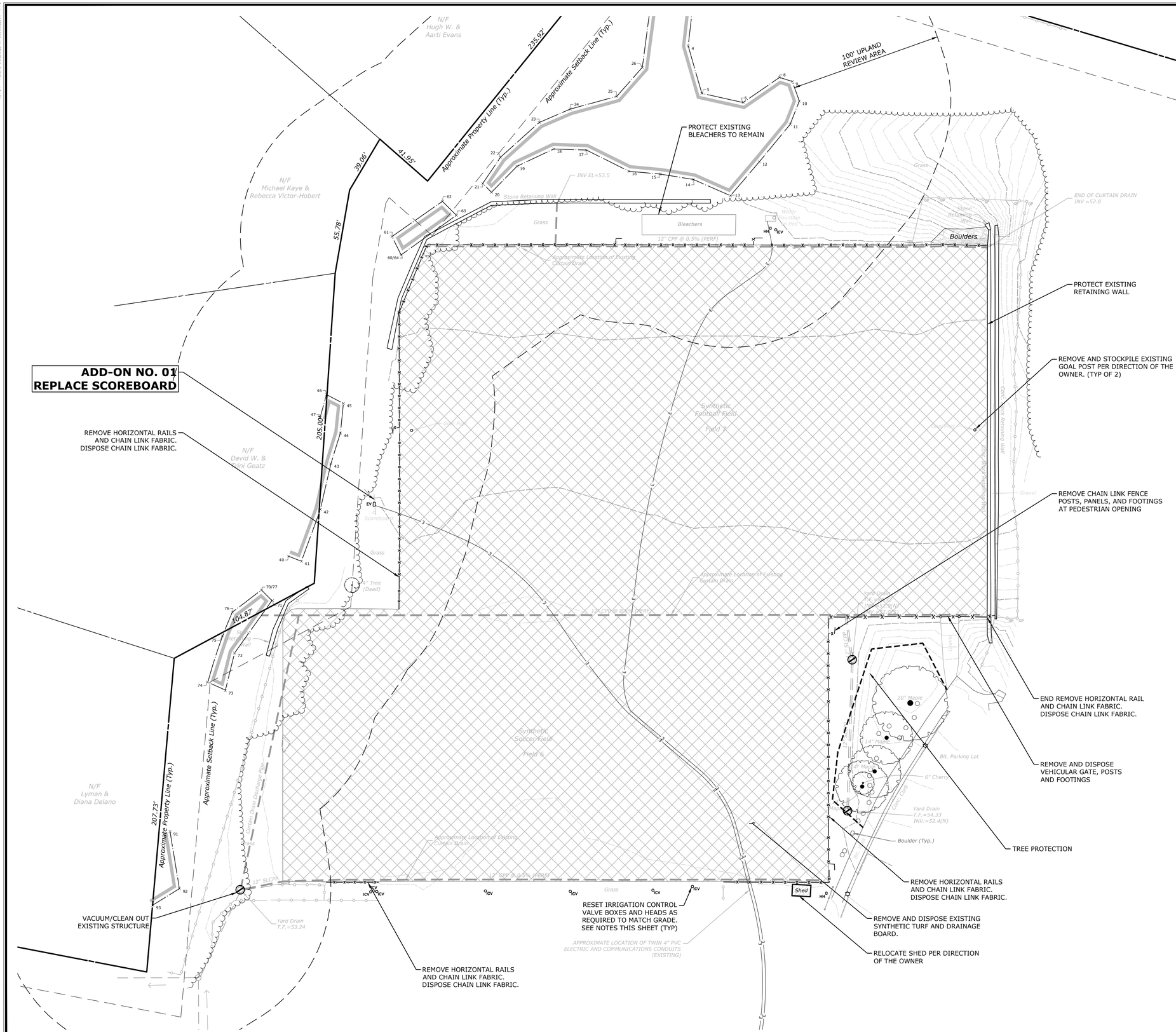

REMOVALS LEGEND

- REMOVE EXISTING SYNTHETIC TURF AND DRAINAGE BOARD
- REMOVE GRAVEL DRIVEWAY
- REMOVE EXISTING UTILITY PIPES
- TREE TO BE PROTECTED
- TREE TO BE REMOVED
- VACUUM/CLEAN OUT EXISTING STRUCTURE
- REMOVE EXISTING FENCE FABRIC AND RAILS

REMOVAL NOTES

1. EXISTING SYNTHETIC FIELD SIZE = APPROXIMATELY 158,055 SQ. FT.
2. REMOVE AND DISPOSE OF DRAINAGE BOARD
3. THE CONTRACTOR IS RESPONSIBLE FOR HAULING AND DISPOSING ALL MATERIAL DESIGNATED FOR REMOVAL OFFSITE IN A PROPER AND LEGAL MANNER.
4. THE CONTRACTOR IS RESPONSIBLE TO REPAIR ALL DISTURBED AREAS BACK TO PRE-CONSTRUCTION CONDITIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND/OR RELOCATION OF ALL UTILITIES ABOVE AND BELOW GRADE AS NEEDED.
6. CONTRACTOR TO REMOVE AND STOCKPILE IRRIGATION HEADS AND VALVES AND REINSTALL TO PROPOSED GRADES.
7. ADDITIONAL REMOVALS ARE NOTED ON SHEET UT FOR INSTALLATION OF STORM DRAINAGE PIPING.

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REMOVALS PLAN

GREENWICH HIGH SCHOOL SYNTHETIC TURF FIELDS 6 & 7 REPLACEMENT

10 HILLSIDE RD
GREENWICH, CONNECTICUT

CEF	CEF	RRC
DESIGNED	DRAWN	CHECKED

1"=30'
SCALE

APRIL 8, 2019
DATE

5062-11
PROJECT NO.

RM
SHEET NAME

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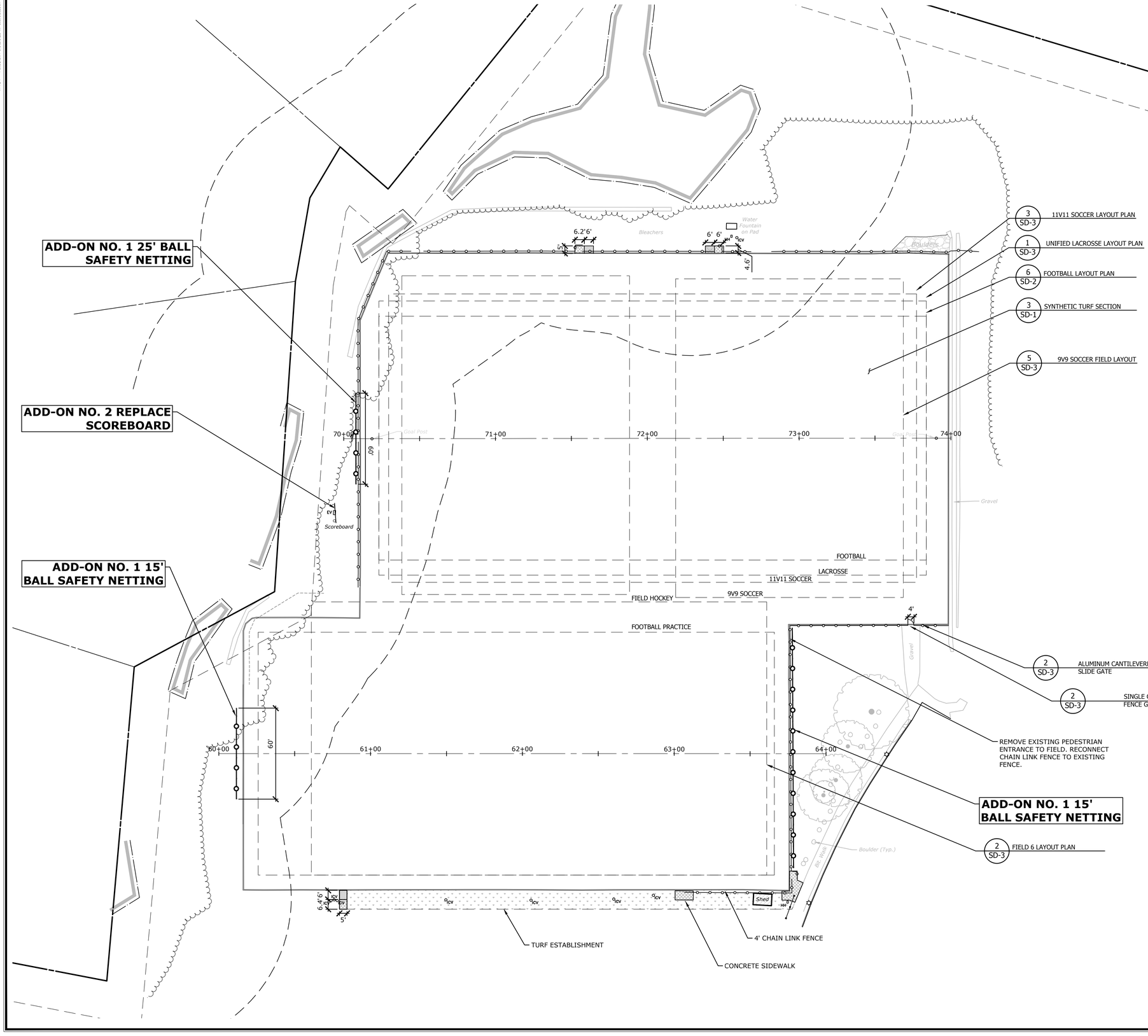

MATERIALS LEGEND

- CONCRETE SIDEWALK
- ACCESSIBLE RAMP
- TURF ESTABLISHMENT
- CONTRACT LIMIT LINE
- LIMIT OF CLEARING

SYNTHETIC TURF SYSTEMS

1. 1.75" 100% DUAL (SLIT-FILM AND MONOFILAMENT) FIBER, 46 oz FACE WEIGHT, WITH 100% ENVIROFILL INFILL (NO MICROBAN)

NOTE:
INFILL DEPTH SHALL RESULT IN EXPOSED FIBER HEIGHT OF .25" TO .5"

SYNTHETIC FIELD NOTES

1. FIELD MARKINGS TO INCLUDE (LISTED IN ORDER OF DOMINANCE):

FIELD 6:
- TUFTED/INLAID PRACTICE FIELD HOCKEY STRIPING - COLOR: WHITE
- TUFTED/INLAID PRACTICE FOOTBALL STRIPING - COLOR: WHITE
- TUFTED/INLAID 9V9 SOCCER TICK MARKS - COLOR: RED

FIELD 7:
- TUFTED/INLAID FOOTBALL FIELD STRIPING - COLOR: WHITE
- TUFTED/INLAID SOCCER STRIPING - COLOR: YELLOW
- TUFTED/INLAID UNIFIED LACROSSE STRIPING - COLOR: BLUE
- TUFTED/INLAID 9V9 SOCCER TICK MARKS - COLOR: RED

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SITE PLAN - LAYOUT AND LANDSCAPING

GREENWICH HIGH SCHOOL
SYNTHETIC TURF FIELDS 6 & 7 REPLACEMENT
10 HILLSIDE RD
GREENWICH, CONNECTICUT

DESIGNED	DRAWN	CHECKED
CEF	CEF	RRC

SCALE: 1"=30'
DATE: APRIL 8, 2019
PROJECT NO.: 5062-11

SHEET NAME: LA

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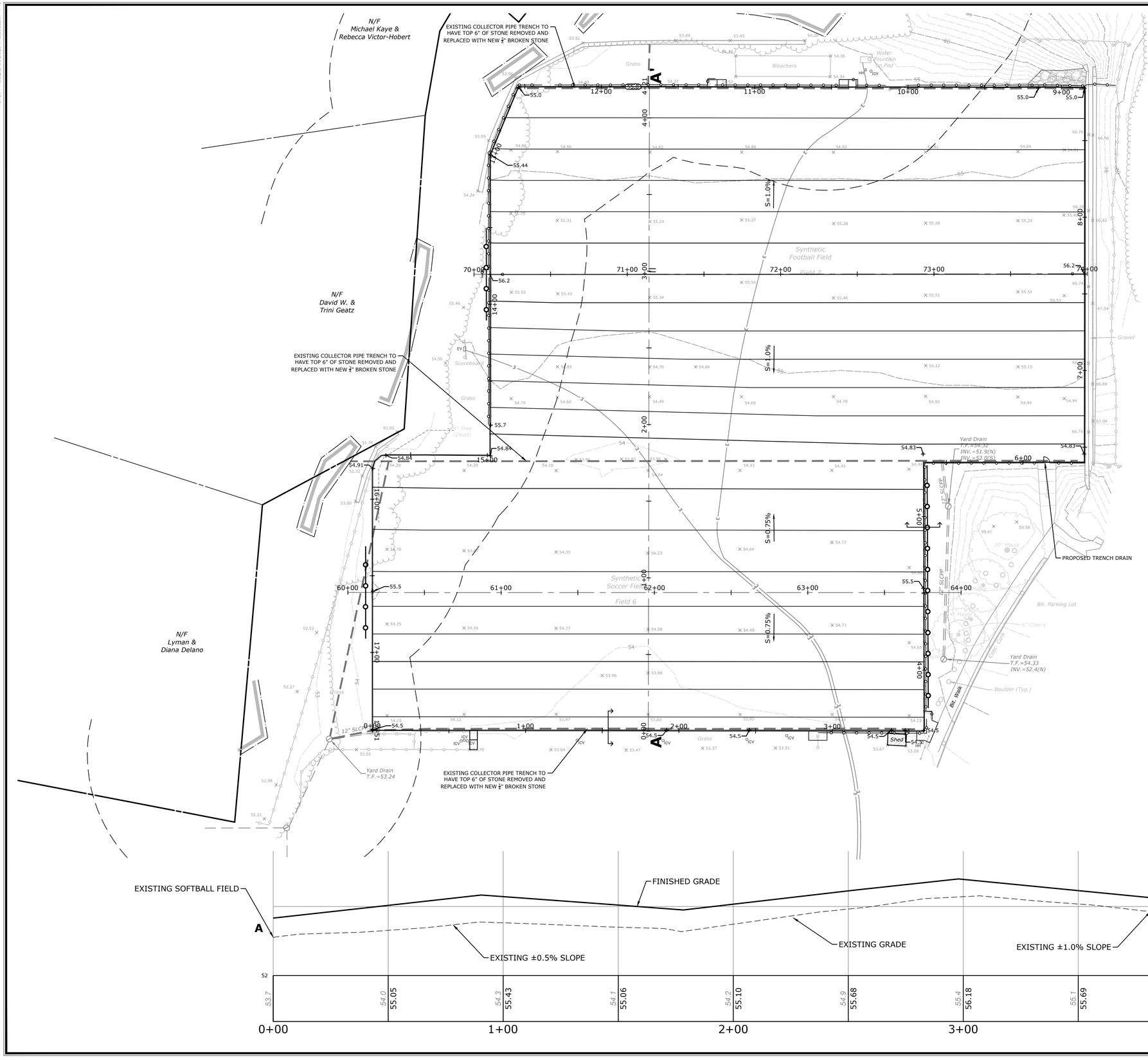

GRADING & UTILITY NOTES:

1. PROPOSED CONTOURS ARE SHOWN IN TWO TENTHS OF A FOOT INTERVALS
2. ACCESSIBLE ROUTE SLOPES SHALL BE 1:20 (5%) OR LESS AND THE CROSS SLOPES SHALL NOT EXCEED 1:50 (2%). CHANGES IN LEVELS SHALL NOT BE GREATER THAN 1/2 INCH, AND SLOPES SHALL NOT BE GREATER THAN 1:20 UNLESS RAMPS OR LIFTS ARE PROVIDED.
3. ALL RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1:12. ALL RAMPS, EXCLUDING SIDEWALK DROP RAMPS, SHALL HAVE HANDRAILS ON BOTH SIDES.
4. ALL RAMP LANDINGS SHALL BE A MINIMUM OF 4'X4' CLEAR WITH A MAXIMUM SLOPE AND CROSS-PITCH OF 2%.
5. TOP OF CURB (TC) AND BOTTOM OF CURB (BC) REFER TO FINISHED GRADE ELEVATIONS.
6. EARTHWORK VOLUMES
   CUT=
   FILL=
   NET FILL=

GRADING LEGEND

×70.5	EXISTING SPOT ELEVATION
+70.5	PROPOSED SPOT ELEVATION
——70——	EXISTING CONTOUR
124.4	PROPOSED CONTOUR
— · — · —	CONTRACT LIMIT LINE

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DESCRIPTION	DATE	BY

SITE PLAN - GRADING & UTILITIES

GREENWICH HIGH SCHOOL
SYNTHETIC TURF FIELDS 6 & 7 REPLACEMENT
10 HILLSIDE RD
GREENWICH, CONNECTICUT

CEF	CEF	RRC
DESIGNED	DRAWN	CHECKED

SCALE	1"=30'
DATE	APRIL 8, 2019
PROJECT NO.	5062-11
SHEET NO.	06 OF ----
SHEET NAME	GU

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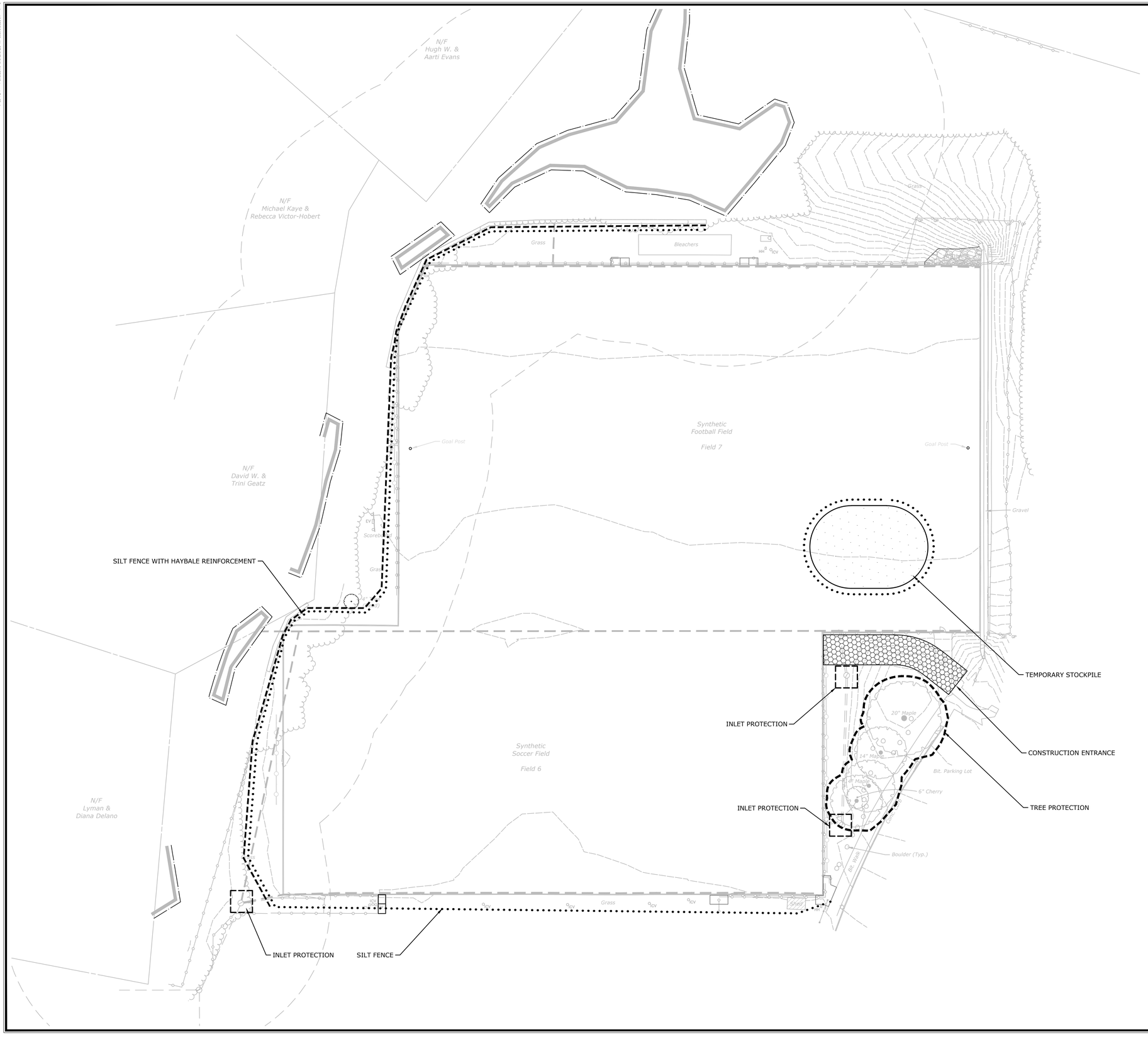

EROSION AND SEDIMENT CONTROL CONSTRUCTION SEQUENCE

1. SEDIMENT FILTER FENCE AND HAYBALE REINFORCEMENT TO BE INSTALLED PRIOR TO GRUBBING STUMPS, STRIPPING OF TOPSOIL, AND MASS EARTHWORK OPERATIONS.
2. CONSTRUCTION ENTRANCE PAD SHALL BE INSTALLED PRIOR TO ANY REMOVAL OF MATERIALS FROM THE SITE OR DELIVERY TO THE SITE.
3. INLET PROTECTION SHALL BE INSTALLED UPON COMPLETION OF EACH GRATE FRAMED STRUCTURE.
4. ALL SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AFTER EACH RAIN STORM EVENT OVER 0.5" OF RAIN OR ONCE EVERY TWO WEEKS.
5. ALL SEDIMENTATION AND EROSION CONTROLS SHALL BE MODIFIED AS REQUIRED PER THE SITE UTILIZATION PLANS.

SOIL EROSION AND SEDIMENT CONTROL NARRATIVE

SEDIMENT AND EROSION CONTROL MEASURES AS DEPICTED ON THESE PLANS AND DESCRIBED WITHIN THE SEDIMENT AND EROSION CONTROL NARRATIVE SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT COVER AND STABILIZATION IS ESTABLISHED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL CONFORM TO THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, CONNECTICUT - 2002", TOWN REQUIREMENTS, AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL.

1.PURPOSE AND DESCRIPTION OF PROJECT
A. THE RENOVATION OF EXISTING FIELDS.
B. DISTURBED AREA: ±3.5 ACRES

2.IDENTIFICATION OF EROSION AND SEDIMENT CONTROL CONCERNS
A. FILLS ASSOCIATED WITH THE CONSTRUCTION OF IMPROVEMENTS.
B. PROTECTION OF EXISTING AND PROPOSED STORM DRAINAGE SYSTEM.
C. PROTECTION OF ONSITE WETLAND AREAS.

3.IDENTIFICATION OF OTHER POSSIBLE PERMITS
- PLANNING AND ZONING SPECIAL PERMIT, AND INLAND WETLANDS
- BUILDING PERMITS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

4.TENTATIVE CONSTRUCTION SCHEDULE
TENTATIVE START DATE:SUMMER 2019
TENTATIVE COMPLETION DATE:FALL 2019

EROSION CONTROL LEGEND

- CONSTRUCTION ENTRANCE (CE)
- SEDIMENT FILTER FENCE
- HAYBALE REINFORCEMENT
- TEMPORARY STOCKPILE SURROUND WITH SEDIMENT FILTER FENCE
- INLET PROTECTION (IP)
- TREE PROTECTION

N
W E
S
0' 15' 30'
0 1/2" 1"

MILONE & MACBROOM
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMINC.COM

DESCRIPTION	DATE	BY

SEDIMENT AND EROSION CONTROL PLAN

GREENWICH HIGH SCHOOL
SYNTHETIC TURF FIELDS 6 & 7 REPLACEMENT
10 HILLSIDE RD
GREENWICH, CONNECTICUT

CEF	CEF	RRC
DESIGNED	DRAWN	CHECKED

SCALE: 1"=30'
DATE: APRIL 8, 2019
PROJECT NO.: 5062-11

SHEET NAME: SE-1

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SEDIMENT & EROSION CONTROL SPECIFICATIONS

GENERAL:

THESE GUIDELINES SHALL APPLY TO ALL WORK CONSISTING OF ANY AND ALL TEMPORARY AND/OR PERMANENT MEASURES TO CONTROL WATER POLLUTION AND SOIL EROSION, AS MAY BE REQUIRED, DURING THE CONSTRUCTION OF THE PROJECT.

IN GENERAL, ALL CONSTRUCTION ACTIVITIES SHALL PROCEED IN SUCH A MANNER SO AS NOT TO POLLUTE ANY WETLANDS, WATERCOURSE, WATERBODY, AND CONDUIT CARRYING WATER, ETC. THE CONTRACTOR SHALL LIMIT, INSOFAR AS POSSIBLE, THE SURFACE AREA OF EARTH MATERIALS EXPOSED BY CONSTRUCTION METHODS AND IMMEDIATELY PROVIDE PERMANENT AND TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT WETLANDS, WATERCOURSES, AND WATER BODIES, AND TO PREVENT, INSOFAR AS POSSIBLE, EROSION ON THE SITE.

LAND GRADING

GENERAL:

1. THE RESHAPING OF THE GROUND SURFACE BY EXCAVATION AND FILLING OR A COMBINATION OF BOTH, TO OBTAIN PLANNED GRADES, SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING CRITERIA:

   a. THE CUT FACE OF EARTH EXCAVATION SHALL NOT BE STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1).
   b. THE PERMANENT EXPOSED FACES OF FILLS SHALL NOT BE STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1).
   c. THE CUT FACE OF ROCK EXCAVATION SHALL NOT BE STEEPER THAN ONE HORIZONTAL TO FOUR VERTICAL (1:4).
   d. PROVISION SHOULD BE MADE TO CONDUCT SURFACE WATER SAFELY TO STORM DRAINS TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FILL SLOPES
   e. EXCAVATIONS SHOULD NOT BE MADE SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTY WITHOUT PROTECTING SUCH PROPERTY FROM EROSION, SLIDING, SETTLING, OR CRACKING.
   f. NO FILL SHOULD BE PLACED WHERE IT WILL SLIDE OR WASH UPON THE PREMISES OF ANOTHER OWNER OR UPON ADJACENT WETLANDS, WATERCOURSES, OR WATER BODIES.
   g. PRIOR TO ANY RE-GRADING, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE ENTRANCE TO THE WORK AREA IN ORDER TO REDUCE MUD AND OTHER SEDIMENTS FROM LEAVING THE SITE.

TOPSOILING

GENERAL:

1. TOPSOIL SHALL BE SPREAD OVER ALL EXPOSED AREAS IN ORDER TO PROVIDE A SOIL MEDIUM HAVING FAVORABLE CHARACTERISTICS FOR THE ESTABLISHMENT, GROWTH, AND MAINTENANCE OF VEGETATION.
2. UPON ATTAINING FINAL SUBGRADES, SCARIFY SURFACE TO PROVIDE A GOOD BOND WITH TOPSOIL.
3. REMOVE ALL LARGE STONES, TREE LIMBS, ROOTS AND CONSTRUCTION DEBRIS.
4. APPLY LIME ACCORDING TO SOIL TEST OR AT THE RATE OF TWO (2) TONS PER ACRE.

MATERIAL:

1. TOPSOIL SHOULD HAVE PHYSICAL, CHEMICAL, AND BIOLOGICAL CHARACTERISTICS FAVORABLE TO THE GROWTH OF PLANTS.
2. TOPSOIL SHOULD HAVE A SANDY OR LOAMY TEXTURE.
3. TOPSOIL SHOULD BE RELATIVELY FREE OF SUBSOIL MATERIAL AND MUST BE FREE OF STONES (OVER 1" IN DIAMETER), LUMPS OF SOIL, ROOTS, TREE LIMBS, TRASH, OR CONSTRUCTION DEBRIS. IT SHOULD BE FREE OF ROOTS OR RHIZOMES SUCH AS THISTLE, NUTGRASS, AND QUACKGRASS.
4. AN ORGANIC MATTER CONTENT OF SIX PERCENT (6%) IS REQUIRED. AVOID LIGHT COLORED SUBSOIL MATERIAL.
5. SOLUBLE SALT CONTENT OF OVER 500 PARTS PER MILLION (PPM) IS LESS SUITABLE. AVOID TIDAL MARSH SOILS BECAUSE OF HIGH SALT CONTENT AND SULFUR ACIDITY.
6. THE pH SHOULD BE MORE THAN 6.0. IF LESS, ADD LIME TO INCREASE pH TO AN ACCEPTABLE LEVEL.

APPLICATION
AVOID SPREADING WHEN TOPSOIL IS WET OR FROZEN.
SPREAD TOPSOIL UNIFORMLY TO A DEPTH OF AT LEAST SIX INCHES (6"), OR TO THE DEPTH SHOWN ON THE LANDSCAPING PLANS.

TEMPORARY VEGETATIVE COVER

GENERAL:

1. TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED ON ALL UNPROTECTED AREAS THAT PRODUCE SEDIMENT, AREAS WHERE FINAL GRADING HAS BEEN COMPLETED, AND AREAS WHERE THE ESTIMATED PERIOD OF BARE SOIL EXPOSURE IS LESS THAN 12 MONTHS. TEMPORARY VEGETATIVE COVER SHALL BE APPLIED IF AREAS WILL NOT BE PERMANENTLY SEEDED BY SEPTEMBER 1.

SITE PREPARATION:

1. INSTALL REQUIRED SURFACE WATER CONTROL MEASURES.
2. REMOVE LOOSE ROCK, STONE, AND CONSTRUCTION DEBRIS FROM AREA.
3. APPLY LIME ACCORDING TO SOIL TEST OR AT A RATE OF ONE (1) TON OF GROUND DOLOMITIC LIMESTONE PER ACRE (5 LBS. PER 100 SQ. FT.).
4. APPLY FERTILIZER ACCORDING TO SOIL TEST OR AT THE RATE OF 300 LBS. OF 10-10-10 PER ACRE (7 LBS. PER 1,000 SQ. FT.) AND SECOND APPLICATION OF 200 LBS. OF 10-10-10- (5 LBS. PER 1,000 SQ. FT.) WHEN GRASS IS FOUR INCHES (4") TO SIX INCHES (6") HIGH. APPLY ONLY WHEN GRASS IS DRY.
5. UNLESS HYDROSEEDED, WORK IN LIME AND FERTILIZER TO A DEPTH OF FOUR (4") INCHES USING A DISK OR ANY SUITABLE EQUIPMENT.
6. TILLAGE SHOULD ACHIEVE A REASONABLY UNIFORM LOOSE SEEDBED. WORK ON CONTOUR IF SITE IS SLOPING.

ESTABLISHMENT:

1. SELECT APPROPRIATE SPECIES FOR THE SITUATION. NOTE RATES AND SEEDING DATES (SEE VEGETATIVE COVER SELECTION & MULCHING SPECIFICATION BELOW).
2. APPLY SEED UNIFORMLY ACCORDING TO THE RATE INDICATED BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION.
3. UNLESS HYDROSEEDED, COVER RYEGRASS SEEDS WITH NOT MORE THAN 1/4 INCH OF SOIL USING SUITABLE EQUIPMENT.
4. MULCH IMMEDIATELY AFTER SEEDING IF REQUIRED. (SEE VEGETATIVE COVER SELECTION & MULCHING SPECIFICATION BELOW.) APPLY STRAW OR HAY MULCH AND ANCHOR TO SLOPES GREATER THAN 3% OR WHERE CONCENTRATED FLOW WILL OCCUR.

PERMANENT VEGETATIVE COVER

GENERAL:

1. PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED AS VARIOUS SECTIONS OF THE PROJECT ARE COMPLETED IN ORDER TO STABILIZE THE SOIL, REDUCE DOWNSTREAM DAMAGE FROM SEDIMENT AND RUNOFF, AND TO ENHANCE THE AESTHETIC NATURE OF THE SITE. IT WILL BE APPLIED TO ALL CONSTRUCTION AREAS SUBJECT TO EROSION WHERE FINAL GRADING HAS BEEN COMPLETED AND A PERMANENT COVER IS NEEDED.

SITE PREPARATION:

2. INSTALL REQUIRED SURFACE WATER CONTROL MEASURES.
3. REMOVE LOOSE ROCK, STONE, AND CONSTRUCTION DEBRIS FROM AREA.
4. PERFORM ALL PLANTING OPERATIONS PARALLEL TO THE CONTOURS OF THE SLOPE.
5. APPLY TOPSOIL AS INDICATED ELSEWHERE HEREIN.
6. APPLY FERTILIZER ACCORDING TO SOIL TEST OR:

SPREAD SEEDING: WORK DEEPLY IN SOIL, BEFORE SEEDING, 300 LBS. OF 10-10-10 FERTILIZER PER ACRE (7 LBS. PER 1,000 SQ. FT.); THEN SIX (6) TO EIGHT (8) WEEKS LATER, APPLY ON THE SURFACE AN ADDITIONAL 300 LBS. OF 10-10-10 FERTILIZER PER ACRE. AFTER SEPTEMBER 1, TEMPORARY VEGETATIVE COVER SHALL BE APPLIED.

FALL SEEDING: WORK DEEPLY IN SOIL, BEFORE SEEDING, 600 LBS. OF 10-10-10 FERTILIZER PER ACRE (14 LBS. PER 1,000 SQ. FT.).

VEGETATIVE COVER SELECTION & MULCHING

TEMPORARY VEGETATIVE COVER:

PERENNIAL RYEGRASS 3 LBS./1,000 SQ.FT.
(IOLUIUM PERENNE)

PERMANENT VEGETATIVE COVER:

GENERAL SEEDING:

10% AMERICAN KENTUCKY BLUEGRASS
10% VICTORY II CHEWINGS FESCUE
20% *JASPER II CREEPING RED FESCUE
20% SPARTAN HARD FESCUE
30% *CUTTER PERENNIAL RYE GRASS

*HIGH ENDOPHYTE

SEEDING RATE - 220 POUNDS PER 43,560 SF

TEMPORARY MULCHING:

STRAY OR HAY 70-90 LBS./1,000 SQ.FT.
(TEMPORARY VEGETATIVE AREAS)

WOOD FIBER IN HYDROMULCH SLURRY 25-50 LBS./1,000 SQ. FT.

ESTABLISHMENT:

1. SMOOTH AND FIRM SEEDBED WITH CULTIPACKER OR OTHER SIMILAR EQUIPMENT PRIOR TO SEEDING (EXCEPT WHEN HYDROSEEDING).
2. SELECT ADAPTED SEED MIXTURE FOR THE SPECIFIC SITUATION. NOTE RATES AND THE SEEDING DATES (SEE VEGETATIVE COVER SELECTION & MULCHING SPEC. BELOW).
3. APPLY SEED UNIFORMLY ACCORDING TO RATE INDICATED, BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION.
4. COVER GRASS AND LEGUME SEED WITH NOT MORE THAN 1/4 INCH OF SOIL WITH SUITABLE EQUIPMENT (EXCEPT WHEN HYDROSEEDING).
5. MULCH IMMEDIATELY AFTER SEEDING, IF REQUIRED, ACCORDING TO TEMPORARY MULCHING SPECIFICATIONS. (SEE VEGETATIVE COVER SELECTION & MULCHING SPECIFICATION BELOW).
6. USE PROPER INOCULANT ON ALL LEGUME SEEDINGS, USE FOUR (4) TIMES NORMAL RATES WHEN HYDROSEEDING.
7. USE SOD WHERE THERE IS A HEAVY CONCENTRATION OF WATER AND IN CRITICAL AREAS WHERE IT IS IMPORTANT TO GET A QUICK VEGETATIVE COVER TO PREVENT EROSION.

MAINTENANCE:

1. TEST FOR SOIL ACIDITY EVERY THREE (3) YEARS AND LIME AS REQUIRED.
2. ON SITES WHERE GRASSES PREDOMINATE, BROADCAST ANNUALLY 500 POUNDS OF 10-10-10 FERTILIZER PER ACRE (12 LBS. PER 1,000 SQ. FT.) OR AS NEEDED ACCORDING TO ANNUAL SOIL TESTS.
3. ON SITES WHERE LEGUMES PREDOMINATE, BROADCAST EVERY THREE (3) YEARS OR AS INDICATED BY SOIL TEST 300 POUNDS OF 0-20-20 OR EQUIVALENT PER ACRE (8 LBS PER 1,000 SQ. FT.).

EROSION CHECKS

GENERAL:

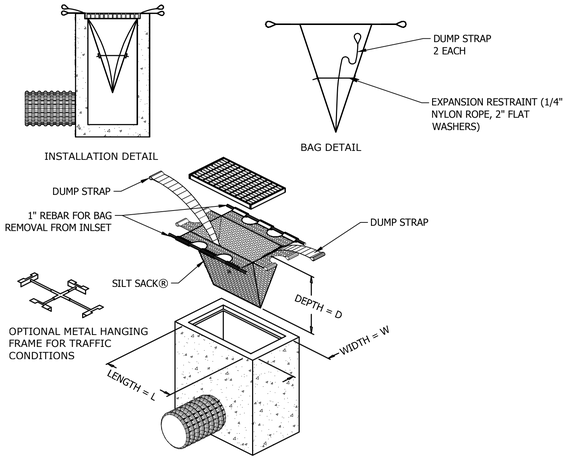
1. TEMPORARY PERVIOUS BARRIERS USING BALES OF HAY OR STRAW, HELD IN PLACE WITH STAKES DRIVEN THROUGH THE BALES AND INTO THE GROUND OR GEOTEXTILE FABRIC FASTENED TO A FENCE POST AND BURIED INTO THE GROUND, SHALL BE INSTALLED AND MAINTAINED AS REQUIRED TO CHECK EROSION AND REDUCE SEDIMENTATION.

CONSTRUCTION:

1. BALES SHOULD BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED INTO THE SOIL A MINIMUM OF FOUR (4") INCHES.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY WOOD STAKES OR REINFORCEMENT BARS DRIVEN THROUGH THE BALES AND INTO THE GROUND. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD THE PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. GEOTEXTILE FABRIC SHALL BE SECURELY ANCHORED AT THE TOP OF A THREE FOOT (3') HIGH FENCE AND BURIED A MINIMUM OF FOUR INCHES (4") TO THE SOIL. SEAMS BETWEEN SECTIONS OF FILTER FABRIC SHALL OVERLAP A MINIMUM OF TWO FEET (2').

INSTALLATION AND MAINTENANCE:

1. BALED HAY EROSION BARRIERS SHALL BE INSTALLED AT ALL STORM SEWER INLETS.
2. BALED HAY EROSION BARRIERS AND GEOTEXTILE FENCE SHALL BE INSTALLED AT THE LOCATION INDICATED ON THE PLAN AND IN ADDITIONAL AREAS AS MAY BE DEEMED APPROPRIATE DURING CONSTRUCTION.
3. ALL EROSION CHECKS SHALL BE MAINTAINED UNTIL ADJACENT AREAS ARE STABILIZED.
4. INSPECTION SHALL BE FREQUENT (AT MINIMUM MONTHLY AND BEFORE AND AFTER HEAVY RAIN) AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. EROSION CHECKS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORMWATER FLOW OR DRAINAGE.



1 **INLET PROTECTION**
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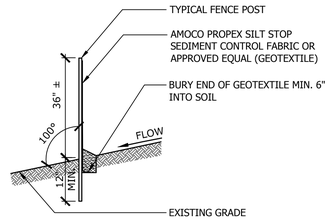

2 **SEDIMENT FILTER FENCE**
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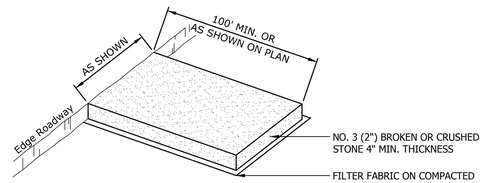
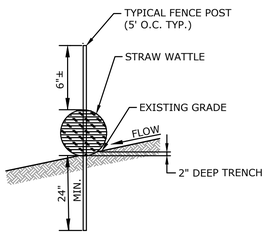


NOTE: CONSTRUCTION ENTRANCE PAD SHALL BE INSTALLED AND MAINTAINED DURING OPERATIONS WHICH PROMOTE VEHICULAR TRACKING OF MUD

3 **CONSTRUCTION ENTRANCE PAD**
N.T.S. P-AT-5062.11-102



4 **WATTLE ON BARE SOIL**
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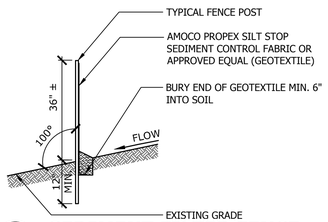
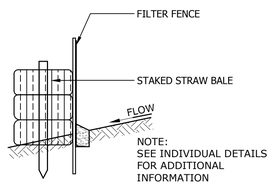


5 **SEDIMENT FILTER FENCE**
NOT TO SCALE P-AT-5062.11-21



6 **SEDIMENT FILTER FENCE AND HAYBALE**
NOT TO SCALE P-AT-5062.11-24

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CHESHIRE, CT 06410
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DESCRIPTION	DATE	BY

SEDIMENT AND EROSION CONTROL DETAILS AND SPECIFICATIONS

GREENWICH HIGH SCHOOL
SYNTHETIC TURF FIELDS 6 & 7 REPLACEMENT

10 HILLSIDE RD
GREENWICH, CONNECTICUT

CEF	CEF	RRC
DESIGNED	DRAWN	CHECKED

SCALE: 1"=30'

DATE: APRIL 8, 2019

PROJECT NO.: 5062-11

SHEET NAME: SE-2

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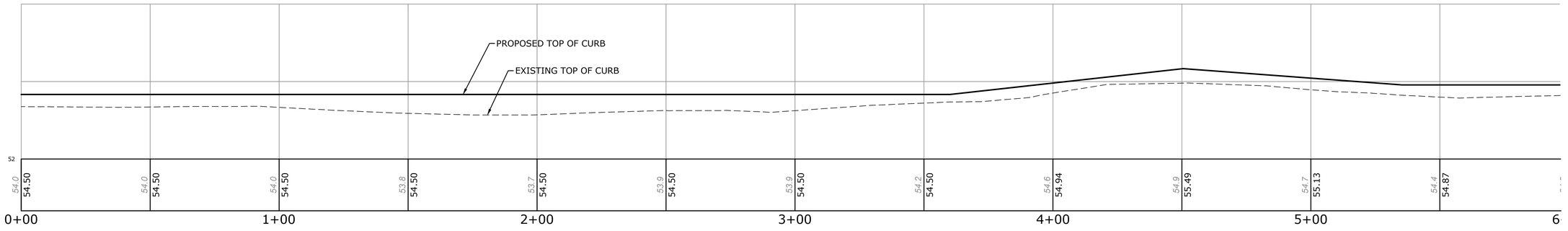

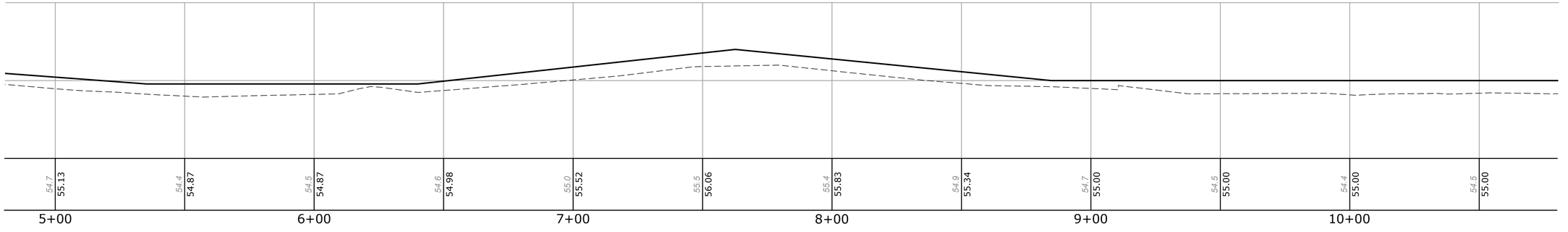

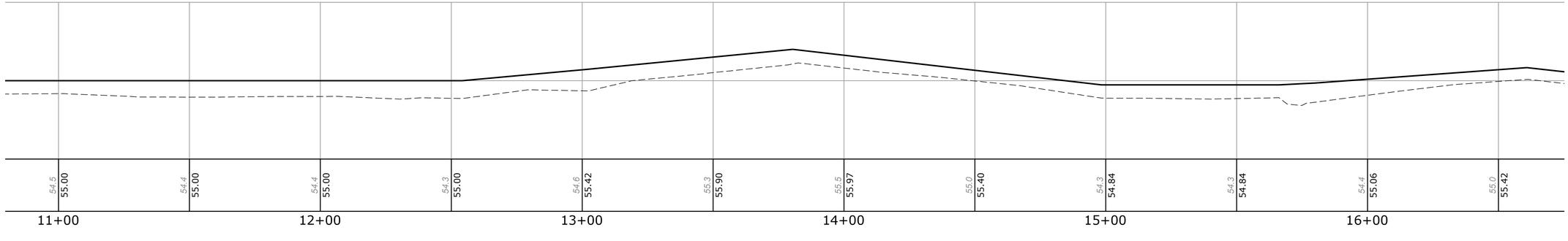

PROFILE VIEW
SCALE: 1"=20'(H), 1"=2'(V)

MILONE & MACBROOM
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMINC.COM

DESCRIPTION	DATE	BY

CURB PROFILES

GREENWICH HIGH SCHOOL
SYNTHETIC TURF FIELDS 6 & 7 REPLACEMENT
10 HILLSIDE RD
GREENWICH, CONNECTICUT

CEF	CEF	RRC
DESIGNED	DRAWN	CHECKED

SCALE: AS NOTED
DATE: APRIL 8, 2019
PROJECT NO.: 5062-11
SHEET NO.:

SHEET NAME: PRO

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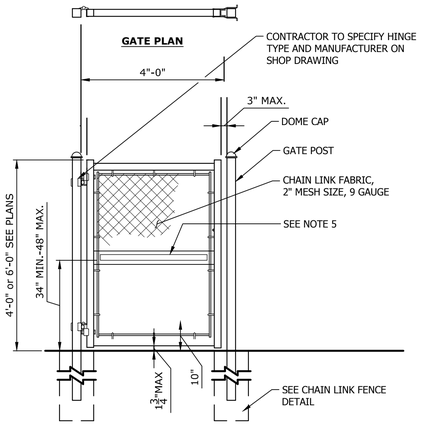
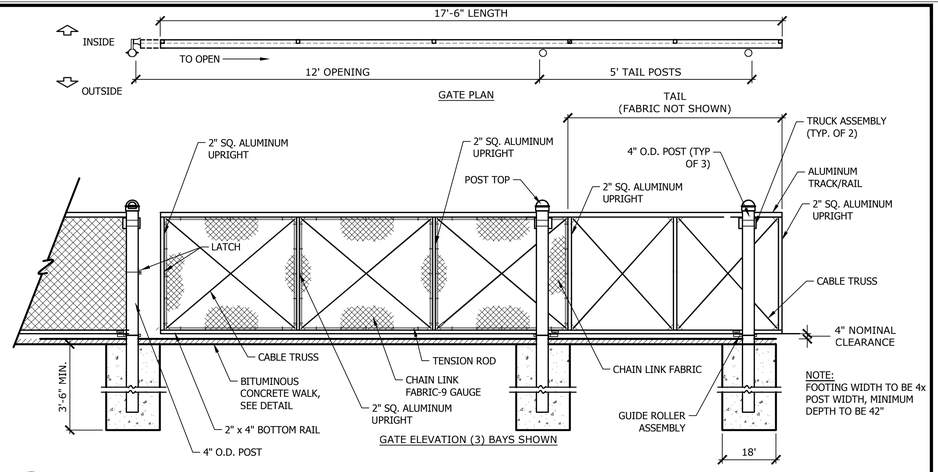


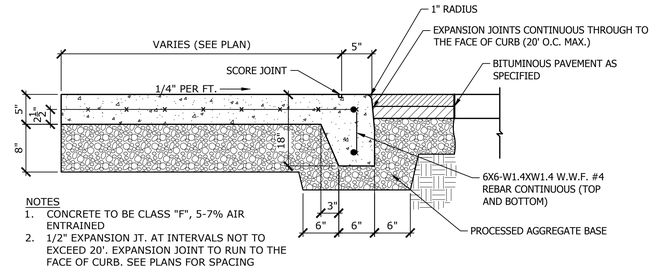
5 SINGLE CHAIN LINK SWING GATE

NOT TO SCALE P-AT-5062.11-75



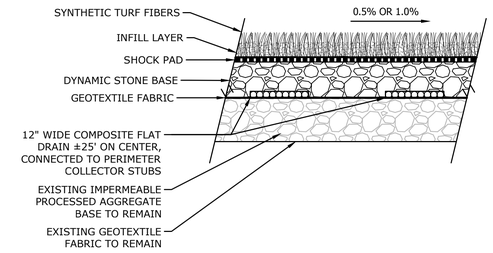
10 ALUMINUM CANTILEVERED SLIDE GATE

NOT TO SCALE P-AT-5062.11-20



2 FLUSH INTEGRAL CONCRETE SIDEWALK & CURB

N.T.S. P-AT-5062.11-29



3 SYNTHETIC TURF SECTION

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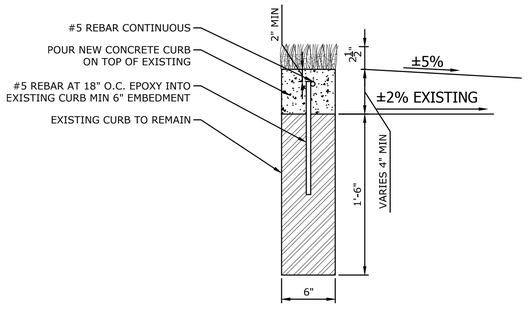
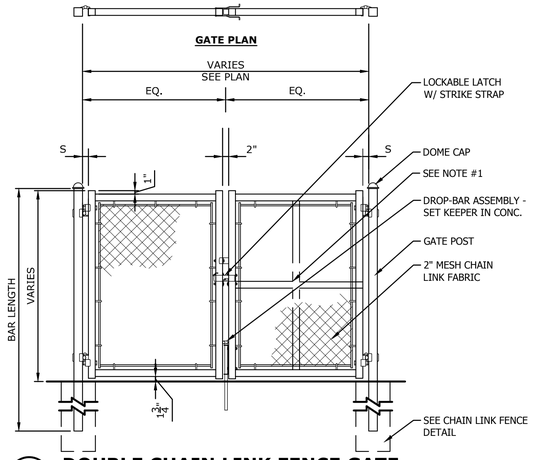


4 P.I.P. CONCRETE CURB ON TOP OF EXISTING CONC. CURB

NOT TO SCALE P-AT-5062.11-033163-21



6 DOUBLE CHAIN LINK FENCE GATE

NOT TO SCALE P-AT-5062.11-323113-24

DOUBLE LEAF GATES		
OPENING	GATE POSTS	HINGE SPACE (S)
FACE TO FACE	RND SIZES	POST TO UPRIGHT
8'-0" THROUGH 12'-0"	2 7/8" OR 2.875" OD	ROUND GATE POSTS: 2 7/8"
>12'-0"	SHOP DRAWING	SHOP DRAWING

NOTES:

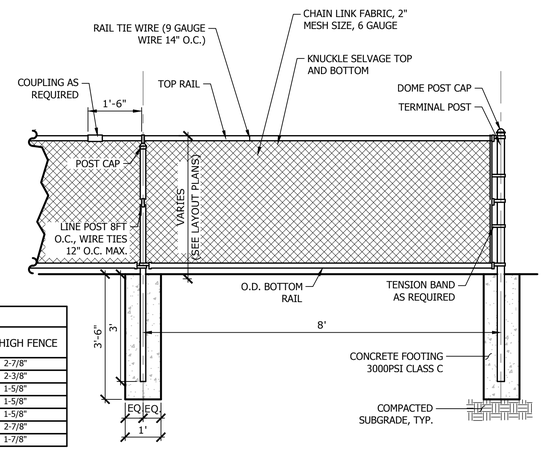
1. CENTER UPRIGHT REQUIRED ON GATE LEAVES 8'-0" & WIDER. CENTER RAIL REQUIRED ON GATE LEAVES 10'-0" & HIGHER.
2. MATERIALS AND METHOD OF CONSTRUCTION SHALL CONFORM TO CHAIN LINK FENCE DETAIL ON THIS SHEET
3. CONTRACTOR TO SUBMIT SHOP DRAWINGS
4. ALL CHAIN LINK POSTS, RAILS, FABRIC, AND HARDWARE TO HAVE THERMALLY FUSED AND BONDED - SEE SPECS. COLOR: BLACK
5. GATE SHALL BE OPENABLE WITH A FORCE NOT EXCEEDING 5 LBS. AND AT THE BOTTOM 10" SHALL HAVE A SMOOTH SURFACE.

NOTES:

1. ALL CHAIN LINK POSTS, RAILS, FABRIC, AND HARDWARE TO BE THERMALLY FUSED AND BONDED - SEE SPECS. COLOR: BLACK
2. PROVIDE FABRIC SCREEN TO FENCES WHERE SHOWN ON THE PLAN -COLOR: BLACK BY AMERISTAR
3. INTERMEDIATE RAIL ONLY REQUIRED ON FENCE 8' OR GREATER IN HEIGHT

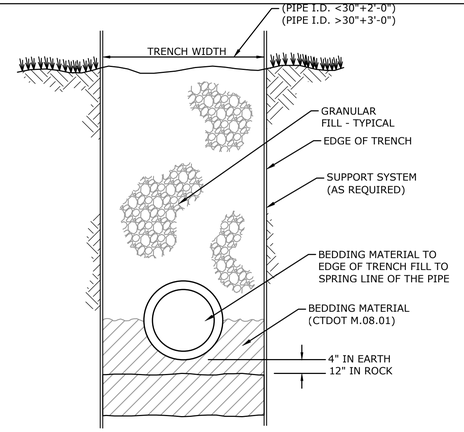
CHAIN LINK FENCE POST AND RAIL SIZING			
POST OR RAIL TYPE	4 FT HIGH FENCE	6 FT HIGH FENCE	8 FT HIGH FENCE
TERMINAL OR COMMON	2-3/8"	2-7/8"	2-7/8"
LINE POST	1-7/8"	2-3/8"	2-3/8"
TOP RAIL	1-5/8"	1-5/8"	1-5/8"
INTERMEDIATE RAIL	NONE	1-5/8"	1-5/8"
BOTTOM RAIL	1-5/8"	1-5/8"	1-5/8"
GATE POST	2-7/8"	2-7/8"	2-7/8"
GATE FRAME	1-7/8"	1-7/8"	1-7/8"

ALL POSTS TO BE ROUND



7 CHAIN LINK FENCE

NOT TO SCALE P-AT-5062.11-16



8 TYPICAL TRENCH SECTION STORM DRAINS AND CULVERTS

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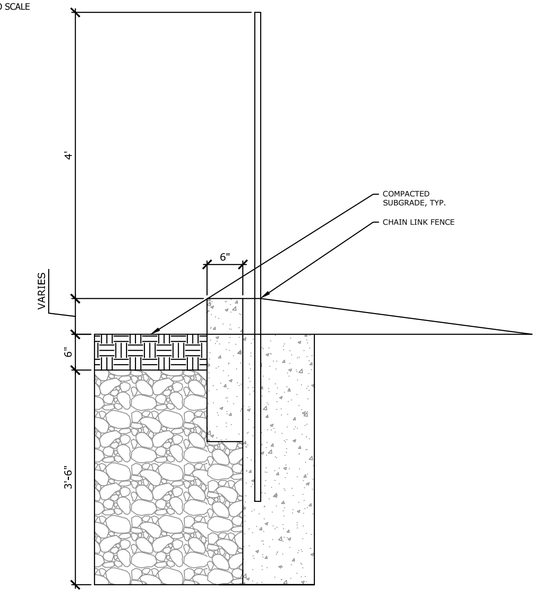

9 CHAIN LINK FENCE SLEEVED

NOT TO SCALE P-AT-5062.11-323113-26

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DESCRIPTION	DATE	BY

SITE DETAILS
GREENWICH HIGH SCHOOL
SYNTHETIC TURF FIELDS 6 & 7 REPLACEMENT
10 HILLSIDE RD
GREENWICH, CONNECTICUT

CEF	CEF	RRC
DESIGNED	DRAWN	CHECKED

AS NOTED (SCALE)
APRIL 8, 2019 (DATE)
5062-11 (PROJECT NO.)

SD-1
SHEET NAME

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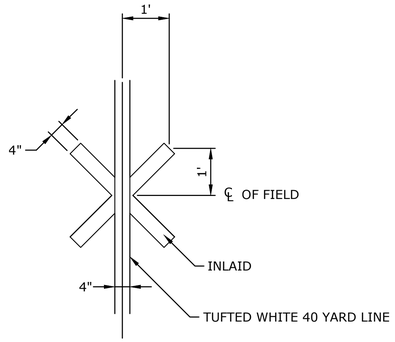
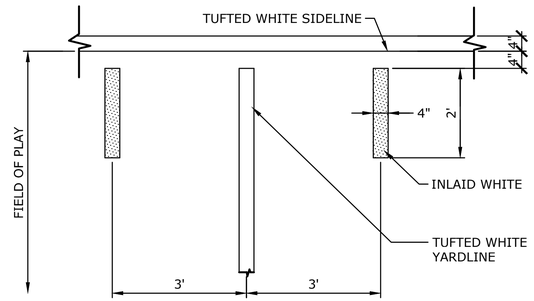


1 KICK-OFF MARKER

1/2" = 1'-0"

NOT TO SCALE

P-AT-5062.11-06



4 SIDELINE

NOT TO SCALE

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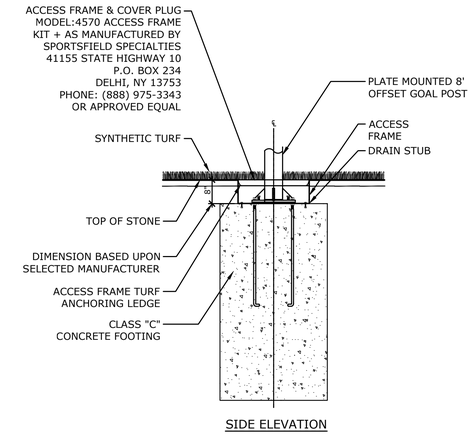


SIDE ELEVATION

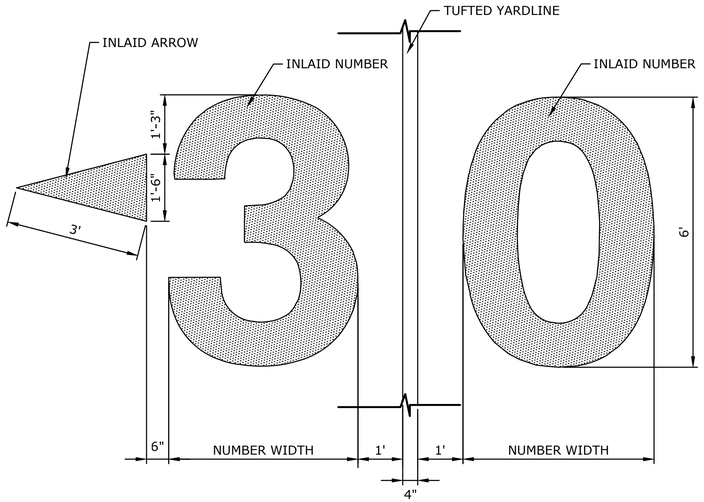
7 FOOTBALL GOAL POST ACCESS FRAME

NOT TO SCALE

P-AT-5062.11-19

NOTE:

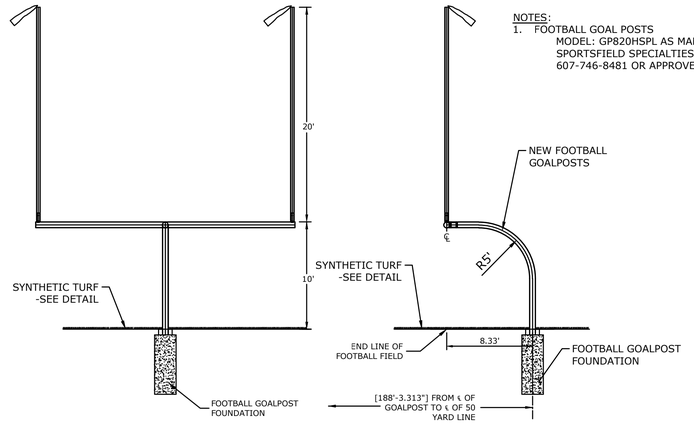
1. CONTRACTOR TO INSTALL FOOTBALL GOAL POST ACCESS FRAME IN ACCORDANCE TO MANUFACTURERS RECOMMENDATIONS.
2. ACCESS FRAME PLUG SHALL BE FLUSH WITH SURROUNDING TURF WHEN IN PLACE.
3. DETAIL TO BE COORDINATED WITH FOOTBALL GOAL POST MANUFACTURER
4. CONTRACTOR TO PROVIDE SHOP DRAWING FOR CONCRETE GOAL POST FOUNDATIONS.
5. FOUNDATION DESIGN SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT.
6. PIPE DRAIN STUB DIRECTLY INTO COLLECTOR PIPE TRENCH.



2 YARD LINE NUMBERS

NOT TO SCALE

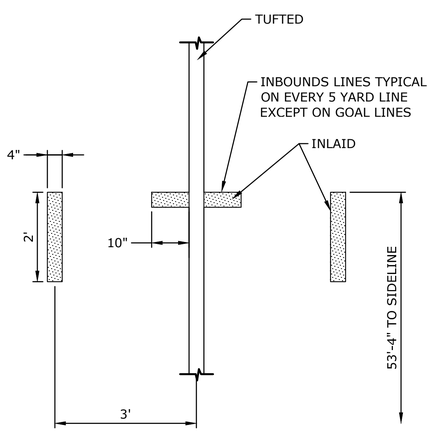
P-AT-5062.11-08



5 FOOTBALL GOAL POST

NOT TO SCALE

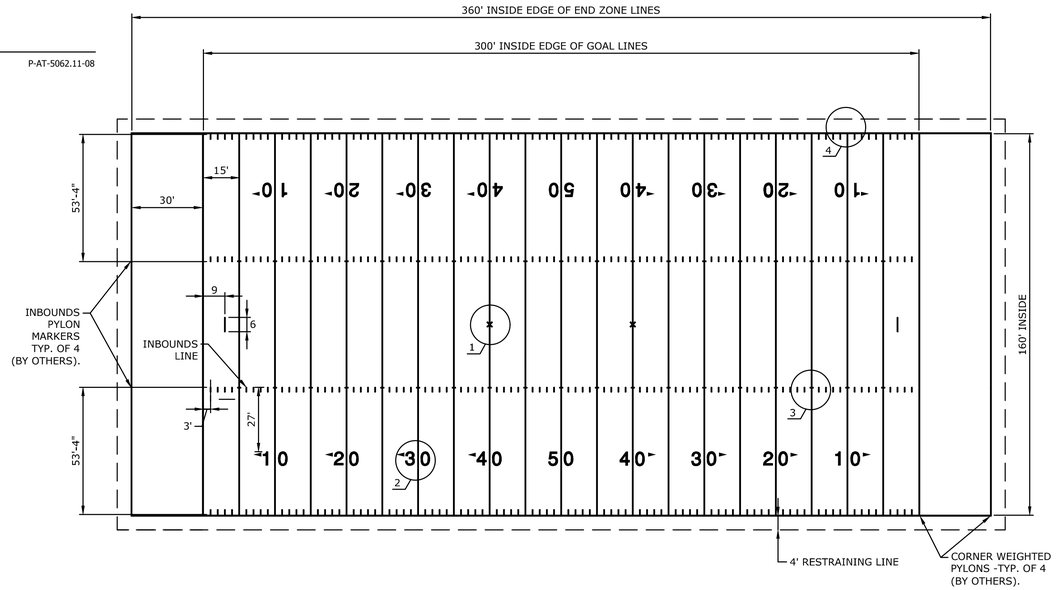
P-AT-5062.11-18



3 INBOUND LINE

NOT TO SCALE

P-AT-5062.11-07



6 FOOTBALL LAYOUT PLAN

1"= 30'

P-AT-5062.11-11

FOOTBALL FIELD LAYOUT NOTES

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS.
2. ALL LINE WORK IS TO BE LAID OUT WITH A TOLERANCE OF 1/4 INCH.
3. ALL YARD LINES SHALL BE 4 INCH, WHITE, TUFTED LINES. REFER TO DETAIL 1.
4. A 6 FOOT WHITE, TUFTED LINE WILL SURROUND THE ENTIRE PLAYING FIELD. REFER TO DETAIL 4.
5. 24 INCH SHORT YARD LINE EXTENSIONS, 4 INCHES FROM THE SIDELINES SHALL BE 4 INCHES WIDE, WHITE, INLAID LINES. REFER TO DETAIL 4.
6. THE TWO INBOUNDS LINES ARE 53 FEET 4 INCHES FROM THE SIDELINES. INBOUNDS LINES AND SHORT YARD LINE EXTENSIONS SHALL BE 24 INCHES LONG AND 4 INCHES WIDE, INLAID WHITE LINES. REFER TO DETAIL 3.
7. THE EXTRA POINT LINES ARE 6 FEET LONG, 4 INCHES WIDE, WHITE INLAID LINES AT THE CENTERLINE OF THE FIELD AND THE 3 YARD LINE ON EACH END OF THE FIELD. REFER TO PLAN FOR LOCATION.
8. WHITE YARD LINE NUMBERS MEASURING 6 FEET IN HEIGHT AND 4 FEET IN WIDTH WITH THE TOP OF THE NUMBERS 27 FEET FROM THE INBOUND LINES ARE INLAID. REFER TO DETAIL 2.
9. DIRECTIONAL ARROWS POINT TOWARD RESPECTIVE END ZONES AND ARE WHITE, PAINTED AS DIMENSIONED ON DETAIL 2. THERE ARE NO ARROWS ON THE 50 YARD LINE.
10. AN X WILL MARK THE SPOT OF THE KICKOFF AT THE 40 YARD LINE ON EACH END OF THE FIELD AND SHALL BE DIMENSIONED AS PER DETAIL 1. THE 40 YARD LINE IS WHITE INLAID AND THE EXTENSIONS TO FORM THE X ARE INLAID WHITE.
11. PYLON LOCATIONS AT THE INTERSECTIONS OF THE GOAL LINES AND THE END LINES WITH THE SIDELINES, AND THE END LINES AND THE EXTENSION OF THE INBOUNDS LINE SHALL BE 4 INCHES BY 4 INCHES. THE PYLONS WILL BE FREE-STANDING, WEIGHTED TYPE.

GENERAL FIELD STRIPING NOTES:

1. CONTRACTOR TO SUBMIT SCALED SHOP DRAWINGS FOR ALL FIELD STRIPING OPTIONS SHOWING DIMENSIONS, COLORS, TUFTED AND INLAID MARKINGS.
2. ALL FIELD STRIPING AND ASSOCIATED AREAS SHALL CONFORM TO CURRENT NFHS STANDARDS AND REQUIREMENTS.

FOOTBALL: ALL INLAID AND TUFTED LINES AND MARKINGS, COLOR: WHITE

MILONE & MACBROOM
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMINC.COM

DESCRIPTION	DATE	BY

SITE DETAILS

GREENWICH HIGH SCHOOL
SYNTHETIC TURF FIELDS 6 & 7 REPLACEMENT
10 HILLSIDE RD
GREENWICH, CONNECTICUT

CEF	CEF	RRC
DESIGNED	DRAWN	CHECKED

AS NOTED
SCALE

APRIL 8, 2019
DATE

5062-11
PROJECT NO.

SD-2
SHEET NAME

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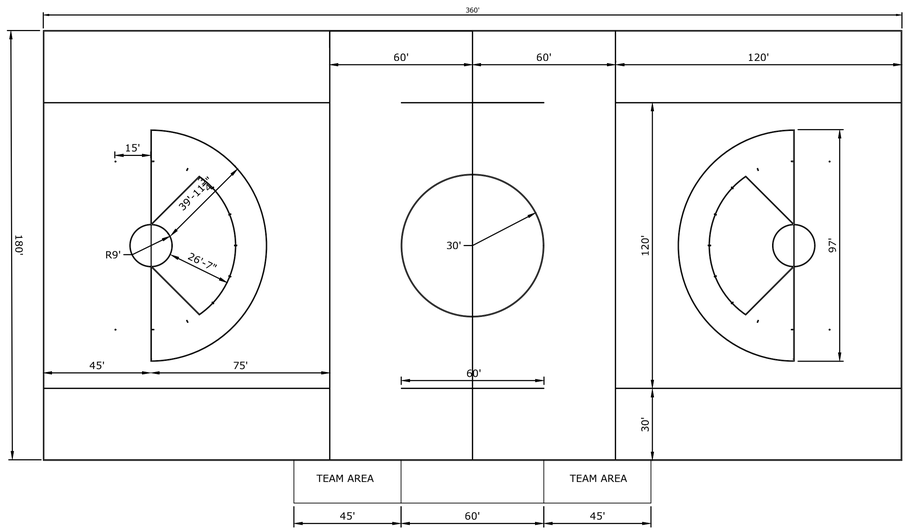
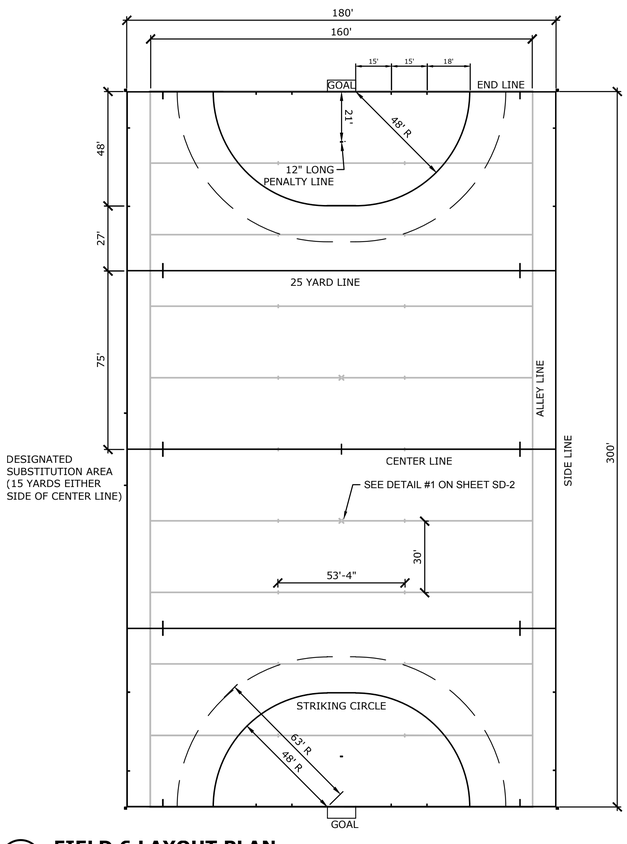


1 UNIFIED LACROSSE LAYOUT PLAN

1"=30'

P-AT-5062.11-116833-22



2 FIELD 6 LAYOUT PLAN

1"=30'

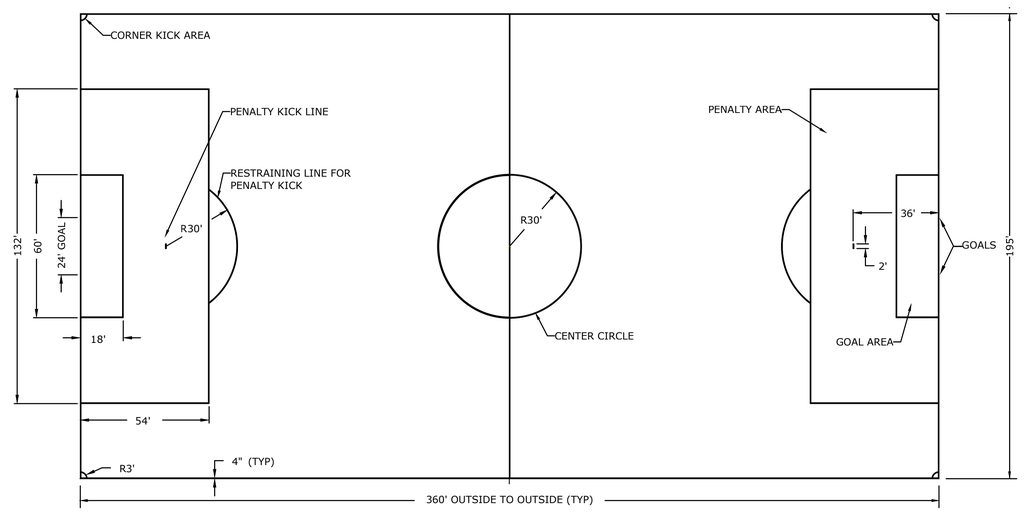
P-AT-5062.11-14

LACROSSE LAYOUT NOTES:

1. THE PLAYING AREA SHALL BE RECTANGULAR, 110 YARDS IN LENGTH AND 60 YARDS IN WIDTH, MARKED WITH WHITE OR CONTRASTING-COLORED LINES.
2. A BOLD WHITE OR CONTRASTING-COLORED LINE SHALL BE MARKED THROUGH THE CENTER OF THE FIELD PERPENDICULAR TO THE SIDELINES. THIS LINE SHALL BE KNOWN AS THE CENTER LINE AND SHALL CONTINUE THROUGH ANY LOGOS OR OTHER MARKINGS.
3. - THE GOAL LINES – SHALL BE 2 INCHES WIDE
   - THE CENTER LINE – SHALL BE 4 INCHES WIDE
   -ALL OTHER LINES SHALL BE BETWEEN 2 – 4 INCHES WIDE (ONCE SIZE IS DETERMINED IT SHOULD BE CONSISTENT ON ALL OTHER PORTIONS OF THE FIELD)
4. IN BOTH HALVES OF THE FIELD, A LINE 40 YARDS LONG SHALL BE MARKED, CENTERED ON THE GOAL AND PARALLEL TO AND 20 YARDS FROM EACH GOAL LINE. LINES SHALL BE DRAWN AT RIGHT ANGLES FROM THE TERMINAL POINTS OF THESE LINES TO CONNECT THEM WITH THE END LINES.

FIELD HOCKEY LAYOUT NOTES:

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS.
2. ALL LINE WORK IS TO BE LAID OUT WITH A TOLERANCE OF 1/4 INCH.
3. ALL LINES USED IN THE MEASUREMENTS OF THE FIELD ARE TO BE 3 INCHES WIDE. THE SIDELINES AND THE BACK LINES INCLUDING THE GOAL LINES ARE PART OF THE FIELD OF PLAY.
4. THE FIELD SHALL BE RECTANGULAR, 100 YARDS LONG BY 60 YARDS WIDE. THE CENTER-LINE AND THE 25 YARD LINES SHALL BE MARKED THROUGHOUT THEIR LENGTH.
5. A MARK 6 FEET IN LENGTH SHALL BE MADE ACROSS THE CENTER-LINE AND THE 25 YARD LINES, 15 FEET FROM THE OUTSIDE OF THE SIDELINES.
6. A MARK 1 FOOT IN LENGTH SHALL BE PLACED INSIDE THE FIELD OF PLAY ON EACH SIDELINE 16 YARDS FROM THE INSIDE OF THE BACK LINE.
7. THE FIELD SHALL BE MARKED INSIDE THE FIELD OF PLAY ON THE BACK LINES ON BOTH SIDES OF THE GOAL AT 5 AND 10 YARDS FROM THE OUTSIDE OF THE NEARER GOALPOST TO THE OUTSIDE EDGE OF EACH LINE, AND SHALL BE MARKED ON THE SIDELINES, 5.47 YARDS FROM THE NEARER CORNER FLAG. ALL THESE MARKS ARE 1 FOOT LONG AND 3 INCHES WIDE.
8. A SPOT 6 INCHES IN DIAMETER SHALL BE MARKED IN FROM THE CENTER OF EACH GOAL. THE CENTER OF THE SPOT SHALL BE 7 YARDS FROM THE INSIDE EDGE OF THE GOAL LINE.
9. FLAG POSTS OF NOT MORE THAN 5 OR LESS THAN 4 FEET IN HEIGHT, SHALL BE PLACED AT EACH CORNER OF THE FIELD AND AT THE 25 YARD -LINES. THOSE AT THE 25 YARD LINES SHALL BE 3 FEET OUTSIDE THE SIDELINES.



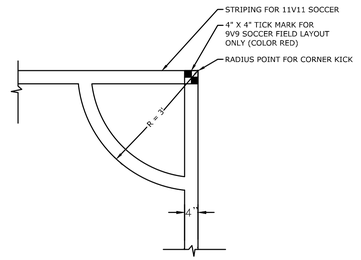
NOTES:

1. ALL LINES TO BE INLAID AND TUFTED.

3 11V11 SOCCER LAYOUT PLAN

1"=30'

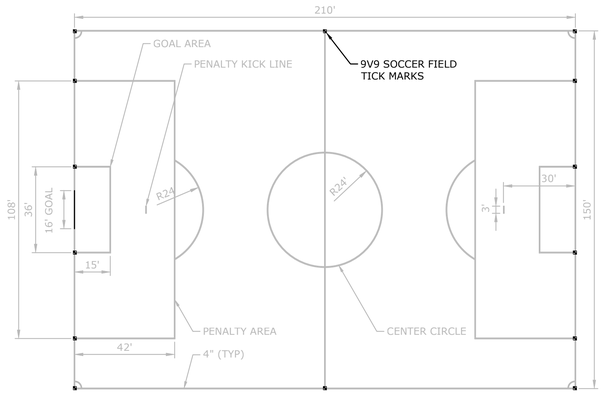
P-AT-5062.11-12



4 SOCCER CORNER KICK DETAIL

NOT TO SCALE

P-AT-5062.11-10



5 9V9 SOCCER FIELD LAYOUT

1"=30'

P-AT-5062.11-116833-23

11V11 SOCCER LAYOUT NOTES:

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS.
2. THE FIELD STRIPING IS TO BE 195' X 360'.
3. ALL LINE WORK IS TO BE LAID OUT WITH A TOLERANCE OF 1/4 INCH.
4. ALL SOCCER LINES ARE 4 INCH TUFTED OR INLAID COLOR: WHITE AS DIMENSIONED ON THE SOCCER LAYOUT PLAN.
5. THE SOCCER GOAL AREA IS 18 FEET BY 60 FEET, REFER TO PLAN FOR LOCATION.
6. THE SOCCER PENALTY AREA IS 54 FEET BY 132 FEET, REFER TO PLAN FOR LOCATION.
7. THE PENALTY MARK IS A 2 FOOT LINE, 4 INCHES WIDE, 36 FEET FROM THE GOAL LINE AND CENTERED ON THE GOAL. THE RESTRAINING LINE FOR PENALTY KICKS IS AN ARC 30 FEET FROM THIS MARK OUTSIDE OF THE PENALTY AREA. REFER TO PLAN FOR LOCATION.
8. THE HALFWAY LINE FOR THE SOCCER FIELD IS A 4 INCH LINE WITH A CIRCLE 30 FEET IN RADIUS IN THE CENTER OF THE FIELD, REFER TO PLAN FOR LOCATION.
9. THE CORNERS OF THE SOCCER FIELD SHALL HAVE A 3 FOOT RADIUS IN THE DESIGNATING THE CORNER KICK AREA. REFER TO CORNER KICK DETAIL.

9V9 SOCCER LAYOUT NOTES:

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS.
2. THE FIELD STRIPING IS TO BE 150' X 210'.
3. ALL LINE WORK IS TO BE LAID OUT WITH A TOLERANCE OF 1/4 INCH.
4. ALL SOCCER LINES ARE 4 INCH TUFTED OR INLAID COLOR: WHITE AS DIMENSIONED ON THE SOCCER LAYOUT PLAN.
5. THE SOCCER GOAL AREA IS 15 FEET BY 36 FEET, REFER TO PLAN FOR LOCATION.
6. THE SOCCER PENALTY AREA IS 42 FEET BY 108 FEET, REFER TO PLAN FOR LOCATION.
7. THE PENALTY MARK IS A 3 FOOT LINE, 4 INCHES WIDE, 30 FEET FROM THE GOAL LINE AND CENTERED ON THE GOAL. THE RESTRAINING LINE FOR PENALTY KICKS IS AN ARC 24 FEET FROM THIS MARK OUTSIDE OF THE PENALTY AREA. REFER TO PLAN FOR LOCATION.
8. THE HALFWAY LINE FOR THE SOCCER FIELD IS A 4 INCH LINE WITH A CIRCLE 24 FEET IN RADIUS IN THE CENTER OF THE FIELD, REFER TO PLAN FOR LOCATION.

GENERAL FIELD STRIPING NOTES:

1. CONTRACTOR TO SUBMIT SCALED SHOP DRAWINGS FOR ALL FIELD STRIPING OPTIONS SHOWING DIMENSIONS, COLORS, TUFTED AND INLAID MARKINGS.
2. ALL FIELD STRIPING AND ASSOCIATED AREAS SHALL CONFORM TO CURRENT NFHS STANDARDS AND REQUIREMENTS.

   11V11 SOCCER: ALL INLAID AND TUFTED LINES, COLOR: YELLOW
   9v9 SOCCER: ALL INLAID AND TUFTED LINES, COLOR: RED
   UNIFIED LACROSSE: ALL INLAID AND TUFTED LINES, COLOR: BLUE
   FIELD HOCKEY: ALL INLAID AND TUFTED LINES, COLOR: WHITE
   PRACTICE FOOTBALL: ALL INLAID AND TUFTED LINES, COLOR: YELLOW

MILONE & MACBROOM
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMINC.COM

DESCRIPTION	DATE	BY

SITE DETAILS

GREENWICH HIGH SCHOOL
SYNTHETIC TURF FIELDS 6 & 7 REPLACEMENT

10 HILLSIDE RD
GREENWICH, CONNECTICUT

CEF	CEF	RRC
DESIGNED	DRAWN	CHECKED

AS NOTED
SCALE

APRIL 8, 2019
DATE

5062-11
PROJECT NO.

SD-3
SHEET NAME

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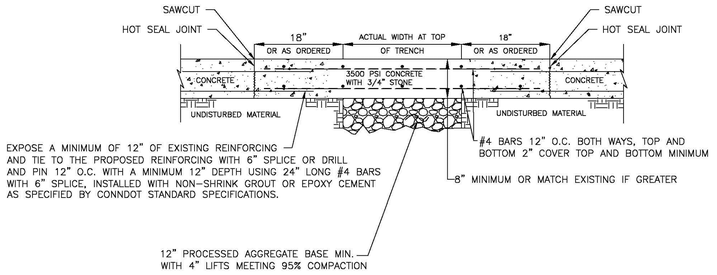
03/31/14 | SCD No. 406.10



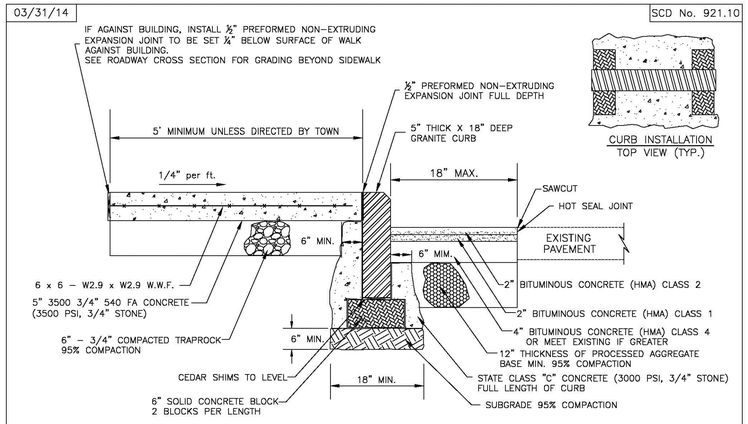
CONCRETE PAVEMENT

NOTE:
PAVING WILL BE CURB TO CURB FOR LENGTH OF PROJECT WHEN ROADWAY HAS BEEN PAVED WITHIN THE LAST 5 YEARS OR HAS A PCI VALUE GREATER THAN OR EQUAL TO 80

SCALE = N.T.S.

STANDARD CONSTRUCTION DETAIL
CONCRETE PAVEMENT RECONSTRUCTION
TOWN OF GREENWICH, CONNECTICUT
ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS

03/31/14 | SCD No. 921.10

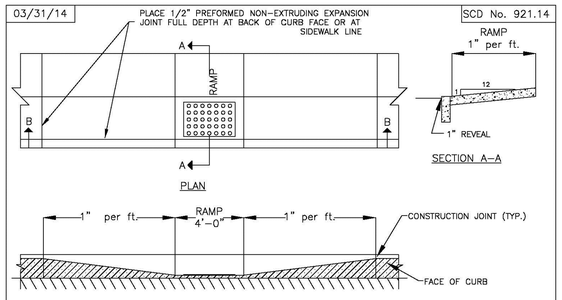


NOTES:
1. GRANITE CURB SHALL HAVE 1/4" BUZZED EDGE.
2. 6" CURB REVEAL REQUIRED UNLESS OTHERWISE DIRECTED
3. MINIMUM LENGTH OF STRAIGHT CURB SHALL BE 3'-0" AND RADIUS CURB SHALL BE 2'-6"
4. JOINTS IN GRANITE CURB SHALL BE GROUTED. LEAVE OPEN JOINT APPROXIMATELY EVERY 30' O.C. TO ALLOW FOR EXPANSION.
5. IF ORDERED TO PIN SIDEWALK TO BUILDING, SEE SCD No. 921.13

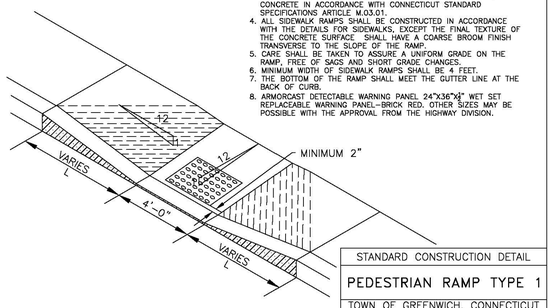
SCALE = N.T.S.

STANDARD CONSTRUCTION DETAIL
CONCRETE SIDEWALK AND GRANITE CURB
TOWN OF GREENWICH, CONNECTICUT
ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS

03/31/14 | SCD No. 921.14



NOTES:
1. SIDEWALK RAMPS SHALL BE CONSTRUCTED AT ALL PEDESTRIAN CROSSWALKS IN ALL NEW DESIGNS AND AT PEDESTRIAN CROSSWALK LOCATIONS WHERE AN EXISTING CURB OR WALK IS TO BE DISTURBED BY CONSTRUCTION.
2. DRAINAGE DESIGN IN THE VICINITY OF SIDEWALK RAMPS SHALL BE CONSIDERED AN INTEGRAL PART OF THE DESIGN OF THOSE RAMPS. NO DRAINAGE STRUCTURES SHALL BE PLACED WITHIN THE LIMITS OF A SIDEWALK RAMP ON THE DESIGNS.
3. REGARDLESS OF THE TYPE OF PAVEMENT OF ADJACENT SIDEWALK, ALL SIDEWALK RAMPS SHALL BE CONSTRUCTED OF CLASS "C" CONCRETE IN ACCORDANCE WITH CONNECTICUT STANDARD SPECIFICATIONS ARTICLE M.03.01.
4. ALL SIDEWALK RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS FOR SIDEWALKS, EXCEPT THE FINAL TEXTURE OF THE CONCRETE SURFACE SHALL HAVE A COARSE BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.
5. CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON THE RAMP, FREE OF SAGS AND SHORT GRADE CHANGES.
6. MINIMUM WIDTH OF SIDEWALK RAMPS SHALL BE 4 FEET.
7. THE BOTTOM OF THE RAMP SHALL MEET THE GUTTER LINE AT THE BACK OF CURB.
8. ARMORCAST DETECTABLE WARNING PANEL 24"X36"X4" WET SET REPLACEABLE WARNING PANEL–BRICK RED. OTHER SIZES MAY BE POSSIBLE WITH THE APPROVAL FROM THE HIGHWAY DIVISION.



SCALE = N.T.S.

STANDARD CONSTRUCTION DETAIL
PEDESTRIAN RAMP TYPE 1
TOWN OF GREENWICH, CONNECTICUT
ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS

MILONE & MACBROOM
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
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DESCRIPTION	DATE	BY

SITE DETAILS

GREENWICH HIGH SCHOOL
SYNTHETIC TURF FIELDS 6 & 7 REPLACEMENT
10 HILLSIDE RD
GREENWICH, CONNECTICUT

CEF	CEF	RRC
DESIGNED	DRAWN	CHECKED

AS NOTED — SCALE
APRIL 8, 2019 — DATE
5062-11 — PROJECT NO.

SD-4 — SHEET NAME

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Appendix C EC Monitoring Form

OPERATION, MAINTENANCE, AND MONITORING PLAN
Greenwich High School
10 Hillside Road
Greenwich, Connecticut

The synthetic turf on Fields 6 and 7 forms an engineered barrier to prevent contact with underlying soil and is subject to normal use and weather impacts. Repairs will be made to the EC as necessary. Periodic monitoring and maintenance activities will be necessary to ensure the long-term performance and integrity of the cover.

1.1 Monitoring

Monitoring activities for the engineered barrier remedy include routine visual inspection of the fields to ensure their integrity. Visual inspections will occur at a frequency of once per year. Inspection visits will be recorded on an Inspection Sheet (attached), which will note the condition of the fields and any recommendations for maintenance or repair. A photographic log should be attached to the inspection form.

1.2 Maintenance

As the EC also serves a primary function of athletic fields, maintenance tasks may include addition of infill material to ensure proper performance for athletic play. The most likely area for malfunction of the EC is between the turf seams and possibly the field drainage structures. These areas will be included in the annual inspection and any noted deficiencies will be addressed.

1.3 Contacts

The person(s) overseeing operation, maintenance, and/or monitoring activities for the engineered barrier will be Dan Watson, on behalf of the Town of Greenwich Board of Education.

1.4 Reporting

The attached form detailing the inspections and maintenance must be submitted on an annual basis to the EC Coordinator, Remediation Division, DEEP, 79 Elm Street, Hartford, CT 06106.

ENGINEERED CONTROL INSPECTION & REPAIR FORM

Inspector: (Please print)_____ Signature:_____

Inspection Report Number: _____ Date: _____ Weather Conditions: _____

Condition of turf: (Note any cracks, heaving or subsidence of the turf.)

_____

_____

Condition of Joints and Sealed Cracks (Note presence of weeds or if sealant is in place.)

_____

_____

Condition of curbs: (Note presence of cracks, settlement, weep holes, signs of process discharge, ie. staining)

_____

_____

Is maintenance required? (e.g. weed removal, surface cleaning):

☐ No ☐ Yes

If yes, describe the maintenance to be performed:

_____

_____

_____

Are repairs required? ☐ No ☐ Yes If yes, attach photographs of damaged area and describe the repairs to be performed.

_____

_____

_____

Location(s) of repair: _____

_____

_____

_____

Repair performed by: _____

_____

_____

Description of materials used in the repair of the EC: _____

_____

_____Cost of repair: _____

_____

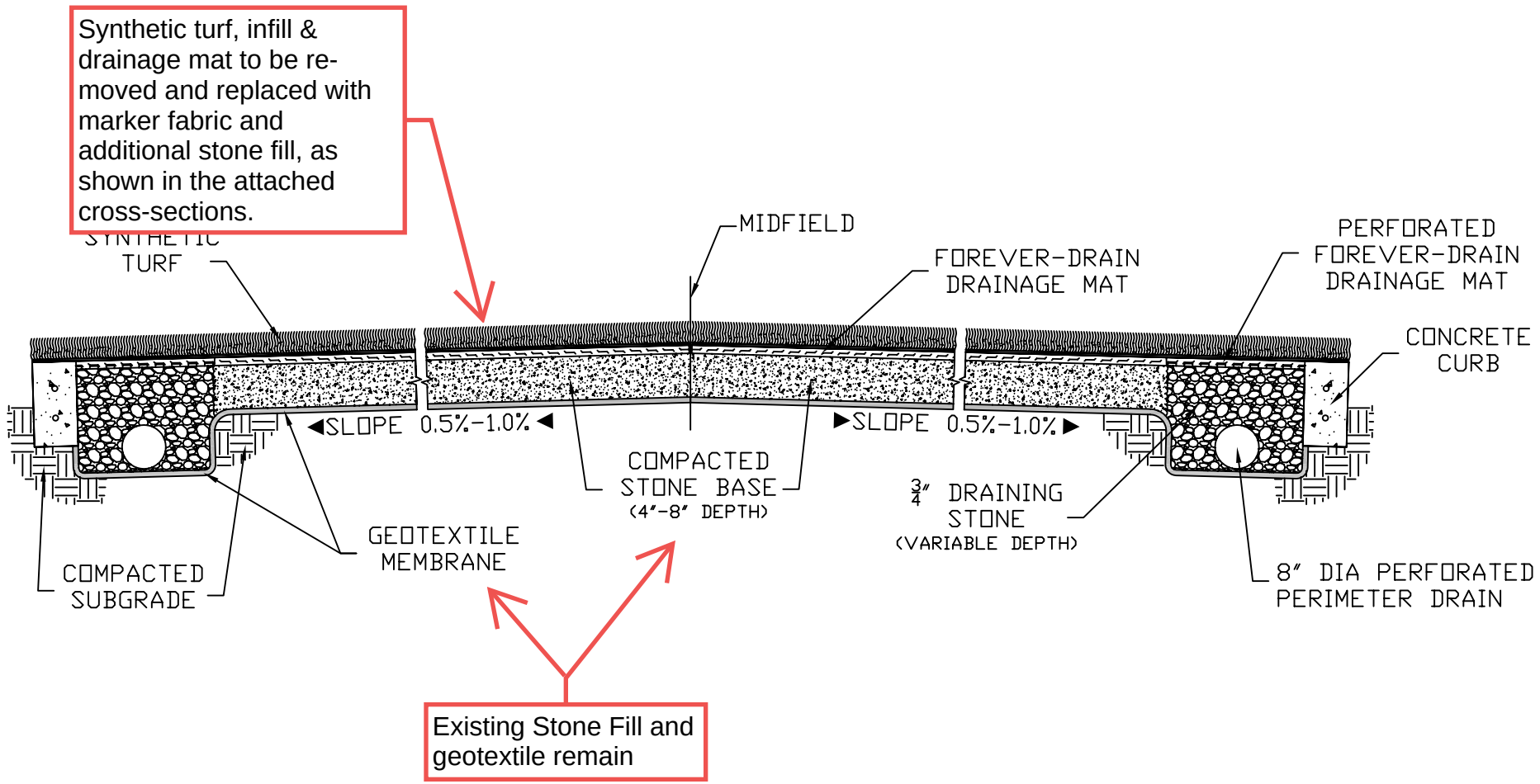
_____

Date of repair: _____

AECOM
500 Enterprise Drive
Rocky Hill
CT, 06067
USA
aecom.com

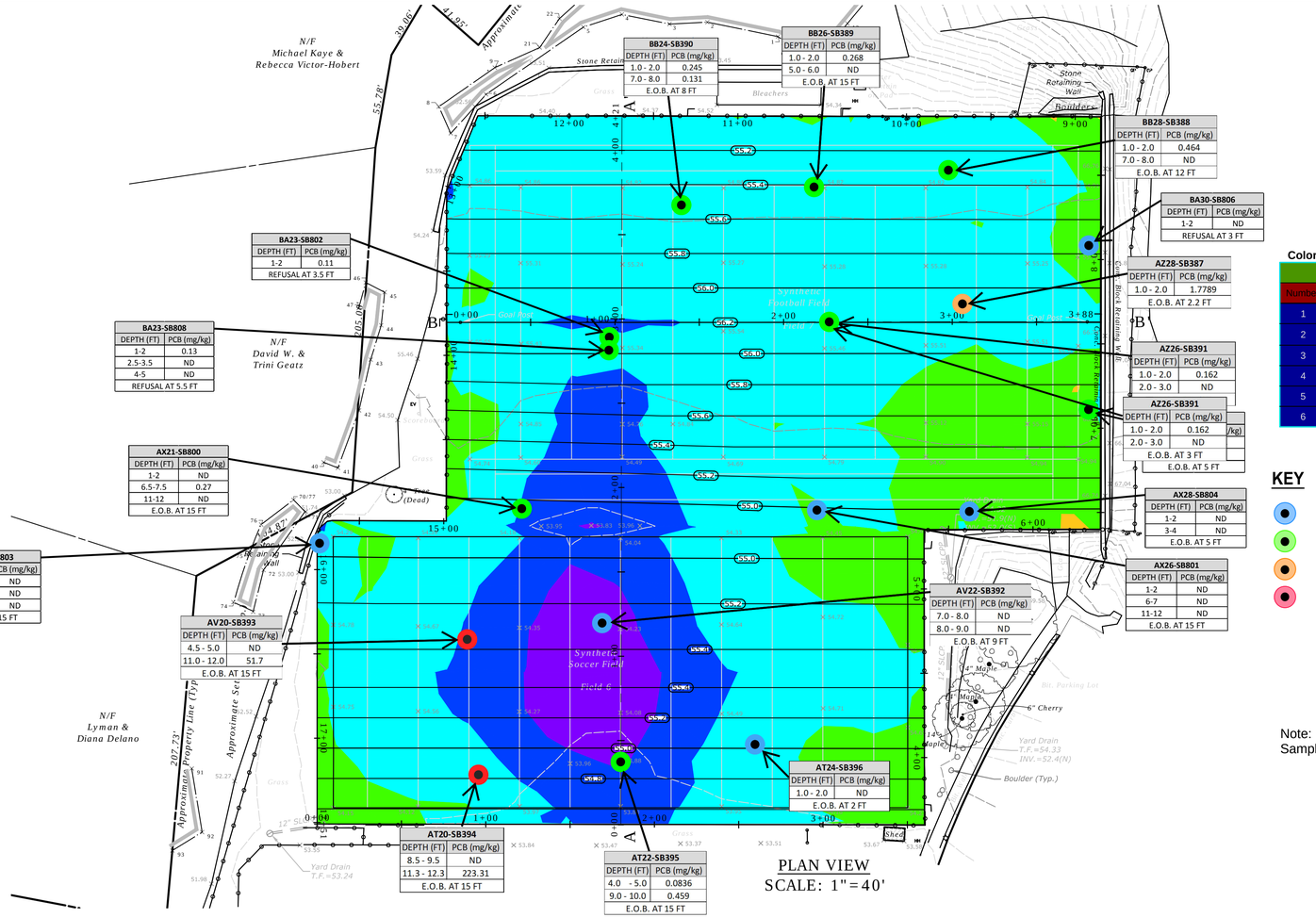
Appendix F

Supplemental Materials for Engineered Control Application Parts I and II



TYPICAL TRANSVERSE DETAIL
FOREVER-DRAIN DRAINAGE MAT
(EXISTING FIELDS)

FOREVER GREEN
ATHLETIC FIELDS INC.



Color Scale Details Increase in Clean Fill Thickness

Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	-0.100	0.000	
2	0.000	0.250	
3	0.250	0.500	
4	0.500	0.750	
5	0.750	1.000	
6	1.000	1.400	

KEY

- PCB's NOT DETECTED
- PCB CONCENTRATION <1 mg/kg
- PCB CONCENTRATION >1 mg/kg, <50 mg/kg
- PCB CONCENTRATION >50 mg/kg

Note:
Sample locations are approximate.

MILONE & MACBROOM
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMINC.COM

DESCRIPTION	DATE	BY

PRELIMINARY EARTHWORK ANALYSIS

GREENWICH HIGH SCHOOL - FIELDS 6 & 7
SYNTHETIC TURF REPLACEMENT
10 HILLSIDE RD
GREENWICH, CONNECTICUT

RRC	CF	DJK
DESIGNED	DRAWN	CHECKED

AS NOTED
SCALE

NOVEMBER 5, 2019
DATE

5062-11
PROJECT NO.

1 OF 1
SHEET NAME

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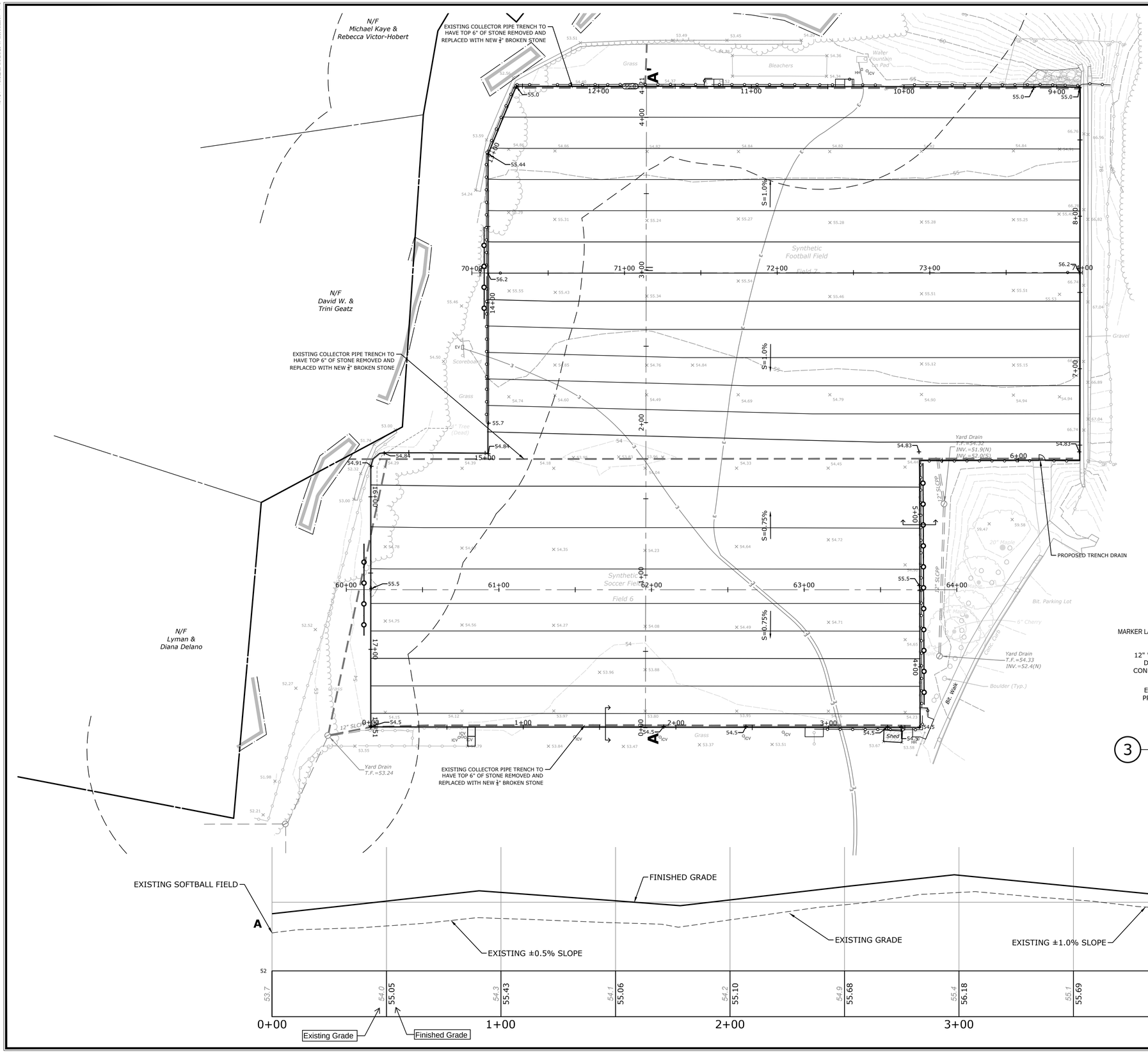
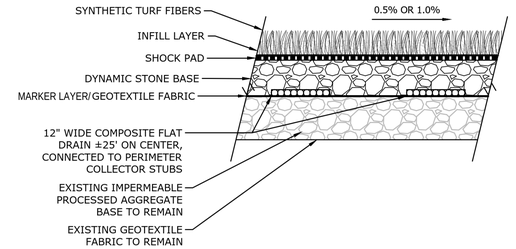


GRADING & UTILITY NOTES:

1. PROPOSED CONTOURS ARE SHOWN IN TWO TENTHS OF A FOOT INTERVALS
2. ACCESSIBLE ROUTE SLOPES SHALL BE 1:20 (5%) OR LESS AND THE CROSS SLOPES SHALL NOT EXCEED 1:50 (2%). CHANGES IN LEVELS SHALL NOT BE GREATER THAN 1/2 INCH, AND SLOPES SHALL NOT BE GREATER THAN 1:20 UNLESS RAMPS OR LIFTS ARE PROVIDED.
3. ALL RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1:12. ALL RAMPS, EXCLUDING SIDEWALK DROP RAMPS, SHALL HAVE HANDRAILS ON BOTH SIDES.
4. ALL RAMP LANDINGS SHALL BE A MINIMUM OF 4'X4' CLEAR WITH A MAXIMUM SLOPE AND CROSS-PITCH OF 2%.
5. TOP OF CURB (TC) AND BOTTOM OF CURB (BC) REFER TO FINISHED GRADE ELEVATIONS.
6. EARTHWORK VOLUMES
   CUT=
   FILL=
   NET FILL=

GRADING LEGEND

×70.5	EXISTING SPOT ELEVATION
+70.5	PROPOSED SPOT ELEVATION
——70——	EXISTING CONTOUR
124.4	PROPOSED CONTOUR
	CONTRACT LIMIT LINE
(0.52)	DEPTH OF ADDITIONAL STONE FILL (FEET) TO BE PLACED OVER EXISTING 4 TO 8 INCHES OF CLEAN STONE FILL



3 **SYNTHETIC TURF SECTION**
NOT TO SCALE P-AT-5062.11-01

MILONE & MACBROOM
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMINC.COM

DESCRIPTION	DATE	BY

SITE PLAN - GRADING & UTILITIES

GREENWICH HIGH SCHOOL
SYNTHETIC TURF FIELDS 6 & 7 REPLACEMENT
10 HILLSIDE RD
GREENWICH, CONNECTICUT

CEF DESIGNED	CEF DRAWN	RRC CHECKED

SCALE: 1"=30'
DATE: APRIL 8, 2019
PROJECT NO.: 5062-11
SHEET NO.: 06 OF ----
SHEET NAME: GU

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Appendix G

PCB Notification and Certification

Amy J. Siebert, P.E.
COMMISSIONER

James W. Michel, P.E.
DEPUTY COMMISSIONER

Building Inspection
Building Construction & Maintenance
Engineering
Highway/Traffic Operations
Sewer
Waste Disposal

DEPARTMENT OF PUBLIC WORKS

December 12, 2019

Kimberly N. Tisa, Region 1 PCB Coordinator
United State Environmental Protection Agency
5 Post Office Square OSRR07-2
Boston, MA 02109-3912

Subject: **Written Certification Reguired Under §761.61(a)(3)(E)**
Phase I Remedial Action Plan
Greenwich High School
Greenwich, Connecticut

Dear Ms. Tisa:

I certify that all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the Greenwich High School site, are on file at the AECOM offices located at 500 Enterprise Drive, Suite 1A, Rocky Hill, Connecticut, and are available for EPA inspection.

If you have any questions, comments, or concerns you may contact Patrick Haskell via phone at 401.854.2808 or via email at patrick.haskell@aecom.com.

Very Truly Yours,

Amy J. Siebert, P.E.
Commissioner of Public Works
Town of Greenwich

cc: Daniel Watson, Town of Greenwich
Gary Trombly, CTDEEP
Jeff Wilcox, CTDEEP
Jane Warren, McCarter & English
Patrick Haskell, AECOM
Mike Doherty, AECOM