TASK 210:
SUBSURFACE SITE INVESTIGATION

Volume 1

New Britain-Hartford Busway
Inactive Line
New Britain, Connecticut

ConnDOT Assignment No. 202-3153
ConnDOT Project No. 88-H035

Prepared for:

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Department of Transportation
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1.0 INTRODUCTION

On behalf of the Connecticut Department of Transportation (ConnDOT), Maguire Group Inc. has conducted a Task 210 - Subsurface Site Investigation in association with the construction of the New Britain to Hartford Busway in New Britain, Connecticut (State Project No. 88-H035). The project will involve the construction of a dedicated roadway for transit buses and up to eleven (11) bus stations in the municipalities of New Britain, Newington, West Hartford, and Hartford. The proposed busway corridor will be constructed along an abandoned rail line in the southern portion of the project area, and adjacent to an active Amtrak railway in the northern portion of the project area. The corridor of land encompassed by this Task 210 – Subsurface Investigation is the inactive rail line beginning at the intersection of Main Street and Columbus Boulevard in New Britain and following the abandoned rail line east/northeast for a total length of approximately 9,920 feet (1.9 miles).

Based upon a review of the preliminary construction plans, it is anticipated that the project will involve rights-of-way taking, cut and fill activities, drainage structure improvements, and utility realignments. This Task 210 - Subsurface Site Investigation was conducted in areas of anticipated construction and/or right-of-way activities along the inactive rail corridor. Figure 1 depicts the project area.

The purpose of the Task 210 - Subsurface Site Investigation was to verify the absence or presence and location of subsurface contamination, and to assess the potential pollutant impacts to be encountered during construction. It is anticipated that Task 310 Plans and Specifications will subsequently be prepared to assess construction related activities (i.e. proper storage, classification, transport and disposal of contaminated materials), in relationship to the environmental conditions prevalent within the project limits, as well as to specify remedial work to be included in the Contract Bid Documents.

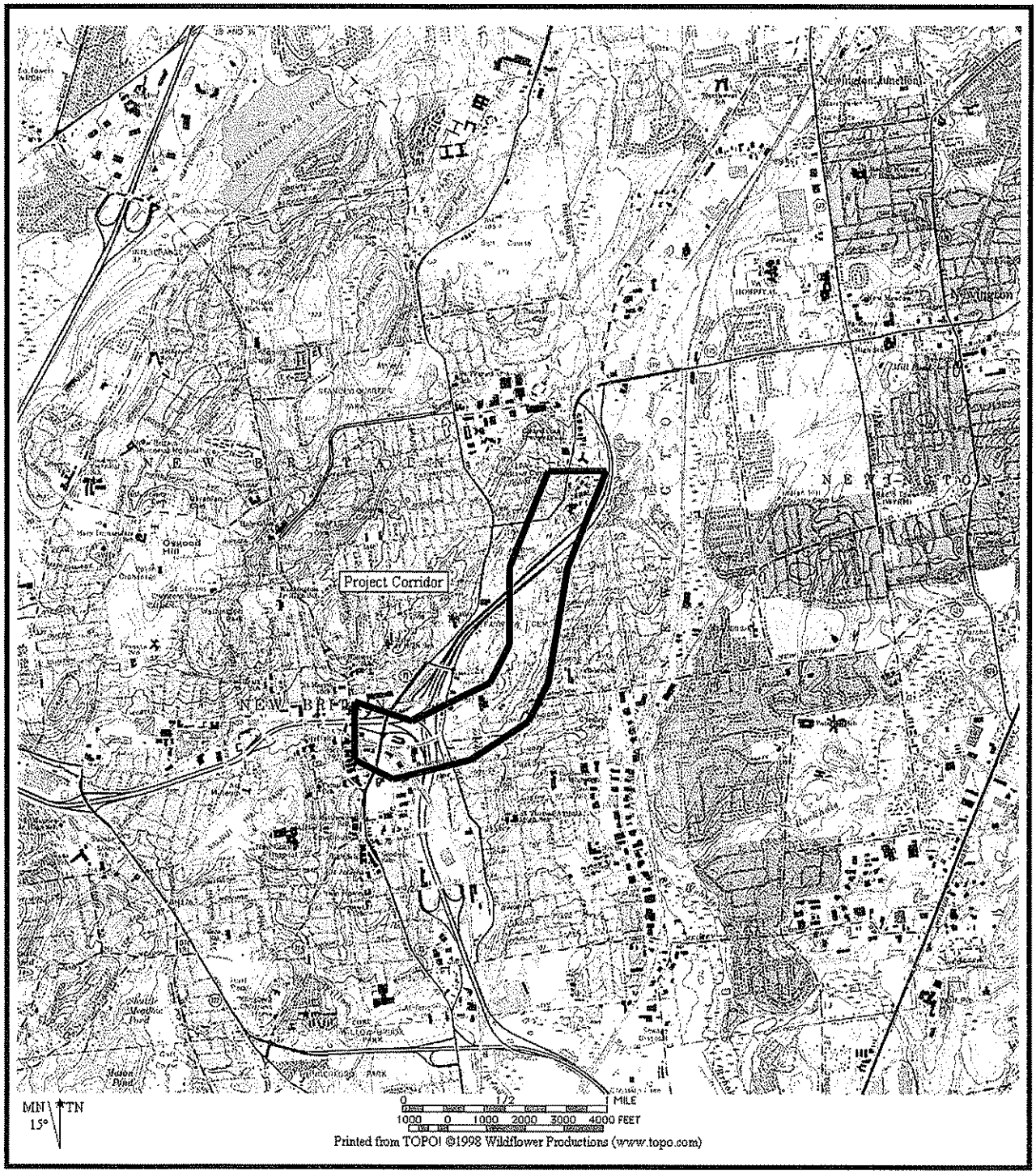


FIGURE 1 - SITE LOCATION PLAN

New Britain to Hartford Busway Inactive Line

New Britain, Connecticut

2.0 SITE DESCRIPTION

ConnDOT is proposing to construct a dedicated transit bus roadway between the cities of New Britain and Hartford, Connecticut. The 9.4-mile busway project will consist of the construction of a dedicated roadway for transit buses and up to eleven (11) bus stations in the municipalities of New Britain, Newington, West Hartford, and Hartford. The proposed busway corridor will be constructed along an abandoned rail line in the southern portion of the project area, and adjacent to an active Amtrak railway in the northern portion of the project area. The proposed busway stations will be studied under separate Task 220 – Exploratory Site Investigations.

The Task 210 - Subsurface Site Investigation was conducted in New Britain, Connecticut in areas of anticipated construction and/or right-of-way activities for the proposed busway along the 9,920 foot (1.9 mile) section of abandoned rail line. The project limits for this Task 210 begin in the area of the Columbus Boulevard and Main Street intersections, proceeding east and northeast along the abandoned rail line, and ending in the area east of East Street in New Britain. The two busway stations proposed for this portion of the project corridor will be located at 327 Main Street and 585 East Main Street. These sites will be investigated under separate Task 220 – Exploratory Site Investigations.

The abandoned rail corridor property is owned by the State of Connecticut, and properties adjacent to the abandoned rail line corridor consist of industrial, commercial, residential, and undeveloped land. Additional access roadway improvements associated with the project will be made to right-of-way areas owned by the City of New Britain. Maguire Group Inc. completed a Task 110 – Corridor Land Use Evaluation for the project corridor dated February 28, 2006. The site area is depicted in Figures 2a through 2j - Task 210 Project Area & Sampling Locations.

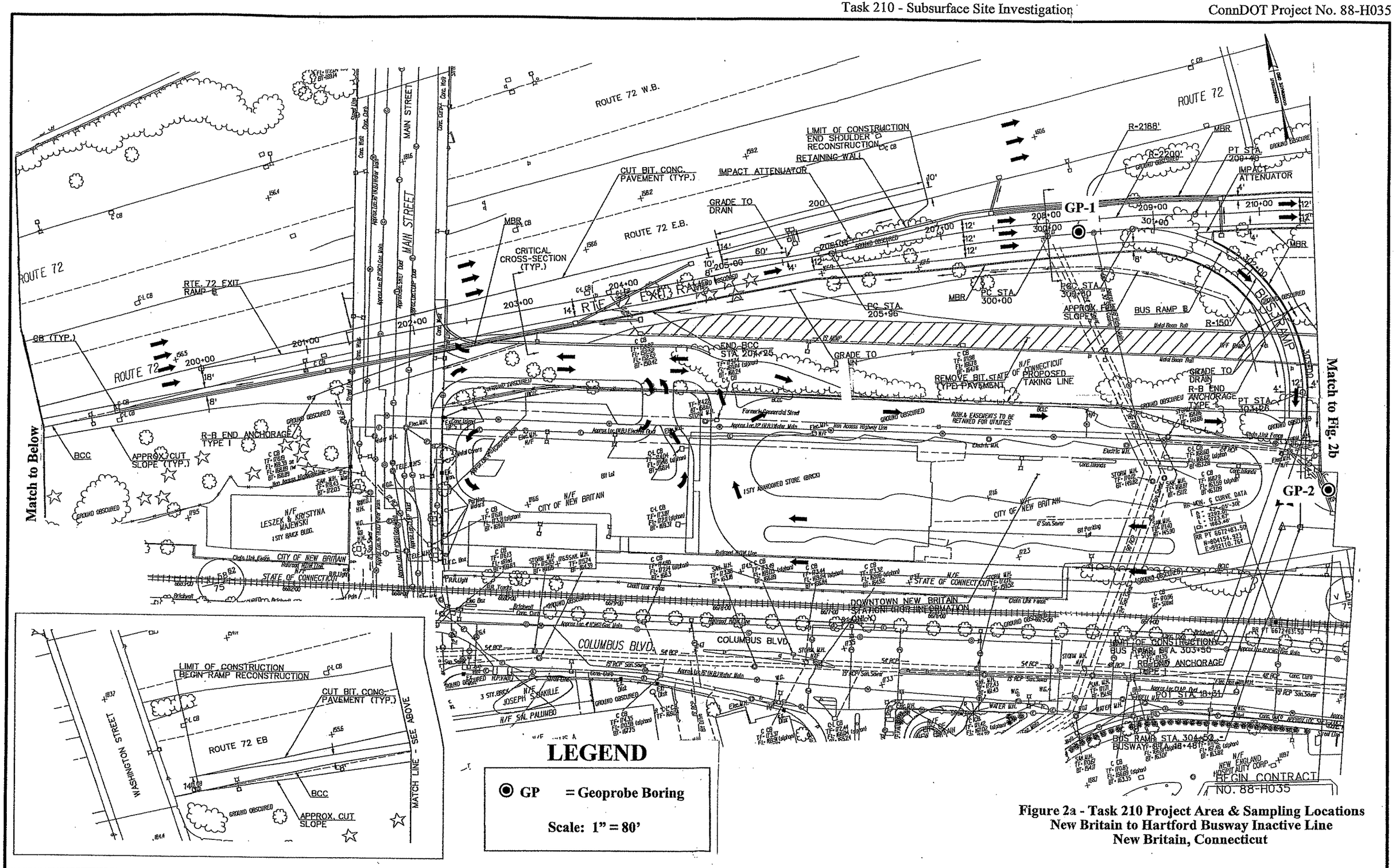
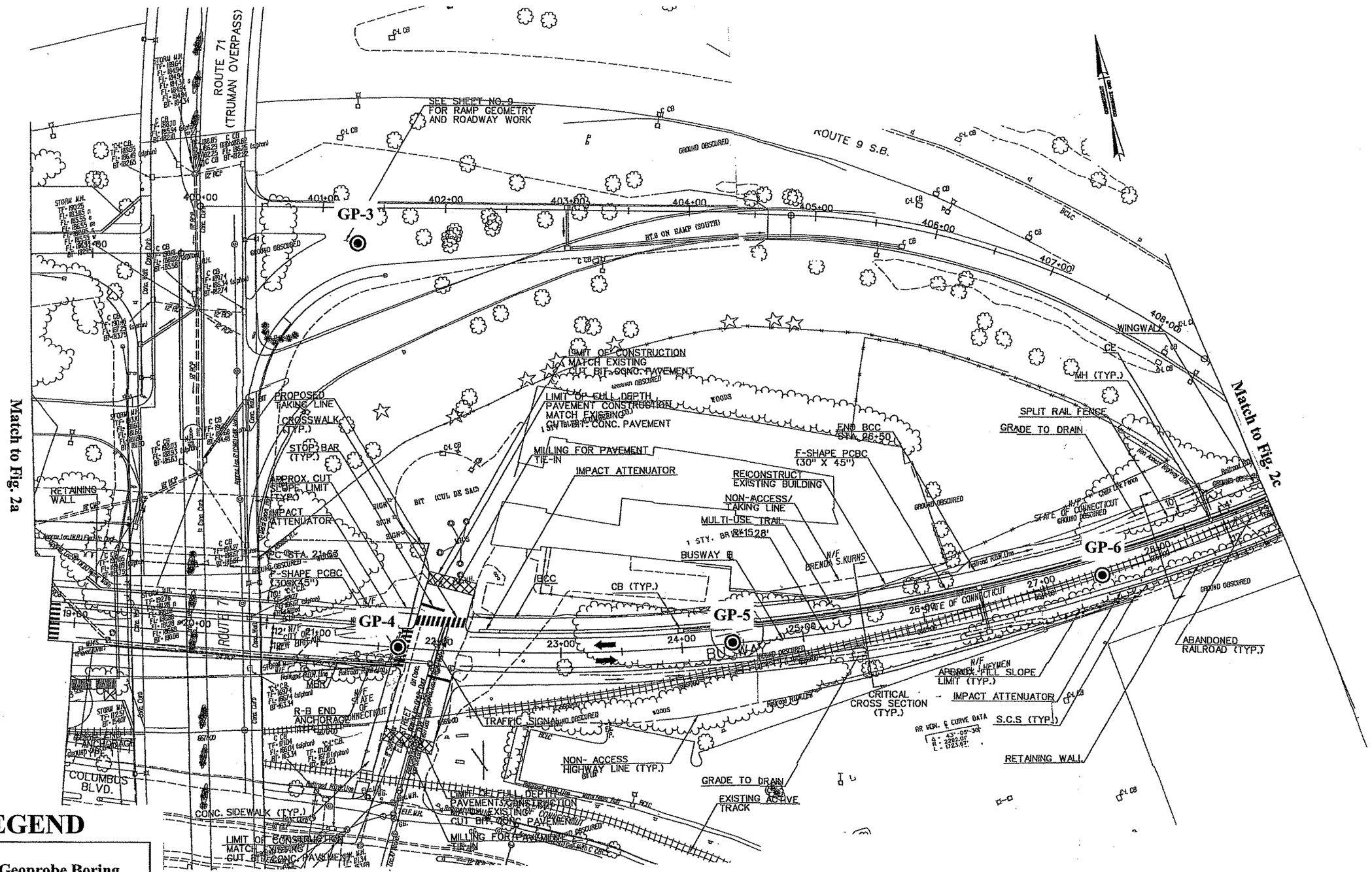


Figure 2a - Task 210 Project Area & Sampling Locations
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut



LEGEND

◉ GP = Geoprobe Boring

Scale: 1" = 80'

Figure 2b - Task 210 Project Area & Sampling Locations
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

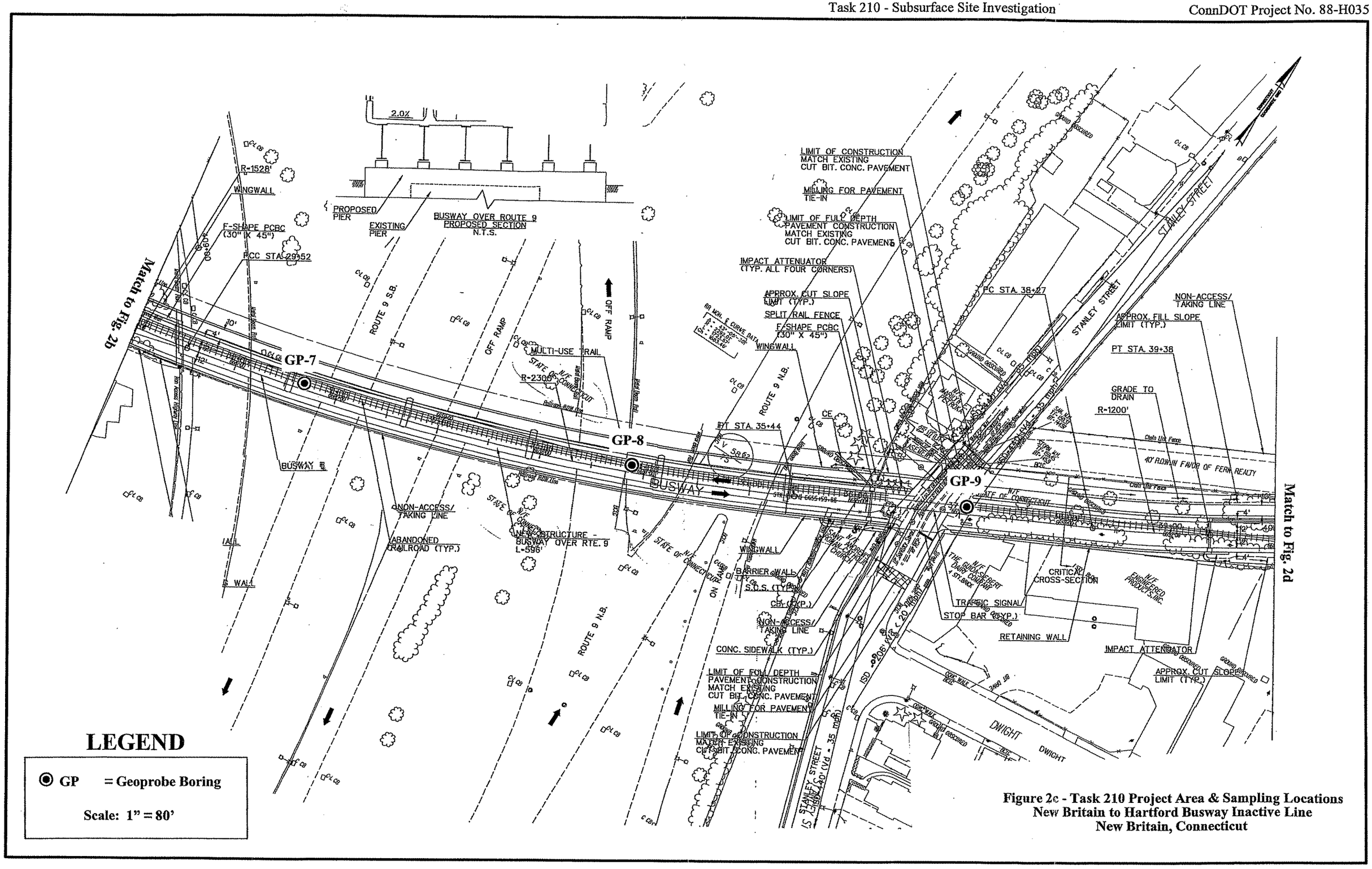
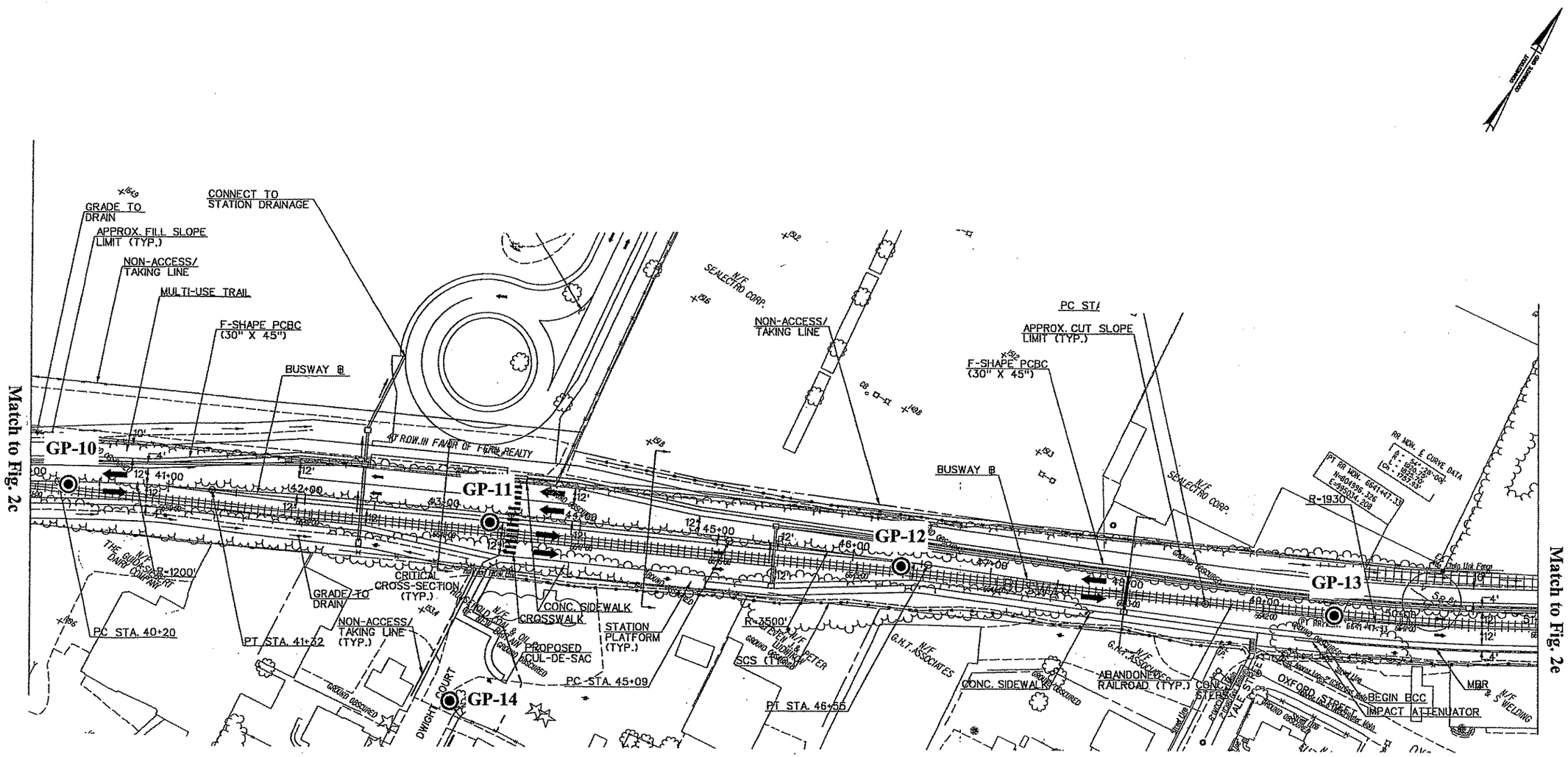


Figure 2c - Task 210 Project Area & Sampling Locations
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

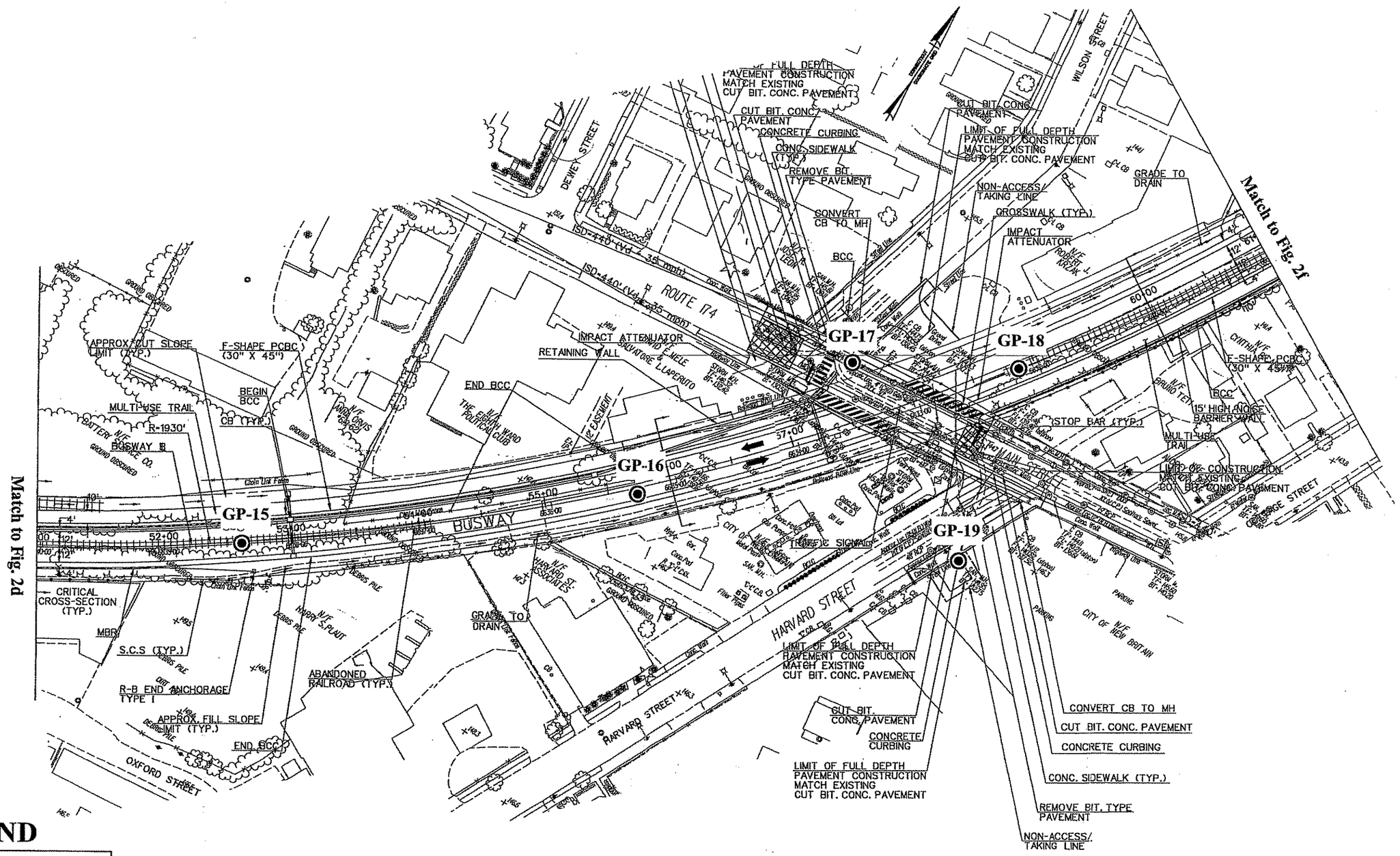


LEGEND

◉ GP = Geoprobe Boring

Scale: 1" = 80'

Figure 2d - Task 210 Project Area & Sampling Locations
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

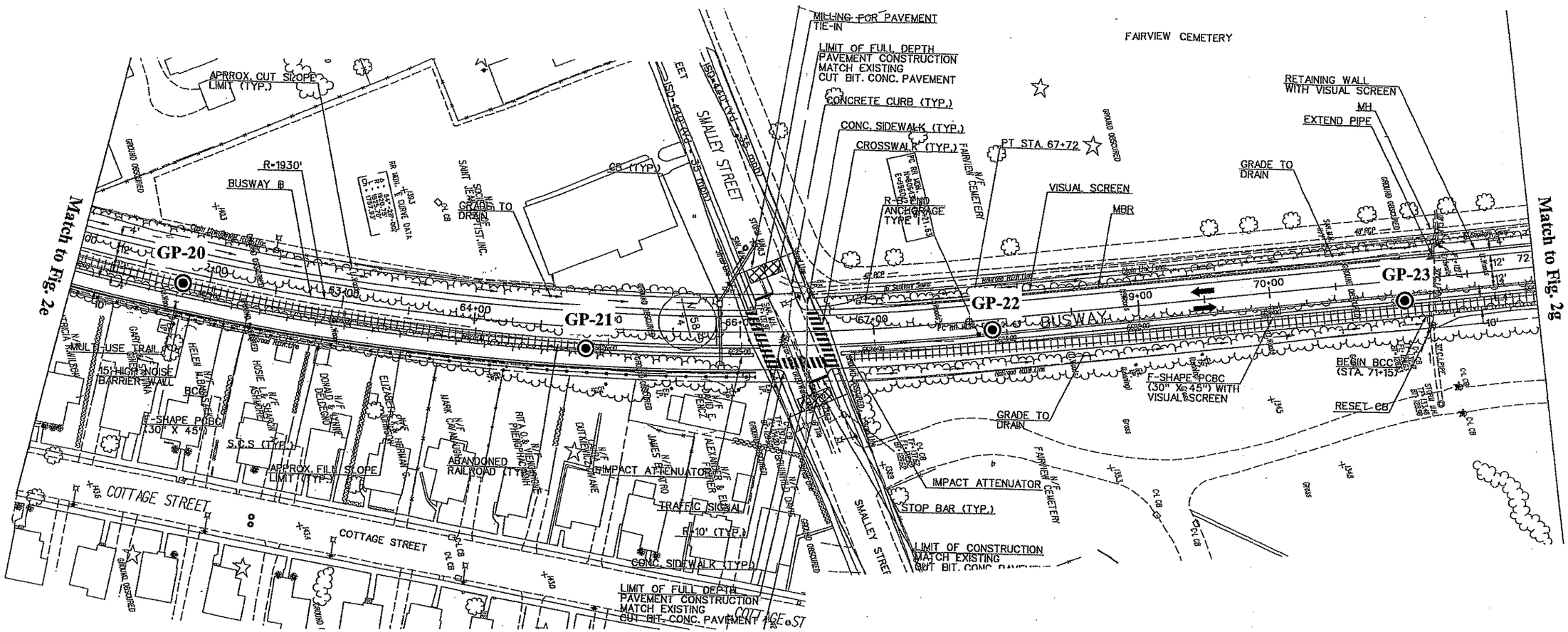


LEGEND

◉ GP = Geoprobe Boring

Scale: 1" = 80'

Figure 2e - Task 210 Project Area & Sampling Locations
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

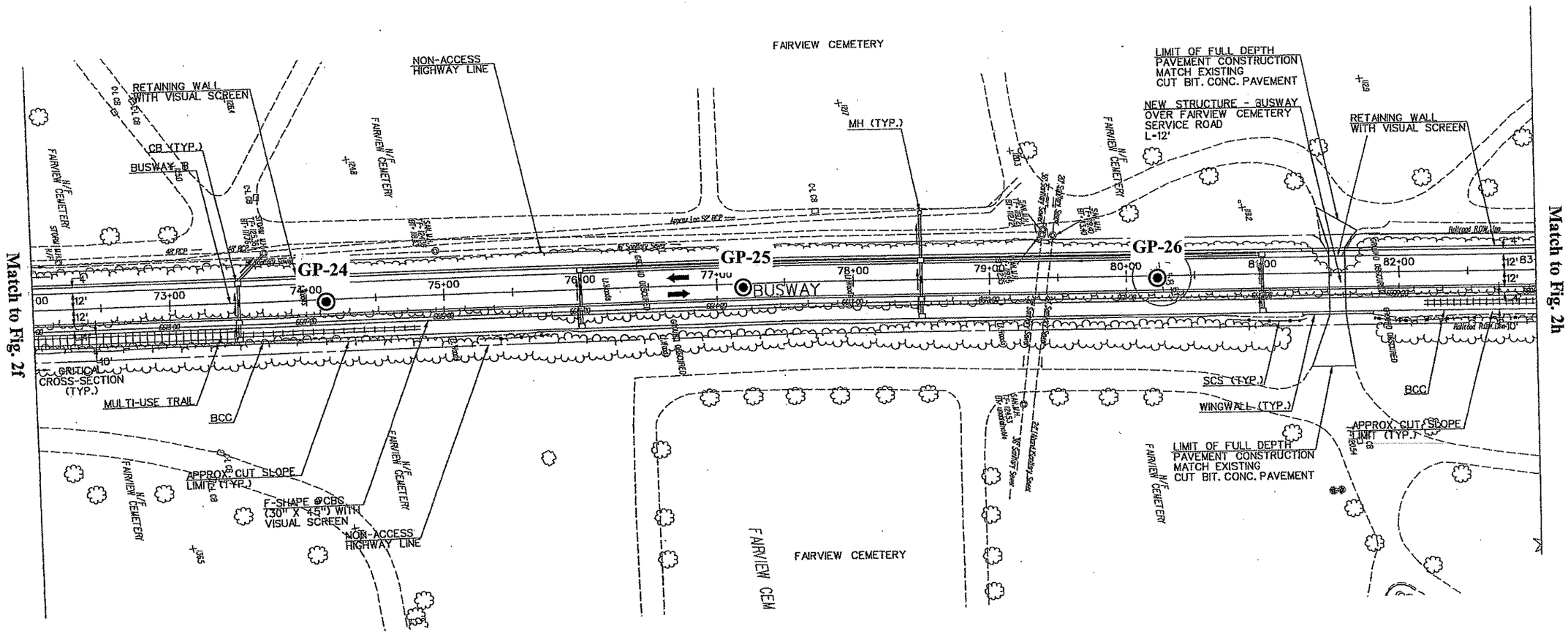


LEGEND

◉ GP = Geoprobe Boring

Scale: 1" = 80'

Figure 2f - Task 210 Project Area & Sampling Locations
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

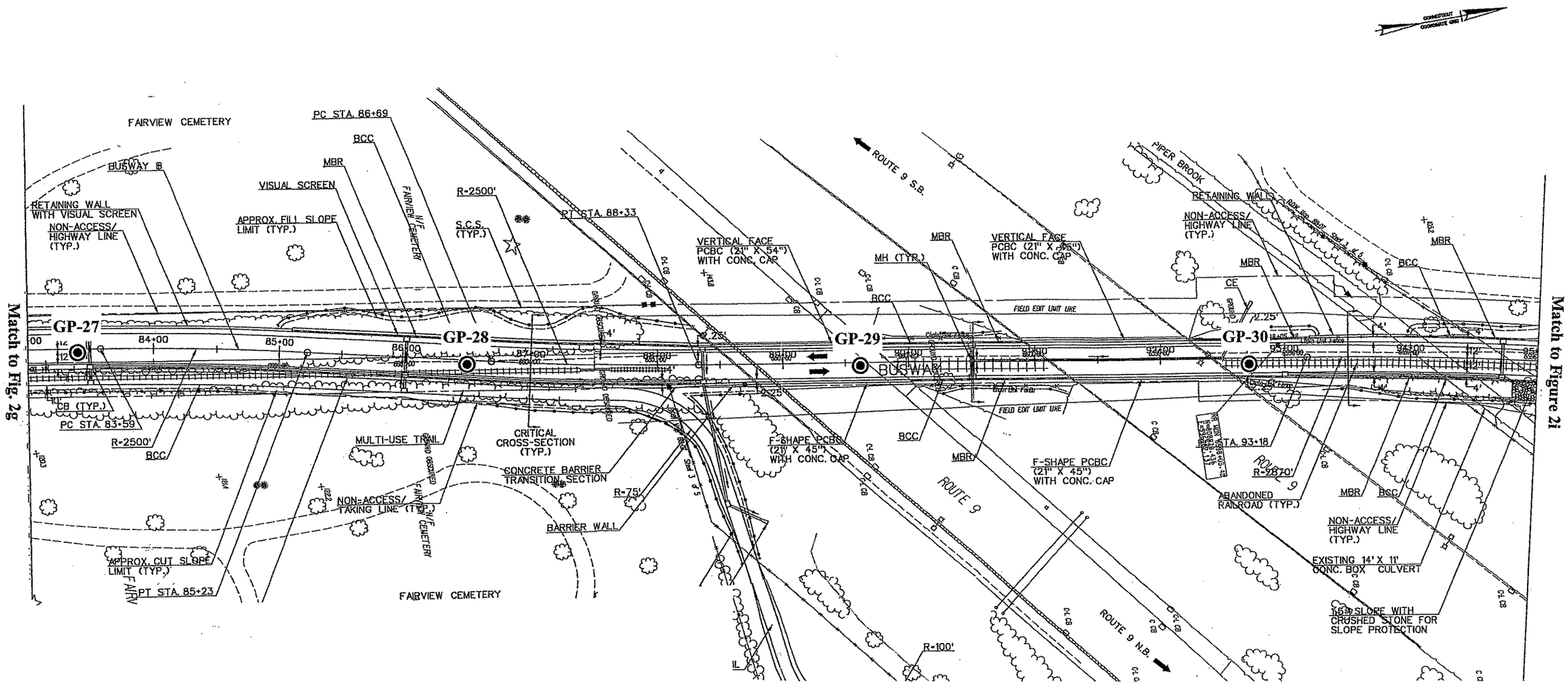


LEGEND

◉ GP = Geoprobe Boring

Scale: 1" = 80'

Figure 2g - Task 210 Project Area & Sampling Locations
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

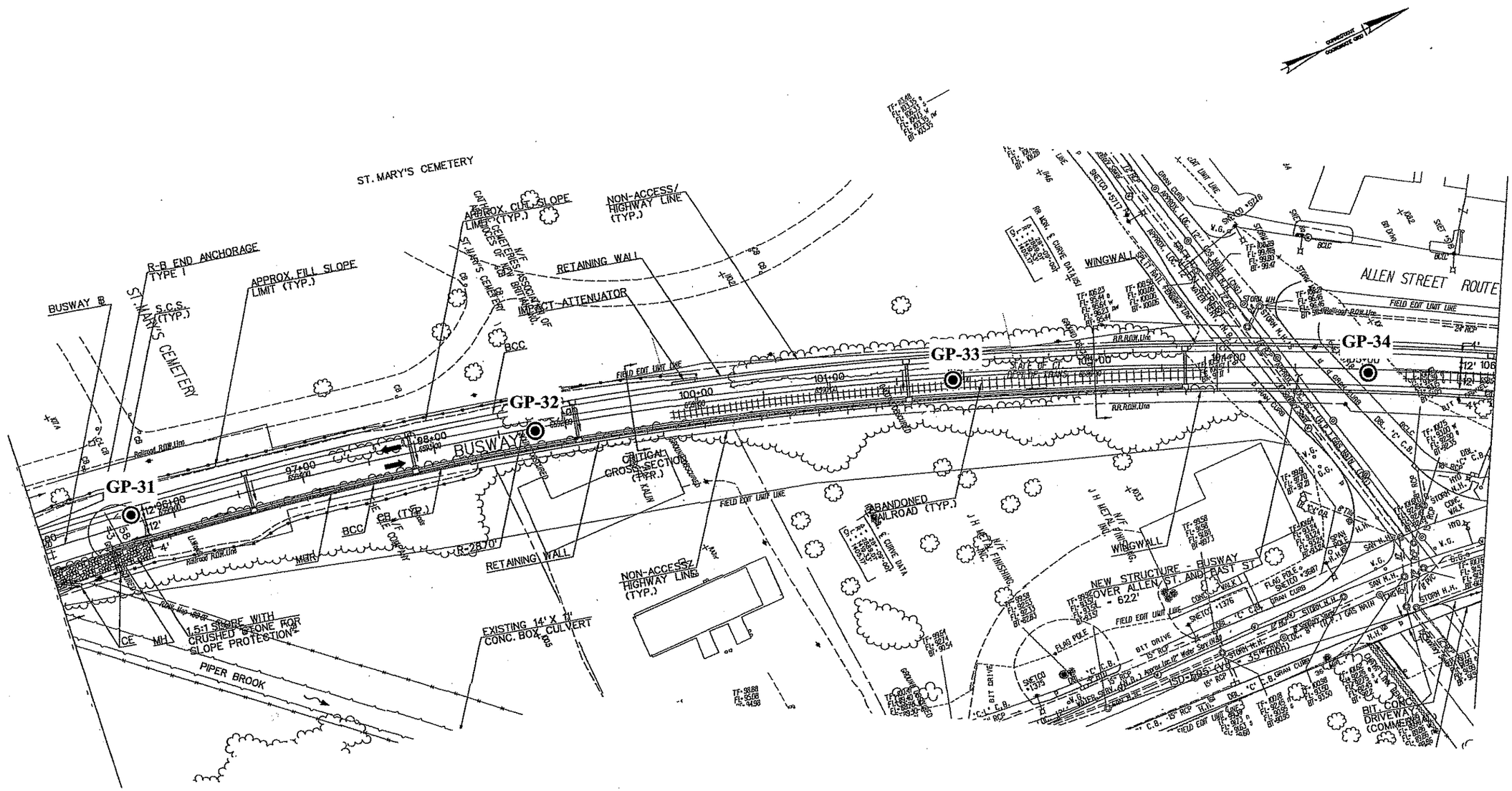


LEGEND

◉ GP = Geoprobe Boring

Scale: 1" = 80'

Figure 2h - Task 210 Project Area & Sampling Locations
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

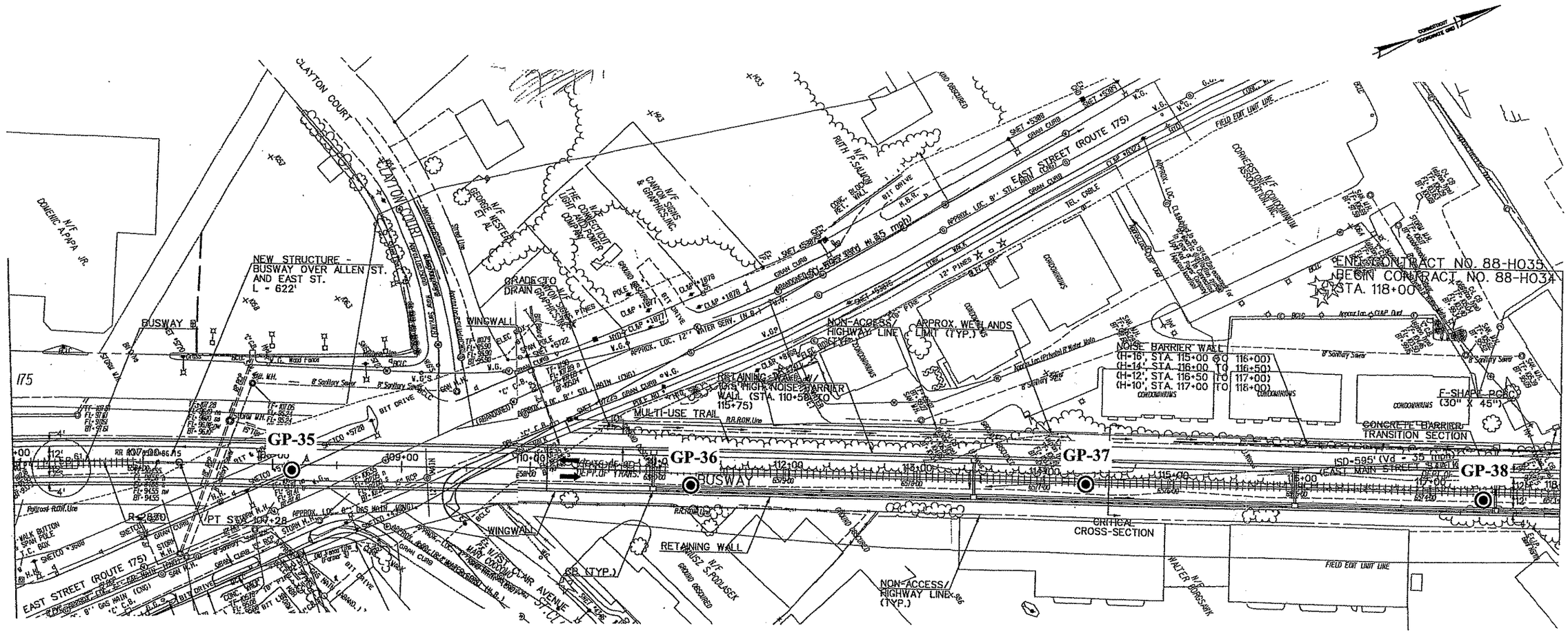


LEGEND

◉ GP = Geoprobe Boring

Scale: 1" = 80'

Figure 2i - Task 210 Project Area & Sampling Locations
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut



LEGEND

◉ GP = Geoprobe Boring

Scale: 1" = 80'

Figure 2j - Task 210 Project Area & Sampling Locations
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

3.0 LOCAL ENVIRONMENT & RECEPTORS

3.1 Groundwater & Topography

The CTDEP's "Environmental GIS Data for Connecticut" depicts the groundwater classification for the majority of the project corridor as "GB." The "GB" groundwater classification indicates that the groundwater is within an urbanized area of intense industrial activity where a public water supply source is available. The groundwater may not be suitable for human consumption due to waste discharges, spills or leaks of chemicals, or land use impacts. The groundwater classification in the portion of the project corridor to the north of Piper Brook is "GA". The "GA" groundwater classification indicates that the groundwater is within the area of influence of private and potential public water supply wells. The groundwater is assumed suitable for direct human consumption without the need for treatment. The properties within the project corridor are connected to the public water distribution system and the majority of the properties are connected to the municipal sewer system.

Groundwater was encountered at depths ranging from 3 to 10.5 feet below grade in the GP-13, GP-15, GP-16, GP-18, and GP-37 borings.

The project area is located within the Park Regional Basin, within the Connecticut Major Drainage Basin. The Piper Brook is located in the northern portion of the project corridor, flowing in a northeasterly direction. The Piper Brook is a Class "A" surface water body, which indicates that it may be used for potential drinking water supply, fish and wildlife habitat, recreational use, agricultural and industrial supply, and other legitimate uses including navigation.

3.2 Geology

The CTDEP's "Environmental GIS Data for Connecticut" indicates that the soil in the southwestern portion of the project corridor is Till, which is described as a poorly sorted, non-stratified mixture of grain sizes ranging from clay to large boulders. The soil in the southeastern and northern portions of the project corridor is Sand, which is described as very coarse to fine sand in well sorted layers. The soil in the central portion of the project corridor is Fines, which is described as well sorted thin layers of alternating silt and clay or thicker layers of very fine sand and silt.

The Bedrock Geological Map of Connecticut, compiled by John Rodgers in 1985, indicates that the bedrock unit underlying the majority of the project corridor is the Portland Arkose, which is described as a red-brown arkosic sandstone. The bedrock unit underlying the southwestern portion of the project corridor is the East Berlin Formation, which is described as a reddish-brown silty shale. The bedrock unit underlying the south central portion of the project corridor is the Hampden Basalt, which is described as a dark-gray to orange-brown weathering basalt (traprock).

Soils encountered during this investigation consisted of fill comprised of gravel, ash and cinders underlain by red-brown silt units with varying amounts of sand, gravel, clay and cobbles. Sampler refusal on either bedrock, basalt cobbles, or sandstone cobbles occurred at depths ranging from 2 to 11 feet below grade in the GP-1, GP-3, GP-4, GP-7, GP-8, GP-10, GP-14, GP-16 through GP-19, GP-21, GP-22, and GP-32 through GP-36 borings.

4.0 SUBSURFACE INVESTIGATION

Based upon the busway corridor's former use as an active railroad, and the current and former industrial and commercial nature of the project area, a comprehensive sampling program was conducted. The following subsections detail the investigation.

4.1 Geoprobe® Soil Borings & Soil Sample Analyses

On April 12, 13, 14, & 17, and May 23, 2006, thirty-eight (38) Geoprobe® soil borings (GP-1 to GP-38) were advanced in areas of proposed construction activities within the project corridor. The Geoprobe® borings were advanced by Logical Environmental Solutions, under the direction of MGI. The locations of the Geoprobe® soil borings are depicted on Figures 2a through 2j - Task 210 Project Area & Sampling Locations.

The Geoprobe® soil borings were advanced to twelve (12) feet below grade or sampler refusal utilizing a 4-foot long, 2-inch diameter Macro Core Sampler with dedicated acetate liners. The soil samples from each boring were visually inspected in the field for staining, and described as to physical characteristics and soil type. In addition, the soil samples were screened in the field for total volatile organic compounds utilizing a Photovac photoionization detector (PID). Soil boring logs were generated in the field by Maguire field personnel. The boring logs denote the types of soil encountered, the depth to groundwater and/or bedrock, the total depth reached in each boring, and the highest observed PID reading. Copies of the boring logs are included at the end of this report in Appendix A.

Based upon field screening results and visual observations, one (1) soil sample from each boring was placed in glassware supplied by Spectrum Analytical Laboratory, and stored in an ice-filled cooler. The first macro core sample from each boring was segregated and split into a 0' to 2' sample and a 2' to 4' sample. The soil sample collected from 2' to 4' below grade was selected for laboratory analyses if field screening and visual observation did not indicate the presence of contaminants in the other sample intervals. The analyses for each soil sample included volatile organic compounds (VOCs) utilizing EPA Method 8260, base neutral/acid extractable semi-volatile compounds (BNAs) utilizing EPA Method 8270, petroleum hydrocarbons utilizing the Connecticut ETPH method, pesticides and polychlorinated biphenyls (PCBs) utilizing EPA Method 8081A and 8082, herbicides utilizing EPA Method 8151, and total and SPLP RCRA 8 metals.

All Geoprobe® soil borings were back-filled and patched upon completion utilizing clean sand and/or hydrated bentonite. All down-hole sampling equipment was decontaminated in accordance with Maguire's March 2006 Task 210 - Subsurface Site Investigation Work Plan. Field sampling protocols were performed in accordance with the CTDEP's Guidance for Collecting & Preserving Soil & Sediment Samples for Laboratory Determination of Volatile Organic Compounds document dated Match 1, 2006.

4.2 Groundwater Grab Sample Collection & Groundwater Analyses

Three (3) groundwater grab samples (GP-13 GW, GP-18 GW, and GP-37 GW) were collected from selected borings in which groundwater was encountered. The groundwater grab samples were collected by placing dedicated PVC screen and riser casing into the borehole approximately four (4) feet into the groundwater table. Dedicated polyethylene tubing was inserted into the casing and groundwater was drawn through the tubing using a low-flow peristaltic pump. The groundwater samples were placed in laboratory supplied glassware, and stored in an ice-filled cooler. The groundwater samples were analyzed at Spectrum Analytical Laboratory for VOCs (EPA Method 8260), BNAs (EPA Method 8270), petroleum hydrocarbons (Connecticut ETPH), pesticides & PCBs (EPA Method 8081A & 8082), herbicides (EPA Method 8151), and total RCRA 8 metals.

4.3 Project Quality Assurance/Quality Control Practices

To assess the collection of samples in the field in terms of the sampling techniques and decontamination procedures followed, quality control and quality assurance samples were collected on four days of the sampling activities. Four (4) trip blank samples were prepared by Spectrum Analytical Laboratory and four (4) field blanks were collected in the field. The field and trip blank samples were stored with the daily samples in the sample cooler until subsequent delivery to the laboratory. The FB-1 and FB-3 field blank samples were collected by pouring laboratory supplied de-ionized water through an acetate liner and macro-core cutting shoe, and collecting the rinsate in appropriate sample containers. The FB-2 and FB-4 field blank samples were collected by directly pouring the laboratory supplied de-ionized water into the appropriate

sample containers to check the quality of the de-ionized water, glassware, and laboratory sample handling and analytical procedures. The field blank samples were analyzed for the same parameters as the daily samples and the trip blank sample was analyzed for VOCs.

All samples collected in the field were stored in a manner that preserved the integrity of the sample chemistry. Samples intended for organic analyses were stored in an ice-filled cooler until delivery to the laboratory. Chain-of-Custody (COC) forms were filled out and accompanied all samples collected as a legal record of possession of the sample. The COC was initiated in the field and accompanied the containers during sample collection, transportation to the lab, analysis, and final disposal of the sample. All sampling equipment was either dedicated to a specific sample or was decontaminated prior to and between each use. Sampling equipment was not placed near solvents, gasoline, or materials that may have impacted the sample integrity.

5.0 DISCUSSION OF SAMPLE RESULTS

5.1 Regulatory Criteria

The CTDEP adopted Remediation Standard Regulations (Regulations of Connecticut State Agencies, Section 22a-133k-1 to 3 and 22a-133q-1) as of January 31, 1996. The Remediation Standard Regulations (RSRs) apply to any site undergoing voluntary remediation under Public Acts 95-183 or 95-190, a transfer of an "establishment" under Public Act 95-183, or any site as ordered by the CTDEP Commissioner. The Regulations also outline the processes for establishing alternative site-specific numerical standards for certain sites, upon approval by the CTDEP.

The RSRs criteria applicable to the soil and groundwater sampled during this investigation are summarized below. The application of these RSRs to the results of the laboratory analyses from this investigation is discussed in subsections 5.2 and 5.3 of this section.

Soils Criteria: The RSRs are organized into two sets of criteria: the Direct Exposure Criteria (DEC) and the Pollutant Mobility Criteria (PMC). The DEC and PMC are briefly explained in the following sub-sections, in relation to how they would be applicable to the types of analyses conducted on the soil samples collected for this investigation. Please refer to the RSRs for a complete explanation of the Regulations.

Direct Exposure Criteria

The purpose of the Direct Exposure Criteria (DEC) is to protect human health from risks associated with the direct contact with or ingestion of various common soil contaminants. The DEC are applicable to soil within approximately fifteen (15) feet of the ground surface. Concentrations of contaminants are evaluated based upon mass-based analyses and different criteria are established for residential and commercial/industrial properties. The use of the less stringent commercial/industrial standards requires the placement of a land use restriction on the property.

The DEC is not applicable to inaccessible soils, including soil more than four (4) feet below the ground surface, two (2) feet below pavement greater than three (3) inches thick, or below an existing building, provided that an Environmental Land Use Restriction (ELUR) is placed in effect for the property.

Pollutant Mobility Criteria

The purpose of the Pollutant Mobility Criteria (PMC) is to evaluate the potential for contaminants to leach from the soil in concentrations that may degrade groundwater quality. Different numerical criteria are established for GA and GAA groundwater areas, versus GB groundwater areas.

Groundwater Criteria: Contaminants in the groundwater are compared either to background quality or the Groundwater Protection Criteria (GPC), the Volatilization Criteria, as well as the Surface Water Protection Criteria (SWPC). The GPC, Volatilization Criteria, and SWPC are briefly explained in the following sub-sections, in relation to how they would be applicable to the types of analyses conducted on the soil samples collected for this investigation.

Groundwater Protection Criteria

The purpose of the Groundwater Protection Criteria is to protect the groundwater quality in areas that have the potential to use groundwater as a drinking water resource (GA & GAA groundwater classification areas).

Volatilization Criteria

The purpose of the Volatilization Criteria standard is to ensure that volatile organic compounds (VOCs) in groundwater do not pose an unacceptable risk to human health due to the inhalation of VOCs that may enter into a structure on the property. The Volatilization Criteria only apply when impacted groundwater is located within fifteen (15) feet of the ground surface or any structure. Different criteria exist for residential and commercial/industrial properties. The use of the less stringent commercial/industrial standards requires the placement of an ELUR on the property.

Surface Water Protection Criteria

The purpose of the Surface Water Protection Criteria (SWPC) standards are to ensure that groundwater discharging to a surface water body will not adversely effect surface water quality.

5.2 Results of Soil Sample Analyses

Soil samples collected during the advancement of the Geoprobe® borings were sent to Spectrum Analytical Laboratory for laboratory analyses. Summaries of the laboratory results from the Geoprobe® boring soil samples are presented in Tables 1(a) to 1(j), which are located at the end of this report, and copies of the soil sample analytical results are included in Appendix B. The following summarizes the results of the analyses conducted on the soil samples.

Varying concentrations of petroleum hydrocarbons were detected in all of the samples from Below Reporting Limits (BRL) to 810 parts per million (ppm). The 6 to 8 foot sample from boring GP-9 contained petroleum hydrocarbons (810 parts per million [ppm]) at a concentration that exceeds the Residential DEC of 500 ppm. No other soil sample contained petroleum hydrocarbons at concentrations that exceed any applicable CTDEP RSR criteria.

The VOCs benzene, n-butylbenzene, sec-butylbenzene, 4-isopropyltoluene, naphthalene, toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene were detected at low concentrations in the GP-9, GP-17, and GP-26 soil samples. However, the concentrations of VOCs detected in the samples do not exceed any applicable CTDEP RSR criteria. No other VOCs were detected in any of the soil samples.

Several BNA compounds were detected at varying total concentrations ranging from BRL to 28.829 ppm. Four (4) soil samples contained concentrations of BNAs that exceed applicable CTDEP RSR Criteria. The 0 to 2 foot soil sample from boring GP-1 contained the compounds benzo(a)anthracene (3.31 ppm), benzo(a)pyrene (2.76 ppm), benzo(b)fluoranthene (3.22 ppm), benzo(k)fluoranthene (1.26 ppm), chrysene (2.69 ppm), and indeno(1,2,3-cd)pyrene (1.81 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. In addition, the compound benzo(a)pyrene was detected at a concentration that exceeds its Commercial/Industrial DEC.

The 4 to 8 foot soil sample from boring GP-4 contained the compounds benzo(a)anthracene (1.29 ppm), benzo(a)pyrene (1.11 ppm), benzo(b)fluoranthene (1.47 ppm), and chrysene (1.11 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were detected at concentrations that exceed their respective Residential DEC. In addition, the compound benzo(a)pyrene was detected at a concentration that exceeds its Commercial/Industrial DEC.

The 0 to 2 foot soil sample from boring GP-36 contained the compounds benzo(a)anthracene (1.72 ppm), benzo(a)pyrene (2.16 ppm), benzo(b)fluoranthene (3.64 ppm), benzo(k)fluoranthene (1.62 ppm), chrysene (1.94 ppm), and indeno(1,2,3-cd)pyrene (1.13 ppm) at concentrations that exceed their respective GA PMC. The compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were also detected at concentrations that exceed their respective Residential DEC. In addition, the compound benzo(a)pyrene was detected at a concentration that exceeds its Commercial/Industrial DEC.

The 2 to 4 foot soil sample from boring GP-37 contained the compound benzo(b)fluoranthene (1.75 ppm) at a concentration that exceeds its GA PMC and Residential DEC.

Herbicides, pesticides, and PCBs were not detected in any of the soil samples. Total concentrations of the metals arsenic, barium, cadmium, chromium, lead, mercury, and silver were detected at varying concentrations in the soil samples throughout the project corridor. Total arsenic was detected at elevated concentrations that exceed its Residential and Commercial/Industrial DEC of 10 ppm in the following two (2) samples: the 4 to 8 foot sample from boring GP-4 (14.4 ppm), and the 0 to 2 foot sample from boring GP-36 (96.9 ppm). No other soil sample contained total metals at concentrations that exceed any applicable CTDEP RSR criteria.

Leachable concentrations (via SPLP) of arsenic, barium, chromium, lead, and silver were detected at varying concentrations in the soil samples throughout the project corridor. However, the concentrations of leachable metals detected in the soil samples do not exceed any applicable CTDEP RSR criteria.

5.3 Results of Groundwater Grab Sample Analyses

The groundwater grab samples (GP-13 GW, GP-18 GW, and GP-37 GW) collected during the investigation were sent to Spectrum Analytical Laboratory for analyses. Summaries of the laboratory results from the groundwater grab samples are presented in Tables 2(a) and 2(b), which are located at the end of this report, and copies of the groundwater grab sample analytical results are included in Appendix C. The following summarizes the results of the analyses conducted on the groundwater grab samples.

The groundwater samples did not contain detectable concentrations of petroleum hydrocarbons, VOCs, BNAs, pesticides, PCBs, and herbicides. Total arsenic, barium, chromium, lead, and mercury were detected at varying concentrations in the groundwater samples. Total arsenic was detected in the GP-18 GW (0.154 ppm) sample at a concentration that exceeds its SWPC of 0.004 ppm. The GP-18 GW sample also contained total chromium (0.503 ppm) at an elevated

concentration that exceeds its SWPC of 0.11 ppm. Total lead was detected in the GP-13 GW (0.0158 ppm) and GP-18 GW (0.0438 ppm) samples at elevated concentrations that exceed its SWPC of 0.013 ppm. In addition, the GP-18 GW sample contained total mercury (0.00151 ppm) and total silver (0.0438 ppm) at elevated concentrations that exceed their respective SWPC of 0.0004 ppm and 0.012 ppm. No other metals were detected at total concentrations that exceed any applicable CTDEP RSR criteria.

5.4 Quality Assurance/Quality Control Samples

The trip blank samples (TB-1 to TB-4) did not contain detectable concentrations of VOCs. In addition, the field blank samples (FB-1 to FB-4) did not contain detectable concentrations of contaminants. Copies of the analytical reports associated with the quality assurance/quality control samples are included in Appendix D.

6.0 DISCUSSION OF AFFECTED RESOURCES

Based upon the results of laboratory analyses performed on the soil and groundwater samples for this Task 210 investigation, four (4) areas of environmental concern (AOECs) for soil and a Groundwater Area of Environmental Concern (GWAOEC) have been identified where contaminants are present at concentrations that exceed applicable CTDEP RSR criteria. In addition, five (5) low-level areas of environmental concern (LLAOECs) have been identified, where contaminants were detected at concentrations below applicable CTDEP RSR standards, but above laboratory detection limits. The locations of the AOECs, GWAOEC, and LLAOECs within the project corridor are discussed in the following sections.

6.1 Soil Areas of Environmental Concern

AOEC #1: Sample GP-1:

Analytical results from the soil sample collected from boring GP-1 indicate the presence of BNA compound contamination at slightly elevated concentrations in shallow soil ranging from 0 to 2 feet below grade. The contamination detected exceeds the GB PMC, Residential DEC, and Commercial/Industrial DEC.

AOEC #2: Sample GP-4:

Analytical results from the soil sample collected from boring GP-4 indicate the presence of BNA compound and total arsenic contamination at slightly elevated concentrations in soil ranging from 4 to 8 feet below grade. The contamination detected exceeds the GB PMC, Residential DEC, and Commercial/Industrial DEC.

AOEC #3: Sample GP-9:

Analytical results from the soil sample collected from boring GP-9 indicate the presence of petroleum hydrocarbon contamination at slightly elevated concentrations in soil ranging from 6 to 8 feet below grade. The contamination detected exceeds the Residential DEC.

AOEC #4: Samples GP-36 & GP-37:

Analytical results from the soil samples collected from borings GP-36 and GP-37 indicate the presence of BNA compound and total arsenic contamination at elevated concentrations in shallow soil ranging from 0 to 4 feet below grade. The contamination detected exceeds the GB PMC, Residential DEC, and Commercial/Industrial DEC.

6.2 Groundwater Area of Environmental Concern

Analytical results from the GP-13 GW and GP-18 GW groundwater samples indicate the presence of arsenic, chromium, lead, mercury, and silver at total concentrations that exceed the CTDEP's SWPC. Therefore, all construction dewatering fluids generated within the portion of the project corridor to the west of Piper Brook shall be considered contaminated and must be pumped to approved containers for filtration or sediment settling, and sampled prior to discharge or disposal in accordance with applicable regulations and permit requirements.

6.3 Low Level Areas of Environmental Concern

LLAOEC #A: Sample GP-7:

Analytical results from the soil sample collected from boring GP-7 indicate the presence of petroleum hydrocarbons at concentrations below CTDEP RSR standards. The contaminants were detected in the soil ranging from 0 to 3 feet below grade.

LLAOEC #B: Sample GP-17:

Analytical results from the soil sample collected from boring GP-17 indicate the presence of VOCs and BNAs at concentrations below CTDEP RSR standards. The contaminants were detected in the soil ranging from 2 to 4 feet below grade.

LLAOEC #C: Sample GP-22:

Analytical results from the soil sample collected from boring GP-22 indicate the presence of petroleum hydrocarbons at concentrations below CTDEP RSR standards. The contaminants were detected in the soil ranging from 2 to 4 feet below grade.

LLAOEC #D: Sample GP-26:

Analytical results from the soil sample collected from boring GP-26 indicate the presence of VOCs, petroleum hydrocarbons, and BNAs at concentrations below CTDEP RSR standards. The contaminants were detected in the soil ranging from 2 to 4 feet below grade.

LLAOEC #E: Samples GP-31 & GP-32:

Analytical results from the soil samples collected from borings GP-31 and GP-32 indicate the presence of petroleum hydrocarbons and BNAs at concentrations below CTDEP RSR standards. The contaminants were detected in the soil ranging from 2 to 7.5 feet below grade.

7.0 RECOMMENDATIONS

The results of the Task 210 – Subsurface Site Investigation for the construction of the New Britain to Hartford Busway in New Britain and Newington, Connecticut (State Project No. 88-H035) indicate the presence of petroleum hydrocarbon, BNA compound, and total arsenic contamination in shallow soil samples collected from the project area, at concentrations that exceed applicable CTDEP RSR criteria. The contamination was detected in soils ranging in depth from 0 to 8 feet below grade. In addition, groundwater collected from the project corridor is also contaminated with total arsenic, total chromium, total lead, total mercury, and total silver at concentrations that exceed applicable RSR criteria. Four (4) Areas of Environmental Concern (AOECs) for soil, a Groundwater Area of Environmental Concern (GWAOEC), and five (5) Low-Level Areas of Environmental Concern (LLAOECs) have been identified within the project corridor. Special considerations for treatment/disposal, dewatering activities, and worker health and safety must be given to these areas in order to ensure compliance with all local, State and Federal laws. Task 310 Plans and Specifications are therefore recommended for the areas of construction within the Areas of Environmental Concern, Groundwater Area of Environmental Concern, and Low-Level Areas of Environmental Concern described in Section 6.0 above.

8.0 LIMITATIONS

All work product and reports provided by Maguire Group Inc. (MGI) in connection with the performance of this Task 210 - Subsurface Site Investigation are subject to the following limitations:

1. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services provided to ConnDOT.

2. In preparing this report, MGI has relied on certain information provided by State and local officials and information and representations made by other parties referenced therein, and on information contained in the files of State and/or local agencies made available to MGI at the time of this investigation. To the extent that such files are missing, incomplete or not provided to MGI, MGI is not responsible. Although there may have been some degree of overlap in the information provided by these various sources, MGI did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this investigation.

3. The conclusions and recommendations contained in this report are based in part upon the data from subsurface explorations. The nature and extent of variations between these explorations may not become evident until further explorations are completed. If variations or other latent conditions become evident, it will be necessary to re-evaluate the conclusions and recommendations of this report.

4. The water level readings made for this investigation were made at the times and conditions stated on the boring logs. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, passage of time and other factors. Should additional data become available in the future, these data should be reviewed by MGI, and the conclusions and recommendations presented herein modified accordingly.

5. Where quantitative laboratory analyses have been conducted by an outside certified laboratory, MGI has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these tests.

6. If the conclusions and recommendations contained in this report are based, in part, upon various types of chemical data then the conclusions and recommendations are contingent upon the validity of such data. These data have been reviewed and interpretations made in the report. It should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed by MGI and the conclusions and recommendations presented herein modified accordingly.

7. Chemical analyses were performed for specific parameters during the course of this investigation, as described in the text. However, it should be noted that testing for all known chemical constituents was not performed. The conclusions and recommendations contained in this report are based only upon the chemical constituents for which testing was accomplished.

The following qualifications apply to the undersigned's opinion:

The activities described and opinions included herein are based on information gathered during this exploratory site investigation which was limited in scope in adherence to the terms of our agreement. The professional opinion provided herein is based on the information described in this report.

The information contained herein was prepared for the use of ConnDOT solely in conjunction with the task descriptions for this assignment. The conclusions and recommendations set forth in this report are based on site conditions at the time of the investigation. Future studies and findings could change the contents of this report. The professional opinions presented in this report have been developed by using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental engineering consultants practicing in this or similar localities. No other warranty, expressed or implied, is made as to the professional opinions included in this report.

Prepared by:	Approved by:	Reviewed by:
Cindy Knight		Jane Witherell
Cindy Knight Logical Env. Solutions	David R. Stock, P.E. Program Manager	Jane Witherell, P.E., L.E.P. Principal Engineer

TABLES

TABLE 1(a) - Results of Geoprobe Boring Soil Sample Analyses
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

Boring I.D.: Sample Depth: (Groundwater Classification)	GP-1 0'-2' (GB)	GP-2 2'-4' (GB)	GP-3 2'-4' (GB)	GP-4 4'-8' (GB)	CTDEP PMC GB Groundwater Area	CTDEP DEC Residential/Commercial & Industrial
CT ETPH - (ppm)	246	BRL	BRL	60.0	1,000 ppm	500/2,500 ppm
VOCs - Method 8260 (ppm)	BRL	BRL	BRL	BRL		
BNAs - Method 8270 (ppm)						
Acenaphthylene	0.889	BRL	BRL	BRL	84 ppm	1,000/2,500 ppm
Anthracene	0.831	BRL	BRL	0.331	400 ppm	1,000/2,500 ppm
Benzo(a)anthracene	***3.31***	BRL	BRL	***1.29***	**1 ppm**	**1**/7.8 ppm
Benzo(a)pyrene	***2.76***	BRL	BRL	***1.11***	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	***3.22***	BRL	BRL	***1.47***	**1 ppm**	**1**/7.8 ppm
Benzo(g,h,i)perylene	1.47	BRL	BRL	0.363	42 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	***1.26***	BRL	BRL	0.756	**1 ppm**	8.4/78 ppm
Chrysene	***2.69***	BRL	BRL	***1.11***	**1 ppm**	84/780 ppm
Dibenz(a,h)anthracene	0.561	BRL	BRL	BRL	1 ppm	1/1 ppm
Fluoranthene	5.06	BRL	BRL	2.05	56 ppm	1,000/2,500 ppm
Fluorene	0.198	BRL	BRL	BRL	56 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	***1.81***	BRL	BRL	0.398	**1 ppm**	**1**/7.8 ppm
Phenanthrene	1.52	BRL	BRL	0.878	40 ppm	1/7.8 ppm
Pyrene	3.25	BRL	BRL	2.19	40 ppm	1,000/2,500 ppm
Total BNAs	28.829	BRL	BRL	11.946		
Pesticides – Method 8081A (ppm)	BRL	BRL	BRL	BRL		
PCBs – Method 8082 (ppm)	BRL	BRL	BRL	BRL	Not Applicable	1/10 ppm
Herbicides – Method 8151 (ppb)	BRL	BRL	BRL	BRL		
Total RCRA 8 Metals – ppm					Not Applicable	
Arsenic	5.71	2.69	4.54	***14.4***		**10/10 ppm**
Barium	171	73.7	98.1	48.7		4,700/140,000 ppm
Cadmium	0.426	0.558	0.58	0.568		34/1,000 ppm
Chromium	21.8	14.7	19.6	12.5		100/100 ppm
Lead	67.7	12.1	38.8	90.9		500/1,000 ppm
Mercury	0.184	BRL	0.0746	0.185		20/610 ppm
Silver	1.96	BRL	1.44	1.9		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						Not Applicable
Barium	0.0272	0.0234	0.161	0.015	10.0 ppm	
Chromium	BRL	BRL	0.0153	BRL	0.5 ppm	
Lead	BRL	BRL	0.0304	0.0278	0.15 ppm	

BRL – Below Reporting Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(b) - Results of Geoprobe Boring Soil Sample Analyses
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

Boring I.D.: Sample Depth: (Groundwater Classification)	GP-5 2'-4' (GB)	GP-6 2'-4' (GB)	GP-7 0'-3' (GB)	GP-8 0'-3' (GB)	CTDEP PMC GB Groundwater Area	CTDEP DEC Residential/Commercial & Industrial
CT ETPH - (ppm)	BRL	BRL	38.6	BRL	1,000 ppm	500/2,500 ppm
VOCs - Method 8260 (ppm)	BRL	BRL	BRL	BRL		
BNAs - Method 8270 (ppm)	BRL	BRL	BRL	BRL		
Pesticides – Method 8081A (ppm)	BRL	BRL	BRL	BRL		
PCBs – Method 8082 (ppm)	BRL	BRL	BRL	BRL	Not Applicable	1/10 ppm
Herbicides – Method 8151 (ppb)	BRL	BRL	BRL	BRL		
Total RCRA 8 Metals – ppm					Not Applicable	
Arsenic	4.58	6.32	5.07	4.87		10/10 ppm
Barium	77.5	89.9	128	123		4,700/140,000 ppm
Cadmium	0.413	0.465	BRL	BRL		34/1,000 ppm
Chromium	18.1	18.4	16.7	16.8		100/100 ppm
Lead	11.6	11.6	17.7	28.3		500/1,000 ppm
Silver	1.49	1.67	1.59	1.82		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						Not Applicable
Barium	0.0094	0.0188	0.025	0.0299	10.0 ppm	

BRL – Below Reporting Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(c) - Results of Geoprobe Boring Soil Sample Analyses
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

Boring I.D.: Sample Depth: (Groundwater Classification)	GP-9 6'-8' (GB)	GP-10 2'-4' (GB)	GP-11 2'-4' (GB)	GP-12 2'-4' (GB)	CTDEP PMC GB Groundwater Area	CTDEP DEC Residential/Commercial & Industrial
CT ETPH - (ppm)	***810***	BRL	BRL	BRL	1,000 ppm	**500**/2,500 ppm
VOCs - Method 8260 (ppm)						
n-Butylbenzene	0.155	BRL	BRL	BRL	14 ppm	500/1,000 ppm
sec-Butylbenzene	0.165	BRL	BRL	BRL	14 ppm	500/1,000 ppm
4-Isopropyltoluene	0.182	BRL	BRL	BRL	41.8 ppm	500/1,000 ppm
Naphthalene	0.0959	BRL	BRL	BRL	56 ppm	1,000/2,500 ppm
1,2,4-Trimethylbenzene	0.225	BRL	BRL	BRL	70 ppm	500/1,000 ppm
1,3,5-Trimethylbenzene	0.101	BRL	BRL	BRL	70 ppm	500/1,000 ppm
BNAs - Method 8270 (ppm)						
1-Methylnaphthalene	0.364	BRL	BRL	BRL	No Standard	No Standard
2-Methylnaphthalene	0.323	BRL	BRL	BRL	9.8 ppm	474/2,500 ppm
Phenanthrene	0.462	BRL	BRL	BRL	40 ppm	1,000/2,500 ppm
Total BNAs	1.149	BRL	BRL	BRL		
Pesticides – Method 8081A (ppm)	BRL	BRL	BRL	BRL		
PCBs – Method 8082 (ppm)	BRL	BRL	BRL	BRL	Not Applicable	1/10 ppm
Herbicides – Method 8151 (ppb)	BRL	BRL	BRL	BRL		
Total RCRA 8 Metals – ppm					Not Applicable	
Arsenic	2.66	4.97	5.34	4.55		10/10 ppm
Barium	150	77.2	84.0	67.3		4,700/140,000 ppm
Cadmium	BRL	0.37	0.4	BRL		34/1,000 ppm
Chromium	16.0	19.5	23.3	13.7		100/100 ppm
Lead	10.3	11.3	13.2	7.71		500/1,000 ppm
Silver	BRL	1.58	1.95	1.93		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						Not Applicable
Barium	0.033	0.0114	0.026	0.0105	10.0 ppm	

BRL – Below Reporting Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(d) - Results of Geoprobe Boring Soil Sample Analyses
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

Boring I.D.: Sample Depth: (Groundwater Classification)	GP-13 2'-4' (GB)	GP-14 2'-4' (GB)	GP-15 2'-4' (GB)	GP-16 2'-4' (GB)	CTDEP PMC GB Groundwater Area	CTDEP DEC Residential/Commercial & Industrial
CT ETPH - (ppm)	BRL	BRL	BRL	BRL	1,000 ppm	500/2,500 ppm
VOCs - Method 8260 (ppm)	BRL	BRL	BRL	BRL		
BNAs - Method 8270 (ppm)	BRL	BRL	BRL	BRL		
Pesticides – Method 8081A (ppm)	BRL	BRL	BRL	BRL		
PCBs – Method 8082 (ppm)	BRL	BRL	BRL	BRL	Not Applicable	1/10 ppm
Herbicides – Method 8151 (ppb)	BRL	BRL	BRL	BRL		
Total RCRA 8 Metals – ppm					Not Applicable	
Arsenic	4.42	BRL	3.39	2.35		10/10 ppm
Barium	67.9	65.2	146	389		4,700/140,000 ppm
Cadmium	0.279	0.488	0.276	BRL		34/1,000 ppm
Chromium	19.0	22.3	19.2	19.7		100/100 ppm
Lead	17.3	21.5	9.36	9.83		500/1,000 ppm
Silver	1.54	BRL	1.54	1.4		340/10,000 ppm
SPLP RCRA 8 Metals – ppm						Not Applicable
Arsenic	BRL	BRL	BRL	0.004	0.5 ppm	
Barium	0.0321	0.0298	0.0868	0.154	10.0 ppm	
Chromium	0.0054	0.0056	0.0053	0.0076	0.5 ppm	
Lead	0.0062	BRL	BRL	0.0072	0.15 ppm	
Silver	0.0083	BRL	BRL	BRL	0.36 ppm	

BRL – Below Reporting Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(e) - Results of Geoprobe Boring Soil Sample Analyses
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

Boring I.D.: Sample Depth: (Groundwater Classification)	GP-17 2'-4' (GB)	GP-18 4'-8' (GB)	GP-19 2'-4' (GB)	GP-20 2'-4' (GB)	CTDEP PMC GB Groundwater Area	CTDEP DEC Residential/Commercial & Industrial
CT ETPH - (ppm)	BRL	BRL	BRL	BRL	1,000 ppm	500/2,500 ppm
VOCs - Method 8260 (ppm)						
Naphthalene	0.204	BRL	BRL	BRL	56 ppm	1,000/2,500 ppm
BNAs - Method 8270 (ppm)						
Fluoranthene	0.292	BRL	BRL	BRL	56 ppm	1,000/2,500 ppm
Phenanthrene	0.266	BRL	BRL	BRL	40 ppm	1,000/2,500 ppm
Pyrene	0.229	BRL	BRL	BRL	40 ppm	1,000/2,500 ppm
Total BNAs	0.787	BRL	BRL	BRL		
Pesticides – Method 8081A (ppm)	BRL	BRL	BRL	BRL		
PCBs – Method 8082 (ppm)	BRL	BRL	BRL	BRL	Not Applicable	1/10 ppm
Herbicides – Method 8151 (ppb)	BRL	BRL	BRL	BRL		
Total RCRA 8 Metals – ppm					Not Applicable	
Arsenic	4.34	8.09	1.92	3.21		10/10 ppm
Barium	84.2	369	96.4	67.2		4,700/140,000 ppm
Cadmium	BRL	BRL	1.0	BRL		34/1,000 ppm
Chromium	15.5	16.3	17.7	16.9		100/100 ppm
Lead	25.3	8.2	11.8	19.1		500/1,000 ppm
Mercury	0.0684	BRL	BRL	0.0871		20/610 ppm
Silver	1.27	1.94	BRL	BRL		340/10,000 ppm
SPLP RCRA 8 Metals – ppm						Not Applicable
Arsenic	0.004	BRL	BRL	BRL	0.5 ppm	
Barium	0.0304	0.0409	0.186	0.0313	10.0 ppm	
Chromium	BRL	BRL	0.0268	BRL	0.5 ppm	
Lead	0.0084	BRL	BRL	0.0058	0.15 ppm	

BRL – Below Reporting Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(f) - Results of Geoprobe Boring Soil Sample Analyses
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

Boring I.D.: Sample Depth: (Groundwater Classification)	GP-21 4'-6' (GB)	GP-22 2'-4' (GB)	GP-23 2'-4' (GB)	GP-24 2'-4' (GB)	CTDEP PMC GB Groundwater Area	CTDEP DEC Residential/Commercial & Industrial
CT ETPH - (ppm)	BRL	30.5	BRL	BRL	1,000 ppm	500/2,500 ppm
VOCs - Method 8260 (ppm)	BRL	BRL	BRL	BRL		
BNAs- Method 8270 (ppm)	BRL	BRL	BRL	BRL		
Pesticides – Method 8081A (ppm)	BRL	BRL	BRL	BRL		
Herbicides – Method 8151 (ppb)	BRL	BRL	BRL	BRL		
Total RCRA 8 Metals – ppm						
Arsenic	4.25	4.49	6.03	4.48		10/10 ppm
Barium	377	247	324	109		4,700/140,000 ppm
Cadmium	BRL	0.323	0.431	0.271		34/1,000 ppm
Chromium	17.6	18.0	20.0	15.7		100/100 ppm
Lead	8.11	15.8	14.6	21.8		500/1,000 ppm
Silver	BRL	1.19	1.29	1.39		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.0683	0.039	0.0799	0.0215	10.0 ppm	
Chromium	BRL	BRL	0.005	BRL	0.5 ppm	

BRL – Below Reporting Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(g) - Results of Geoprobe Boring Soil Sample Analyses
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

Boring I.D.: Sample Depth: (Groundwater Classification)	GP-25 2'-4' (GB)	GP-26 2'-4' (GB)	GP-27 4'-8' (GB)	GP-28 2'-4' (GB)	CTDEP PMC GB Groundwater Area	CTDEP DEC Residential/Commercial & Industrial
CT ETPH - (ppm)	BRL	51.1	BRL	BRL	1,000 ppm	500/2,500 ppm
VOCs - Method 8260 (ppm)						
Benzene	BRL	0.0639	BRL	BRL	0.2 ppm	21/200 ppm
Naphthalene	BRL	0.091	BRL	BRL	56 ppm	1,000/2,500 ppm
Toluene	BRL	0.133	BRL	BRL	67 ppm	500/1,000 ppm
BNAs- Method 8270 (ppm)	BRL	BRL	BRL	BRL		
Pesticides – Method 8081A (ppm)	BRL	BRL	BRL	BRL		
Herbicides – Method 8151 (ppb)	BRL	BRL	BRL	BRL		
Total RCRA 8 Metals – ppm						
Arsenic	4.28	9.61	4.51	5.25		10/10 ppm
Barium	81.0	73.4	111	82.9		4,700/140,000 ppm
Cadmium	0.295	0.269	BRL	0.398		34/1,000 ppm
Chromium	16.9	16.3	20.3	23.6		100/100 ppm
Lead	25.9	33.9	8.79	11.2		500/1,000 ppm
Silver	1.29	1.5	1.61	1.71		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.0158	BRL	BRL	BRL	10.0 ppm	

BRL – Below Reporting Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(h) - Results of Geoprobe Boring Soil Sample Analyses
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

Boring I.D.: Sample Depth: (Groundwater Classification)	GP-29 2'-4' (GB)	GP-30 2'-4' (GB)	GP-31 2'-4' (GA)	GP-32 4'-7.5' (GA)	CTDEP PMC GA/GB Groundwater Area	CTDEP DEC Residential/Commercial & Industrial
CT ETPH - (ppm)	BRL	BRL	117	BRL	500/1,000 ppm	500/2,500 ppm
VOCs - Method 8260 (ppm)	BRL	BRL	BRL	BRL		
BNAs- Method 8270 (ppm)						
Bis(2-etrhylhexyl)phthalate	BRL	BRL	BRL	0.935	1/11 ppm	44/410 ppm
Pesticides – Method 8081A (ppm)	BRL	BRL	BRL	BRL		
Herbicides – Method 8151 (ppb)	BRL	BRL	BRL	BRL		
Total RCRA 8 Metals – ppm						
Arsenic	5.1	6.42	4.17	4.61		10/10 ppm
Barium	87.7	75.1	57.1	57.1		4,700/140,000 ppm
Cadmium	0.376	0.361	0.386	0.379		34/1,000 ppm
Chromium	22.7	17.3	12.5	18.5		100/100 ppm
Lead	10.4	33.1	29.6	8.87		500/1,000 ppm
Silver	1.85	1.59	1.11	2.15		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	BRL	0.0142	0.0183	0.0129	1/10.0 ppm	

BRL – Below Reporting Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(i) - Results of Geoprobe Boring Soil Sample Analyses
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

Boring I.D.: Sample Depth: (Groundwater Classification)	GP-33 2'-4' (GA)	GP-34 2'-4' (GA)	GP-35 6'-8' (GA)	GP-36 0'-2' (GA)	CTDEP PMC GA Groundwater Area	CTDEP DEC Residential/Commercial & Industrial
CT ETPH - (ppm)	BRL	BRL	BRL	190	500 ppm	500/2,500 ppm
VOCs - Method 8260 (ppm)	BRL	BRL	BRL	BRL		
BNAs - Method 8270 (ppm)						
Acenaphthylene	BRL	BRL	BRL	0.743	8.4 ppm	1,000/2,500 ppm
Benzo(a)anthracene	BRL	BRL	BRL	***1.72***	**1 ppm**	**1**/7.8 ppm
Benzo(a)pyrene	BRL	BRL	BRL	***2.16***	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	BRL	BRL	BRL	***3.64***	**1 ppm**	**1**/7.8 ppm
Benzo(g,h,i)perylene	BRL	BRL	BRL	1.0	4.2 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	BRL	BRL	BRL	***1.62***	**1 ppm**	8.4/78 ppm
Chrysene	BRL	BRL	BRL	***1.94***	**1 ppm**	84/780 ppm
Fluoranthene	BRL	BRL	BRL	2.27	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	BRL	BRL	BRL	***1.13***	**1 ppm**	**1**/7.8 ppm
Phenanthrene	BRL	BRL	BRL	0.616	4 ppm	1/7.8 ppm
Pyrene	BRL	BRL	BRL	2.53	4 ppm	1,000/2,500 ppm
Total BNAs	BRL	BRL	BRL	19.369		
Pesticides – Method 8081A (ppm)	BRL	BRL	BRL	BRL		
Herbicides – Method 8151 (ppb)	BRL	BRL	BRL	BRL		
Total RCRA 8 Metals – ppm						
Arsenic	5.13	3.44	BRL	***96.9***		**10/10 ppm**
Barium	98.9	84.4	102	32.1		4,700/140,000 ppm
Cadmium	0.345	0.55	0.409	0.362		34/1,000 ppm
Chromium	15.0	15.7	18.7	9.89		100/100 ppm
Lead	15.3	17.2	11.7	31.3		500/1,000 ppm
Silver	BRL	4.74	1.48	1.33		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Arsenic	BRL	BRL	BRL	0.0308	0.05 ppm	
Barium	0.013	BRL	0.0144	0.0126	1.0 ppm	
Lead	BRL	BRL	BRL	0.0093	0.015 ppm	

BRL – Below Reporting Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(j) - Results of Geoprobe Boring Soil Sample Analyses
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

Boring I.D.: Sample Depth: (Groundwater Classification)	GP-37 2'-4' (GA)	GP-38 2'-4' (GA)	CTDEP PMC GA Groundwater Area	CTDEP DEC Residential/Commercial & Industrial
CT ETPH - (ppm)	126	BRL	500 ppm	500/2,500 ppm
VOCs - Method 8260 (ppm)	BRL	BRL		
BNAs - Method 8270 (ppm)				
Benzo(a)anthracene	0.476	BRL	1 ppm	1/7.8 ppm
Benzo(a)pyrene	0.737	BRL	1 ppm	1/1 ppm
Benzo(b)fluoranthene	***1.75***	BRL	**1 ppm**	1/7.8 ppm
Benzo(g,h,i)perylene	0.612	BRL	4.2 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	0.755	BRL	1 ppm	8.4/78 ppm
Chrysene	0.74	BRL	1 ppm	84/780 ppm
Fluoranthene	0.709	BRL	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	0.666	BRL	1 ppm	1/7.8 ppm
Pyrene	0.861	BRL	4 ppm	1,000/2,500 ppm
Total BNAs	7.306	BRL		
Pesticides – Method 8081A (ppm)	BRL	BRL		
Herbicides – Method 8151 (ppb)	BRL	BRL		
Total RCRA 8 Metals – ppm				
Arsenic	9.2	5.18		10/10 ppm
Barium	55.3	75.3		4,700/140,000 ppm
Cadmium	0.383	0.377		34/1,000 ppm
Chromium	15.4	20.3		100/100 ppm
Lead	17.2	12.4		500/1,000 ppm
Mercury	0.114	BRL		20/610 ppm
Silver	BRL	1.66		340/10,000 ppm
SPLP RCRA 8 Metals - ppm				
Barium	0.0202	0.0467	1.0 ppm	
Lead	0.008	BRL	0.015 ppm	

BRL – Below Reporting Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 2(a) - Results of Groundwater Grab Sample Analyses
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

Sample I.D.: (Groundwater Classification)	GP-13 GW (GB)	GP-18 GW (GB)	CTDEP Surface Water Protection Criteria	CTDEP Volatilization Criteria Residential/Commercial & Industrial
CT ETPH (ppm)	BRL	BRL	None Established	Not Applicable
VOCs - EPA Method 8260 (ppb)	BRL	BRL		
BNAs - EPA Method 8270 (ppb)	BRL	BRL		
Pesticides - EPA Method 8081A (ppb)	BRL	BRL		
PCBs - EPA Method 8080 (ppb)	BRL	BRL	0.5 ppb	Not Applicable
Herbicides – EPA Method 8151 (ppb)	BRL	BRL		
Total RCRA 8 Metals – ppm				Not Applicable
Arsenic	BRL	***0.154***	**0.004 ppm**	
Barium	0.458	12.0	No Standard	
Chromium	0.0222	***0.503***	**0.11 ppm**	
Lead	***0.0158***	***0.458***	**0.013 ppm**	
Mercury	BRL	***0.00151***	**0.0004 ppm**	
Silver	BRL	***0.0438***	**0.012 ppm**	

Exceeds SW SS

BRL – Below fic detection limits)

Exceeds SW
10 to 1

The compou itory reports for full lists of
compounds a

TABLE 2(b) - Results of Groundwater Grab Sample Analyses
New Britain to Hartford Busway Inactive Line
New Britain, Connecticut

Sample I.D.: (Groundwater Classification)	GP-37 GW (GA)	CTDEP Groundwater Protection Criteria	CTDEP Surface Water Protection Criteria	CTDEP Volatilization Criteria Residential/Commercial & Industrial
CT ETPH (ppm)	BRL		None Established	Not Applicable
VOCs - EPA Method 8260 (ppb)	BRL			
BNAs - EPA Method 8270 (ppb)	BRL			
Pesticides - EPA Method 8081A (ppb)	BRL			
PCBs - EPA Method 8080 (ppb)	BRL		0.5 ppb	Not Applicable
Herbicides – EPA Method 8151 (ppb)	BRL			
Total RCRA 8 Metals – ppm				Not Applicable
Barium	0.106	1.0 ppm	No Standard	
Chromium	0.0109	0.05 ppm	0.11 ppm	
Lead	0.0094	0.015 ppm	0.013 ppm	

BRL – Below Reporting Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

APPENDIX A
Boring Logs

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway
Boring: GP-1
Location: New Britain, CT
Inspector: C. Criscuolo
Client: Maguire Group Inc.
Date: 4-14-06

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
1.0		Dark-Brown fine to medium SAND, some Silt, trace fine to coarse Gravel & Brick (FILL)	2.0	1.3	Macro Core 0'-2'
2.0					
3.0		Refusal at 2' on Gray BASALT			
4.0					
5.0					
6.0					
7.0					
8.0					
9.0					
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry
Depth to Water: Dry
Boring Dia.: 2"
Rig: Geoprobe 540U
Boring Depth: 2'
Page: 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway
Boring: GP-2
Location: New Britain, CT
Inspector: C. Criscuolo
Client: Maguire Group Inc.
Date: 5-23-06

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
		Ground Surface	0.0		
0.0		ASPHALT	1.0	0.5	Macro Core 0'-2'
1.0		Red-Brown fine SAND & SILT, little fine to coarse Gravel	1.5		
		ASPHALT	2.0		
2.0		Red-Brown fine SAND & SILT, little fine to coarse Gravel		0.8	Macro Core 2'-4'
3.0					
4.0					
5.0			5.0		
6.0		Red-Brown fine to coarse SAND, little Cobble, trace fine Gravel		0.7	Macro Core 4'-8'
7.0					
8.0					
9.0			9.0	0.1	Macro Core 8'-10.5'
10.0		Red-Brown SILT, trace Clay	10.5		
11.0		Refusal at 10.5' on Weathered SANDSTONE			
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry
Depth to Water: Dry
Boring Dia.: 2"
Rig: Geoprobe 540U
Boring Depth: 10.5'
Page: 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway	**Boring:** GP-3
Location: New Britain, CT	**Inspector:** C. Criscuolo
Client: Maguire Group Inc.	**Date:** 5-23-06

Logical Environmental Solutions
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Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
		Ground Surface	0.0		
0.0		Dark-Brown fine to medium SAND, little Silt & fine to coarse Gravel	1.0	0.1	Macro Core 0'-2'
1.0					
2.0					
3.0				0.2	Macro Core 2'-4'
4.0					
5.0		Dark-Brown fine SAND, some Silt, trace Asphalt & Wood (FILL)			
6.0				0.1	Macro Core 4'-8'
7.0					
8.0					
9.0			9.5	0	Macro Core 8'-10'
10.0		Red-Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand & Clay	10.0		
11.0		Refusal at 10' on Weathered SANDSTONE			
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 10'	**Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway	**Boring:** GP-4
Location: New Britain, CT	**Inspector:** C. Criscuolo
Client: Maguire Group Inc.	**Date:** 5-23-06

Logical Environmental Solutions
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Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		ASPHALT - 3"	0.3		
1.0		Dark-Brown fine to medium SAND, little Silt & fine to coarse Gravel	1.0	0.2	Macro Core 0'-2'
2.0					
3.0				0.9	Macro Core 2'-4'
4.0					
5.0		Dark-Brown fine SAND, some Silt, trace Asphalt & Wood (FILL)			
6.0				0.2	Macro Core 4'-8'
7.0					
8.0					
9.0				0	Macro Core 8'-10'
			9.5		
10.0		Red-Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand & Clay	10.0		
11.0		Refusal at 10' on Weathered SANDSTONE			
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 10'	**Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway
Boring: GP-6
Location: New Britain, CT
Inspector: C. Criscuolo
Client: Maguire Group Inc.
Date: 4-12-06

Logical Environmental Solutions
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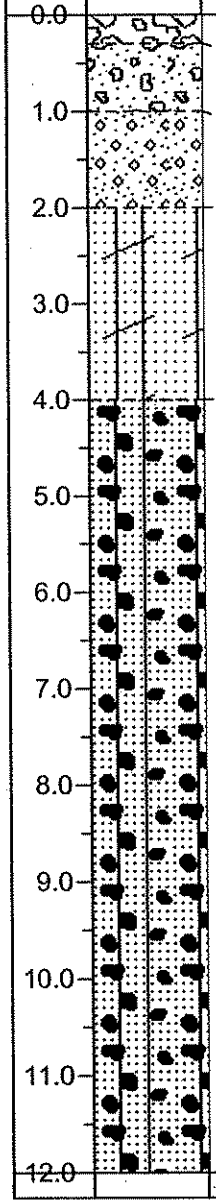
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes



Depth (feet)	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0	Ground Surface	0.0		
	Gray medium to coarse GRAVEL	0.3		
	Dark-Brown to Black fine to medium SAND, little Silt, trace Ash & Cinders	1.0	0	Macro Core 0'-2'
	Brown fine to coarse SAND, trace Silt & fine Gravel	2.0		
	Red-Brown SILT, trace fine to medium Sand, Cobble & Clay	4.0	0	Macro Core 2'-4'
	Red-Brown fine to medium SAND & SILT, little fine to coarse Gravel & Cobble, trace Clay (moist)		0	Macro Core 4'-8'
			0	Macro Core 8'-12'
	End of Boring at 12'	12.0		

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry
Depth to Water: Dry
Boring Dia.: 2"
Rig: Geoprobe 540U
Boring Depth: 12'
Page: 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway	**Boring:** GP-5
Location: New Britain, CT	**Inspector:** C. Criscuolo
Client: Maguire Group Inc.	**Date:** 4-12-06

Logical Environmental Solutions
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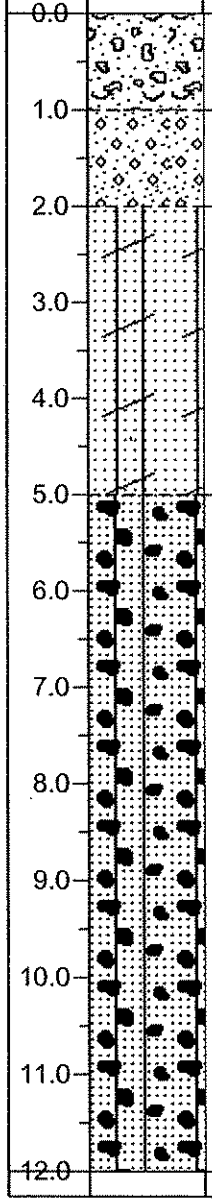

Depth (feet)	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0	Ground Surface	0.0		
	Dark-Brown to Black fine to medium SAND, little Silt, trace fine to coarse Gravel	1.0	0	Macro Core 0'-2'
	Brown fine to coarse SAND, trace Silt & fine Gravel	2.0		
	Red-Brown SILT, trace fine to medium Sand & Clay	5.0	0	Macro Core 2'-4'
			0	Macro Core 4'-8'
	Red-Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand & Clay (moist)		0	Macro Core 8'-12'
	End of Boring at 12'	12.0		

Depth scale: 0.0, 1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0, 12.0

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 12'	**Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway
Boring: GP-7
Location: New Britain, CT
Inspector: C. Criscuolo
Client: Maguire Group Inc.
Date: 4-12-06

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Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Brown fine to medium SAND & SILT, trace fine to coarse Gravel	1.0		
1.0		Red-Brown fine to medium SAND, little Silt & Cobble, trace fine to coarse Gravel	3.0	0.8	Macro Core 0'-3'
3.0		Refusal at 3' on Gray BASALT			
4.0					
5.0					
6.0					
7.0					
8.0					
9.0					
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry
Depth to Water: Dry
Boring Dia.: 2"
Rig: Geoprobe 540U
Boring Depth: 3'
Page: 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway	**Boring:** GP-8
Location: New Britain, CT	**Inspector:** C. Criscuolo
Client: Maguire Group Inc.	**Date:** 4-12-06

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Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Brown fine to medium SAND & SILT, trace fine to coarse Gravel	1.0		
1.0		Red-Brown fine to medium SAND, little Silt & Cobble, trace fine to coarse Gravel	3.0	0	Macro Core 0'-3'
2.0					
3.0					
4.0		Refusal at 3' on Gray BASALT			
5.0					
6.0					
7.0					
8.0					
9.0					
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 3'	**Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway
Boring: GP-9
Location: New Britain, CT
Inspector: C. Criscuolo
Client: Maguire Group Inc.
Date: 4-14-06

Logical Environmental Solutions
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Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Brown fine to coarse SAND, trace Silt & fine to coarse Gravel	1.0	0.4	Macro Core 0'-2'
1.0		Black ASH & CINDERS, little fine to coarse Sand & Gravel, trace Silt	2.5		
2.0		Red-Brown fine to coarse SAND, trace Silt, fine to coarse Gravel & Cobble	3.5	2.1	Macro Core 2'-4'
3.0		Red-Brown SILT, little fine to coarse Gravel, trace fine to medium Sand	6.5	103	Macro Core 4'-8'
4.0		Gray SILT, trace Clay & fine Sand (petroleum odor, moist)		14	Macro Core 8'-12'
5.0					
6.0					
7.0					
8.0					
9.0					
10.0					
11.0		End of Boring at 12'	12.0		
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry
Depth to Water: Dry
Boring Dia.: 2"
Rig: Geoprobe 540U
Boring Depth: 12'
Page: 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway	**Boring:** GP-10
Location: New Britain, CT	**Inspector:** C. Criscuolo
Client: Maguire Group Inc.	**Date:** 4-12-06

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Black fine to medium SAND, some Silt, trace fine to coarse Gravel	1.0	0	Macro Core 0'-2'
1.0		Brown fine to coarse SAND, trace Silt & fine to coarse Gravel	1.5		
2.0		Red-Brown SILT, trace fine Sand & Clay		0	Macro Core 2'-4'
3.0			3.5		
4.0		Red-Brown fine to coarse SAND, little Silt, fine to coarse Gravel & Cobble	4.5		
5.0		Red-Brown SILT, little fine to medium Sand, trace fine to coarse Gravel, Cobble & Clay		0	Macro Core 4'-8'
6.0					
7.0					
8.0				0	Macro Core 8'-9'
9.0			9.0		
10.0		Refusal at 9' on Red-Brown SANDSTONE			
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 9'	**Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway
Boring: GP-11
Location: New Britain, CT
Inspector: C. Criscuolo
Client: Maguire Group Inc.
Date: 4-12-06

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Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Black fine to medium SAND, some Silt, trace fine to coarse Gravel	1.0	0	Macro Core 0'-2'
1.0		Brown fine to coarse SAND, trace Silt & fine to coarse Gravel	1.5		
2.0		Red-Brown SILT, trace fine Sand & Clay		0	Macro Core 2'-4'
3.0					
4.0			4.0		
5.0		Red-Brown fine to coarse SAND, little Silt, fine to coarse Gravel & Cobble		0	Macro Core 4'-8'
6.0					
7.0					
8.0				0	Macro Core 8'-12'
9.0					
10.0					
11.0			11.0		
		Red-Brown SILT, little Clay (moist)	11.5		
		Red-Brown fine to coarse SAND, trace Silt (dry)	12.0		
12.0		End of Boring at 12'			

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry
Depth to Water: Dry
Boring Dia.: 2"
Rig: Geoprobe 540U
Boring Depth: 12'
Page: 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway	**Boring:** GP-12
Location: New Britain, CT	**Inspector:** C. Criscuolo
Client: Maguire Group Inc.	**Date:** 4-12-06

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Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
1.0		Black fine to medium SAND, some Silt, little Black Ash & Cinders, trace fine to coarse Gravel	1.5	0	Macro Core 0'-2'
2.0		Brown fine to coarse SAND, trace Silt & fine to coarse Gravel	2.0		
3.0		Red-Brown fine to coarse SAND, some fine to coarse Gravel, little Silt, trace fine to coarse Gravel	3.0	0	Macro Core 2'-4'
4.0		Gray fine GRAVEL	5.0		
5.0					
6.0		Red-Brown fine to medium SAND, trace Silt		0	Macro Core 4'-8'
7.0					
8.0			8.5		
9.0					
10.0		Red-Brown SILT, trace fine Sand & Clay (moist)		0	Macro Core 8'-12'
11.0		End of Boring at 12'			
12.0			12.0		

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 12'	**Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway	**Boring:** GP-13
Location: New Britain, CT	**Inspector:** C. Criscuolo
Client: Maguire Group Inc.	**Date:** 4-13-06

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Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Dark-Brown fine to medium SAND, some Silt, little fine to coarse Gravel	1.0	0	Macro Core 0'-2'
		Red-Brown SILT, little fine to medium Sand, trace fine to coarse Gravel & Cobble	2.0		
				1.3	Macro Core 2'-4'
		Red-Brown fine to medium SAND, little Silt & fine to coarse Gravel, trace Cobble		0.3	Macro Core 4'-8'
			7.0		
		Red-Brown SILT, trace fine Sand & Clay (wet at 10.5')		0	Macro Core 8'-12'
		End of Boring at 12'	12.0		
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry	**Depth to Water:** 10.5'	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 12'	**Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway
Boring: GP-14
Location: New Britain, CT
Inspector: C. Criscuolo
Client: Maguire Group Inc.
Date: 5-23-06

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Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		ASPHALT - 4"	0.3		
1.0		Red-Brown fine SAND & SILT, little fine to coarse Gravel, trace Oraganics	1.0	0	Macro Core 0'-2'
2.0					
3.0				0	Macro Core 2'-4'
4.0					
5.0					
6.0		Red-Brown fine SAND & SILT, little fine to coarse Gravel & Cobble		0	Macro Core 4'-8'
7.0					
8.0					
9.0				0	Macro Core 8'-11'
10.0					
11.0			11.0		
		Refusal at 11' on Red-Brown SANDSTONE			
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry
Depth to Water: Dry
Boring Dia.: 2"
Rig: Geoprobe 540U
Boring Depth: 11'
Page: 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway	**Boring:** GP-15
Location: New Britain, CT	**Inspector:** C. Criscuolo
Client: Maguire Group Inc.	**Date:** 4-13-06

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Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
		Ground Surface	0.0		
0.0		Dark-Brown fine to medium SAND, some Silt, little fine to coarse Gravel	0.5		
1.0		Brown fine to coarse SAND, trace Silt & fine Gravel	1.0	0	Macro Core 0'-2'
2.0		Red-Brown fine to medium SAND, trace Cobble & Silt			
3.0			3.0	0.4	Macro Core 2'-4'
4.0		Red-Brown SILT, little fine to medium Sand, trace fine to coarse Gravel & Cobble			
5.0					
6.0			6.5	0	Macro Core 4'-8'
7.0					
8.0					
9.0		Red-Brown fine to coarse SAND, trace Silt & fine to coarse Gravel (wet at 10.5')			
10.0				0	Macro Core 8'-12'
11.0		End of Boring at 12'			
12.0			12.0		

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry	**Depth to Water:** 10.5'	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 12'	**Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway	**Boring:** GP-16
Location: New Britain, CT	**Inspector:** C. Criscuolo
Client: Maguire Group Inc.	**Date:** 4-13-06

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Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Red-Brown fine to medium SAND, trace Silt & fine Gravel	0.5		
1.0		Black ASH & CINDERS, little fine to coarse Gravel, trace Asphalt & fine to coarse Sand		0	Macro Core 0'-2'
2.0			2.5		
3.0		Red-Brown SILT, trace fine Sand, fine to coarse Gravel & Clay (wet at 8.5')		0	Macro Core 2'-4'
4.0					
5.0					
6.0				0	Macro Core 4'-8'
7.0					
8.0					
9.0				0	Macro Core 8'-9.5'
			9.5		
10.0					
11.0		Refusal at 9.5' on SANDSTONE			
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry	**Depth to Water:** 8.5'	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 9.5'	**Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway
Boring: GP-17
Location: New Britain, CT
Inspector: C. Criscuolo
Client: Maguire Group Inc.
Date: 4-13-06

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Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Red-Brown fine to coarse SAND, some fine to coarse Gravel, trace Silt	0.5		
1.0		CONCRETE	1.0	0	Macro Core 0'-2'
2.0		Dark-Brown fine to coarse SAND, little fine to coarse Gravel, trace Wood (FILL)			
3.0			3.5	1.7	Macro Core 2'-4'
4.0		Red-Brown SILT, trace fine Sand, fine to coarse Gravel & Clay			
5.0					
6.0				0.1	Macro Core 4'-8'
7.0					
8.0					
9.0				0	Macro Core 8'-10'
10.0			10.0		
11.0		Refusal at 10' on SANDSTONE			
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry
Depth to Water: Dry
Boring Dia.: 2"
Rig: Geoprobe 540U
Boring Depth: 10'
Page: 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway	**Boring:** GP-18
Location: New Britain, CT	**Inspector:** C. Criscuolo
Client: Maguire Group Inc.	**Date:** 4-13-06

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Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Brown fine to coarse SAND, trace Silt & fine to coarse Gravel	0.5		
1.0		Dark-Brown fine to coarse SAND, trace Silt & fine to coarse Gravel		0	Macro Core 0'-2'
2.0					
3.0			3.0	0	Macro Core 2'-4'
4.0		Red-Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt (wet at 3')			
5.0					
6.0			6.0	0.5	Macro Core 4'-8'
7.0					
8.0		Red-Brown SILT, little fine Sand, trace fine Gravel & Clay (wet)			
9.0				0	Macro Core 8'-10'
10.0			10.0		
11.0		Refusal at 10' on SANDSTONE			
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry	**Depth to Water:** 3'	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 10'	**Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway
Boring: GP-19
Location: New Britain, CT
Inspector: C. Criscuolo
Client: Maguire Group Inc.
Date: 5-23-06

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Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		ASPHALT - 6"	0.5		
		Gray fine to medium GRAVEL, little Crushed Asphalt	1.0	0	Macro Core 0'-2'
1.0		Red-Brown fine to coarse SAND, trace fine Gravel & Silt	1.5		
2.0		Gray SILT, trace fine Sand	2.5		
3.0				0	Macro Core 2'-4'
4.0					
5.0		Red-Brown fine to medium SAND & SILT, little fine fine to coarse Gravel & Cobble			
6.0				0	Macro Core 4'-8'
7.0					
8.0			8.0		
9.0					
10.0		Refusal at 8' on SANDSTONE			
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry
Depth to Water: Dry
Boring Dia.: 2"
Rig: Geoprobe 540U
Boring Depth: 8'
Page: 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway	**Boring:** GP-20
Location: New Britain, CT	**Inspector:** C. Criscuolo
Client: Maguire Group Inc.	**Date:** 4-13-06

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Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
		Ground Surface	0.0		
0.0		Black fine to medium SAND, some Silt, little Black Ash & Cinders, trace fine to coarse Gravel		0	Macro Core 0'-2'
1.0					
2.0					
3.0			3.0	0	Macro Core 2'-4'
4.0		Gray to Red-Brown SILT, little Clay, trace fine Sand & Gravel			
5.0					
6.0			6.0	0	Macro Core 4'-8'
7.0					
8.0					
9.0		Red-Brown SILT, trace fine Sand & Clay (moist)			
10.0				0	Macro Core 8'-12'
11.0		End of Boring at 12'			
12.0			12.0		

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 12'	**Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway	**Boring:** GP-21
Location: New Britain, CT	**Inspector:** C. Criscuolo
Client: Maguire Group Inc.	**Date:** 4-14-06

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Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
1.0		Black fine to medium SAND, some Silt, little Black Ash & Cinders, trace fine to coarse Gravel		0	Macro Core 0'-2'
2.0					
3.0			3.0	0	Macro Core 2'-4'
4.0		Gray to Red-Brown SILT, little Clay, trace fine Sand & Gravel			
5.0					
6.0			6.0	0.3	Macro Core 4'-8'
7.0					
8.0		Red-Brown SILT, trace fine Sand & Clay (moist)			
9.0				0	Macro Core 8'-10'
10.0			10.0		
11.0		Refusal at 10' on SANDSTONE			
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 10'	**Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway
Boring: GP-22
Location: New Britain, CT
Inspector: C. Criscuolo
Client: Maguire Group Inc.
Date: 4-14-06

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Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
1.0		Black fine to medium SAND, some Silt, little Black Ash & Cinders, trace fine to coarse Gravel		0	Macro Core 0'-2'
2.0					
3.0			3.0	0.2	Macro Core 2'-4'
4.0		Gray to Red-Brown SILT, little Clay, trace fine Sand & Gravel			
5.0					
6.0			6.0	0	Macro Core 4'-8'
7.0					
8.0		Red-Brown SILT, trace fine Sand & Clay (moist)			
9.0				0	Macro Core 8'-10'
10.0			10.0		
11.0		Refusal at 10' on SANDSTONE			
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry
Depth to Water: Dry
Boring Dia.: 2"
Rig: Geoprobe 540U
Boring Depth: 10'
Page: 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway	**Boring:** GP-23
Location: New Britain, CT	**Inspector:** C. Criscuolo
Client: Maguire Group Inc.	**Date:** 4-14-06

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Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
1.0		Black fine to medium SAND, some Silt, little Black Ash & Cinders, trace fine to coarse Gravel		0	Macro Core 0'-2'
2.0					
3.0			3.0	0	Macro Core 2'-4'
4.0		Gray to Red-Brown SILT, little Clay, trace fine Sand & Gravel			
5.0					
6.0			6.0	0	Macro Core 4'-8'
7.0					
8.0					
9.0		Red-Brown SILT, trace fine Sand & Clay (moist)			
10.0				0	Macro Core 8'-12'
11.0					
		End of Boring at 12'	12.0		
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 12'	**Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway
Boring: GP-24
Location: New Britain, CT
Inspector: C. Criscuolo
Client: Maguire Group Inc.
Date: 4-14-06

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Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Dark-Brown to Gray-Brown fine to coarse SAND, some fine to coarse Gravel, trace Silt	1.0	0	Macro Core 0'-2'
1.0		Brown fine to coarse SAND, trace fine Gravel & Silt	1.5		
2.0		Black ASH & CINDERS, little fine to coarse Sand	2.5		
3.0				0	Macro Core 2'-4'
4.0					
5.0					
6.0				0	Macro Core 4'-8'
7.0		Red-Brown fine to coarse SAND & SILT, some fine to coarse Gravel, trace Cobble			
8.0					
9.0					
10.0				0	Macro Core 8'-12'
11.0					
		End of Boring at 12'	12.0		
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry
Depth to Water: Dry
Boring Dia.: 2"
Rig: Geoprobe 540U
Boring Depth: 12'
Page: 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway
Boring: GP-25
Location: New Britain, CT
Inspector: C. Criscuolo
Client: Maguire Group Inc.
Date: 4-14-06

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Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Dark-Brown to Gray-Brown fine to coarse SAND, some fine to coarse Gravel, trace Silt	1.0	0	Macro Core 0'-2'
1.0		Brown fine to coarse SAND, trace fine Gravel & Silt	1.5		
2.0		Black ASH & CINDERS, little fine to coarse Sand	2.5		
3.0				0	Macro Core 2'-4'
4.0					
5.0					
6.0				0	Macro Core 4'-8'
7.0		Red-Brown fine to coarse SAND & SILT, some fine to coarse Gravel, trace Cobble			
8.0					
9.0					
10.0				0	Macro Core 8'-12'
11.0					
		End of Boring at 12'	12.0		
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry
Depth to Water: Dry
Boring Dia.: 2"
Rig: Geoprobe 540U
Boring Depth: 12'
Page: 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway	**Boring:** GP-26
Location: New Britain, CT	**Inspector:** C. Criscuolo
Client: Maguire Group Inc.	**Date:** 4-14-06

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Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Dark-Brown to Gray-Brown fine to coarse SAND, some fine to coarse Gravel, trace Silt	1.0	0	Macro Core 0'-2'
1.0		Brown fine to coarse SAND, trace fine Gravel & Silt	1.5		
2.0		Black ASH & CINDERS, little fine to coarse Sand	2.5		
3.0				0.1	Macro Core 2'-4'
4.0					
5.0					
6.0				0	Macro Core 4'-8'
7.0		Red-Brown fine to coarse SAND & SILT, some fine to coarse Gravel, trace Cobble			
8.0					
9.0					
10.0				0	Macro Core 8'-12'
11.0					
		End of Boring at 12'	12.0		
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 12'	**Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway
Boring: GP-27
Location: New Britain, CT
Inspector: C. Criscuolo
Client: Maguire Group Inc.
Date: 4-14-06

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Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Dark-Brown to Gray-Brown fine to coarse SAND, some fine to coarse Gravel, trace Silt	1.0	0	Macro Core 0'-2'
1.0		Brown fine to coarse SAND, trace fine Gravel & Silt	1.5		
2.0		Black ASH & CINDERS, little fine to coarse Sand	2.5		
3.0				0.2	Macro Core 2'-4'
4.0					
5.0					
6.0				0.4	Macro Core 4'-8'
7.0		Red-Brown fine to coarse SAND & SILT, some fine to coarse Gravel, trace Cobble (moist at 12')			
8.0					
9.0					
10.0				0	Macro Core 8'-12'
11.0					
		End of Boring at 12'	12.0		
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry
Depth to Water: Dry
Boring Dia.: 2"
Rig: Geoprobe 540U
Boring Depth: 12'
Page: 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway
Boring: GP-28
Location: New Britain, CT
Inspector: C. Criscuolo
Client: Maguire Group Inc.
Date: 4-14-06

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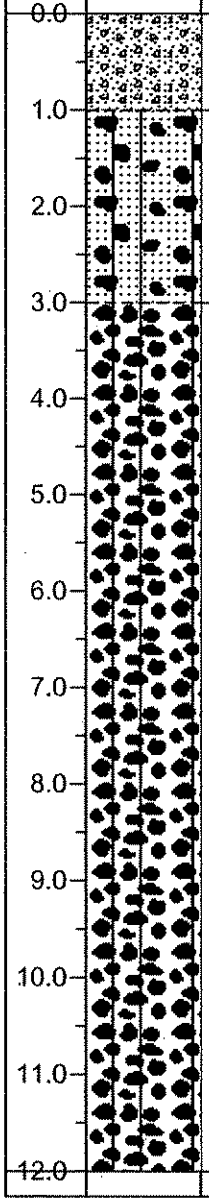

Depth (feet)	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0	Ground Surface	0.0		
	Dark-Brown to Black fine to medium SAND, little fine to coarse Gravel, trace Ash, Ciders & Silt	1.0	0	Macro Core 0'-2'
	Red-Brown fine to coarse SAND & SILT, some fine to coarse Gravel	3.0	0	Macro Core 2'-4'
	Red-Brown SILT, some fine to coarse Gravel, little fine to medium Sand, trace Cobble		0	Macro Core 4'-8'
			0	Macro Core 8'-12'
	End of Boring at 12'	12.0		

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry
Depth to Water: Dry
Boring Dia.: 2"
Rig: Geoprobe 540U
Boring Depth: 12'
Page: 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway
Boring: GP-29
Location: New Britain, CT
Inspector: C. Criscuolo
Client: Maguire Group Inc.
Date: 4-14-06

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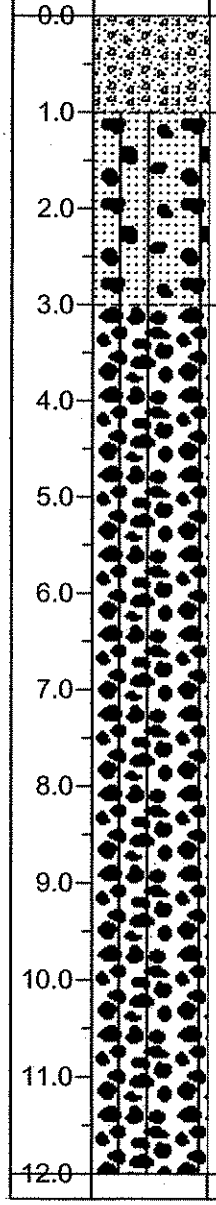

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Dark-Brown to Black fine to medium SAND, little fine to coarse Gravel, trace Ash, Ciders & Silt	1.0	0	Macro Core 0'-2'
		Red-Brown fine to coarse SAND & SILT, some fine to coarse Gravel	3.0	0	Macro Core 2'-4'
		Red-Brown SILT, some fine to coarse Gravel, little fine to medium Sand, trace Cobble		0	Macro Core 4'-8'
				0	Macro Core 8'-12'
		End of Boring at 12'	12.0		

1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 11.0 12.0

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry
Depth to Water: Dry
Boring Dia.: 2"
Rig: Geoprobe 540U
Boring Depth: 12'
Page: 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway
Boring: GP-30
Location: New Britain, CT
Inspector: C. Criscuolo
Client: Maguire Group Inc.
Date: 4-14-06

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Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt	0.5		
1.0		Black ASH & CINDERS, little fine to coarse Sand, trace fine to coarse Gravel		0	Macro Core 0'-2'
2.0			2.5		
3.0				1.3	Macro Core 2'-4'
4.0					
5.0					
6.0				0.1	Macro Core 4'-8'
7.0		Red-Brown SILT, little fine to coarse Gravel & Cobble, trace fine to medium Sand			
8.0					
9.0					
10.0				0	Macro Core 8'-12'
11.0					
		End of Boring at 12'	12.0		
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry
Depth to Water: Dry
Boring Dia.: 2"
Rig: Geoprobe 540U
Boring Depth: 12'
Page: 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway	**Boring:** GP-31
Location: New Britain, CT	**Inspector:** C. Criscuolo
Client: Maguire Group Inc.	**Date:** 4-17-06

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Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Brown fine to medium SAND, little Silt, trace fine to coarse Gravel	1.0	0.2	Macro Core 0'-2'
1.0		Dark-Brown to Black fine to coarse SAND, little Ash & Cinders, trace fine to coarse Gravel, Cobble & Silt	2.5		
2.0		Brown fine to coarse SAND, trace Silt & fine to coarse Gravel	3.0	2.0	Macro Core 2'-4'
3.0		Red-Brown SILT, little fine to medium SAND & fine to coarse Gravel & Cobble	6.0	1.3	Macro Core 4'-8'
4.0		Red-Brown fine to medium SAND, little Silt, trace fine to coarse Gravel & Cobble		0	Macro Core 8'-12'
5.0		End of Boring at 12'	12.0		
6.0					
7.0					
8.0					
9.0					
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 12'	**Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway	**Boring:** GP-32
Location: New Britain, CT	**Inspector:** C. Criscuolo
Client: Maguire Group Inc.	**Date:** 4-17-06

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Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
		Ground Surface	0.0		
0.0		Brown fine to medium SAND, little Silt, trace fine to coarse Gravel, Ash & Cinders		0.1	Macro Core 0'-2'
1.0					
2.0			2.5		
3.0		Red-Brown SILT, little fine to medium Sand, trace Clay & fine to coarse Gravel (very moist at 7.5')		0.6	Macro Core 2'-4'
4.0					
5.0					
6.0				1.1	Macro Core 4'-7.5'
7.0			7.5		
8.0		Refusal at 7.5' on SANDSTONE			
9.0					
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 7.5'	**Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway	**Boring:** GP-33
Location: New Britain, CT	**Inspector:** C. Criscuolo
Client: Maguire Group Inc.	**Date:** 4-17-06

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
		Ground Surface	0.0		
0.0		Brown fine to medium SAND, little Silt, trace fine to coarse Gravel, Ash & Cinders		0	Macro Core 0'-2'
1.0					
2.0			2.5		
3.0		Red-Brown SILT, little fine to medium Sand, trace Clay & fine to coarse Gravel (very moist at 8')		0	Macro Core 2'-4'
4.0					
5.0					
6.0				0	Macro Core 4'-8'
7.0					
8.0			8.0		
9.0		Refusal at 8' on SANDSTONE			
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 7.5'	**Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway	**Boring:** GP-34
Location: New Britain, CT	**Inspector:** C. Criscuolo
Client: Maguire Group Inc.	**Date:** 4-26-06

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		ASPHALT - 4"	0.3		
		Gray fine to medium GRAVEL, little fine to coarse Sand & Crushed Asphalt	1.0	0	Macro Core 0'-2'
1.0					
2.0					
3.0		Red-Brown fine SAND & SILT, little Clay		0	Macro Core 2'-4'
4.0					
5.0					
6.0			6.0	0	Macro Core 4'-8'
7.0		Red-Brown fine to medium SAND & SILT, little fine to coarse Gravel (moist)	8.0		
8.0					
9.0		Refusal at 8' on SANDSTONE			
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 8'	**Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway | **Boring:** GP-35

Location: New Britain, CT | **Inspector:** C. Criscuolo

Client: Maguire Group Inc. | **Date:** 4-26-06

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
		Ground Surface	0.0		
0.0		Brown fine SAND & SILT, trace fine Gravel	0.3		
		ASPHALT - 4"	1.0	0.2	Macro Core 0'-2'
1.0					
2.0		Black ASH & CINDERS, little fine to medium Sand & Gravel			
3.0			3.0	0.2	Macro Core 2'-4'
4.0		Red-Brown fine to coarse SAND, little Silt			
5.0					
6.0			6.0	0.4	Macro Core 4'-8'
7.0		Red-Brown SILT, little Clay, trace fine Sand			
8.0			8.0		
9.0		Refusal at 8' on SANDSTONE			
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry | **Depth to Water:** Dry | **Boring Dia.:** 2"

Rig: Geoprobe 540U | **Boring Depth:** 8' | **Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway | **Boring:** GP-36

Location: New Britain, CT | **Inspector:** C. Criscuolo

Client: Maguire Group Inc. | **Date:** 4-17-06

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
1.0		Dark-Brown to Black fine to coarse SAND, little fine to coarse Gravel, trace Silt, Ash & Cinders (FILL)	2.0	1.4	Macro Core 0'-2'
2.0					
3.0		Refusal at 2' on SANDSTONE			
4.0					
5.0					
6.0					
7.0					
8.0					
9.0					
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry | **Depth to Water:** Dry | **Boring Dia.:** 2"

Rig: Geoprobe 540U | **Boring Depth:** 2' | **Page:** 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway
Boring: GP-38
Location: New Britain, CT
Inspector: C. Criscuolo
Client: Maguire Group Inc.
Date: 4-17-06

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
1.0		Dark-Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt, Ash & Cinders	1.5	0	Macro Core 0'-2'
2.0		Dark-Brown fine to coarse SAND, trace Silt & fine to coarse Gravel	2.0		
		Red-Brown fine to coarse SAND, trace Silt & fine to coarse Gravel (moist)	3.0	0	Macro Core 2'-4'
3.0					
4.0					
5.0		Red-Brown SILT, trace Clay & fine Sand (moist)			
6.0				0	Macro Core 4'-8'
7.0					
8.0			8.0		
9.0		Refusal at 8' on SANDSTONE			
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry
Depth to Water: Dry
Boring Dia.: 2"
Rig: Geoprobe 540U
Boring Depth: 8'
Page: 1 of 1

GEOPROBE SOIL BORING LOG

Project: New Britain-Hartford Busway
Boring: GP-37
Location: New Britain, CT
Inspector: C. Criscuolo
Client: Maguire Group Inc.
Date: 4-17-06

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
1.0		Dark-Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt, Ash & Cinders		0.1	Macro Core 0'-2'
2.0			2.5		
3.0		Dark-Brown fine to coarse SAND, trace Silt & fine to coarse Gravel	3.0	0.6	Macro Core 2'-4'
		Red-Brown fine to coarse SAND, trace Silt & fine to coarse Gravel (moist)	4.0		
4.0					
5.0		Red-Brown SILT, trace Clay & fine Sand			
6.0			6.0	0	Macro Core 4'-8'
7.0		Dark-Gray to Black Organic SILT (wet)			
8.0			8.0		
9.0		Refusal at 8' on SANDSTONE			
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: Wayne Lineberry
Depth to Water: Dry
Boring Dia.: 2"
Rig: Geoprobe 540U
Boring Depth: 8'
Page: 1 of 1