NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau C
625 Broadway, 12th Floor, Albany, NY 12233-7014
P: (518) 402-9662 I F: (518) 402-9679
www.dec.ny.gov

September 16, 2020

Mr. John C. Brussel, P.E.
Arcadis of New York, Inc.
One Lincoln Center
110 West Fayette Street, Suite 300
Syracuse, NY 13202

Re: Proposed Focused Soil Investigation for Guard Station Relocation – Approval with Modification
National Grid, North Albany Service Center
NM - North Albany, Site No. 401040

Dear Mr. Brussel:

The New York State Department of Environmental Conservation (Department) and the New York State Department of Health (NYSDOH) have reviewed the Proposed Focused Soil Investigation for Guard Station Relocation work plan pertaining to the above referenced site, provided to the Department on September 11, 2020. The Department and NYSDOH find the proposal to be acceptable with the following modification:

- Section II. Proposed Soil Investigation, last paragraph, first sentence: "Community air monitoring will be performed during *all* outdoor *ground intrusive work* in accordance…"

If you have any questions, please contact me at 518-402-2029 or email: greta.white@dec.ny.gov.

Sincerely,

Greta White, P.G.
Project Manager
Remedial Action Bureau C
Division of Environmental Remediation

EC: D. Eaton, J. Brown, A. Fleck – NYSDEC
A. Perretta, J. Deming, R. Swider - NYSDOH
R. Groves, AC
G. Cummins, M. Root - NG

NEW YORK STATE OF OPPORTUNITY. Department of Health

ANDREW M. CUOMO
Governor

HOWARD A. ZUCKER, M.D., J.D.
Commissioner

LISA J. PINO, M.A., J.D.
Executive Deputy Commissioner

September 16, 2020

Ms. Greta White, P.G.
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233

Re: Focused Soil Investigation for Guard Station Relocation
North Albany MGP Site
Site #401040
Albany, Albany County

Dear Ms. White:

I have reviewed the September 2020 Focused Soil Investigation for Guard Station Relocation for the above referenced site. I have no public health related comments to offer. I find the report acceptable. If you have any questions please contact me at (518) 402-7860.

Sincerely,

Anthony Perretta
Public Health Specialist 2
Bureau of Environmental Exposure Investigation

ec: J. Deming / e-File
R. Swider – NYSDOH CAEHP
R. Groves – ACHD
J. Brown / D. Eaton – NYSDEC Central Office
A. Fleck – NYSDEC Region 4

ARCADIS Design & Consultancy for natural and built assets

Ms. Greta White, P.G.
Assistant Geologist
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7017

Mr. Douglas MacNeal, P.E.
Project Manager
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7017

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ENVIRONMENT

Date:
September 11, 2020

Contact:
John C. Brussel, P.E.

Phone:
315.671.9441

Email:
John.Brussel@arcadis.com

Our ref:
30058019 #10

Subject:
National Grid
North Albany Former MGP
Albany, New York
NYSDEC Site No. 401040
Proposed Focused Soil Investigation for Guard Station Relocation

Dear Ms. White and Mr. MacNeal:

On behalf of National Grid, this letter presents a work plan for a focused soil investigation to evaluate conditions within the footprint of a proposed new guard station at the National Grid North Albany Service Center (see Figure 1 for site location). The proposed new guard station is within the footprint of the former manufactured gas plant (MGP) site (see Figure 2). The new guard house will be located on the left side when entering the site, ahead of a new security gate. The existing guard house, which is on the right side behind the current security gate, will be demolished. The new location for the guard house and gate will improve site security and entry screening efficiency.

The proposed soil investigation described herein will include characterizing soil within the guard house building footprint, associated utility corridors, and new gate foundations for disposal purposes. Findings from the soil investigation will be used to assess environmental requirements, including material handling, air monitoring, for National Grid's contractors that will be constructing the new guard station.

Relevant background information, including an overview of the proposed new guard station and findings from previous investigation nearby, is presented

below, followed by details of the proposed focused soil investigation, reporting, and schedule.

I. BACKGROUND INFORMATION

Design drawings prepared by Nelson Associates Architectural Engineering show the construction of a new approximately 30-foot long by 20-foot wide slab-on-grade guard house on the west side of the driveway entrance from Broadway and a new 33-foot long aluminum sliding gate and 14-foot long traffic arm extending across the driveway, opposite the guard house (the layout is shown on Drawing C101 in Attachment 1). Excavations are anticipated for the following:

- *Guard Station Foundation*: The design drawings show a foundation system consisting of a continuous 2-foot wide, steel-reinforced concrete spread footer extending beneath the perimeter of the new guard house with an 8-inch wide continuous pier supporting the guard house walls. The base of the footing is shown to be on undisturbed soil at a depth of 5 feet below the top of the building floor slab, which is slightly above the existing grade. Excavation at the footing locations is anticipated to extend approximately 5 feet below ground surface (bgs) and be roughly 4 feet wide to allow for construction of the 2-foot wide concrete footer, resulting in the generation of approximately 75 cubic yards (CY) of excavation spoils. The drawings show the new 4-inch thick reinforced concrete floor slab on a 6-inch thick compacted gravel base. The excavation for this gravel base will add approximately 10 CY of excavation spoils.
- *Utility Trenches*: The design drawings show a utility corridor extending approximately from the northeast corner of the guard house toward the northwest corner of Building 2 for the following:
    - *Storm Sewer Pipe*: Approximately 105 lineal feet (LF) of new 3-inch diameter storm sewer pipe will convey roof drainage to an existing catch basin off the northwest corner of Building 2. The invert of the new storm sewer pipe at the catch basin is shown to be 2.1 feet bgs. A utility detail shows a minimum of 4-inches of bedding material beneath the pipe. Based on this information, the average excavation depth may be approximately 2.5 feet bgs. Assuming the pipe trench is 2.5 feet wide, the trench excavation will generate approximately 24 CY of spoils.
    - *Electric Conduit*: Approximately 170 LF of new electric conduit will bring electrical service from Building 2 to the new guard station. The trench for the conduit, like that for the storm sewer pipe, is anticipated to be 2.5 feet wide and 2.5 feet deep, generating approximately 40 CY of excavation spoils.
    - *Water Pipe*: Approximately 190 LF of new 1¼-inch diameter pipe will supply water from Building #2 to the new guard station. The minimum burial depth for the new water pipe is 5 feet bgs. Assuming the trench for the water pipe is 2.5 feet wide and 5.5 feet deep (to allow for at least 4-inches of bedding material), the pipe trench excavation will generate approximately 100 CY of spoils.

  The design drawings also show: (1) new ¾-inch diameter gas pipe extending approximately 55 LF from the northwest corner of the new guard station to an existing 2-inch diameter gas main that extends along the western property boundary; and (2) approximately 10 LF of sanitary sewer tying into an existing sanitary sewer pipe in the immediate area. The top of the gas pipe is required to be beneath at least 3.5 feet of cover and the sanitary sewer is anticipated to be beneath a similar depth

of cover. Both of these utilities will require trenches that are approximately 2.5 feet wide and 4 feet deep (for total gas pipe and sanitary sewer pipe excavation spoils of 24 CY).

- *Sliding Gate and Traffic Arm Excavations*: The design drawing notes indicate that the foundation for the new 33-foot long sliding gate will be 20-inches long by 30-inches wide and 54-inches high with a 6-inch reveal above grade and placed on a 6-inch thick bed of compacted subbase. The excavation for this foundation is anticipated to be 44-inches long by 54-inches wide and 54-inches deep, resulting in approximately 3 CY of spoils. The design drawings indicate that the foundation for the new 14-foot long traffic arm will be 23-inches square and 36-inches high with a 4-inch reveal above grade and placed on a 6-inch thick bed of compacted stone. The excavation for this smaller foundation is anticipated to be approximately 47-inches square and 38-inches deep, resulting in approximately 2 CY of spoils.

Based on the estimates above, the guard station construction is anticipated to generate approximately 278 CY of excavation spoils that will need to be properly managed. The typical utility trench detail shows trenches in paved areas being backfilled with pipe bedding material (crushed stone) and select fill. The trench detail allows excavated soil to be reused as backfill at least 12-inches above subsurface utilities in grass-only areas. Since most or all of the trenches are within paved areas, most or all of the excavated material will require offsite transportation and disposal.

Based on review of historical site investigation reports and data, soil within the footprint of the proposed guard station construction has not previously been characterized. Soil borings drilled closest to the proposed guard station construction area as part of previous environmental investigations include SB-9, SB-13, and SB-112, which are shown on Feasibility Study Report Figure 1-16 (included in Attachment 2). As indicated on the figure and soil boring logs (see Attachment 3), no coal tar dense non-aqueous phase liquid (DNAPL) or sheens were encountered in the soil samples recovered from these three borings, except for a slight sheen from 10 to 12 feet bgs at SB-112. The concentrations of benzene, toluene, ethylbenzene, and xylenes (BTEX) and polycyclic aromatic hydrocarbons (PAHs) detected in samples collected from the borings are well-below the 10 part per million (ppm) and 500 ppm soil cleanup objectives, respectively, presented in the New York State Department of Environmental Conservation (NYSDEC) Record of Decision for the site, dated March 2016. The BTEX and total PAH analytical results for the soil samples collected from these borings are summarized in the table below:

Soil Boring ID	Sample Depth (feet bgs)	Concentration (ppm)	
		BTEX	Total PAHs
SB-9	6-8	0.01	31
	12-14	ND	ND
	20-22	0.04	1.1
SB-13	2-4	0.21	1.8
SB-112	10-12	ND	91
	18-20	ND	5.1

Although the potential for encountering NAPL-impacted soil within the proposed excavation limits for the proposed new guard house and utilities is low, further investigation will be performed as described below to assess the potential presence and extent of MGP impacts in the immediate construction area and

provide data to evaluate soil handling/treatment/disposal requirements for materials to be excavated during construction.

II. PROPOSED SOIL INVESTIGATION

Dig-Safely New York will be contacted by Arcadis' drilling subcontractor, Parratt-Wolff, Inc. of East Syracuse, New York, approximately one week before the start of the proposed soil investigation. Arcadis subcontractors are scheduled to perform the following work on September 21, 2020, two days before the start of soil boring/sampling work:

- CT Male Associates will conduct field surveying to locate and mark proposed soil boring locations based on coordinates obtained from mapping (i.e., coordinates for the sampling locations as overlaid on the AutoCADD file for Design Drawing C101).
- GPRS, Inc. will conduct a geophysical survey using electro-magnetic and ground-penetrating radar techniques to further evaluate subsurface utility locations.

Parratt-Wolff is scheduled to be onsite on September 23 and 24, 2020 to complete soil borings via vacuum excavation at the eight locations described below and shown on the figure in Attachment 1. Vacuum excavation is proposed in lieu of direct-push drilling given the shallow depth of the borings (6 feet or less) and potential to encounter unmarked utilities/debris.

Soil Boring ID	Proposed Structure	Depth (feet bgs)
SB-201	Natural gas pipe alignment	5
SB-202 & SB-203	Guard station spread footer foundation	5
SB-204	Sliding gate pedestal/foundation	5
SB-205 & SB-206	Storm sewer alignment	4
SB-207 & SB-208	Water main alignment	6

Soil samples will be collected from each boring at approximately one-foot depth intervals for visual characterization (soil classification, color, texture, moisture content, potential MGP impacts) and photoionization detector (PID) headspace screening. Soil samples from five of the eight borings (one soil sample per boring for a total of five samples) will be submitted to Eurofins TestAmerica of Buffalo, New York for laboratory analysis for the waste characterization parameters required for offsite thermal treatment/disposal at the ESMI facility in Fort Edward, New York:

- Polychlorinated biphenyls (PCBs) using United States Environmental Protection Agency (USEPA) SW-846 Method 8082A
- Target Compound List (TCL) VOCs using USEPA SW-846 Method 8260C
- TCL SVOCs using USEPA SW-846 Method 8270D
- Target Analyte List (TAL) inorganic constituents using USEPA SW-846 Methods 6010C/7471B
- Total cyanide using USEPA SW-846 Method 9012B
- Total petroleum hydrocarbons (TPH) diesel range organics (DRO) using USEPA SW-846 Method 8015D

- TPH gasoline range organics (GRO) using USEPA SW-846 Method 8015D

The soil samples selected for laboratory analysis will be biased toward intervals exhibiting the greatest impact (if any), based on visible staining, elevated PID readings, or obvious odors, if encountered. In the absence of obvious impacts, the soil samples will be collected from the first 0.5-foot interval below the asphalt pavement and stone subbase and from borings SB-201, SB-203, SB-204, SB-205, and SB-208. This will provide a uniform distribution of data with one sample per approximately 55 CY of material to be generated by construction (exceeding typical minimum characterization sampling frequencies for waste profiling). Photographs will be taken to document conditions encountered in the borings (i.e., looking into the borings and showing samples recovered from the borings) and observations will be documented in soil boring logs.

The soil borings will be backfilled using material removed from the borings, assuming it contains no DNAPL and does not exhibit an obvious odor. If DNAPL or obvious odors were to be encountered, the soil removed from the boring will be placed in 55-gallon drums for offsite transportation and disposal by National Grid's waste disposal vendor (NRC or Capitol Environmental). In that case, the boring would be restored with imported clean gravel. The surface at each location will be restored using concrete tinted black to match the surrounding pavement.

Based on review of the boring logs in Attachment 3 and historical groundwater elevation data for monitoring wells closest to the investigation work area (i.e., wells formerly located in the parking lot north of the new guard house location), the water table is anticipated to be approximately 5 to 6 feet bgs in the area. If groundwater is encountered within a boring before reaching the target depth, the boring may be terminated early depending on the volume of water entering the boring.

Community air monitoring will be performed during the outdoor drilling/sampling in accordance with the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (CAMP) included in Appendix 1A to the NYSDEC's Program Policy Document titled, DER-10 / Technical Guidance for Site Investigation and Remediation, dated May 3, 2010. This will involve monitoring for VOC vapors and particulates at one upwind and one downwind monitoring station. The air monitoring stations will be adjusted in the morning and afternoon, as needed, based on changes in prevailing wind direction. The monitoring equipment will calculate 15-minute running average concentrations, which will be compared to the action levels specified in the CAMP.

III. INVESTIGATION REPORT

Arcadis will prepare a letter report to the NYSDEC summarizing the fieldwork, findings, and proposed environmental requirements for the guard station relocation construction based on findings of the sampling. The letter will address the following aspects of the planned construction: health and safety, dust/vapor/emissions controls, community air monitoring, excavation/material handling, water management, imported fill, demarcation, and decontamination, similar to what was provided in the September 27, 2019 letter work plan for the Versaire building drainage improvements. The letter report will be supported by the following:

- Data tables presenting the analytical results compared to commercial- and industrial-use soil cleanup objectives (SCOs) presented in Title 6 of the New York Codes, Rules and Regulations (6 NYCRR) Part 375-6.8(b) and ESMI acceptance criteria, as applicable.

- Figures showing the site location, site layout, proposed guard station with utility locations and soil boring/sampling locations, and analytical results for constituents exceeding SCOs.
- Soil boring logs.
- Laboratory analytical data reports (electronic attachment only).

Because the analytical data are intended primarily for waste characterization purposes, data validation is not proposed.

IV. SCHEDULE

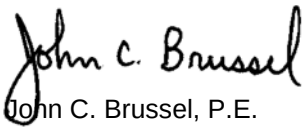
As indicated above, a geophysical survey is scheduled for September 21, 2020 to pre-clear the proposed soil boring/sampling locations for subsurface utilities. The soil boring (vacuum excavation) work is scheduled to begin on September 23, 2020 and anticipated to take two days to complete. The schedule for the fieldwork is subject to change based on weather conditions (e.g., heavy rain) or unexpected field conditions during the vacuum excavation/sampling. Laboratory analysis of the proposed soil samples will be performed on a standard turnaround with results available approximately two to three weeks following sampling (on or around October 16, 2020). We anticipate sending the investigation summary letter report to the NYSDEC within approximately four weeks following receipt of laboratory analytical results (by November 13, 2020).

We await any NYSDEC comments or approval of the work plan presented above. Let us know if you would like to visit the site during the investigation, and we can arrange to meet you there. Please note that COVID-specific safety requirements (body temperature check, face coverings, social distancing, etc.) will be required for this work in addition to the use of standard personal protective equipment (hard hat, safety glasses, reflective vest, and steel-toe boots).

Please do not hesitate to contact Garry Cummins (National Grid Site Investigation and Remediation Project Manager at 315.440.5825) or the undersigned at 315.671.9441 if you have any questions or need additional information.

Sincerely,

Arcadis of New York, Inc.



John C. Brussel, P.E.
Principal Engineer/Certified Project Manager

Copies:
Andrew R. Blaszkow, Nelson Associates Architectural Engineering
Gerald P. Cummins, National Grid
Matthew Root, National Grid
Steven Plansker, National Grid
Kenneth Keenahan, National Grid
Matthew S. Hysell, P.E., Arcadis of New York, Inc.

Enclosures:

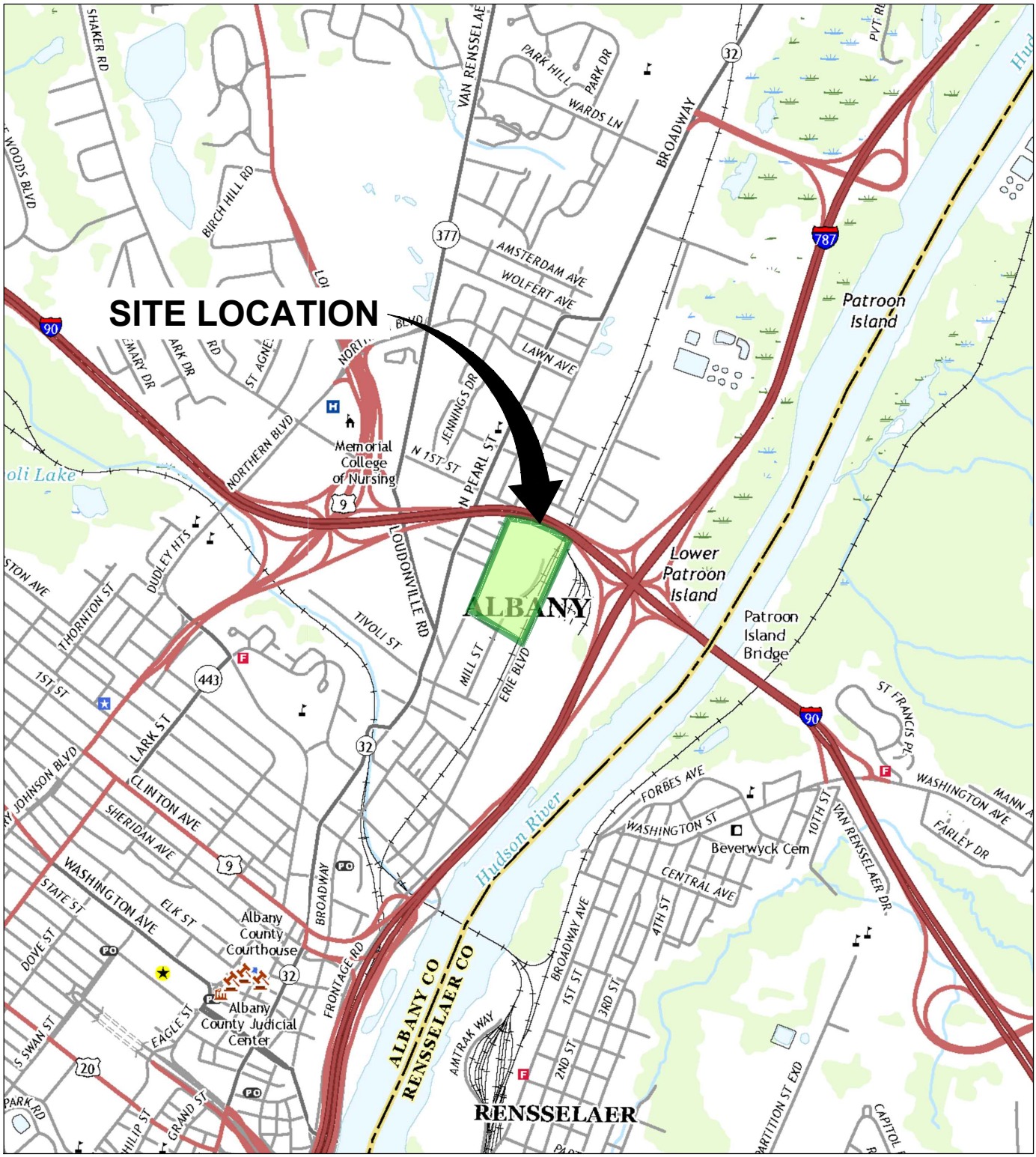
Figures

1 Site Location Map
2 Site Layout and Proposed Soil Investigation Area

Attachments

1 Guard Station Relocation Design Drawing and Proposed Soil Boring Locations
2 Total BTEX/PAHs in Soil
3 Soil Boring Logs

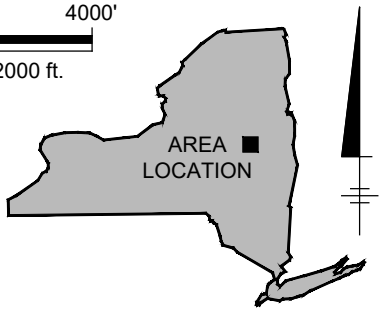
FIGURES



REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., ALBANY & TROY SOUTH, NY, 2019.

0 2000' 4000'

Approximate Scale: 1 in. = 2000 ft.



NATIONAL GRID
NORTH ALBANY FORMER MGP SITE
ALBANY, NEW YORK

SITE LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

FIGURE 1

CITY: SYRACUSE NY DIV/GROUP: ENVCAD DB: E. KRAHMER PIC: PM: TM: TR: LYR:(Opt)ON=*;OFF=*REF*
C:\Users\EKrahmer\BIM 360\Arcadis\ANA - National Grid\Project Files\NORTH ALBANY MGP SITE\2020\300314431\01-DWG\N_ALB_MGP_Fig 01_SLM.dwg LAYOUT: 1 SAVED: 7/8/2020 1:45 PM ACADVER: 23.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/8/2020 1:48 PM BY: KRAHMER, ERIC
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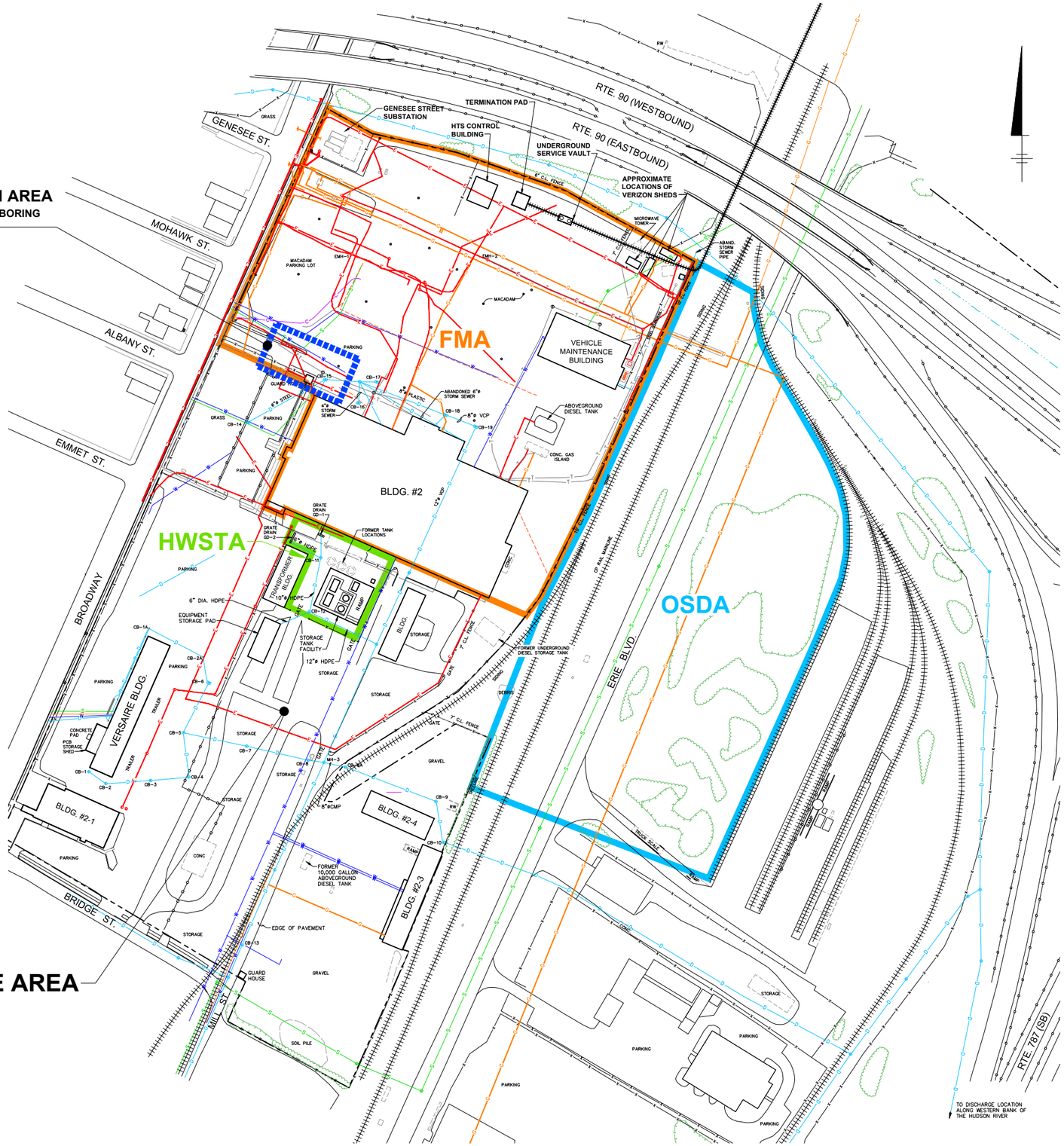
NY_Troy_South_20190919_TM_geo.png

PROPOSED SOIL INVESTIGATION AREA
(REFER TO ATTACHMENT 1 FOR PROPOSED SOIL BORING LOCATIONS OVERLAID ON DESIGN DRAWING)

YARD STORAGE AREA



LEGEND:

- APPROXIMATE LOCATION OF HIGH TEMPERATURE SUPERCONDUCTIVE CABLE
- GUARD RAIL
- FENCE
- EXISTING RAILROAD
- APPROXIMATE PROPERTY LINE
- UTILITY POLE
- EXISTING CATCH BASIN
- EXISTING STORM SEWER MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING ELECTRICAL MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING UNKNOWN UTILITY MANHOLE
- STORM SEWER
- SANITARY SEWER
- TELEPHONE LINE
- ELECTRICAL LINE
- GAS LINE
- WATER LINE
- CABLE LINE
- UNKNOWN UTILITY
- FORMER MGP AREA
- OFF-SITE DOWNGRADIENT AREA
- HAZARDOUS WASTE STORAGE TANK AREA
- APPROXIMATE MATERIAL STAGING AREA
- PROPOSED SOIL INVESTIGATION AREA

NOTES:

1. BASE MAP (INCLUDING BUILDING LOCATIONS) DEVELOPED FROM ELECTRONIC FILE OF NIAGARA MOHAWK POWER CORPORATION (NMPC) DRAWING NO. C-29736-C, DATED JULY 1994, ENTITLED NORTH ALBANY SERVICE CENTER HAZARDOUS WASTE MANAGEMENT PERMIT APPLICATION, TOPOGRAPHIC MAP - INDEX SHEET.
2. LOCATIONS OF UNDERGROUND UTILITIES (INCLUDING ON-SITE STORM SEWERS, SANITARY SEWERS, TELEPHONE LINES, ELECTRICAL LINES, GAS LINES, WATER LINES, AND CABLE) WERE DIGITIZED FROM NMPC DRAWING NO. D-29734-E, FILE INDEX NO. 20.3-A1.1-B2, DATED JUNE 27, 1994, ENTITLED NORTH ALBANY SERVICE CENTER SITE PLAN - PAVING (OUTSIDE FENCE). LOCATION OF UNDERGROUND TELEPHONE LINES, ELECTRICAL LINES, GAS LINES, AND CABLE LINES WERE UPDATED BASED ON ELECTROMAGNETIC UTILITY SURVEY CONDUCTED BY UNDERGROUND SERVICES, INC. DURING OCTOBER 2012. ACTUAL LOCATIONS OF UNDERGROUND UTILITIES MUST BE DETERMINED/CONFIRMED PRIOR TO IMPLEMENTING SUBSURFACE WORK ACTIVITIES.
3. LOCATIONS OF MANHOLES AND CATCH BASINS WERE OBTAINED FROM SURVEYS CONDUCTED BY NMPC DURING JULY/AUGUST 1997 AND NATIONAL GRID DURING OCTOBER 2012.
4. LOCATIONS OF OFF-SITE STORM AND SANITARY SEWERS WERE DIGITIZED FROM CITY OF ALBANY DRAWINGS AND ARE APPROXIMATE.
5. FMA = FORMER MANUFACTURED GAS (MGP) PLANT AREA.
6. OSDA = OFF-SITE DOWNGRADIENT AREA.
7. HWSTA = HAZARDOUS WASTE STORAGE TANK AREA.

0 100' 200'
GRAPHIC SCALE

NATIONAL GRID
NORTH ALBANY FORMER MGP SITE
ALBANY, NEW YORK

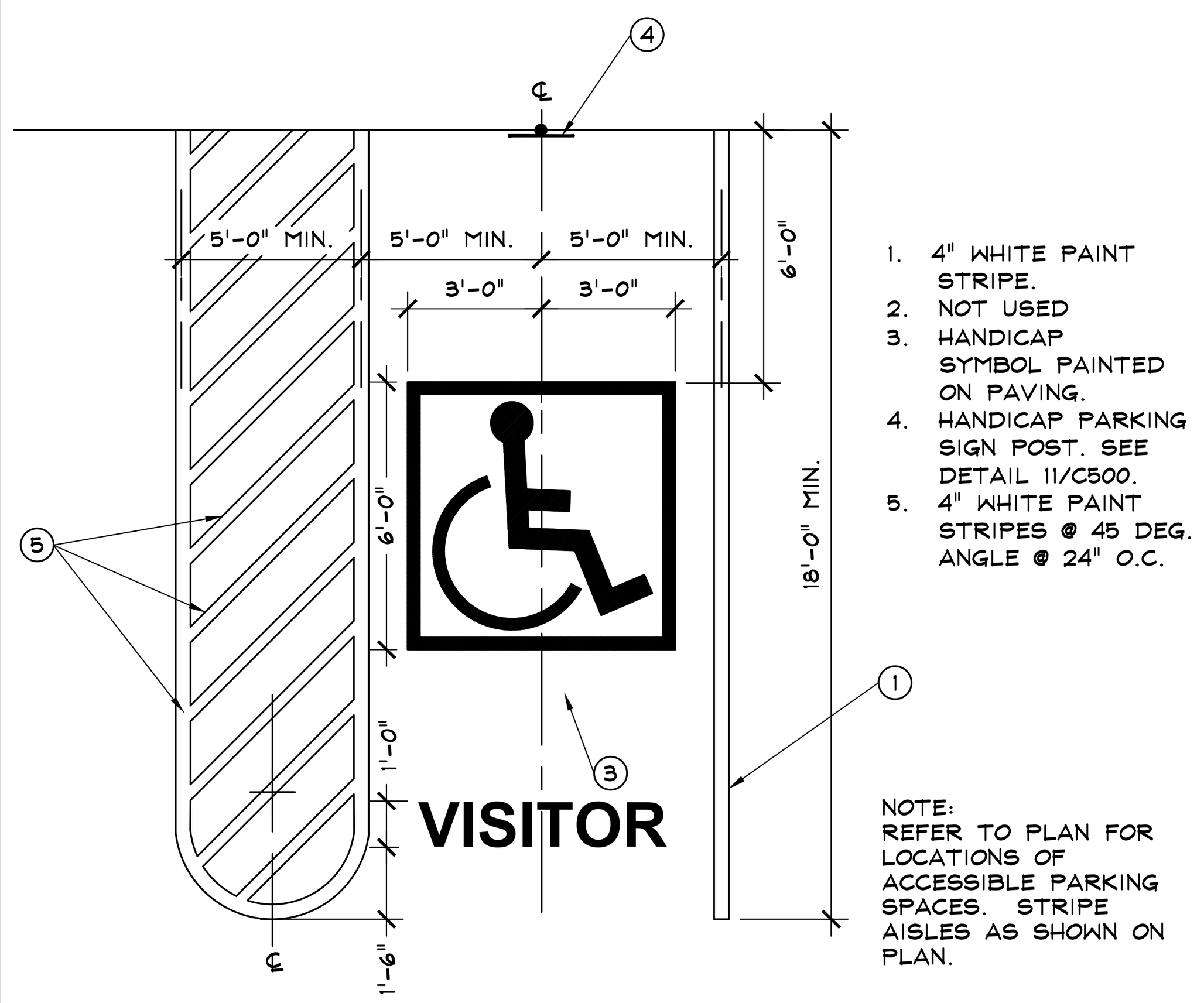
SITE LAYOUT AND PROPOSED SOIL INVESTIGATION AREA

ARCADIS Design & Consultancy for natural and built assets

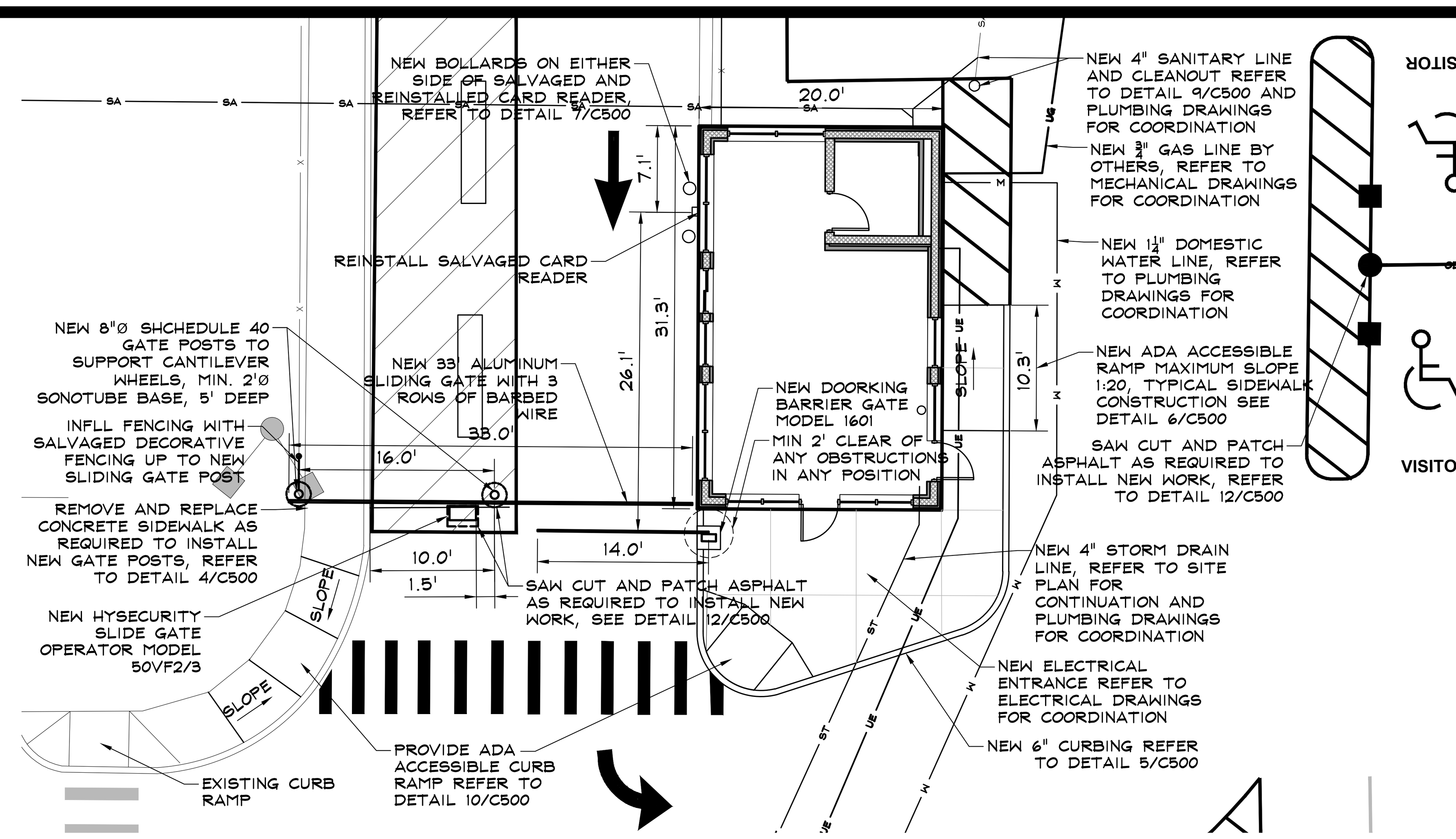
FIGURE
2

ATTACHMENT 1

Guard Station Relocation Design Drawing and Proposed Soil Boring Locations



3 / C101 PAVEMENT MARKING DETAILS
SCALE: 1/4" = 1'-0"

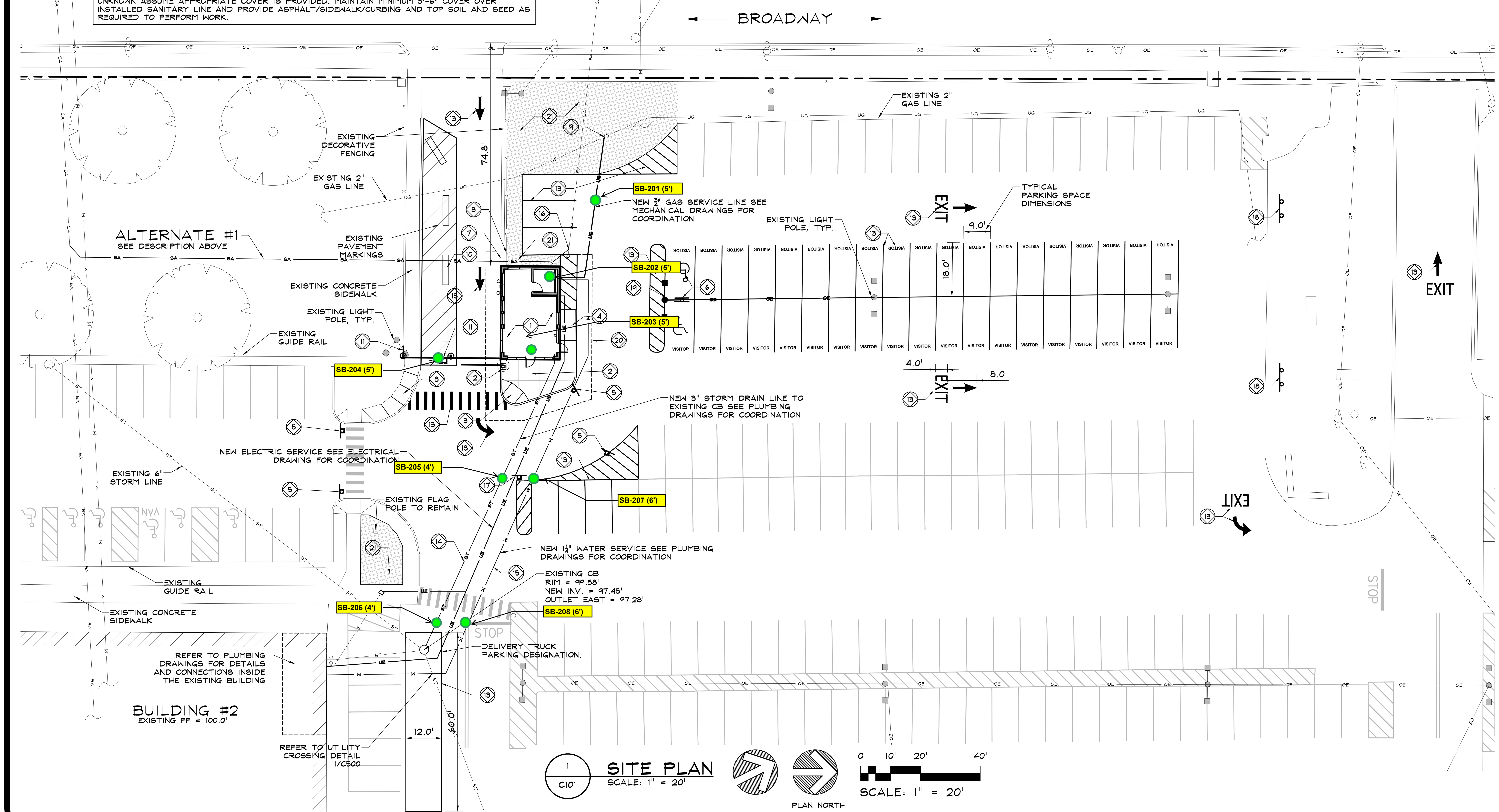


2 / C101 PARTIAL SITE PLAN
SCALE: 1" = 10'

LEGEND

POST & SIGN	
WATER METER	
WATER VALVE	
HYDRANT	
PIV	POST INDICATOR VALVE
	UTILITY POLE
	LIGHT POLE(S)
CB	CATCH BASIN
D MH	DRAINAGE (STORMWATER) MANHOLE
S MH	SANITARY MANHOLE
E MH	ELECTRIC MANHOLE
X MH	UNKNOWN MANHOLE (POSS. UTILITY)
	CLEAN-OUT (SAN./STORM)
—X—	FENCE LINE
—SA—	SANITARY SEWER
—ST—	STORM SEWER
—UE—	UNDERGROUND ELECTRIC
—W—	WATER
—UG—	UNDERGROUND GAS

ALTERNATE #1 –
IN THE EVENT THE EXISTING SANITARY LINE TO THE STREET IS EXCAVATED AND DETERMINED TO BE UNUSABLE, THE CONTRACTOR SHALL PROVIDE A COST FOR THE MATERIALS AND LABOR ASSOCIATED WITH INSTALLING A SANITARY LINE AND CLEAN OUT AS INDICATED TO TIE INTO THE EXISTING SANITARY SEWER LATERAL IN FRONT OF BUILDING #2, EXISTING SANITARY ELEVATION UNKNOWN ASSUME APPROPRIATE COVER IS PROVIDED. MAINTAIN MINIMUM 3'-6" COVER OVER INSTALLED SANITARY LINE AND PROVIDE ASPHALT/SIDEWALK/CURBING AND TOP SOIL AND SEED AS REQUIRED TO PERFORM WORK.



1 / C101 SITE PLAN
SCALE: 1" = 20'

GENERAL NOTES

1. DESIGNED IN ACCORDANCE WITH THE 2015 BUILDING CODE OF NEW YORK STATE (BCNYS).
2. DIMENSIONS AND EXISTING CONDITIONS SHALL BE VERIFIED IN FIELD BY CONTRACTOR.
3. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES IN DIMENSIONS BETWEEN EXISTING CONDITIONS AND/OR ARCHITECTURAL DRAWINGS AND THE STRUCTURAL DRAWINGS.
4. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
5. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.
6. THE NOTES ON THIS DRAWING ARE TYPICAL UNLESS OTHERWISE INDICATED.
7. CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF PURPOSED DEVIATIONS OR SUBSTITUTIONS FROM DIMENSIONS, MATERIALS, OR EQUIPMENT SHOWN ON THE DRAWINGS AND MAKE ONLY THOSE DEVIATIONS OR SUBSTITUTIONS ACCEPTED BY ENGINEER.
8. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES BY MEANS OF GPR AS REQUIRED BY NATIONAL GRID BEFORE COMMENCING WORK. GPR SHALL BE PERFORMED IN THE AREAS OF ANY EXCAVATIONS OR SAWCUTS. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR DAMAGES WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE EXISTING UTILITIES.
9. COORDINATE NUMBER AND LOCATION OF ROOF OPENINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
10. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION SAFETY AND FOR COMPLIANCE WITH ALL OSHA REGULATIONS DURING CONSTRUCTION.
11. SEE ARCHITECTURAL SHEETS FOR ELEVATION CHANGE BETWEEN FINISHED FLOOR OF EXIST. BUILDING AND FINISHED GRADE ON THE EXTERIOR OF THE BUILDING. ALWAYS SLOPE FINISHED GRADE AWAY FROM BUILDING TO CREATE POSITIVE DRAINAGE.
12. ALL SITE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (NYS SSESC).
13. ALL CONSTRUCTION WORK SHALL BE EXECUTED IN A CAREFUL AND ORDERLY MANNER WITH THE LEAST POSSIBLE NOISE, DUST, AND DISTURBANCE.

KEYED NOTES

1. NEW BUILDING LOCATION REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.
2. PROVIDE NEW SIDEWALK AS ILLUSTRATED, TYPICAL SIDEWALK PANEL MAXIMUM CONTROL JOINT SPACING 7'-0" X 7'-0", SEE DETAIL 6/C500.
3. PROVIDE CURB RAMP AT PEDESTRIAN CROSSING LOCATIONS, SEE DETAIL 10/C500 AND 6/C500.
4. PROVIDE ADA ACCESS RAMP AT THIS LOCATION, MAXIMUM SLOPE 1:20, SEE DETAIL 6/C500.
5. PROVIDE ALUMINUM 18"x18" "DO NOT ENTER" SIGN WITH PRECAST CONCRETE BASES, BASIS OF DESIGN FOR BASES IS TAPCO 18054D, 250LB PRECAST BASE.
6. PROVIDE HANDICAP ACCESSIBLE PARKING IDENTIFICATION SIGNS AND PAVEMENT MARKINGS AT ADA PARKING SPACES AS SHOWN, SEE DETAILS 3/C101 AND 11/C500.
7. PROVIDE NEW CONCRETE CURBING. REFER TO DETAIL 4/C500 AND 5/C500.
8. REINSTALL DECORATIVE FENCING UP TO WEST BUILDING FACE, FASTEN SECURELY TO NEW BUILDING EXTERIOR.
9. NEW GAS CONNECTION BY OTHERS, REFER TO MECHANICAL DRAWINGS FOR COORDINATION.
10. PROVIDE 4 PRECAST CONCRETE JERSEY BARRIERS FOR TRAFFIC CONTROL AT MAIN ENTRANCE, BASIS OF DESIGN KISTNER 10'-0" SECURITY BARRICADE BARRIER.
11. PROVIDE NEW 33' ALUMINUM SLIDING GATE WITH 3 ROWS OF BARBED WIRE AND OPERATOR BY ALL TYPE PROFESSIONAL DOOR SERVICE, SLIDE GATE OPERATOR MODEL HYSECURITY 50VF2/3 WITH GROOVED ALUMINUM DRIVE RAIL AND 3 LOOP DETECTORS. CONTRACTOR TO PROVIDE AND INSTALL BASE AND ELECTRICAL CONDUITS PER MANUFACTURES INSTRUCTIONS, BASE SIZE 20"Lx30"Wx54"H WITH 6" REVEAL ABOVE GRADE AND PLACED ON A 6" BED OF COMPACTED SUBBASE. REFER TO 2/C101 FOR GATE POST REQUIREMENTS.
12. PROVIDE NEW TRAFFIC ARM AND OPERATOR BY ALL TYPE PROFESSIONAL DOOR SERVICE, DOOR KING BARRIER GATE OPERATOR MODEL 1601 WITH 14' ALUMINUM ARM WITH BREAKAWAY KIT AND ARM LIGHT KIT. CONTRACTOR TO PROVIDE AND INSTALL BASE AND ELECTRICAL CONDUITS PER MANUFACTURES INSTRUCTIONS, BASE SIZE 23"Lx23"Wx36"H WITH 4" REVEAL ABOVE GRADE AND PLACED ON A 6" BED OF COMPACTED SUBBASE.
13. PROVIDE PAVEMENT MARKINGS AS SHOWN, COLOR SHALL BE WHITE UNLESS OTHERWISE NOTED.
14. PROVIDE NEW 3" STORM LINE FROM BUILDING ROOF DRAINS TO EXISTING CATCH BASIN, CORE DRILL FOR NEW PENETRATION INTO CATCH BASIN AT INDICATED ELEVATION.
15. PROVIDE NEW DOMESTIC WATER LINE PROVIDE MINIMUM 5' OF CONTINUOUS COVER, REFER TO PLUMBING DRAWINGS FOR COORDINATION.
16. CONTRACTOR TO EXCAVATE AND DETERMINE SIZE, ELEVATION AND CONDITION OF EXISTING PREVIOUSLY ABANDONED SANITARY LINE, FLUSH/JET AND SCOPE EXISTING LINE TO DETERMINE IF IT IS ACCEPTABLE FOR REUSE AND PROMPTLY NOTIFY ENGINEER OF FINDINGS. AFTER INVESTIGATIVE WORK TO CONFIRM LINE IS ADEQUATE, PROVIDE 4" SANITARY LINE AND CLEANOUT AS SHOWN FROM NEW BUILDING TO TIE INTO EXISTING SANITARY LINE.
17. PROVIDE ALUMINUM "VISITOR PARKING" SIGN TO DIRECT INCOMING TRAFFIC, WITH PRECAST CONCRETE BASE, BASIS OF DESIGN FOR BASE IS TAPCO 18054D, 250LB PRECAST BASE.
18. PROVIDE 4'x6' PAINTED PLYWOOD SIGNS IDENTIFYING THE EXIT PATH FOR VEHICULAR TRAFFIC, EACH SIGN SHALL HAVE (2) 12"Ø SONOTUBE BASES MINIMUM 36" DEPTH ON A 6" BED OF COMPACTED SUBBASE.
19. CONTRACTOR TO PROVIDE CONCRETE BASE AND LIGHT POLE/FIXTURE. REFER TO ELECTRICAL DRAWINGS FOR DETAILS AND COORDINATION.
20. APPROXIMATE AREA OF ASPHALT PAVING TO BE INSTALLED AFTER COMPLETION OF BELOW GRADE WORK, REFER TO DETAIL 12/C500.
21. PROVIDE 4" OF NEW TOPSOIL AND SEED IN GRASSED AREAS AFFECTED BY DEMO AND NEW WORK AS SHOWN.

NELSON ASSOCIATES
ARCHITECTURAL ENGINEERING
1 North Park Row • Clinton, NY 13323-1536

PROJECT TITLE
NATIONAL GRID
N. ALBANY SERVICE CENTER
GUARD STATION ALTERATIONS
AND SITE UPGRADES
1125 BROADWAY
MENANDS, NEW YORK 13204

PROJECT NO. 19-2038

REVISION	DATE	BY

DATE	09/13/19
DRAWN BY	DRK
CHECKED BY	PNN
APPROVED BY	PNN
SCALE	AS NOTED

SHEET TITLE
SITE PLAN

SHEET NO.
C101

ATTACHMENT 2

Total BTEX/PAHs in Soil

CITY: SYRACUSE, N.Y. DIV/GROUP: ENV/IM-DV DB: LJP, R BASSETT, R.ALLEN LD:(Opt) PIC:(Opt) PM:M.JONES TM: J.HORSTMAN LYR:(Opt)ON=*;OFF=*REF*
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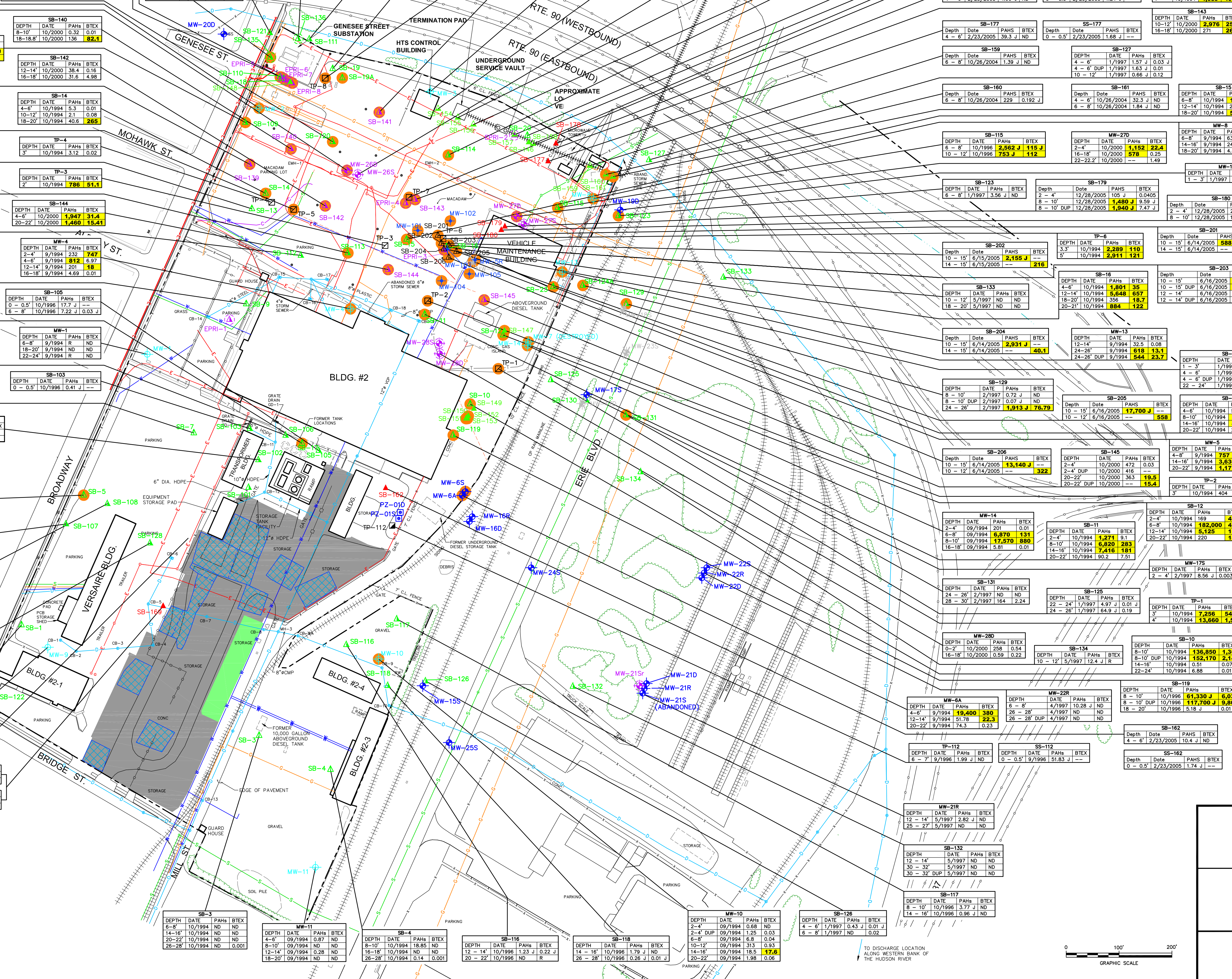
XREFS: 36648XDL 36648X03 IMAGES: PROJECTNAME: ---



SB-120

DEPTH	DATE	PAHs	BTEX
8 – 10'	10/1996	167.2 J	204
8 – 10' DUP	10/1996	25.93 J	6.23 J
14 – 16'	10/1996	125 J	0.7 J

SB-18

DEPTH	DATE	PAHs	BTEX
4-8'	10/1994	17,030	3,520
12-14'	10/1994	12,550	4,790
18-20'	10/1994	47,200	5,920
22-24'	10/1994	74	44.6

SB-121

DEPTH	DATE	PAHs	BTEX
8 – 10'	1/1997	ND	0.01
8 – 10' DUP	1/1997	ND	0.01

SB-111

DEPTH	DATE	PAHs	BTEX
8 – 10'	2/1997	0.98	ND
8 – 10' DUP	2/1997	0.43	ND

TP-8

DEPTH	DATE	PAHs	BTEX
2.5'	10/1994	271	42.7

MW-3

DEPTH	DATE	PAHs	BTEX
6.5–8.5'	9/1994	ND	0.01
10.5–12.5'	9/1994	ND	0.002

MW-26S

DEPTH	DATE	PAHs	BTEX
6-8'	10/2000	128	12.4
6-8' DUP	10/2000	118	3.9

SB-156

Depth	Date	PAHS	BTEX
6 – 8'	10/26/2004	ND	ND

SB-114

DEPTH	DATE	PAHs	BTEX
6 – 8'	10/1996	6,310	80.9
14 – 16'	10/1996	18.5 J	0.09 J

SB-157

Depth	Date	PAHS	BTEX
6 – 8'	10/26/2004	ND	ND

SB-20

DEPTH	DATE	PAHs	BTEX
2-4'	10/1994	3.65	ND
6-8'	10/1994	0.09	ND
10-12'	10/1994	0.17	ND

SB-158

Depth	Date	PAHS	BTEX
4 – 6'	10/26/2004	2.69 J	ND
6 – 8'	10/26/2004	ND	ND

MW-2

DEPTH	DATE	PAHs	BTEX
2-4'	9/1994	7.47	ND
8-10'	9/1994	R	0.24
18-20'	9/1994	3,064	1,000

SB-110

DEPTH	DATE	PAHs	BTEX
6 – 8'	10/1996	11,464 J	408 J
18 – 20'	10/1996	1,367,980 J*	2,229 J

SB-135

DEPTH	DATE	PAHs	BTEX
12-14'	10/2000	271	50.5
12-14' DUP	10/2000	--	3.9
18-20'	10/2000	31.47	6.9

SB-136

DEPTH	DATE	PAHs	BTEX
10-12'	10/2000	0.38	0.02
24-16'	10/2000	--	0.04

SB-19

DEPTH	DATE	PAHs	BTEX
4-6'	10/1994	8.23	0.06
10-12'	10/1994	1,785	2,130
14-16'	10/1994	476	257

SB-141

DEPTH	DATE	PAHs	BTEX
4-6'	10/2000	39.59	1.7
16-18'	10/2000	274	3.16

SB-154

Depth	Date	PAHS	BTEX
6 – 8'	10/26/2004	ND	ND
6 – 8' DUP	10/26/2004	ND	ND

SB-155

Depth	Date	PAHS	BTEX
6 – 8'	10/26/2004	ND	ND

SB-178

Depth	Date	PAHS	BTEX
4 – 6'	2/23/2005	4.96 J	ND

SS-178

Depth	Date	PAHS	BTEX
0 – 0.5'	2/23/2005	1.24 J	--

TP-7

DEPTH	DATE	PAHs	BTEX
5.5'	10/1994	183	6.02
7'	10/1994	4,639	400

SB-143

DEPTH	DATE	PAHs	BTEX
10-12'	10/2000	2,976	259
16-18'	10/2000	271	26.9

SB-177

Depth	Date	PAHS	BTEX
4 – 6'	2/23/2005	39.3 J	ND

SS-177

Depth	Date	PAHS	BTEX
0 – 0.5'	2/23/2005	1.68 J	--

SB-159

Depth	Date	PAHS	BTEX
6 – 8'	10/26/2004	1.39 J	ND

SB-127

DEPTH	DATE	PAHs	BTEX
4 – 6'	1/1997	1.57 J	0.03 J
4 – 6' DUP	1/1997	1.63 J	0.01
10 – 12'	1/1997	0.66 J	0.12

SB-160

Depth	Date	PAHS	BTEX
6 – 8'	10/26/2004	229	0.192 J

SB-161

Depth	Date	PAHS	BTEX
4 – 6'	10/26/2004	32.3 J	ND
6 – 8'	10/26/2004	1.84 J	ND

SB-15

DEPTH	DATE	PAHs	BTEX
6-8'	10/1994	1,194	32.4
12-14'	10/1994	266	7.38
18-20'	10/1994	567	691

MW-8

DEPTH	DATE	PAHs	BTEX
6-8'	9/1994	63.53	12.6
14-16'	9/1994	24.2	0.04
18-20'	9/1994	4.5	0.001

SB-115

DEPTH	DATE	PAHs	BTEX
6 – 8'	10/1996	2,562 J	115 J
10 – 12'	10/1996	753 J	112

MW-27D

DEPTH	DATE	PAHs	BTEX
2-4'	10/2000	1,152	22.4
16-18'	10/2000	578	0.25
22-22.2'	10/2000	--	1.49

MW-19D

DEPTH	DATE	PAHs	BTEX
1 – 3'	1/1997	2.72 J	0.01 J

SB-123

DEPTH	DATE	PAHs	BTEX
6 – 8'	1/1997	3.56 J	ND

SB-179

Depth	Date	PAHS	BTEX
2 – 4'	12/28/2005	105 J	0.0405
8 – 10'	12/28/2005	1,480 J	9.59 J
8 – 10' DUP	12/28/2005	1,940 J	7.47 J

SB-180

Depth	Date	PAHS	BTEX
2 – 4'	12/28/2005	223 J	0.0057 J
8 – 10'	12/28/2005	156 J	1.5

SB-201

Depth	Date	PAHS	BTEX
10 – 15'	6/14/2005	588 J	--
14 – 15'	6/14/2005	--	31.3

TP-6

DEPTH	DATE	PAHs	BTEX
3.3'	10/1994	2,289	110
5'	10/1994	2,911	121

SB-202

Depth	Date	PAHS	BTEX
10 – 15'	6/15/2005	2,155 J	--
14 – 15'	6/15/2005	--	216

SB-203

Depth	Date	PAHS	BTEX
10 – 15'	6/16/2005	5,258 J	--
10 – 15' DUP	6/16/2005	4,652 J	--
12 – 14'	6/16/2005	--	187 J
12 – 14' DUP	6/16/2005	--	194 J

SB-16

DEPTH	DATE	PAHs	BTEX
4-6'	10/1994	1,801	35
12-14'	10/1994	5,648	657
18-20'	10/1994	356	18.7
20-21'	10/1994	884	122

SB-133

DEPTH	DATE	PAHs	BTEX
10 – 12'	5/1997	ND	ND
18 – 20'	5/1997	ND	ND

SB-204

Depth	Date	PAHS	BTEX
10 – 15'	6/14/2005	2,931 J	--
14 – 15'	6/14/2005	--	40.1

MW-13

DEPTH	DATE	PAHs	BTEX
12-14'	9/1994	32.5	0.08
24-26'	9/1994	618	13.1
24-26' DUP	9/1994	544	23.7

SB-124A

DEPTH	DATE	PAHs	BTEX
1 – 3'	1/1997	1.37 J	0.02 J
4 – 6'	1/1997	146 J	23.78 J
4 – 6' DUP	1/1997	156 J	3.56 J
22 – 24'	1/1997	261	6.16 J

SB-129

DEPTH	DATE	PAHs	BTEX
8 – 10'	2/1997	0.72 J	ND
8 – 10' DUP	2/1997	0.07 J	ND
24 – 26'	2/1997	1,913 J	76.79

SB-205

Depth	Date	PAHS	BTEX
10 – 15'	6/16/2005	17,700 J	--
10 – 12'	6/16/2005	--	558

SB-23

DEPTH	DATE	PAHs	BTEX
4-6'	10/1994	59	21.1
8-10'	10/1994	160,200	543
14-16'	10/1994	40,470	1,120
20-22'	10/1994	29.56	0.39

SB-206

Depth	Date	PAHS	BTEX
10 – 15'	6/14/2005	13,140 J	--
10 – 12'	6/14/2005	--	322

SB-145

DEPTH	DATE	PAHs	BTEX
2-4'	10/2000	472	0.03
2-4' DUP	10/2000	416	--
20-22'	10/2000	363	19.5
20-22' DUP	10/2000	--	15.4

MW-5

DEPTH	DATE	PAHs	BTEX
4-8'	9/1994	757	56
14-16'	9/1994	3,636	450
20-22'	9/1994	1,171	194

TP-2

DEPTH	DATE	PAHs	BTEX
3'	10/1994	404	123

SB-12

DEPTH	DATE	PAHs	BTEX
2-4'	10/1994	169	45.2
6-8'	10/1994	182,000	467
12-14'	10/1994	5,125	129
20-22'	10/1994	220	14.6

MW-14

DEPTH	DATE	PAHs	BTEX
2-4'	09/1994	201	0.01
6-8'	09/1994	6,870	131
8-10'	09/1994	17,570	880
16-18'	09/1994	5.81	0.01

SB-11

DEPTH	DATE	PAHs	BTEX
2-4'	10/1994	1,271	9.1
8-10'	10/1994	6,820	283
14-16'	10/1994	7,416	181
20-22'	10/1994	90.2	7.51

MW-17S

DEPTH	DATE	PAHs	BTEX
2 – 4'	2/1997	8.56 J	0.003 J

SB-131

DEPTH	DATE	PAHs	BTEX
24 – 26'	2/1997	ND	ND
28 – 30'	2/1997	164	2.24

SB-125

DEPTH	DATE	PAHs	BTEX
22 – 24'	1/1997	4.97 J	0.01 J
24 – 26'	1/1997	64.9 J	0.19

TP-1

DEPTH	DATE	PAHs	BTEX
3'	10/1994	7,256	542
4'	10/1994	13,660	1,580

MW-28D

DEPTH	DATE	PAHs	BTEX
0-2'	10/2000	258	0.54
16-18'	10/2000	0.59	0.22

SB-134

DEPTH	DATE	PAHs	BTEX
10 – 12'	5/1997	12.4 J	R

SB-10

DEPTH	DATE	PAHs	BTEX
8-10'	10/1994	136,850	1,360
8-10' DUP	10/1994	152,170	2,140
14-16'	10/1994	0.51	0.07
22-24'	10/1994	6.88	0.01

MW-6A

DEPTH	DATE	PAHs	BTEX
4-6'	9/1994	19,400	380
12-14'	9/1994	51.78	22.3
20-22'	9/1994	74.3	0.23

MW-22R

DEPTH	DATE	PAHs	BTEX
6 – 8'	4/1997	10.28 J	ND
26 – 28'	4/1997	ND	ND
26 – 28' DUP	4/1997	ND	ND

SB-119

DEPTH	DATE	PAHs	BTEX
8 – 10'	10/1996	61,330 J	6,030
8 – 10' DUP	10/1996	117,700 J	9,800
18 – 20'	10/1996	5.18 J	0.01 J

SB-162

Depth	Date	PAHS	BTEX
4 – 6'	2/23/2005	10.4 J	ND

TP-112

DEPTH	DATE	PAHs	BTEX
6 – 7'	9/1996	1.99 J	ND

SS-112

DEPTH	DATE	PAHs	BTEX
0 – 0.5'	9/1996	51.83 J	--

SS-162

Depth	Date	PAHS	BTEX
0 – 0.5'	2/23/2005	1.74 J	--

MW-21R

DEPTH	DATE	PAHs	BTEX
12 – 14'	5/1997	2.82 J	ND
25 – 27'	5/1997	ND	ND

SB-132

DEPTH	DATE	PAHs	BTEX
12 – 14'	5/1997	ND	ND
30 – 32'	5/1997	ND	ND
30 – 32' DUP	5/1997	ND	ND

SB-117

DEPTH	DATE	PAHs	BTEX
8 – 10'	10/1996	3.77 J	ND
14 – 16'	10/1996	0.96 J	ND

SB-126

DEPTH	DATE	PAHs	BTEX
4 – 6'	1/1997	0.43 J	0.01 J
6 – 8'	1/1997	ND	0.02

MW-10

DEPTH	DATE	PAHs	BTEX
2-4'	09/1994	0.68	ND
2-4' DUP	09/1994	1.25	0.03
6-8'	09/1994	6.8	0.04
10-12'	09/1994	313	0.93
14-16'	09/1994	18.5	17.6
20-22'	09/1994	1.98	0.06

SB-118

DEPTH	DATE	PAHs	BTEX
14 – 16'	10/1996	1.79 J	ND
26 – 28'	10/1996	0.26 J	0.01 J

SB-116

DEPTH	DATE	PAHs	BTEX
12 – 14'	10/1996	1.23 J	0.22 J
20 – 22'	10/1996	ND	R

SB-4

DEPTH	DATE	PAHs	BTEX
8-10'	10/1994	18.85	ND
16-18'	10/1994	ND	ND
26-28'	10/1994	0.14	0.001

MW-11

DEPTH	DATE	PAHs	BTEX
4-6'	09/1994	0.87	ND
8-10'	09/1994	ND	ND
12-14'	09/1994	0.28	ND
18-20'	09/1994	ND	ND

SB-3

DEPTH	DATE	PAHs	BTEX
6-8'	10/1994	ND	ND
14-16'	10/1994	ND	ND
20-22'	10/1994	ND	ND
26-28'	10/1994	ND	0.001

MW-26D

DEPTH	DATE	PAHs	BTEX
14-16'	10/2000	4.27	0.93

SB-140

DEPTH	DATE	PAHs	BTEX
8-10'	10/2000	0.32	0.01
18-18.8'	10/2000	136	82.1

SB-109

DEPTH	DATE	PAHs	BTEX
10 – 12'	10/1996	2,596 J	80 J
20 – 22'	10/1996	2,621 J	457

SB-142

DEPTH	DATE	PAHs	BTEX
12-14'	10/2000	38.4	0.16
16-18'	10/2000	31.6	4.98

SB-139

DEPTH	DATE	PAHs	BTEX
18-19.3'	10/2000	326	31.52

SB-14

DEPTH	DATE	PAHs	BTEX
4-6'	10/1994	5.3	0.01
10-12'	10/1994	2.1	0.08
18-20'	10/1994	40.6	265

TP-5

DEPTH	DATE	PAHs	BTEX
4.7'	10/1994	400	203

TP-4

DEPTH	DATE	PAHs	BTEX
3'	10/1994	3.12	0.02

SB-13

DEPTH	DATE	PAHs	BTEX
2-4'	10/1994	1.8	0.21

TP-3

DEPTH	DATE	PAHs	BTEX
2'	10/1994	786	51.1

SB-113

DEPTH	DATE	PAHs	BTEX
4 – 6'	10/1996	353 J	ND
16 – 18'	10/1996	0.82 J	0.03 J

SB-144

DEPTH	DATE	PAHs	BTEX
4-6'	10/2000	1,947	31.4
20-22'	10/2000	1,460	15.41

SB-112

DEPTH	DATE	PAHs	BTEX
10 – 12'	10/1996	91.28 J	ND
18 – 20'	10/1996	5.06 J	ND

MW-4

DEPTH	DATE	PAHs	BTEX
2-4'	9/1994	232	747
4-6'	9/1994	812	6.97
12-14'	9/1994	201	18
16-18'	9/1994	4.69	0.01

SB-9

DEPTH	DATE	PAHs	BTEX
6-8'	10/1994	30.7	0.01
12-14'	10/1994	ND	ND
20-22'	10/1994	1.11	0.04

SB-105

DEPTH	DATE	PAHs	BTEX
0 – 0.5'	10/1996	17.7 J	--
6 – 8'	10/1996	7.22 J	0.03 J

SB-17

DEPTH	DATE	PAHs	BTEX
2-4'	10/1994	3.53	0.11
10-12'	10/1994	1.06	0.01
14-16'	10/1994	0.39	0.03
14-16' DUP	10/1994	5.82	0.03
22-24'	10/1994	5.48	0.05

MW-1

DEPTH	DATE	PAHs	BTEX
6-8'	9/1994	R	ND
18-20'	9/1994	ND	ND
22-24'	9/1994	R	ND

SB-106

DEPTH	DATE	PAHs	BTEX
0 – 0.5'	10/1996	14.5 J	--

SB-103

DEPTH	DATE	PAHs	BTEX
0 – 0.5'	10/1996	0.41 J	--

SB-7

DEPTH	DATE	PAHs	BTEX
4-8'	10/1994	5.06	1.83
14-16'	10/1994	0.046	ND
22-24'	10/1994	0.12	ND

SB-102

DEPTH	DATE	PAHs	BTEX
4 – 6'	10/1996	47.74 J	ND
4 – 6' DUP	10/1996	58.29 J	ND

SB-5

DEPTH	DATE	PAHs	BTEX
4-6'	10/1994	0.33	ND
12-14'	10/1994	1.04	ND
20-22'	10/1994	10.6	0.001

SB-107C

DEPTH	DATE	PAHs	BTEX
14 – 16'	02/1997	ND	ND

SB-108D

DEPTH	DATE	PAHs	BTEX
2 – 4'	01/1997	0.39 J	0.05
24 – 26'	01/1997	ND	ND

SB-128

DEPTH	DATE	PAHs	BTEX
14 – 16'	2/1997	ND	ND

SB-1

DEPTH	DATE	PAHs	BTEX
6-8'	10/1994	ND	ND
10-12'	10/1994	ND	0.01
14-16'	10/1994	ND	0.02

MW-9

DEPTH	DATE	PAHs	BTEX
6-8'	9/1994	R	ND
10-12'	9/1994	R	ND
16-18'	9/1994	ND	ND

MW-12

DEPTH	DATE	PAHs	BTEX
4-6'	9/1994	0.28	ND
14-16'	9/1994	0.25	ND
22-24'	9/1994	ND	ND

SB-169

Depth	Date	PAHS	BTEX
4 – 6'	2/22/2005	2.68 J	ND

SS-169

Depth	Date	PAHS	BTEX
0 – 0.5'	2/22/2005	1.68 J	--

LEGEND:

- APPROXIMATE LOCATION OF HIGH TEMPERATURE SUPERCONDUCTIVE CABLE
- GUARD RAIL
- FENCE
- EXISTING RAILROAD
- APPROXIMATE PROPERTY LINE
- MW-105 PILOT-TEST MONITORING WELL LOCATION
- SB-205 PILOT-TEST BASELINE SOIL BORING LOCATION
- SB-147 TREATABILITY STUDY SOIL BORING LOCATION
- SB-141 PRE-DESIGN INVESTIGATION SOIL BORING LOCATION
- MW-28S ADDITIONAL GROUNDWATER INVESTIGATION GROUNDWATER MONITORING WELL LOCATION
- MW-15S MGP/RCRA GROUNDWATER MONITORING WELL LOCATION
- PZ-01S MGP/RCRA PIEZOMETER
- SB-126 MGP/RCRA SOIL BORING LOCATION
- TP-105 MGP/RCRA TEST PIT LOCATION
- MW-11 PSA/IRM GROUNDWATER MONITORING WELL LOCATION
- SB-4 PSA/IRM SOIL BORING LOCATION
- TP-3 PSA/IRM TEST PIT LOCATION
- SB-156 HTS PROJECT SOIL BORING LOCATION
- SB-162 SUPPLEMENTAL INVESTIGATION SOIL BORING LOCATION
- MW-18S DESTROYED GROUNDWATER MONITORING WELL
- UTILITY POLE
- EXISTING CATCH BASIN
- EXISTING STORM SEWER MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING ELECTRICAL MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING UNKNOWN UTILITY MANHOLE
- D STORM SEWER
- S SANITARY SEWER
- T TELEPHONE LINE
- E ELECTRICAL LINE
- G GAS LINE
- W WATER LINE
- C CABLE LINE
- UNKNOWN UTILITY
- TOTAL PAHs DETECTED AT A CONCENTRATION GREATER THAN 500 PPM OR BTEX DETECTED AT CONCENTRATION GREATER THAN 10 PPM.
- APPROXIMATE SOIL EXCAVATION AREA BOUNDARY
- APPROXIMATE LIMITS OF ASPHALT CAP
- APPROXIMATE LIMITS OF SPCC AREA
- INVESTIGATION LOCATION OBSERVED TO CONTAIN MGP-AND/OR PETROLEUM-RELATED MATERIALS

NOTES:

1. BASE MAP (INCLUDING BUILDING LOCATIONS AND PSA/IRM SAMPLING LOCATIONS) DEVELOPED FROM ELECTRONIC FILE OF NIAGARA MOHAWK POWER CORPORATION (NMPC) DRAWING NO. C-29736-C, DATED JULY 1994, ENTITLED NORTH ALBANY SERVICE CENTER HAZARDOUS WASTE MANAGEMENT PERMIT APPLICATION, TOPOGRAPHIC MAP – INDEX SHEET.
2. LOCATIONS OF UNDERGROUND UTILITIES (INCLUDING ON-SITE STORM SEWERS, SANITARY SEWERS, TELEPHONE LINES, ELECTRICAL LINES, GAS LINES, WATER LINES, AND CABLE) WERE DIGITIZED FROM NMPC DRAWING NO. D-29734-E, FILE INDEX NO. 20.3-A1.1-B2, DATED JUNE 27, 1994, ENTITLED NORTH ALBANY SERVICE CENTER SITE PLAN – PAVING (OUTSIDE FENCE). LOCATION OF UNDERGROUND TELEPHONE LINES, ELECTRICAL LINES, GAS LINES, AND CABLE LINES WERE UPDATED BASED ON ELECTROMAGNETIC UTILITY SURVEY CONDUCTED BY UNDERGROUND SERVICES, INC. DURING OCTOBER 2012. ACTUAL LOCATIONS OF UNDERGROUND UTILITIES MUST BE DETERMINED/CONFIRMED PRIOR TO IMPLEMENTING SUBSURFACE WORK ACTIVITIES..
3. LOCATIONS OF MANHOLES AND CATCH BASINS WERE OBTAINED FROM SURVEYS CONDUCTED BY NMPC DURING JULY/AUGUST 1997 AND NATIONAL GRID DURING OCTOBER 2012..
4. LOCATIONS OF OFF-SITE STORM AND SANITARY SEWERS WERE DIGITIZED FROM CITY OF ALBANY DRAWINGS AND ARE APPROXIMATE.
5. LOCATIONS OF SOIL BORINGS SB-179 AND SB-180 WERE MEASURED IN THE FIELD AND ARE APPROXIMATE.
6. BTEX AND PAH CONCENTRATIONS REPORTED IN PARTS PER MILLION (PPM).
7. BTEX = BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES (TOTAL).
8. PAH = POLYNUCLEAR AROMATIC HYDROCARBONS.
9. DUP = DUPLICATE SAMPLE.
10. ND = NOT DETECTED AT CONCENTRATION EXCEEDING LABORATORY DETECTION LIMITS.
11. R = REJECTED SAMPLE RESULT.
12. -- = PARAMETER NOT ANALYZED.
13. J = ESTIMATED SAMPLE RESULT.
14. SAMPLE RESULTS FOR SOIL REMOVED BY EXCAVATION ARE NOT SHOWN.
15. MGP = MANUFACTURED GAS PLANT.
16. RCRA = RESOURCE CONSERVATION RECOVERY ACT.
17. PSA/IRM = PRELIMINARY SITE ASSESSMENT/INTERIM REMEDIAL MEASURE.
18. HTS = HIGH TEMPERATURE SUPERCONDUCTIVE.
19. SPCC = SPILL PREVENTION, CONTROL, AND COUNTERMEASURE.

NATIONAL GRID
NORTH ALBANY FORMER MGP SITE
ALBANY, NEW YORK
FEASIBILITY STUDY REPORT

TOTAL BTEX/PAHs IN SOIL (PPM)

ARCADIS

FIGURE
1-16

ATTACHMENT 3

Soil Boring Logs (SB-9, SB-13, and SB-112)

LOG OF BORING

PROJECT: Niagara Mohawk
PROJECT NO:
LOCATION: N Albany, NY
GEOLOGIST: K MacGregor
DRILLER: STB Drilling
DRILLING/SAMPLING METHOD: 4¼" HSA / 2" Carbon Steel Split Spoon

BORING NUMBER: SB-9
DATE STARTED: 10/5/94
DATE COMPLETED: 10/5/94
GROUNDWATER DEPTH:
ELEVATION:

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PROFILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION Time	COLLECTION Date	HNu ppm	COMMENTS
	0									
	.5							10/5/94		
	2	2-3-3	15"		FILL	0-15": Med brn silty f-m SAND, tr f-grvl, few black ashy fragments, sl. moist.	0833	10/5/94	NAR	
	4	4-3-4-5	7"		FILL	0-3": as above. 3-7": Med brn f-m SAND, little-tr. silt, moist.	0836	10/5/94	NAR	
	6	1-1-1-1	0"		FILL	no recovery - as above in spoon shoe	0840	10/5/94	—	
SB-9 6-8'	8	1-2-1-1	17"		FILL PT	0-3": as above 3-12": Lt. grey brn f-c SAND and SILT, tr. clay & f-grvl, brick chunks at base, saturated. 12-17": Black and brn organic fragments, moist to saturated	0843	10/5/94	10 ppm, peak > 100 ppm	
	10	2-2-4-4	18"		OL	0-18": Dk brn clayey SILT and wood fragments, moist.	0854	10/5/94	700	3" spoon - no odors
	12	1-7-3-5	14"		SC	0-2": as above 2-14": Med grey-green clayey f-c SAND, little-tr. f-m grvl, moist to saturated.	0857	10/5/94	20 ppm, peak > 100	

NOTES:

LOG OF BORING

PROJECT: Niagara Mohawk
PROJECT NO:
LOCATION: N. Albany, NY
GEOLOGIST: K. MacGregor
DRILLER: SSB Drilling
DRILLING/SAMPLING METHOD: 4 1/4" HSA / 2" Carbon Steel Split Spoon

BORING NUMBER: SB-9
DATE STARTED: 10/5/94
DATE COMPLETED: 10/5/94
GROUNDWATER DEPTH:
ELEVATION:

SAMPLE ID	DEPTH (feet) 12	BLOWS per 6"	RECOVERY	PROFILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION Time	COLLECTION Date	OVA HNu ppm	COMMENTS
SB-9 12-14'	14	4-3-4-5	15"		CL SP	0-3": as above 3-15": Med grey-green f-m SAND, tr. f-m grvl, saturated	0902	10/5/94	5ppm	- Indicator
	16	4-8-9-13	22"		SP	0-22": Med grey f-c SAND and f-c GRVL, some little clay, few shale fragments.	0912	10/5/94	NR	3" spoon
	18	3-5-7-11	18"		SP SP	0-10": Med grey f-c SAND, saturated. 10-18": Med grey f-c SAND and f-m GRVL, little silt, saturated	0918	10/5/94	5ppm	peak 10ppm
	20	10-11-14-11	24"		SP TILL	0-10": Med grey f-c SAND 10-24": Med grey m-c SAND and f-c GRVL, little tr. clay, some shale (weathered) dense	0922	10/5/94	4ppm	peak 20ppm
SB-9 20-22		10-50/2"	7"		TILL	0-6": as above, more shale 6-7": solid shale, not weathered, saturated	0939	10/5/94		3" spoon - solid shale in spoon shoe
						Boring terminated at: 20.6'.				

NOTES:

LOG OF BORING

PROJECT: Niagara Mohawk
PROJECT NO:
LOCATION: N. Albany, NY
GEOLOGIST: K. MacGregor
DRILLER: SJB
DRILLING/SAMPLING METHOD: 4¼" HSA/2" Carbon Steel Split Spoon

BORING NUMBER: SB-13
DATE STARTED: 10/18/94
DATE COMPLETED: 10/18/94
GROUNDWATER DEPTH:
ELEVATION:

SAMPLE ID	DEPTH (feet)	BLOWS per 6"	RECOVERY	PROFILE	USCS CLASS	MATERIAL DESCRIPTION	COLLECTION Time	COLLECTION Date	HNu ppm	COMMENTS
	0									
	.5					asphalt				
		3-4-4	16"		FILL	0-13": Med-dk brn f-c SAND, little silt and f-gr GVL, moist	0742	10/18/94	NAB	
	2					13-16": Med brn-blk f SAND and SILT, very moist				
SB-13 2-4'		4-4-5-50/3"	18"		FILL	0-18": Med brn-blk f SAND and SILT, very moist to saturated.	0745	10/18/94	3.4 ppm	Indicators
						Boring terminated at 3.75'				

NOTES:

Date Start/Finish: 10/09/96 - 10/10/96
Drilling Company: SJB
Driller's Name: Jim Lamm
Drilling Method: Hollow Stem Auger
Bit Size: **Auger Size :** 4.25" ID
Rig Type: CME 550 ATV
Spoon Size: 2" and 3" OD
Hammer Weight: 140-lb
Height of Fall: 30-in.

Northing: 1398102.9808
Easting: 696700.9998
Borehole Depth: 20.2 ft.
Ground Surface Elev.: 21.65 ft.

Descriptions by: Ronald D. Kuhn

Boring No. SB-112

Client:
Niagara Mohawk Power Corporation

Site:
1125 Broadway
Albany, New York

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description	Boring Construction
gs elevation 21.65 ft.										**GROUND SURFACE**	
								AS		Black Asphalt.	
	20	(0-2')	2"	- 9 6 6	15	1.1	0.0	SW/FI		Black fine to medium SAND, coal, slag, glass, and brick, trace Silt and fine to medium Gravel, damp.	
		(2-4')	2"	16 32 28 7	60	1.2	0.0				
5		(4-6')	2"	2 6 4 4	10	0.8	0.0	FI		Dark gray to black slag, little fine to medium Sand, trace Silt, saturated.	Type I portland cement/5% bentonite grout 0' to 20.2' bgs
	15	(6-8')	2"	2 1 1 1	2	0.7	0.0			Gray ash, saturated.	
		(8-10')	2"	WOH (18") 1	WOH	2.0	0.0	FI		Gray ash, trace fine Sand, saturated.	
10		(10-12')	3"	3 14 12 16	26	1.4	1.0	ML		Black stained SILT, slight sheen, moist to wet.	
	10							SP		Brown SILT, trace fine Sand, slight odor, slight sheen, wet.	
		(12-14')	3"	3 5 9 14	14	1.4	0.0			Gray fine SAND, trace natural organics material, slight odor, wet.	
								SM		Gray fine to medium SAND, little fine to medium Gravel and Silt, trace coarse Sand, saturated.	
15		(14-16')	3"	9 24	50	NR	NA				

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engineers & scientists

Remarks:
Submitted soil sample intervals (10-12') and (18-20') to Galson Laboratories for analysis of PCBs, BTEX, PAHs, TAL Inorganics, and TPH. Ref. = Split-spoon refusal.

Saturated Zones

Date / Time	Elevation	Depth

Site:
1125 Broadway
Albany, New York

Client:
Niagara Mohawk Power Corporation

Boring No. SB-112

Total Depth = 20.2 ft.

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description	Boring Construction
		(14-16')	3"	26 21	50	NR	NA			Gray fine to medium SAND, little fine to medium Gravel and Silt, trace coarse Sand, saturated.	Type 1 portland cement/5% bentonite grout 0' to 20.2' bgs
5		(16-18')	3"	16 23 43 40	66	0.4	0.0	SM			
		(18-20')	3"	9 38 50/0.4	Ref	0.8	0.0				
20		(20-22')	3"	50/0.3	Ref	0.2	0.0	SH		Dark gray weathered SHALE, saturated. (SH) Split-spoon refusal at 20.3' bgs.	
	0										
25											
	-5										
30											
	-10										
35											

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks:
Boring grouted to grade using Type 1 portland cement/5% bentonite.

Saturated Zones

Date / Time	Elevation	Depth

Project: 364.69.030
Script: BBL-bor1
Date: 10/16/97