

File 550 A



ENVIRONMENTAL
PROTECTION

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*10/10/00
As per
Mansour Sepehr
man's change.*

October 5, 2000

Ms. Susan Hugo
Alameda County
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: Horton Street Right-of-Way Extension
Emeryville, California

Dear Susan:

Enclosed for your review is SOMA's "Work Plan for Characterization and Remediation of PCB-Impacted Soils Beneath the Horton Street Right-of-Way Extension Between 59th and 62nd Streets, Emeryville, California". If our Work Plan meets your approval, please let us know at your earliest convenience.

If you have any questions or comments, please call me at (925) 244-6600.

Sincerely,

Mansour Sepehr, Ph.D., P.E.
Principal

Enclosure

cc: Dr. Ravi Arulanantham w/enclosure
California Regional Water Quality Control Board

Mr. Gordon Taylor – Viacom Inc. w/enclosure

Mr. Rich Robbins – Wareham Development w/enclosure

Mr. Dan Nourse – Acumen Enterprises w/enclosure

October 5, 2000

**Work Plan for the Characterization and Remediation of
PCB-Impacted Soils Beneath the Horton Street
Right-of-Way Extension Between
59th and 62nd Streets
Emeryville, California**

INTRODUCTION

This work plan has been prepared by SOMA Environmental Engineering, Inc. (SOMA) on behalf of Viacom Inc. (Viacom), successor by corporate name change to CBS Corporation formerly known as Westinghouse Electric Corporation and Wareham Development Group (Wareham). This report presents the tasks for characterization and remediation of polychlorinated biphenyls (PCB) impacted soils at the ^{Proposed} Horton Street Extension corridor located at the western boundary of the Heritage Square Property located at 6121 Hollis Street, Emeryville, California (the "Property"), see Figure-1. 7

The City of Emeryville is planning to extend Horton Street along the western boundary of the Heritage Square parking lot between 59th and 62nd Streets where elevated levels of PCBs were previously detected in the surface soils. The width of the proposed Horton Street Extension is 46 feet. ^{Excavation} Some remediation will extend beyond the 46-foot wide easement into the Heritage Square parking lot to allow for sidewalk installation and landscaping (activities) along saw cut and grade match lines. In addition, utility trenches including storm, sanitary, electric, gas and telephone lines will be installed under the roadway, which will run from EmeryStation II north to 62nd Street. Figure-2 shows the location of the planned Horton Street Extension and location of the utility trenches as well as PCB concentrations in soil at 0.5-foot depths. The Heritage Square Property is located immediately north of the former Westinghouse Electric Corporation site at

4899 → 5815 Peladeau Street, Emeryville, California.

SOMA Environmental Engineering, Inc.

4899 Peladeau St.

SOMA's report entitled "Delineation of the Extent of PCBs Contamination at the Heritage Square Property Located at 6121 Hollis Street, Emeryville, California" dated August 28, 2000 includes the horizontal and vertical (up to 3.5 feet) delineation of PCBs distribution within the Heritage Square parking lot. Based on the proposed Horton Street Extension construction plans, the width of the street right-of-way is 46 feet, and the maximum excavation depth for utilities is 8-feet below the ground surface (bgs).

The previous soil borings for vertical delineation of PCBs concentrations did not advance deeper than 3.5-4 feet bgs. ^{7 inches} The results of the laboratory analyses on soil samples collected at 0.5 and 3.5 foot depths indicated that ~~the vertical extent of PCBs in the southern portion of the planned Horton Street Extension~~ is beyond the sample depth of 3.5 feet. However, according to the analytical results, mirror concentrations of PCBs (less than 2.5 mg/kg) were detected at a 3.5 foot depth in the central and northern end of the future Horton Street extension. (Within the proposed Horton Street right-of-way, Figures 2 and 3 show the PCB concentrations at 0.5 and 3.5-foot depth intervals, respectively.)

modify

SCOPE OF WORK

The scope of this work plan has been organized in the following tasks as follows:

Task-1 Preparation of Health and Safety Plan

To ensure the health and safety of the drilling and the excavation crews, the health and safety plans prepared by SOMA for EmeryStation II will be implemented. In addition, a site-specific health and safety plan will be developed to address all known aspects of construction-related activities associated with the Property, if warranted.

Task-2: Initial Site Preparation and Drilling Additional Soil Borings for Characterization of PCB-Impacted Soils;

*Construction
for the construction*

Before initiation of remediation activities, Wareham will remove surface obstacles such as trees, curbs and planters, which may interfere with the excavation and remediation operations. In addition, Wareham will secure the Heritage Square parking lot by fencing off the portion of the property, which will provide enough space for stockpiling and off hauling of the waste soils following the excavation and testing of the stockpiled soils. In addition, Wareham will provide parking spaces for its tenants at another location during construction and remediation activities. City of Emeryville approved Horton Street construction plans are to be used for planning and implementing the remediation activities.

As discussed, the maximum depth of soil samples collected for evaluation of the extent of PCBs contamination at the Heritage Square Property in the summer of 2000 was about 3.5 feet. At the 3.5 feet depth, PCB contamination was detected at a maximum concentration of 1,990 mg/kg at the southern portion of the Horton Street Extension. However, at the central and northern end of the Horton Street Extension, minor (less than 2.5 mg/kg) concentrations of PCBs were detected at the 3.5-foot depth. In order to evaluate the vertical extent of the PCBs at the southern end of the Horton Street right-of-way and document the nature of other chemicals, if any in the subsurface, 8 soil borings to the maximum depth of 8 feet will be drilled. The locations of these borings are indicated on Figure-4 and coincide with the location of the proposed sanitary and storm drain lines, which will be installed up to eight feet in depth. Analytical results obtained from these samples will be used to characterize the soils for disposal approvals prior to mobilizing onto the site for the remediation work. It is expected that the characterization of the soils will provide approval at TSCA and Class II non-hazardous landfill facilities.

The soil borings will be drilled using a hollow stem auger. Soil samples will be collected using brass tubes at 2, 5, and 8-foot depth intervals. Both ends of the brass tubes containing soil samples will be covered with plastic and secured with teflon tapes. The soil samples will be placed in an ice chest and delivered to Delta Environmental Laboratories. To avoid cross contamination, the sampling tools will be decontaminated after drilling and sampling of each soil boring. A total of 24 soil samples will be collected during this investigation. The soil samples will be analyzed for PCBs using U.S. EPA Method 8080. In addition, for profiling purposes required by the landfills, the soil samples also will be analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), heavy metals using U.S EPA Methods 8260, 8270, and 6000/7000, respectively.

Task-3: Remediation of PCB-impacted Soils

The recommended PCBs cleanup levels in SOMA's (1996) human health risk document for different land use scenarios will be used as soil cleanup criteria. Table-1 shows the cleanup criteria for different land use scenarios as recommended by SOMA (1996) for the upper two feet of soil. From 2 to 4 feet the Apartment dwelling scenario applies.

**Table-1
Recommended Soil Cleanup Levels SOMA (1996)**

| Land Use Scenario | PCB Concentration in mg/kg |
|---------------------------------|----------------------------|
| Residential, Single Family Unit | 0.5 |
| Commercial | 2.85 |
| Apartment Dwelling | 59.3 |

*It includes exposure of Utility Workers inside trenches at 2-4 feet depth
Cable Man

Therefore, the clean-up criteria for PCBs from 0-2 feet depths will be 2.85 mg/kg and from 2-4 feet will be 59.3 mg/kg. Initially, The top 18-inch including asphalt

pavement with the underlying soils will be excavated and disposed of. In the next step, all proposed utility trenches beneath the Horton Street Extension will be excavated to the depths ²⁸⁵⁰ required. Some of the excavated soils, especially at the northern end of the Horton Street Extension may be re-used as the fill material at the southern end, provided that they meet certain criteria. The criteria include meeting the PCBs cleanup levels (less than 2.85 between 0 to 2-foot and less than 59.3 mg/kg below 2 foot depths) and geotechnical requirements. The soils meeting the environmental requirements but not the geotechnical concerns will also be disposed of ^{at site} at our approved landfill facility.

As the proposed construction drawings indicate, the utility lines including sewer and storm drains will be installed at a maximum depth of 6-7 feet. The utility lines will run from Emery Station II in an east-west direction toward the Horton Street Extension and then will run in a south-north direction beneath Horton Street Extension toward 62nd Street. Figure-2 shows the location of utility trenches. The maximum depth of soil excavation for remediation purposes will not exceed eight feet. Proposed final subgrade elevations will be sampled to ensure that the 59.3 kg/mg PCB cleanup criteria is achieved. This post excavation sampling is described further below.

As the existing data indicate, the southern end of the Horton Street Extension may require excavation of up to eight feet. In order to ensure the safety of construction workers and to prevent collapsing of the excavation pits, shoring may be required along the edges of the excavation at the limits of the proposed street extension. Depending upon the depths of the excavations and the type of shoring, the shoring may remain in place or be removed after backfilling.

During the excavation process, SOMA's Site Safety Officer (SSO) will conduct soil screening tests using a PCB kit called "Clor-N-Soil". The soil screening test results will be used to segregate the soils containing greater than 50 mg/kg PCBs from the soils containing less than 50 mg/kg. The soils containing greater than

50 mg/kg will be disposed of at the TSCA facility in Kettleman, California. The soils containing less than 50 mg/kg will be disposed of at the Altamont Landfill facility. Additionally, soil screening test kits may be used to assist the field crew for rapid assessment of residual PCBs concentration beneath the excavation. Using such test kits will reduce the costs and expedite the cleanup process.

After excavation of PCB-impacted soils to the final subgrade elevations and in areas of known deeper contamination, confirmatory soil samples will be collected from the bottom of the excavation to document the concentration of residual levels of PCBs. Figure-5 shows the proposed post excavation sampling grid locations. The grid system is based upon dividing the 46-foot wide easement by half in the east-west direction and then using 25-foot segments in the south-north direction. Therefore, the final sampling grid would be 23ft. by 25 ft. Sample locations within the grid system will be randomly located with a bias towards visibly stained soil or unusual occurrences. Additionally, areas outside the proposed easement in the Heritage Square parking lot, which will be remediated in preparation of incidental work to restore the parking lot, will be sampled within the proposed sampling grid using standard analytical laboratory procedures.

According to the workers health and safety protocols, two air monitoring stations will be set up at up-wind and down wind locations to monitor air quality containing possible PCB-impacted soil particulates. In particular, during soil excavation and loading activities, air samples will be collected and analyzed using EPA Method "TO-10/8082" for PCBs.

All elements of the risk management plan implemented at EmeryStation II will be implemented according to SOMA's standard operation procedure set forth in our July 13, 2000 report entitled "Implementation of Site-Specific Risk Management Plan During The Pile Cap Excavation at EmeryStation II". The elements of risk management principals will include:

- Dust Control
- Air monitoring
- Storm Water Pollution Control
- Management of Perched Groundwater
- Using Protective Clothing
- Decontamination

Task-4 Report Preparation

Upon completion of the remediation activities, a written report will be prepared to document soil characterization and remediation process and the implementation of the risk management plan at the Site. The report will include the results of laboratory analyses of soil, air and groundwater and drawings showing the extent of soil excavation and remediation activities.

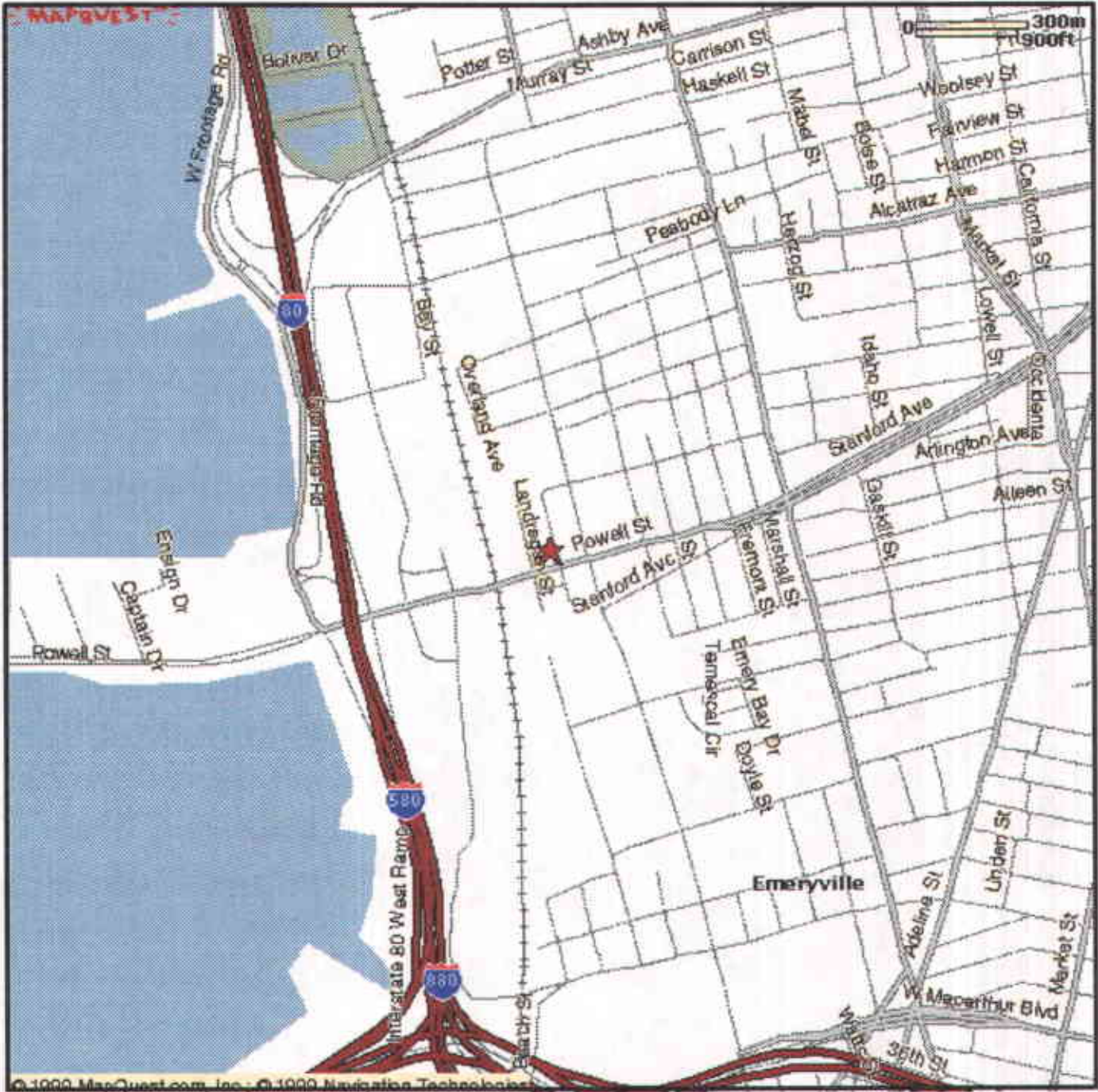


Figure 1: Site Vicinity Map

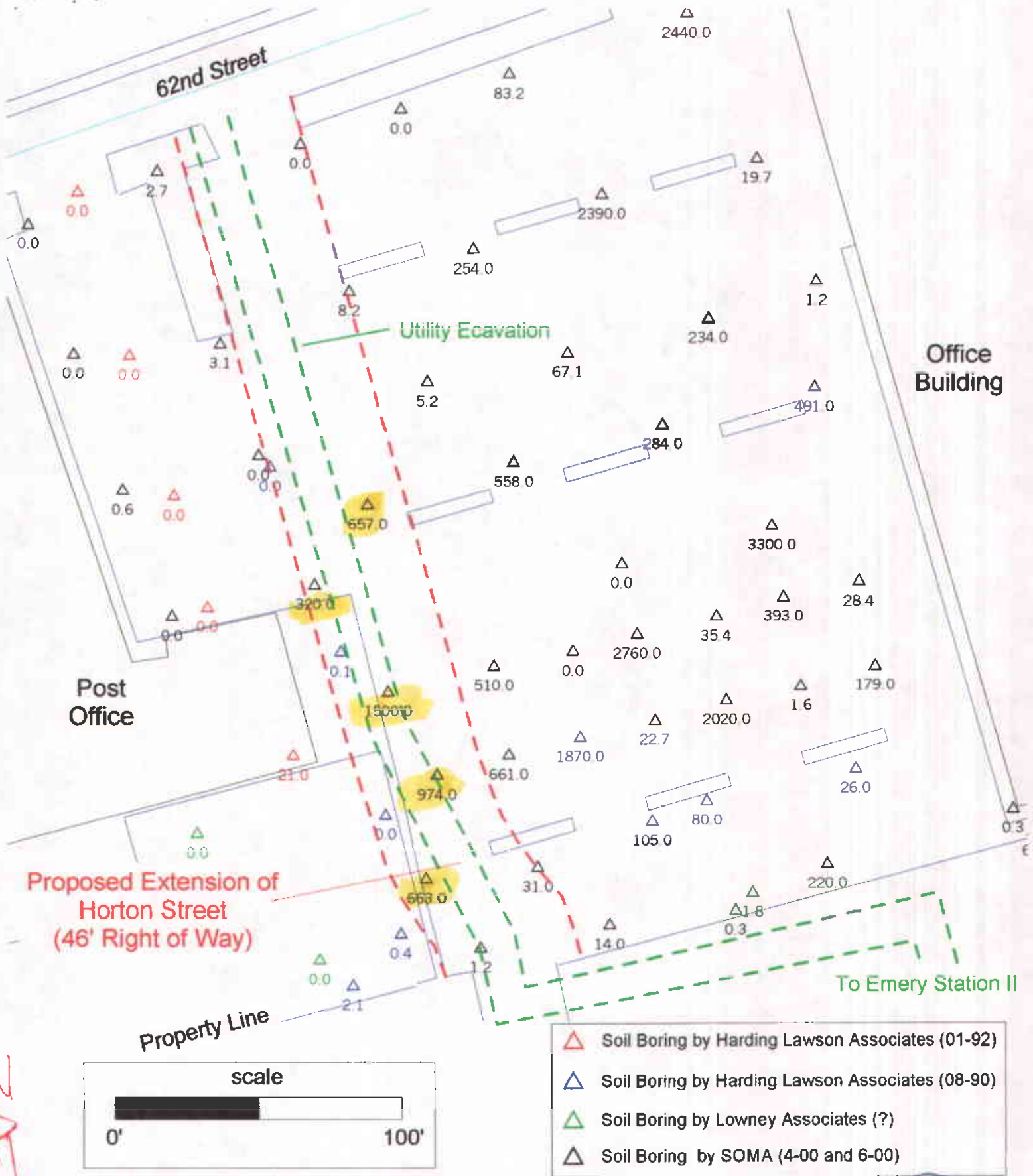
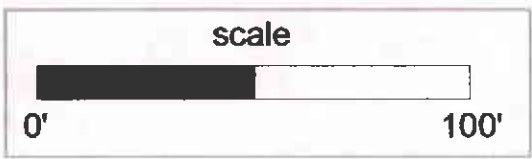
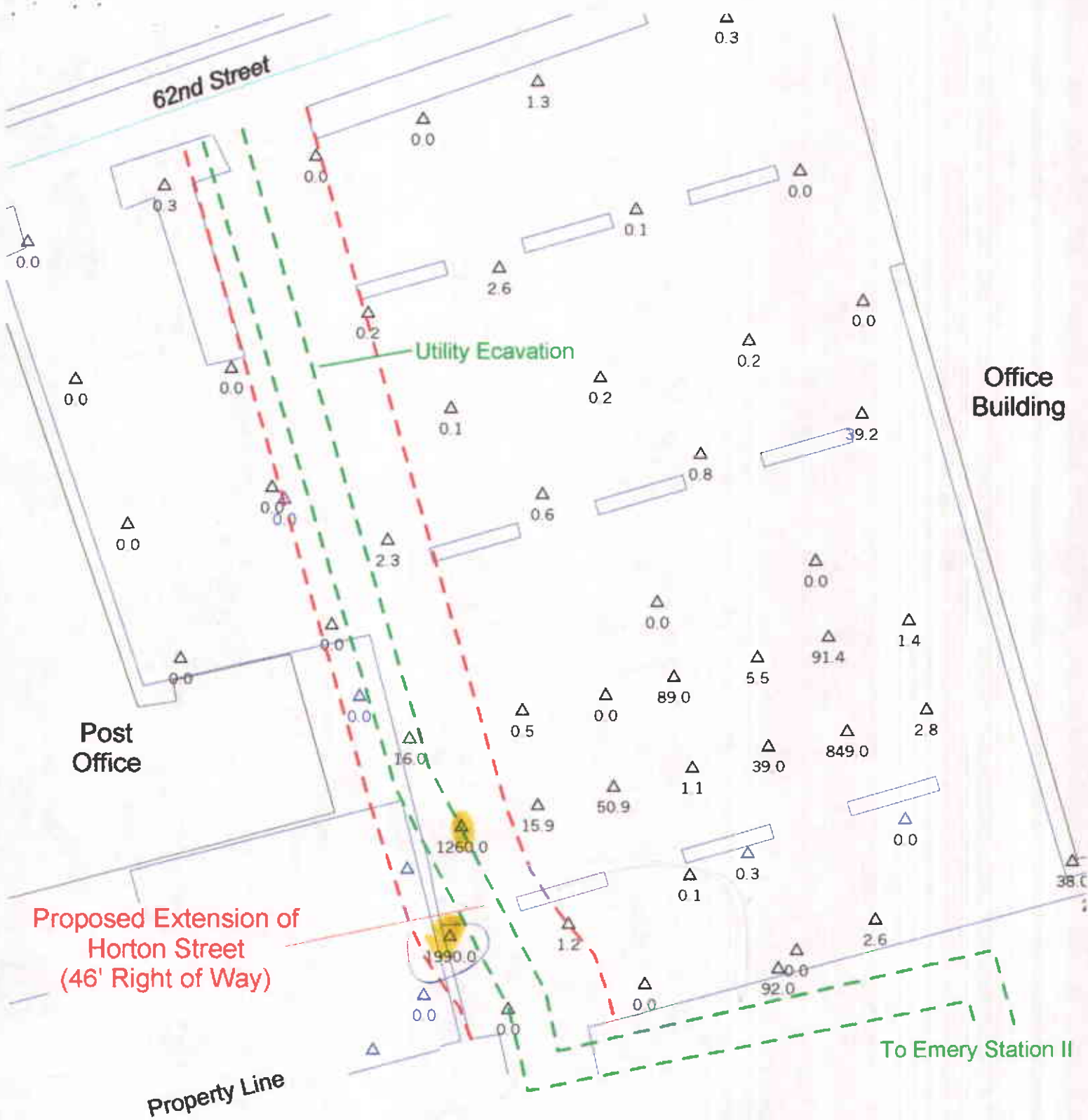


Figure 2: Location of Proposed Horton Street Extension and PCB Concentrations at 0.5 feet



- △ Soil Boring by Harding Lawson Associates (08-90)
- △ Soil Boring by SOMA (4-00 and 6-00)

Figure 3: Location of Proposed Horton Street Extension and PCB Concentrations at 3.5 feet



Figure 4: Location of Proposed Pre-Excavation Soil Borings

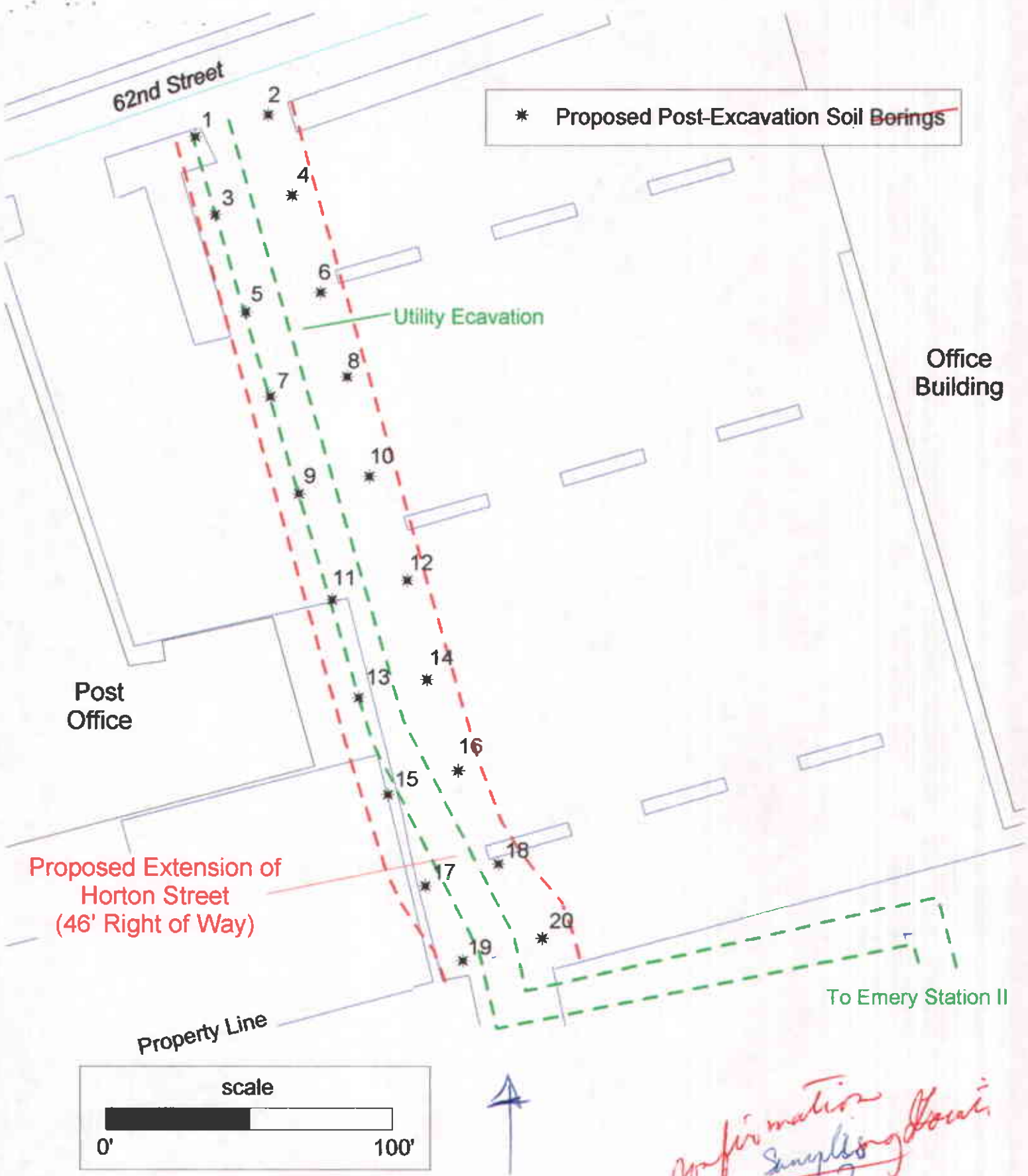


Figure 5: Location of Proposed Post-Excavation Soil Borings