

## Technical Memorandum

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**Date** 6 May 2009

**To** Bob Brock/USACE

**From** Terry Heikkila, PE

**Subject** Taku Gardens PCB Area Foundation Demolition Tech Memo

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The objective of this technical memorandum is to describe the procedures that will be followed in 2009 to support the demolition and removal of building foundations and associated utilities within Area E (Figure 1) at Taku Gardens. Work will be conducted to remove nine building foundations within this area and to determine whether PCB-contaminated soil is present.

### **Foundation Demolition and Disposal**

The objective of this demolition action is to remove all existing building foundations and associated utilities within Area E to prepare the area for future construction and to identify potential contamination within the footprint of each building. Demolition and removal of foundations and associated materials and utilities will be accomplished by completing the following activities:

- Soil will be pulled back from the edges of the foundation to expose the concrete walls.
- Foundations will be broken into manageable pieces with a jackhammer attachment on an excavator.
- All materials (concrete and aggregate) in immediate contact with underlying soil will be stockpiled on geofabric and HDPE liner near the foundation to await disposal. Disposal methods will be determined based on excavation characterization results. Prior to stockpiling, loose soil will be removed from the concrete and added back onto the soil within the footprint of the foundation.
- All materials not in immediate contact with underlying soil will be loaded into dump trucks and transported to the Ft. Wainwright Landfill and/or other appropriate facility for disposal.
- All utilities and/or conduits associated with the construction of the foundations within Area E will be removed and disposed of at the Ft. Wainwright Landfill. Many of the utilities are above ground surface while some will require limited excavation to remove. Utilities will be removed back to the nearest branch point.
- During demolition activities, if stained soil is observed or strong odors are present, work in the immediate area will be suspended, and USACE will be informed. Samples of the stained soil will be collected for analysis, and work will not resume in the area until the

results of the analysis are received. Work will continue on other foundations while awaiting these results.

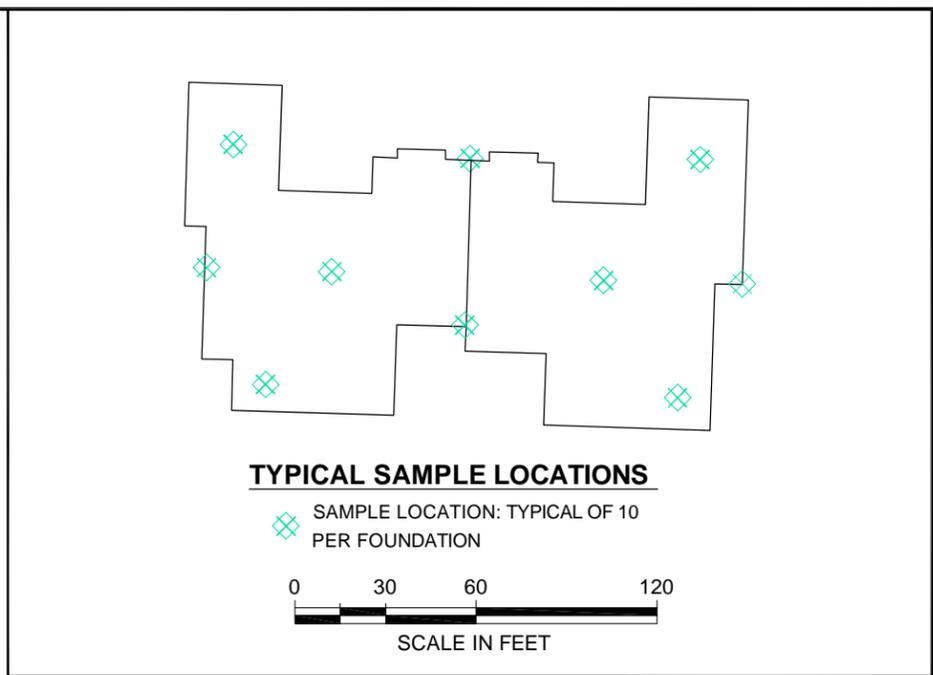
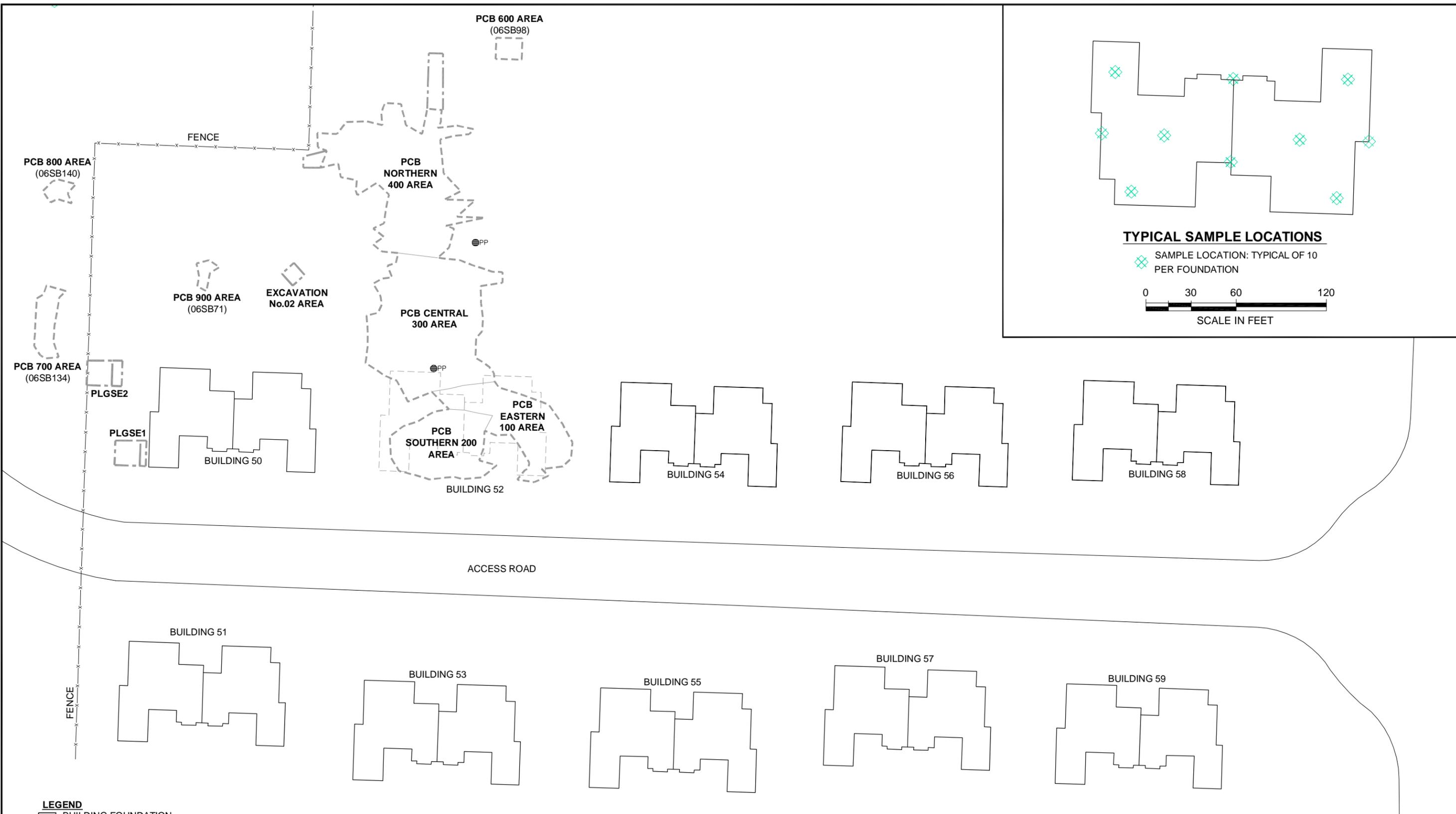
- Soil samples will be collected beneath the foundations. Disposal methods of stockpiled concrete and aggregate will depend on sample results. If all soil sample results are below 10 mg/kg PCB, these materials will be disposed of at the Ft. Wainwright Landfill. If any result exceeds 10 mg/kg, these materials will be disposed of at an appropriate TSDF.

### **Sampling Activities**

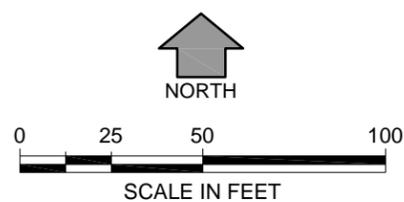
Soil characterization samples will be collected from the footprints of the foundations upon completion of demolition activities to identify potential contamination. Ten samples will be collected from each foundation footprint and analyzed for PCBs. Soil samples will be analyzed for VOCs and SVOCs on a 10-percent basis. Samples will be collected at depths from 0 to 12 inches below ground surface (under aggregate fill material) from a grid pattern, as outlined in Figure 1. Soil samples will be collected from biased locations if there are signs of contamination such as soil staining or odor in an area that is not on the grid. Samples will be collected in accordance with guidance detailed in the 2007 Former Communications Site (FCS) PCB Removal Action Work Plan (Final) and the Field Sampling Plan (FSP), which is Attachment 1 of that document. Cooler packing procedures will be modified to allow 4-ounce jars to be packed in their original casing to be returned to the laboratory.

Sample results will be used to guide future activities within Area E during the 2009 field season. Disposal methods of stockpiled concrete and aggregate that was in contact with potentially PCB-contaminated soil will depend on these results. If sample characterization results are below 10 mg/kg PCB, this material will be disposed of at the Ft. Wainwright Landfill. If PCB concentrations exceed 10 mg/kg in soil samples, this material will be treated as containing the same concentration and will be excavated and transported to an appropriate TSDF. Excavation of any such areas will be conducted in accordance with the 2007 FCS PCB Removal Work Plan Final and FSP.

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- LEGEND**
- BUILDING FOUNDATION
  - BUILDING FOOTPRINT; NO FOUNDATION CONSTRUCTED
  - POWER POLE
  - 2007 LIMITS OF EXCAVATION
  - 2008 LIMITS OF EXCAVATION



| FOUNDATION REMOVAL LOCATIONS AND PROPOSED SAMPLING GRID |  |                     |
|---|--|---------------------|
| FORT WAINWRIGHT, ALASKA                                 |  |                     |
| PROJECT MANAGER:<br>T. Heikkila                         | FILE NAME:<br>PCB Farm.dwg                       | DATE:<br>May 06, 09 |
|   | LAYOUT TAB:<br>Fig 3-13 PCB Farm                 | FIGURE NO.:<br>1    |
| DRAWN BY:<br>AV   | FILE LOCATION:<br>ERS-UR \ 05F50701 \ 2009 TM_WP |                     |