



# Public Building Commission of Chicago Professional Services

## Requisition for PBC Approval

**Project Name:** Powell Replacement Elementary School  
**Project Location:** 7511 South Southshore Drive  
**Owner Agency:** Chicago Public Schools  
**Project Services:** Environmental Consulting Services  
**Property Ownership:** Chicago Public Schools

**Date:** Jun 23, 2009  
**Project Number:** 05070  
**PS Number:** PS1509-A1  
**Project Manager:** Ariel Vaca

| Contract Type:  | Request Type:   | Pre-Qualified Specialty Services:  |
|---|---|--|
| <input type="checkbox"/> New Contract<br><input type="checkbox"/> Existing Contract<br><input checked="" type="checkbox"/> Continuation of Previous Service/Work<br><small>(provide description of previous work completed)</small> | <input type="checkbox"/> Request for Services (1)<br><input type="checkbox"/> Suborder under Term Agreement<br><input type="checkbox"/> Subconsultant Approval<br><input type="checkbox"/> Request for Services; Utilities/ City Departments<br><input type="checkbox"/> Request for Services over \$25,000 Requires Board Approval | <input type="checkbox"/> Bid Proposal Request for:<br><input type="checkbox"/> Phase I Environmental (Under \$50,000)<br><input checked="" type="checkbox"/> Phase II Environmental (Under \$250,000)<br><input type="checkbox"/> Environmental Design (Under \$50,000)<br><input type="checkbox"/> Surveying (Under \$50,000)<br><input type="checkbox"/> Commissioning (Under \$125,000)<br><input type="checkbox"/> Materials Testing (Under \$150,000) |

(1) Note: This Request for Service is governed by the terms and conditions set forth in the "Standard Terms and Conditions for Professional Services for Projects of \$25,000.00 or less", dated February 26, 2001, as amended and incorporated as if fully set forth here by this reference and by any Exhibits or Attachments to this Request for Service. Such Standard Terms and Conditions for Professional Services for Projects of \$25,000.00 or less are available from the PBC's website at: [www.pbcchicago.com/subhtml/standard.asp](http://www.pbcchicago.com/subhtml/standard.asp).

| Vendor Information:  |  |
|--|--|
| <b>Vendor Name:</b> <u>Mactec</u>  | <b>Phone Number:</b> <u>773-693-6030</u>     |
| <b>Vendor Address:</b> <u>8745 W. Higgins Road, Suite 300, Chicago, IL 60631</u> | <b>Contact Name:</b> <u>Mary Jank</u>        |
| <b>Subconsultant Name (if applicable):</b> _____                                 | <input type="checkbox"/> Please Mail Payment |
| <b>Subconsultant Services (if applicable):</b> _____                             |  |

|                           |  |
|---------------------------|--|
| <b>Scope of Services:</b> | <p>Perform environmental oversight and consulting services for the Powell site as it relates to the Illinois Environmental Protection Agency's - Site Remediation Program (which includes additional soil/groundwater sampling, preparation of a Comprehensive Site Investigation Report, Remediation Objectives Report, Remedial Action Plan and Remedial Action Completion Report and other related environmental services).</p> <p>Mactec was previously awarded a contract, in the amount of \$113,990.00, to provide environmental consulting and construction oversight service. During this work, environmental impacts were encountered. Additional testing is now required and the site must be enrolled into IEPA's - SRP.</p> <p style="text-align: center;">03.01.513140</p> |
|---------------------------|--|

|   |                                   |
|---|-----------------------------------|
| <b>Budget Code:</b> <u>████████████████████</u> | <b>TOTAL:</b> <u>\$ 74,198.14</u> |
|---|-----------------------------------|

| Approvals:   |                      |  |                      |
|--|----------------------|--|----------------------|
| <b>Project Manager:</b> <u>[Signature]</u>         | Date: <u>6/24/09</u> | <b>Executive Director:</b> <u>[Signature]</u>      | Date: <u>6/25/09</u> |
| <b>Director of Development:</b> <u>[Signature]</u> | Date: <u>6/24/09</u> | <b>Director of Procurement:</b> <u>[Signature]</u> | Date: <u>6/24/09</u> |

For Internal Use Only: Received by: N. Zambrana Date Received: 6-30-09 Nug

**Public Building Commission  
Request for Proposal  
Powell Replacement Elementary School  
Phase II Environmental and Environmental Design Services**

**ATTACHMENT A**

**SCOPE OF WORK:**

Project Name: Powell Replacement Elementary School  
PBC Project Number: 05070

The Public Building Commission of Chicago (PBC) is seeking a proposal from a pre-qualified environmental consultant (hereafter referred to as "Consultant") to provide the following: (1) Phase II Environmental Services: additional subsurface investigation; Illinois Environmental Protection Agency (IEPA) - Site Remediation Program (SRP) reporting; enrollment, communication and record keeping; invoices and fees; and confirmation sampling; and (2) Environmental Design Services: design project management at the following location:

| Site Number | Site Name                            | Site Address             |
|-------------|--------------------------------------|--------------------------|
| 1           | Powell Replacement Elementary School | 7501 S. Southshore Drive |

The Powell Replacement Elementary School site is bordered on the north by East 75<sup>th</sup> Street; on the west by South Southshore Drive; on the east by Rainbow Beach Park; and to the south by an alley.

**Documents**

The PBC currently has the following report available for review:

- 1) "Phase I Environmental Assessment, 7501 S. South Shore Drive, Chicago, Illinois", dated October 10, 2006, prepared by Mactec Engineering & Consulting, Inc.

**A. PHASE II ENVIRONMENTAL SERVICES**

**TASK I. ADDITIONAL SUBSURFACE INVESTIGATION**

The objective of the additional subsurface investigation is to delineate the extent of impacts identified during trenching activities and determine if soil has been impacted above applicable site remediation objectives (SROs) based on redevelopment of the site as a school. The investigation shall be performed in accordance with the requirements of the IEPA, Title 35: Environmental Protection, Subtitle G: Waste Disposal, Chapter I: Pollution Control Boards, Part 740, SRP. More specifically, the following tasks shall be performed:

- Advance up to sixty-seven (67) soil borings at the site using a drill rig that is equipped to perform direct-push (commonly referred to as "Geoprobe®"). The borings shall be extended to depths ranging between three (3) and sixteen (16) feet below ground surface (bgs);
- Due to access restrictions, mobilize to the site up to two (2) times; and

- Install three (3) piezometers and collect three (3) groundwater samples.

The analytical parameters shall be as follows:

a) Soil

1. SB-01 to SB-67: analyze for polynuclear aromatic hydrocarbons (PNAs) – a total of 81 shallow (between 0 and 3 feet bgs) and deep (greater than three (3) feet bgs) samples;
2. TP-4 and SB-02: analyze two (2) samples for SRP-Target Compound List (SRP-TCL); and
3. SB-02; SB-13; SB-36; and SB-38: analyze four (4) samples for Total Petroleum Hydrocarbons (TPH).

b) Groundwater

1. GW-1 and GW-3: analyze two (2) samples for PNAs; and
2. GW-2: analyze one (1) sample for SRP-TCL.

- Evaluate soil samples collected from each boring for the presence of color, texture, consistency, and stains and/or odors and include on the soil boring logs;
- Decontaminate the field sampling equipment between each sample and drilling location to avoid cross-contamination of subsurface soil and samples;
- Collect up to two (2) soil samples from each boring at the site. One soil sample shall be collected at 0-3 feet, one sample shall be collected at the point where the highest PID reading is recorded or visual impacts are noted. No soil sample will be collected below groundwater level. The soil boring holes shall be back-filled with soil cuttings and bentonite pellets, and finished with concrete or asphalt (as applicable);
- Install three (3) piezometers. Collect and analyze three (3) groundwater samples;
- Collect and analyze four (4) soil samples for TPH; and
- Review and compare the analytical data to the IEPA Tiered Approach to Corrective Action Objectives (TACO) Tier 1 SROs for residential and construction worker limits. The soil samples analytical results will be compared to the most stringent Tier 1 SROs for the inhalation, ingestion, and soil component of the groundwater exposure route for residential and construction worker scenarios.

## **TASK II. SRP REPORTING**

The Consultant shall prepare the following:

1. A Draft Comprehensive Site Investigation Report (CSIR), Remediation Objectives Report (ROR); Remedial Action Plan (RAP) that includes a summary of the Phase I ESA findings, a description of the field activities completed at the site, site physical features, results of the subsurface investigation (completed under Task I), analytical data, estimated extent of soils above TACO Tier 1 SROs, and contaminant pathways and exposure routes, in accordance with IEPA SRP requirements, utilizing site plans and base drawings originated by the PBC Architect of Record and their project team to create document figures;
2. Provide two printed copies and one electronic copy - word document (text portion only) and PDF format (entire report) - of a "Draft CSIR/ROR/RAP Report" to the PBC for review and comment. The

Consultant shall be prepared to conduct revisions to the document. The Consultant shall then provide one electronic copy - word document (text portion only) and PDF format (entire report) of an "Interim Final CSIR/ROR/RAP Report" - incorporating the comments on the "Draft CSIR/ROR/RAP Report" - to the PBC for review and comment. The Consultant shall then provide three printed copies and three electronic (PDF format) of a "Final CSIR/ROR/RAP Report" to the PBC;

3. Additionally, the Consultant shall submit the "Final CSIR/ROR/RAP Report" by certified mail to the IEPA along with the DRM forms (as applicable);
4. After completion of the removal activities described on the Remedial Action Plan, and results from the confirmation samples have been analyzed and evaluated, prepare a Remedial Action Completion Report (RACR) in accordance with the requirement of IEPA at 35 IAC 740. The RACR shall document the completion of the remedial activities, the results achieved and whether the remedial action achieved the objectives; and
5. Provide two printed copies and one electronic copy - word document (text portion only) and PDF format (entire report) - of a "Draft RACR" to the PBC for review and comment. The Consultant shall be prepared to conduct revisions to the document. The Consultant shall then provide one electronic copy - word document (text portion only) and PDF format (entire report) of an "Interim Final RACR" - incorporating the comments on the "Draft RACR" - to the PBC for review and comment. The Consultant shall then provide three printed copies and three electronic copies (PDF format) of a "Final RACR" to the PBC.

### **TASK III. SRP ENROLLMENT, COMMUNICATION AND RECORD KEEPING**

The Consultant shall perform the following activities:

1. Fully manage and coordinate all enrollment requirements related to the SRP with the PBC and IEPA;
2. Obtain approvals for all reports/submittals from the PBC prior to submittal to the IEPA;
3. Prepare all SRP Program applications, forms and reports in accordance with Title 35 Subtitle G Chapter 1 Part 740 on behalf of the PBC and attain the PBC's Representative signatures;
4. Submit signed SRP DRM-1 and DRM-2 forms and reports to IEPA via certified mail or through express mail as requested;
5. Speak with the IEPA on behalf of the PBC relating the project (The Consultant shall receive PBC's approval prior to any communications with the IEPA). All conversations with the IEPA shall be logged including discussion topics, dates, times of conversation, decisions, ect., and shall be provided to the PBC upon request throughout the project and at the end of the project;
6. Develop fact sheets, notifications, and public information documents regarding the project for required community relations activities under the SRP. Reports shall be submitted for deposit in the required information repository;
7. Ensure that the ROR/RAP is approved by the IEPA prior to start of building construction;
8. Provide copies of all correspondence to the PBC and PBC's representatives, documents/correspondence sent to, and received from, all regulatory agencies including the IEPA, the Chicago Department of the Environment, the Office of the Illinois State Fire Marshal, and any other state, local, or federal agencies for PBC and the PBC's Representative files; and
9. Provide a binder with an index of all information collected not included in the RACR (for the purposes of the proposal assume two hardcopies and one CD of the final documents will be provided to the PBC).

#### **TASK IV. SRP INVOICES AND FEES**

The Consultant shall perform the following:

1. Pay all IEPA SRP fees, including, but not limited to, the following: enrollment, NFR letter, and NFR letter recording fees;
2. Review and approve IEPA invoices related to this project. Provide copy of invoices and review comments to PBC;
3. Pay all IEPA invoices within 15 days of PBC approval and include a \$ 20,000.00 stipend in the proposal for the payment of these fees;
4. Maintain copies of all SRP invoices from the IEPA and invoice correspondence;
5. Maintain and comply with SRP Program Record Keeping, Billing, and Payment requirements in accordance with Title 35 Subtitle G Chapter 1 Part 740, Subpart C; and
6. Provide copies of proof of payment to PBC.

#### **TASK V. CONFIRMATION SAMPLING**

The Consultant shall collect, analyze and evaluate up to twenty (20) soil samples from the excavation walls and floor after removal of the impacted soils and product/water mixture for PNAs with a laboratory turn-around-time (TAT) of twenty-four (24) hours.

#### **B. ENVIRONMENTAL DESIGN SERVICES**

#### **TASK VI. DESIGN PROJECT MANAGEMENT**

The Consultant shall:

1. Participate in monthly (or as requested) status meetings with the PBC, Architect of Record, project team and Chicago Public Schools;
2. Communicate environmental conditions on the site clearly to the project team and work collaboratively to minimize off-site disposal of materials wherever possible; and
3. Provide site design drawings as needed for status meetings (assume two hours per meeting and eight (8) design meetings and two (2) Job Order Contract construction meetings for the purposes of this proposal).

#### **Proposal Requirements**

The proposal shall be a time and material basis for all services requested above. The Consultant must demonstrate the following as part of their proposal:

1. Provide a clear understanding of project approach and understanding of the services requested;
2. Provide a list of all personnel assigned to the project and attach their resumes; and
3. Provide a list of reimbursable costs including the ones requested above in this RFP.

**ATTACHMENT B  
SCHEDULE OF COST**

**Phase II Environmental and Environmental Design Services**

Complete the following table for the Powell Replacement Elementary School Attachment A - Scope of Work costs. Please include and add all materials, equipment, vehicles, office labor, field labor, travel, insurance, deliverables, and any other costs incurred in preparation and submittal of deliverables.

| Task Item   | Quantity | Unit       | Unit Cost | Subtotal    | Total |
|---|----------|------------|-----------|-------------|-------|
| <b>A. Phase II Environmental Services</b>   |          |            |           |             |       |
| <b>Task I. Additional Subsurface Investigation</b>  |          |            |           |             |       |
| Project Manager   |          | Per Hour   |           |             |       |
| Project Engineer  |          | Per Hour   |           |             |       |
| CADD/Drafter  |          | Per Hour   |           |             |       |
| Administrative/Clerical   |          | Per Hour   |           |             |       |
| Drill Rig/Operator – 67 Soil Borings/3 Piezometers  |          | Lump Sum   |           |             |       |
| Sampling Work Plan  | 1        | Lump Sum   |           |             |       |
| Mobilization/Demob  | 2        | Lump Sum   |           |             |       |
| Soil Analytical Costs:  |          |            |           |             |       |
| • Polynuclear Aromatic Hydrocarbons (PNAs): 36 hour TAT   | 81       | Per Sample |           |             |       |
| • Total Petroleum Hydrocarbons (TPH): 36 hour TAT   | 4        | Per Sample |           |             |       |
| • SRP Target Compound List (Appendix A): 36 hour TAT  | 1        | Per Sample |           |             |       |
| • SRP Target Compound List (Appendix A): 24 hour TAT  | 1        | Per Sample |           |             |       |
| Groundwater Analytical Costs:   |          |            |           |             |       |
| • Polynuclear Aromatic Hydrocarbons (PNAs): 24 hour TAT   | 2        | Per Sample |           |             |       |
| • SRP Target Compound List (Appendix A): 24 hour TAT  | 1        | Per Sample |           |             |       |
| <b>Expenses</b>   |          |            |           |             |       |
| Equipment Rental (Itemize below)  |          |            |           |             |       |
| 1.  |          |            |           |             |       |
| 2.  |          |            |           |             |       |
| Supplies (Itemize below)  |          |            |           |             |       |
| 1.  |          |            |           |             |       |
| 2.  |          |            |           |             |       |
| Any Other Relevant Costs (Itemize below)  |          |            |           |             |       |
| <b>Total Task I</b>   |          |            |           |             |       |
| <b>Task II. SRP Reporting (Fixed Fee)</b>   |          |            |           |             |       |
| Draft/Interim Final/Final CSIR/ROR/RAP  |          | Lump Sum   |           |             |       |
| Draft/Interim Final/Final RACR  |          | Lump Sum   |           |             |       |
| <b>Total Task II</b>  |          |            |           |             |       |
| <b>Task III. SRP Enrollment, Communication and Record Keeping</b>                                   |          |            |           |             |       |
| Project Manager   |          | Per Hour   |           |             |       |
| Project Engineer  |          | Per Hour   |           |             |       |
| CADD/Drafter  |          | Per Hour   |           |             |       |
| Administrative  |          | Per Hour   |           |             |       |
| Other Relevant Costs (Itemize Below)  |          |            |           |             |       |
| IEPA-SRP Enrollment Fee   |          |            |           | \$500.00    |       |
| IEPA-SRP Review and Closure Fees  |          |            |           | \$19,500.00 |       |
| <b>Total Task III</b>   |          |            |           |             |       |
| <b>Task IV. Confirmation Sampling</b>   |          |            |           |             |       |
| Project Manager   |          | Per Hour   |           |             |       |
| CADD/Drafter  |          | Per Hour   |           |             |       |
| Soil Analytical Costs:  |          |            |           |             |       |
| • Polynuclear Aromatic Hydrocarbons (PNAs): 24 hour TAT   | 20       | Per Sample |           |             |       |
| <b>Total of Task IV</b>   |          |            |           |             |       |
| <b>Sub-Total (Sum of Total Task I - IV):</b>  |          |            |           |             |       |
| <b>Contingency (20% of Sub-Total):</b>  |          |            |           |             |       |
| <b>Total: A. Phase II Environmental Services</b>  |          |            |           |             |       |
| <b>B. Environmental Design Services</b>   |          |            |           |             |       |
| <b>Task V. Design Project Management</b>  |          |            |           |             |       |
| Project Manager   |          | Per Hour   |           |             |       |
| Project Engineer  |          | Per Hour   |           |             |       |
| CADD/Drafter  |          | Per Hour   |           |             |       |
| <b>Total of Task V:</b>   |          |            |           |             |       |
| <b>Contingency (20% of Total of Task V):</b>  |          |            |           |             |       |
| <b>Total: B. Environmental Design Services</b>  |          |            |           |             |       |
| <b>Total Project Costs: A. Phase II Environmental Services and B. Environmental Design Services</b> |          |            |           |             |       |

[Firm Name] \_\_\_\_\_ agrees to provide Phase II Environmental and Environmental Design Services as detailed in the Scope of Work (Attachment A) for the Powell Replacement Elementary School site for the amount indicated above.

\_\_\_\_\_  
(Signature)

Date: \_\_\_\_\_

\_\_\_\_\_  
(Printed Name and Title)

March 26, 2009

Mr. Rich Schleyer  
On behalf of  
Public Building Commission of Chicago  
Richard J. Daley Center, Room 200  
50 West Washington Street  
Chicago, IL 60602

Subject: **Proposal for Site Investigation and Site Remediation Program Documentation  
Powell Replacement School Site  
7501 S. South Shore Drive  
Chicago, Illinois 60649**

Dear Mr. Schleyer:

MACTEC Engineering and Consulting (MACTEC) is pleased to submit this proposal to perform additional services for the Powell Replacement School Site. The services requested include entry of the site into the Illinois Site Remediation Program (SRP), a site investigation, and SRP documentation to include a Site Investigation Report (SIR), Remedial Objectives Report (ROR), Remedial Action Plan (RAP) and Remedial Action Completion Report (RACR). The scope of work is based on discussions with you and Ms. LeeAnn Tomas-Foster of the Public Building Commission (PBC).

#### **BACKGROUND INFORMATION**

The site encompasses approximately 2.5-acres of land with no existing structures. Other on-site features include a gravel-surfaced walking path, concrete benches, a water fountain and shrubs, trees and grass. An overhead electrical utility line traverses the site (north to south) along the eastern boundary of the site.

No environmental concerns were identified in the Phase I Environmental Site Assessment completed by MACTEC in October 2006. The historical search dated back to 1897. At that time, the site was occupied by a summer hotel (Manhattan Beach Summer Hotel). By 1913, the summer hotel was demolished and the site was vacant land. By the middle 1920s, the site was known as Rainbow Park. From at least 1970 to sometime in the middle 1970s, the western portion of the site was occupied by a 96-unit hotel and swimming pool. From the late 1980s through the 1990s, the site appears to have been used as a park. The area surrounding the site appears to have been used for summer hotels along Lake Michigan to the north of the site, and for residential use to the south and west.

A subsequent electromagnetic survey was completed in September 2008 and identified three anomalies indicative of buried metallic objects (potential underground storage tanks (USTs)). On March 5, 6 and 9, 2009, trenches and test pits were completed at the site to attempt to identify these anomalies and other locations where buried foundations might exist. No tanks were identified. Two areas, however, had potential environmental issues. The first area, identified as Area Q in the electromagnetic survey, had stained soils. Staining was primarily in the southeast corner above an angled slab of concrete. There were two black seams, which were 2-3 inches thick. The first was at ~2.5 feet below the ground surface (bgs) near a topsoil/fill tan sand interface. The second was at ~4.0-4.5 feet bgs and a diesel petroleum odor was noted in association with this staining. The second area was west of the first area by about 20 feet. During excavation of a 20-foot section of the western north-south trench, foundation concrete and debris were encountered. Black-stained material with a petroleum odor was identified primarily at 6-8 feet bgs. Within this 20-foot length, there were numerous large concrete slabs (potentially old walls), when moved released some trapped water and uncovered more stained material. A sample was collected (TP-4-01) at the 7-8 ft bgs interval and submitted to STAT Analysis Corporation (STAT), an analytical laboratory.

Mr. Rich Schleyer  
On behalf of  
Public Building Commission of Chicago  
March 26, 2009  
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and required, pay all Illinois EPA fees including review fees and closure fee. No cost has been included for these fees.

### **Comprehensive Site Investigation Report / Remediation Objectives Report/Remedial Action Plan**

MACTEC will complete a Comprehensive Site Investigation Report that will incorporate both the Phase I and the site investigation and will include the following major elements:

- Executive Summary: will include the property history; summarize site investigations and results; provide objectives determination (Tier 1, pathway exclusion, Tier 2, or Tier 3) and the technical approach to be used to meet the objectives. It will include the major component activities (i.e., soil removal, engineered barrier, etc.), the scope of the problems (contaminants to be addressed and extent of these contaminants), and a schedule of activities.
- Site Characterization (e.g. history, description, base map with identified areas and the site legal description);
- Site specific sampling plan;
- Documentation of field activities;
- Results Assessment - Evaluation;
- Conclusions and Recommendations;
- Documentation of exposure pathway exclusion, if pathway exclusion is used;
- Statement of Tier 1 objectives (if used);
- Tier 2 or Tier 3 procedures used and results obtained;
- Remediation measures to be used, how they will mitigate exposures, demonstration that they are technically feasible and will not provide additional exposure to contaminants, and are consistent with regulations;
- Confirmation Sampling: how the effectiveness of the remedial activities will be measured. A site-specific sampling plan and a quality assurance project plan are required;
- Current and post-remediation use of the property must be discussed;
- Applicable engineered barriers, institutional controls and groundwater monitoring, if applicable: will describe the use of any such controls to include long-term reliability, operating and maintenance plans and monitoring procedures;
- References and Supporting documentation;
- PE affirmation in accordance with 35 IL ADM. Code Section 740.

### **Remedial Action Completion Report**

After completion of the removal activities described in the Remedial Action Plan, a Remedial Action Completion Report (RACR) will be prepared. This report will document the completion of the remedial action, the results achieved and whether the remedial action achieved the objectives. All activities completed during the remedial action will be documented in this report, as well as any significant variations in the actions planned in the RAP. Confirmation sampling will be well documented, indicating the locations sampled, procedures used in sampling, analytical results and whether objectives were achieved. A draft RACR will be completed for review and comment by PBC and Chicago Public Schools. The report will be organized in a manner consistent with the Illinois Site Remediation Program (SRP) requirements. The report will present data and observations in the form of tables and maps where appropriate. MACTEC assumes as-built horizontal and/or vertical survey/measurement data acquired by others will be provided to MACTEC in a format compatible with AutoCADD, version 2007.

Mr. Rich Schleyer  
On behalf of  
Public Building Commission of Chicago  
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There was a solid floor slab at 8 ft bgs which was not broken. While the trench was open, a slight seepage of water with observed residual oil product entered the excavation from the east (from the general direction of Test Pit 3 [Anomaly Q]). Additional excavation was performed in this area, and additional foundation walls and water/oil seepage were noted. Soil sample TP-4-1 was analyzed for the Site Remediation Program (SRP) 35 IAC 740 Appendix A Target Compound List (TCL). Only polynuclear aromatic hydrocarbons (PNAs) were above objectives. Four PNAs were detected at concentrations above the Illinois Environmental Protection Agency (IEPA) Tiered Approach to Remedial Objectives (TACO; 35 IAC 742) Tier 1 Soil Remediation Objectives (SROs); all four were also above the TACO background values for the City of Chicago (35 IAC 742 Appendix A Table H). Although pesticides were detected, they did not exceed objectives. Benzene, toluene, ethylbenzene and xylene (BTEX) compounds were also detected at concentrations below objectives.

### **PROPOSED SCOPE OF WORK**

#### **Project Management**

MACTEC will provide project management related to oversight of the project budget, subcontractor management, scheduling of field work and quality control and will provide status reports of project progress on a regular basis. In addition, MACTEC will work closely with the PBC as project issues arise.

#### **Task 1 Site Investigation**

Note: this task also includes the oversight (3 days) for the trenching activities, and the SRP TCL testing of one sample from the trenching activities.

Thirty-seven (37) soil borings will be performed throughout the property. Boring locations were determined based on the following considerations: borings within the foundation area are likely to encounter refusal and will offer little new information about the product/water areas within the building foundations; the extent of impact outside the foundation area needs to be determined; additional mobilizations would be undesirable; information on environmental impacts for soils within the building footprint is needed; additional SRP Target Compound List Appendix A samples will most probably be required by the IEPA; and the IEPA is likely to require sampling of groundwater and determination of the groundwater flow direction.

Therefore, a total of twenty-two (22) soil borings will be performed around the product/water/foundation area. Eleven (11) soil borings will be performed at 10 feet out from the foundation area, at 20-foot intervals on all sides of the area. The remaining twelve (11) soil borings will be performed at 20 feet out from this area, at the same 20 foot interval on all sides of the area. The borings will be completed to a depth of twelve feet. Two soil samples will be obtained from each location: one at 0 to 3 feet below surface and one from the most impacted deeper interval. Field observations may impact boring depths and locations. The objective of the sampling is to define the impacted area.

A total of seven (7) soil borings will be performed around the stained soil area. One boring will be performed on each side of the area (boring locations on the west side intersect those of the product/water/foundation area) at 10 feet from the area for a total of three borings. A second set of borings will be performed at 20 feet from each side of the stained soil area (3 additional borings). One boring will also be drilled inside the area. Borings will be completed to 12 feet in depth. Two soil samples will be obtained from each location: one at 0 to 3 feet below surface and one from the most impacted deeper

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On behalf of  
Public Building Commission of Chicago  
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interval. Field observations may impact boring depths and locations. The objective of the sampling is to define the impacted area.

A total of three (3) additional soil samples will be performed in the area of the proposed school building footprint. The borings will be completed to 12 feet in depth. Two soil samples will be obtained from each location: one at 0 to 3 feet below surface and one from the most impacted deeper interval. Field observations may impact boring depths and locations. The objective of this sampling is to characterize site soils within the building footprint area. If impacts are noted in these samples, additional borings will be planned inside and outside the building footprint area to characterize soil materials on the remaining site, especially green space, where later exposures may occur, or other areas where soils may be moved.

Two (2) soil borings will be completed in the area which will be a parking lot when the school is constructed. These borings will be completed to 4 feet and one sample will be obtained from each boring for analytical testing. The objective of these borings is to sample the fill materials placed in this area.

Piezometers will be installed in three (3) soil borings to a depth anticipated to be 16 feet bgs. No soil samples are planned from these borings. The piezometers will be installed in the northwest corner and southwest central portions of the site and along the eastern property boundary (toward the lake). Note that utilities (power lines) are present along the east property boundary and limit the location in this area. A groundwater sample will be obtained from each piezometer location. The objective of the piezometer installation is to determine the groundwater flow direction and sample the groundwater if necessary.

The piezometers will be constructed of 2-inch ID 10-foot long PVC well screen with 0.010-inch continuous slots. A 2-inch ID PVC well casing material will be used to bring each well to land surface. The annular space surrounding the well screen will be backfilled with graded silica sand to a level approximately 2.0 feet above the well screen. A bentonite seal will be placed above the filter pack. MACTEC will develop the piezometers by removing approximately five (5) well volumes from each well using a dedicated disposable bailer. Piezometers will be surveyed in reference to a site-specific datum. The top of the wells will be surveyed to establish the elevation and aid in determining groundwater flow direction at the site. Once piezometers are installed, and water levels are allowed to adequately stabilize, a depth to water measurement for each piezometer will be collected by measuring from the top of the protective casing (TOC) to the top of the water surface. This measurement will be made to the nearest  $\pm 0.01$  feet using an electronic sounding device. The groundwater elevation will then be calculated by subtracting the distance from the top of the protective casing to the water surface in each piezometer from the elevation of the top of the protective casing. This information will be used to determine the groundwater flow direction.

Two soil samples will be selected from each boring, except that no samples will be taken from the piezometer borings and only one sample will be taken from each of the two parking lot borings, for a total of 66 soil samples. However, only selected samples will be initially analyzed in the foundation/product/water area and the stained soil area. Therefore, the initial testing will be of 30 samples. The samples chosen for analysis will be selected based on field screening with a PID and field observations (visual or olfactory indications of contaminants). It is anticipated that soil samples will be obtained from depths of 0 to 3 feet below the ground surface and from a deeper depth based on visual observation and field screening. One groundwater sample will be collected from each piezometer for a total of 3 groundwater samples.

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### Proposed Sample Analyses

| # Borings/<br># Samples  | Sample Number  | Boring Location   | Depth   | Proposed Analyses   |
|--|----------------|---|---------|---|
| 11/22 soil<br>10 archive   | SB-1 to SB-11  | 10 feet from and around foundation/water/product area at 20 foot interval | 12 feet | 11 samples for PNAs (36 hour TAT) and TBD – remainder archived<br><br>one sample (most impacted) for SRP TCL on 36 hour TAT |
| 11/22 soil archive   | SB-12 to SB-22 | 20 feet from and around foundation/water/product area at 20 foot interval | 12 feet | Archive, analyze based on initial results   |
| 3/6 soil   | SB-23 to SB-25 | 10 feet from and on each side of stained soil area.                       | 12 feet | PNAs (36 hour TAT) and TBD  |
| 1/2 soil   | SB-26          | One inside stained soil area  | 12 feet | PNAs (36 hour TAT) and TBD  |
| 3/6 soil<br>4 archive  | SB-27 to SB-29 | 20 feet from and on each side of stained soil area.                       | 12 feet | PNAs for 2 samples (36 hour TAT), remainder archive, analyze based on initial results                                       |
| 3/6  | SB-30 to SB-32 | 50-foot grid within building footprint                                    | 10 feet | PNAs (36 hour TAT) and TBD  |
| 2/2 soil   | SB-33 to SB-34 | Parking Area fill   | 4 feet  | PNAs (36 hour TAT) and TBD  |
| 3/<br>3 groundwater  | GW1 to GW3     | Northwest corner, southwest central, east                                 | 16 feet | One SRP TCL, two PNAs and TBD   |
| <p>Key:<br/>           (1) Samples to be analyzed will be determined on the basis of field screening results.<br/>           BTEX-benzene, toluene, ethylene, xylene (USEPA Method 8260)<br/>           PNA- Polynuclear Aromatic Compounds (USEPA Method 8270)<br/>           SRP TCL – SRP Target Compound List Appendix A<br/>           Pesticides – (USEPA Method 8081)<br/>           TBD – to be determined based on results of SRP TCL sample analysis – collect volatiles by 5035 and enough other sample for total SRP TCL</p> |                |   |         |   |

## Task 2 SRP Enrollment and Reporting

### Site Enrollment Activities

MACTEC will enroll the Property into the Illinois Site Remediation Program (SRP). This will be accomplished by preparation of a SRP Application Form (DRM-1) and Site Base Map. With the application, a \$500.00 advance partial payment to the State of Illinois is required. MACTEC assumes that the \$500 will be paid by MACTEC with reimbursement by the PBC. MACTEC is prepared to, as approved

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Data to be presented in the RACR will include, but is not limited to the following:

- Site Base Map
- Excavation Location Map(s)
- Engineered Barrier Map(s)
- Field observations and Photographs
- Tabulated analytical results
- Laboratory analytical data sheets
- Waste Manifests

The RACR will comply with the requirements of the IEPA at 35 IAC 740 and will contain the following:

- **Executive Summary:** will identify the objectives of the remedial activities and the technical approach to be used to meet the objectives. It will include a description of the site, the major component activities (i.e., soil removal, engineered barrier, etc.) which were accomplished, the scope of the work which took place and the results achieved and the anticipated post remediation use of the remediation site and nearby properties.
- **Field Activities:** will provide a narrative of the field activities conducted during the investigation and the remedial action accomplished.
- **Special Conditions:** will describe engineered barriers or institutional controls used including appropriate documentation that these have been implemented, provisions for post remedial monitoring or maintenance, and other conditions which may be necessary for adequate protection of human health and the environment.
- **Results:** will provide an analysis of the remedial actions effect by comparison of confirmation samples to remedial objectives in an organized and logical presentation.
- **Conclusion:** will indicate whether the remedial action was effective in meeting the stated objectives. Accuracy and completeness of the data will be addressed and necessary future work will be identified.
- Appendices to include documentation and references used.
- Affirmation by a Licensed Professional Engineer.

#### **SRP Community Relations Requirements**

MACTEC will provide fact sheets and notifications for required community relations activities (school sites) under the SRP. Reports will be submitted for deposit in the required information repository (usually the nearest public library).

#### **Task 3 Design**

MACTEC will prepare figures (plans) for soil excavation and soil management that indicate areas of soil above remediation objectives and delineate appropriate soil handling for these areas. MACTEC will provide CADD drawings showing:

- a) locations and depths of impacted soils (Soil Management Plan)

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b) locations and depths of impacted soil movement based on building and site excavation information to be furnished by others (Soil Excavation Plan). This work includes coordination with the designed site plan provided by others.

#### **Task 4 Confirmation Sampling**

Following removal of the impacted soils and product/water mixture, MACTEC will collect soil samples from the excavation walls and floor. For the purposes of the proposal, it is assumed that twenty (20) soil samples will be collected, though the exact number will be contingent upon the size of the excavation. The samples will be submitted to a certified laboratory, STAT Analysis, for testing under a turn-around-time of 36 hours. The samples will be tested for identified contaminants of concern. At this time, the contaminants of concern are identified as PNAs. Therefore, the soil samples will be analyzed for PNAs by USEPA Method 8270 (SIM).

#### **ASSUMPTIONS**

This Scope of Work has been prepared based on the following assumptions:

- MACTEC will pre-mark (using marking paint or pin flags) all soil sampling locations prior to commencement of sampling activities. Even though JULIE will be notified, they will mark underground utilities only at offsite, public right-of-way locations. Therefore, MACTEC anticipates performing the electromagnetic survey prior to any soil boring locations.
- PBC will be responsible for providing access to sample locations.
- Field activities will be completed in accordance with current Federal, State and Local requirements.
- Soil sampling operations are based on typical soil conditions for the site area. MACTEC will take reasonable precautions to prevent damage to structures. In the event any underground structures, poles, cables, conduit, catch basins, manholes, rock, sludge, water, running sand, sewers, drain tiles, etc. are encountered, removed or destroyed during the normal performance of this contract, additional expenses may be incurred.
- Equipment and personnel stand-by charges will be applied during unanticipated project delays beyond the control of MACTEC and/or its subcontractors. It is assumed that decisions regarding scope modifications will be made in a timely manner by PBC, if required.
- MACTEC's Health and Safety Plan assumes investigation activities can be performed in Level D personal protective equipment (PPE). If an upgrade of protection from Level D PPE to Level C PPE is required, additional charges will apply to the particular field activity impacted by this upgrade.
- Disposal costs are not included in this proposal for drumming or disposal of any investigation derived wastes such as soil and/or water.



**ESTIMATED LEVEL OF EFFORT AND COST  
SITE INVESTIGATION AND SRP DOCUMENTATION  
PUBLIC BUILDING COMMISSION OF CHICAGO  
POWELL**

| Task Totals                                      |                    | ODCs               | Total              |
|--|--------------------|--------------------|--------------------|
| Task   | Labor              | \$                 | \$                 |
| Task 0 Project Mgmt                              | \$2,440.00         | \$0                | \$2,440            |
| Task 1 Site Investigation                        |                    |                    |                    |
| 1. Trenching                                     | \$3,440.00         | \$1,448            | \$4,888            |
| 2. Work Plan Development                         | \$4,600.00         | \$0                | \$4,600            |
| 3. Soil Boring/MW Installation                   | \$5,050.00         | \$15,034           | \$20,084           |
| 4. Well Dev, Survey and Sampling                 | \$3,645.00         | \$1,677            | \$5,322            |
| Task 2 SRP Enrollment and Reporting              |                    |                    |                    |
| 1. SRP Enrollment                                | \$1,100.00         | \$500              | \$1,600            |
| 2. CSURORRAP                                     | \$10,380.00        | \$0                | \$10,380           |
| 3. RACR  | \$9,120.00         | \$0                | \$9,120            |
| 4. Com Relations (fact sheet, notify, info repo) | \$2,190.00         | \$0                | \$2,190            |
| Task 3 Design                                    | \$5,560.00         | \$0                | \$5,560            |
| Task 4 Confirmation Sampling                     | \$2,660.00         | \$5,455            | \$8,015            |
| <b>TOTAL</b>                                     | <b>\$50,085.00</b> | <b>\$24,113.14</b> | <b>\$74,198.14</b> |



# Multi-Project Budgeted, Committed, and Actual Costs Report

## Cost Roll-up by Specific Cost Code and GL Code - Includes User Agency Budget

Date: 6/17/2009

| Cost Code                          | GL Code | Budget                            |              | Committed       |              | Projected (C) | Original Amount (D) | Revised (E)  | Projected (F) | Approved Payments (G) | Percent Payments (H=G/E) | Payments (I=E-G) | Original (J=D-A) | Revised (K=E-B) | Projected (L=F-C) |
|------------------------------------|---------|-----------------------------------|--------------|-----------------|--------------|---------------|---------------------|--------------|---------------|-----------------------|--------------------------|------------------|------------------|-----------------|-------------------|
|                                    |         | Original Amount (A)               | Revised (B)  | Original Amount | Revised      |               |                     |              |               |                       |                          |                  |                  |                 |                   |
| <b>05 Chicago Public Schools</b>   |         |                                   |              |                 |              |               |                     |              |               |                       |                          |                  |                  |                 |                   |
| <b>05070 Powell Replacement ES</b> |         |                                   |              |                 |              |               |                     |              |               |                       |                          |                  |                  |                 |                   |
| <b>03 - Environmental</b>          |         |                                   |              |                 |              |               |                     |              |               |                       |                          |                  |                  |                 |                   |
| 03.01                              | 513140  | Environmental Testing             | 250,000.00   | 250,000.00      | 113,990.00   | 250,000.00    | 113,990.00          | 250,000.00   | 0.00          | 0.00                  | 0%                       | 113,990.00       | \$136,010.00     | 136,010.00      | 0.00              |
| 03.02                              | 513120  | Environmental Consulting          | 0.00         | 0.00            | 0.00         | 0.00          | 0.00                | 0.00         | 0.00          | 0.00                  | 0%                       | 0.00             | \$0.00           | 0.00            | 0.00              |
| 03.03                              | 513168  | Geotechnical Testing              | 20,000.00    | 20,000.00       | 8,828.00     | 8,828.00      | 8,828.00            | 8,828.00     | 0.00          | 0.00                  | 0%                       | 8,828.00         | \$11,172.00      | 11,172.00       | 11,172.00         |
| 03.04                              | 513166  | Geotechnical Consulting           | 0.00         | 0.00            | 0.00         | 0.00          | 0.00                | 0.00         | 0.00          | 0.00                  | 0%                       | 0.00             | \$0.00           | 0.00            | 0.00              |
| 03.05                              | 513180  | Other Consulting & Studies        | 0.00         | 0.00            | 0.00         | 0.00          | 0.00                | 0.00         | 0.00          | 0.00                  | 0%                       | 0.00             | \$0.00           | 0.00            | 0.00              |
| 03.06                              | 523900  | Site Preparation/Remediation      | 462,168.00   | 0.00            | 0.00         | 0.00          | 0.00                | 0.00         | 0.00          | 0.00                  | 0%                       | 0.00             | \$462,168.00     | 0.00            | 0.00              |
| 03.07                              | 523950  | Other Environmental Costs         | 250,000.00   | 0.00            | 0.00         | 0.00          | 0.00                | 0.00         | 0.00          | 0.00                  | 0%                       | 0.00             | \$250,000.00     | 0.00            | 0.00              |
| 03.08                              |         | Site Prep Contract Contingency    | 0.00         | 0.00            | 0.00         | 0.00          | 0.00                | 0.00         | 0.00          | 0.00                  | 0%                       | 0.00             | \$0.00           | 0.00            | 0.00              |
|                                    |         |                                   | 982,168.00   | 270,000.00      | 122,818.00   | 270,000.00    | 122,818.00          | 258,828.00   | 0.00          | 0.00                  | 0%                       | 122,818.00       | 859,350.00       | 147,182.00      | 11,172.00         |
| <b>04 - Design</b>                 |         |                                   |              |                 |              |               |                     |              |               |                       |                          |                  |                  |                 |                   |
| 04.01                              | 521105  | Design Architect Fees             | 60,000.00    | 60,000.00       | 15,000.00    | 60,000.00     | 35,000.00           | 35,000.00    | 33,321.87     | 95%                   | 1,678.13                 | 25,000.00        | \$45,000.00      | 25,000.00       | 25,000.00         |
| 04.02                              | 521100  | AOR Basic Fees                    | 2,150,000.00 | 2,150,000.00    | 1,831,500.00 | 2,150,000.00  | 1,831,500.00        | 1,831,500.00 | 1,284,850.00  | 70%                   | 546,650.00               | 318,500.00       | \$318,500.00     | 318,500.00      | 318,500.00        |
| 04.03                              | 521500  | AOR Reimbursables                 | 200,000.00   | 200,000.00      | 200,000.00   | 200,000.00    | 200,000.00          | 200,000.00   | 124,296.94    | 62%                   | 75,703.06                | 0.00             | \$0.00           | 0.00            | 0.00              |
| 04.04                              | 521600  | AOR Additional Services           | 0.00         | 0.00            | 0.00         | 0.00          | 0.00                | 0.00         | 0.00          | 0%                    | 0.00                     | 0.00             | \$0.00           | 0.00            | 0.00              |
| 04.05                              | 513166  | Geotechnical Consultants          | 0.00         | 0.00            | 0.00         | 0.00          | 0.00                | 0.00         | 0.00          | 0%                    | 0.00                     | 0.00             | \$0.00           | 0.00            | 0.00              |
| 04.06                              | 513100  | Other Technical Consultants       | 0.00         | 0.00            | 0.00         | 0.00          | 0.00                | 0.00         | 0.00          | 0%                    | 0.00                     | 0.00             | \$0.00           | 0.00            | 0.00              |
| 04.07                              | 513190  | LEED Consultant                   | 0.00         | 0.00            | 0.00         | 0.00          | 0.00                | 0.00         | 0.00          | 0%                    | 0.00                     | 0.00             | \$0.00           | 0.00            | 0.00              |
| 04.08                              | 513124  | Food Service Consultants          | 0.00         | 0.00            | 0.00         | 0.00          | 0.00                | 0.00         | 0.00          | 0%                    | 0.00                     | 0.00             | \$0.00           | 0.00            | 0.00              |
| 04.09                              | 513127  | FF&E Consulting                   | 0.00         | 0.00            | 0.00         | 0.00          | 0.00                | 0.00         | 0.00          | 0%                    | 0.00                     | 0.00             | \$0.00           | 0.00            | 0.00              |
| 04.10                              | 513600  | Commissioning Agent               | 0.00         | 0.00            | 0.00         | 0.00          | 0.00                | 0.00         | 0.00          | 0%                    | 0.00                     | 0.00             | \$0.00           | 0.00            | 0.00              |
| 04.11                              | 513700  | Developer Services Fees           | 65,000.00    | 65,000.00       | 65,000.00    | 65,000.00     | 65,000.00           | 65,000.00    | 0.00          | 0%                    | 0.00                     | 0.00             | \$65,000.00      | 65,000.00       | 65,000.00         |
| 04.12                              | 513250  | Legal Fee - Zoning Board Approval | 30,000.00    | 10,000.00       | 0.00         | 10,000.00     | 0.00                | 0.00         | 0.00          | 0%                    | 0.00                     | 0.00             | \$30,000.00      | 10,000.00       | 10,000.00         |
| 04.13                              | 513800  | Other Design Related Costs        | 100,000.00   | 100,000.00      | 0.00         | 100,000.00    | 0.00                | 0.00         | 0.00          | 0%                    | 0.00                     | 0.00             | \$100,000.00     | 100,000.00      | 100,000.00        |
|                                    |         |                                   | 2,605,000.00 | 2,585,000.00    | 2,046,500.00 | 2,585,000.00  | 2,066,500.00        | 2,066,500.00 | 1,442,468.81  | 70%                   | 624,031.19               | 568,500.00       | 568,500.00       | 518,500.00      | 518,500.00        |