



City of Chicago
Richard M. Daley, Mayor


Department of Environment

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Commissioner

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MEMORANDUM

TO: Jim Horan
Department of Planning and Development

FROM: Eamon Reilly 
Department of Environment

SUBJECT: 1924 W. 46th Street
Phase II Environmental Site Assessment Report

DATE: January 26, 2007

The following is the Department of Environment's (DOE) summary of a Phase II Environmental Site Assessment report (the Phase II ESA) for the above-referenced property (the Site) prepared by Carnow, Conibear, & Assoc., Ltd. (CCA) and dated January 19, 2007. A copy of the Phase II Report and Appendices are attached for your reference.

A Phase I ESA was performed by Camp, Dresser & McKee, Inc. in 2005 and identified various Recognized Environmental Conditions (RECs) including an open Leaking Underground Storage Tank (LUST) Incident and potential release from an Underground Storage Tank identified at the Site that may have impacted the soil. Historical information suggests that former industrial uses of the Site included the manufacturing of foundry supplies, rail supplies, and car doors; the site was also a storage yard for rail cars, storage box containers and trailers. Reportedly, mechanics conducted maintenance on the containers and trailers and waste oil was improperly disposed on the Site.

Several compounds were encountered with many exceeding regulatory requirements. Results of soil sampling indicate the presence of metals, including arsenic and lead, semi-volatile organic compounds (SVOCs) including various polynuclear aromatic hydrocarbons (PNAs) in soils exceeding Tier I residential and industrial/commercial criteria throughout the Site. Note there is potential for some areas of the Site to have hazardous levels of lead present as one soil sample had a lead concentration of 1100 mg/Kg. Additionally, one mercury sample exceeded residential criteria for inhalation. The compounds, with the exception of hazardous lead, may be addressed onsite using engineered barriers. Note that due to some inhalation exceedances 10 feet of clean soil would be required on portions of the Site if buildings or other engineered barriers are not used. In addition, water encountered at the Site was impacted with SVOCs, PNAs and several inorganic constituents above the Tier 1 Groundwater Remediation Objectives.

Boring logs indicate fill material including sand, gravel, brick debris, wood and concrete across most of the Site at depths to 16 feet, with an average of 5 feet. Therefore, it is probable fill material is a result of the improper demolition of building(s) which may result in geotechnical and/or potential disposal issues.

Based on the current site conditions, DOE recommends additional sampling be conducted to further characterize the compounds that were encountered. Site remediation work (if necessary) can be incorporated into the site redevelopment design plans and specifications in order to manage impacted soil, address potentially impacted groundwater, prevent cross-contamination of the Site, and minimize the soil volumes which may require removal and disposal during the Site's development activities. Attached is a preliminary cost estimate. If you have any questions or require additional information with regards to this summary or the Site in general, please call me at 744-7205.

Attachments: Phase II drawing with general exposure exceedances
Cost Estimate for additional work and summary remediation costs



Preliminary Cost Estimate

Assumptions:

The remediation costs generally consist of the following:

- Construction of new buildings. This task include the excavation of soil for the building foundations and the concrete slabs.
- Construction of utility lines
- Construction of parking lots and driveways
- Remediation of new landscape areas
- Backfill of landscape areas
- Groundwater removal
- One (1) underground storage tank (UST) removal

Table A provides estimate of the quantity for each remediation area.

Table A: Areas of Remediation

Area	Area (ft ²)	Depth (ft)	Volume (yd ³)	Weight (ton)
New Building Foundations	8,892	6	1,976	2,964
New Building Slabs, Interior Foundations and Interior Underground Utilities	219,048	3	24,339	36,508
Utilities	14,370	6	3,193	4,790
Parking Lot	94,975	2	7,035	10,553
Green Space	56,985	3	6,332	9,498

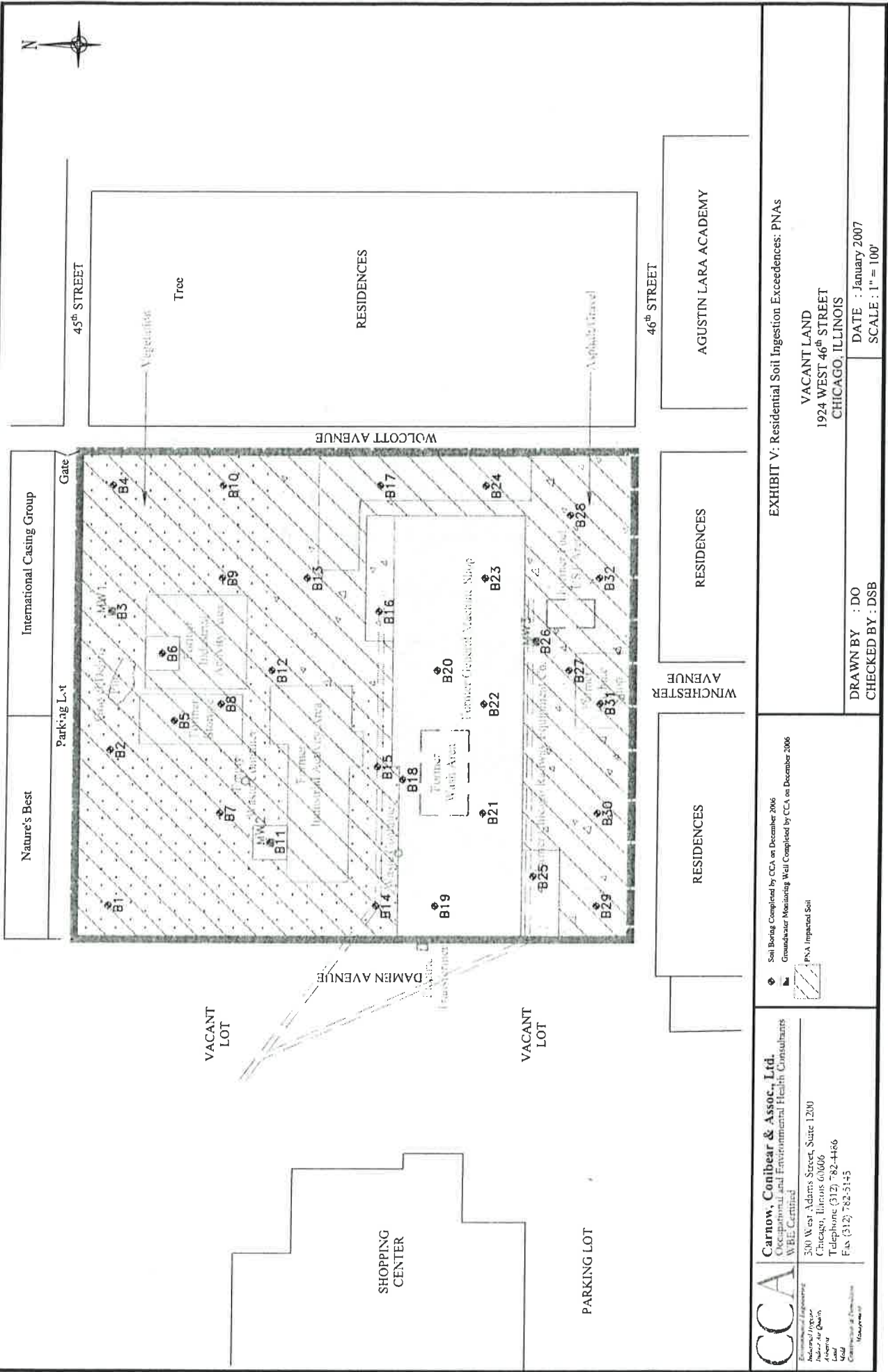
Table B provides an estimate of remediation costs associated with the site remediation. A 10% contingency factor is included in the cost estimate for unforeseen conditions.

Table B: Remediation Cost Estimate

Item	Quantity	Unit	Unit Cost	Subtotal
Excavation, Transportation and Disposal of Special Waste from Building Foundations	3,000	ton	\$ 45.00	\$ 135,000.00
Excavation, Transportation and Disposal of Special Waste from Building Slabs, Interior Foundations and Interior Underground Utilities	37,000	ton	\$ 45.00	\$ 1,665,000.00
Excavation, Transportation and Disposal of Special Waste from Utility Areas	4,800	ton	\$ 45.00	\$ 216,000.00
Excavation, Transportation and Disposal of Special Waste from Parking Lot Areas	11,000	ton	\$ 45.00	\$ 495,000.00
Excavation, Transportation and Disposal of Special Waste from Landscape Areas	10,000	ton	\$ 45.00	\$ 450,000.00
Purchase, Transportation and Placement of "Clean" Soils for Landscape Areas	6,500	yd ³	\$ 37.00	\$ 241,000.00
Dewatering Issues		Lump sum		\$ 25,000.00
UST Removal	1	None	\$ 10,000.00	\$ 10,000.00
Remediation Cost				\$ 3,237,000.00
Contingency Estimate (10%)				\$ 323,700.00
Remediation Subtotal				\$ 3,561,000.00
Engineering and Environmental Consulting				\$ 350,000.00
Total Estimated Remediation Cost				\$ 3,911,000

Notes: Excavation, transportation and disposal costs related to removal of special waste have been included in the estimates. If remediation is performed as part of construction, only the landscape areas would generally include the additional "excavation" cost.

The total estimated site remediation cost is \$3,911,000



Nature's Best

International Casing Group

Parking Lot

Gate

45th STREET

WOLCOTT AVENUE

DAMEN AVENUE

46th STREET

AGUSTIN LARA ACADEMY

RESIDENCES

WINCHESTER AVENUE

RESIDENCES

VACANT LOT

VACANT LOT

SHOPPING CENTER

PARKING LOT

EXHIBIT V: Residential Soil Ingestion Exceedences: PNAs

VACANT LAND
1924 WEST 46th STREET
CHICAGO, ILLINOIS

DATE : January 2007
SCALE : 1" = 100'

DRAWN BY : DO
CHECKED BY : DSB

Soil Boring Completed by CCA on December 2006
Groundwater Monitoring Well Completed by CCA on December 2006

PNAs Impacted Soil

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WBE Certified

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