



November 13, 2024

705355

Angel Camacho
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: Thorium Monitoring – City of Chicago Department of Transportation
CDOT Permit No. 1997101 – 480-530 E. Grand Ave.

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiological monitoring during the removal of sidewalk and excavation at 480-530 E. Grand Ave. in Chicago, Illinois. The monitoring was performed by Glenn Huber, SAHCI Health Physicist, on November 6 and 7, 2024. All activities were conducted under the guidance of document SET General Procedure for Thorium Monitoring.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 134542) with attached 2"x2" NaI probe (w/ 6" collimated lead shield). The instrument was calibrated on May 7, 2024. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,228 counts per minute (cpm).

The average background count rate for this location was determined to be 1,564 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected by scanning the surface of the existing sidewalk area before and after removal. The sidewalk area was approximately 136 feet long by 33 feet wide. Concrete, stone, and soil were loaded directly into a truck for offsite disposal.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates ranged from 1,600 cpm to 2,600 cpm to a maximum depth of 6 inches below ground surface. No count rates were found at any time that exceeded the instrument specific count rate threshold of 7,228 cpm.

Additional Monitoring

Since no count rates were identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

I will be providing a copy of this report to both the City of Chicago Department of Public Health and US Environmental Protection Agency, as required.

Thank you for your assistance with this project. If you have any questions or need additional information, please call me at (815) 485-6161.

Sincerely,
Stan A. Huber Consultants, Inc.

A handwritten signature in black ink, appearing to read 'Glenn Huber', with a stylized flourish at the end.

Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID: 480-530 E. Grand Ave. Sidewalk Replacement CDOT #1997101

Date: 11/6/24 - 11/7/24

Technician: Glenn Huber

Inst Model: Ludlum 2221

Serial No. : 134542

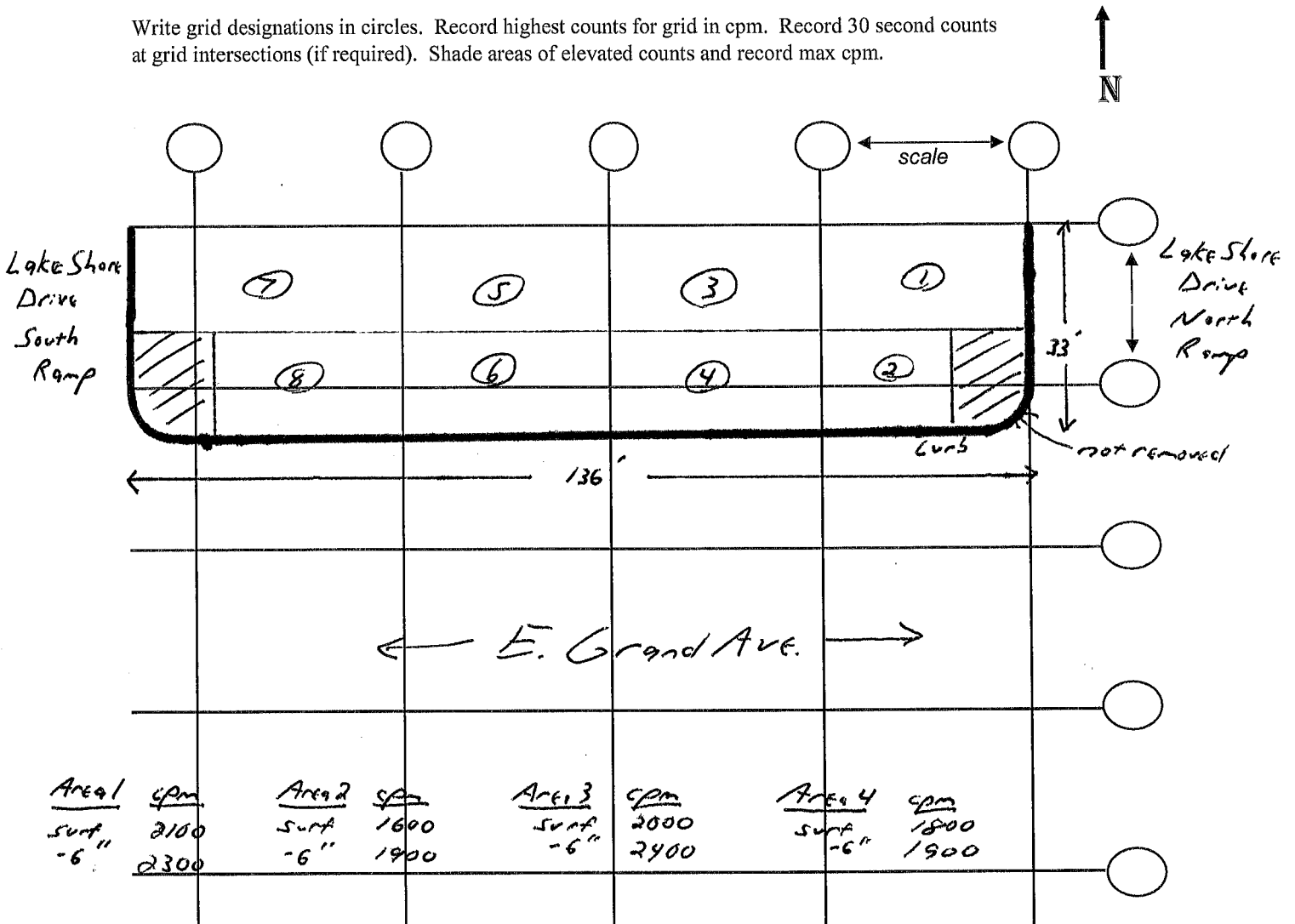
Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: Surface to -6"

Background 1,564 cpm

Action Level: 7,228 cpm

Write grid designations in circles. Record highest counts for grid in cpm. Record 30 second counts at grid intersections (if required). Shade areas of elevated counts and record max cpm.



Area 1 cpm
surf 2100
-6" 2300

Area 2 cpm
surf 1600
-6" 1900

Area 3 cpm
surf 2000
-6" 2400

Area 4 cpm
surf 1800
-6" 1900

Area 5 cpm
surf 2200
-6" 2500

Area 6 cpm
surf 1700
-6" 2000

Area 7 cpm
surf 2300
-6" 2600

Area 8 cpm
surf 1900
-6" 2100