Stan A. Huber Consultants, Inc.
Health Physics and Radiation Safety Services

200 North Cedar Road – New Lenox, Illinois 60451-1751 – (800) 383-0468 or (815) 485-6161 – FAX (815) 485-4433 – Email sahci@sahci.com – Home Page www.sahci.com

February 4, 2017

Mike Lanenga
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: 200 – 300 N. Stetson Ave. Thorium Monitoring 1/20/17 – 1/25/17

Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during road grading activities at 200-300 N. Stetson Avenue in Chicago, Illinois. The monitoring was performed by Glenn Huber and Steven Kowalczyk, SAHCI Health Physicists, on January 20, 2017 through January 25, 2017.

Instrumentation

Surface gamma scans were performed using Ludlum Model 2221 Scaled / Ratemeters (serial no. 134542 and 127242) with attached Ludlum Model 44-10 2"x2" NaI probes (unshielded). Unshielded surveys were performed since a large flat surface was being monitored, rather than an excavation.

Serial number 134542 was calibrated on August 8, 2016. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 17,246 counts per minute (cpm).

Serial number 127242 was calibrated on August 8, 2016. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 18,098 counts per minute (cpm).

The average background count rate for this this location was determined to be 5,238 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeters described above. A 100% surface gamma scan was performed at the start of the road grading covering the entire area of 200 – 300 N. Stetson Ave. Follow-up surveys were performed as the higher elevation areas were graded down. Since soil

was removed in small scrapes, rather than in 18 inch lifts, depths are approximations only. Periodic surveys of the freshly graded roadway were performed throughout the process with measurements collected after no more than 18 inches were removed.

The maximum gamma count rates were recorded on the attached Radiation Survey Form, with the survey area delineated into fifteen sections. The count rates throughout the grading ranged from 4,500 cpm to 8,000 cpm. No count rates were found at any time that exceeded the threshold limits of 17,246 cpm and 18,098 cpm. The middle sections of the area (locations 4, 5, 7, 8, 10, 11) were where the bulk of the grading took place. Areas where no additional grading took place are noted on the Radiation Survey Form as "N/A".

Slightly elevated count rates were observed adjacent to the building at the Eastern boundary of the survey area. The building surface was found to have a count rate of 11,500 cpm, likely due to Naturally Occurring Radioactive Material (NORM) in the brick.

Additional Monitoring

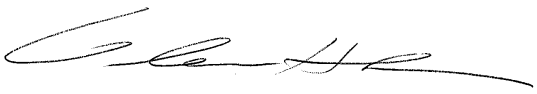
Since no count rates were identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

Regulatory Notification of Survey Completion

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.



Glenn Huber, CHP
President

sahci
Stan A. Huber Counsultants, Inc.

Radiation Survey Form

Location/ Project ID: SET Environmental / CDOT 200-300 N. Stetson Ave.

Date: 1/20/17 - 1/25/17 **Technician:** Glenn Huber / Steve Kowalczyk

Inst Model: Ludlum 2221 **Serial No. :** 134542 / 127242

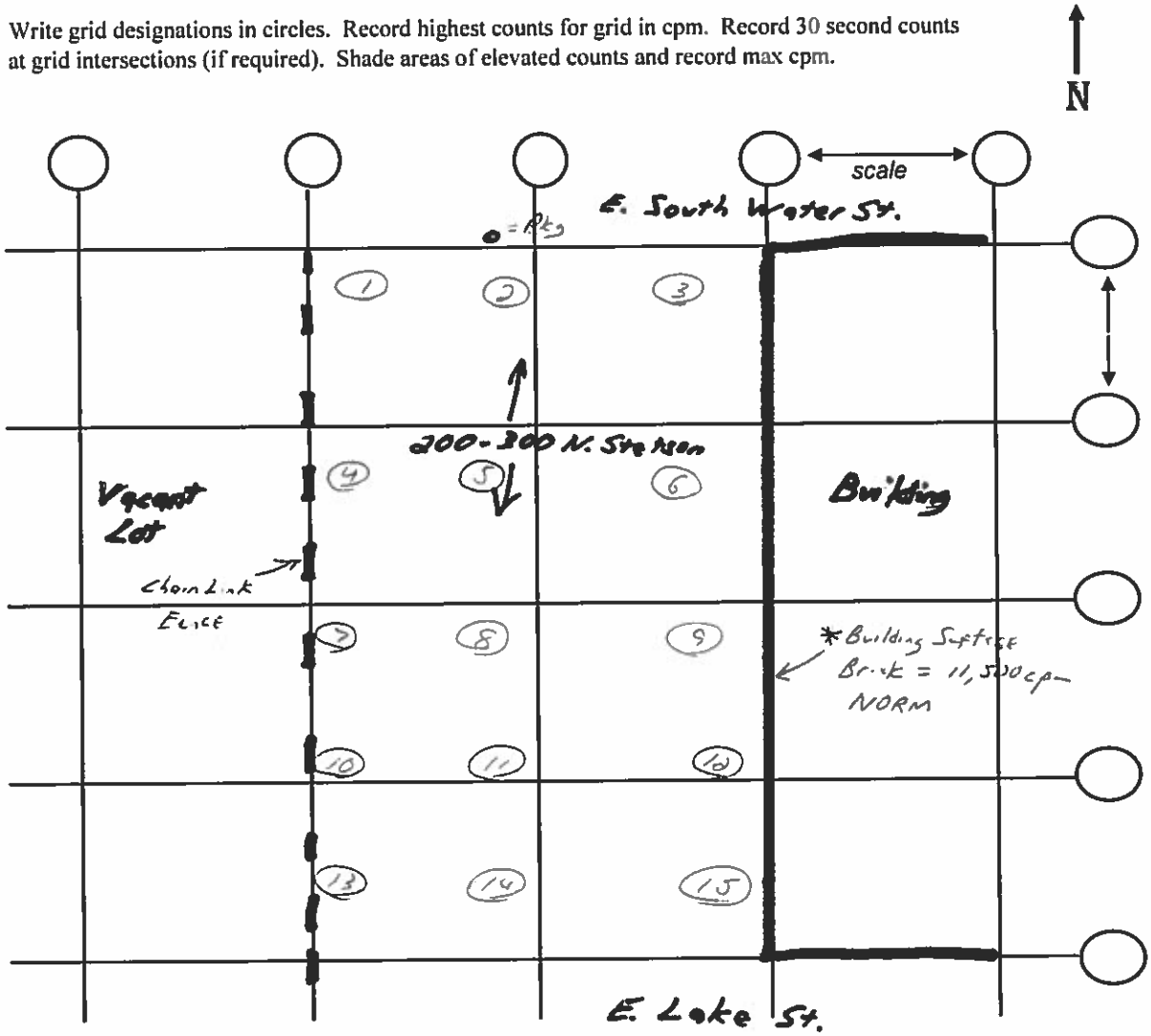
Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: Surface → 30" max (approx)

Background 5,238 **cpm**

Action Level: #134542 / #127242
17,246 / 18,098 **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.



(#) Areas of Grading (Approx)

200-300 N. Stetson Ave. - CDOT Road Grading / SET

1/20/17 - 1/25/17

Area 1	Counts per minute (CPM)
surface	4500
-1.5'	N/A
-3.0'	N/A

Area 2	Counts per minute (CPM)
surface	5100
-1.5'	N/A
-3.0'	N/A

Area 3	Counts per minute (CPM)
surface	6200
-1.5'	N/A
-3.0'	N/A

Area 4	Counts per minute (CPM)
surface	4700
-1.5'	4600
-3.0'	N/A

Area 5	Counts per minute (CPM)
surface	5800
-1.5'	5400
-3.0'	N/A

Area 6	Counts per minute (CPM)
surface	5900
-1.5'	N/A
-3.0'	N/A

Area 7	Counts per minute (CPM)
surface	5100
-1.5'	5300
-3.0'	5000

Area 8	Counts per minute (CPM)
surface	5300
-1.5'	5200
-3.0'	5500

Area 9	Counts per minute (CPM)
surface	7700
-1.5'	N/A
-3.0'	N/A

Area 10	Counts per minute (CPM)
surface	5400
-1.5'	5400
-3.0'	N/A

Area 11	Counts per minute (CPM)
surface	5500
-1.5'	5200
-3.0'	5300

Area 12	Counts per minute (CPM)
surface	8000
-1.5'	N/A
-3.0'	N/A

Area 13	Counts per minute (CPM)
surface	4600
-1.5'	N/A
-3.0'	N/A

Area 14	Counts per minute (CPM)
surface	4900
-1.5'	N/A
-3.0'	N/A

Area 15	Counts per minute (CPM)
surface	7000
-1.5'	N/A
-3.0'	N/A

Note: Area was graded down with a road grader and not excavated. Multiple passes of grader were performed, not typical 1.5' lifts. Areas were screened periodically and depths are only approximations.
GAH