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

June 27, 2020

958917

Nicole Espinoza
Electric Conduit Construction
3333 S. Iron St.
Chicago, IL 60608

RE: Thorium Monitoring 440-507 E. Grand Ave. (530 N. Lake Shore Dr.)
CDOT Permit #1253415

Dear Ms. Espinoza:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation for the installation of a fiber optic conduit at 440-507 E. Grand Avenue in Chicago, Illinois. The monitoring was performed by Mark Dewald, SAHCI Health Physicist, on June 16 through June 18, 2020.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 126496) with attached Ludlum Model 44-10 2”x2” NaI Detector (w/ 6” collimated lead shield). The instrument was last calibrated on October 18, 2019. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,102 counts per minute (cpm).

The background count rate for this location was measured as 1,212 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected by entering the excavation and recording the highest count rate for the floor and walls to an excavation depth of 3 feet below ground surface. All asphalt, concrete, and soil were loaded directly into a truck for disposal.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 1,200 cpm to 3,700 cpm. No count rates were found at any time that exceeded the threshold limit of 7,102 cpm.

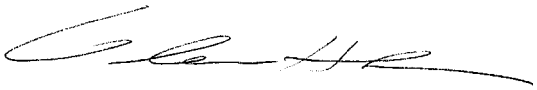
Additional Monitoring

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.



Glenn Huber, CHP
President

sahci
Stan A. Huber Consultants, Inc.

Radiation Survey Form

Location/ Project ID: 530 N. Lake Shore Drive

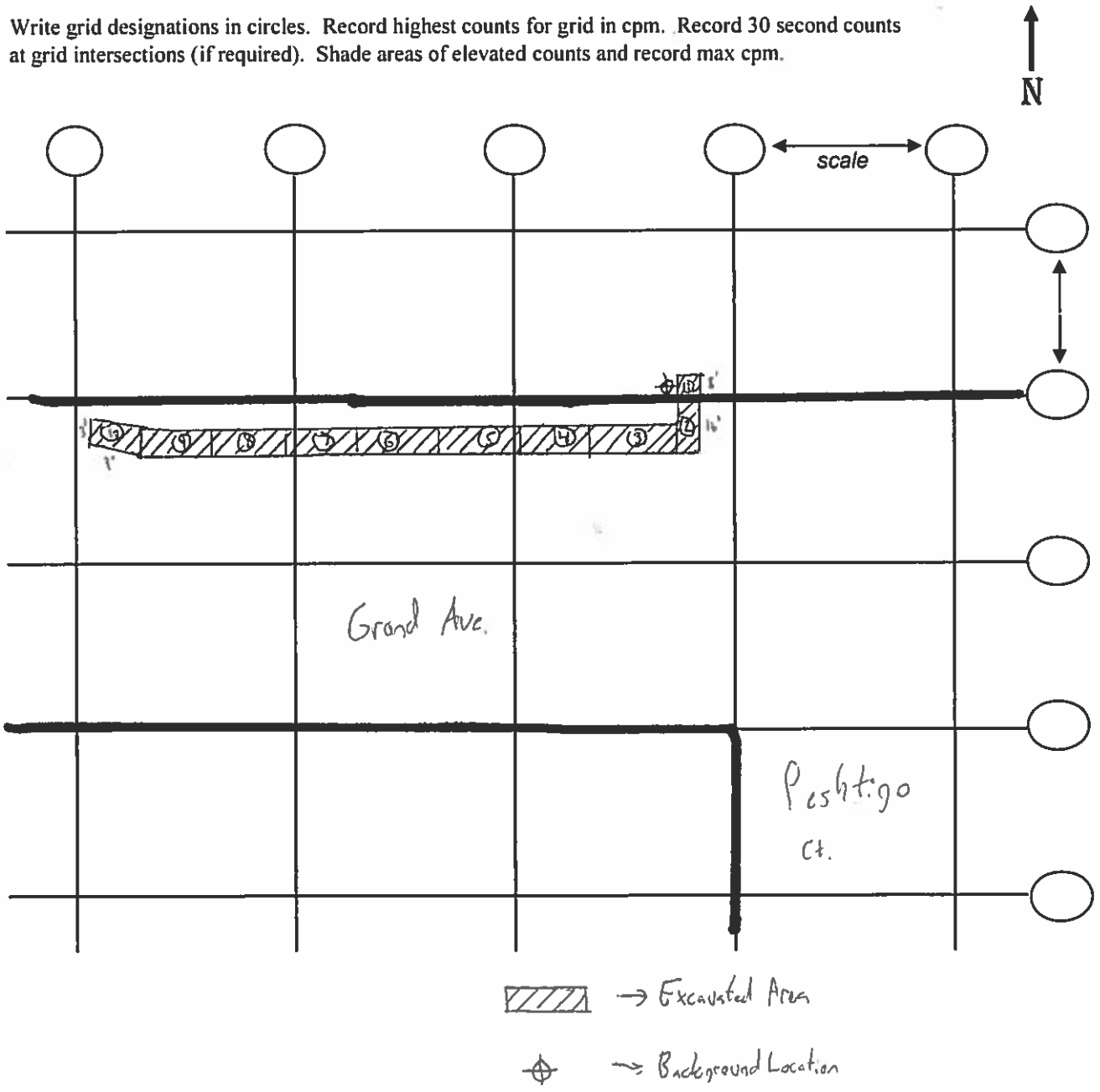
Date: 6/16-18/2020 **Technician:** Mark Oewald

Inst Model: ludlum 2221 **Serial No. :** 126496

Probe Type: 1"x1" NaI / (2"x2" NaI) **Lift Elevation:** 0-3'
(Shielded) / Not Shielded

Background 1212 **cpm** **Action Level:** 7102 **cpm**

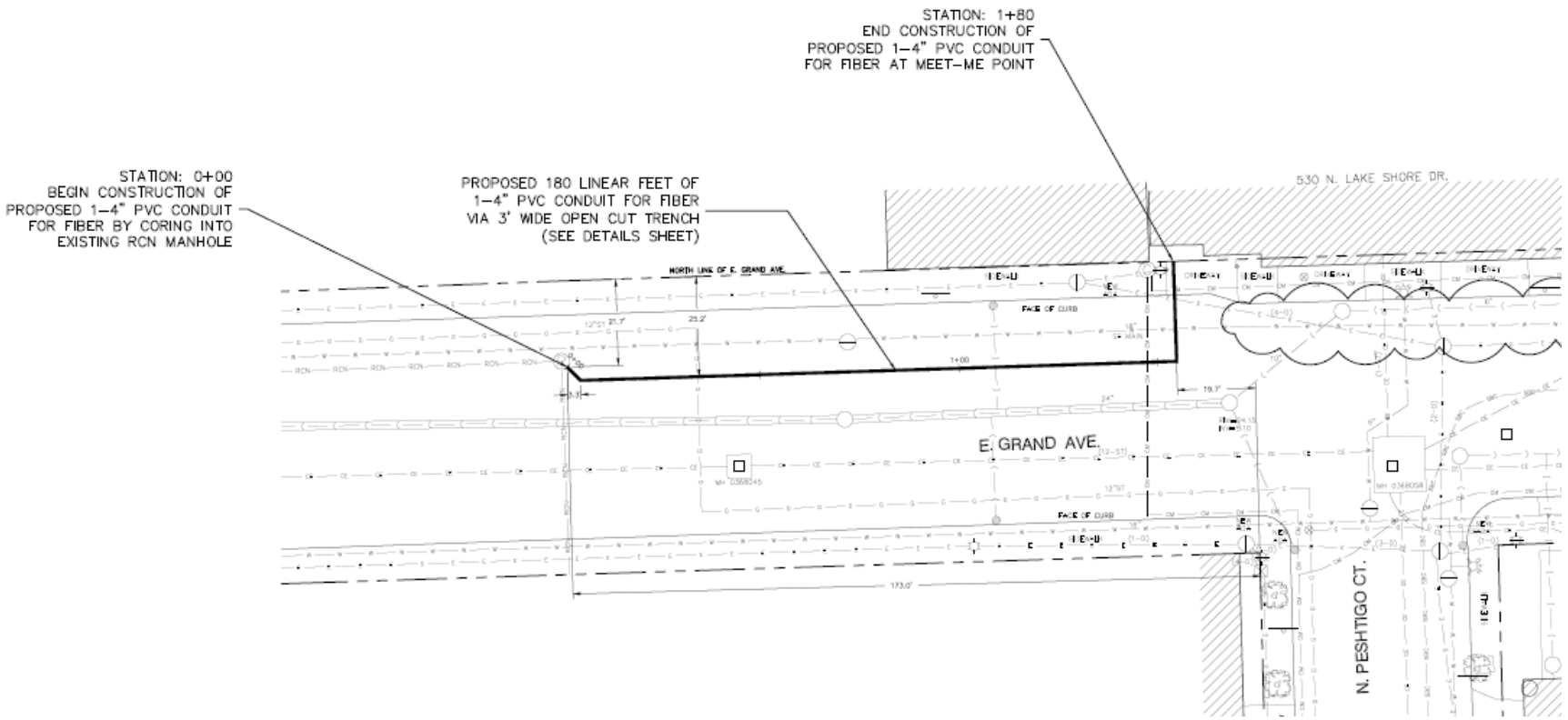
Write grid designations in circles. Record highest counts for grid in cpm. Record 30 second counts at grid intersections (if required). Shade areas of elevated counts and record max cpm.



440-507 E. Grand Avenue Survey Data

Date: 6/16/20 - 6/18/20
Technician: Mark Dewald
Instrument ID: Ludlum Model 2221 (sn 126496)
w/ Ludlum Model 44-10 Shielded NaI
Background: 1212 cpm
7.1 pCi/g: 7102 cpm

Area	Surface Max CPM	-1.5' Max CPM	-3' Max CPM
1	1500	2700	2100
2	1300	2400	2800
3	1200	2100	3200
4	1400	1700	3500
5	1600	2100	3100
6	1600	2000	3700
7	1300	1900	2900
8	1500	1400	2400
9	1600	1800	2600
10	1500	2100	2300


STATION: 1+80
END CONSTRUCTION OF
PROPOSED 1–4" PVC CONDUIT
FOR FIBER AT MEET–ME POINT
STATION: 0+00
BEGIN CONSTRUCTION OF
PROPOSED 1–4" PVC CONDUIT
FOR FIBER BY CORING INTO
EXISTING RCN MANHOLE
PROPOSED 180 LINEAR FEET OF
1–4" PVC CONDUIT FOR FIBER
VIA 3' WIDE OPEN CUT TRENCH
(SEE DETAILS SHEET)
530 N. LAKE SHORE DR.
E. GRAND AVE.
N. PESHTIGO CT.
NORTH LINE OF E. GRAND AVE.
FACE OF CURB
FACE OF CURB
173.0'
1+00