



September 25, 2018

Mike Lanenga
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: 233 E. Riverwalk Thorium Monitoring 9/20/18 – 9/21/18 (CDOT)

Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the drilling of 11 borings for installation of posts at 233 E. Riverwalk in Chicago, Illinois. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, on September 20 and 21, 2018. 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. 126496) with attached Ludlum Model 44-10 2"x2" NaI probe (w/ 6" collimated lead shield). The instrument was calibrated on October 11, 2017. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,366 counts per minute (cpm).

The average background count rate for this location was determined to be 2,093 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Surface gamma scans were performed on all boring spoils generated to a maximum depth of 3 feet below ground surface.

The maximum gamma count rate for each 1.5-foot boring interval was recorded on the attached Radiation Survey Form. The count rates in the excavations ranged from 1,600 cpm to 3,900 cpm. No count rates were found at any time that exceeded the instrument specific threshold limits of 7,366 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.

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 USEPA, as required.

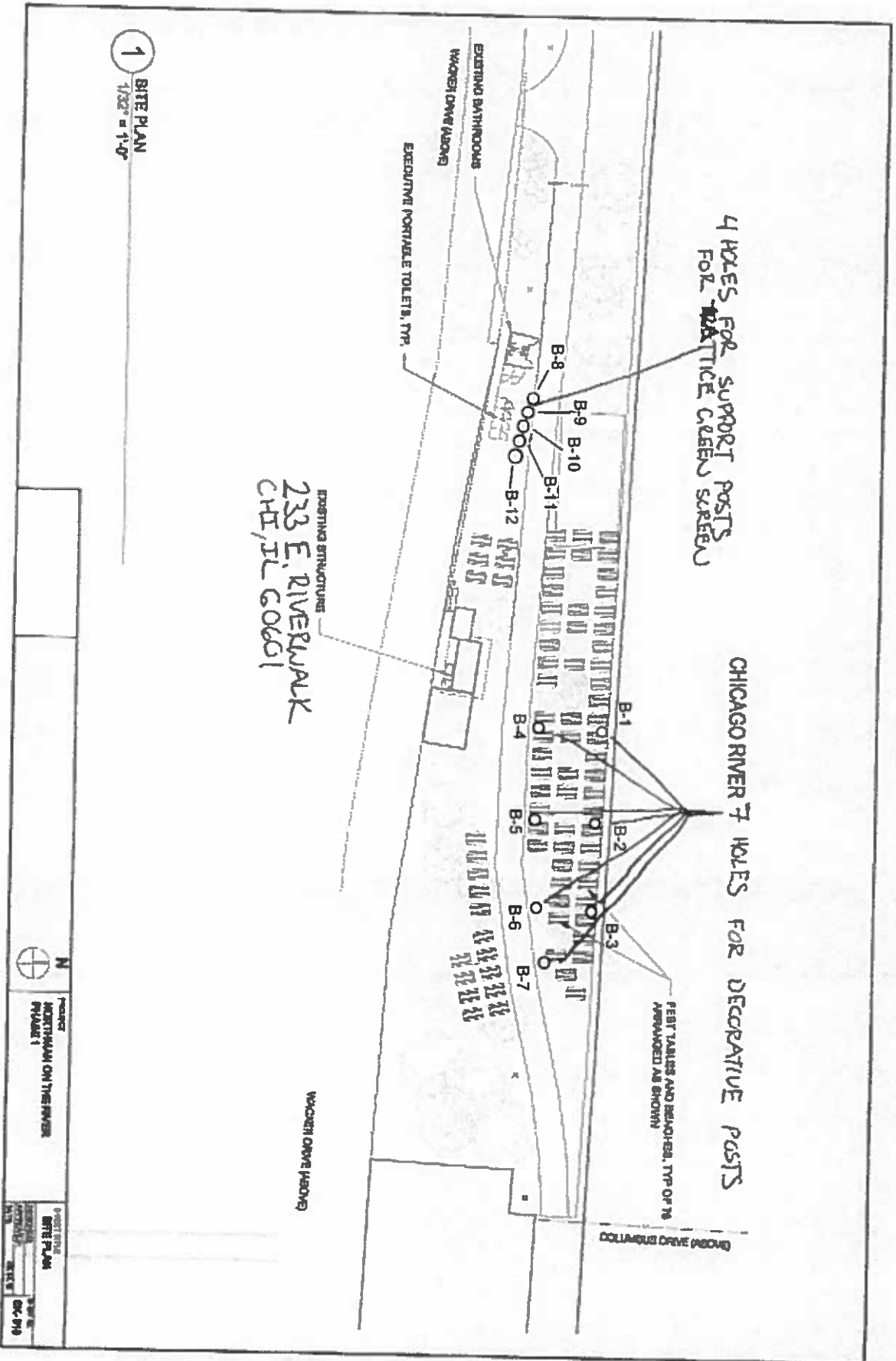
Thank you for your assistance with this project. If you have any questions or need additional information, please call me at (815) 485-6161.

Sincerely,
Stan A. Huber Consultants, Inc.

A handwritten signature in black ink, appearing to read 'Glenn Huber', with a long horizontal flourish extending to the right.

Glenn Huber, CHP
President

233 E. Riverwalk - Chicago, IL - Bollard Post Installation - Right-Of-Way Radiological Soil Survey





Radiation Survey Form

Location/ Project ID: 233 E. RIVERWALK - BOLLARD POST INSTALLATION - ROW RADIOLOGICAL
SOIL SURVEY

Date: 9/20-21/2018 Technician: BRIAN SCHMIOT

Inst Model: LV00m-2221 Serial No.: 126496

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

Background 2093 cpm Action Level: 7366 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.

