



AECOM  
303 E. Wacker Drive, Suite 900  
Chicago, Illinois 60601

312-938-0300 tel  
312-938-1109 fax

October 30, 2013

Mr. Ron Reagan  
National Restoration Systems  
1500 Hicks Road, Suite 200  
Rolling Meadows, IL 60008

RE: Radiological Survey of Right-of-Way Utility Excavation  
Permit Address: 445 E Ohio Street  
AECOM Project No. 60308332

Dear Mr. Reagan:

Pursuant to conditions specified in the Streeterville Thorium Investigation Area permits issued by the City of Chicago, radiation monitoring was required to be performed at the above referenced site. AECOM Technical Services, Inc. (AECOM) provided the required radiation monitoring on October 14, 2013 for the removal and replacement of a section of the concrete sidewalk at the above address.

Gamma surveying was conducted of the subgrade immediately beneath the concrete from the curb to the building (refer to attached sketch). The subgrade consisted of gravel to gravelly sand (i.e., no urban fill soil was observed). The gamma readings revealed no indication of soil above the specified cleanup value established by the U.S. Environmental Protection Agency (USEPA) for the Streeterville area of Chicago.

The USEPA cleanup value for Chicago's Streeterville area is 7.1 picocuries per gram (pCi/g) total radium (Ra-226 + Ra-228). Gamma radiation count measurements for the project were made using a Ludlum Model 2221 survey meter and an unshielded 2 x 2 inch sodium iodide (NaI) probe Model 44-10. For the field instrument used, the gamma count equivalent to the USEPA 7.1 pCi/g cleanup value was 17,920 counts per minute (cpm) unshielded. Thus, gamma readings above 17,920 cpm would be considered a potential indication of the presence of radiologically contaminated fill soil.

The field gamma background for the area was measured at approximately 8,400 cpm unshielded. This value was calculated from data collected at sidewalk-grade planters in vicinity of the work area. In general, field gamma measurements greater than twice background represent potential anomalous results that require more cautious and frequent field screening, but are not necessarily indications of the presence of thorium contaminated fill soil. In this case, no gamma readings greater than twice background were observed.

The field gamma measurements of the subgrade within the sidewalk replacement area ranged from a minimum of 6,300 cpm to a maximum of 9,500 cpm unshielded. The readings appeared to represent typical background values for uncontaminated soil. Thus, there was no indication of the presence of radiologically-contaminated fill soil and/or an exceedance of the USEPA cleanup value of 7.1 pCi/g total radium.

As part of the permit conditions this letter has been forwarded to:

Chicago Department of Public Health  
Attn: Ms. Rahmat Begum  
333 South State Street, Rm. 200  
Chicago, Illinois 60604

Radiological Survey of Right-of-Way Utility Excavation  
445 E. Ohio Street  
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Please contact us with any questions you have regarding this letter or the reported results.

Regards,



Brian R. Schmidt  
Project Scientist II



Steven C. Kornder, Ph.D.  
Senior Project Geoscientist

cc: Rahmat Begum, Chicago Department of Public Health  
Verneta Simon, USEPA

Attachments: Sketch

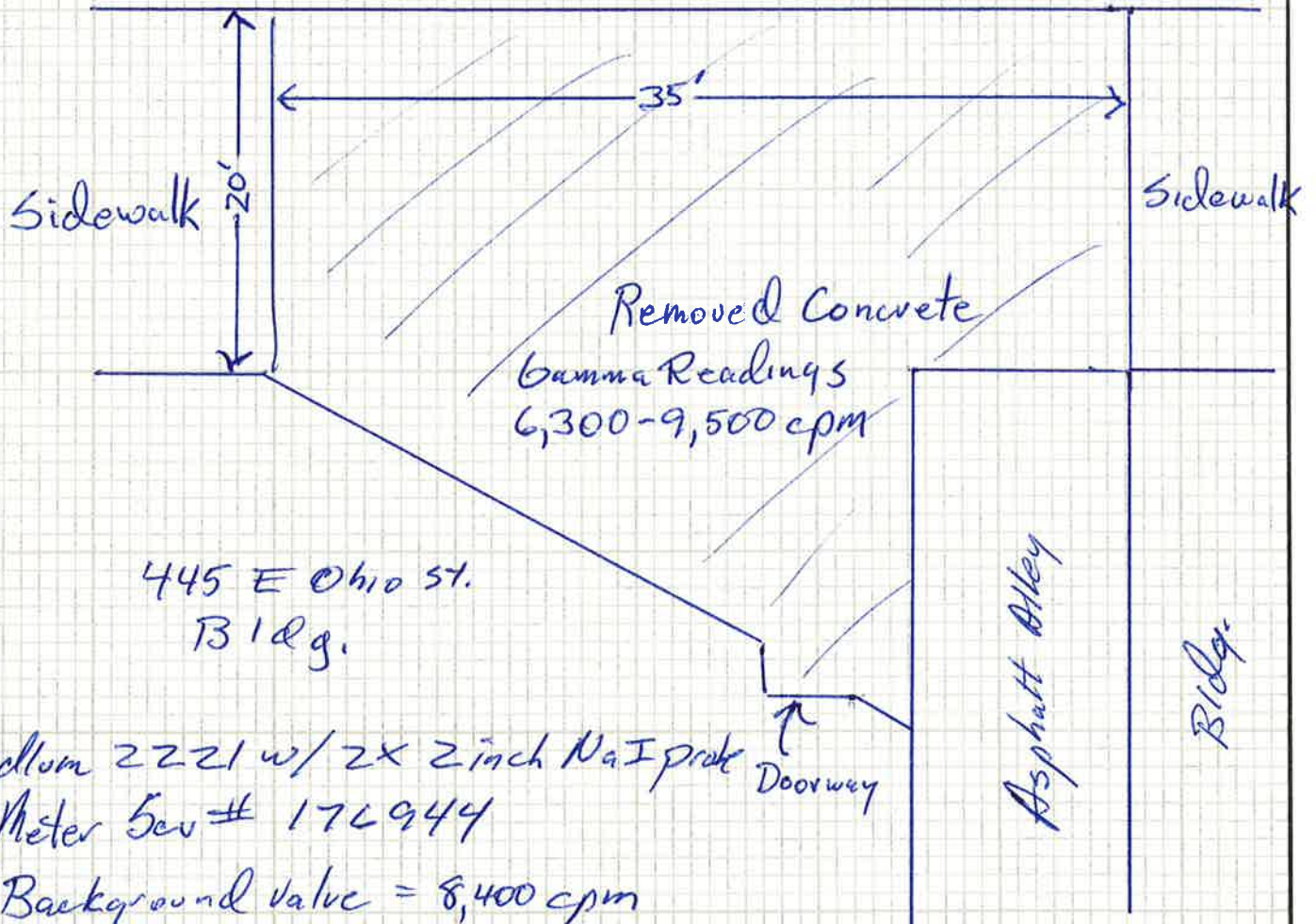
**AECOM**

PROJECT	445 E Ohio St		JOB NO.	60308332			
SUBJECT	Radiological Survey for Sidewalk Replacement		CALC. NO.				
DATE	10/14/13	BY	SLK	CHECKED BY	SCK	REV. NO.	0

↑ North

E. Ohio St.

N Curb



Ludlum 2221 w/ 2x 2 inch NaI probe  
Meter Ser # 176944

Background Value = 8,400 cpm  
USEPA Cleanup Value = 17,920

not to scale