



AECOM  
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Chicago, Illinois 60606

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July 20, 2017

Mr. Thomas Greco  
AECOM – Tishman Construction  
100 S Wacker Dr.  
Chicago, IL 60606

RE: Radiological Survey of Electrical Conduit Installation Excavations  
Permit Address: 243 E. Ontario St.  
AECOM Project No. 60522862

Dear Mr. Greco:

Pursuant to conditions specified in 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 surveillance on April 10, 2017 for an installation of an electrical conduit.

Surveying was performed within the excavation and on the spoil removed at 243 E. Ontario St. (refer to sketch). The excavation involved removal of concrete and an additional trench excavation of underlying urban fill material. Taylor Excavating and Construction Inc. excavated a trench approximately 50-feet long, 6-feet wide to a depth of 4-feet below ground surface (bgs).

The monitoring did not indicate that the fill soils were above the removal action level established by the U.S. Environmental Protection Agency (USEPA) for the Streeterville area of Chicago. The USEPA removal action level 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 recorded using Ludlum Models 2221 (s/n: 326720) survey meter and an unshielded 2 x 2 inch NaI probe (Model 44-10). For the instrument used, the gamma count threshold indicative of the 7.1 pCi/g removal action level is 17,193 counts per minute (cpm) unshielded. The field instrument background gamma reading collected for soil/fill in the vicinity of the excavation area was 7,097 cpm.

The field gamma measurements within the excavations and of the spoil during the excavation process did not exceed the instrument threshold previously stated and ranged from a minimum of 5,700 cpm to a maximum of 13,900 cpm unshielded within the excavation. The gamma readings of the unshielded probe within the excavation were biased high because of the nearby sidewalls. Gamma readings were spoil outside of the excavation were lower. Based on field observations there was no indication of the presence of radiologically-contaminated fill and/or an exceedance of the USEPA removal action level of 7.1 pCi/g total radium. A copy of the permit and a field sketch documenting the area where work was performed, have been included as attachments.

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

Chicago Department of Public Health  
Attention: Mr. Terry Sheahan  
333 South State Street, Room 200  
Chicago, Illinois 60604

Permit Address: 233-275 E. Ontario St.  
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Please contact us with any questions you have regarding this letter or the reported results.

Regards,



Andrew Kozak  
Geologist



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

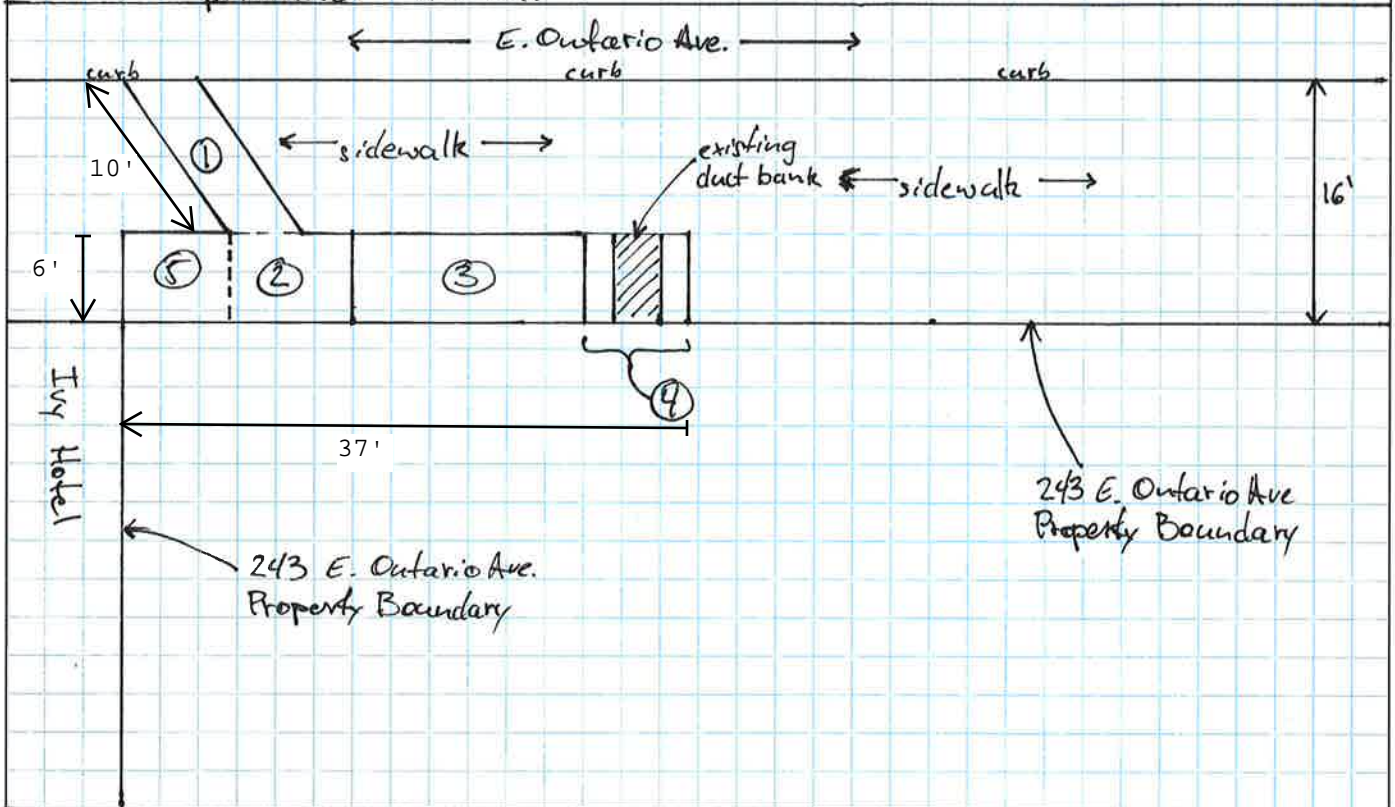
cc: Terry Sheahan, Chicago Department of Public Health  
Verneta Simon, USEPA

Attachments: Sketch

**SKETCH**

Survey Equipment

Ludlum 2221 S/N: 326720  
 Probe 2x2 NaI S/N: PR380158  
 unshielded: 17,193 cpm  
 shielded: 7,097 cpm  
 background: 7,000 - 7,600  
 personnel: A. Kozak



Survey Readings

Section	Depth	CPM	Section	Depth	CPM
①	0" (concrete)	—	⑤	0" (concrete)	—
	6" (sub-base)	6,200 - 10,300		6" (sub-base)	5,700 - 8,700
	18"	8,100 - 9,900		6"-48" (spoil)	6,600 - 11,300
	36"	7,200 - 12,900		48"	9,600 - 10,900
	48"	10,000 - 13,100			
②	0" (concrete)	—	④	0" (concrete)	—
	6" (sub-base)	6,200 - 10,300		6" (sub-base)	5,700 - 8,700
	6"-48" (spoil)	9,900 - 12,400		6"-48" (spoil)	9,800 - 12,100
	48"	10,100 - 11,100		48"	10,000 - 13,900
③	0" (concrete)	—	⑤	0" (concrete)	—
	6" (sub-base)	6,200 - 10,300		6" (sub-base)	6,200 - 10,300