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tel fax

August 17, 2020 959684

Ms. Nancy E. Paridy, Esq. Senior Vice President, Chief Administrative Officer Shirley Ryan AbilityLab 355 East Erie Street Chicago, IL 60611

RE: Radiological Survey of Right-of-Way Utility Excavation

Permit No.: CDOT1250730

Permit Address: 355 E. Erie St., Chicago, IL

AECOM Project No. 60305263

Dear Ms. Paridy:

Pursuant to conditions specified in the right-of-way (ROW) form (attached) issued by the City of Chicago Department of Public Health (CDPH), radiation monitoring was required to be performed at the above referenced site. AECOM Technical Services, Inc. (AECOM) provided the required radiation surveillance between July 2 and 20, 2020 for trench excavations to reconfigure a sewer line in order to add a manhole within the E. Erie Street sidewalk. The excavation varied in width from 3.5 to 6 feet, while the depth ranged from 10 to 10.5 feet. In total, there was approximately 45 linear feet of excavated trench (refer to the attached photographs and sketch). The excavation work was conducted with a hydro-vac truck because the numerous utilities did not allow use of an excavator. Spoil from the excavation was disposed at a landfill and the excavation backfilled with clean fill.

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 Model 2221 survey meters and shielded 2 x 2 inch Nal probes (Model 44-10). For the instruments used the gamma count threshold indicative of the 7.1 pCi/g removal action level were 4,490 (S/N: 176944) counts per minute (cpm) and 6,288 cpm (S/N: 172039) shielded utilizing long cords. Field instrument background values were collected within the planters near the excavation, which ranged from 1,318 to 1,874 cpm.

On July 2, 2020, a small opening in the pavement was excavated in the project area in order to collect a fill sample for waste characterization. The sample was collected with a shovel from the upper several feet of fill. The maximum gamma reading observed in situ was just over 3,000 cpm shielded. The sewer line excavation work was initiated on July 13 and completed on July 20, 2020. The excavation was conducted using a hydro-vac truck due to the numerous utilities. As a result, all the field gamma measurements were collected in situ with a long probe cord as the excavation proceeded. The trench was divided into five (5) separate areas for the purpose of collecting the gamma screening results (refer to sketch). The gamma results for each area are summarized in the attached table. The gamma counts observed ranged from 1,300 cpm to a maximum of 4,980 cpm. The lowest gamma results were observed in areas of limestone gravel backfill, while the highest counts were collected in sections that were dominated with clay brick debris.

Based on the observed field screening results 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 CDPH form, a sketch, photographs and the tabulated gamma results are included as attachments. As part of the permit conditions, a PDF copy of this letter report was forwarded via email to Terry Sheahan (CDPH) and Verneta Simon (USEPA) to fulfill the requirements of the CDPH.

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Please contact us with any questions you have regarding this letter or the reported results.

Regards,

Jennifer Nagle

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**Environmental Scientist** 

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

cc: Terry Sheahan, Chicago Department of Public Health

Verneta Simon, USEPA

Attachments: CDPH Permit Form

Survey Sketch and Tabulated Gamma Results

Photographs

#### **CDPH PERMIT FORM**



# DEPARTMENT OF PUBLIC HEALTH CITY OF CHICAGO

## (STREETERVILLE Right-of-Way)

Notice is hereby given that the site you have requested a permit for is recorded with the City of Chicago Department of Public Health (CDPH) as potentially having environmental contamination on the site and adjacent right-of way. This environmental contamination could present a threat to human health and safety in connection with work performed at the site, or in the adjacent right-of-way, if proper safeguards are not employed.

A file containing detailed information regarding the aforementioned environmental contamination is available for review at CDPH at 333 S. State St., Room 200, Chicago, Illinois 60604 during normal business hours (8:30AM-4:30PM, Monday through Friday). Contact (312) 745-3152 for an appointment. This file must be reviewed and the remainder of this form completed before the permit can be issued if the ground is exposed or excavated. Please note that for some locations, additional health and safety procedures may be required by law.

Please complete the following:

For CDPH Use Only

I have reviewed and understand the documents, maintained by CDPH, regarding environmental contamination of the site and adjacent right-of-way. Further, I will ensure that all work at the subject site and adjacent right-of-way, and any monitoring required including but not limited to radiation monitoring, will be performed in a manner that is protective of human health and the environment and in compliance with all applicable local, state, and federal laws, rules, and regulations, especially those pertaining to worker safety and waste management. I will ensure that the results of any radiation monitoring and/or surveying conducted shall be provided to the CDPH and the United States Environmental Protection Agency within two (2) weeks of their completion. If any elevated levels of radioactive material are detected, I will immediately contact the United States Environmental Protection Agency at (800) 424-8802.

Applicant Name (p.	orint): Luke Daugherty	Signature:
Site Address and W	Vork Location (Describe exact site location and attach ma	ap): 355 E Eerie
Tying in	Storm Sewer and New Structu	re into Eerie Street (Map incl.
Nature of Work: _	Excavation and installing r	new sewer structure/piping
Company Name, A	Address, Phone No.: Shirley Ryan Abil:	ity Lab, 355 E Eerie
Include subcontrac	ontractor Name, Address, Phone No.:  Power Constructor information if applicable), one No. Shaun Rainey / 847-41	7-4959
Radiation Contracto	or / Phone No. and email address (if applicable) <b>AECO</b>	M / Steve Kornder/262.515.7700
Check if City Depar	artment Work Department Name:	
CDOT Permit No.:	DOT1250730	
Today's Date: 6/	/17/2020 Expected Start Date: 6/29/2020	CDPH Approval / Date
Please return this co Office, City Hall – I Friday)	ompleted form to the Chicago Department of Transportati Room 905, 121 N. LaSalle St., Chicago, Illinois 60602 du	ion, Division of Infrastructure Management, Public Way Permit uring normal business hours (8:30 AM - 4:30 PM, Monday through

ERIKSSON ENGINEERING ASSOCIATES, LTD.

145 COMMERCE DRIVE, SUITE A GRAYSLAKE, ILLINOIS 60030 PHONE (847) 223-4804 <sub>FAX</sub> (847) 223-4864 EMAIL INFO@EEA-LTD.COM

PROFESSIONAL DESIGN FIRM LICENSE No. 184-003220 EXPIRES: 04/30/2021

Reserved for Seal:

No. Date Description 09/11/19 ISSUE FOR OWNER REVIEW

JG

**EXISTING** CONDITIONS

C001

SURVEY PROVIDED BY GREMLEY & BIEDERMANN AND SHOWN FOR INFORMATIONAL PURPOSES ONLY AND DOES NOT REPRESENT AN ELEMENT DESIGNED BY ERIKSSON ENGINEERING ASSOCIATES, LTD.

#### **SKETCH AND GAMMA RESULTS**

JOB NO. 60636195	CALCULATION NO.
ORIGINATOR TN	DATE
REVIEWER SCK	DATE
SCALE = N I'' = IO'	SHEET NOOF

Refer to	results			
		Manhole		
		⊕ ← 5		
			9 ,3	E. ERIES
			3	Curb
		. 1	6	
		0	0	Siclewalk
	14'		/o'	

### Gamma Survey Results - AbilityLab

**Survey Equipment** 

Location:	355 E Erie St
CDPH:	CDOT1250730
Ludlum 2221 S/N:	176944 & 172039
Cutoff (long cords):	4,490 & 6,288 cpm
Background:	1,318 and 1,874 cpm
Personnel:	S. Kornder & J Nagle
Date of Screening:	7/2/20 & 7/13-20/2020

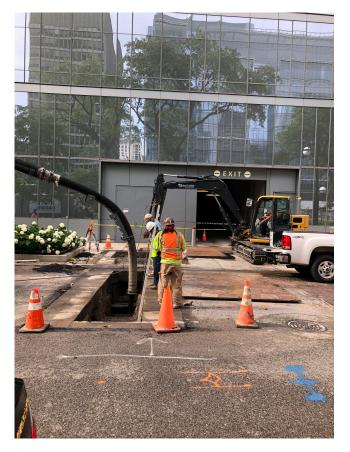
**Survey Results** 

	Survey Result	≚ 1		
Location	Depth (inches)	Maximum Readings (cpm)	Ludlum (refer to notes)	
	0-12	Pavement		
	12-24	1,300		
	24-42	2,030	1	
1	42-60	1,986		
	60-78 2,360		1	
	78-96	2,210		
	96-114	2,740		
	114-126	2,650		
	0-8	Pavement		
	8-26	1,408		
	26-44	2,650		
2	44-62	3,227		
2	62-80	3,530	1	
	80-98	2,780		
	98-116	3,230		
	116-124	3,230	1	
	0-12	Pavement		
	12-30	4,980	_	
	30-48	3,866	2	
2	48-72	3,686		
3	72-90	2,585		
	90-108	2,615		
	108-126	2,485	1	
	126-144	2,896		
	0-12	Pavement		
	12-30	4,180		
	30-48	3,992		
4	48-72	4,087	2	
	72-90	4,492		
	90-108	3,516	- -	
	108-126	3,894		
	0-6	Pavement	1	
	6-24	1,975		
	24-36	2,315		
	36-54	4,039		
5	54-72	4,182		
	72-90	2 607		
	90-108 3,115		2	
	108-126	3,369	1	
	100-120	3,303		

Notes: 1 - Instrument 176944 with cutoff of 4,490 cpm.

2 - Instrument 172039 with cutoff of 6,288 cpm.

#### **PHOTOGRAPHS**





Looking south at excavation and 355 E. Erie St. building.

Looking west at sidewalk excavation in front of exit ramp.