



AECOM  
100 S. Wacker Drive, Suite 500  
Chicago, Illinois 60606

312-939-1000 tel  
312-939-4198 fax

June 13, 2016

Mr. Greg Whalen  
Meade Electric Co., Inc.  
9550 W. 55<sup>th</sup> St. Ste. A  
Countryside, IL 60525

RE: Radiological Survey of Right-of-Way Utility Excavation  
Permit No.: DOT620058  
Permit Address: 451 E Grand Ave.  
AECOM Project No. 60442737

Dear Mr. Whalen:

Pursuant to conditions specified in a permit (attached) 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 between March 24 and June 3, 2016 for a trench excavation to install an electrical conduit.

Surveying was conducted at the above referenced address (see sketch) during the trench excavation in the Right-of-Way (ROW). The excavation was composed of two trenches along the length of N. Peshtigo Ct. The two trenches were approximately 250-feet long, 3.6 to 5-feet wide, and 4 to 9.5-feet deep. At approximately 150-feet south of E. Grand Ave. the conduit was redirected to the west, into the 451 E. Grand Ave. construction site. The U.S. Environmental Protection Agency (USEPA) removal action level for Chicago's Streeterville area is 7.1 picocuries per gram (pCi/g) total radium (Ra-226 + Ra-228). The monitoring revealed no indication of soil above the removal action level established by the USEPA for the Streeterville area of Chicago.

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 instrument used, the gamma count indicative of the USEPA removal action level of 7.1 pCi/g was 18,278 counts per minute (cpm) unshielded. The field instrument gamma background for the area was measured at approximately 7,600 to 8,200 cpm unshielded. Field gamma measurements greater than twice the field 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. Although none were observed for this project, gamma readings above 18,278 cpm would be considered a potential indication of the presence of radiologically contaminated fill soil.

The field gamma measurements within the excavation and of the spoil materials generated during the excavation process did not exceed the field instrument threshold equivalent to the USEPA removal action level and ranged from a minimum of 4,100 cpm to a maximum of 16,000 cpm unshielded. Several isolated readings were observed to be greater than twice the background readings within the excavation, up to 17,800 cpm, but screening of the spoil derived from these areas were substantially lower and did not exceed USEPA removal action level. Thus, there was no indication of the presence of radiologically-contaminated fill soil and/or an exceedance of the USEPA removal action level 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

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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 Geoscientist

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

Attachments: CDOT Permit  
Sketch

# PERMIT

Permit # DOT620058

**DOT Public Way Opening  
Opening in the Public Way**



City of Chicago  
Department of Transportation  
(312) 744-4652

Received Date: April 26, 2016 9:39 am

**HBK15-0852\_451 E GRAND  
ISSUED**

MEADE ELECTRIC CO., INC.  
9550 W 55TH ST STE A  
COUNTRYSIDE, IL 60525-3641

GLENN YEAGER (312)617-6913

**PERMIT DATES**

April 27, 2016 through June 08, 2016

**PERMIT DETAILS**

**Public Way Opening for the purpose: CONDUIT INSTALLATION, EQUIPMENT AND TRUCKS.**

**Excavation may commence on April 27, 2016 - NO SOONER**

**500 - 521 N PESHTIGO CT - Number of Openings: 1**

**Curb Lane and Traffic Lane**

280 Ft (L) x 5 Ft (W) x 6 Ft (D)

**460 - 469 E GRAND AVE - Number of Openings: 1**

**Intersection**

20 Ft (L) x 5 Ft (W) x 6 Ft (D)

**Dig Ticket Details:**

<b>Dig Ticket Number</b>	<b>Dig Date</b>	<b>Address</b>
600086145	05/03/2016 08:00	502 N - 520 N PESHTIGO CT
600086146	05/03/2016 08:00	501 N - 521 N PESHTIGO CT
600086147	05/03/2016 08:00	460 E - 468 E GRAND AVE
600086148	05/03/2016 08:00	461 E - 469 E GRAND AVE

**Subcontractors:**

HBK Engineering (Permits)  
921 W. VANBUREN STREET  
CHICAGO, IL 60607  
(312)432-0076

**Restrictions:**

1. If Arterial Street Outside CBD, Then Start no earlier then 9:00 A.M. and end no later then 4:00 P.M.
2. Contractor must notify DIGGER at 312-744-7000 no less then 48 hours (exclusive of Saturdays, Sundays and Holidays) but no more then 14 calendar days in advance of the start of the excavation or demolition, unless the excavation date was provided with the application and remains unchanged. Prior to 26 calendar days the Contractor must notify DIGGER to renewal the dig date! It is the Excavator's responsibility to request refreshing of marks when needed, but no longer than 28 calendar days after the last requested date. When applicable, all excavation areas are to be clearly marked in safety white paint prior to calling DIGGER. White paint is not required for joint meets or emergency work. Excavators requesting dig tickets are responsible for the protection of utility markings at the job site. Any markings of underground utilities utilizing utility colors must be done by facility owners or authorized agents only.
3. A copy of the permit must remain on-site for inspector's review.
4. If Non-Arterial Street Outside CBD, Then Start no earlier then 7:00 A.M. and end no later then 3:00 P.M.

5. Permittee must provide a sign which identifies the telephone number and company or person performing the work. Signage may be affixed to barricades.
6. Contractor must secure plating over all openings in the roadway and secure all sidewalk/parkway openings during non-working hours until such time when the road surface is restored.
7. No work in or use of the public right of way is to be done when a special event is taking place. It is up to the applicant to determine if an event is scheduled. To obtain a listing of programs or events within the City of Chicago please dial 311 when you are within the City boundaries.
8. 9am to 4pm. Must maintain two WB lanes on Grand at all times.

Duplicate

**Fees:**

There are no fees.

**EFFECTIVE DATES OF PERMIT**

Current: April 27, 2016 through June 08, 2016 ( Input date: April 26, 2016 9:39 am )

Previous: May 24, 2016 through ( Input date: May 24, 2016 1:56 pm )

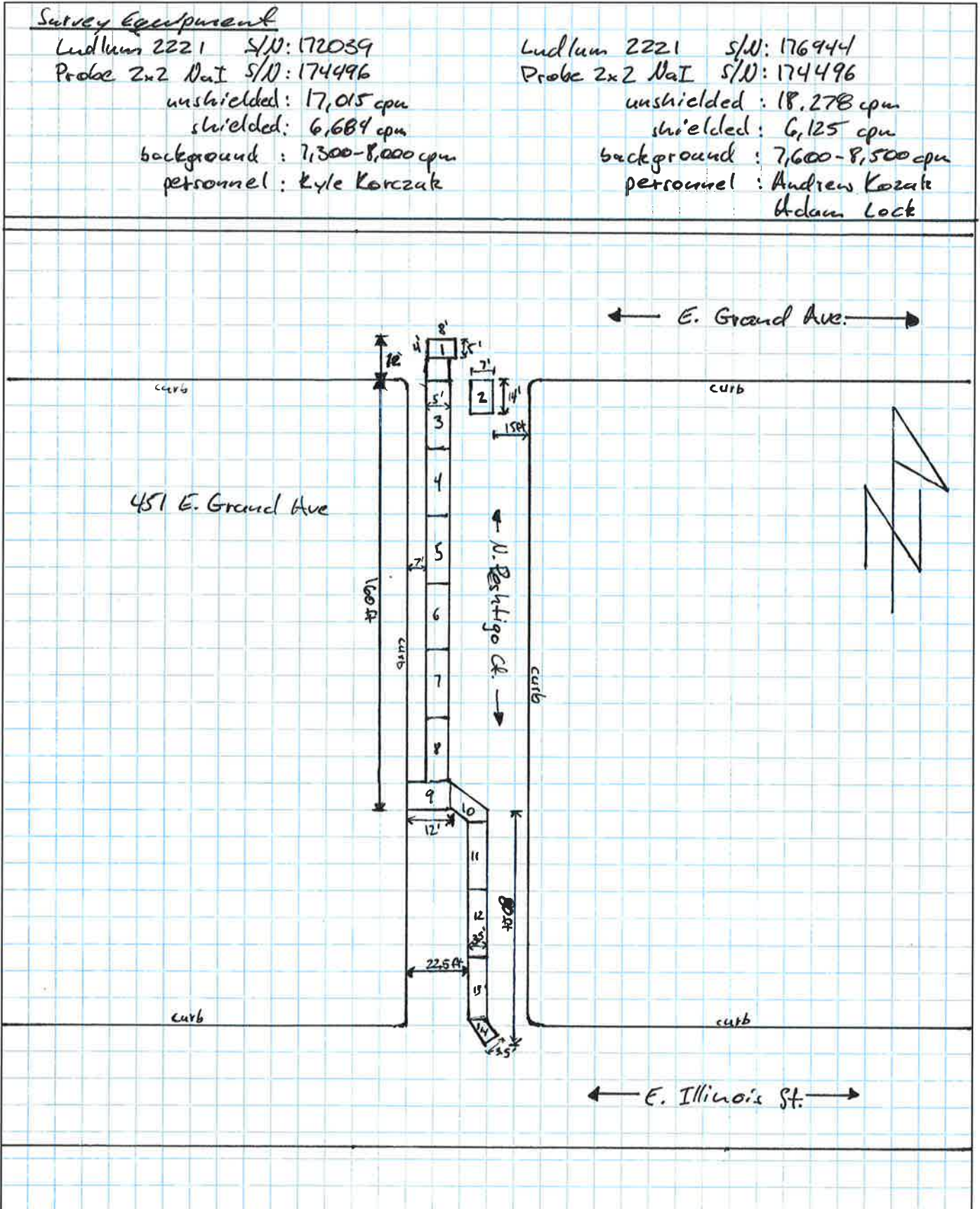
**END OF PERMIT**

**SKETCH**

Survey Equipment

Ludlum 2221 S/N: 172039  
 Probe 2x2 NaI S/N: 174496  
 unshielded: 17,015 cpm  
 shielded: 6,684 cpm  
 background: 7,300-8,000 cpm  
 personnel: Kyle Korczak

Ludlum 2221 S/N: 176944  
 Probe 2x2 NaI S/N: 174496  
 unshielded: 18,278 cpm  
 shielded: 6,125 cpm  
 background: 7,600-8,500 cpm  
 personnel: Andrew Kozak  
 Adam Lock





Radiological Readings

①

Depth	CPM
0" (asphalt)	—
16"	10,000 - 12,000
30"	11,300 - 13,000
38" - 60" (spoil)	8,800 - 9,700
60" - 96" (spoil)	7,600 - 9,000

②

Depth	CPM
0" (asphalt)	—
16"	8,100 - 12,200
36"	9,300 - 12,800
36" - 84" (spoil)	4,100 - 7,000

③

Depth	CPM
0" (asphalt)	—
16"	7,600 - 10,200
32"	9,600 - 11,100
48"	8,200 - 10,000
48" - 66" (spoil)	6,300 - 7,800

④

Depth	CPM
0" (asphalt)	—
16"	8,100 - 11,000
30"	9,200 - 10,100
48"	11,400 - 14,800

⑤

Depth	CPM
0" (asphalt)	—
16"	8,800 - 11,000
30"	—
12" - 48" (spoil)	7,600 - 10,400
48" (floor)	12,800 - 16,000

⑥

Depth	CPM
0" (asphalt)	—
16"	9,100 - 11,900
16" - 48" (spoil)	7,200 - 11,200
48" (floor)	14,800 - 17,000

⑦

Depth	CPM
0" (asphalt)	—
16"	8,700 - 11,000
16" - 48" (spoil)	7,800 - 10,800
48" (floor)	14,800 - 16,900

⑧

Depth	CPM
0" (asphalt)	—
16"	8,900 - 12,800
16" - 48" (spoil)	7,400 - 14,200
48" (floor)	15,100 - 17,800

⑨

Depth	CPM
0" (asphalt)	—
16"	7,400 - 8,600
16" - 72"	8,700 - 12,000

⑩

Depth	CPM
0" (asphalt)	—
16" - 72" (spoil)	6,100 - 11,120

⑪

Depth	CPM
0" (asphalt)	—
16" - 48" (spoil)	7,400 - 10,900

⑫

Depth	CPM
0" (asphalt)	—
18"	7,000 - 16,000
36"	11,000 - 15,000
48" (floor)	15,000 - 16,000
48" (spoil)	9,600 - 11,000

⑬

Depth	CPM
0" (asphalt)	—
16"	12,000 - 13,000
36"	13,000 - 14,000
48"	13,000 - 15,000

⑭

Depth	CPM
0" (asphalt)	—
18"	7,600 - 10,000
18" - 32" (spoil)	6,400 - 8,100
48" (floor)	11,000 - 12,500