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

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

December 12, 2014

Mr. Kevin Wilhelm
Melcomm
7801 Industrial Dr.
Spring Grove, IL 60081

RE: Radiological Survey of Right-of-Way Utility Excavation
Permit Address: 161 E. Grand Avenue
CDPH Permit No.: 478394403
AECOM Project No. 60335642

Dear Mr. Wilhelm:

Pursuant to conditions specified in a permit (see 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 surveillance on November 18, 2014 to install a communications service at 161 E. Grand Ave. However, the trench work itself occurred in an alley south of the building on North St. Clair Street.

Previous radiation monitoring had been performed at this location by Stan A. Huber Consultants, Inc. (SAHCI) on October 20, 2014 at the same location. Surface gamma scans were performed by SAHCI using a Ludlum Model 2221 Scaled / Ratemeter with a 2x2 inch NaI probe. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for the instrument was 6,279 counts per minute (cpm) shielded. The probe was equipped with a lead shield due to the planned narrow width of the excavation and elevated background levels from the adjacent brick building. Excavation started at the southeast corner of the building, but only extended about 3 feet due to the presence of elevated gamma readings. Shielded gamma readings of 13,200 cpm were identified directly below the asphalt and a layer of pavers. No excavation was performed and the soils were left undisturbed. Two soil samples were collected, which indicated activities of 10.97 and 10.05 pCi/g. The results of this investigation were communicated to the USEPA and summarized in a SAHCI report dated October 21, 2014.

In early November AECOM was contacted to discuss options for completing the installation of the service. After discussions with the USEPA a short work plan was emailed to the USEPA which proposed to install the conduit for the service just under the base of the pavement on a geotextile to avoid the excavation of contaminated fill soil. This proposal was accepted by the USEPA and work to install the conduit was initiated on November 18, 2014. Gamma radiation count measurements for the project were made using Ludlum Model 2221 survey meter and a shielded 2x2 inch NaI probe (Model 44-10). For the instrument used, the gamma count threshold indicative of the 7.1 pCi/g cleanup value is 6,282 cpm shielded.

Before starting the pavement removal the sidewalk in the vicinity of the proposed excavation was closed to prevent the public from inadvertently entering the work area. A path for the trench had already been saw-cut in the pavement during the initial work on October 20, 2014. The pavement was broken up and the granite pavers underneath loosened with a concrete breaker/hammer attached to a small excavator. The large pieces of pavement and pavers were screened with the Ludlum-2221 prior to being removed from the trench with shovels. These large pieces were visually free of adhering soil. The pavement and paver materials were screened again after being removed from the trench and prior to offsite disposal.

Once the large pieces of pavement and pavers were removed from the trench, the fill soil within the trench was screened to determine the horizontal extent of the contamination. Small pieces of pavement and fines from breaking of the pavement were left within the trench. Where elevated gamma readings above the threshold equivalent to the USEPA cleanup value were observed a geotextile was immediately placed over the contaminated fill soil area to prevent direct contact. The geotextile was extended to

slightly overlap the uncontaminated areas. The field gamma measurements noted during the screening process had a maximum of 11,500 cpm, which was observed within a small section of the trench near the corner of the building (see sketch). No further excavation was conducted within the contaminated trench area.

In general, the western uncontaminated portion of the trench consisted of asphalt over red clay bricks with shielded gamma readings between 3,000 and 5,000 cpm shielded. As shown in the attached photo, a small amount of fill soil and brick debris was excavated from this western trench area. The trench from near the corner of the building and east under the sidewalk area was where the contaminated soil was located. The contaminated soil was present beneath a layer of granite pavers, which were covered by a layer of asphalt. Finally, the eastern street portion of the trench was mostly pavement over fill soil. Readings were again in the 3,000 to 5000 cpm range shielded with the highest readings closest to the area of contamination.

Outside of the area of contamination, excavation of uncontaminated fill soil from the trench was performed and surveyed in thin 6-12 inch lifts. The trench was gently sloped down to the depth of the utility within the street. Overall, the surveying was performed on an approximately an 1 to 2-foot wide by 35-foot long trench. The trench varied from a depth of about 6-inches within the contaminated zone to about 3-feet below ground surface (bgs) where connection of the conduit was made to the service in the street. The communications service conduit was placed on top of the geotextile and backfilled with thin layer of clean sand (see photo). Uncontaminated fill soil from the clean sections of the trench was utilized as backfill after installation of the conduit in the deeper portions of the trench. Concrete was then used to repave the trench excavation area and complete the work following CDOT standard practices for excavation and pavement work. As previously discussed, no contaminated fill soils were removed from the trench excavation.

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

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

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: Permit
Sketch
Photo

PERMIT

DEPARTMENT OF PUBLIC HEALTH

CITY OF CHICAGO

MEMORANDUM

TO:

Mary Fulghum
USEPA Region V
Lindsay Light II Site, Office of the Regional Counsel
77 W. Jackson Blvd.
Chicago, Illinois 60604

Mr. Vincent S. Oleszkiewicz
Leech Tishman, Fuscaldo & Lampl. LLC
4225 Naperville Road, Suite 230
Lisle, IL 60532

Roy Widman
Tronox LLC
3301 N. W. 150th St.
Oklahoma City, OK 73134

FROM: **Raul Valdivia, Ph. D., Chief Engineer**
City of Chicago Department of Public Health

SUBJECT: **Notification of Permit Application – Lindsay Light II Site**
DATE: 10/14/2014 510-18 N St Clair / 150-165 E. Grand

Pursuant to Condition 10(a) of the Right-of-Way Agreement dated September 27, 1999, this is to inform you that a permit has been applied for with the City of Chicago Department of Transportation to conduct subsurface activities at the subject right-of-way. The applicant has contacted this Department and has reviewed additional information regarding potential contamination at the subject site (see attached form DOE.ROW.01).

If you have any questions, please do not hesitate to call me at (312) 744-5711.
Attachment

cc: Mort Ames, City of Chicago Department of Law (via fax 742-3832)
Eugene Jablonowski, USEPA (via fax 312-353-9281)

Last updated March 15, 2010

DEPARTMENT OF PUBLIC HEALTH

CITY OF CHICAGO

FORM NO. CDPH.ROW.03 (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:

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 (print): Stefani Hardy Signature: Stefani Hardy

Site Address and Work Location (Describe exact site location and **attach map**): 510-518 N. St. Clair 150-165 E. Grand Ave.

Nature of Work: Conduit Installation

Company Name, Address, Phone No.: Sidera / Lighttower

General / Prime Contractor Name, Address, Phone No.: Sanchez, Melcomm, Mid-America
Include subcontractor information if applicable)

Safety Officer / Phone No. 312-656-9073 (Kevin W.)

Radiation Contractor / Phone No. (if applicable) Stan Huber 200 N. Cedar New Lenox, IL 815.485.6161

Check if City Department Work ☐ Department Name:

CDOT Permit No.: 478394403

Today's Date: 10-14-14 Expected Start Date: 10-14-14 CDPH Approval / Date Rahma Tunisa Begum 10/14/2014

Please return this completed form to the Chicago Department of Transportation, Division of Infrastructure Management, Public Way Permit Office, City Hall – Room 905, 121 N. LaSalle St., Chicago, Illinois 60602 during normal business hours (8:30 AM - 4:30 PM, Monday through Friday)

For CDPH Use Only

150-165 E. Grand Av
510-518 N. St. Clair

PHOTO

Photograph looking east toward St. Clair Street. Geotextile has been placed in the contaminated portion of trench, conduit installed in trench and a thin layer of sand placed over the geotextile and conduit prior to placement of concrete to complete the installation.

SKETCH

AECOM

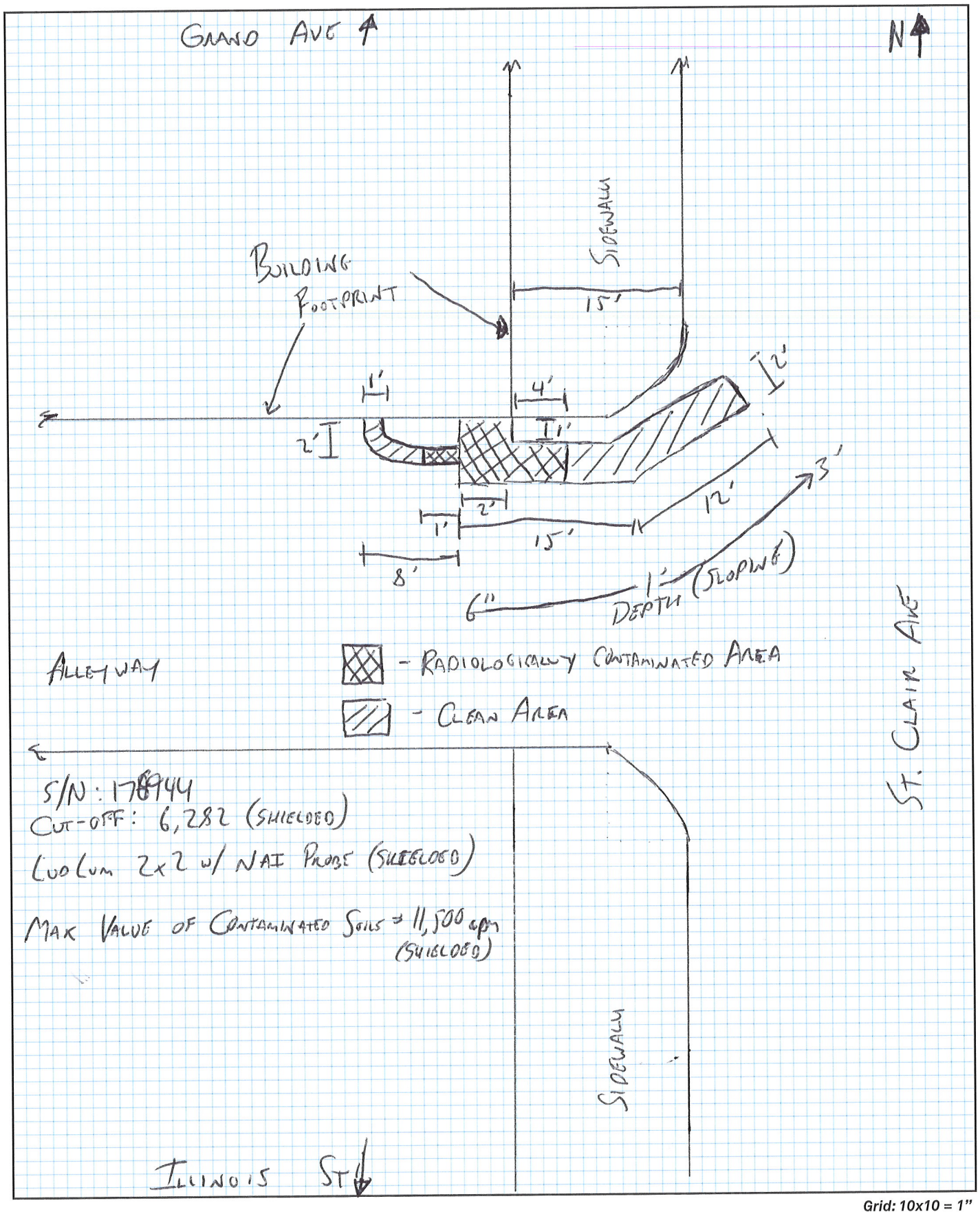
JOB TITLE 161 E. GRAND AVENUE - ROW RADIOLOGICAL INVESTIGATION

JOB NO. 60335642 CALCULATION NO.

ORIGINATOR BRIAN SCHMIDT DATE 11/18/14

REVIEWER STEVE MONNIER DATE 12/5/14

SCALE N/A SHEET NO. 1 OF 1



Grid: 10x10 = 1"