



November 20, 2018

Mike Lanenga
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: Thorium Monitoring: City of Chicago Department of Fleet and Facilities Management (2FM) at 130-226 E. Riverwalk.

Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the performance of 6 environmental borings at 130-226 E. Riverwalk in Chicago, Illinois. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, on November 12, 2018. All activities were conducted under the guidance of document *SET General Procedure for Thorium Monitoring*.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 132844) with attached Ludlum Model 44-10 2"x2" NaI detector (w/ 6" collimated lead shield). The instrument was calibrated on August 6, 2018. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,391 counts per minute (cpm).

The background count rate for this location was found to average 2,325 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected by surveying fill soil collected at each sampling location to a maximum depth of 18 inches below ground surface. The locations of the hand auger borings are attached to this report.

The maximum gamma count rate for each boring interval was recorded on the attached Radiation Survey Form. The count rates in the excavations ranged from 2,200 cpm to 3,800 cpm. No count rates were found at any time that exceeded the threshold limit of 7,391 cpm.

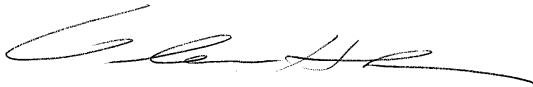
Additional Monitoring

Since no count rates were identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

I will be providing a copy of this report to both the City of Chicago Department of Public Health and US Environmental Protection Agency, as required.

Thank you for your assistance with this project. If you have any questions or need additional information, please call me at (815) 485-6161.

Sincerely,
Stan A. Huber Consultants, Inc.

A handwritten signature in black ink, appearing to read 'Glenn Huber', written in a cursive style.

Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID: RIVERWALK - HAND AUGER BORINGS - RADIOLOGICAL SOIL SURVEY

Date: 11/12/2018

Technician: BRIAN SCHMIDT

Inst Model: LUDLUM-2221

Serial No.: 132844

Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: 0-18"

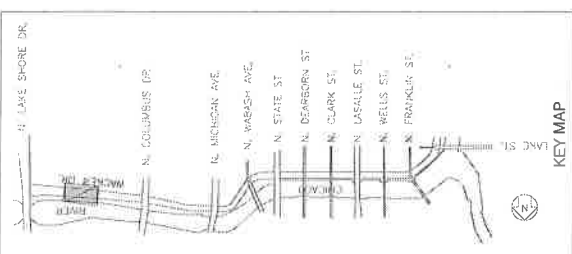
Background 2325 cpm

Action Level: 7391 cpm

Write grid designations in circles. Record highest counts for grid in cpm. Record 30 second counts at grid intersections (if required). Shade areas of elevated counts and record max cpm.



Boring ID	DEPTH	CPM		
SS-1	0-18"	2900	← scale →	○ ↑ ○
	18-36"	2700		
SS-2	0-18"	2300		
	18-36"	2200		
SS-3	0-18"	2400		
	18-36"	3400		
SS-4	0-18"	2300		
	18-36"	2400		
SS-5	0-18"	2900		
	18-36"	2900		
SS-6	0-18"	3100		
	18-36"	3800		



**CHICAGO RIVERWALK
PLANNED DEVELOPMENT**

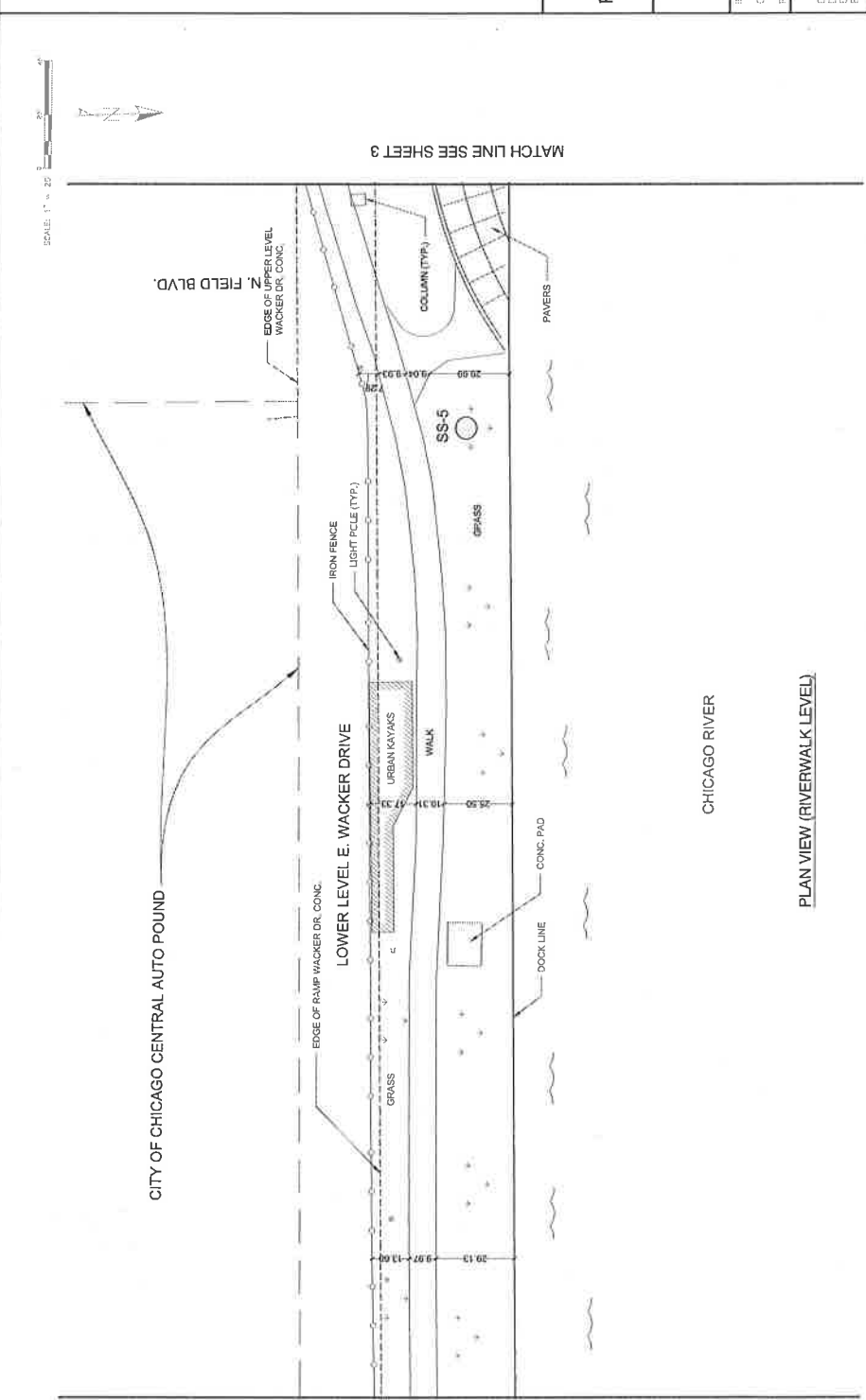
Dynasty Group
Landscape & Sitework
1000 N. LAKE SHORE DR. SUITE 1000
CHICAGO, IL 60611
TEL: 312.467.1000

IN ASSOCIATION WITH:
camitos
CAMITOS, LTD
ROSS, BARNEY ARCHITECTS, rose barney architects

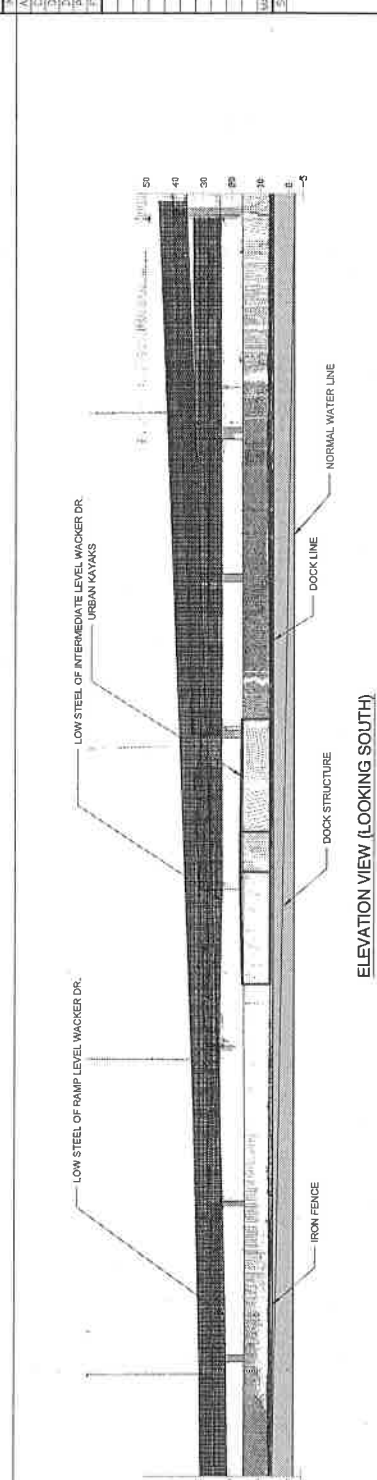
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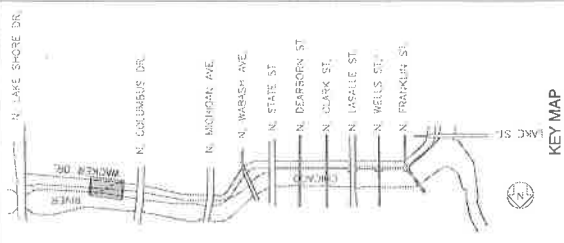
SHEET 2 OF 16



PLAN VIEW (RIVERWALK LEVEL)



ELEVATION VIEW (LOOKING SOUTH)



**CHICAGO RIVERWALK
PLANNED DEVELOPMENT**

Dynasty Group
 City of Chicago
 100 N. Dearborn St., Suite 1000
 Chicago, IL 60610

camiros
 BOSS BARNEY ARCHITECTS
 100 N. Dearborn St., Suite 1000
 Chicago, IL 60610

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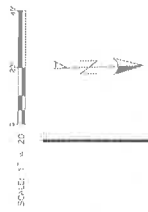
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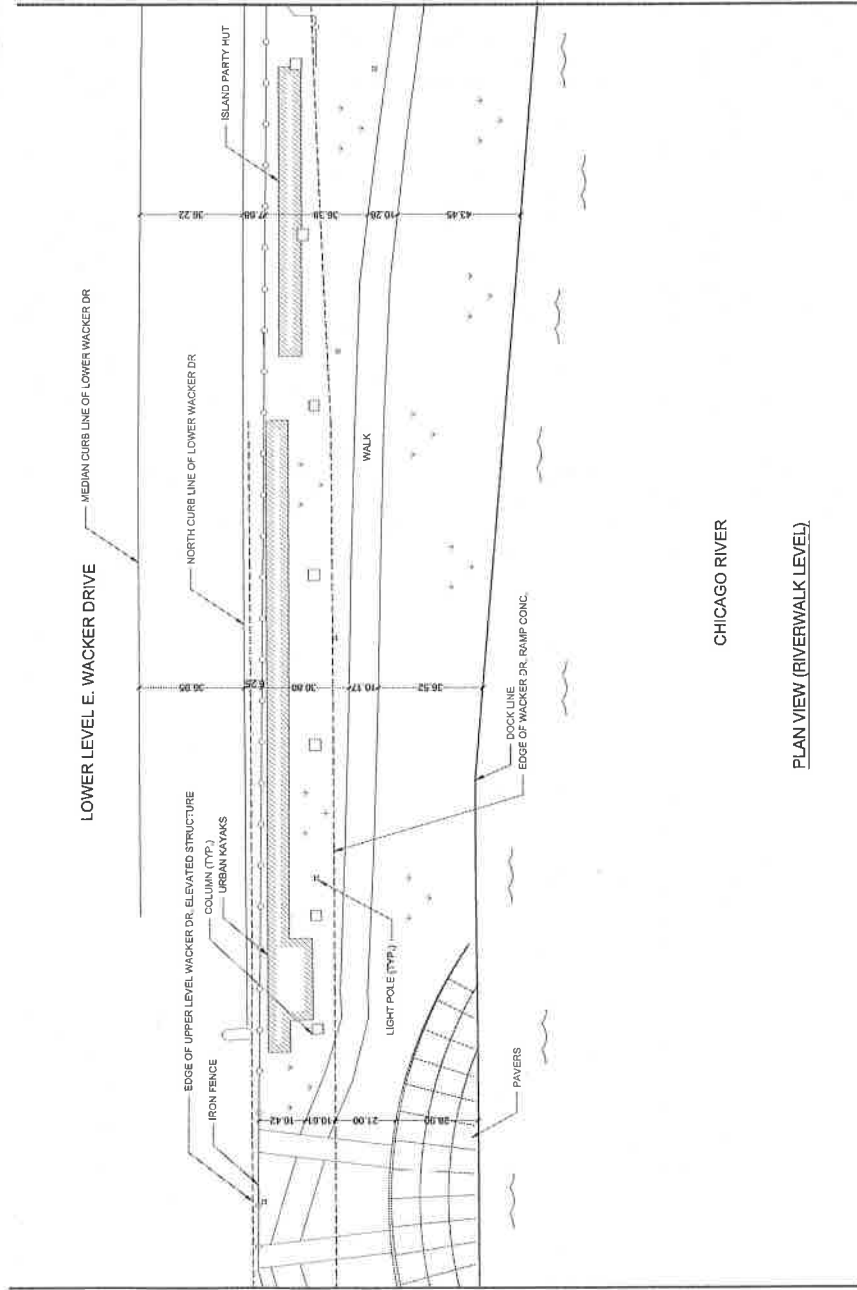
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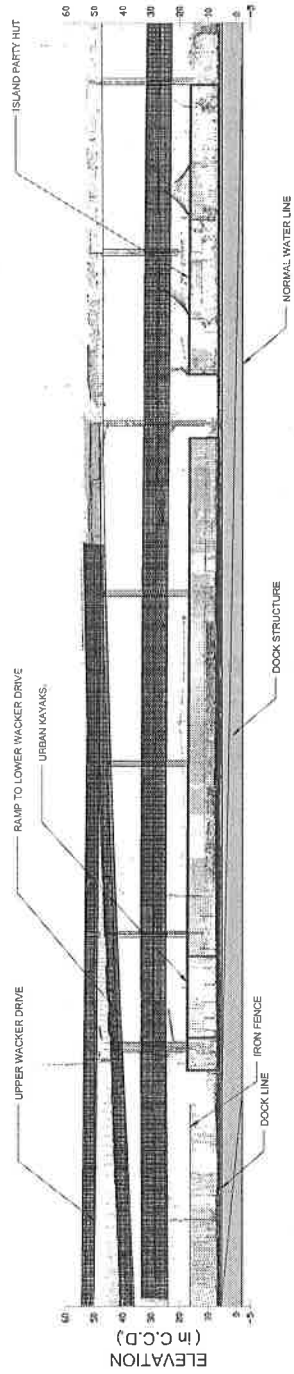


MATCH LINE SEE SHEET 4

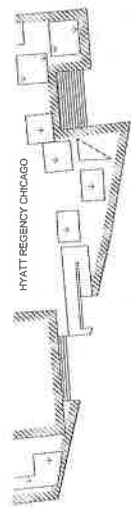
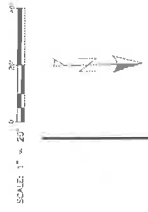


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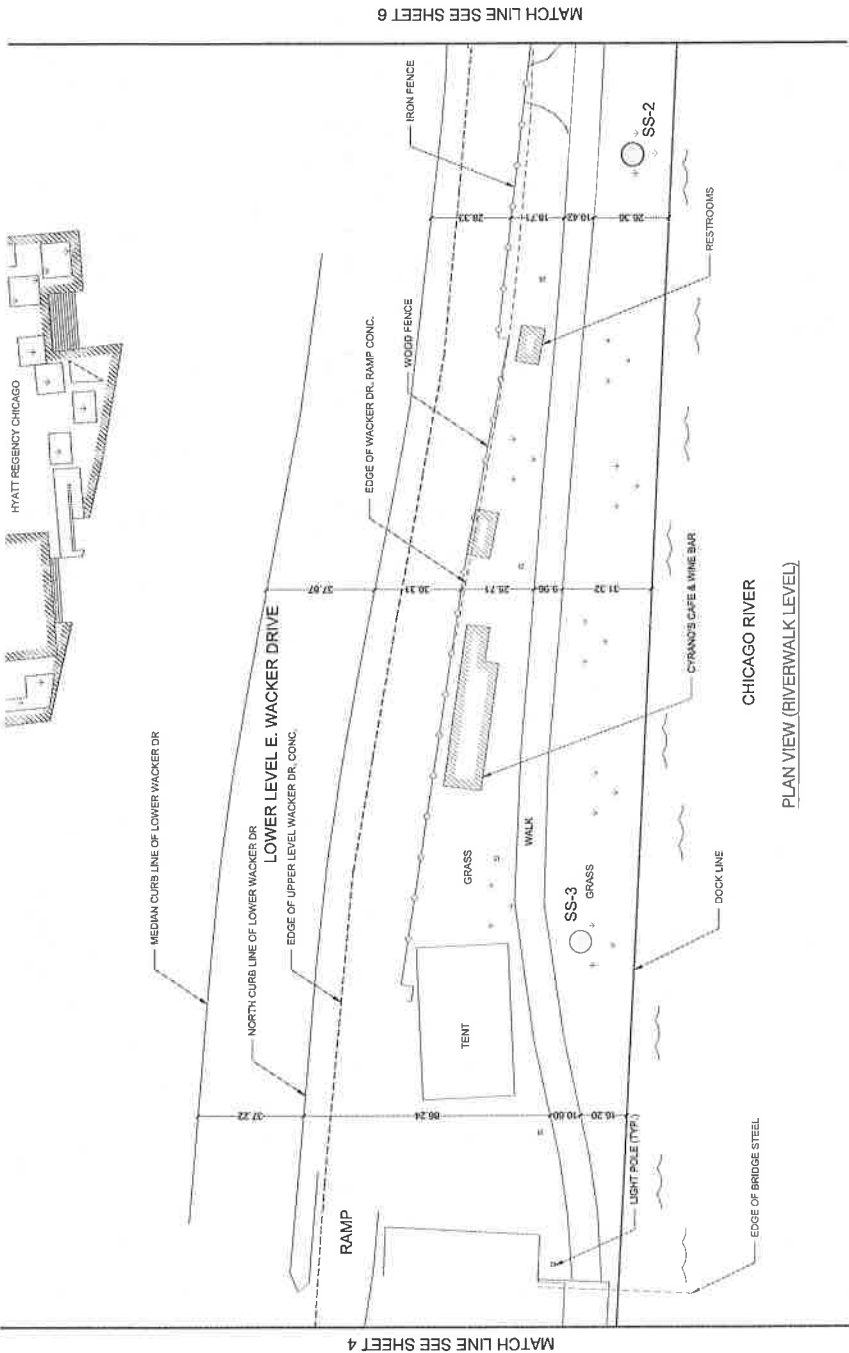
**CHICAGO RIVER
PLAN VIEW (RIVERWALK LEVEL)**



ELEVATION VIEW (LOOKING SOUTH)



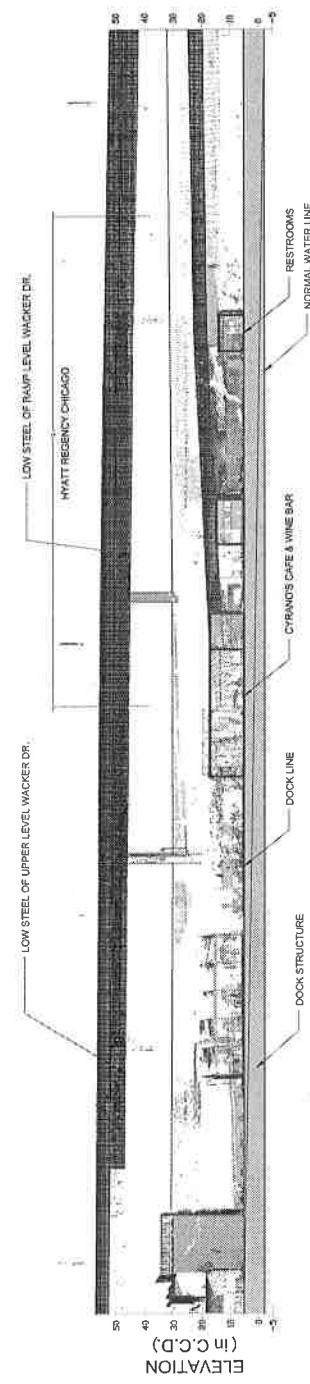
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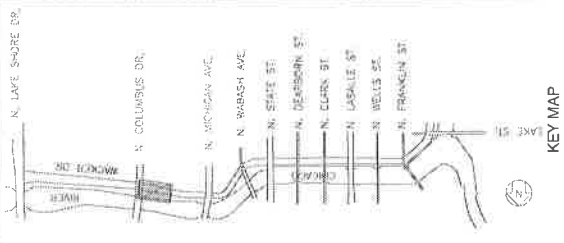
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PLAN VIEW (RIVERWALK LEVEL)



ELEVATION
(in C.C.D.)

ELEVATION VIEW (LOOKING SOUTH)



KEY MAP

CHICAGO RIVERWALK
PLANNED DEVELOPMENT

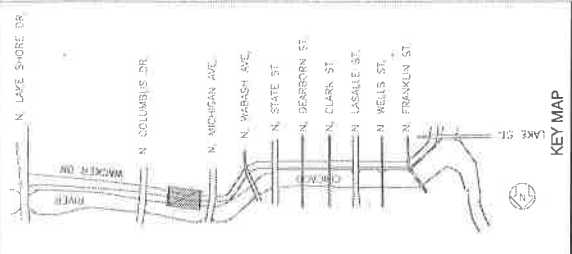


Dynasty Group
Engineers & Architects
1000 N. LaSalle St., Suite 1000
Chicago, IL 60610

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**CHICAGO RIVERWALK
PLANNED DEVELOPMENT**



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