



AECOM  
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Chicago, Illinois 60606

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January 10, 2018

Brad Jacobson  
Kenny Construction Co.  
2215 Sanders Road  
Northbrook, IL 60062

RE: Radiological Survey of Infrastructural Excavations  
Permit No.: Digger 600368503  
Permit Address: 501-59 E Illinois Street, Chicago, Illinois  
AECOM Project No. 60558002

Dear Mr. Jacobson:

Pursuant to conditions required by the United States Environmental Protection Agency (USEPA) and the City of Chicago Department of Public Health (CDPH), radiation surveying was required to be performed at the above referenced Site. AECOM Technical Services, Inc. (AECOM) provided the required radiation surveillance on October 20, 24, 27, and 26 for excavation related to the installation of structural components for the Lakefront Bike Trail along the northern bank of Ogden Slip immediately east of North Lake Shore Drive.

Surveying was performed within the excavation and on the spoil removed North of Ogden Slip and south of the intersection of Lower-Lake Shore Drive and E. Illinois Ave. (refer to annotated drawing). The activities included removal of existing concrete walk ways, including a section of the Riverwalk, as well as excavations for foundation structures. Kenny Construction excavated several adjacent areas with varying sizes and depths. The areas to the north involved removal of existing walkways, which were approximately 10 to 17-feet wide, 40 to 90-feet long to a depth of 6-inches below ground surface (bgs). The excavations to the south, along the sheet pile wall of Ogden slip, were approximately 35-feet long, 10 to 30-feet wide, to a depth of 18 to 66-inches bgs.

The monitoring did not indicate that the fill soil results were above the removal action level established by the 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 a shielded 2 x 2 inch NaI probe (Model 44-10). For the instruments used, the gamma count thresholds indicative of the 7.1 pCi/g removal action level were 7,374 (S/N: 172039) and 7,293 (S/N: 326720) counts per minute (cpm) shielded. The field instrument gamma background for the area was measured at 2,300 to 2,700 cpm unshielded. Although none were observed for this project, 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.

The field gamma measurements within the excavations and of the spoil during the excavation process did not exceed the instruments threshold previously stated and ranged from a minimum of 1,000 cpm to a maximum of 4,000 cpm shielded. 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. An annotated drawing and a table of the survey readings for each of the areas has been included in the attachments.

As part of the monitoring requirements a copy this letter has been forwarded to:

Chicago Department of Public Health  
Attention: Mr. Terry Sheahan  
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,



Andrew Kozak  
Geologist

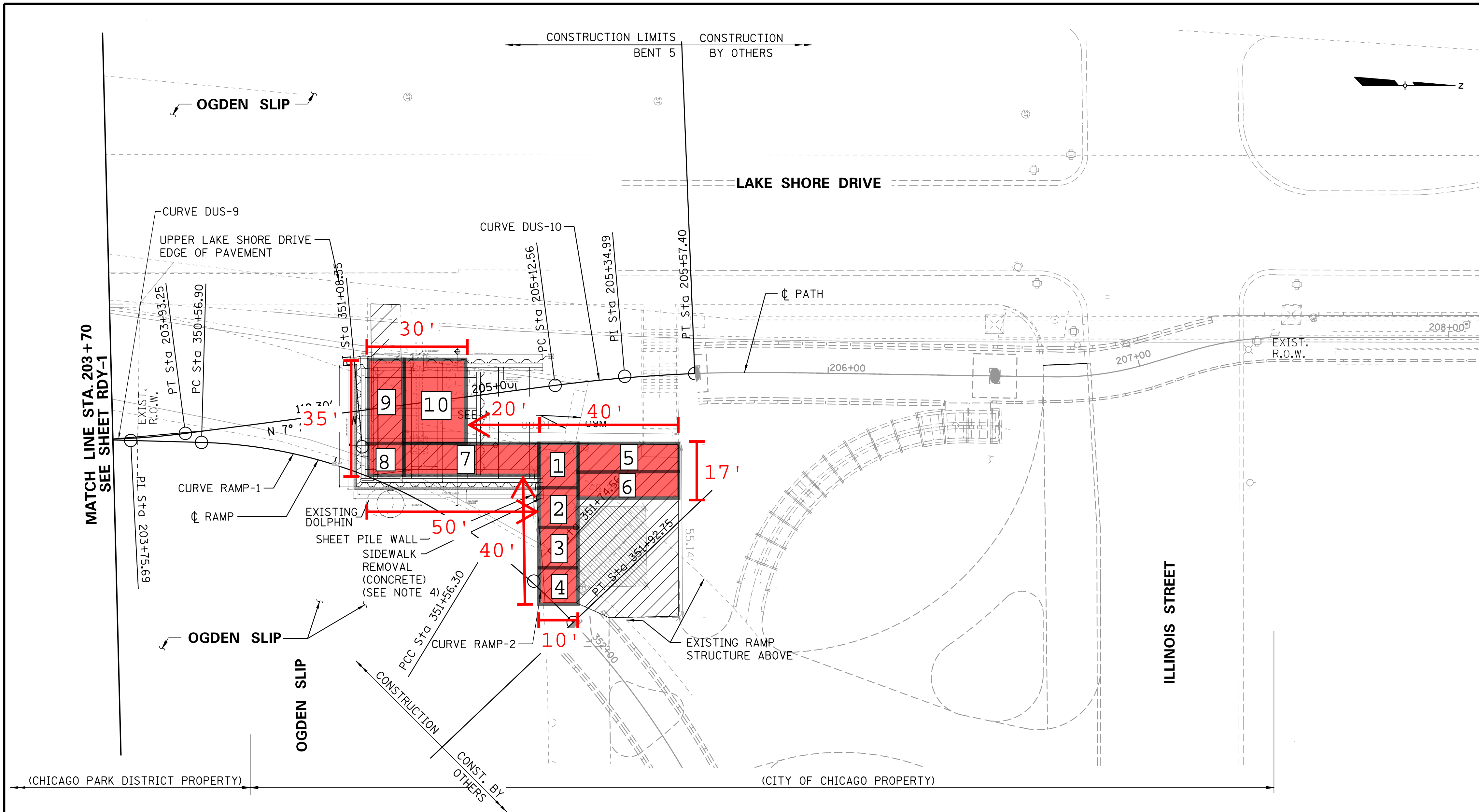


Steven C. Kornder, Ph.D.  
Senior Project Geochemist

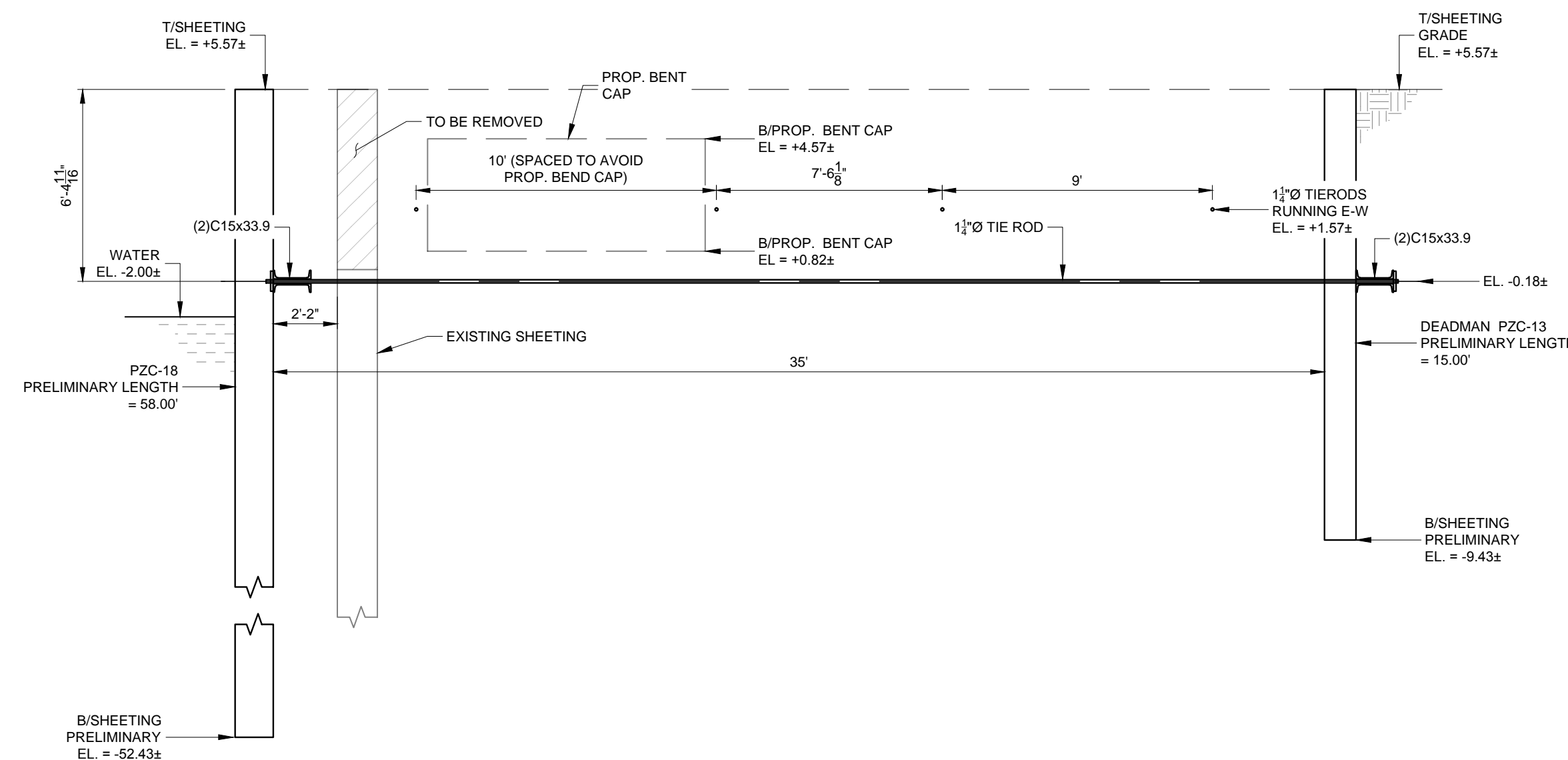
cc: Terry Sheahan, Chicago Department of Public Health  
Verneta Simon, USEPA

Attachments: Annotated Drawing and Results Table

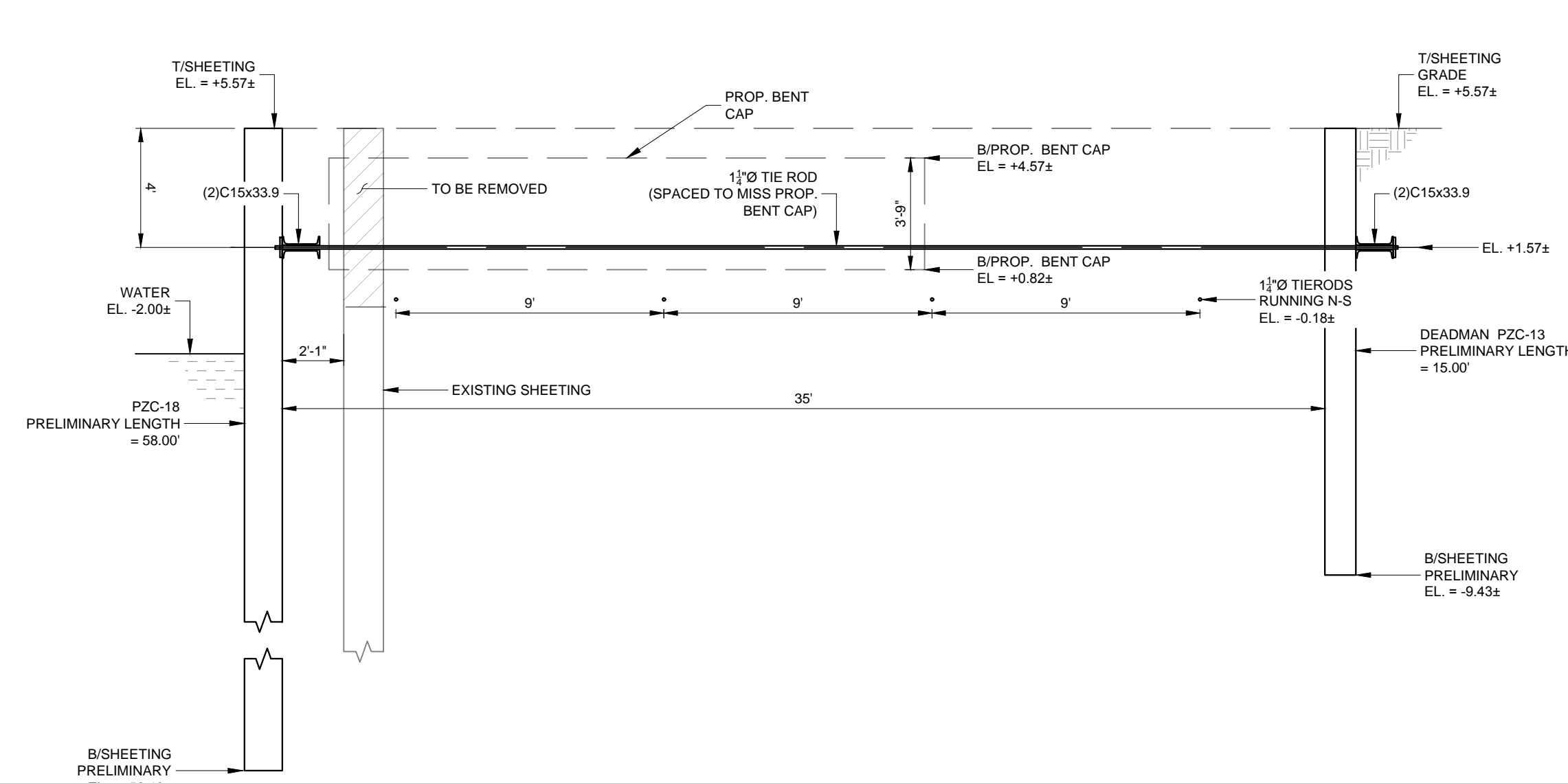
**ANNOTATED DRAWING AND TABLE**



**EXISTING PLAN**



**SECTION A**



**SECTION B**

NO.	BY	DATE	DESCRIPTION
REVISIONS			
<b>LAKEFRONT TRAIL IMPROVEMENT FROM CHICAGO RIVER BRIDGE TO OGDEN SLIP SN 016-6572</b>			
<b>Thorium Screening Area</b>			
CONSULTANT			
CITY OF CHICAGO			
DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING			
DRAWN	PMS	SHEET NO.	
CHECKED	JAG/DGW	<b>RDY-3</b>	
APPROVED	MAM		
DATE	12/16/16		
SCALE	1"=20'-0"	3 OF 4 SHEETS	
CONTRACT NO.		PROJECT NO. E-4-710	

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### Radiological Gamma Survey Readings

<u>Section</u>	<u>Depth</u>	<u>CPM*</u>
1	0" (concrete)	-
	6" (sub-base)	1,800 - 2,200
2	0" (concrete)	-
	6" (sub-base)	1,000 - 2,400
3	0" (concrete)	-
	6" (sub-base)	1,800 - 2,000
4	0" (concrete)	-
	6" (sub-base)	1,200 - 2,300
5	0" (concrete)	-
	6" (sub-base)	1,800 - 2,200
6	0" (concrete)	-
	6" (sub-base)	1,500 - 3,100
7	0" (concrete)	-
	6" (sub-base)	1,400 - 2,500
8	0" (concrete)	2,400 - 2,500
	18"	2,800
	36"	1,900 - 3,100
	54"	2,100 - 3,300
	66"	2,300 - 3,500
9	0" (concrete)	2,400 - 2,500
	18"	2800
	36"	1,900 - 3,100
	54"	1,800 - 3,500
	66"	2,800 - 4,000
10	0"	2,400 - 2,500
	18"	2800

Notes:

\* Counts per minute, all gamma survey readings were conducted utilizing a probe shield