



December 22, 2016

Michael Madura
King Sykes, LLC
1300 Bull Valley Drive
Woodstock, IL 60098

RE: Radiation Monitoring Interim Report – King Sykes Medical Building at 2535 South Dr. Martin Luther King Jr. Drive, Chicago, IL.

Dear Mr. Madura:

Stan A. Huber Consultants, Inc. (SAHCI) was hired by your firm to provide radiation monitoring during excavation activities performed during the construction of the King Sykes Medical Building at 2535 South Dr. Martin Luther King Jr. Drive in Chicago, Illinois. The potential radiological contaminants at the site include both uranium (U-234+U235+U238) and radium (Ra-226+Ra-228). Radiation monitoring is required at this location by the City of Chicago Department of Fleet and Facility Management (2FM) due to its proximity to the Former Carnotite Reduction Company site located at 434 E. 26th Street.

The monitoring was performed by Glenn Huber, Steven Kowalczyk, and James Hatten, SAHCI Health Physicists, from September 7, 2016 – December 22, 2016, as needed. Additional surveys are anticipated at the site in the future since work has not yet been completed.

The Illinois Emergency Management Agency (IEMA) and United States Environmental Protection Agency (USEPA), in coordination with 2FM, have determined that the threshold level for contamination for total radium is 7.1 picocuries per gram (pCi/g), which is based on 5 pCi/g over background levels. A threshold for total uranium has not yet been determined for the site. Therefore, the Field Action Level has conservatively been determined as twice the background count rate to account for the potential of both radium and uranium being present. Any count rate exceeding twice the background count rate would then require both collection of a soil sample to be analyzed by gamma spectroscopy and additional field surveys with an instrument capable of measuring uranium in soil.

The following construction activities were monitored for thorium during the project:

- Initial Surface Gamma Scan of Site
- Site Grading and Preparation
- Potholing for Foundation Piles
- Trenching – Grade Beams and Utilities

Instrumentation

Surface gamma scans were performed using Ludlum Model 2221 Scaled / Ratemeters (serial no. 134542 and serial no. 127242) with attached Ludlum Model 44-10 2"x2" NaI detectors (w/ 6" collimated lead shield). The instruments were calibrated on August 8, 2016. The average background count rate for each instrument was determined by performing measurements at five different locations along the southern property line.

A Ludlum Model 2241 Scaler / Ratemeter (serial no. 148069) with attached Ludlum Model 44-40 shielded “pancake” G-M detector was also available in the event that potential uranium was encountered.

Using twice the average background count rate in counts per minute (cpm) as the threshold for further testing results in the following Field Action Levels.

	Ludlum 2221 #134542	Ludlum 2221 #127242	Ludlum 2241 #148069
Background Location #1	2716	3318	68
Background Location #2	2378	2766	59
Background Location #3	2732	1634	71
Background Location #4	2329	1817	63
Background Location #5	2031	2431	73
Average Background (cpm) =	2437	2393	67
2x BKG FAL (cpm)=	4874	4786	134

Initial Surface Gamma Scan

Glenn Huber performed an initial surface gamma scan of the future building footprint on September 7, 2016. The area of the building footprint was paved at the time of the survey. The building footprint was delineated into sections based on the locations of future foundation piles (1-7 West-East and A-E North-South). Each section was then divided into four quadrants. A 100% surface gamma scan was performed by scanning the surface of each grid with the detector at a height of two to six inches above ground surface at a rate of 0.5 meters per second, and the maximum count rate for each quadrant was recorded on a Radiation Survey Form. Each grid section was approximately 30 feet x 30 feet, but varied depending on location.

Glenn Huber performed an initial surface gamma scan on the remainder of the property outside of the future building footprint on September 13, 2016. Although this area falls outside of the building footprint, it was also surveyed because the top soil was going to be removed and limited grading was planned. Since the areas outside of the building footprint do not have any piles or delineated grid lines, the lines used for the building grids were extended to the property lines. Surface gamma scans were performed using the same method as detailed above and the count rate data for each grid quadrant was recorded on a Radiation Survey Form

Attachment A - Initial Gamma Surface Scan details the results of the survey. The area colored purple shows the building footprint and the area colored green shows the remainder of the property.

No count rates were found at any time that exceeded the twice the background count rate threshold limit.

Site Grading and Preparation

The initial grading of the site started in September 2016. Throughout September, existing light poles, curbs, trees, pavement and topsoil were removed from the site. Surface gamma scans were performed as the different features were removed. In addition to the surface gamma

scans, spot checks were performed using the Ludlum 2241 survey meter with attached Ludlum Model 44-40 shielded G-M detector, since this was the first time the material below the existing pavement was exposed.

Grading was performed on the North end of site for planned sewer pipe installation and East side of site for a drainage catch basin (October 28, 2016- November 2, 2016). The Northern area of the site was divided into seven sections, which were thirty feet each. The Eastern area was divided into five sections, which were twenty-one feet each.

Grading was performed in three sections inside the building footprint (November 28, 2016 and December 1, 2016). This grading was minimal (several inches to one foot) and done to make the site level.

Grading was performed on the West side of site behind the construction trailer down to grade for the future parking lot (November 28, 2016 and December 2, 2016). This area has not been completed as future grading will be needed.

Surface Gamma scans were performed during site grading using the survey instruments identified above, and measurements were taken on the surface in lifts not to exceed 18 inches. The maximum count rates and excavation sketches are detailed in Attachment B – Site Grading. No count rates were found at any time that exceeded the twice the background count rate threshold limit.

Potholing of Foundation Piles

Potholing pile locations began in September 2016 and finished in October 2016. Pile locations along the north side of the building were dug as a single trench since there are many located all in a row. All other pile locations were excavated and surveyed individually.

Surface Gamma scans were performed using the survey instruments identified above, and measurements were taken as the soil was removed in 18" lifts. The material was stockpiled and surveyed and then the hole was back filled. The maximum count rates of each pile location are detailed in Attachment C - Potholing of Foundation Piles. No count rates were found at any time that exceeded the twice the background count rate threshold limit.

Trenching of Grade Beams and Utilities

Trenching started in September 2016 and ended in December 2016. Surface gamma scans were performed using the survey instruments identified above, and measurements were taken as material was excavated in 18-inch lifts and stockpiled. The following trenching items were surveyed:

- A test trench was dug on September 15th from C4 to D4.
- Grade beam trenching started on October 28th and finished on November 18th. The trenching started on the Northwest corner of the building. The North grade beam trench was divided into nine sections that were twenty-seven feet each. The East grade beam trench was divided into four sections and was twenty-two feet each. The South grade beam trench was divided into eight sections, which were twenty-seven feet per section. The West grade beam was divided into six sections, which were thirty feet each. See Attachment D.1 – Grade Beam Trenching

- Sewer and Water trenching started on November 21st and finished on December 1st. This trench started in the Northeast corner of the site. The trench was divided into a total of thirty-six sections. Pipe 108-112 was divided into fourteen sections, which were 26.4 feet per section. Pipe 113 was divided into seven sections, which were 18.8 feet per section. Pipe 101-104 was divided into eleven sections, which were 26.7 feet per section. Pipe 106 was divided into four sections, which were 15.7 feet per section. See Attachment D.2 – Sewer and Water Trenching
- Plumbing trenching was done on December 6th. The trench was divided in five sections, which were twenty-eight feet per section. See Attachment D.3 – Building Plumbing

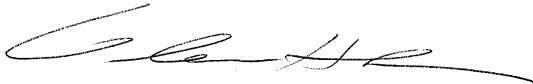
No count rates were found at any time that exceeded the twice the background count rate threshold limit.

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.

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.



Glenn Huber, CHP
President

Attachment A

Initial Surface Gamma Scan

King Sykes Medical Building
2535 South Dr. Martin Luther King Jr. Drive
Chicago, IL 60616

*Stan A. Huber Consultants, Inc.
200 N. Cedar Road
New Lenox, IL 60451*

DESIGNED BY: [Signature]
 DRAWN BY: [Signature]
CONDITIONAL PERMIT
 EXCAVATION PLAN
 CERTIFIED CONNECTIONS

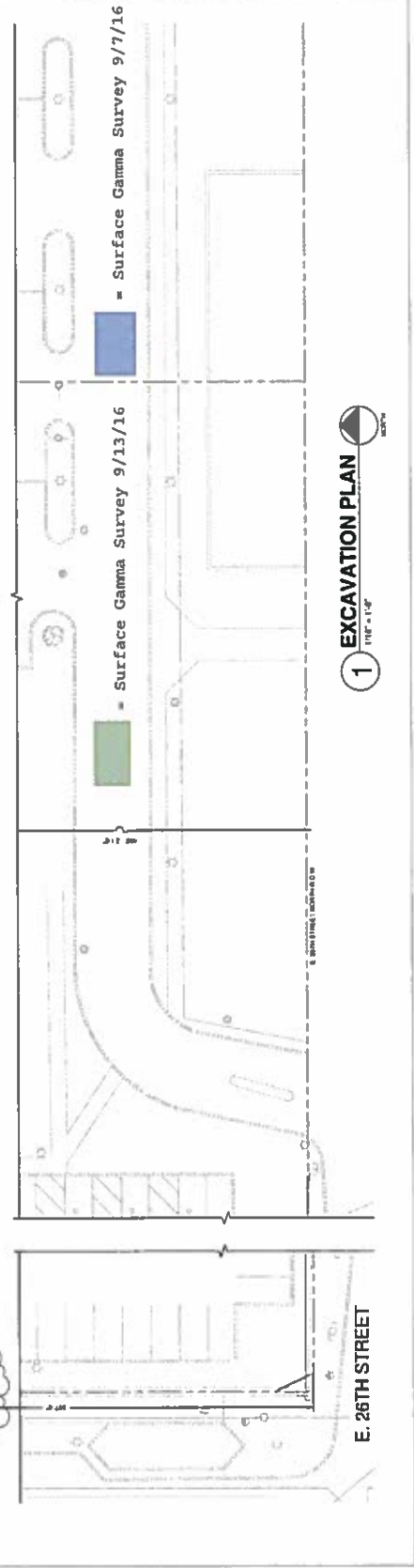
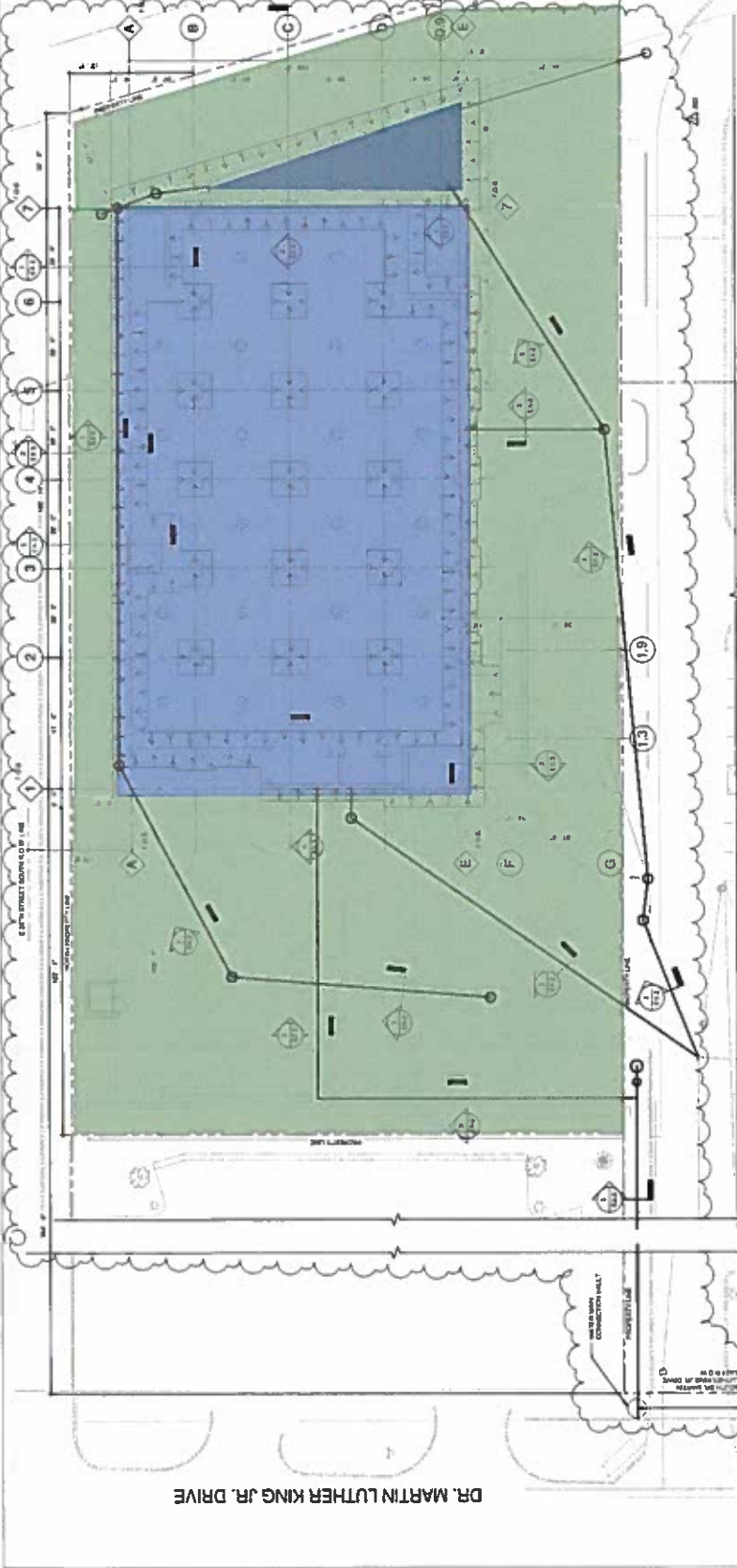
KNIGHT
 Engineers & Architects
 431 E. Madison Road - Suite 205
 Bloomington, IL 61840
 Phone: (708) 342-1250
 KNIGHTEA.COM
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CARLSON CONSTRUCTION
 NATIONAL CONSTRUCTION RESOURCES
 1700 W. BERRY RD. SUITE 100
 CHICAGO, IL 60618
 PH: 312-883-8003



KING SYKES MEDICAL BUILDING
 555 SOUTH DR. MARTIN LUTHER KING JR. DR.
 CHICAGO, IL 60618
KING SYKES II
 100 BELL WALKER DRIVE
 WOODSTOCK, IL 60098
 PH: 312-883-8003
 P.F. L. 100-07-C.C.D. 1825

EXCAVATION PLAN
 PROJECT # 180101
 DATE: 9-28-18
 EX-1



1 EXCAVATION PLAN
 1/8" = 1'-0"

Radiation Survey Form

Location/ Project ID: King Sykes Medical Building

Date: 9/7/16

Technician: Glenn Huber

Inst Model: Ludlum 2221

Serial No. : 134542

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

Lift Elevation: Surface

Background 2437 cpm

Action Level: 4874 cpm
2x Bkg

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.

All results in kcpm



①	②	③	④	⑤						
				← scale →						
					<i>light pole</i>					
	2.8	2.7	3.0	2.9	3.1	2.7	2.8	2.4	A	
	<i>gross</i>				<i>light pole</i>	<i>max</i>			↕	
	1.8	1.6	1.6	1.8	2.2	2.6	2.1	1.8	B	
	2.0	2.0	2.2	2.6	1.7	1.7	1.9	1.7	C	
	1.9	1.8	1.7	2.0	2.1	2.2	1.9	1.6	D	
	1.7	2.0	1.9	1.8	1.9	1.7	1.7	2.0	E	
	2.1	1.8	1.7	2.1	2.0	1.8	1.6	1.7		
	1.7	2.1	2.3	1.9	2.1	2.4	2.3	1.8		
	1.8	2.3	1.9	2.2	1.9	2.1	2.3	2.0		

Radiation Survey Form

Location/ Project ID: King Sykes Medical Building

Date: 9/7/16

Technician: Glen Huber

Inst Model: Ludlum 2221

Serial No. : 134542

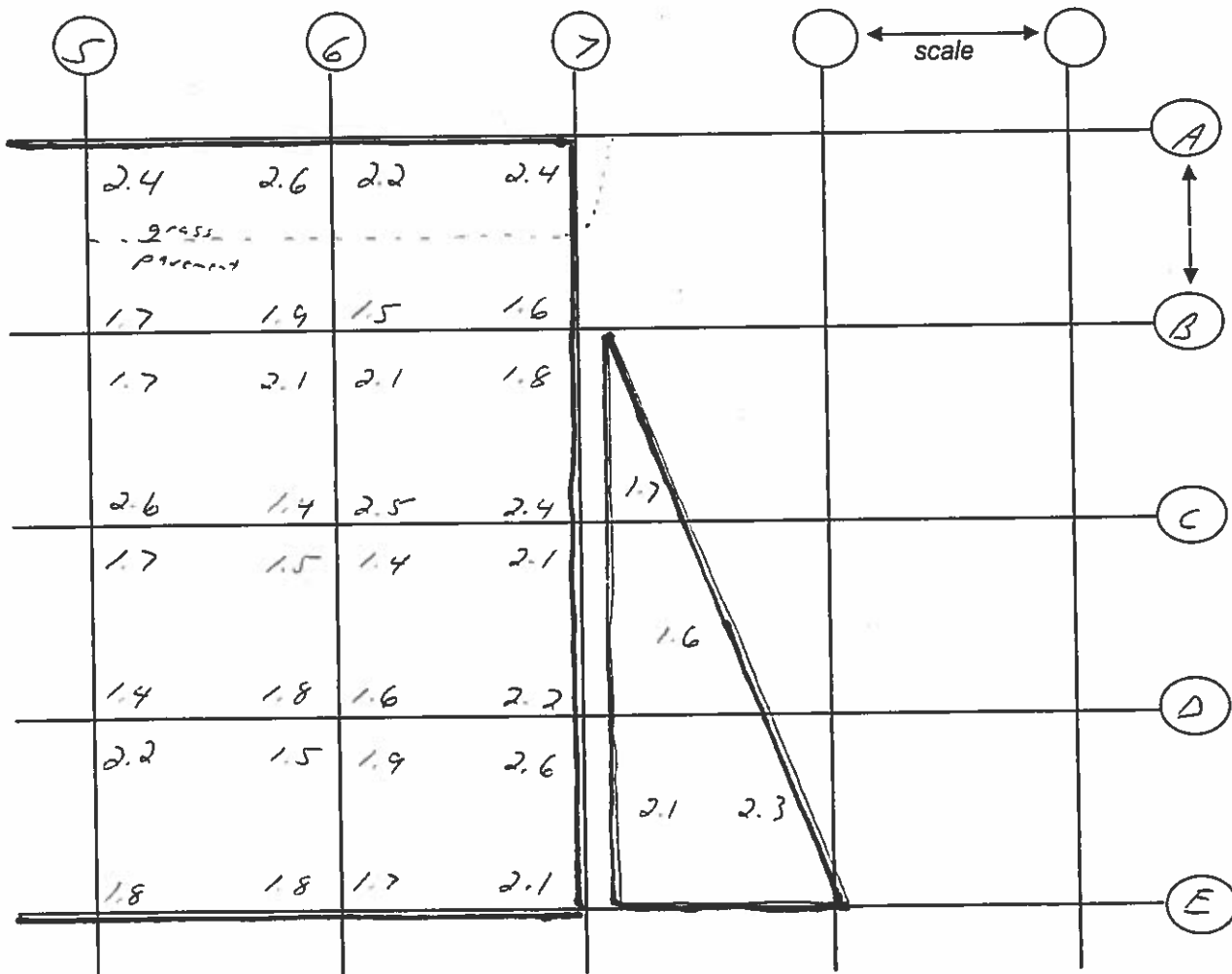
Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: Surface

Background 2437 cpm

Action Level: 4874 cpm

Write grid designations in circles. Record highest counts ^{2x Bkg} in cpm. Record 30 second counts at grid intersections (if required). Shade areas of elevated counts and record max cpm.



Radiation Survey Form

Location/ Project ID: King Sykes Medical Building

Date: 9/7/16

Technician: Glenn Huber

Inst Model: Ludlum 2221

Serial No. : 134542

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

Lift Elevation: Surface

Background 2437 cpm

Action Level: 4874 cpm
2x Bkg

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.

All results in kcpm



①	②	③	④	⑤					
				← scale →					
				<i>light pole</i>					
2.8	2.7	3.0	2.9	3.1	2.7	2.8	2.4	ⓐ	
				ⓧ					
1.8	1.6	1.6	1.8	2.2	2.6	2.1	1.8	ⓑ	
2.0	2.0	2.2	2.6	1.7	1.7	1.9	1.7	ⓒ	
1.9	1.8	1.7	2.0	2.1	2.2	1.9	1.6	ⓓ	
1.7	2.0	1.9	1.8	1.9	1.7	1.7	2.0	ⓔ	
2.1	1.8	1.7	2.1	2.0	1.8	1.6	1.7	ⓕ	
1.7	2.1	2.3	1.9	2.1	2.4	2.3	1.8	ⓖ	
1.8	2.3	1.9	2.2	1.9	2.1	2.3	2.0	ⓗ	

Radiation Survey Form

Location/ Project ID: King Sykes Medical Building

Date: 9/7/16

Technician: Glenn Huber

Inst Model: Ludlum 2221

Serial No. : 134542

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

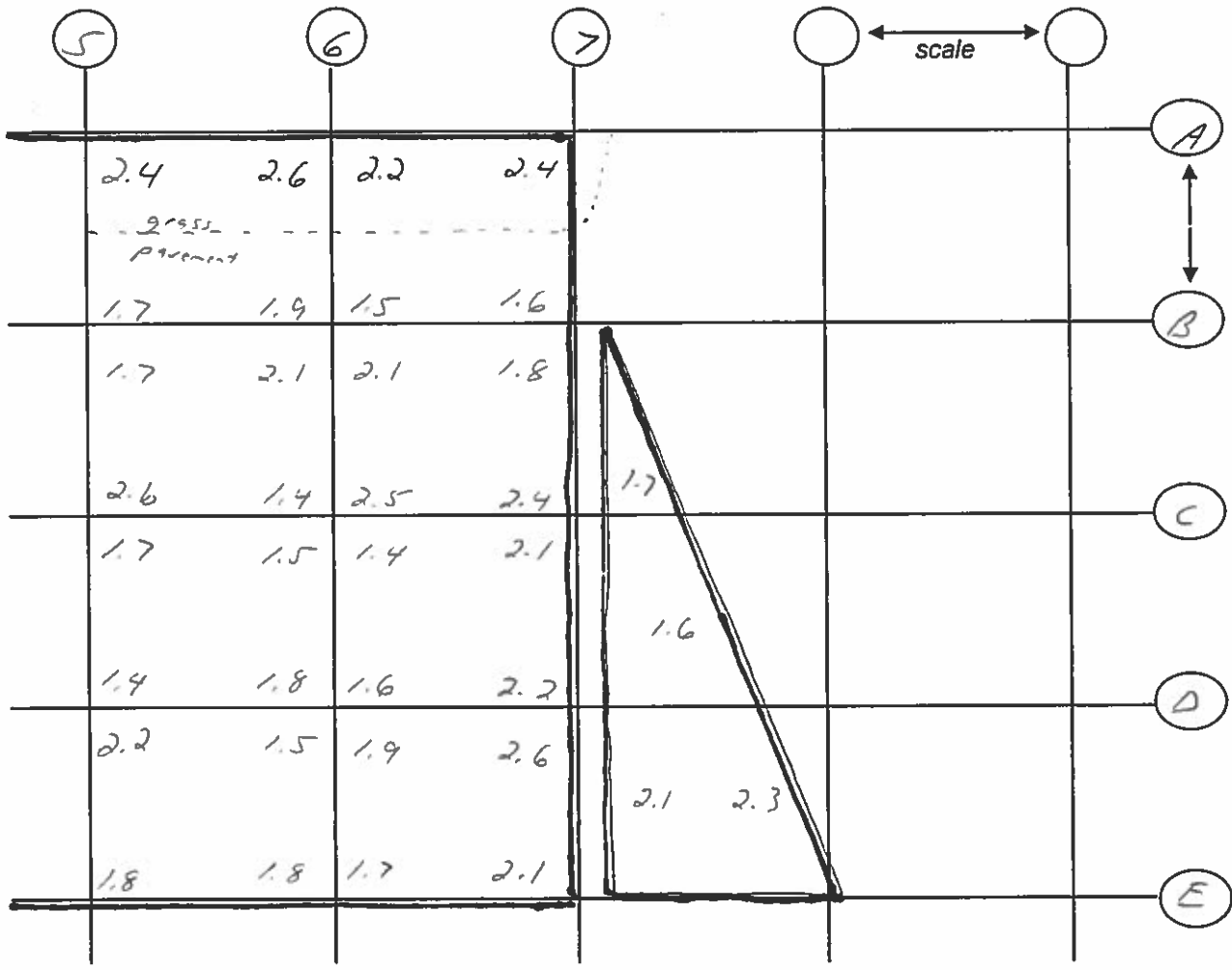
Lift Elevation: Surface

Background 2437 cpm

Action Level: 4874 cpm

2x Bkg

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.



Radiation Survey Form

Location/ Project ID: King Sykes Medical Building

Date: 9/13/16

Technician: Glenn Huber

Inst Model: Ludlum 2221

Serial No. : 134542

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

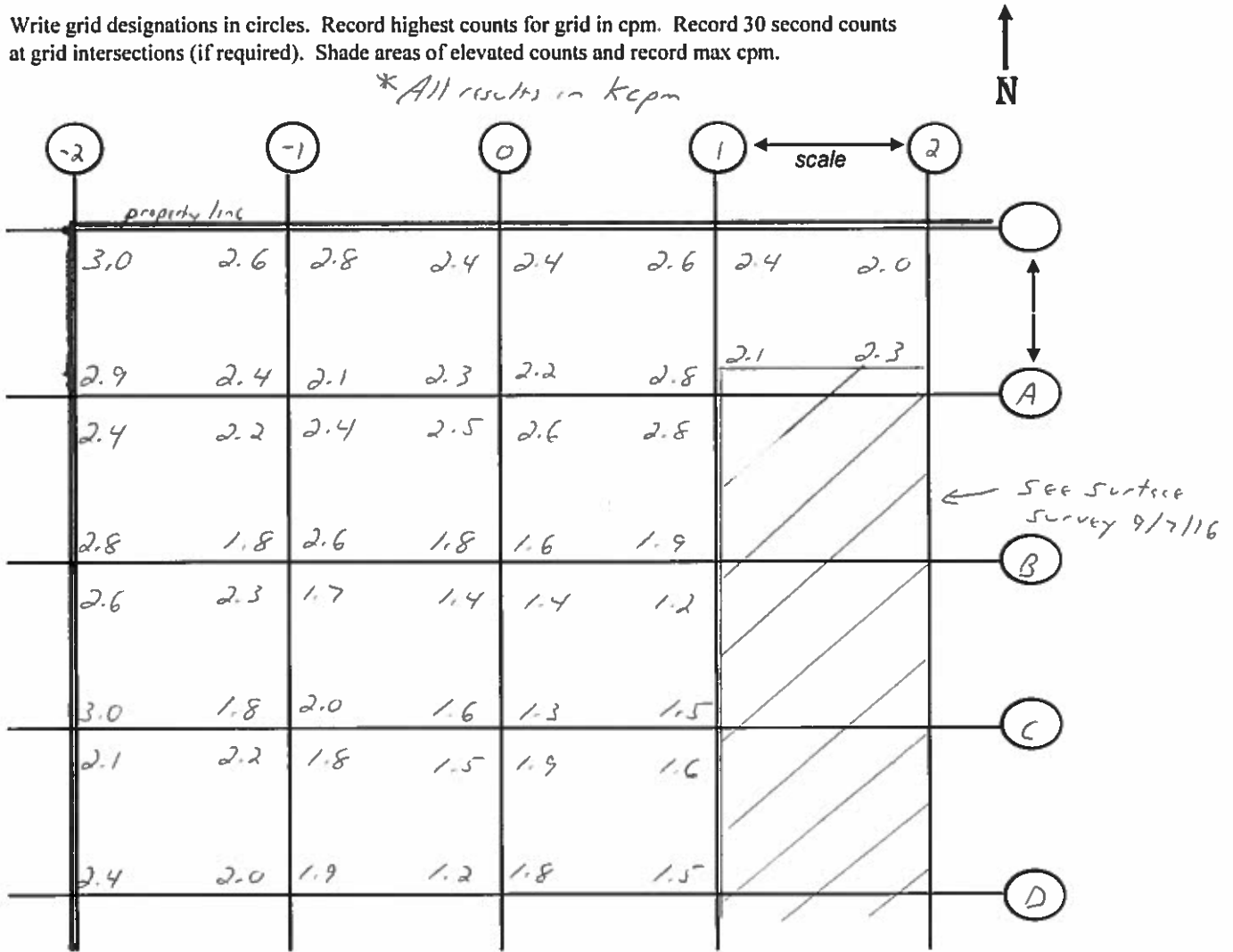
Lift Elevation: Surface

Background 2437 cpm

Action Level: ^{2x Bk} 4874 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.

**All results in Keqpm*



Radiation Survey Form

Location/ Project ID: Kingsykes Medical Building

Date: 9/13/16

Technician: Glenn Huber

Inst Model: 2416-2221

Serial No.: 134542

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

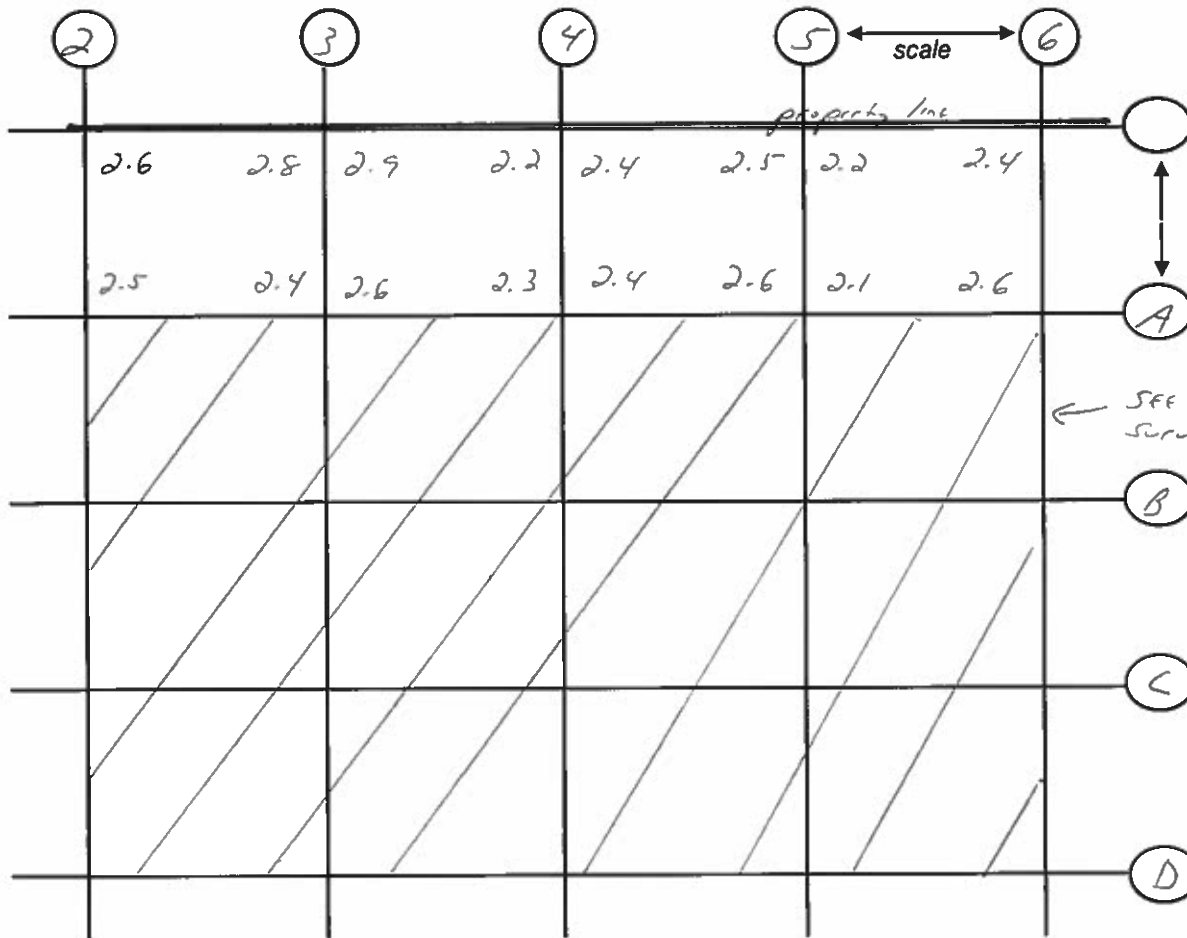
Lift Elevation: Surface

Background 2437 cpm

^{2x 0.5} Action Level: 4874 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.

**All results in kepm*



Radiation Survey Form

Location/ Project ID: King Sykes Medical Building

Date: 9/13/16

Technician: Glenn Huber

Inst Model: Ludl-2221

Serial No.: 134542

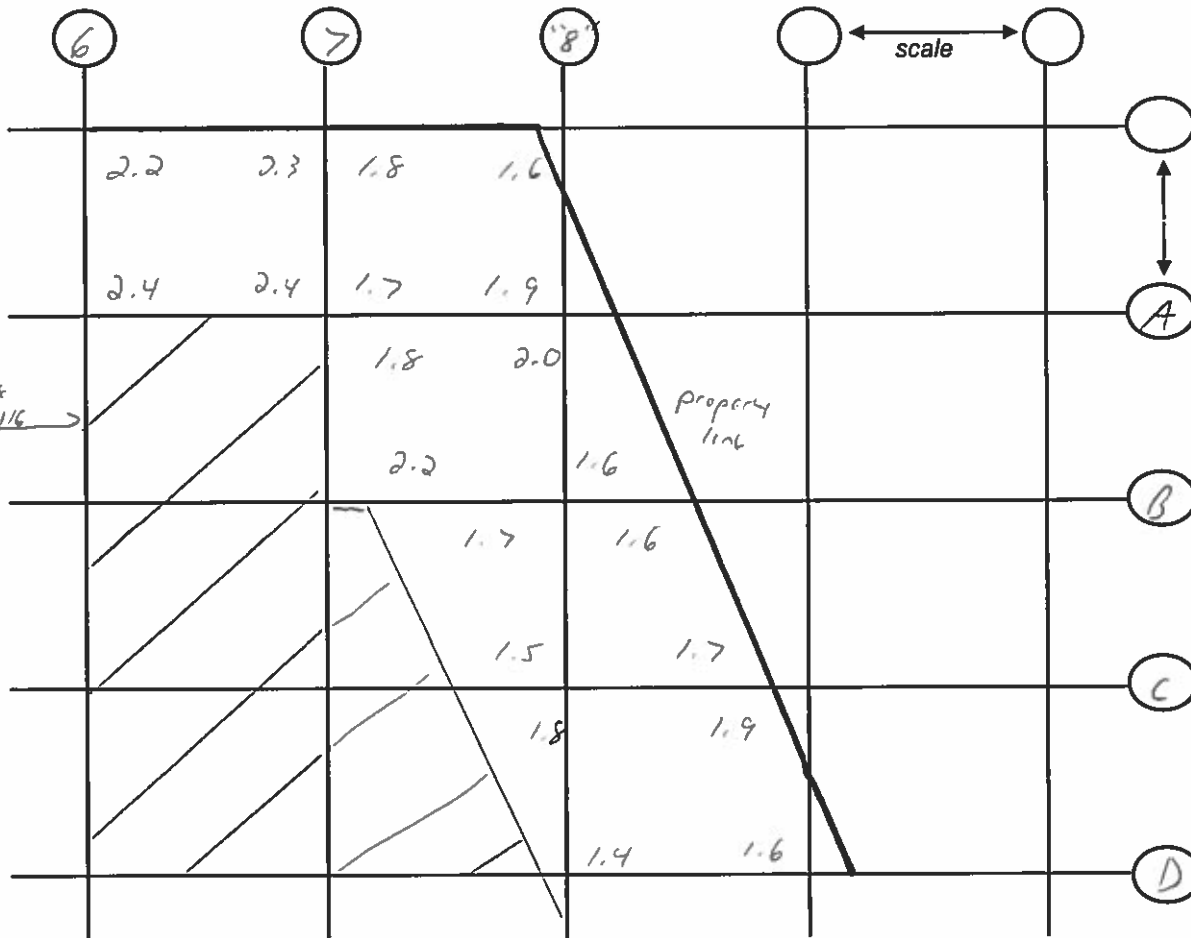
Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: Surface

Background 2437 cpm

Action Level: 4874 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.



Radiation Survey Form

Location/ Project ID: King Sykes Medical Building

Date: 9/13/16

Technician: Glenn Huber

Inst Model: Ludlum 2221

Serial No. : 134542

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

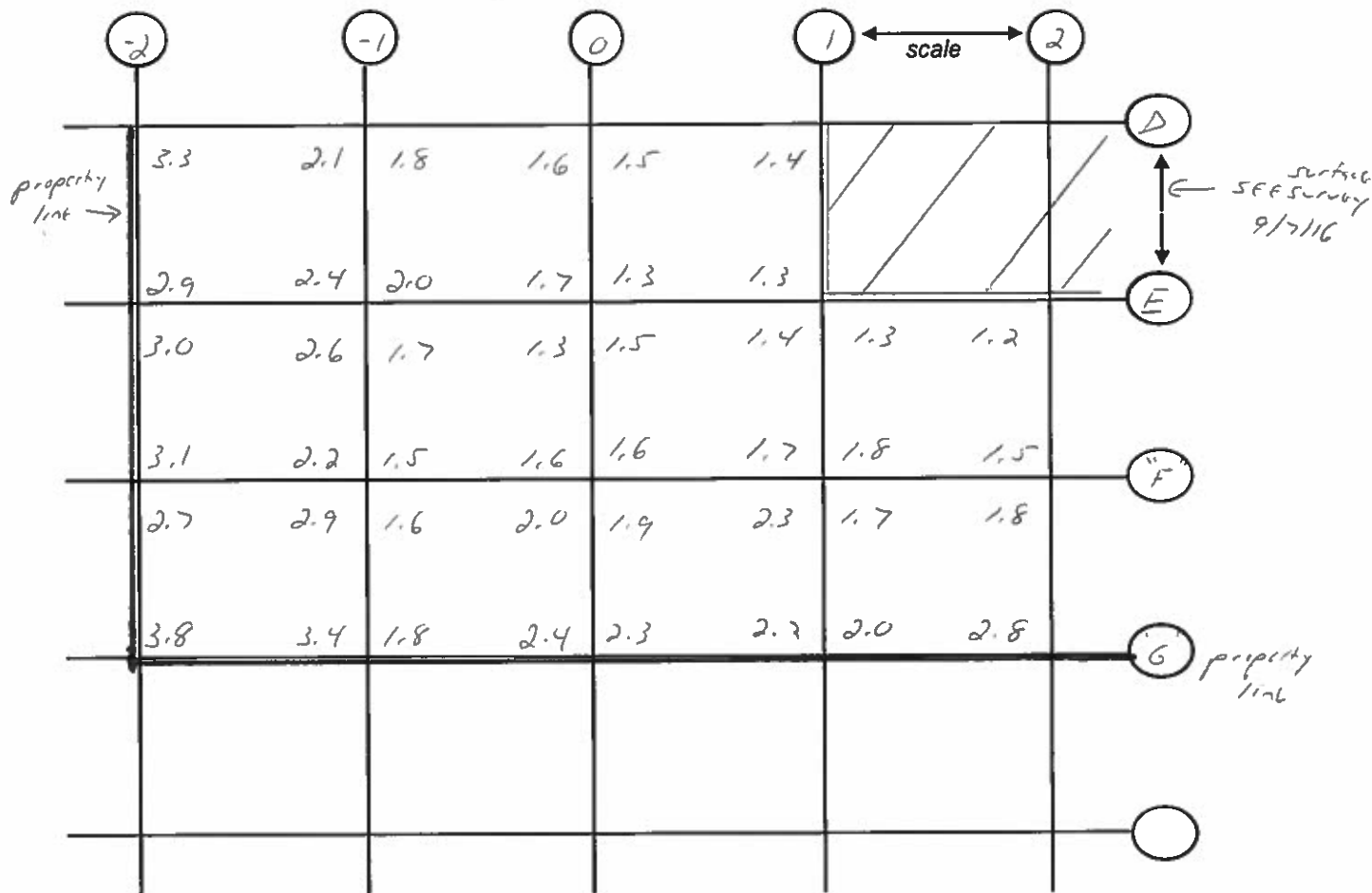
Lift Elevation: Surface

Background 2437 cpm

2.863
Action Level: 4874 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.

** All results in Keq*



Radiation Survey Form

Location/ Project ID: King Sykes Medical Building

Date: 9/13/16

Technician: Glenn Huber

Inst Model: Ludlum 2221

Serial No. : 134542

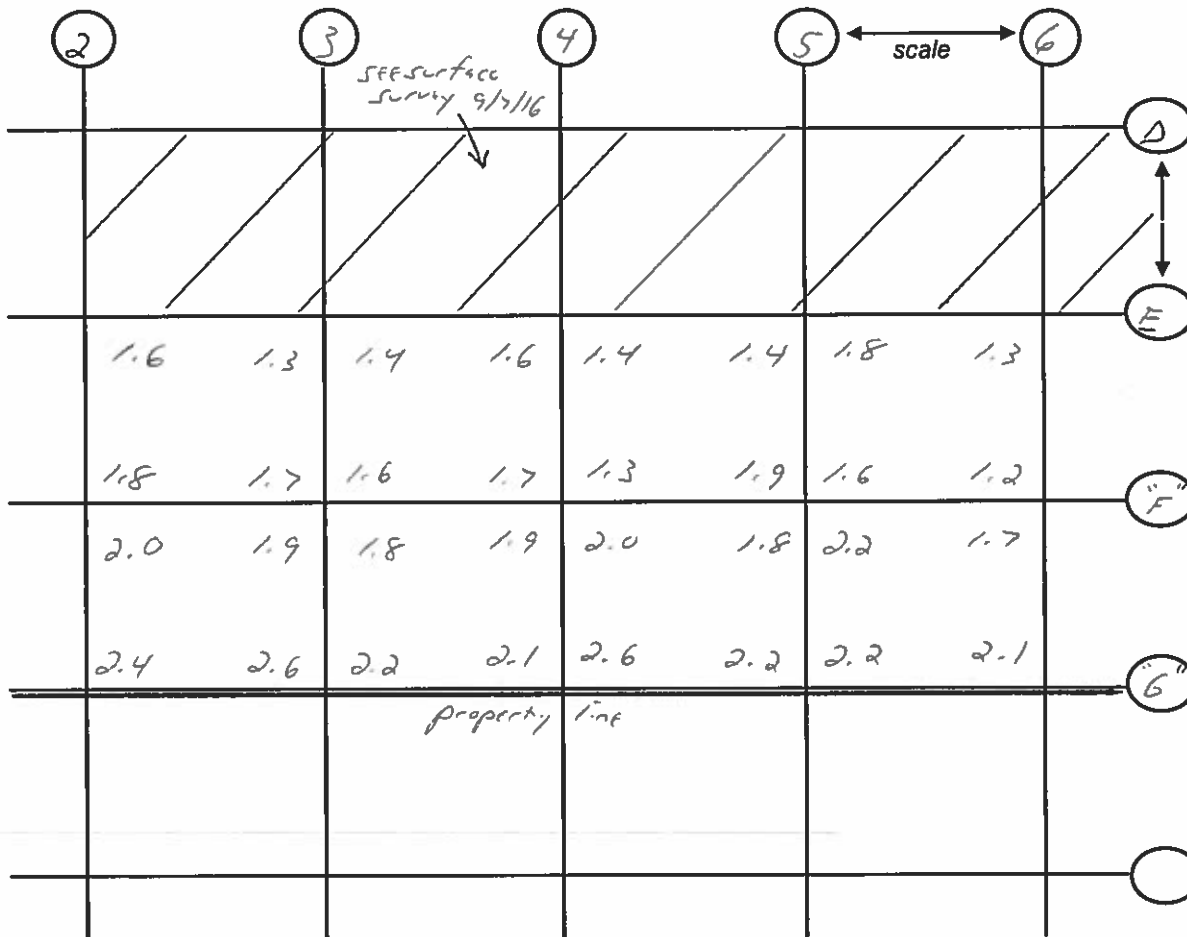
Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: Surface

Background 2437 cpm

^{2x Bks}
Action Level: 4874 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.



Radiation Survey Form

Location/ Project ID: _____

Date: 9/13/16

Technician: Glen Huber

Inst Model: Ludlum 2201

Serial No. : 134542

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

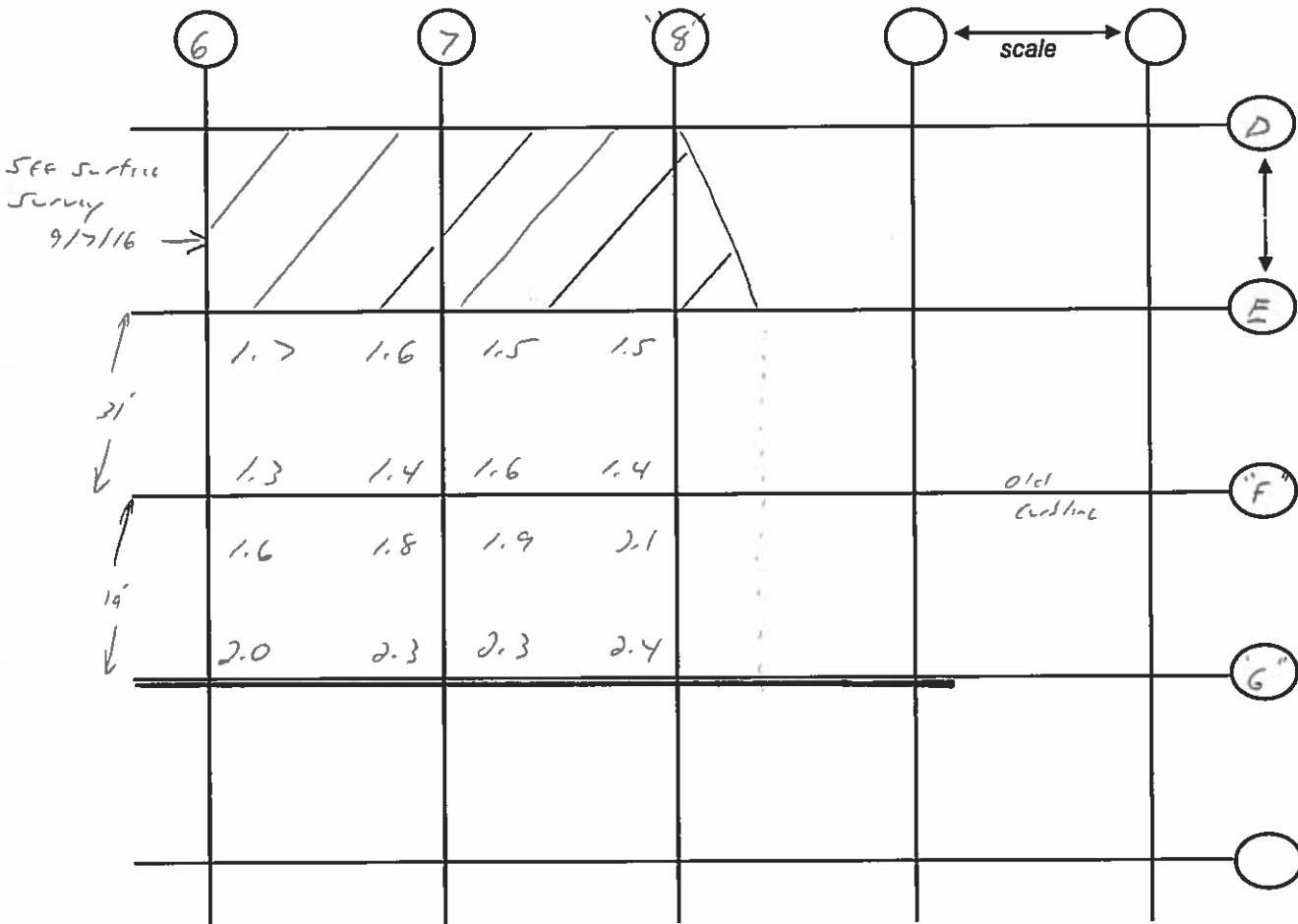
Lift Elevation: Surface

Background 2432 cpm

Action Level: 4874 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.

** All results in keps*



Attachment B

Site Grading

King Sykes Medical Building
2535 South Dr. Martin Luther King Jr. Drive
Chicago, IL 60616

*Stan A. Huber Consultants, Inc.
200 N. Cedar Road
New Lenox, IL 60451*

Radiation Survey Form

Location/ Project ID: King Sykes Medical Building

Date: 9/15/16

Technician: Steven Kowalczyk

Inst Model: Ludlum 2221

Serial No.: 127242 Probe SN: 168144

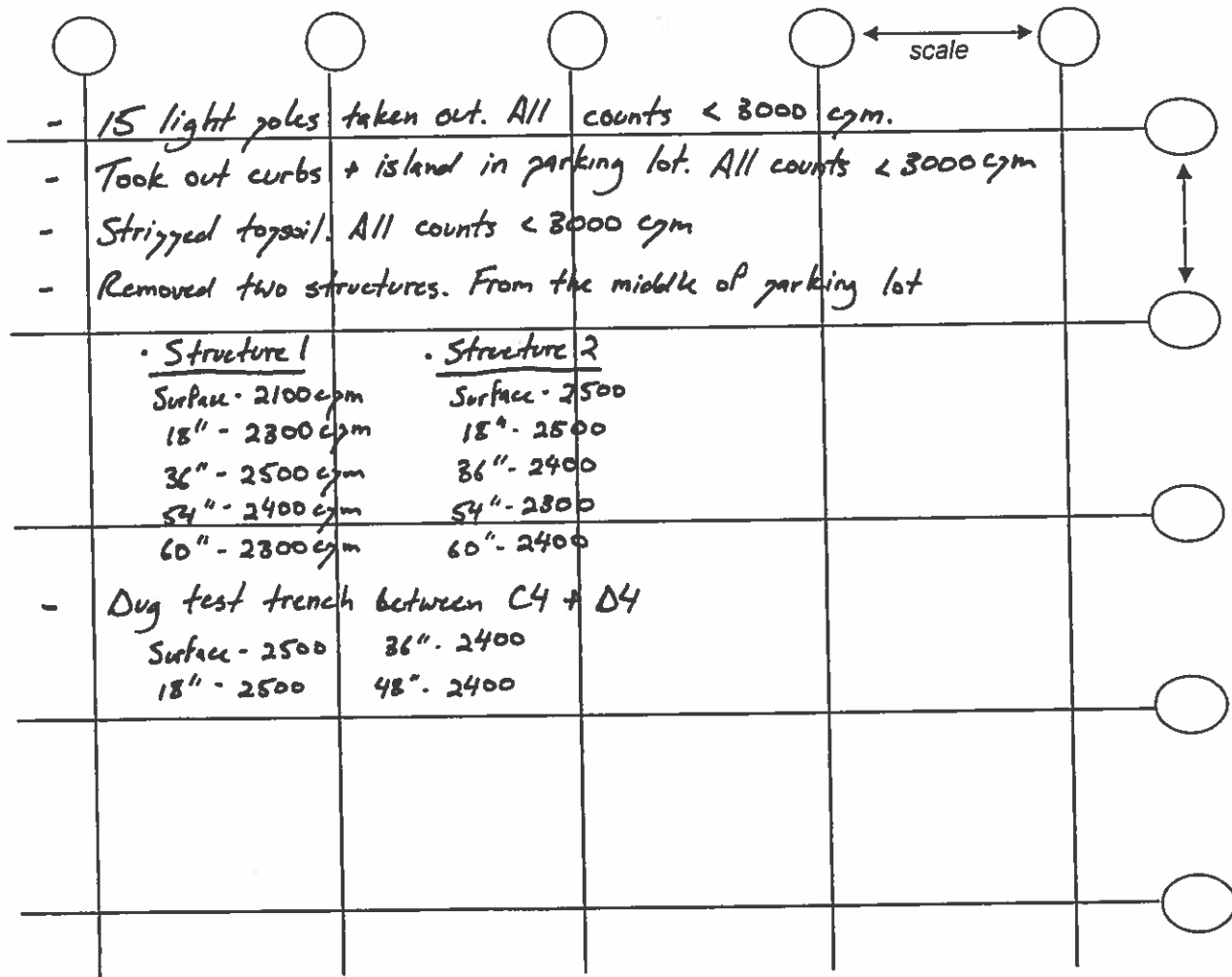
Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: Surface - 60"

Background 1956 cpm

Action Level: 6,738 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.



Radiation Survey Form

Location/ Project ID: King Sykes Medical Building

Date: 9/16/15

Technician: Steven Kowalczyk

Inst Model: Ludlum 2221

Serial No. : 127242 Probe SN: 168144

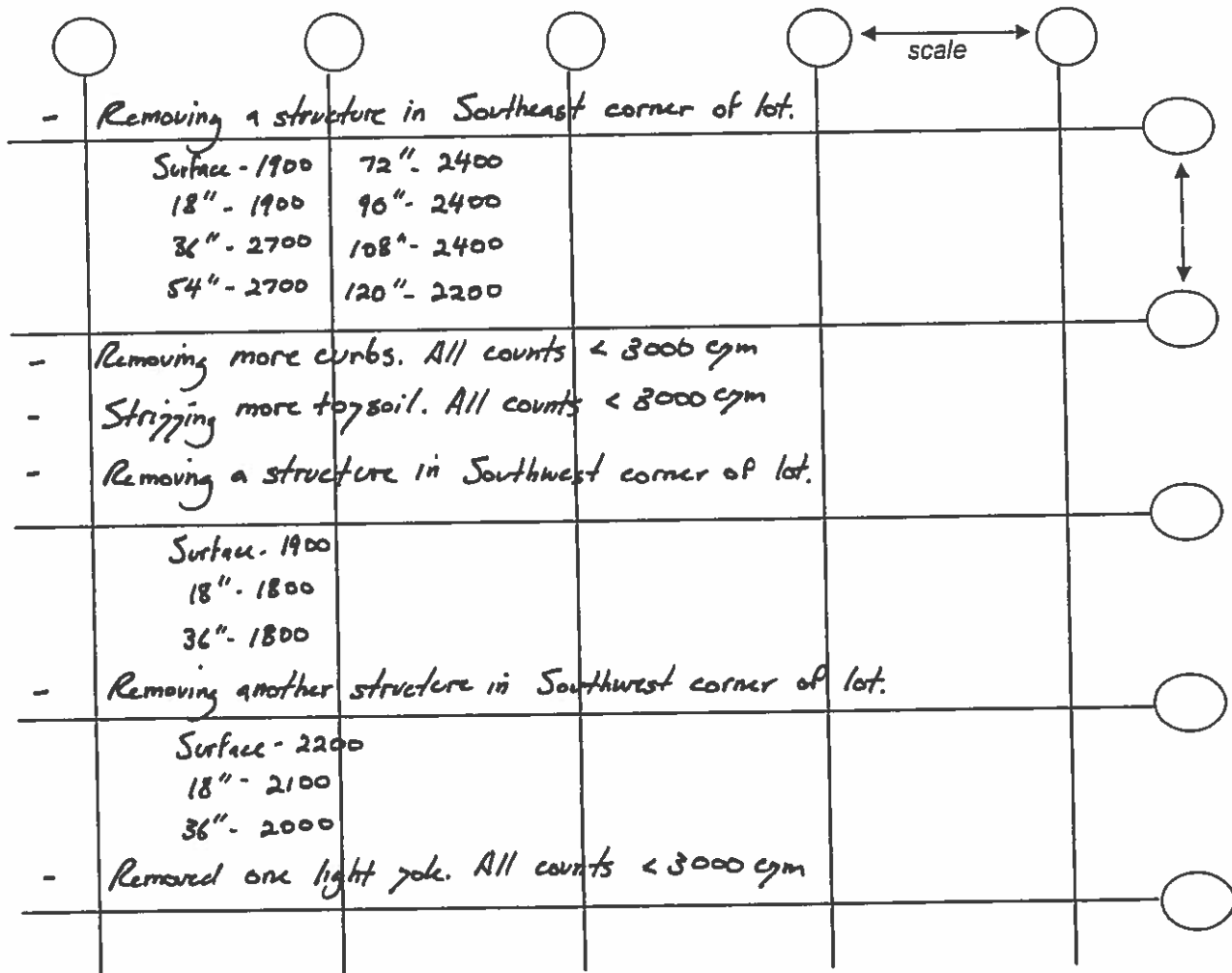
Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded

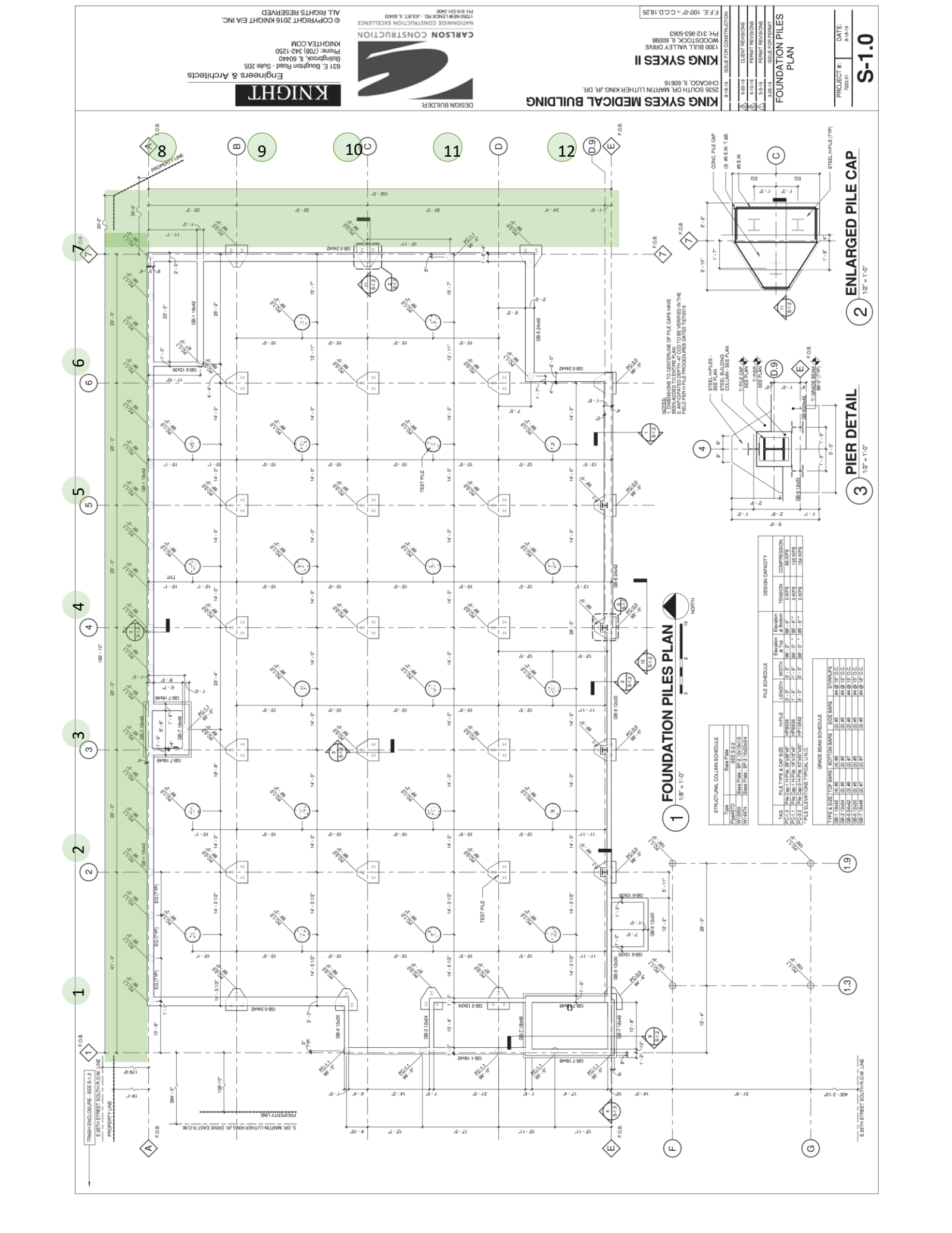
Lift Elevation: Surface - 120"

Background 1895 cpm

Action Level: 6,738 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.





1 FOUNDATION PILES PLAN
1/8" = 1'-0"

STRUCTURAL COLUMN SCHEDULE

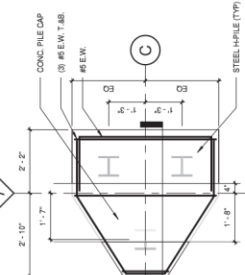
TYPE	PILE TYPE	PILE SIZE	PILE LENGTH	SECTION	DESIGN CAPACITY
PC-1.0	PC-1.0	18" x 18" x 1/2"	40'-0"	18" x 18" x 1/2"	150 KIPS
PC-2.0	PC-2.0	24" x 24" x 1/2"	40'-0"	24" x 24" x 1/2"	250 KIPS
PC-3.0	PC-3.0	30" x 30" x 1/2"	40'-0"	30" x 30" x 1/2"	350 KIPS

PILE SCHEDULE

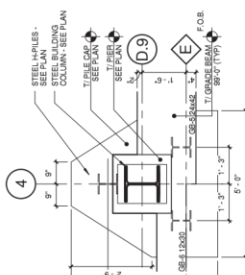
TAG	PILE TYPE	PILE SIZE	PILE LENGTH	SECTION	DESIGN CAPACITY
PC-1.0	PC-1.0	18" x 18" x 1/2"	40'-0"	18" x 18" x 1/2"	150 KIPS
PC-2.0	PC-2.0	24" x 24" x 1/2"	40'-0"	24" x 24" x 1/2"	250 KIPS
PC-3.0	PC-3.0	30" x 30" x 1/2"	40'-0"	30" x 30" x 1/2"	350 KIPS

GRADE BEAM SCHEDULE

TYPE	SECTION	DESIGN CAPACITY
GB-1	18" x 18" x 1/2"	150 KIPS
GB-2	24" x 24" x 1/2"	250 KIPS
GB-3	30" x 30" x 1/2"	350 KIPS



2 ENLARGED PILE CAP
1/2" = 1'-0"



3 PIER DETAIL
1/2" = 1'-0"

KING SYKES II
3236 SOUTH MARTIN LUTHER KING JR. DR.
CHICAGO, IL 60616
F.F.E. 100'-0" C.C.D. 18.25

FOUNDATION PILES PLAN

ISSUE FOR CONSTRUCTION

DATE: 8-14-18

CLIENT REVISIONS

DESIGNER REVISIONS

PREPARED BY: [Name]

DATE: 8-14-18

ISSUE FOR PERMIT

DATE: 8-14-18

PROJECT #:

DATE:

S-1.0

KNIGHT
ENGINEERS & ARCHITECTS
631 E. Boughman Road - Suite 205
Bolingbrook, IL 60440
Phone: (708) 342-1250
KNIGHTEA.COM

CARLSON CONSTRUCTION
NATIONWIDE CONSTRUCTION EXCELLENCE
17500 W. 150th St. - Joliet, IL 60438
PH: 815.831.3400

DESIGN BUILDER

KING SYKES MEDICAL BUILDING

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Radiation Survey Form

Location/Project ID: King Sykes Medical Building - Sewer and Water Grading
 HP Technician: Steven Kowalczyk
 Instrument ID: Ludlum 2221 w/ 44-10, serial no. 127272
 Background = 2393 cpm
 2X Background FAL = 4786 cpm

Sections 1-7 (North) **30 feet per section**

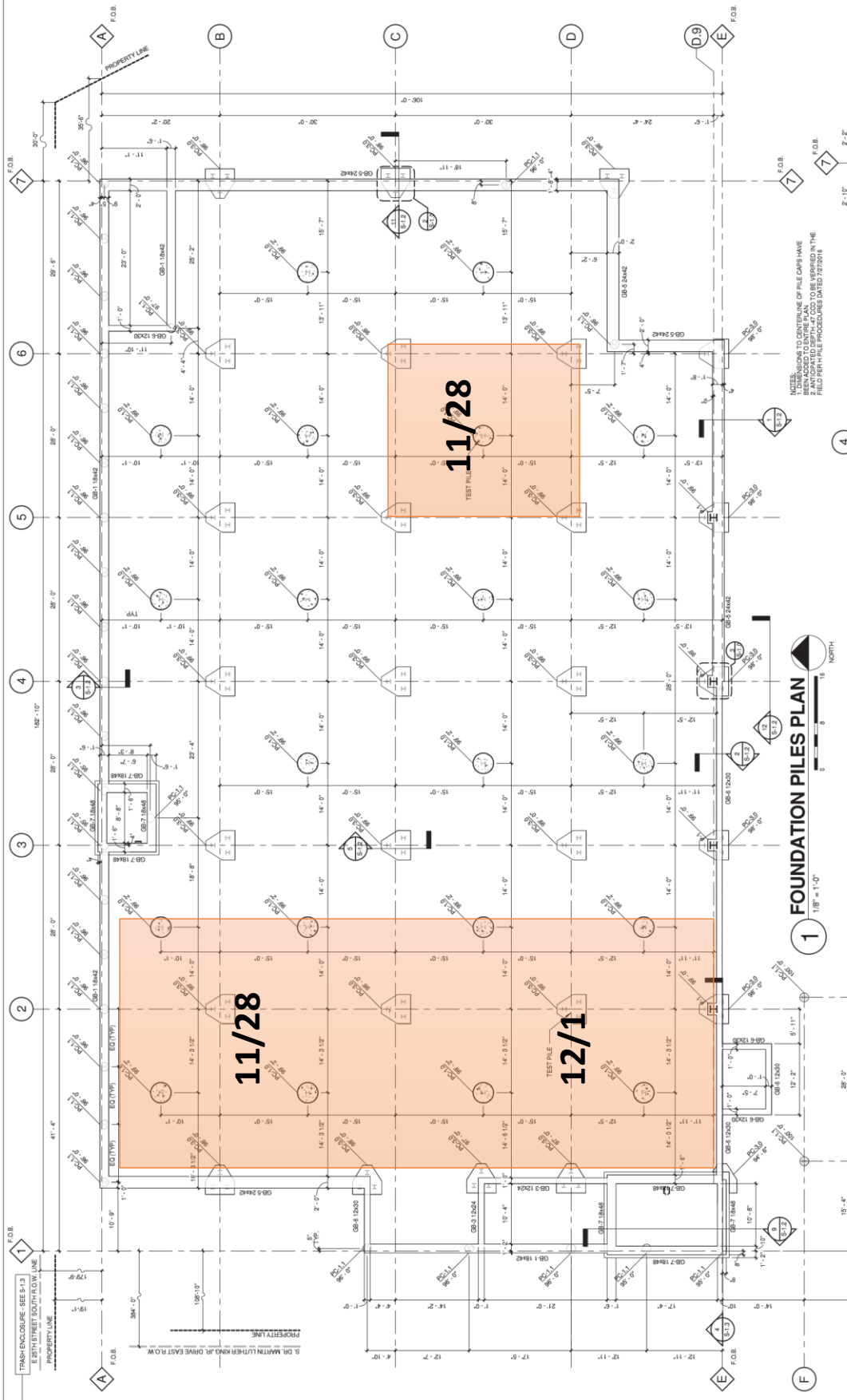
1	Surface CPM	18"	36"	
	2600	3400	3300	
2	Surface CPM	18"	36"	
	2700	3300	3300	
3	Surface CPM	18"	36"	48"
	3400	3300	3300	3100
4	Surface CPM	18"	36"	48"
	3100	2900	2800	2900
5	Surface CPM	18"	36"	48"
	2900	2200	2100	3300
6	Surface CPM	18"	36"	48"
	2000	2700	3000	3000
7	Surface CPM	18"	36"	54"
	2900	2800	3200	3400

Sections 8-12 (East) **21 feet each**

8	Surface CPM	18"	36"	54"
	2500	2800	3400	3100
9	Surface CPM	18"	36"	54"
	2500	2300	3400	3300
10	Surface CPM	18"	36"	54"
	2200	3000	2900	3500

	Surface CPM	18"	36"	54"
11	2100	3600	3100	4100
	Surface CPM	18"	36"	54"
12	2400	2600	2700	3500

N= 213 feet= 7 sections at 30 feet each
E=105 feet= 5 sections at 21 feet each

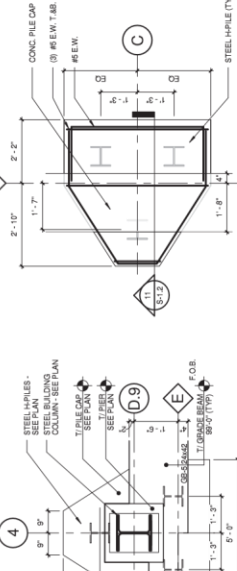


1 FOUNDATION PILES PLAN
1/8" = 1'-0"

TYPE	PILE TYPE	PILE SIZE	MARKER	LENGTH	SECTION	DESIGN CAPACITY	
TYPE	MARKER	TYPE	TYPE	TYPE	TYPE	TENSION	COMPRESSION
CB-1	PC-1	18" x 18" x 24"	PC-1	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-2	PC-2	18" x 18" x 24"	PC-2	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-3	PC-3	18" x 18" x 24"	PC-3	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-4	PC-4	18" x 18" x 24"	PC-4	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-5	PC-5	18" x 18" x 24"	PC-5	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-6	PC-6	18" x 18" x 24"	PC-6	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-7	PC-7	18" x 18" x 24"	PC-7	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-8	PC-8	18" x 18" x 24"	PC-8	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-9	PC-9	18" x 18" x 24"	PC-9	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-10	PC-10	18" x 18" x 24"	PC-10	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-11	PC-11	18" x 18" x 24"	PC-11	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-12	PC-12	18" x 18" x 24"	PC-12	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-13	PC-13	18" x 18" x 24"	PC-13	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-14	PC-14	18" x 18" x 24"	PC-14	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-15	PC-15	18" x 18" x 24"	PC-15	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-16	PC-16	18" x 18" x 24"	PC-16	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-17	PC-17	18" x 18" x 24"	PC-17	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-18	PC-18	18" x 18" x 24"	PC-18	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-19	PC-19	18" x 18" x 24"	PC-19	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
CB-20	PC-20	18" x 18" x 24"	PC-20	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS

MARKER	PILE TYPE	PILE SIZE	MARKER	LENGTH	SECTION	DESIGN CAPACITY	
MARKER	MARKER	TYPE	TYPE	TYPE	TYPE	TENSION	COMPRESSION
PC-1	PC-1	18" x 18" x 24"	PC-1	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-2	PC-2	18" x 18" x 24"	PC-2	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-3	PC-3	18" x 18" x 24"	PC-3	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-4	PC-4	18" x 18" x 24"	PC-4	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-5	PC-5	18" x 18" x 24"	PC-5	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-6	PC-6	18" x 18" x 24"	PC-6	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-7	PC-7	18" x 18" x 24"	PC-7	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-8	PC-8	18" x 18" x 24"	PC-8	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-9	PC-9	18" x 18" x 24"	PC-9	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-10	PC-10	18" x 18" x 24"	PC-10	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-11	PC-11	18" x 18" x 24"	PC-11	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-12	PC-12	18" x 18" x 24"	PC-12	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-13	PC-13	18" x 18" x 24"	PC-13	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-14	PC-14	18" x 18" x 24"	PC-14	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-15	PC-15	18" x 18" x 24"	PC-15	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-16	PC-16	18" x 18" x 24"	PC-16	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-17	PC-17	18" x 18" x 24"	PC-17	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-18	PC-18	18" x 18" x 24"	PC-18	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-19	PC-19	18" x 18" x 24"	PC-19	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS
PC-20	PC-20	18" x 18" x 24"	PC-20	31'-3"	18" x 18" x 24"	88 KIPS	150 KIPS

MARKER	BEAM TYPE	SECTION	DESIGN CAPACITY	
MARKER	MARKER	TYPE	TENSION	COMPRESSION
CB-1	CB-1	18" x 18" x 24"	88 KIPS	150 KIPS
CB-2	CB-2	18" x 18" x 24"	88 KIPS	150 KIPS
CB-3	CB-3	18" x 18" x 24"	88 KIPS	150 KIPS
CB-4	CB-4	18" x 18" x 24"	88 KIPS	150 KIPS
CB-5	CB-5	18" x 18" x 24"	88 KIPS	150 KIPS
CB-6	CB-6	18" x 18" x 24"	88 KIPS	150 KIPS
CB-7	CB-7	18" x 18" x 24"	88 KIPS	150 KIPS
CB-8	CB-8	18" x 18" x 24"	88 KIPS	150 KIPS
CB-9	CB-9	18" x 18" x 24"	88 KIPS	150 KIPS
CB-10	CB-10	18" x 18" x 24"	88 KIPS	150 KIPS
CB-11	CB-11	18" x 18" x 24"	88 KIPS	150 KIPS
CB-12	CB-12	18" x 18" x 24"	88 KIPS	150 KIPS
CB-13	CB-13	18" x 18" x 24"	88 KIPS	150 KIPS
CB-14	CB-14	18" x 18" x 24"	88 KIPS	150 KIPS
CB-15	CB-15	18" x 18" x 24"	88 KIPS	150 KIPS
CB-16	CB-16	18" x 18" x 24"	88 KIPS	150 KIPS
CB-17	CB-17	18" x 18" x 24"	88 KIPS	150 KIPS
CB-18	CB-18	18" x 18" x 24"	88 KIPS	150 KIPS
CB-19	CB-19	18" x 18" x 24"	88 KIPS	150 KIPS
CB-20	CB-20	18" x 18" x 24"	88 KIPS	150 KIPS



2 ENLARGED PILE CAP
1/2" = 1'-0"

3 PIER DETAIL
1/2" = 1'-0"

1 FOUNDATION PILES PLAN
1/8" = 1'-0"

Radiation Survey Form

Location/Project ID: King Sykes Medical Building - Grading Inside Building
HP Technician: Steven Kowalczyk
Instrument ID: Ludlum 2221 w/ 44-10, serial no. 127272
Background = 2393 cpm
2X Background FAL = 4786 cpm

Northwest Corner (11/28) CPM
2600
2600
2800
2400
2800
2400

Southeast Corner (11/28) CPM
2500
2400
2400

Southwest Corner (12/1) CPM
2000
2100
2100
2300
2400
2300

Each graded section had a few inches to one foot taken off

Radiation Survey Form

Location/ Project ID: King Sykes Medical Building

Date: 11/29/16 + 12/2/16

Technician: Steven Kowalezyk

Inst Model: Codlum 2221

Serial No. : 127242 Probe SN: 168144

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

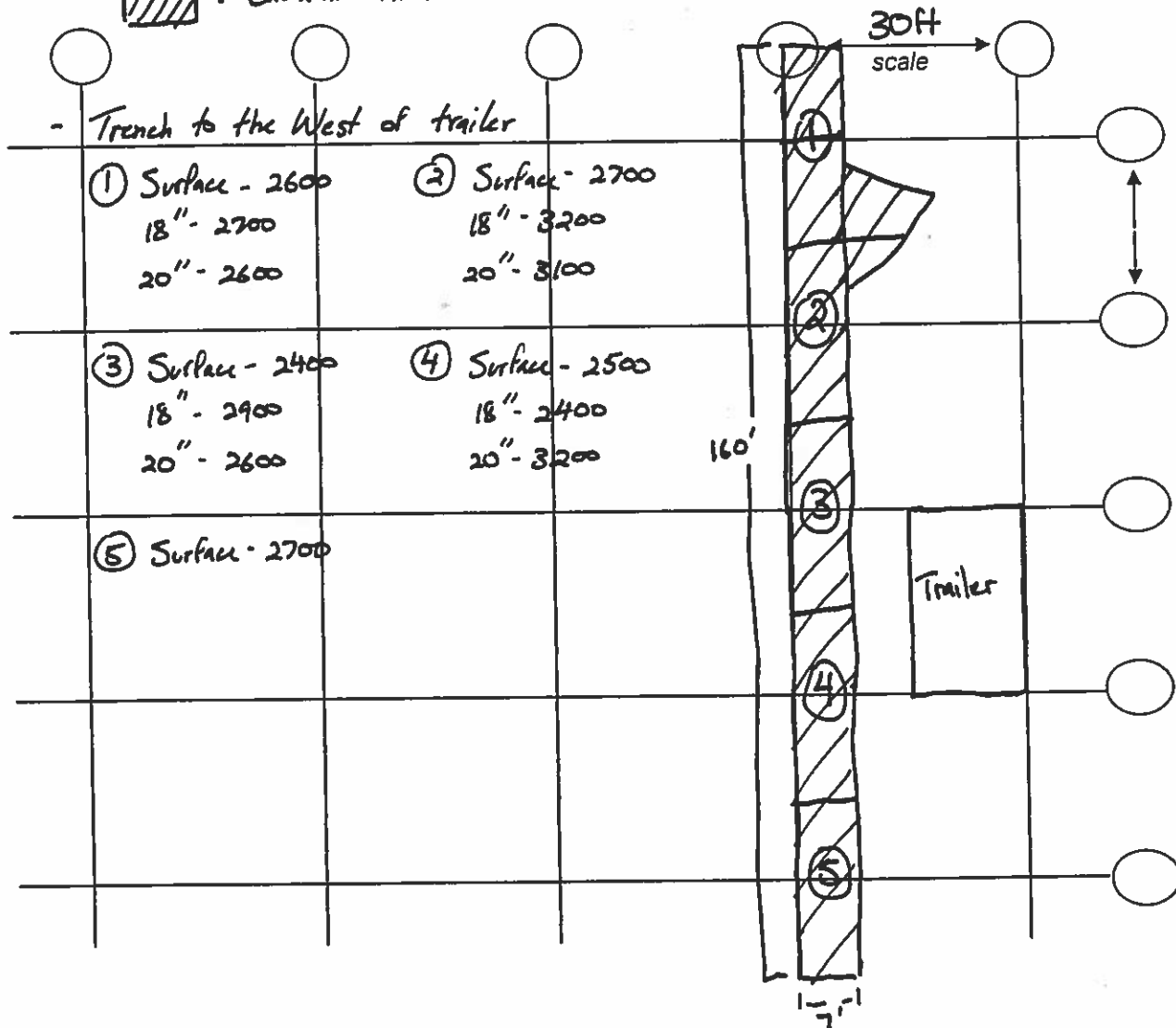
Lift Elevation: Surface - 20"

Background 1,676 cpm

Action Level: 6,788 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.

 = Excavated Area

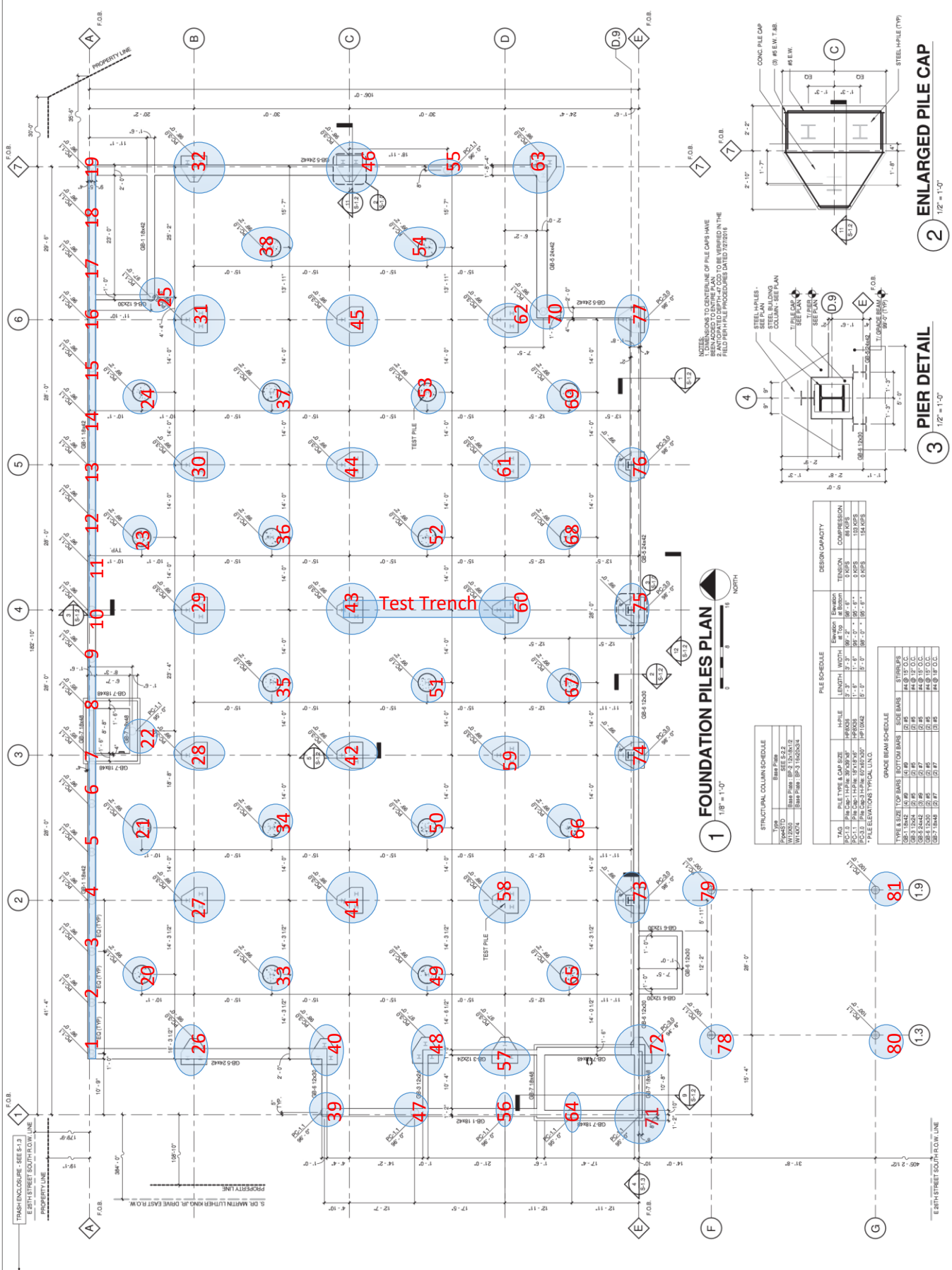


Attachment C

Potholing of Foundation Piles

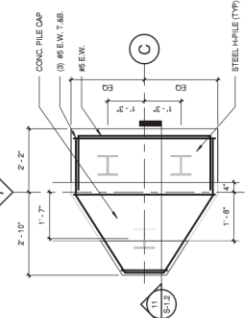
King Sykes Medical Building
2535 South Dr. Martin Luther King Jr. Drive
Chicago, IL 60616

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200 N. Cedar Road
New Lenox, IL 60451*

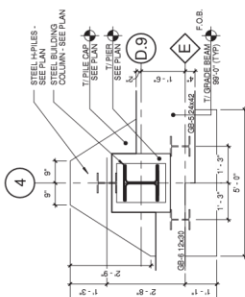


1 FOUNDATION PILES PLAN
 1/8" = 1'-0"

STRUCTURAL COLUMN SCHEDULE		PILE SCHEDULE		DESIGN CAPACITY			
NO.	DESCRIPTION	PILE TYPE & CAP SIZE	PILE LENGTH	WIDTH	DEPTH	TENSION	COMPRESSION
OB-1.18K2	OB-1.18K2	OB-1.18K2	12'-2"	12'-2"	12'-2"	0.0K	150.0K
OB-2.24K2	OB-2.24K2	OB-2.24K2	14'-0"	14'-0"	14'-0"	0.0K	150.0K
OB-3.12K3	OB-3.12K3	OB-3.12K3	12'-2"	12'-2"	12'-2"	0.0K	150.0K
OB-4.12K3	OB-4.12K3	OB-4.12K3	12'-2"	12'-2"	12'-2"	0.0K	150.0K
OB-5.24K2	OB-5.24K2	OB-5.24K2	14'-0"	14'-0"	14'-0"	0.0K	150.0K
OB-6.12K3	OB-6.12K3	OB-6.12K3	12'-2"	12'-2"	12'-2"	0.0K	150.0K
OB-7.18K4	OB-7.18K4	OB-7.18K4	12'-2"	12'-2"	12'-2"	0.0K	150.0K
OB-8.12K3	OB-8.12K3	OB-8.12K3	12'-2"	12'-2"	12'-2"	0.0K	150.0K



2 ENLARGED PILE CAP
 1/2" = 1'-0"



3 PIER DETAIL
 1/2" = 1'-0"

Radiation Survey Form

Location/Project ID: King Sykes Medical Building - Foundation Pile Potholes

HP Technician: See Below

Instrument ID: Ludlum 2221 w/ 44-10, serial no. 127272 and 134542

Background = 2393 & 2437 cpm

2X Background FAL = 4786 & 4874 cpm

Pile Number	Max Count	Date	Technician
1	1900	9/30/2016	James Hatten
2	1800	9/30/2016	James Hatten
3	1900	9/30/2016	James Hatten
4	2000	9/30/2016	James Hatten
5	2100	9/30/2016	James Hatten
6	1900	9/30/2016	James Hatten
7	1800	9/30/2016	James Hatten
8	1800	9/30/2016	James Hatten
9	1900	9/30/2016	James Hatten
10	2000	9/30/2016	James Hatten
11	2000	10/3/2016	James Hatten
12	2000	10/3/2016	James Hatten
13	2100	10/3/2016	James Hatten
14	1800	10/3/2016	James Hatten
15	1800	10/3/2016	James Hatten
16	1900	10/3/2016	James Hatten
17	1900	10/3/2016	James Hatten
18	2000	10/3/2016	James Hatten
19	2000	10/3/2016	James Hatten
20	2300	10/5/2016	Glenn Huber
21	2400	10/5/2016	Glenn Huber
22	2400	10/5/2016	Glenn Huber
23	2300	10/5/2016	Glenn Huber
24	2100	10/3/2016	James Hatten
25	2000	10/3/2016	James Hatten
26	2500	10/5/2016	Glenn Huber
27	2500	10/5/2016	Glenn Huber
28	2700	10/5/2016	Glenn Huber
29	2700	10/5/2016	Glenn Huber
30	2800	10/11/2016	Steven Kowalczyk
31	2700	10/11/2016	Steven Kowalczyk

32	1900	10/3/2016	James Hatten
33	2200	10/5/2016	Glenn Huber
34	2000	10/5/2016	Glenn Huber
35	2000	10/5/2016	Glenn Huber
36	2900	10/5/2016	Glenn Huber
37	4100	10/11/2016	Steven Kowalczyk
38	2300	10/5/2016	Glenn Huber
39	2000	10/6/2016	Glenn Huber
40	2200	10/6/2016	Glenn Huber
41	2200	10/6/2016	Glenn Huber
42	2400	10/6/2016	Glenn Huber
43	2500	9/15/2016	Steven Kowalczyk
44	2600	10/11/2016	Steven Kowalczyk
45	2100	10/11/2016	Steven Kowalczyk
46	2300	10/5/2016	Glenn Huber
47	2200	10/6/2016	Glenn Huber
48	2200	10/6/2016	Glenn Huber
49	2400	10/6/2016	Glenn Huber
50	2500	10/6/2016	Glenn Huber
51	2500	10/6/2016	Glenn Huber
52	2600	10/6/2016	Glenn Huber
53	2700	10/6/2016	Glenn Huber
54	2700	10/5/2016	Glenn Huber
55	2100	10/5/2016	Glenn Huber
56	2100	10/6/2016	Glenn Huber
57	2300	10/7/2016	Steven Kowalczyk
58	2000	10/7/2016	Steven Kowalczyk
59	1800	10/7/2016	Steven Kowalczyk
60	2500	9/15/2016	Steven Kowalczyk
61	2000	10/7/2016	Steven Kowalczyk
62	2100	10/7/2016	Steven Kowalczyk
63	2000	10/10/2016	Glenn Huber
64	1900	10/10/2016	Glenn Huber
65	2100	10/10/2016	Glenn Huber
66	2100	10/10/2016	Glenn Huber
67	1600	10/7/2016	Steven Kowalczyk
68	1700	10/7/2016	Steven Kowalczyk
69	2200	10/7/2016	Steven Kowalczyk
70	2300	10/6/2016	Glenn Huber
71	2200	10/10/2016	Steven Kowalczyk
72	2500	10/10/2016	Glenn Huber

73	2600	10/10/2016	Glenn Huber
74	2000	10/7/2016	Steven Kowalczyk
75	2300	10/7/2016	Steven Kowalczyk
76	2300	10/7/2016	Steven Kowalczyk
77	2500	10/10/2016	Steven Kowalczyk
78	2300	10/10/2016	Steven Kowalczyk
79	2100	10/11/2016	Steven Kowalczyk
80	2700	10/11/2016	Steven Kowalczyk
81	2600	10/10/2016	Steven Kowalczyk

Test Trench

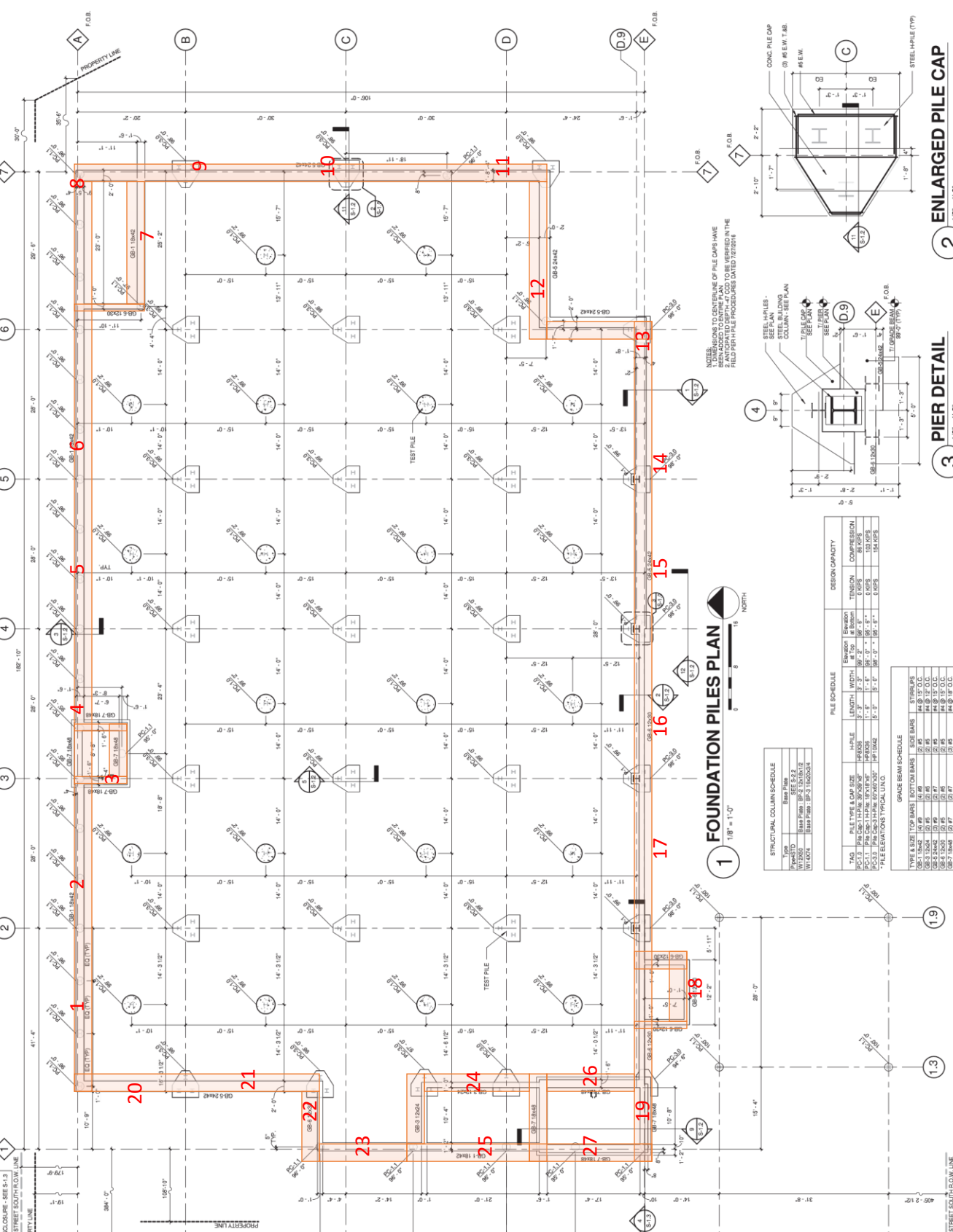
Surface CPM	2500
18"	2500
36"	2400
48"	2400

Attachment D.1

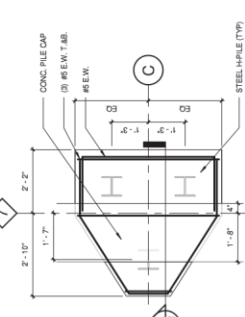
Grade Beam Trenching

King Sykes Medical Building
2535 South Dr. Martin Luther King Jr. Drive
Chicago, IL 60616

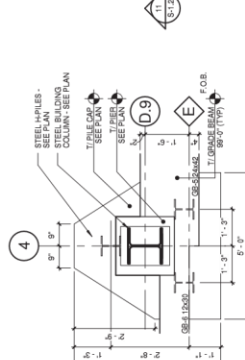
*Stan A. Huber Consultants, Inc.
200 N. Cedar Road
New Lenox, IL 60451*



1 FOUNDATION PILES PLAN
1/8" = 1'-0"



2 ENLARGED PILE CAP
1/2" = 1'-0"



3 PIER DETAIL
1/2" = 1'-0"

STRUCTURAL COLUMN SCHEDULE

TYPE	PILE TYPE & SIZE	PILE LENGTH	ELEVATION	TRANSMISSION	COMPRESSION
PC-1.1	PC-1.1 Pile Cap - 11" DIA. x 10' L	10'-0"	11'-0"	0.0075	150 KIPS
PC-1.2	PC-1.2 Pile Cap - 11" DIA. x 10' L	10'-0"	11'-0"	0.0075	150 KIPS
PC-1.3	PC-1.3 Pile Cap - 11" DIA. x 10' L	10'-0"	11'-0"	0.0075	150 KIPS
PC-1.4	PC-1.4 Pile Cap - 11" DIA. x 10' L	10'-0"	11'-0"	0.0075	150 KIPS
PC-1.5	PC-1.5 Pile Cap - 11" DIA. x 10' L	10'-0"	11'-0"	0.0075	150 KIPS

PILE SCHEDULE

TYPE	PILE TYPE & SIZE	PILE LENGTH	ELEVATION	TRANSMISSION	COMPRESSION
PC-1.1	PC-1.1 Pile Cap - 11" DIA. x 10' L	10'-0"	11'-0"	0.0075	150 KIPS
PC-1.2	PC-1.2 Pile Cap - 11" DIA. x 10' L	10'-0"	11'-0"	0.0075	150 KIPS
PC-1.3	PC-1.3 Pile Cap - 11" DIA. x 10' L	10'-0"	11'-0"	0.0075	150 KIPS
PC-1.4	PC-1.4 Pile Cap - 11" DIA. x 10' L	10'-0"	11'-0"	0.0075	150 KIPS
PC-1.5	PC-1.5 Pile Cap - 11" DIA. x 10' L	10'-0"	11'-0"	0.0075	150 KIPS

GRADE BEAM SCHEDULE

TYPE & SIZE	TOP BARS	BOTTOM BARS	SIZE BARS	STIRRUPS
GB-1.1	#5	#5	#5	#5
GB-1.2	#5	#5	#5	#5
GB-1.3	#5	#5	#5	#5
GB-1.4	#5	#5	#5	#5
GB-1.5	#5	#5	#5	#5

Radiation Survey Form

Location/Project ID: King Sykes Medical Building - Grade Beam Trenching

HP Technician: Steven Kowalczyk

Instrument ID: Ludlum 2221 w/ 44-10, serial no. 127272

Background = 2393 cpm

2X Background FAL = 4786 cpm

Sections 1-9 (North) **27 feet per section**

1	Surface CPM	18"	36"	
	2600	3400	3300	
2	Surface CPM	18"	36"	
	2700	3300	3300	
3	Surface CPM	18"	36"	48"
	3400	3300	3300	3100
4	Surface CPM	18"	36"	48"
	3100	2900	2800	2900
5	Surface CPM	18"	36"	48"
	2900	2200	2100	3300
6	Surface CPM	18"	36"	48"
	2000	2700	3000	3000
7	Surface CPM	18"	36"	54"
	2900	2800	3200	3400
8	Surface CPM	18"	36"	54"
	2500	2800	3400	3100
9	Surface CPM	18"	36"	54"
	2500	2300	3400	3300

Section 10-13 (East) **22 feet per section**

10	Surface CPM	18"	36"	54"
	2500	2200	3000	2900

	Surface CPM	18"	36"	54"
11	2100	3600	3100	4100
	Surface CPM	18"	36"	54"
12	2400	2600	2700	3500
	Surface CPM	18"	36"	54"
13	2300	2000	2100	3100

Section 14-21 (South) **27 feet per section**

	Surface CPM	18"	36"	54"
14	2300	2700	2400	2300
	Surface CPM	18"	36"	54"
15	2500	1900	3200	3000
	Surface CPM	18"	36"	54"
16	2800	2400	3200	2900
	Surface CPM	18"	36"	54"
17	2200	2300	2700	2400
	Surface CPM	18"	36"	54"
18	2100	2100	1900	2500
	Surface CPM	18"	36"	54"
19	2200	2400	2500	2500
	Surface CPM	18"	36"	54"
20	2500	2400	2600	3300
	Surface CPM	18"	36"	54"
21	2300	2500	2900	2600

Sections 22-27 (West) **30 feet per section**

	Surface CPM	18"	36"	54"
22	2800	2400	3200	3000
	Surface CPM	18"	36"	54"
23	2200	2300	2700	2400

24	Surface CPM 2100	18" 2100	36" 1900	54" 2500			
25	Surface CPM 2200	18" 2400	36" 2500	54" 2500	69" 2500		
26	Surface CPM 2500	18" 2400	36" 2600	54" 3300	69" 2900		
27	Surface CPM 2300	18" 2500	36" 2900	54' 2600	72' 2700	90" 2500	96" 2800

N Section 1-9= 243 feet total= 9 sections at 27 feet each
E 10-13= 88 feet total=4 sections at 22 feet each
S 14-21= 215 feet total= 8 sections at 27 feet each
W 22-27= 178 feet total= 6 sections at 30 feet each

Attachment D.2

Sewer and Water Trenching

King Sykes Medical Building
2535 South Dr. Martin Luther King Jr. Drive
Chicago, IL 60616

*Stan A. Huber Consultants, Inc.
200 N. Cedar Road
New Lenox, IL 60451*

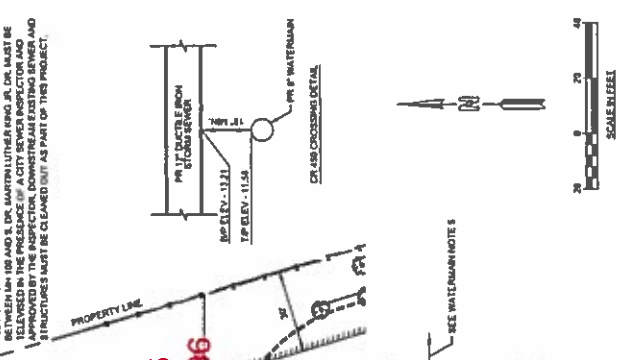
WATERMAIN NOTES:

- FITTINGS AND THEIR LOCATIONS INDICATED ON THE DRAWINGS ARE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. NO ADDITIONAL PAYMENT WILL BE MADE ON DEVIATIONS FROM THE INDICATED FITTINGS.
- THE CONTRACTOR MUST PROVIDE THURST RESTRAINTS IN ACCORDANCE WITH THE SPECIFICATION. THE CONTRACTOR MUST FURNISH AND INSTALL MECHANICAL JOINT THURST RESTRAINT CLAMPS AT ALL FITTINGS AND MECHANICAL JOINTS.
- ALL VALVE VAULTS MUST BE CONSTRUCTED OF PRE-CAST REINFORCED CONCRETE UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
- SWAG PIPE AND FITTINGS THAT WILL NOT BE UNDER TESTED OR CHLORINATED TO PREVENT SOIL AND DEBRIS FROM ENTERING THE SYSTEM. WHEN INSTALLING SWAG PIPE, THE CONTRACTOR SHALL INSURE THAT THE SWAG PIPE IS PROPERLY FLUSHED AND DEBRIS-FREE. WHEN CONNECTING NEW PIPE TO THE EXISTING WATER SYSTEM, USE OPERATING PRESSURE TO VISUALLY INSPECT FOR LEAKS. WHEN FABRICATING, INSTALL, AND WELDING OF THE MAINLINE WATER MAIN, THE CONTRACTOR SHALL MAINTAIN AND RECORDS OF THE AMOUNT OF WATER QUANTITY (1.17) (4.44) (16).
- WATERMAIN CONSTRUCTION INCLUDING SERVICE, ON SITE SHALL CONFORM TO STANDARD SPECIFICATIONS DETAIL.

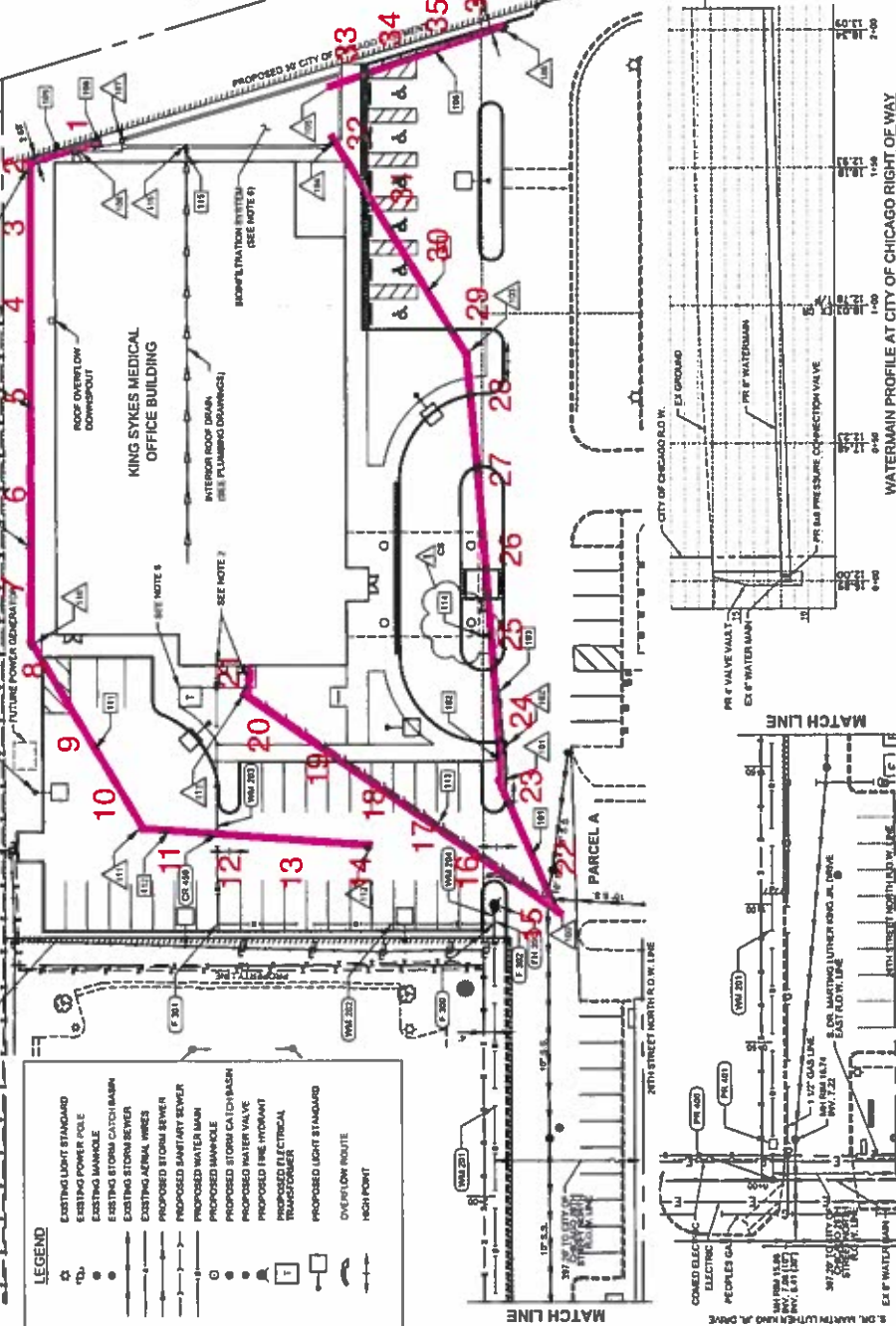
PLAN NOTES

- THE CONTRACTOR SHALL DETERMINE THE EXISTENCE, NATURE AND EXACT LOCATION OF ALL UTILITY LINES AND APPURTENANCES WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL BE NOTIFIED TO THE ENGINEER PRIOR TO ANY CONSTRUCTION ACTIVITIES.
- SEE ARCH. DRAWINGS FOR BUILDING STUD OUTS.
- STORM SEWER PIPE 14" SHALL DIRECT CORRECT INTO 30" STORM SEWER AT NEAREST LOCATION, SAID FOR CATCH DOWNSPOUT LOCATION.
- A 4" LF FRAME REQUIRED. MEDIUM FOUNDARY (P-302), (A-302), (A-303), OR EQUIVALENT)
- SEE ELECTRICAL PLANS FOR INFORMATION ON LIGHTING FACILITIES AND TRANSFORMER PAD.
- SEE SUBSTITUTION DETAIL SHEET FOR CONSTRUCTION INFORMATION.
- FOR DRAWING INFORMATION, SEE GRADING PLANS.

ALL DOWNSTREAM EXISTING SEWER TO BE REUSED FOR THIS PROJECT BETWEEN 40' AND 30'. DR. MARTIN LUTHER KING JR. DR. MUST BE TELEPHONED BY A CITY SEWER INSPECTOR AND ALL EXISTING SEWER STRUCTURES MUST BE CLEANED OUT AS PART OF THIS PROJECT.



NO.	DESCRIPTION	DATE	BY	CHKD.
101	12" VCP @ 0.5%			
102	12" VCP @ 0.11%			
103	12" VCP @ 0.11%			
104	12" VCP @ 0.11%			
105	12" VCP @ 0.11%			
106	12" VCP @ 0.11%			
107	12" VCP @ 0.11%			
108	12" VCP @ 0.11%			
109	12" VCP @ 0.11%			
110	12" VCP @ 0.11%			
111	12" VCP @ 0.11%			
112	12" VCP @ 0.11%			
113	12" VCP @ 0.11%			
114	12" VCP @ 0.11%			
115	12" VCP @ 0.11%			
116	12" VCP @ 0.11%			
117	12" VCP @ 0.11%			
118	12" VCP @ 0.11%			
119	12" VCP @ 0.11%			
120	12" VCP @ 0.11%			



LEGEND

- EXISTING LIGHT STANDARD
- EXISTING POWER POLE
- EXISTING MANHOLE
- EXISTING STORM CATCH BASIN
- EXISTING STORM BASH
- EXISTING AERIAL WIRES
- PROPOSED STORM SEWER
- PROPOSED SANITARY MAIN
- PROPOSED WATER MAIN
- PROPOSED STORM CATCH BASIN
- PROPOSED WATER VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED ELECTRICAL TRANSFORMER
- PROPOSED LIGHT STANDARD
- OVERLAP ROUTE
- HIGH POINT



Radiation Survey Form

Location/Project ID: King Sykes Medical Building - Sewer and Water Trenching

HP Technician: Steven Kowalczyk

Instrument ID: Ludlum 2221 w/ 44-10, serial no. 127272

Background = 2393 cpm

2X Background FAL = 4786 cpm

Sections of Pipe 108-112 **26.4 feet per section**

	Surface CPM	18"	36"	54"	72"	78"
1	2300	2400	3700	3500	4200	3800
	Surface CPM	18"	36"	54"	72"	84"
2	3000	2300	2400	3100	3000	4800
	Surface CPM	18"	36"	54"	63"	
3	2800	3000	3100	3300	4200	
	Surface CPM	18"	36"	54"	61"	
4	2300	4100	4000	4000	3700	
	Surface CPM	18"	36"	54"	60"	
5	2600	2800	3500	3200	2900	
	Surface CPM	18"	36"	54"	57"	
6	2900	3500	3500	3200	3100	
	Surface CPM	18"	36"	54"		
7	2800	2800	3700	3400		
	Surface CPM	18"	36"	54"	64"	
8	2600	2900	3200	3500	3400	
	Surface CPM	18"	36"	54"	72"	
9	1800	2100	2200	2400	2300	
	Surface CPM	18"	36"	54"	72"	82"
10	2400	2000	2600	2900	2700	2700

11	Surface CPM 1900	18" 2000	36" 2400	48" 2400		
12	Surface CPM 2000	18" 2400	36" 3000	48" 2700		
13	Surface CPM 2200	18" 2500	36" 3000	48" 2500		
14	Surface CPM 2200	18" 2300	36" 2800	54" 3100	66" 3400	

Pipe 113 **18.8 feet per section**

15	Surface CPM 2000	18" 2300	36" 2500	54" 2900	72" 2700	77" 2600
16	Surface CPM 2100	18" 2300	36" 2200	54" 2200	72" 2600	77" 2700
17	Surface CPM 2100	18" 2500	36" 1900	54" 2300	72" 2700	77" 2600
18	Surface CPM 2100	18" 2700	36" 2600	54" 3600	72" 4300	77" 4200
19	Surface CPM 2600	18" 3100	36" 3100	54" 3600	72" 2700	77" 2700
20	Surface CPM 2700	18" 2100	36" 2000	54" 3100	72" 3000	77" 2900
21	Surface CPM 1900	18" 2200	36" 2400	54" 2600	72" 2600	77" 2700

Sections of Pipe 101-104 **26.7 feet per section**

22	Surface CPM 1800	18" 2400	36" 2300	54" 2200	72" 2200	77" 2400	
23	Surface CPM 2100	18" 3000	36" 2600	54" 2500	72" 2600	90" 2000	108" 2000

24	Surface CPM 2500	18" 2300	36" 2600	54" 3100	72" 2800	90" 2900	108" 2900
25	Surface CPM 2100	18" 2500	36" 2600	54" 2700	72" 2800	77" 2600	
26	Surface CPM 2000	18" 2200	36" 3100	54" 2800	72" 3100	77" 2600	
27	Surface CPM 2600	18" 2300	36" 2400	54" 3100	72" 3000	77" 2800	
28	Surface CPM 2200	18" 2400	36" 2300	54" 2400	72" 2200	90" 1900	108" 2300
29	Surface CPM 2200	18" 2300	36" 2300	54" 2400	72" 3300	77" 3800	
30	Surface CPM 2200	18" 2800	36" 2700	54" 3300	72" 3700	77" 3800	
31	Surface CPM 2500	18" 2400	36" 2700	54" 3200	64" 3300		
32	Surface CPM 2400	18" 2100	36" 3100	54" 2800	64" 3200		

Pipe 106 **15.7 feet per section**

33	Surface CPM 2300	18" 2400	36" 2800	54" 4000	60" 3800		
34	Surface CPM 2300	18" 2300	36" 2700	54" 2600	60" 2900		
35	Surface CPM 2400	18" 2600	36" 2700	54" 3000	60" 2900		
36	Surface CPM 2100	18" 1900	36" 2100	54" 2300	72" 2200	84" 2300	

108, 109,110,111,112= **370 feet total**

113= **132 feet total**

101,102,103,104= **294 feet total**

106= **63 feet total**

Attachment D.3

Building Plumbing

King Sykes Medical Building
2535 South Dr. Martin Luther King Jr. Drive
Chicago, IL 60616

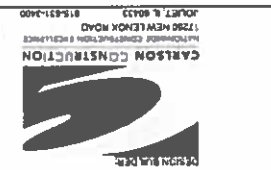
*Stan A. Huber Consultants, Inc.
200 N. Cedar Road
New Lenox, IL 60451*

KING SYKES II
 235 SOUTH DEKALB LUTHER KING JR. DR.
 CHICAGO, IL 60618
 King Sykes II
 1300 BLUE VALLEY DRIVE
 WOODBRIDGE, IL 60096
 P.E. 1047-C = C.C.D. 1628

© 2018 KNIGHT
 631 E. Roughton Road - Suite 205
 Rookwood, IL 60440
 Phone: (708) 242-1250
 knightca.com

17260 MEYER ROAD
 MATTINGLY CONSTRUCTION & ELECTRICAL
 CHICAGO, IL 60613
 915-517-1600

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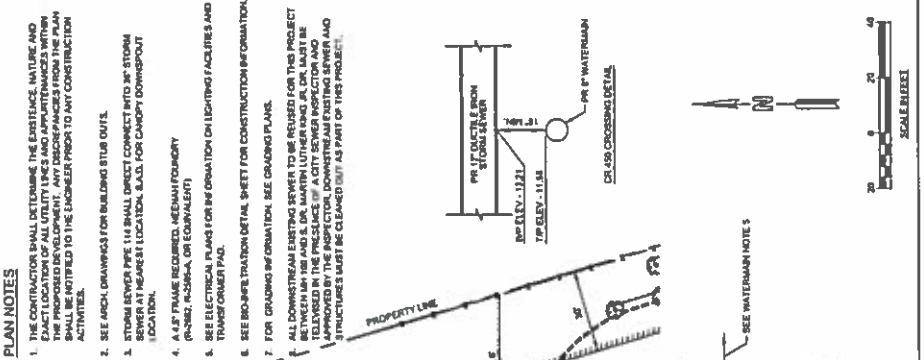
PROJECT # 7223
 DATE 8-18-18
C-5.0

WATERMAIN NOTES:

- FITTINGS AND THEIR LOCATIONS INDICATED ON THE DRAWINGS ARE THE SAME AS SHOWN ON THE REVISIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITY LINES AND APPURTENANCES WITHIN THE EXISTING AND PROPOSED WORK AREAS BEFORE COMMENCING ANY WORK. NO ADDITIONAL PAYMENT WILL BE MADE FOR DEVIATIONS FROM THE INDICATED FITTINGS.
- THE CONTRACTOR MUST PROVIDE THURST RESTRAINTS IN ACCORDANCE WITH THE SPECIFICATION. THE CONTRACTOR MUST FURNISH AND INSTALL MECHANICAL JOINT THRUOUT RESTRAINT CLASPS AT ALL FITTINGS AND BE CHEMICAL JOINTS.
- ALL VALVE VALVES MUST BE CONSTRUCTED OF PVC-CAST REINFORCED CONCRETE UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
- SWAB PIPE AND FITTINGS THAT WILL NOT BE PRESSURE TESTED OR CLEANED WITH CHLORINE SOLUTION DURING INSTALLATION AND USE EXHAUSTIVE MEASURES TO PREVENT SOIL AND DEBRIS FROM ENTERING THE PIPE. THIS IS TO BE DONE BY PLUGGING THE PIPE ENDING IN THE WATER SYSTEM. WHEN CONNECTING NEW PIPE TO THE EXISTING WATER SYSTEM, USE OPERATING PRESSURE TO VISUALLY INSPECT FOR LEAKS. WHEN FEASIBLE, PERFORM PRESSURE AND LEAK TESTING OF ALL NEW PIPE AND FITTINGS. THE TEST PRESSURES AND REQUIREMENTS OF THE BUREAU OF WATER QUALITY (2017) SHALL BE COMPLIED WITH.
- WATERMAIN CONSTRUCTION INCLUDING DEPTHS, ON SITE SHALL CONFORM TO STANDARD UNIFORM WATERMAIN.

PLAN NOTES:

- THE CONTRACTOR SHALL DETERMINE THE EXISTENCE, NATURE AND EXACT LOCATION OF ALL UTILITY LINES AND APPURTENANCES WITHIN THE EXISTING AND PROPOSED WORK AREAS BEFORE COMMENCING ANY ACTIVITIES.
- SEE ARCH. DRAWINGS FOR BUILDING STUD OUTLINE.
- STORM SEWER PIPE 14" SHALL DIRECTLY CONNECT INTO THE STORM SEWER AT NEAREST LOCATION, B.A.D. FOR CATCH DOWNSPOUT LOCATION.
- A 4" FRAME REQUIRED. MEDIAN FOOTING (CONCRETE, R.C. OR EQUIVALENT)
- SEE ELECTRICAL PLANS FOR INFORMATION ON LIGHTING FACILITIES AND TRANSFORMER PAD.
- SEE BONDING TRANSFORMER SHEET FOR CONSTRUCTION INFORMATION.
- FOR GRADING INFORMATION, SEE GRADING PLANS.
- ALL DOWNSTREAM EXISTING SEWER TO BE REUSED FOR THIS PROJECT BETWEEN 800' AND 5. DR. MARTIN LUTHER KING JR. DR. MUST BE FOLLOWED BY THE PRESENCE OF A CITY SEWER INSPECTOR AND ALL STRUCTURES MUST BE CLEANED OUT AS PART OF THIS PROJECT.



WATER MAIN PIPE, FITTINGS, VALVES & PRESSURE CONNECTIONS

ITEM	DESCRIPTION
(WV 201)	28" DI. WATER MAIN 8" PRESSURE CONNECTION
(WV 202)	24" DI. WATER MAIN 8" PRESSURE CONNECTION
(WV 203)	20" DI. WATER MAIN 8" PRESSURE CONNECTION
(WV 204)	18" DI. WATER MAIN 8" PRESSURE CONNECTION
(WV 205)	16" DI. WATER MAIN 8" PRESSURE CONNECTION
(WV 206)	14" DI. WATER MAIN 8" PRESSURE CONNECTION
(WV 207)	12" DI. WATER MAIN 8" PRESSURE CONNECTION
(WV 208)	10" DI. WATER MAIN 8" PRESSURE CONNECTION
(WV 209)	8" DI. WATER MAIN 8" PRESSURE CONNECTION
(WV 210)	6" DI. WATER MAIN 8" PRESSURE CONNECTION
(WV 211)	4" DI. WATER MAIN 8" PRESSURE CONNECTION

STORM & SANITARY PIPES

ITEM	DESCRIPTION
(S 91)	18" - 4" VCP @ 0.64%
(S 92)	15" - 3" VCP @ 0.11%
(S 93)	12" - 3" VCP @ 0.11%
(S 94)	10" - 3" VCP @ 0.11%
(S 95)	8" - 3" VCP @ 0.11%
(S 96)	6" - 3" VCP @ 0.11%
(S 97)	4" - 3" VCP @ 0.11%
(S 98)	2" - 3" VCP @ 0.11%
(S 99)	1" - 3" VCP @ 0.11%

STORM & SANITARY STRUCTURES

ITEM	DESCRIPTION
(S 100)	EXISTING MANHOLE 36" DIA.
(S 101)	EXISTING MANHOLE 42" DIA.
(S 102)	EXISTING MANHOLE 48" DIA.
(S 103)	EXISTING MANHOLE 54" DIA.
(S 104)	EXISTING MANHOLE 60" DIA.
(S 105)	EXISTING MANHOLE 66" DIA.
(S 106)	EXISTING MANHOLE 72" DIA.
(S 107)	EXISTING MANHOLE 78" DIA.
(S 108)	EXISTING MANHOLE 84" DIA.
(S 109)	EXISTING MANHOLE 90" DIA.
(S 110)	EXISTING MANHOLE 96" DIA.
(S 111)	EXISTING MANHOLE 102" DIA.
(S 112)	EXISTING MANHOLE 108" DIA.
(S 113)	EXISTING MANHOLE 114" DIA.
(S 114)	EXISTING MANHOLE 120" DIA.
(S 115)	EXISTING MANHOLE 126" DIA.
(S 116)	EXISTING MANHOLE 132" DIA.
(S 117)	EXISTING MANHOLE 138" DIA.
(S 118)	EXISTING MANHOLE 144" DIA.
(S 119)	EXISTING MANHOLE 150" DIA.
(S 120)	EXISTING MANHOLE 156" DIA.

STORM CATCH BASIN (6" DIA.)

ITEM	DESCRIPTION
(S 121)	STORM CATCH BASIN (6" DIA.)
(S 122)	STORM CATCH BASIN (6" DIA.)
(S 123)	STORM CATCH BASIN (6" DIA.)
(S 124)	STORM CATCH BASIN (6" DIA.)
(S 125)	STORM CATCH BASIN (6" DIA.)
(S 126)	STORM CATCH BASIN (6" DIA.)
(S 127)	STORM CATCH BASIN (6" DIA.)
(S 128)	STORM CATCH BASIN (6" DIA.)
(S 129)	STORM CATCH BASIN (6" DIA.)
(S 130)	STORM CATCH BASIN (6" DIA.)
(S 131)	STORM CATCH BASIN (6" DIA.)
(S 132)	STORM CATCH BASIN (6" DIA.)
(S 133)	STORM CATCH BASIN (6" DIA.)
(S 134)	STORM CATCH BASIN (6" DIA.)
(S 135)	STORM CATCH BASIN (6" DIA.)
(S 136)	STORM CATCH BASIN (6" DIA.)
(S 137)	STORM CATCH BASIN (6" DIA.)
(S 138)	STORM CATCH BASIN (6" DIA.)
(S 139)	STORM CATCH BASIN (6" DIA.)
(S 140)	STORM CATCH BASIN (6" DIA.)

MANHOLE (14" DIA.)

ITEM	DESCRIPTION
(M 141)	MANHOLE (14" DIA.)
(M 142)	MANHOLE (14" DIA.)
(M 143)	MANHOLE (14" DIA.)
(M 144)	MANHOLE (14" DIA.)
(M 145)	MANHOLE (14" DIA.)
(M 146)	MANHOLE (14" DIA.)
(M 147)	MANHOLE (14" DIA.)
(M 148)	MANHOLE (14" DIA.)
(M 149)	MANHOLE (14" DIA.)
(M 150)	MANHOLE (14" DIA.)

PIPE (12" DIA.)

ITEM	DESCRIPTION
(P 151)	PIPE (12" DIA.)
(P 152)	PIPE (12" DIA.)
(P 153)	PIPE (12" DIA.)
(P 154)	PIPE (12" DIA.)
(P 155)	PIPE (12" DIA.)
(P 156)	PIPE (12" DIA.)
(P 157)	PIPE (12" DIA.)
(P 158)	PIPE (12" DIA.)
(P 159)	PIPE (12" DIA.)
(P 160)	PIPE (12" DIA.)

PIPE (10" DIA.)

ITEM	DESCRIPTION
(P 161)	PIPE (10" DIA.)
(P 162)	PIPE (10" DIA.)
(P 163)	PIPE (10" DIA.)
(P 164)	PIPE (10" DIA.)
(P 165)	PIPE (10" DIA.)
(P 166)	PIPE (10" DIA.)
(P 167)	PIPE (10" DIA.)
(P 168)	PIPE (10" DIA.)
(P 169)	PIPE (10" DIA.)
(P 170)	PIPE (10" DIA.)

PIPE (8" DIA.)

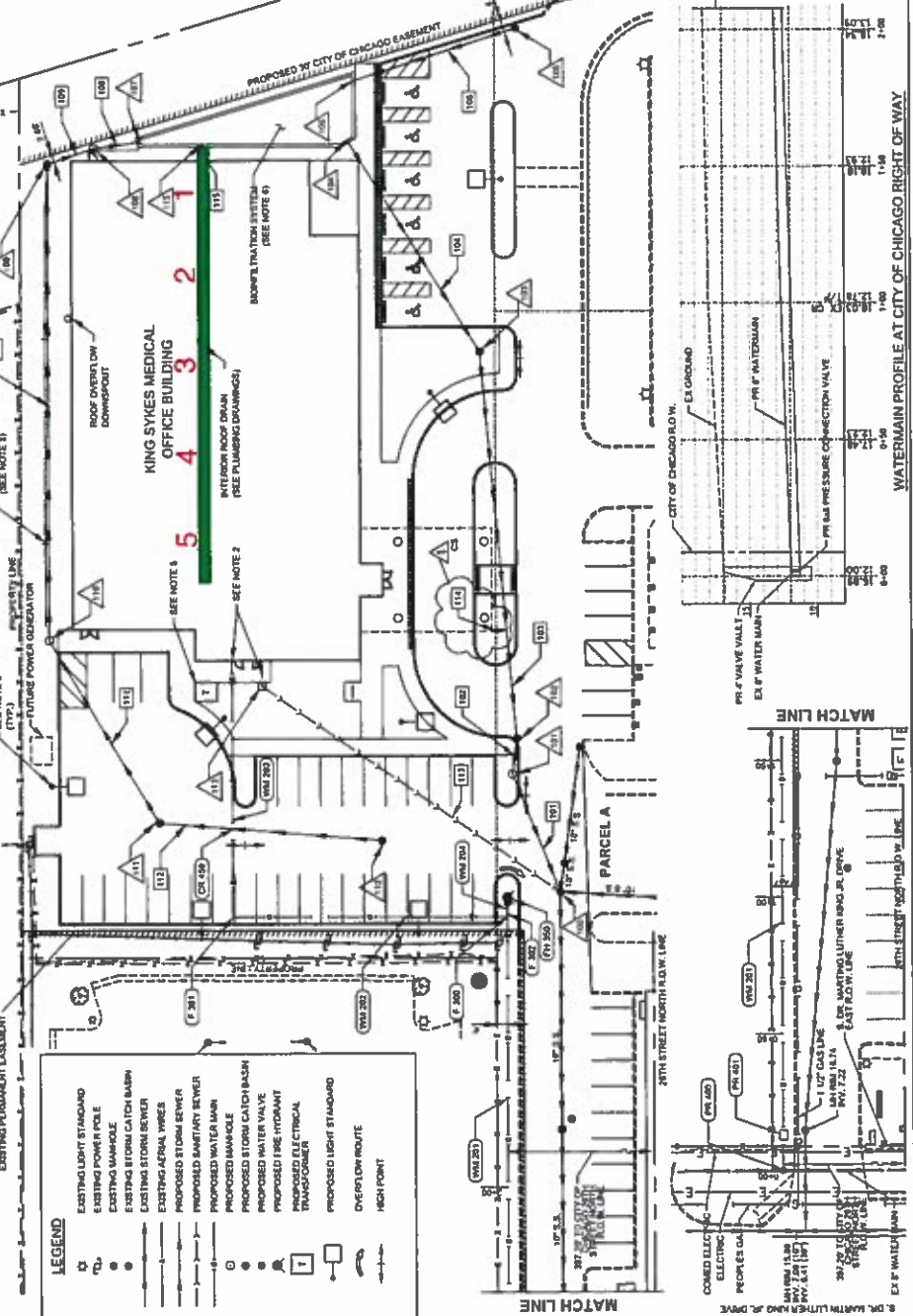
ITEM	DESCRIPTION
(P 171)	PIPE (8" DIA.)
(P 172)	PIPE (8" DIA.)
(P 173)	PIPE (8" DIA.)
(P 174)	PIPE (8" DIA.)
(P 175)	PIPE (8" DIA.)
(P 176)	PIPE (8" DIA.)
(P 177)	PIPE (8" DIA.)
(P 178)	PIPE (8" DIA.)
(P 179)	PIPE (8" DIA.)
(P 180)	PIPE (8" DIA.)

PIPE (6" DIA.)

ITEM	DESCRIPTION
(P 181)	PIPE (6" DIA.)
(P 182)	PIPE (6" DIA.)
(P 183)	PIPE (6" DIA.)
(P 184)	PIPE (6" DIA.)
(P 185)	PIPE (6" DIA.)
(P 186)	PIPE (6" DIA.)
(P 187)	PIPE (6" DIA.)
(P 188)	PIPE (6" DIA.)
(P 189)	PIPE (6" DIA.)
(P 190)	PIPE (6" DIA.)

PIPE (4" DIA.)

ITEM	DESCRIPTION
(P 191)	PIPE (4" DIA.)
(P 192)	PIPE (4" DIA.)
(P 193)	PIPE (4" DIA.)
(P 194)	PIPE (4" DIA.)
(P 195)	PIPE (4" DIA.)
(P 196)	PIPE (4" DIA.)
(P 197)	PIPE (4" DIA.)
(P 198)	PIPE (4" DIA.)
(P 199)	PIPE (4" DIA.)
(P 200)	PIPE (4" DIA.)



WATERMAIN PROFILE AT CITY OF CHICAGO RIGHT OF WAY

STATION	ELEVATION
8+00	85.10
8+10	85.10
8+20	85.10
8+30	85.10
8+40	85.10
8+50	85.10
8+60	85.10
8+70	85.10
8+80	85.10
8+90	85.10
9+00	85.10

SCALE: 1" = 10'

Radiation Survey Form

Location/Project ID: King Sykes Medical Building - Building Plumbing

HP Technician: Steven Kowalczyk

Instrument ID: Ludlum 2221 w/ 44-10, serial no. 127272

Background = 2393 cpm

2X Background FAL = 4786 cpm

Section of Trench	Surface CPM	18"	36"	54"	60"
1	1700	2500	2900	2400	2500
2	1800	2500	2300	4000	2700
3	1900	2100	2600	2500	2500
4	2000	2500	2900	2700	2600
5	1800	2100	2000	1900	N/A

Pipe 115

****28 feet per section****

****140 feet total****