M-013
27283-01

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MAY 7 1985

U.S. Department of Energy
Oak Ridge Operations
Post Office Box E
Oak Ridge, Tennessee 37830

Attention: E. L. Keller, Director
Technical Services Division

Subject: Bechtel Job No. 14501, FUSRAP Project
DOE Contract No. DE-AC05-81OR20722
Lodi Survey Results, WBS No. 138A-066

Dear Mr. Keller:

The results of our radiological surveys of six residential properties in Lodi, New Jersey are enclosed. For each property, we have prepared: 1) tables summarizing the soil analysis results and, 2) figures showing measurement locations and the areas where our results indicate contamination is above remedial action guidelines.

Four of these properties, 58, 59, and 61 Trudy Drive and 59 Avenue C, were designated previously by DOE based on radiological surveys by Oak Ridge National Laboratory. The additional data from our surveys were necessary for detailed engineering of the remedial action. The other two properties, 56 Trudy Drive and 4 Hancock Street, were surveyed because they bordered properties where contamination had been confirmed. The results of the surveys of these two properties indicate no contamination is present on either property.

A major complication is developing concerning access agreements for these properties. A basic premise for the 1985 Maywood work is to conduct the Ballod and Lodi remedial action at the same time to reduce site support cost and to avoid reopening the storage pile. The following dates outline the work:

	Ballod	Lodi
Issue R/A Package for Bids	April 26	May 24
Contract Award	June 10	July 19
End Excavation	August 23	August 23

The complication is "Does DOE want BNI to issue a remedial action package for bids before access agreements are obtained with the property owners?" If we must wait until the access agreements are completed, then these properties must be designated promptly. Traditionally, it takes three to six weeks to get agreements signed. If we issue the package for bid prior to obtaining access agreements, the owners could be upset that have not been notified prior to release of information about their property since the bid packages are public information.

Please obtain designation of the remaining three properties immediately or provide direction to proceed with request for bids prior to obtaining access agreements. If it is not possible for either of these options to be achieved quickly, a cost/schedule impact for Lodi will occur.

If any additional information is needed or if there are any questions, please contact me or Jack Beck (576-4718).

Sincerely,

Joseph F. Nemec

Joseph F. Nemec
Project Director - FUSRAP

WLB:bjm

9529A

CONCURRENCE

WLB	BOD	YMB	DPC	

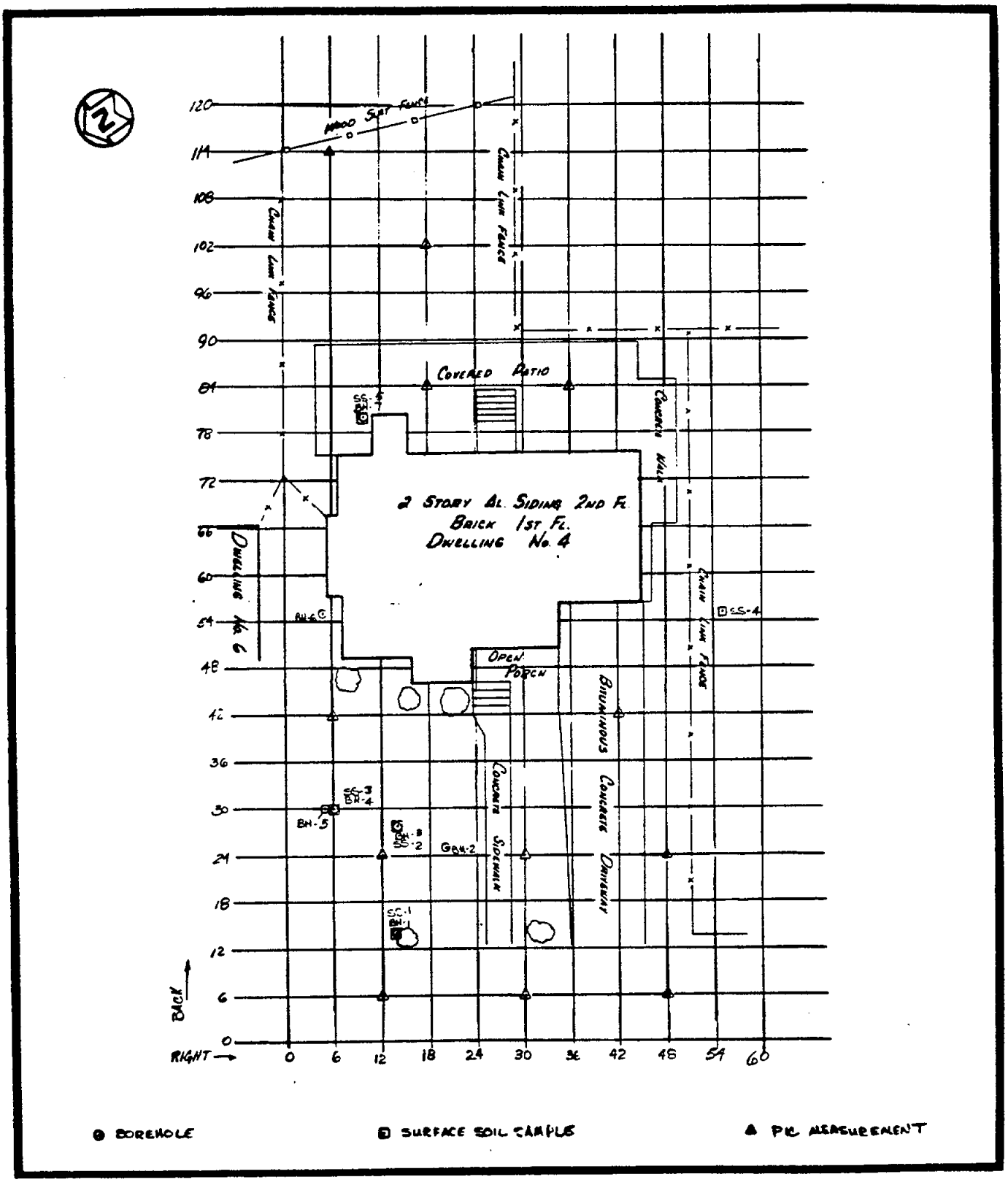

FIGURE 1 LOCATIONS OF BOREHOLES, SOIL SAMPLES, AND PIC MEASUREMENTS AT 4 HANCOCK STREET

TABLE 1

RADIONUCLIDE CONCENTRATIONS IN SURFACE SOIL AT

4 HANCOCK STREET

SS-Number	Depth (inches)	Radium-226 Picocuries/gram	Thorium-232 Picocuries/gram
1	6	1.2	<3.7
2	6	0.5	ND
3	6	ND	1.6
4	6	2.6	ND
5	6	1.0	2.6

ND - None detected.

TABLE 2

RADIONUCLIDE CONCENTRATIONS IN SUBSURFACE SOIL AT

4 HANCOCK STREET

BH-Number	Depth (feet)	Radium-226 Picocuries/gram	Thorium-232 Picocuries/gram
1		No soil sample taken	
2	0.3	0.5	<3.5
3		No soil sample taken	
4	0.3	<0.9	4.5
5		No soil sample taken	
6		No soil sample taken	
7		No soil sample taken	

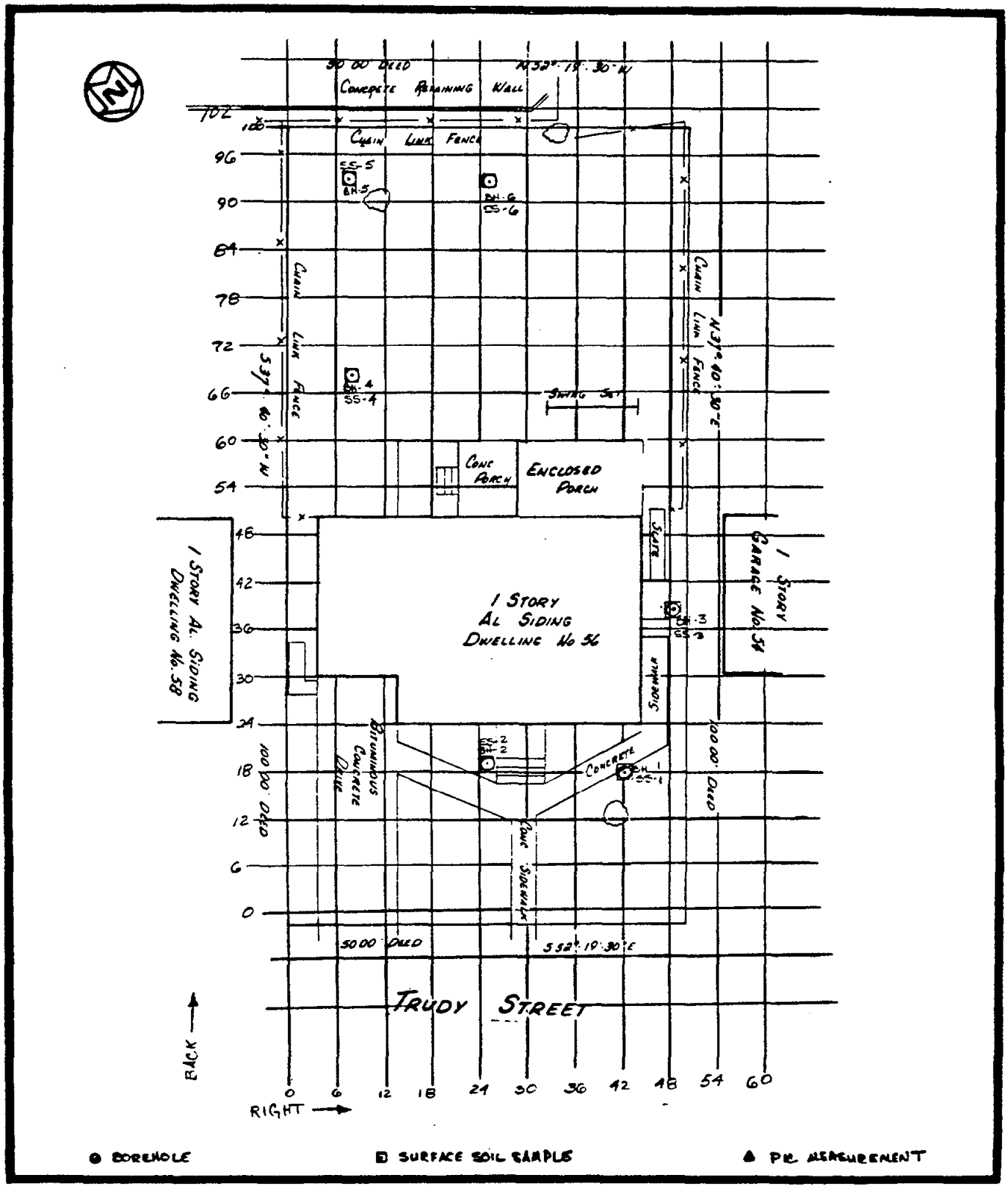

FIGURE 1 LOCATIONS OF BOREHOLES, SOIL SAMPLES, AND PIC MEASUREMENTS AT 56 TRUDY DRIVE

TABLE 1

RADIONUCLIDE CONCENTRATIONS IN SURFACE SOIL AT

56 TRUDY DRIVE

SS-Number	Radium-226 Picocuries/gram	Thorium-232 Picocuries/gram
1	0.67	ND
2	<0.9	<2.18
3	0.72	ND
4	ND	<2.98
5	<0.98	<2.61
6	0.34	ND

ND - None detected.

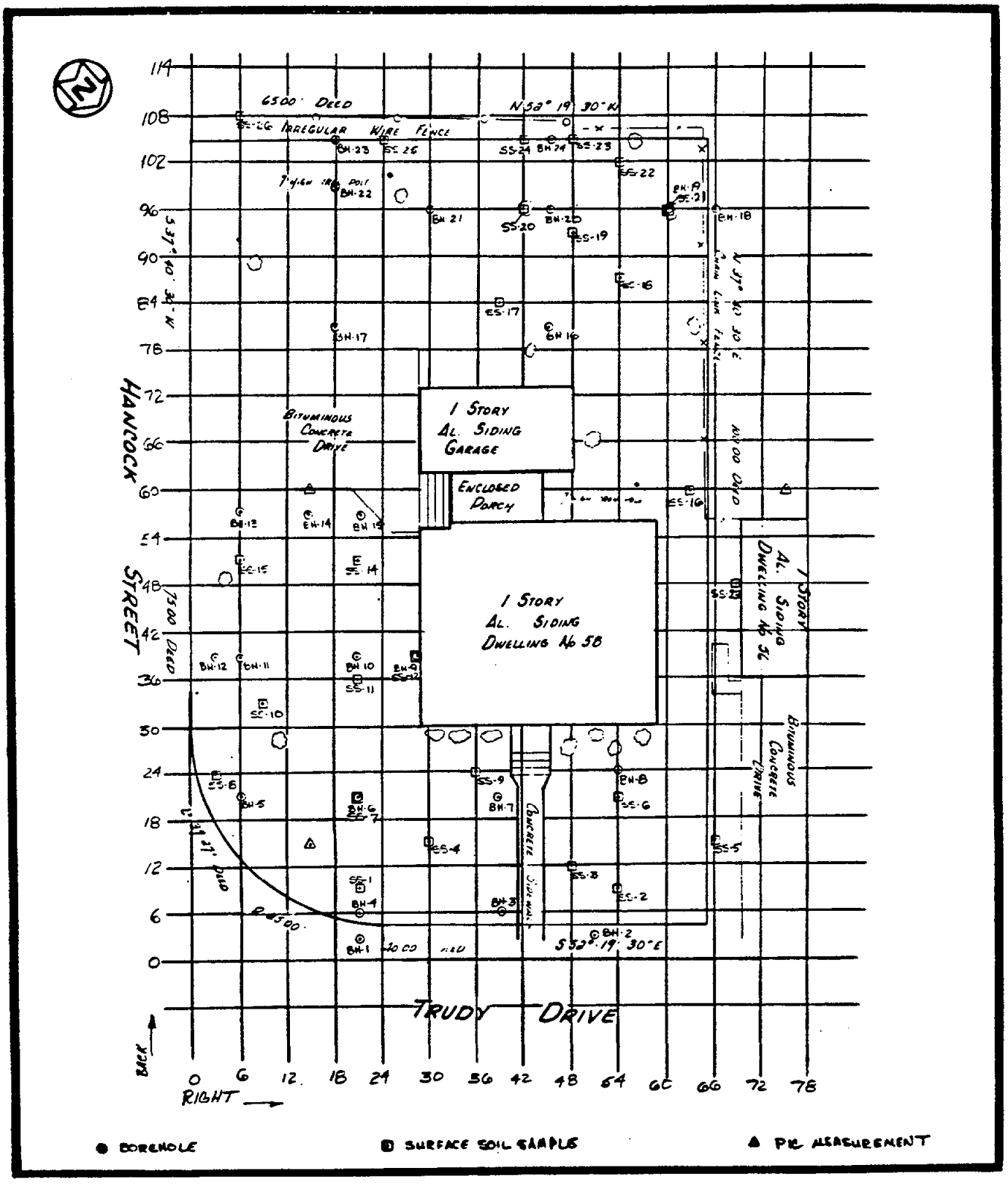

FIGURE 1 LOCATIONS OF BOREHOLES, SOIL SAMPLES, AND PIC MEASUREMENTS AT 58 TRUDY DRIVE

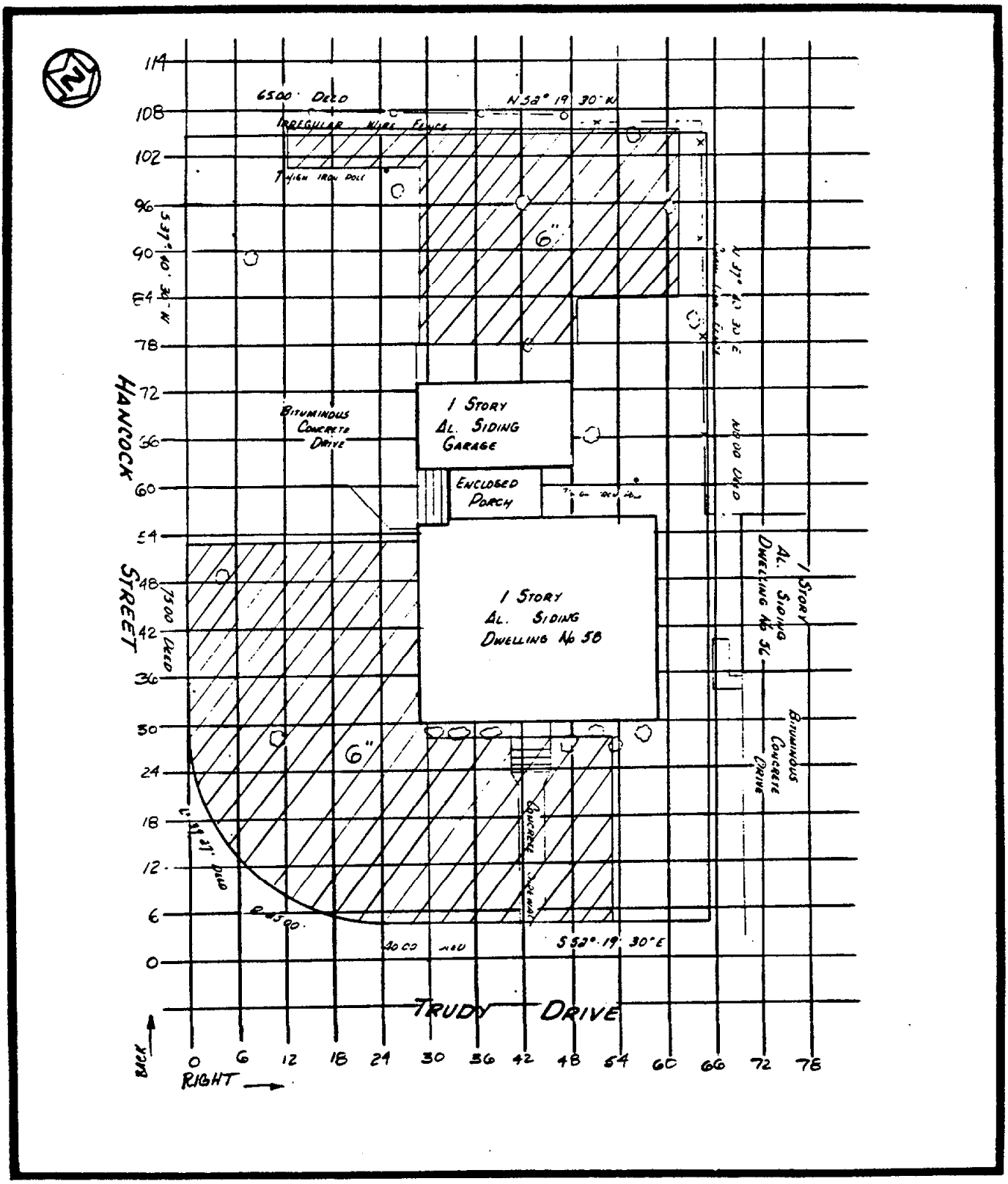

FIGURE 2 LOCATION OF ELEVATED GAMMA RADIATION LEVELS AT 58 TRUDY DRIVE

TABLE 1

RADIONUCLIDE CONCENTRATIONS IN SURFACE SOIL AT

58 TRUDY DRIVE

SS-Number	Depth (inches)	Radium-226 Picocuries/gram	Thorium-232 Picocuries/gram
1	6	<1.4	12.9
2	6	0.7	1.5
3	6	<0.5	29.2
4	6	2.0	51.9
5	6	1.1	<1.5
6	6	1.1	3.7
7	6	2.1	23.1
8	6	1.2	3.1
9	6	3.4	41.3
10	6	1.5	36.5
11	6	2.9	25.1
12	6	1.5	5.5
13	6	0.9	1.0
14	6	1.4	6.3
15	6	1.1	6.7
16	6	1.3	7.1
17	6	1.4	2.5
18	6	3.5	18.6
19	6	<0.5	4.4
20	6	2.3	24.4
21	6	0.8	7.2
22	6	1.6	19.5
23	6	1.2	6.4
24	6	1.4	4.4
25	6	0.9	4.8
26	6	0.9	2.9

TABLE 2

RADIONUCLIDE CONCENTRATIONS IN SUBSURFACE SOIL AT 58 TRUDY DRIVE

BH-Number	Depth (feet)	Radium-226 Picocuries/gram	Thorium-232 Picocuries/gram
1		No soil sample taken	
2		No soil sample taken	
3		No soil sample taken	
4		No soil sample taken	
5	1	1.5	4.9
6	1	1.1	9.2
7	1	0.9	3.3
8		No soil sample taken	
9	1	1.4	1.6
10	1	1.0	2.5
11		No soil sample taken	
12	1	1.1	2.3
13	1	1.1	2.4
14	1	1.4	4.5
15	1	0.5	4.3
16	1	1.5	3.4
17	1	0.8	3.6
18	1	0.6	3.1
19	1	<1.3	2.0
20	1	1.1	6.6
21	1	2.1	2.2
22	1	1.3	<1.5
23	1	<1.3	<1.5
24	1	1.1	1.7

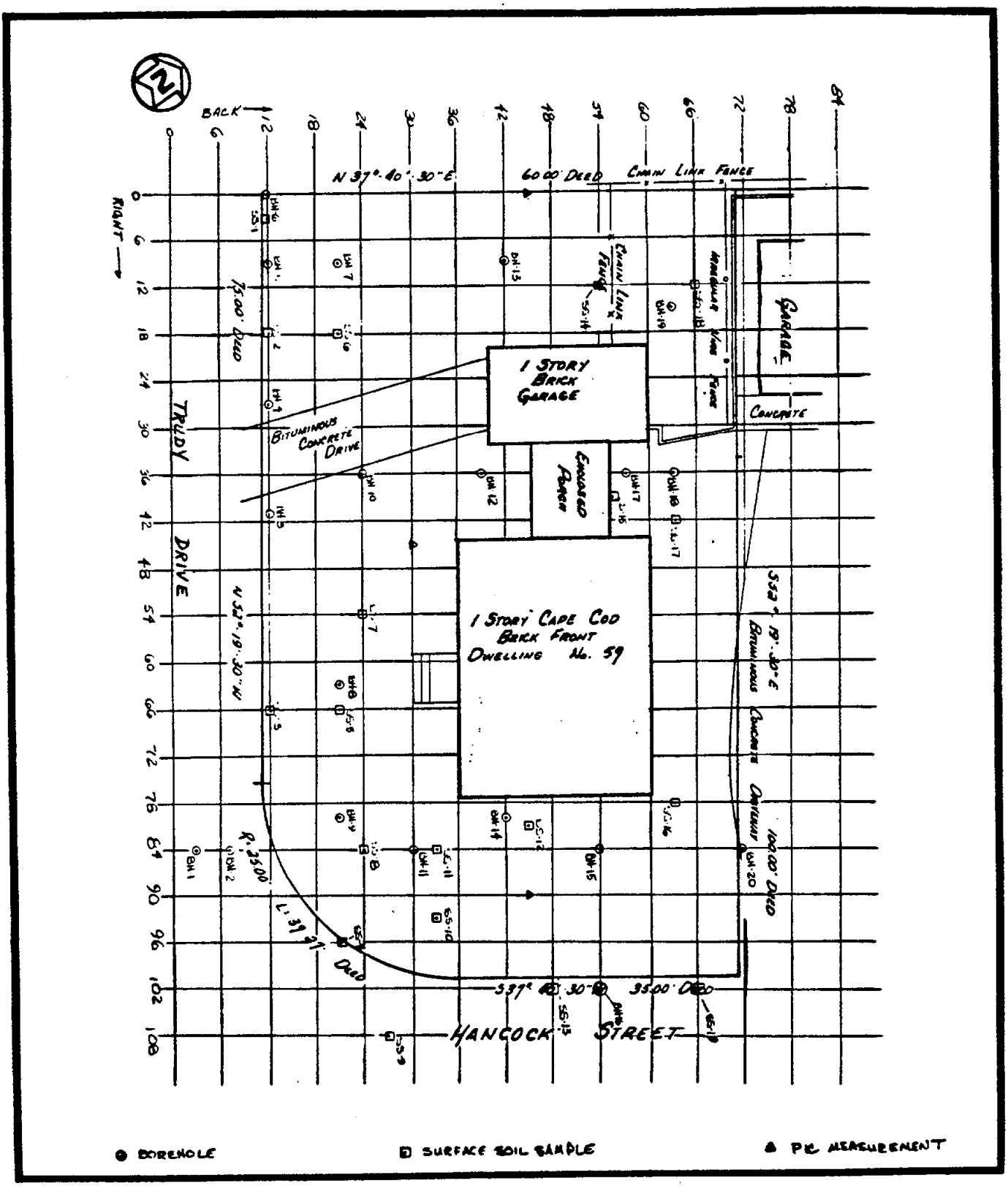

FIGURE 1 LOCATIONS OF BOREHOLES, SOIL SAMPLES, AND PIC MEASUREMENTS AT 59 TRUDY DRIVE

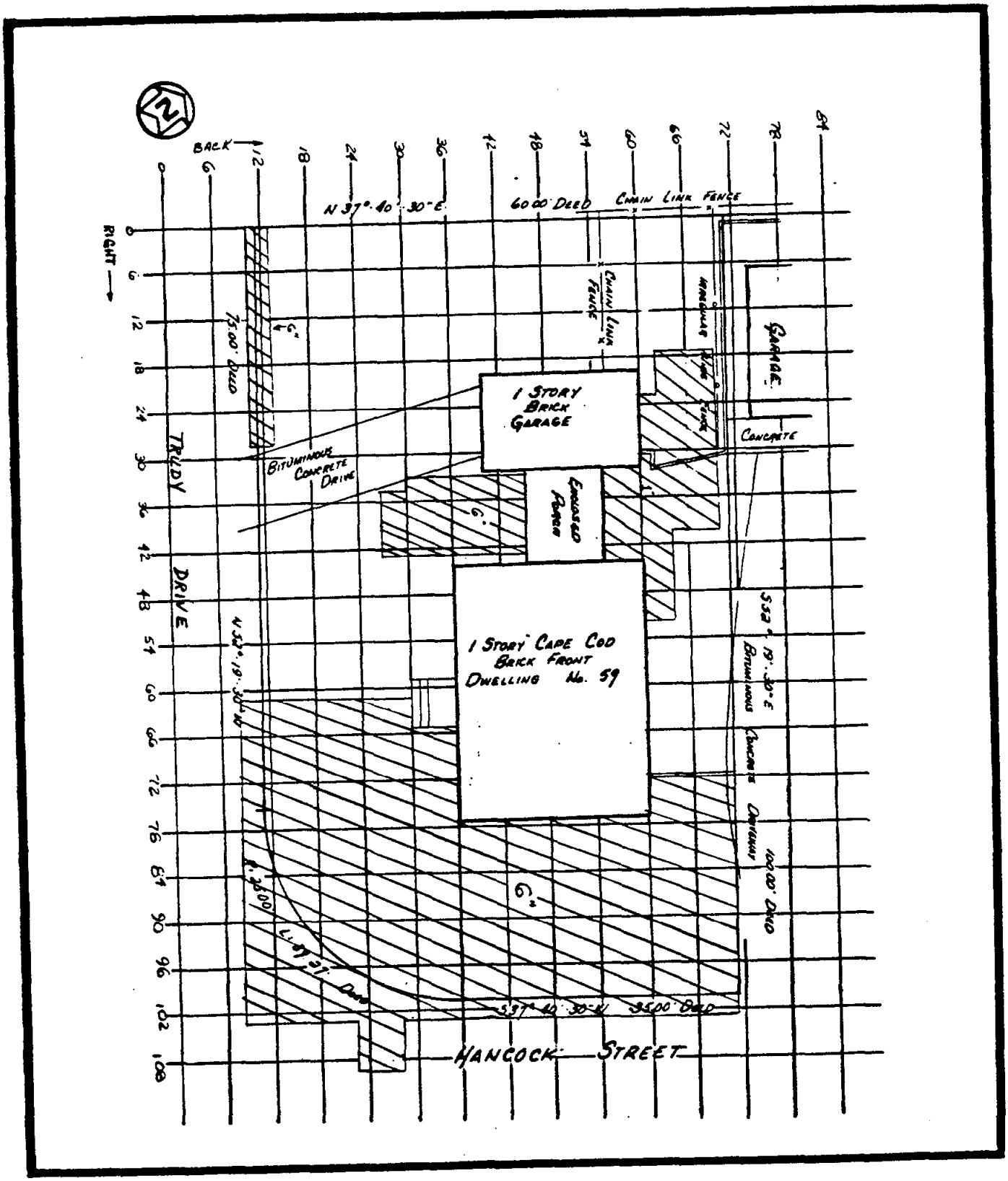

FIGURE 2 LOCATION OF ELEVATED GAMMA RADIATION LEVELS AT 59 TRUDY DRIVE

TABLE 1

RADIONUCLIDE CONCENTRATIONS IN SURFACE SOIL AT

59 TRUDY DRIVE

SS-Number	Depth (inches)	Radium-226 Picocuries/gram	Thorium-232 Picocuries/gram
1	6	<0.5	<1.5
2	6	<0.5	3.3
3	6	1.7	8.3
4	6	2.0	22.8
5	6	1.9	9.2
6	6	1.7	3.2
7	6	1.0	3.7
8	6	3.1	18.1
9	6	1.9	15.0
10	6	2.7	22.2
11	6	2.3	12.0
12	6	1.8	26.0
13	6	1.3	6.9
14	6	1.5	<1.5
15	6	2.2	14.0
16	6	<1.7	18.1
17	6	3.0	40.0
18	6	<1.4	6.2
19	6	<0.5	3.8

TABLE 2

RADIONUCLIDE CONCENTRATIONS IN SUBSURFACE SOIL AT 59 TRUDY DRIVE

BH-Number	Depth (feet)	Radium-226 Picocuries/gram	Thorium-232 Picocuries/gram
1	1	1.0	1.2
2	1	1.3	5.7
3		No soil sample taken	
4	1	1.2	1.4
5	1	1.0	<1.5
6	1	0.5	1.7
7		No soil sample taken	
8		No soil sample taken	
9	0.5	1.1	0.5
10		No soil sample taken	
11	1	0.9	3.7
12	1	0.9	7.6
13	1	1.0	<2.4
14	1	1.7	11.6
15	0.5	<0.5	4.1
16	1	0.7	2.2
17	1	2.1	28.1
18	0.5	<0.5	7.2
19	2	0.5	1.7
20	1	0.5	4.0

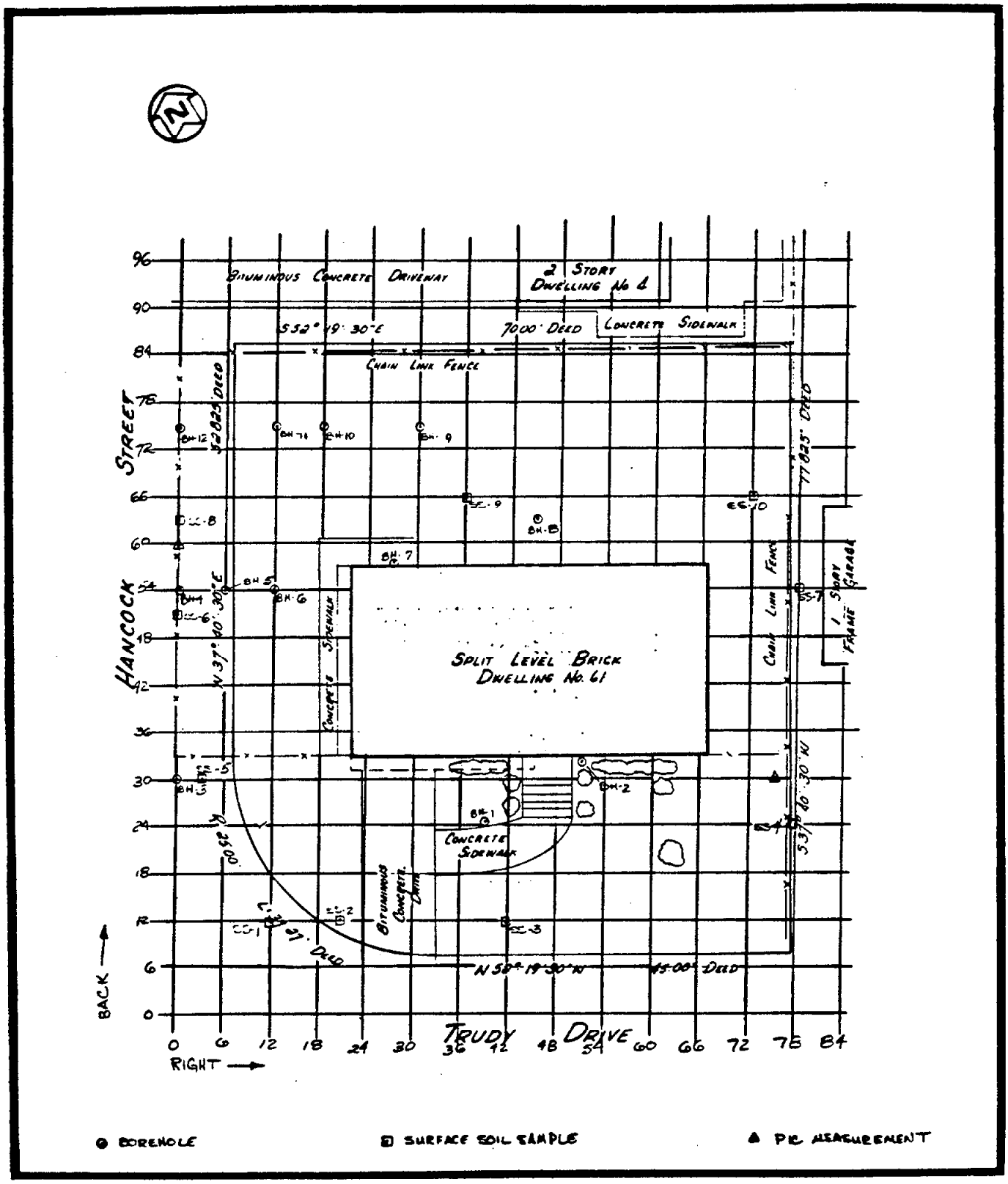

FIGURE 1 LOCATIONS OF BOREHOLES, SOIL SAMPLES, AND PIC MEASUREMENTS AT 61 TRUDY DRIVE

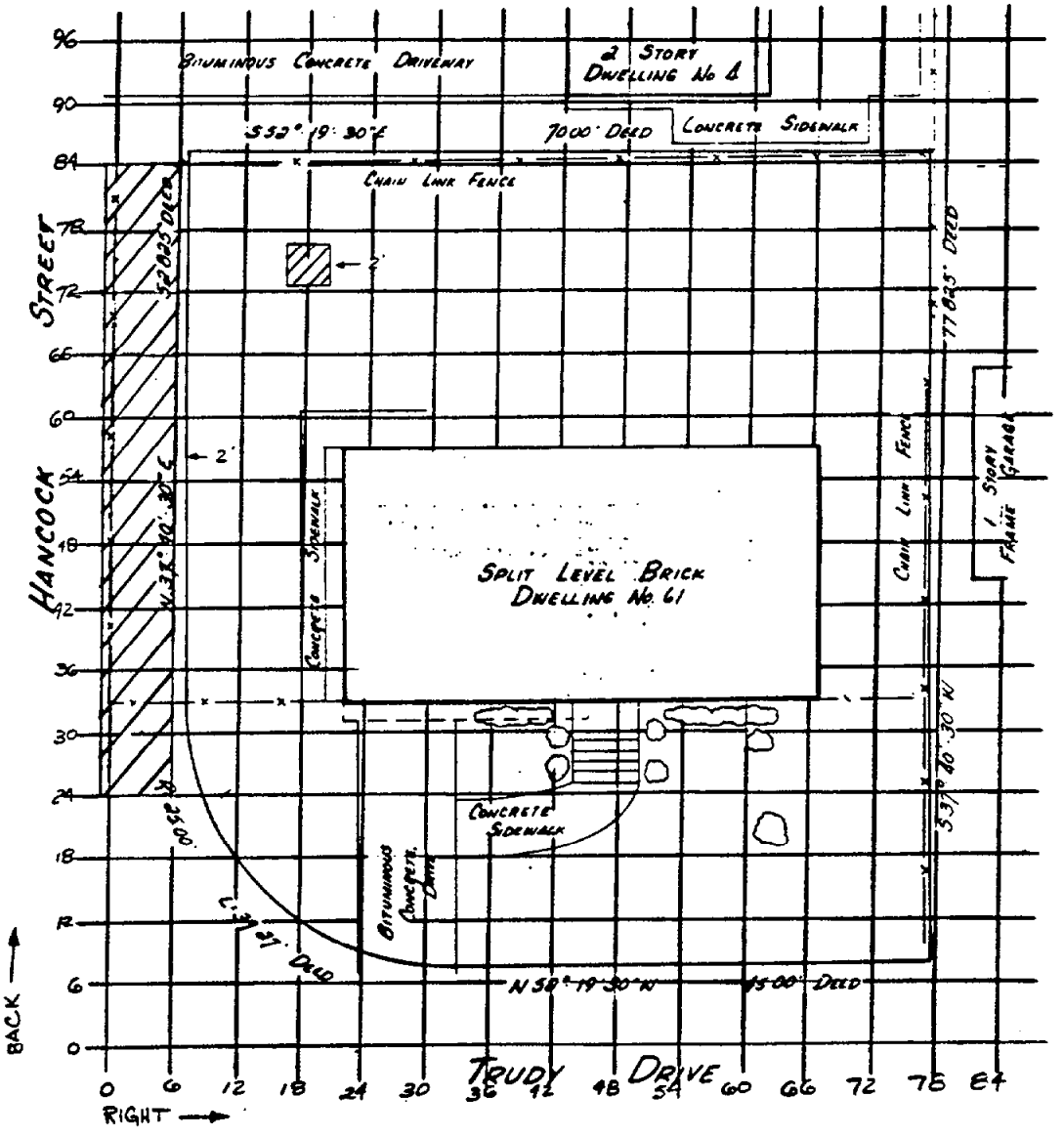

FIGURE 2 LOCATION OF ELEVATED GAMMA RADIATION LEVELS AT 61 TRUDY DRIVE

TABLE 1

RADIONUCLIDE CONCENTRATIONS IN SURFACE SOIL AT

61 TRUDY DRIVE

SS-Number	Depth (inches)	Radium-226 Picocuries/gram	Thorium-232 Picocuries/gram
1	6	1.4	<1.5
2	6	0.9	3.4
3	6	0.9	<2.5
4	6	1.4	<2.6
5	6	1.0	<1.5
6	6	1.2	17.3
7	6	0.7	1.9
8	6	1.5	16.3
9	6	1.3	2.7
10	6	1.1	<1.5

TABLE 2

RADIONUCLIDE CONCENTRATIONS IN SUBSURFACE SOIL AT

61 TRUDY DRIVE

BH-Number	Depth (feet)	Radium-226 Picocuries/gram	Thorium-232 Picocuries/gram
1	1	<1.0	<1.5
2	1	1.1	2.4
3	1	3.0	9.7
4	1	2.2	9.0
5		No soil sample taken	
6	1.5	3.4	4.4
7	1	1.7	1.4
8	1	0.9	2.5
9	2	1.8	<1.5
10	2	1.4	2.2
11	2	2.6	3.1
12	1.5	2.1	9.6

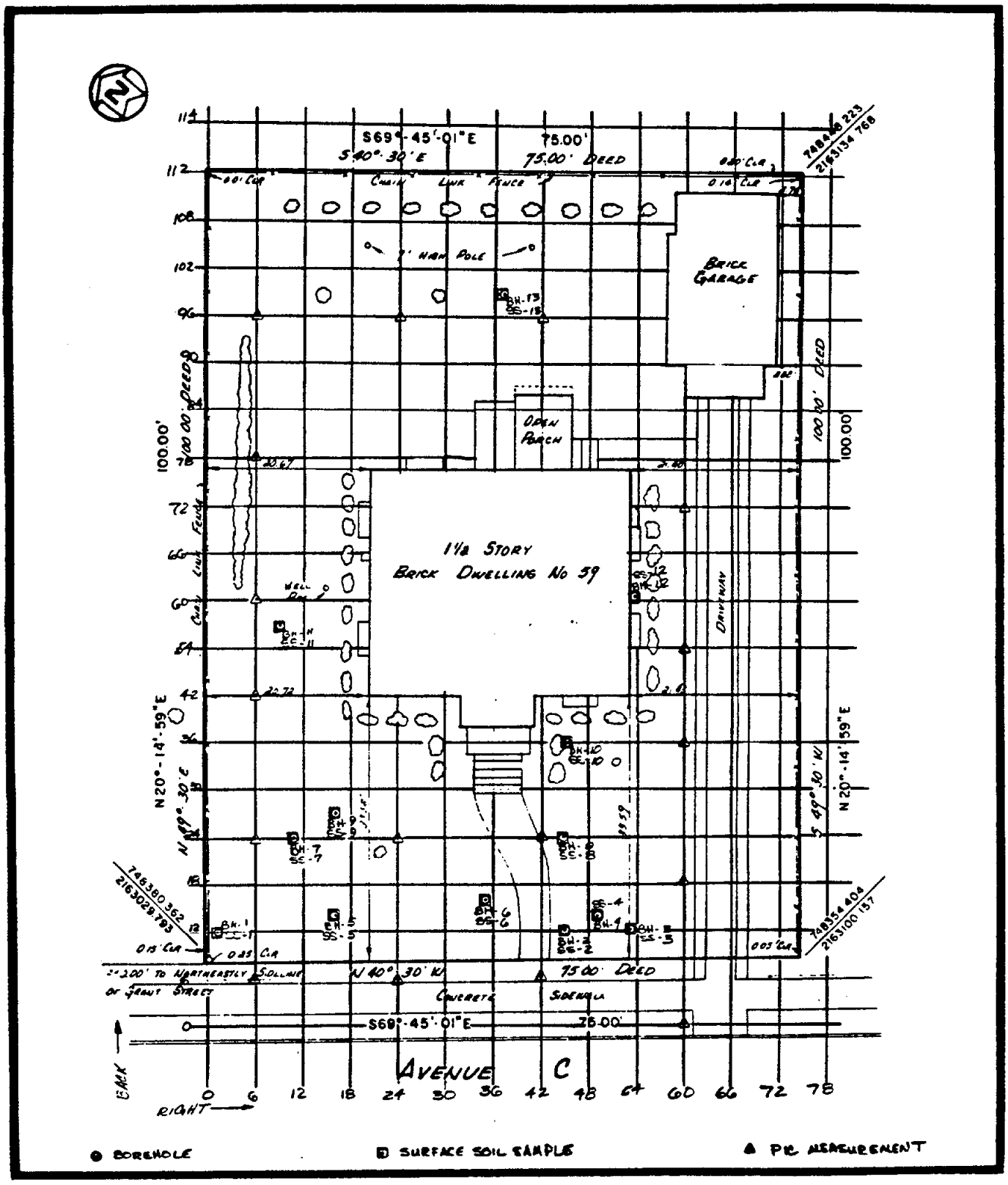

FIGURE 1 LOCATIONS OF BOREHOLES, SOIL SAMPLES, AND PIC MEASUREMENTS AT 59 AVENUE C

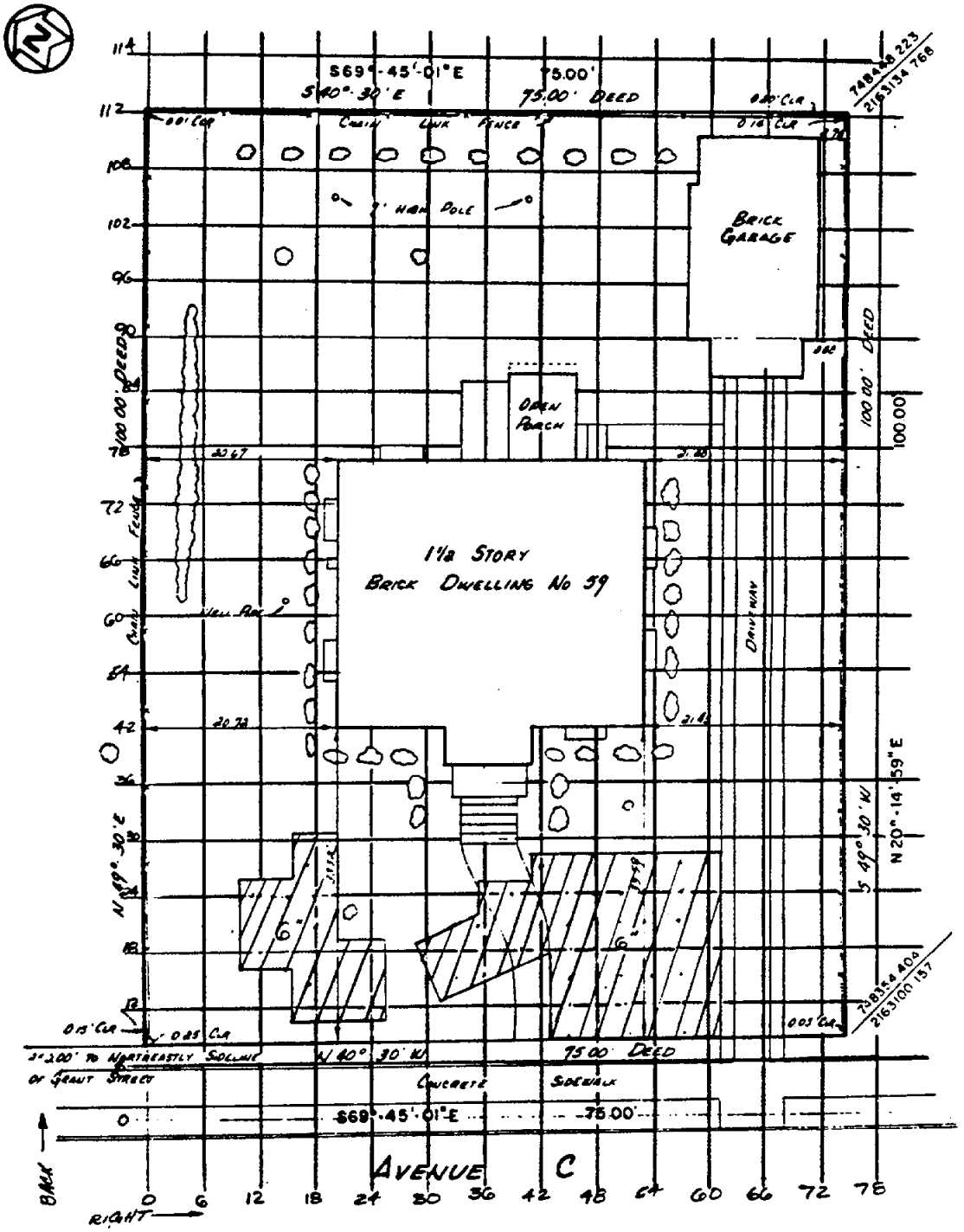

FIGURE 2 LOCATION OF ELEVATED GAMMA RADIATION LEVELS AT 59 AVENUE C

TABLE 1

RADIONUCLIDE CONCENTRATIONS IN SURFACE SOIL AT

59 AVENUE C

SS-Number	Depth (inches)	Radium-226 Picocuries/gram	Thorium-232 Picocuries/gram
1	6	0.6	1.2
2	6	2.1	40.7
3	6	0.8	0.5
4	6	ND	26.8
5	6	1.4	26.0
6	6	1.8	63.0
7	6	1.1	8.0
8	6	ND	28.7
9	6	1.9	22.4
10	6	1.2	0.6
11	6	1.1	0.5
12	6	0.6	1.1
13	6	0.7	1.5

ND - None detected.

TABLE 2

RADIONUCLIDE CONCENTRATIONS IN SUBSURFACE SOIL AT
59 AVENUE C

BH-Number	Depth (feet)	Radium-226 Picocuries/gram	Thorium-232 Picocuries/gram
1		No soil sample taken	
2	0.5	2.2	11.2
3		No soil sample taken	
4	0.5	0.8	6.9
5	0.5	0.4	5.4
6	1	2.2	8.5
7	0.5	1.4	2.9
8	0.5	ND	15.4
9	1	1.2	6.3
10		No soil sample taken	
11		No soil sample taken	
12		No soil sample taken	
13	0.5	0.5	1.8

ND - None detected.