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RADIOLOGICAL SURVEY OF SENECA ARMY DEPOT

John A. Morrissey
Carl Crisco
Joseph C. Maloney

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

A radiological survey was conducted by the U.S. Army RADCON Team on a row of 11 ammunition storage bunkers located at Seneca Army Depot, Romulus, NY. These bunkers had been utilized for the storage of uranium ore (pitchblende) during the Manhatten Project. Low levels of radioactive contamination were measured in and about the structures with radiac instruments, and supporting laboratory measurements were made of air, water and soil radioactive concentrations. These data were used to plan and execute appropriate site measures.

ACKNOWLEDGEMENTS

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CONTENTS

LIST OF ILLUSTRATIONS

LIST OF TABLES

I. Introduction

The Seneca Army Depot (SEAD) covers approximately 10,000 acres, a large portion of which is occupied by munition bunkers. In the early 1940s, approximately 2000 barrels of pitchblende ore were stored in eleven of these bunkers for a short period of time. After the removal of the ore, the normal storage of munitions was resumed.

At the request of the Seneca Safety Office, the Army RADCON team was requested to perform a survey of the bunkers, EO-801 through EO-811. This survey was performed by two separate RADCON units during the week of 13 May 1985. The survey consisted of direct readings of alpha and beta surface contamination, removable alpha and beta contamination on the bunker surfaces, interior and exterior gamma radiation levels, concentration of Uranium in the soil and water in the vicinity of the bunkers, air sampling for radon and daughters and activity levels along the rail spur and loading dock used for transport of the ore.

II. Instrumentation and Procedures

1. Equipment

Table 1 contains a list of the instrumentation used by the RADCON survey teams.

TABLE 1. LIST OF SURVEY INSTRUMENTATION

Electronics Package	Probe	Detectable Radiation
Ludlum 2220	FIDLER	Low Energy Gamma
Ludlum Mod 3	Pancake	Beta and Low Energy Gamma
Ludlum Mod 19		High Energy Gamma
PAC-1SA	Alpha Detector	Alpha Particles
Eberline AC-4	Smear	Removable Alpha
Eberline BC-4	Smear	Removable Beta

The following is a listing of the equipment transported to Seneca to perform the survey.

1. 4 ea BARK suitcases with FIDLER and SPA-3 probes energy calibrated to the LUDLUM 2220 discriminator.

2. 3 ea LUDLUM Mod 19 micro-R meters

3. 4 ea LUDLUM Mod 3 with pancake probes and GM tubes.

4. 4 ea PAC-1SA with spare alpha probes.

5. 3000 NUCON Smears

6. 1 ea Eberline AC-4 with planchettes and tweezers

7. 1 ea Eberline BC-4 with planchettes and tweezers

8. 1 foot locker with 4 air sampling units and associated filter paper and equipment.

9. 1 ea portable generator Honda 1200. (SEAD supplied two others.)

10. Sample holders for the soil and dirt samples.

11. Marking chalk.

12. Booties and Plastic Protective gloves.

13. Associated data collecting instruments.

2. Survey Preparations

As the instruments were broken out and checked, the first three bunkers to be surveyed were opened and prepared for the air samplers. The air sampling was then performed on these bunkers and a background measurement was taken. At the conclusion of the air sampling, the filter data were analyzed and, based on these results, it was determined that there was no airborne hazard and therefore no need for protective masks.

3. Protective Clothing

All team members wore booties whenever performing any survey. Persons performing the swiping also wore gloves.

4. Instrument Setup

The FIDLER had a lower level discriminator set for 60 kev and was operated in the gross mode. The SPA-3 probes were calibrated for ^{137}Cs and ^{60}Co so that an energy window could be rapidly set on site if it was determined that the possible contamination was a refined uranium byproduct. This byproduct has a high energy gamma and the FIDLER probe is very insensitive to high energy gammas. Before performing the first survey, the FIDLER and SPA-3 probes were used to survey a known contaminated area, the sensitivity (background vs. activity) of both recorded and the FIDLER probe was selected as the survey instrument.

Other instruments, pancake probe, PAC-1SA and micro-R meter had their normal calibration performed before arrival on site.

5. **Survey Method: Team A**

The survey at Seneca on 14 and 15 May 1985 was performed by the Army RADCON team with the two separate survey parties. Each survey party was composed of two RADCON people and two Seneca Alpha team members. The duties of the four members of the survey team are listed in Table 2.

TABLE 2. SURVEY TEAM MEMBERS: TEAM A

Member No.	Duties
1.	FIDLER Operator
2.	Operate Mod 3 with Pancake Probe and PAC-1SA
3.	Smears
4.	Leader/Recorder and micro-R meter Operator

The following is a methodology of the building survey. The survey team, after building entry, proceeded to the first survey line, approximately 1 meter from the back wall of the bunker. This line was completely surveyed using the FIDLER and the micro-R meter. Along this same line, data were recorded at four points. These four points included two each from the floor (one from the approximate center point of each side of the building) and two each from the wall/roof (one from each side of the building). The data recorded were FIDLER (cpm), Mod 3 (mR/hr), PAC-1SA (cpm) and micro-R. Also at each of these data points a smear was taken. These same data were recorded on lines at 6 meter intervals through the building for a total of five lines in each building. The area between each 6 meter line was surveyed with a FIDLER and micro-R on 2 meter line interval.

Before exiting the building, the survey team members monitored each other for possible contamination.

Outside the building, the area around the pad at the building entrance was completely surveyed using the FIDLER and micro-R meter. For most buildings, these data consisted of five complete survey points with the exception that no swipes were taken in this area.

While monitoring both within and outside the building, any area which appeared "hot" drew special attention and the area was completely surveyed and a swipe taken (if possible). The definition of a "hot" area was a change of a factor of 3 in count rate from the surrcunding vicinity. The swipes from such areas were marked and received special priority during the counting phase.

6. Data Numbering

All completely surveyed points were marked with the data point number for future reference. This marking was performed with chalk and the number was circled and the team number noted e.g., 10A.

A data sheet was prepared for each building. Swipes were numbered with the building number and with the data point number e.g. 801-1 (first data point in bldg. EO-801). Any data points which the survey team found interesting were specifically marked for early counting.

7. Survey Method: Team B

A second survey was performed at Seneca on 16 and 17 May 1985 by the U.S. Army RADCON Team. The duties of each team member are listed below in Table 3.

TABLE 3. TEAM MEMBERS: TEAM B

Member No.	Duties
1.	Ludlum 19 Micro-R meter Operator
2.	FIDLER probe and Ludlum 2220 rate meter Operator
3.	Operate Ludlum Mod 3 beta-gamma meter with pancake probe
4.	Operate AN/PDR-60 (PAC-ISA)
5.	Data recorder
6.	Collect NUCON Smears

At each building, a general exterior survey around the entrance and the entire building was performed with the FIDLER and micro-R meters. Two survey points were taken at the entrance with the pancake and PAC-ISA instruments. Smears were also taken. Any areas indicating above background readings on the FIDLER or micro-R were further read with the pancake and PAC-ISA probes and delineated if three times background.

Inside each building, a general survey with the Micro-R and FIDLER was performed in the following manner. Each building is 8.2 x 24.7 metres. The monitors began near the wall, walked the length of the building, turned, stepped forward 2 metres turned and went back the length of the building, this was repeated until the other wall was reached. Five strips covered the building floor and lower walls. While walking the length of the building, occasional measurements were directed to the walls.

The monitors with pancake and PAC-ISA probes followed a pattern laid out on the data sheets, i.e., 16 floor survey points and 16 roof/wall points. At each survey point (3 metre apart), a NUCON smear was taken.

Areas found using the Micro-R or FIDLER to have more than normal background were surveyed with the pancake and PAC-ISA, smeared and delineated by marking the area.

8. **Soil, Water and Removable Sample Collection and Analysis**

a. **Collection.** Removable contamination was sampled by smearing a 100cm^2 area using cloth NUCON swipes.

The soil samples were collected from representative areas near each building. The location of each sample was determined by looking for areas which had an elevated gamma dose rate. The collection of the sample was accomplished by first removing the organic cover over a one square foot area and then transferring the top one inch of soil to a transportation container.

The water samples were selected from the standing or running water when present near any building. Water was also collected inside Building EO-804 where water was found in the drainage channel along one wall. One liter of water was collected (if possible) from each location and transferred to a transportation container for analysis at BRL.

b. **Sample Analysis.** The smear samples were analyzed for alpha and beta/gamma using a Canberra Model 2401, thin end window, proportional counter and the results reported in disintegrations per minute (dpm) per 100 square centimeters (100 cm^2).

The soil samples were analyzed for isotopic content using a Nuclear Data Model 682, multi-channel analyzer with an E.G.&G. Ortec, Gamma-X, hyper-pure germanium detector and the results reported in pico-curies per gram (pCi/gm) of each detected isotope. The water samples were analyzed for isotopic content using the same detector system but the results are reported in micro-curies per milliliter (mCi/ml) of each detected isotope.

c. **Sample Preparation.** The smears were transferred to planchettes for counting. Approximately 500 grams of soil from each sample was transferred to Marineli Beakers and the net weight of each sample recorded. Approximately 500 milliliters of water was transferred from each water sample to a Marineli Beaker and the volume recorded.

All samples were saved for future use.

III. Results

1. Bunker Survey Results

The results of both RADCON team surveys can be found in the Appendicies A through K of this report. Each appendix contains the data package for a bunker. This data package includes the instrument readings and removable contamination levels at all surveyed points along with building maps which can be used to approximately locate the data point.

The soil and water sample analysis for each building are presented in the same fashion. Also presented in the same data table are the high energy gamma levels surrounding the building. All the sampled positions are shown on the map associated with each table.

While surveying the area external to building EO-804, several "hot spots" were noted in the gravel area outside the building. It was decided that a grid survey of the area might prove beneficial. The results of this survey are presented in Table D-4 of Appendix D, the building EO-804 data package.

2. Railway Spur and Loading Area

The data for this survey showed no detectable activity in either area. The smears which were taken on the rail spur also showed no removable alpha or beta activity. These data are not presented.

3. Soil Samples Within Building

A soil sample was removed from the drain inside each building. These results showed contamination for all buildings except EO-801, EO-802 and EO-808. One water sample was removed from the drain of building EO-804 and it showed marginal activity above the lower detectable level. The results were $9.8 \pm 4.5 \times 10^{-7}$ pCi/ml. The results of the dirt/soil samples taken for each building are presented in Table 4.

4. Isotopic Analysis

A careful examination of the spectra from both a ^{226}Ra source and natural Uranium revealed three peaks which appeared in the uranium spectrum and not in the radium spectrum. These energies were 235, 832 and 1000 kev. Figures 1 through 3 show those parts of the soil sample spectra which are most interesting and contain the three peaks mentioned. These spectra results indicate a content of uranium ore in the soil where activity was measured.

TABLE 4. BUILDING INTERNAL SAMPLE RESULTS

Internal Drain Soil Sample Results

Lower Level of Detectability 5 X 10^{-7} pCi/ml or g

Sample No.	Contamination Levels pCi/g	
	^{226}Ra	^{238}U
801-I		
802-I		
803-I	1.2 ± 1.5	
804-I	12080 ± 45	9274 ± 100
805-I	280 ± 3.3	90 ± 6.0
806-I	150 ± 1.9	54 ± 3.5
807-I	15 ± 2.0	4.0 ± 2.2
808-I		
809-I	300 ± 4.7	59 ± 8.1
810-I	12 ± 1.7	
811-I		3.2 ± 1.4

The source spectra data were located in reference 1.[1]

IV. Summary/Conclusion

The interior surfaces of eight of the bunkers were found to be contaminated with natural uranium and its daughters. These were bunkers EO-804 through EO-811. The outdoor concrete surfaces around the entrances of bunkers EO-804, EO-805, EO-806, EO-808, EO-810 and EO-811 had measurable quantities of contamination. Bunkers EO-804 and EO-811 had large contaminated outside areas around the entrances.

According to the NRC guideline,[2] average and maximum

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1. R.L.Heath, "Gamma-Ray Spectrum Catalogue Ge(Li) and Si(Li) Spectrometry," ANCR-1000-2, Aerojet Nuclear Co., March 1974.

2. U.S.Nuclear Regulatory Commission, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Materiel," December 1975.

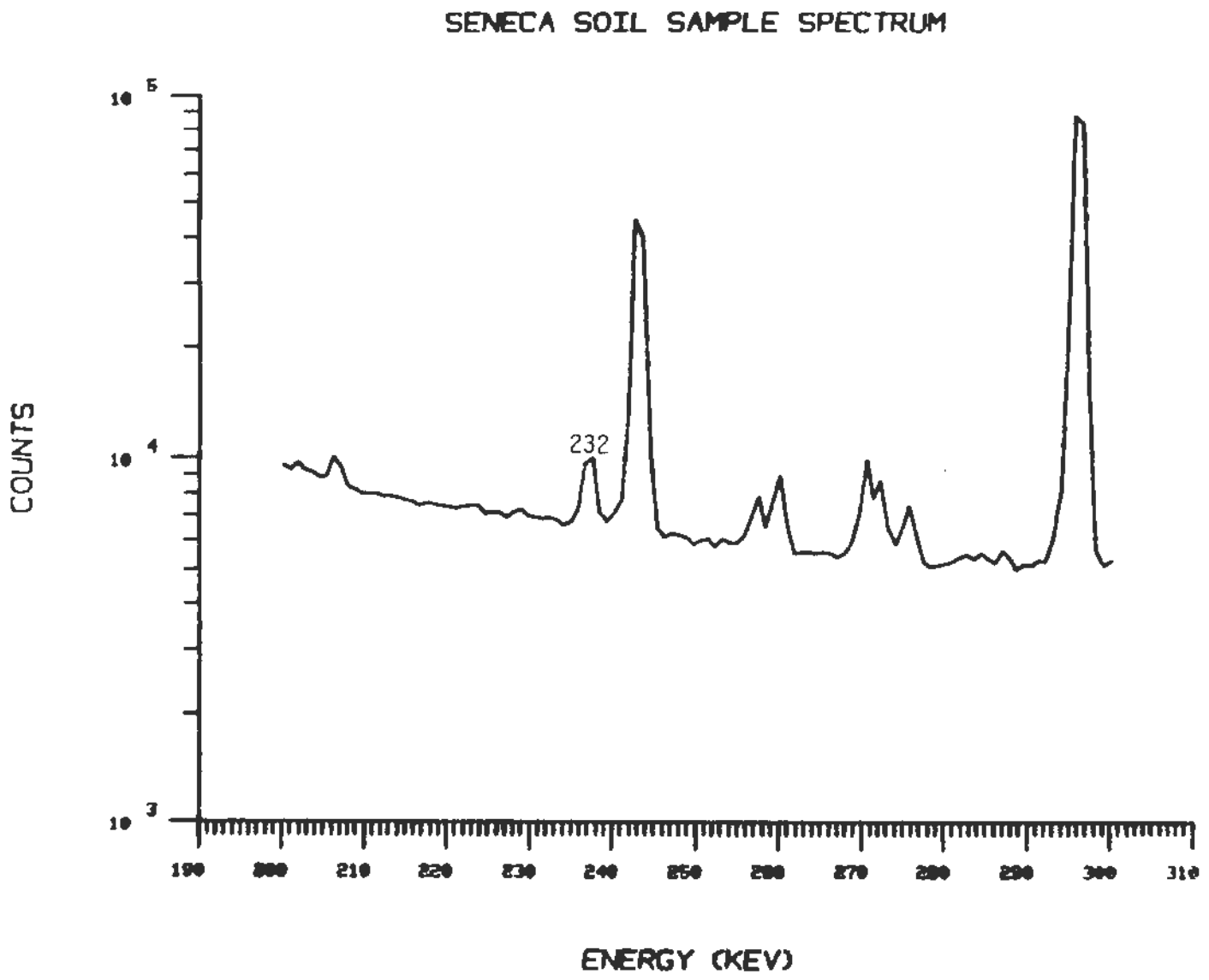

Figure 1. Soil Spectrum Low Energy

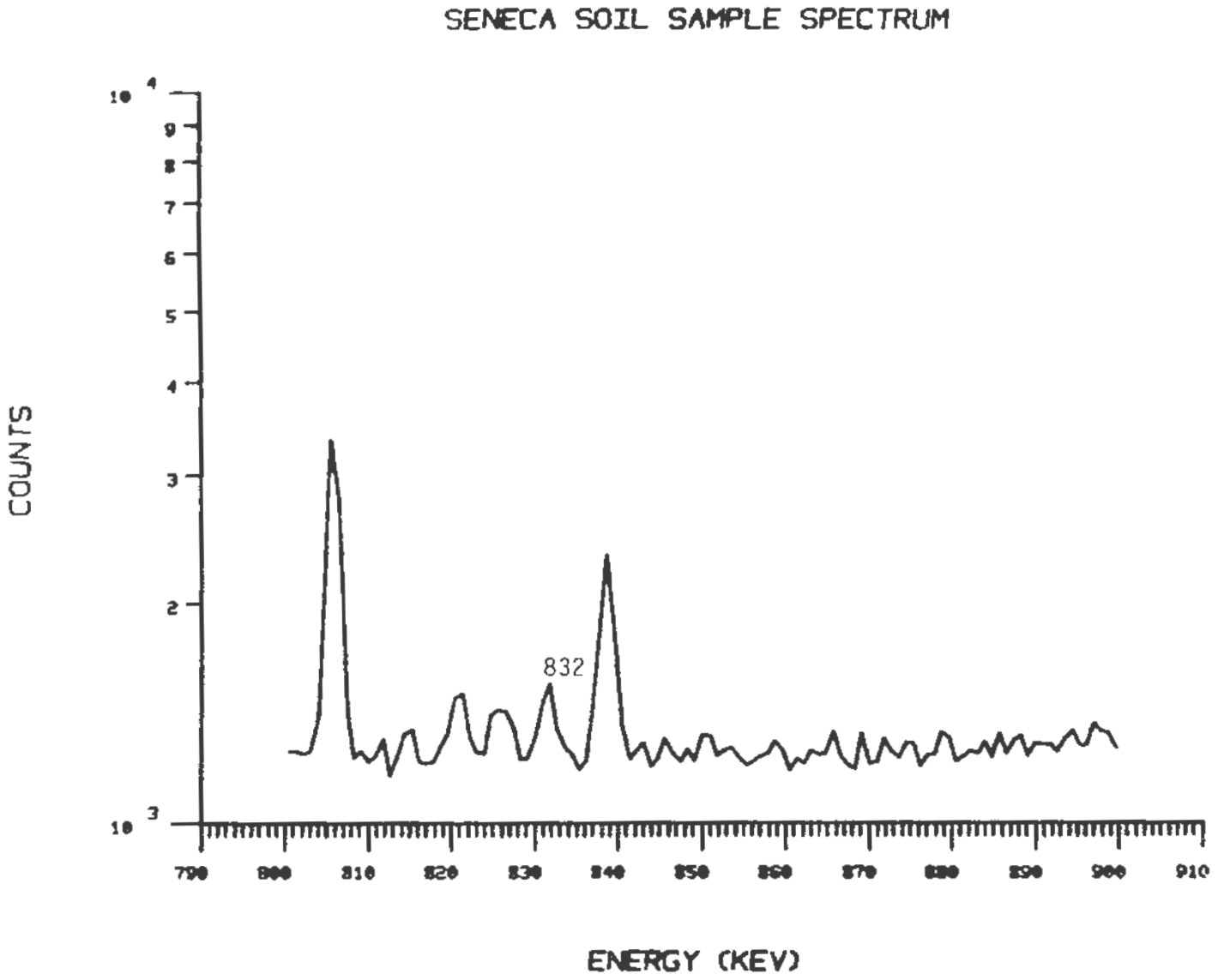

Figure 2. Soil Spectrum Middle Energy

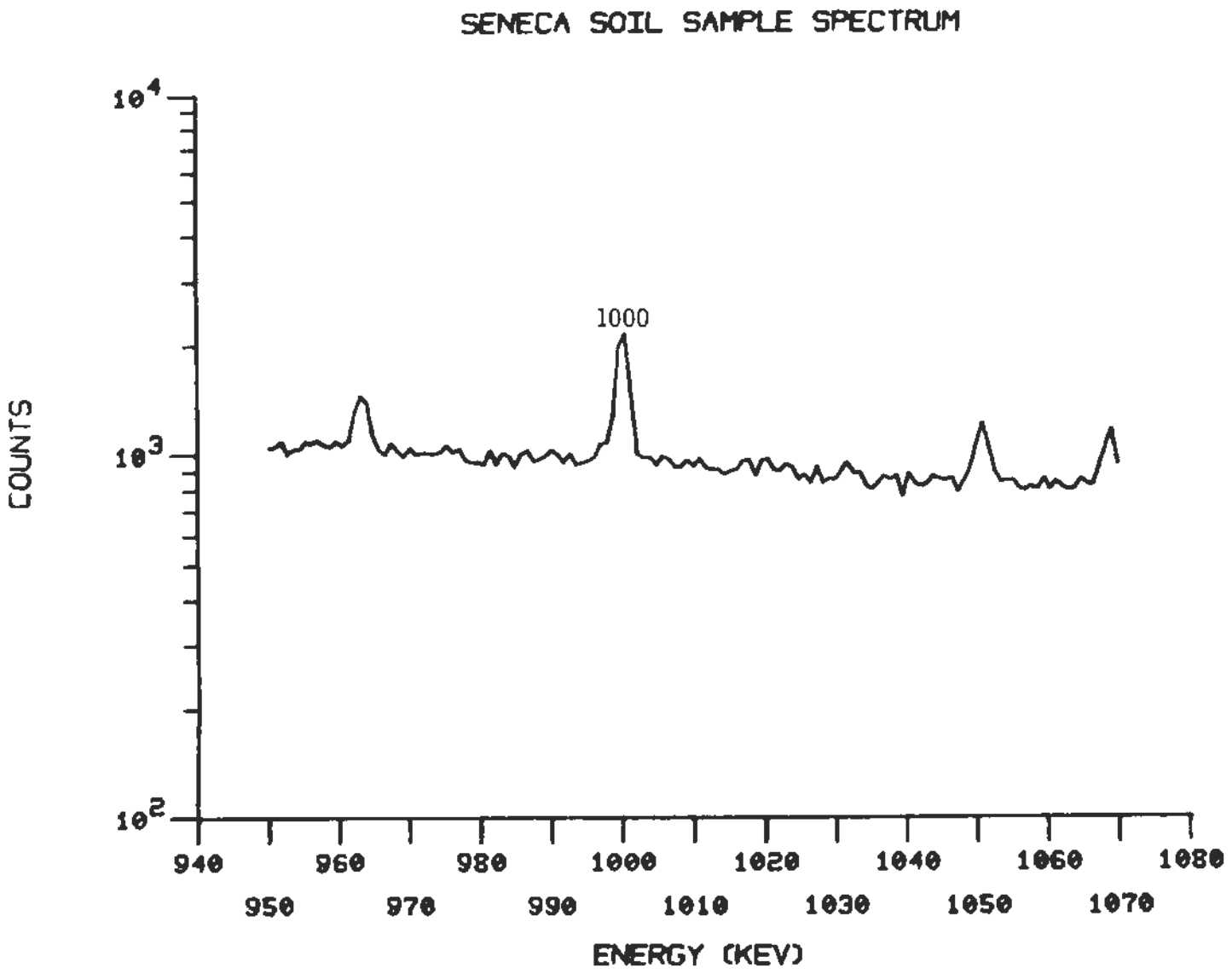

Figure 3. Soil Spectrum High Energy

acceptable levels of fixed alpha contamination are 5000 dpm/100cm^2 and 15,000 dpm/100cm^2, respectively, provided the principal contaminant is natural uranium and associated decay products. Transferable alpha contamination should not be in excess of 1000 dpm/100cm^2 and transferable beta contamination limits should not exceed 1000 dpm/100cm^2. Average and maximum limits for beta-gamma dose rates at 1 cm above a surface are 0.2 and 1.0 mrad/hr, respectively. Measurements of average contaminant should not be averaged over more than one square metre.

Direct alpha readings exceeded 5000 dpm/100cm^2 in some interior areas of bunkers EO-804 and EO-806. Transferable alpha or beta did not exceed the 1000 dpm/100cm^2 in any of the sampled areas of the bunker interiors. Beta-gamma dose rates of 1.0 mrad/hr or higher were measured in bunker EO-804.

Internal gamma radiation levels at one metre above the bunker floor ranged from background levels (7-10 µR/hr) up to 110 µR/hr, the highest levels being measured in Bunkers EO-804 and EO-806. External gamma radiation readings taken outdoors around the fronts of bunkers were above background levels in many cases. At Bunker EO-804 a grid-type survey was performed in an effort to locate all contaminated areas outside the bunker. Readings as high 1033 µR/hr were obtained for external gamma radiation. External gamma readings exceeded background at Bunkers EO-804, EO-805, EO-806, EO-808, EO-810 and EO-811.

An outside soil concentration of 2400 pCi/g of ^{238}U was found in one sample at Bunker EO-804. The 226-Radium level was estimated as 1590 pCi/g in this same sample. Lesser quantities of uranium and radium were found in outdoor soil samples from EO-805, EO-806, EO-808, EO-809, EO-810 and EO-811. Water samples analyzed contained much less than the MPC levels for ^{238}U (1×10^{-5} µCi/ml).[3]

A determination has been made of the current radiation contaminated areas at the Seneca Army Depot and is presented in the appendices of this report. The recommendations are that decontamination of those areas in the interior of Bunker EO-804 exceeding 5000 dpm/100 cm^2 alpha contamination be accomplished by

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3. U.S.Atomic Energy Commission, "USAEC Rules and Regulations, Title 10, Code of Federal Regulations," Part 20, "Standards of Protection Against Radiation," Appendix B, Revised August 9, 1966. Code of Federal Regulations, Title 10, Part 20, Standard for Protection Against Radiation, Appendix B.

sandblasting, grinding or other dry surface cleaning methods. Soil removal by hand and/or power shovels to a depth of six inches will suffice to reduce outdoor level to background. Sufficient soil removal at Bunkers EO-804 and EO-811 will complete the decontamination of the area.

Appendix A

RADCON Team Survey Data for Building 801

TABLE A-1. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-801

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
1	Pad	650	.010	0	10	0	6
2	Floor	750	.010	0	10	0	4
3	Wall	750	.020	0	10	0	4
4	Floor	750	.010	0	10	11	13
5	Wall	750	.010	0	10	0	4
6	Floor	750	.010	0	10	0	12
7	Wall	750	.010	0	10	0	7
8	Floor	750	.020	0	10	11	3
9	Wall	750	.020	0	10	11	5
10	Floor	750	.020	0	10	6	4
11	Wall	750	.010	0	10	6	0
12	Floor	750	.010	0	10	0	11
13	Wall	750	.010	0	10	0	0
14	Floor	750	.010	0	10	0	1
15	Wall	750	.010	0	10	6	0

TABLE A-1. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-801 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
16	Floor	750	.010	0	10	6	1
17	Wall	750	.010	0	10	0	1
18	Floor	750	.010	0	10	0	0
19	Wall	750	.010	0	10	6	6
20	Floor	750	.010	0	10	0	4
21	Wall	750	.010	0	10	0	1
22	Floor	750	.010	0	10	0	4
23	Wall	750	.010	0	10	11	13
24	Floor	750	.020	0	10	6	1
25	Wall	750	.010	0	10	6	4
26	Floor	750	.020	0	10	0	7
27	Wall	750	.010	0	10	11	1
28	Floor	750	.020	0	10	6	17
29	Wall	750	.020	0	10	6	5
30	Floor	750	.020	0	10	0	1

TABLE A-1. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-801 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
31	Wall	750	.010	0	10	6	2
32	Floor	750	.010	0	10	6	1
33	Wall	750	.010	0	10	0	3

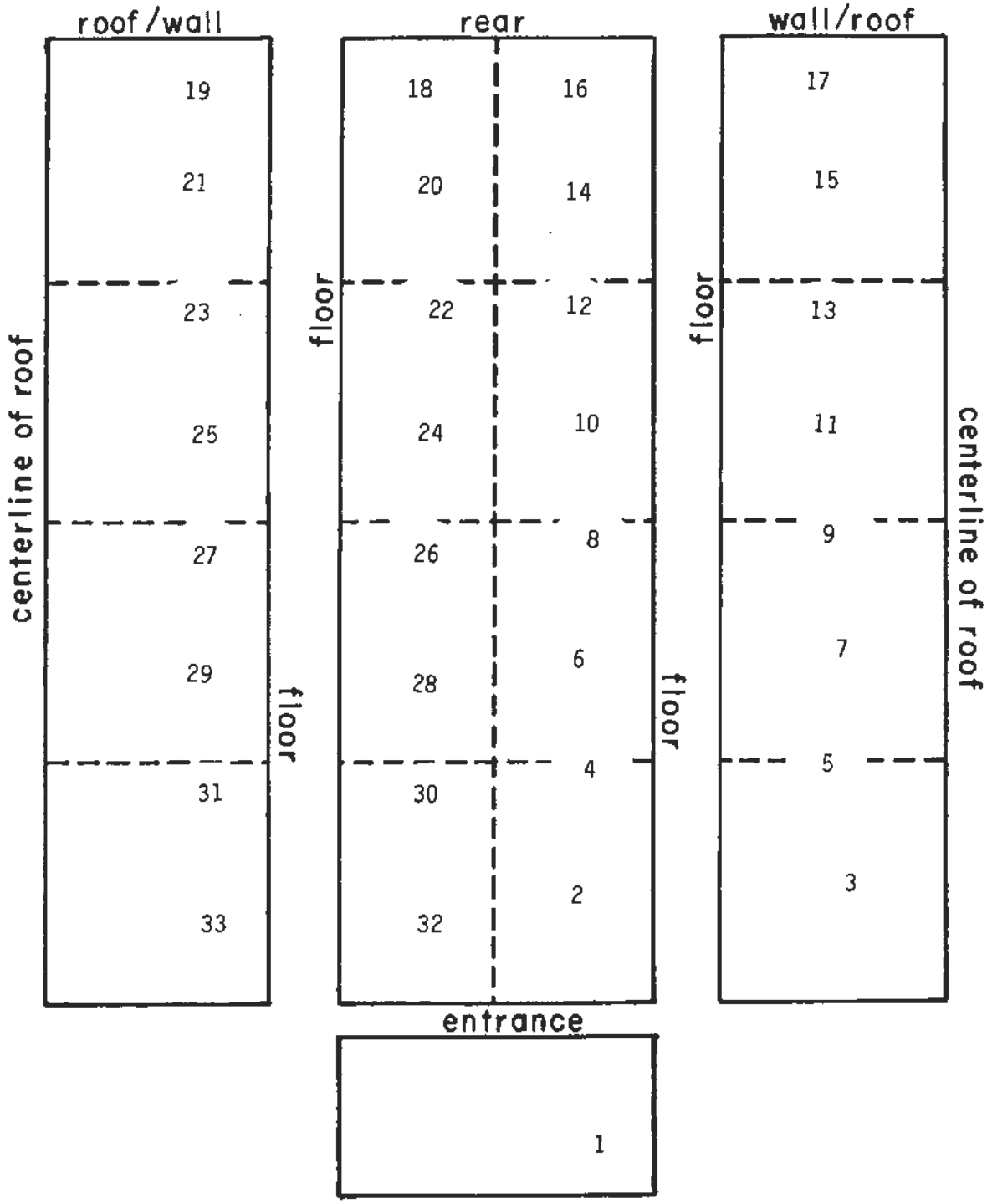
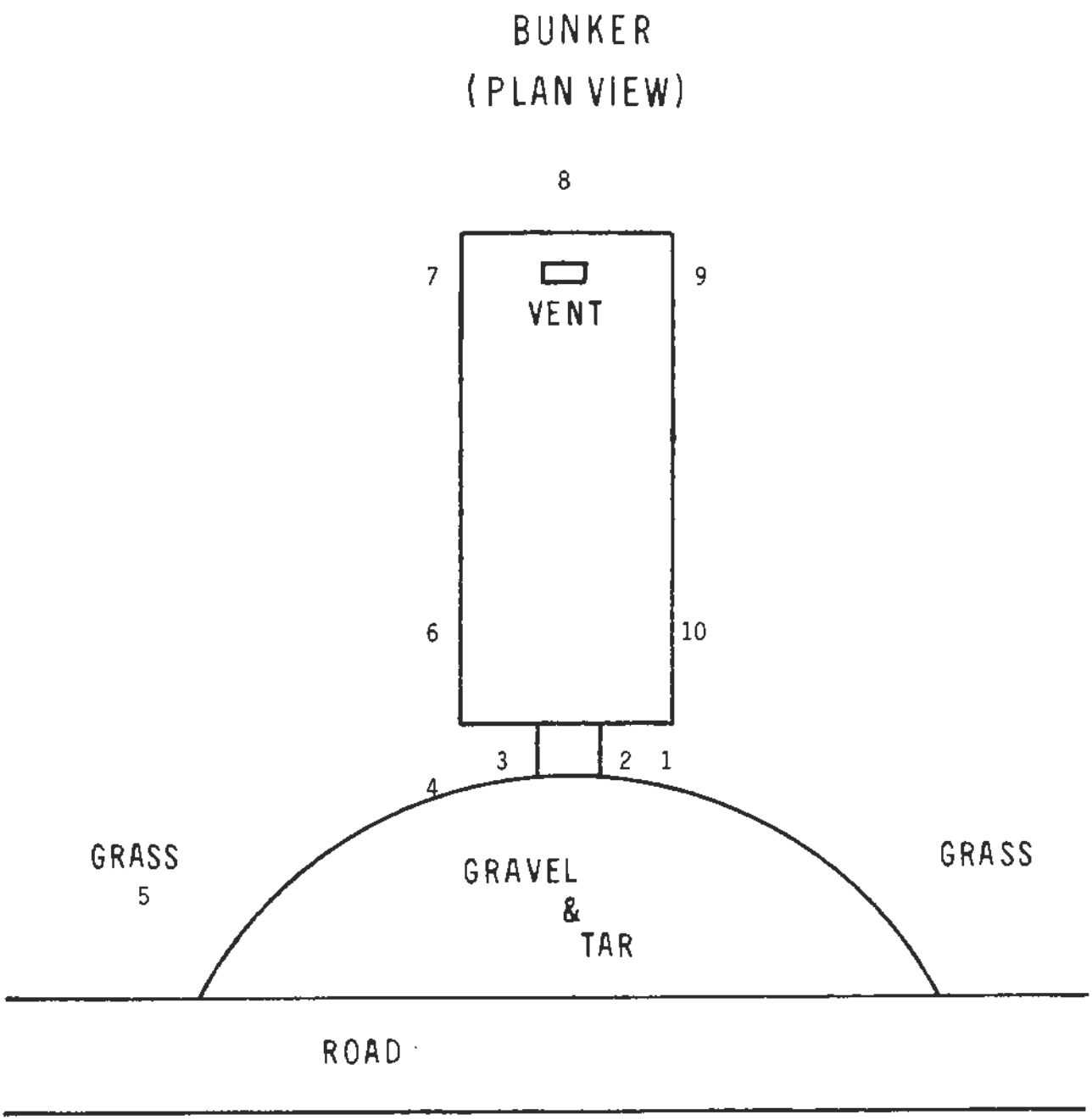


Figure A-1. Second Team Surveyed Positions: Building 801

TABLE A-2. SOIL AND WATER SAMPLE RESULTS : BUILDING EO-801

Lower Level of Detectability 5 X 10^{-7} pCi/ml or g

Data Point Location	Sample No.	µR	Sample Type	Contamination Levels pCi/ml or g ^{226}Ra	Contamination Levels pCi/ml or g ^{238}U
1		7			
2		8			
3	801-1	5	Soil		1.0±.6
4		8			
5	801-1A		Water		
6		8			
7		9			
8		6			
9		8			
10		8			



Building 801

Figure A-2. Soil and Water Sample Positions: Building 801

Appendix B

RADCON Team Survey Data for Building 802

TABLE B-1. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-802

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
34	Pad	1150		0	11	6	3
35	Floor	775	.010	0	10	0	5
36	Wall	775	.010	0	10	6	3
37	Floor	775	.010	0	10	0	2
38	Wall	775	.010	0	10	6	0
39	Floor	775	.010	0	10	6	0
40	Wall	775	.020	0	10	6	7
41	Floor	775	.020	0	10	6	9
42	Wall	775	.010	0	10	6	14
43	Floor	775	.010	0	10	0	4
44	Wall	775	.010	0	10	0	0
45	Floor	775	.010	0	10	0	4
46	Wall	775	.010	0	10	11	1
47	Floor	775	.010	0	10	6	1
48	Wall	775	.010	0	10	6	1

TABLE B-1. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-802 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
49	Floor	775	.010	0	10	0	0
50	Wall	775	.010	0	10	6	11
51	Floor	775	.010	0	10	6	6
52	Wall	775	.010	0	10	0	4
53	Floor	775	.010	0	10	11	6
54	Wall	775	.010	0	10	0	2
55	Floor	775	.010	0	10	6	3
56	Wall	775	.010	0	10	0	6
57	Floor	775	.010	0	10	0	3
58	Wall	775	.010	0	10	6	3
59	Floor	775	.010	0	10	6	6
60	Wall	775	.010	0	10	0	2
61	Floor	775	.010	0	10	0	0
62	Wall	775	.010	0	10	0	0
63	Floor	775	.010	0	10	0	3

TABLE B-1. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-802 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
64	Wall	775	.010	0	10	11	9
65	Floor	775	.010	0	10	6	5
66	Wall	775	.010	0	10	0	3

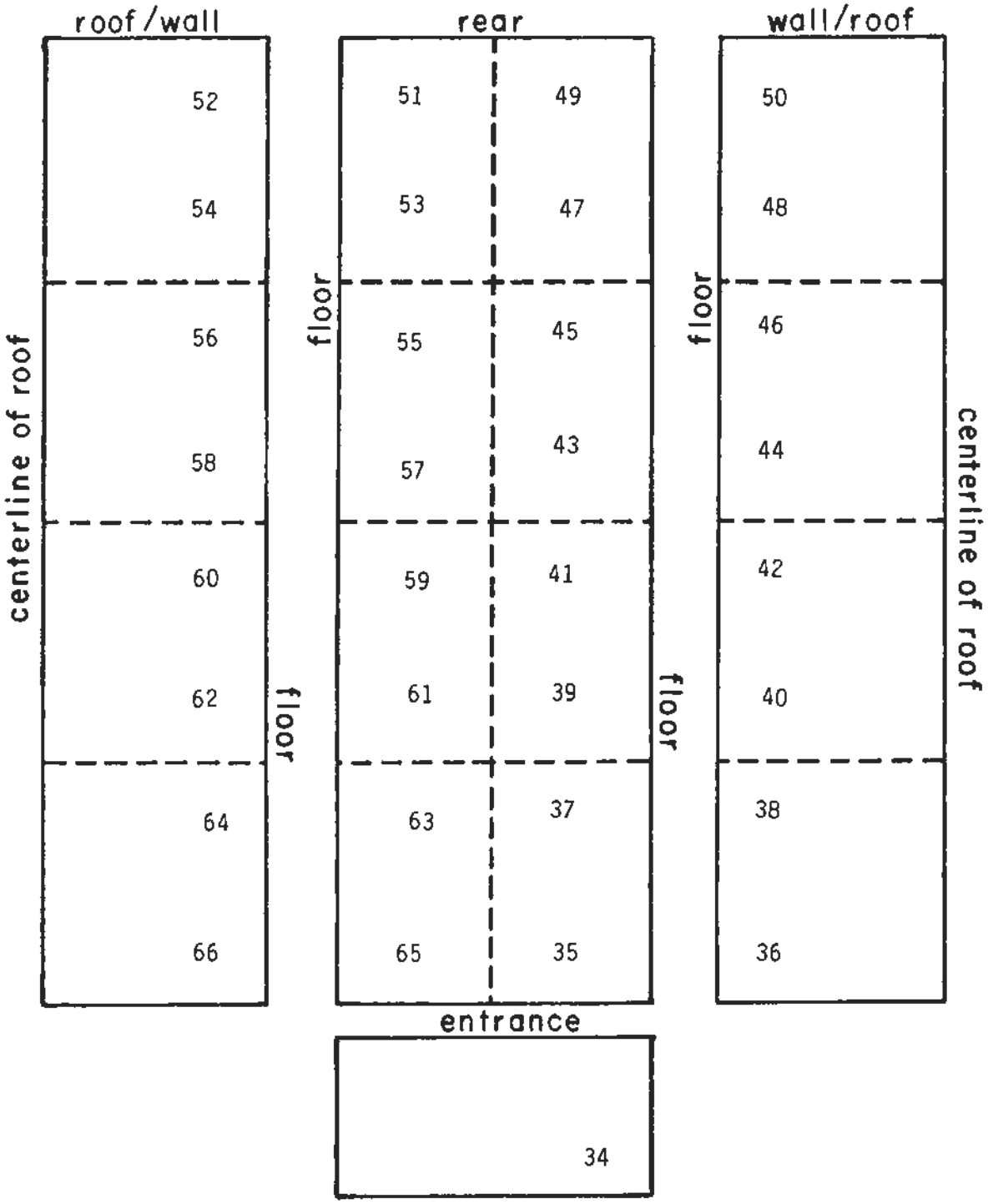


Figure B-1. Second Team Surveyed Positions: Building 802 (Interior)

TABLE B-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-802 (Exterior)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
360	Pad	1150		0	12		

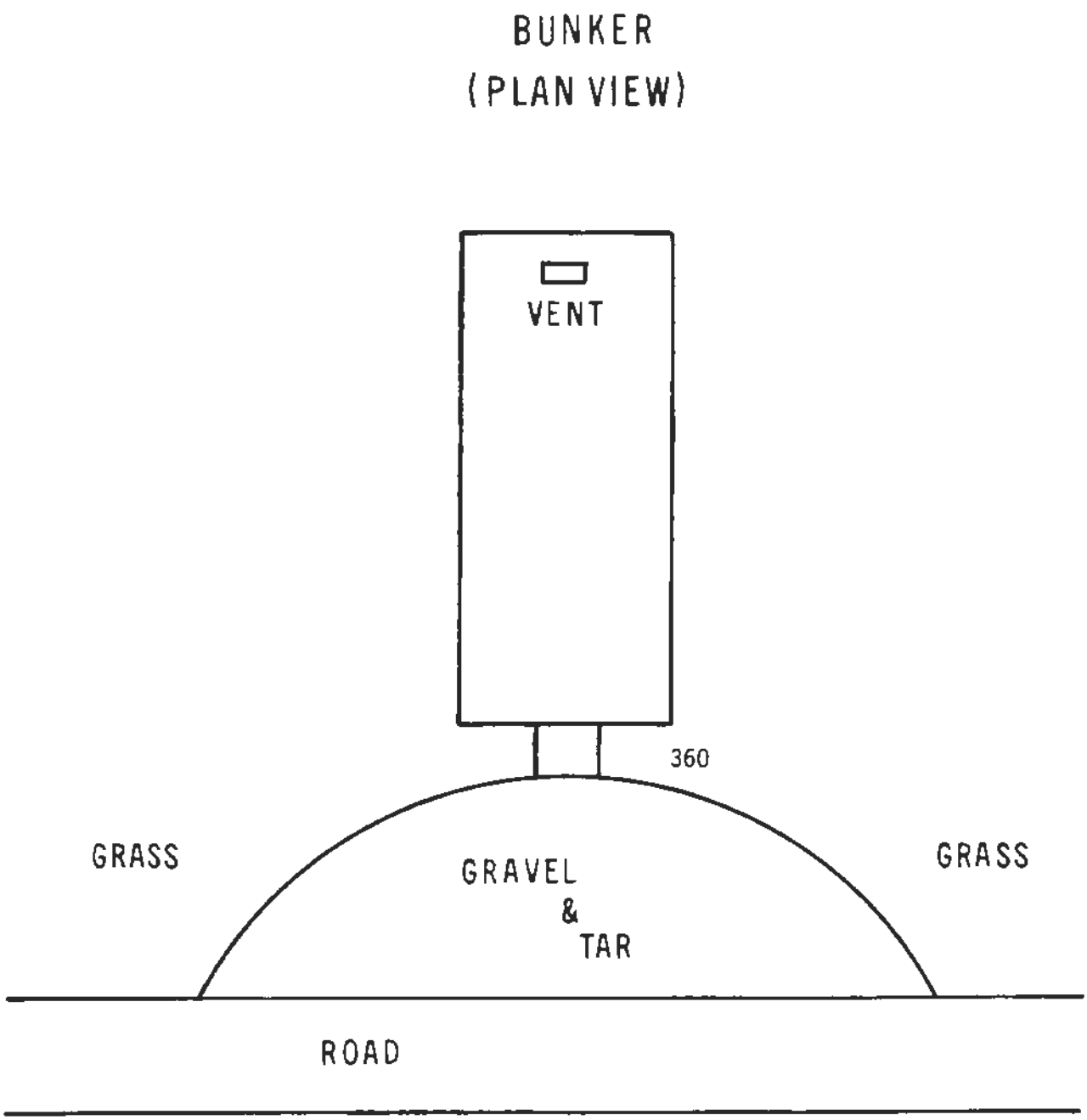
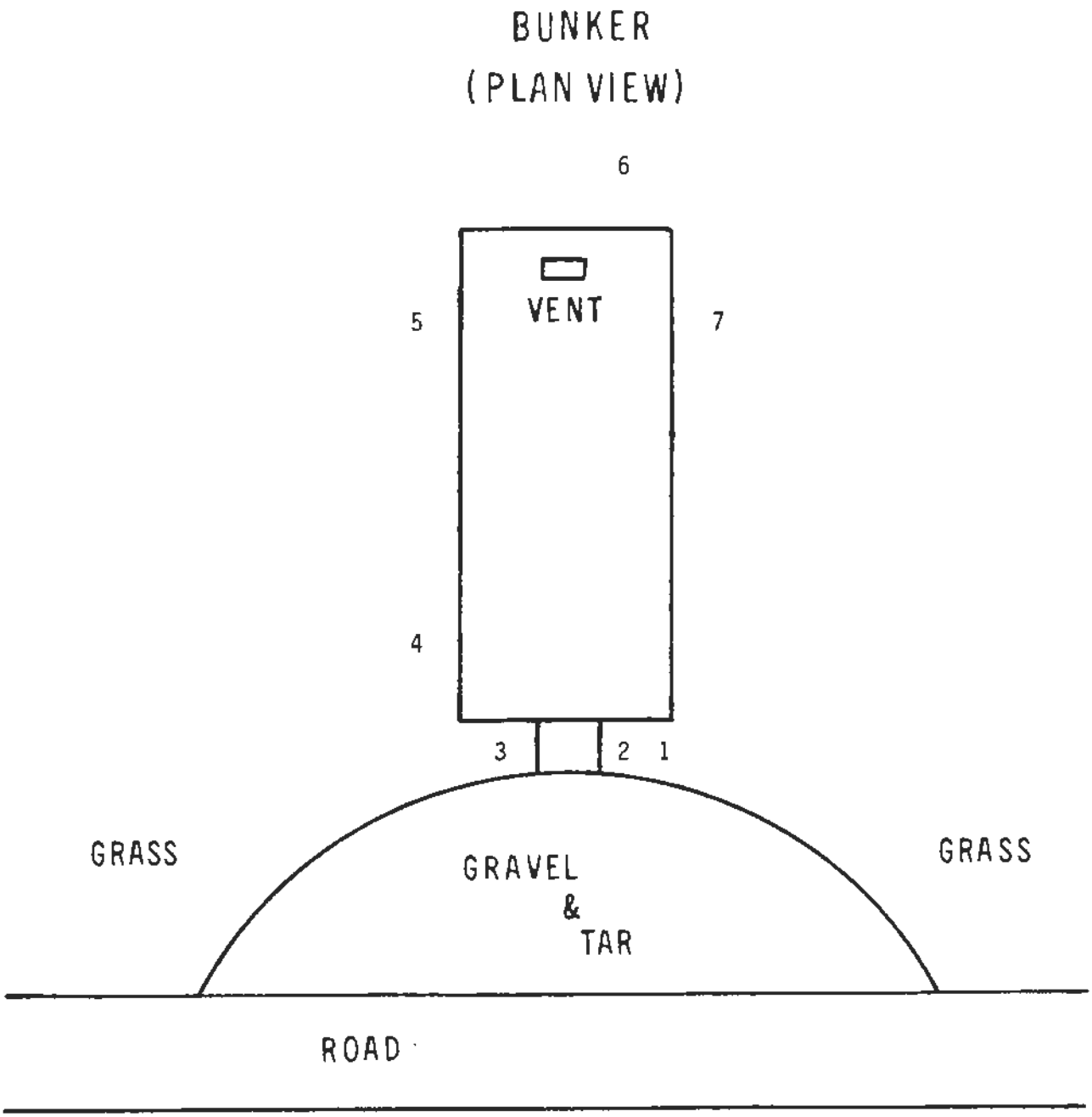


Figure B-2. Second Team Surveyed Positions: Building 802 (Exterior)

TABLE B-3. SOIL AND WATER SAMPLE RESULTS : BUILDING EO-802

Lower Level of Detectability 5 X 10^{-7} pCi/ml or g

Data Point Location	Sample No.	µR	Sample Type	Contamination Levels pCi/ml or g ^{226}Ra	Contamination Levels pCi/ml or g ^{238}U
1		8			
2		8			
3	802-1	7	Soil		.6±.7
4		8			
5		8			
6		8			
7		8			



Building 802

Figure B-3. Soil and Water Sample Positions: Building 802

Appendix C

RADCON Team Survey Data for Building 803

TABLE C-1. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-803

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
1	Wall	1990	.010	0	7	0	0
2	Floor	1920	.010	0	7	5	0
3	Floor	2110	.020	0	8	0	0
4	Wall	2060	.010	0	8	0	0
5	Wall	2390	.010	0	7	0	0
6	Floor	2220	.020	0	8	5	0
7	Floor	2060	.010	0	8	5	0
8	Wall	2080	.010	0	9	5	0
9	Wall	1850	.010	50	7	0	0
10	Floor	1970	.010	0	7	17	0
11	Floor	1950	.020	0	7	5	1
12	Wall	1870	.010	0	9	0	0
13	Wall	2060	.010	0	7	5	0
14	Floor	2060	.010	0	7	0	0
15	Floor	2020	.010	0	7	5	0

TABLE C-1. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-803 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
16	Wall	2140	.010	0	7	0	0
17	Wall	2060	.020	0	7	0	0
18	Floor	2070	.010	50	6	0	0
19	Floor	1990	.010	0	8	0	0
20	Wall	1920	.010	100	9	0	0
21	Pad	2620			8		
22	Pad	2390			12		
23	Pad	1480			6		
24	Pad	2630			8		
25	Pad	2520			7		

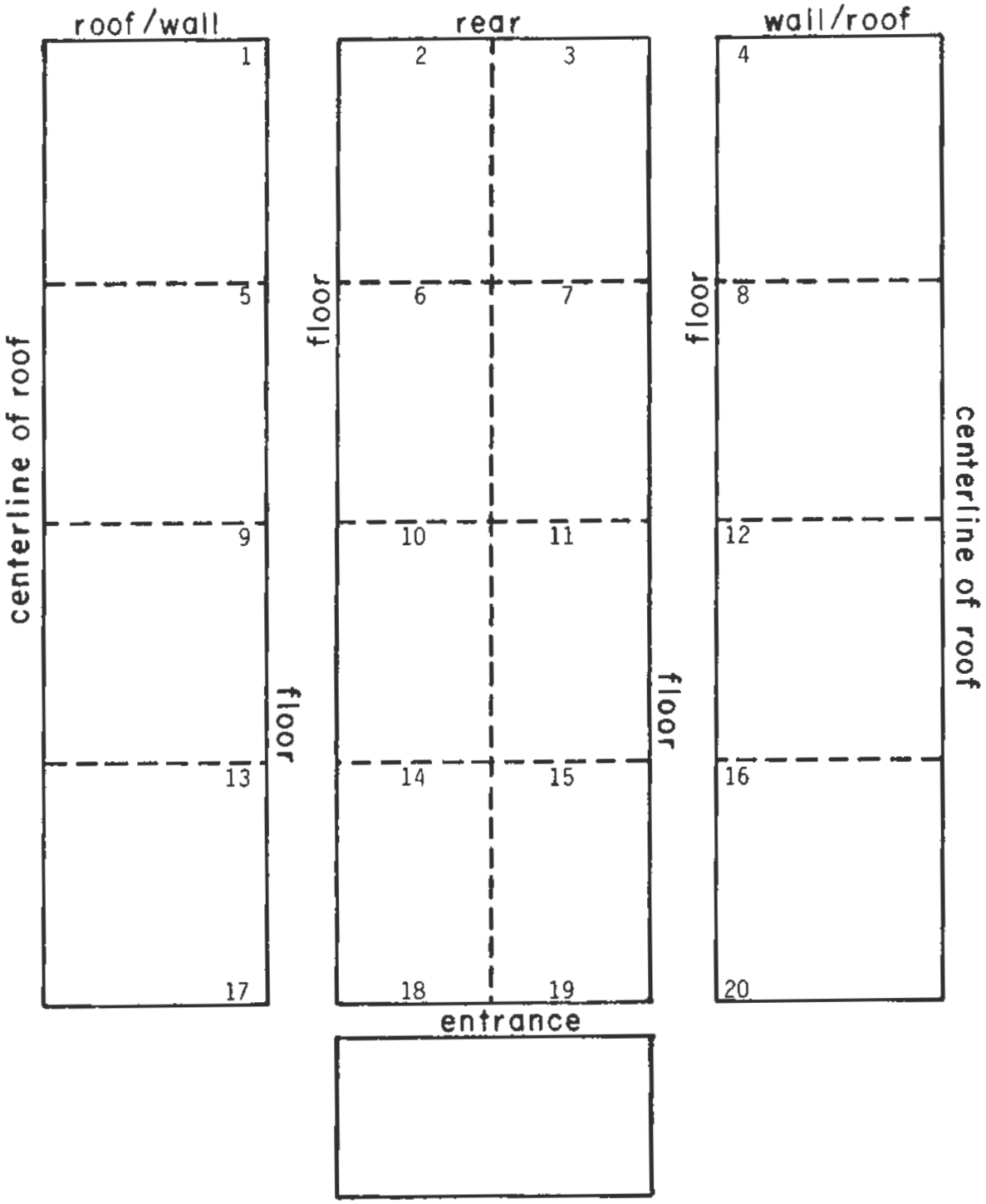


Figure C-1. First Team Surveyed Positions: Building 803 (Interior)

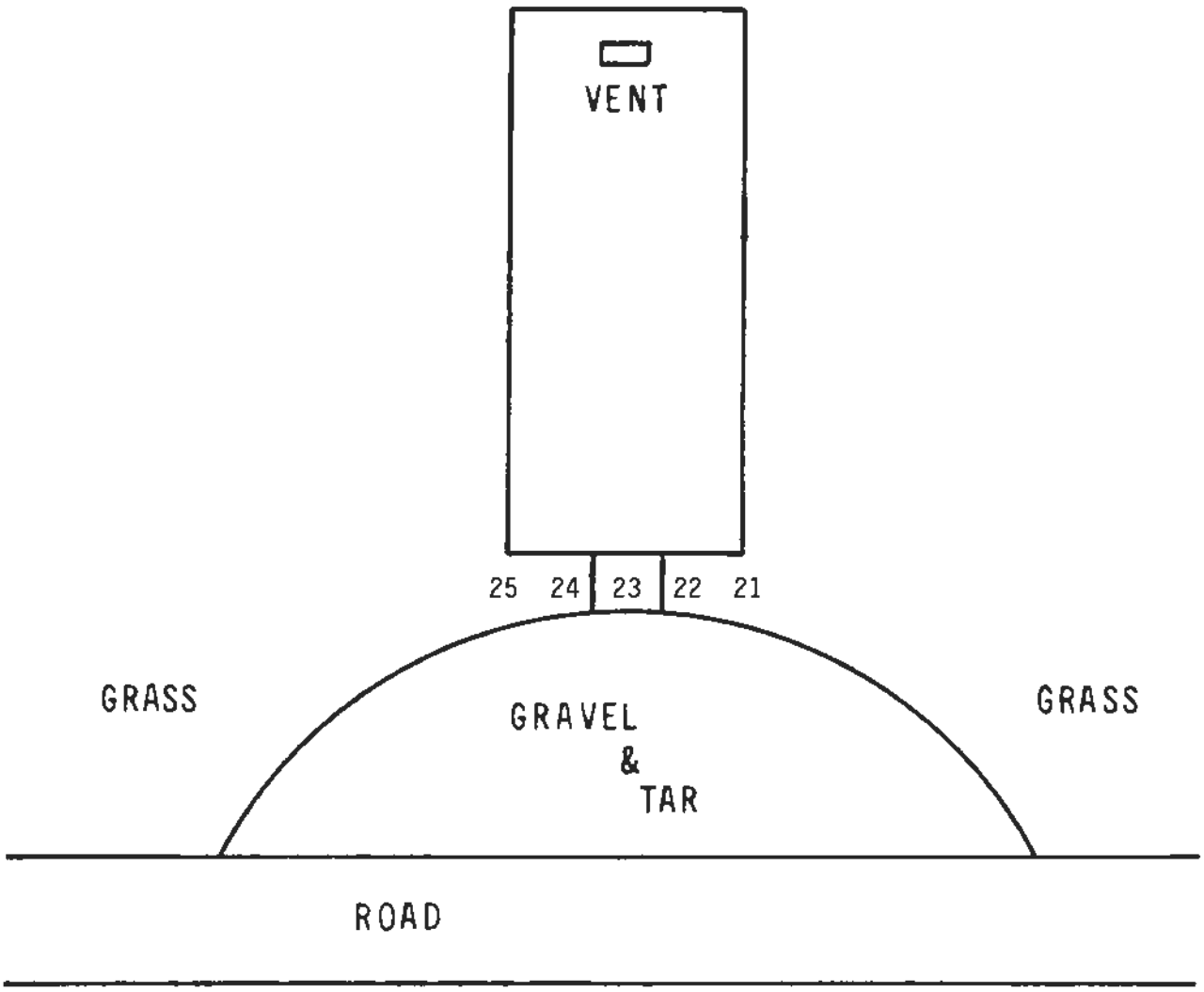


Figure C-2. First Team Surveyed Positions: Building 803 (Exterior)

TABLE C-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-803

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
67	Pad	775	.010	0	9	6	15
68	Floor	775	.010	0	9	0	0
69	Wall	775	.010	0	9	0	0
70	Floor	775	.010	0	9	0	4
71	Wall	775	.010	0	9	0	2
72	Floor	775	.010	0	9	6	5
73	Wall	775	.010	0	9	0	0
74	Floor	775	.010	0	9	0	6
75	Wall	775	.010	0	9	0	0
76	Floor	775	.010	0	9	0	0
77	Wall	775	.010	0	9	0	3
78	Floor	775	.010	0	9	0	1
79	Wall	775	.010	0	9	6	7
80	Floor	775	.010	0	9	0	7
81	Wall	775	.010	0	9	6	2

TABLE C-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-803 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
82	Floor	775	.010	0	9	0	0
83	Wall	775	.010	0	9	0	7
84	Floor	775	.010	0	9	0	1
85	Wall	775	.010	0	9	0	2
86	Floor	775	.010	0	9	0	9
87	Wall	775	.010	0	9	0	2
88	Floor	775	.010	0	9	0	7
89	Wall	775	.010	0	9	0	1
90	Floor	775	.010	0	9	0	3
91	Wall	775	.010	0	9	0	3
92	Floor	775	.010	0	9	6	3
93	Wall	775	.010	0	9	0	1
94	Floor	775	.010	0	9	0	1
95	Wall	775	.010	0	9	6	0
96	Floor	775	.010	0	9	5	5

TABLE C-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-803 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
97	Wall	775	.020	0	9	0	0
98	Floor	775	.010	0	9	0	0
99	Floor	775	.010	0	9	0	0

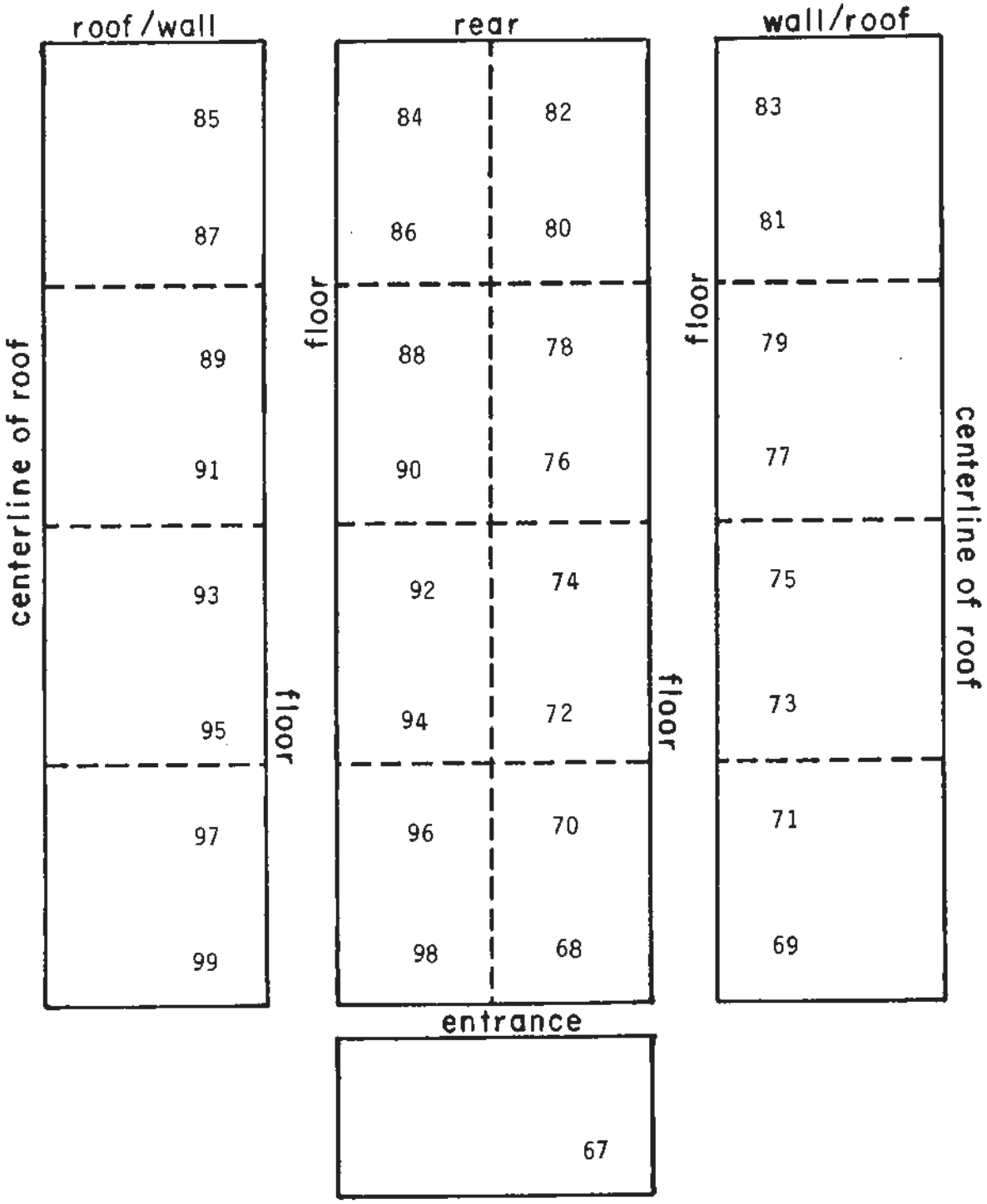


Figure C-3. Second Team Surveyed Positions: Building 803 (Interior)

TABLE C-3. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-803 (Exterior)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
361	Pad	990		0	11		

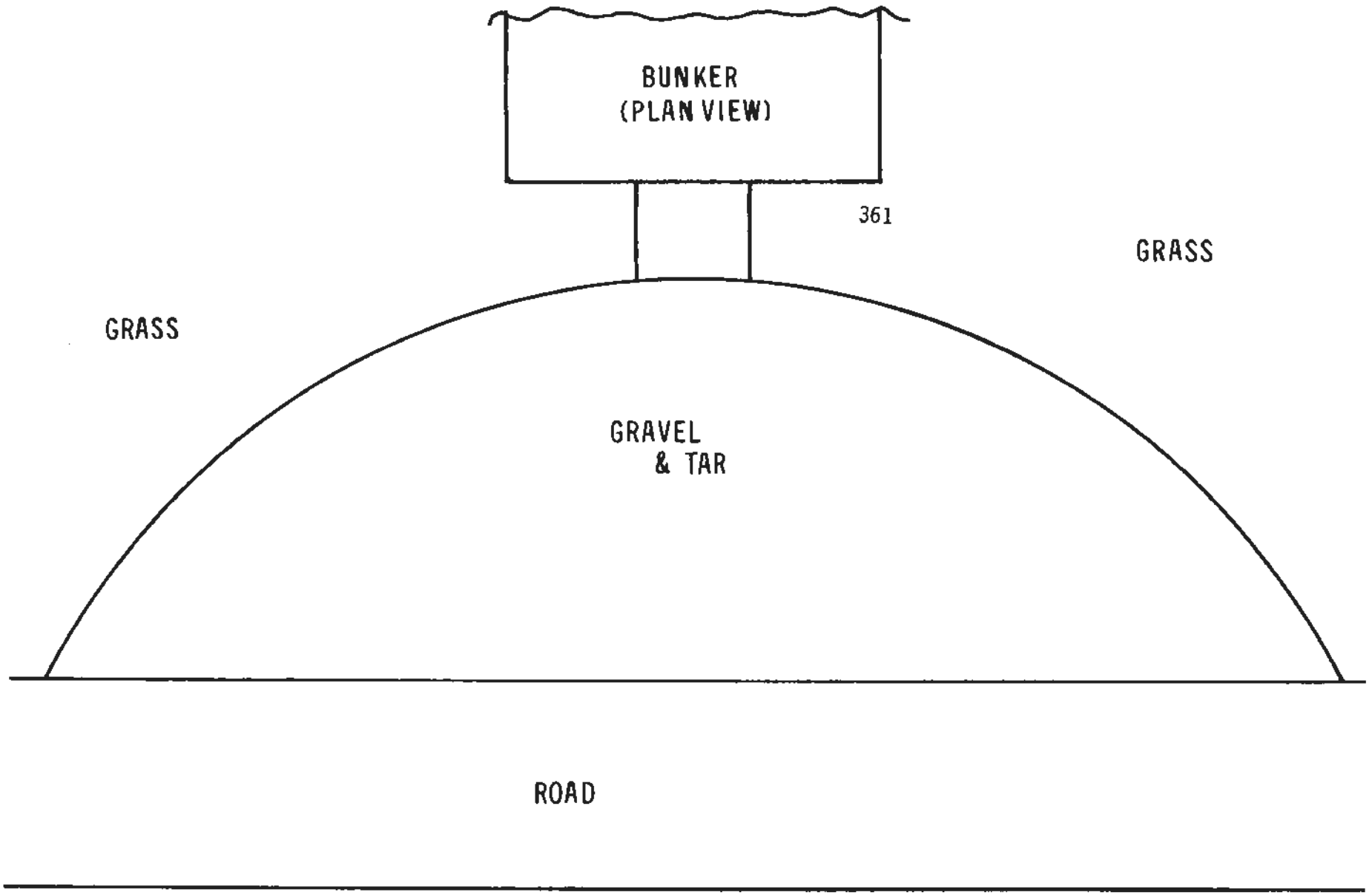
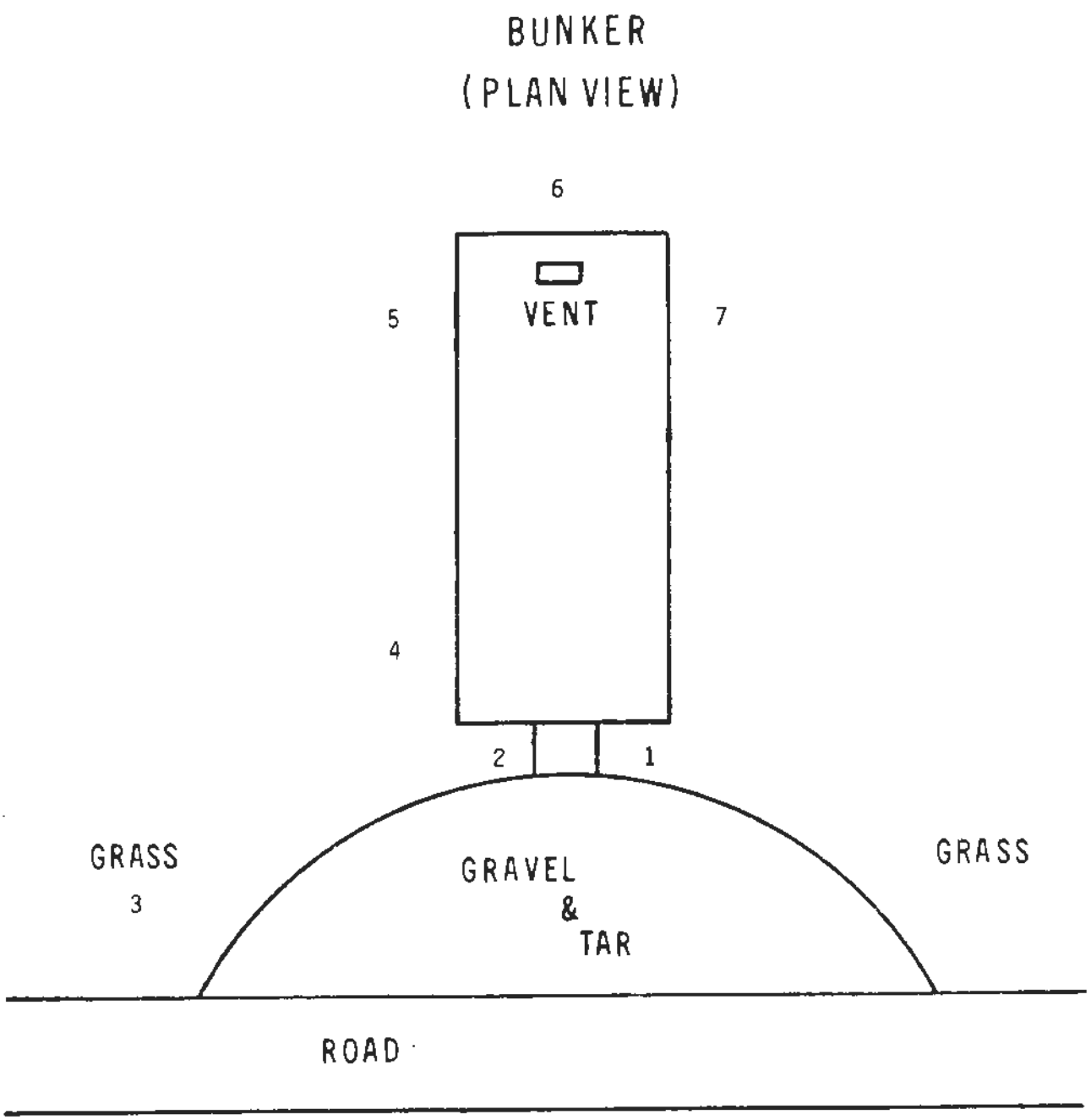


Figure C-4. Second Team Surveyed Positions: Building 803 (Exterior)

TABLE C-4. SOIL AND WATER SAMPLE RESULTS : BUILDING EO-803

Lower Level of Detectability 5 X 10^{-7} pCi/ml or g

Data Point Location	Sample No.	µR	Sample Type	Contamination Levels pCi/ml or g ^{226}Ra	^{238}U
1		8			
2	803-1	8	Soil		
3	803-1A		Water		
4		8			
5		8			
6		9			
7		8			



Building 803

Figure C-5. Soil and Water Sample Positions: Building 803

Appendix D

RADCON Team Survey Data for Building 804

TABLE D-1. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-804

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
1	Wall	7440	.040	0	12	0	0
2	Floor	7410	.070	50	12	22	4
3	Floor	7890	.050	150	9	17	17
4	Wall	7110	.020	0	10	5	2
5	Wall	7300	.040	0	9	0	5
6	Floor	7710	.040	0	11	11	11
7	Floor	9330	.010	200	11	34	31
8	Wall	7720	.030	0	9	0	0
8A/B	Floor	70490	1.200	2500	50	566	952
9	Wall	7890	.030	100	11	5	0
10	Floor	8900	.040	100	15	34	11
11	Floor	8870	.200	100	15	34	21
12	Wall	9340	.030	50	12	0	0
12A/B	Floor	64530	.200	400	50	217	234
13	Wall	8330	.020	0	10	0	0
13A/B	Floor	20260	.100	400	15	45	20

TABLE D-1. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-804 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
14	Floor	8080	.030	100	12	62	58
15	Floor	10220	.010	400	12	11	20
16	Wall	7810	.020	0	12	0	0
17	Wall	8380	.020	0	14	0	0
17A/B	Floor	95430	.500	350	70	0	0
18	Floor	9230	.010	50	13	11	21
19	Floor	8450	.050	100	13	28	26
20	Wall	8830	.20	0	12	0	0
20A/B	Floor	609060	2.000	1600	250	28	40
21	Pad	1363330	1.700	1000	2000		
22	Pad	9530	.010	0	10		
23	Pad	66060	.200	200	50		
24	Pad	31580			9		
25	Pad	31580			9		

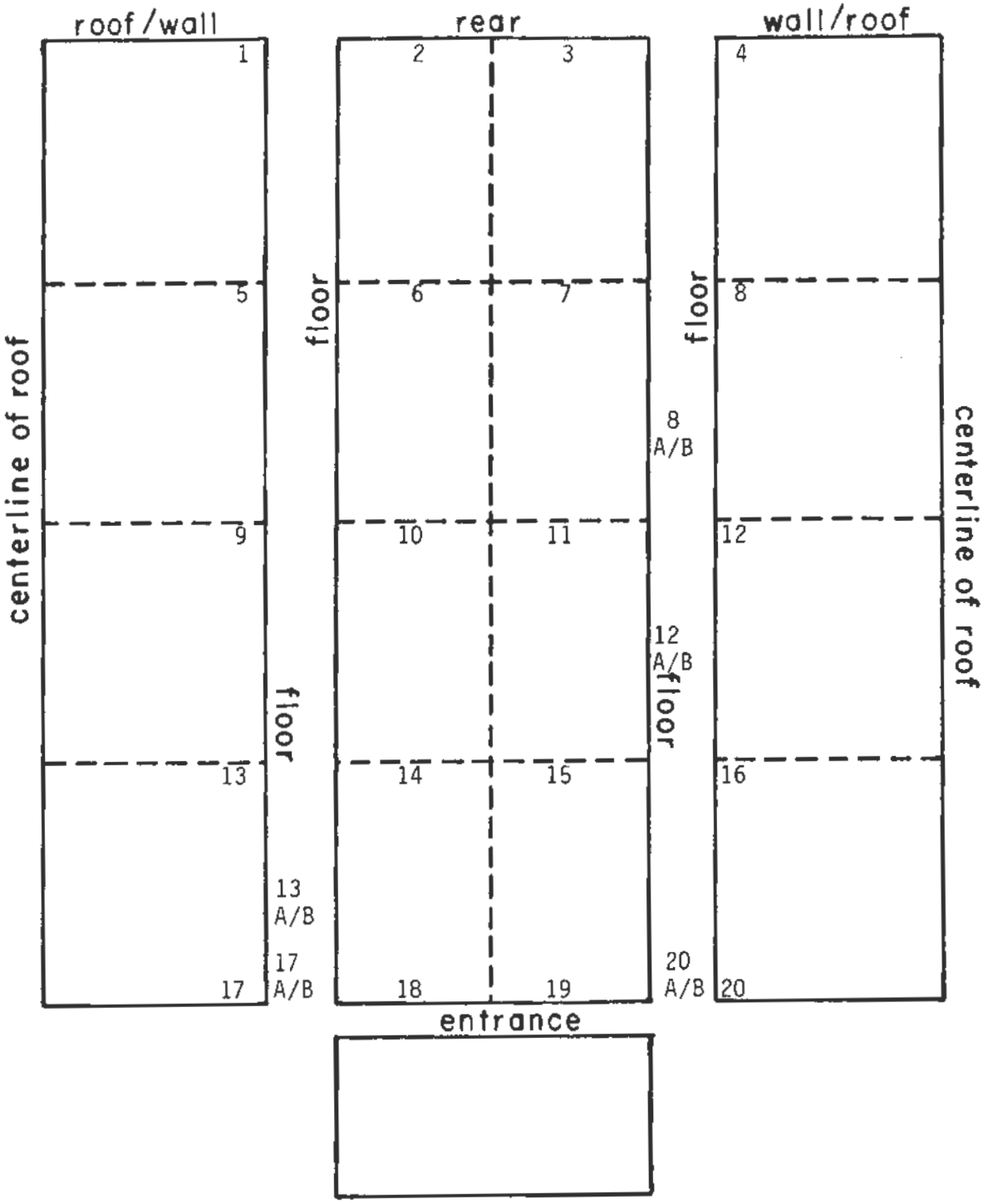


Figure D-1. First Team Surveyed Positions: Building 804 (Interior)

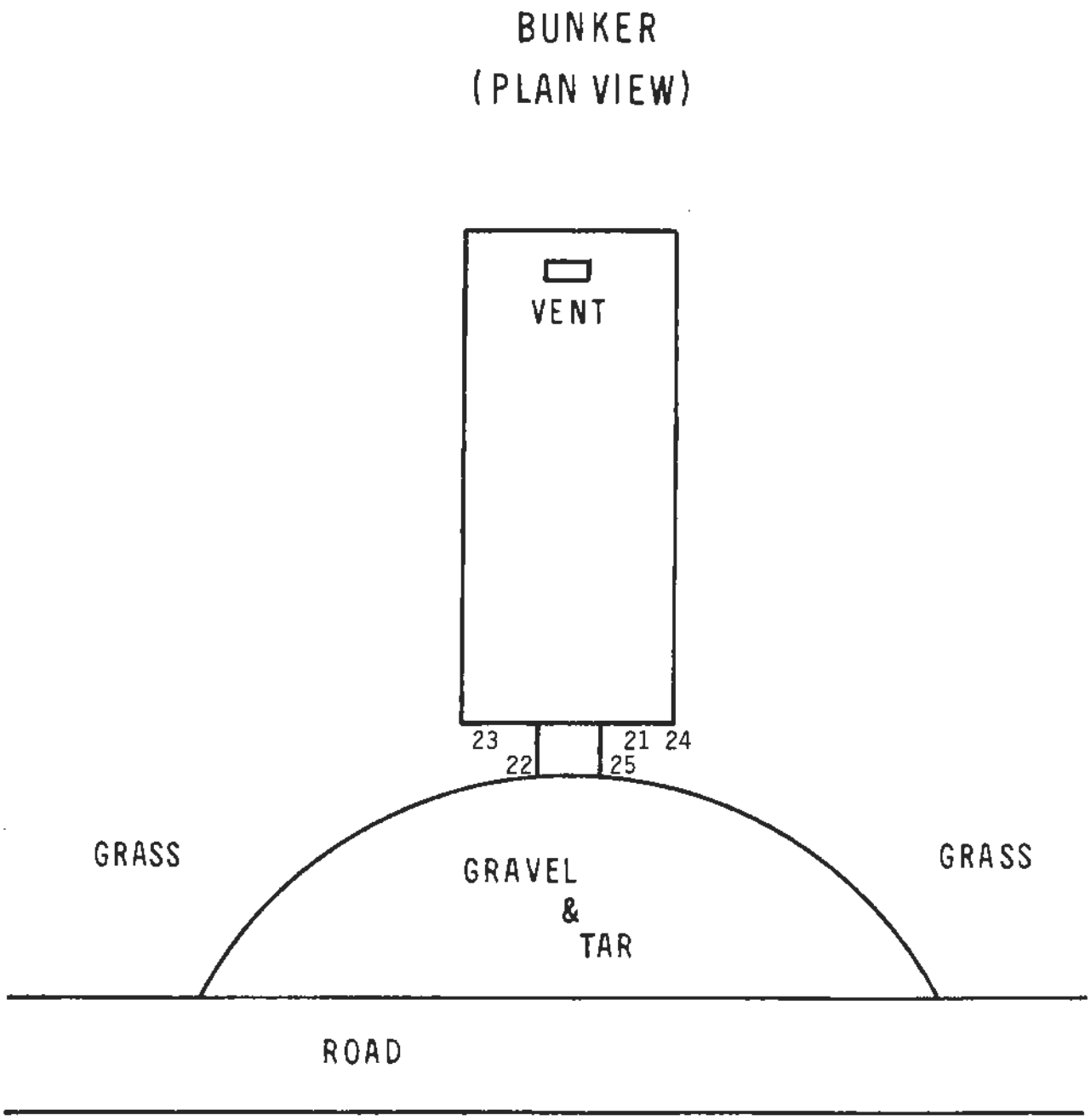


Figure D-2. First Team Surveyed Positions: Building 804 (Exterior)

TABLE D-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-804

Data Point Location Number		FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
100	Pad	11700	10.000	3500	270	0	0
101	Pad	18200	10.000	200	700	5	0
102	Pad	6700	10.000	200	22	5	2
103	Pad	6700	10.000	200	20	0	0
104	Floor	1500	.070	200	23	0	1
105	Floor	1000	.040	250	20	50	28
106	Wall	1000	.040	200	20	5	0
107	Floor	4400	1.000	400	107	0	21
108	Floor	1000	1.000	800	20	17	14
109	Wall	1000	.020	150	15	0	0
110	Floor	1000	.100	300	20	44	69
111	Wall	1000	.020	50	15	5	3
112	Floor	1000	.300	700	20	39	48
113	Floor	1000	.020	400	15	11	27
114	Wall	1000	.020	100	15	0	1

TABLE D-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-804 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
115	Floor	1000	.040	350	15	22	27
116	Wall	1000	.030	100	15	0	6
117	Floor	1000	.020	150	15	33	22
118	Wall	1000	.020	50	15	5	6
119	Floor	1000	.040	100	15	33	22
120	Wall	1000	.020	50	15	5	4
121	Floor	1000	.030	250	15	17	10
122	Wall	1000	.030	50	15	0	3
123	Floor	1000	.040	150	15	0	0
124	Wall	1000	.010	100	10	5	2
125	Floor	1000	.030	250	15	78	43
126	Wall	1000	.020	100	10	5	0
127	Wall	1000	.020	100	10	5	0

TABLE D-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-804 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
128	Wall	1000	.020	150	10	0	1
129	Floor	1000	.030	200	15	89	79
130	Wall	1000	.020	150	10	17	1
131	Floor	1000	.060	600	15	61	56
132	Wall	1000	.030	50	10	0	0
133	Floor	2400	1.000	4000	44	283	214
134	Floor	8000	3.000	3500	0	378	407
135	Floor	1000	.030	500	15	28	31
136	Wall	1000	.030	50	10	0	1
137	Floor	1000	.050	600	15	72	33
138	Wall	1000	.020	150	10	0	0
139	Floor	7900	3.000	1400	50	411	512
140	Floor	1000	.050	100	15	78	97
141	Wall	1000	.020	50	10	5	0
142	Floor	1000	.030	150	10	67	57

TABLE D-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-804 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
143	Wall	1000	.010	100	10	0	0
144	Floor	1000	.030	100	10	33	44
145	Wall	1000	.020	150	10	0	0
146	Floor	7900	10.000	5000	110	144	163
147	Wall	1000	.020	100	10	0	5
148	Wall	1000	.020	50	10	0	3

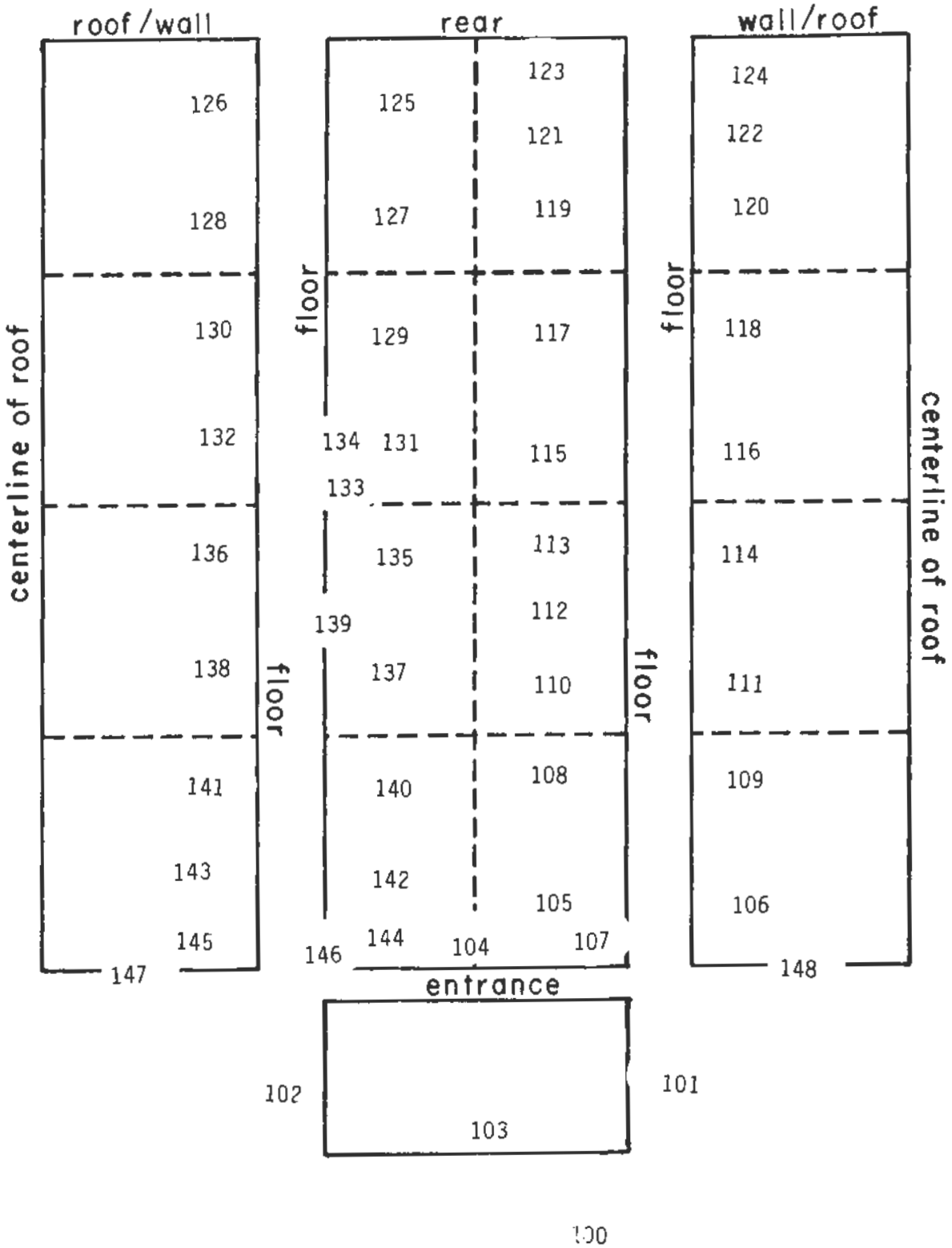


Figure D-3. Second Team Surveyed Positions: Building 804 (Interior)

TABLE D-3. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-804 (Exterior)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
369	Pad	29700		0	200		
370	Pad	800		0	9		

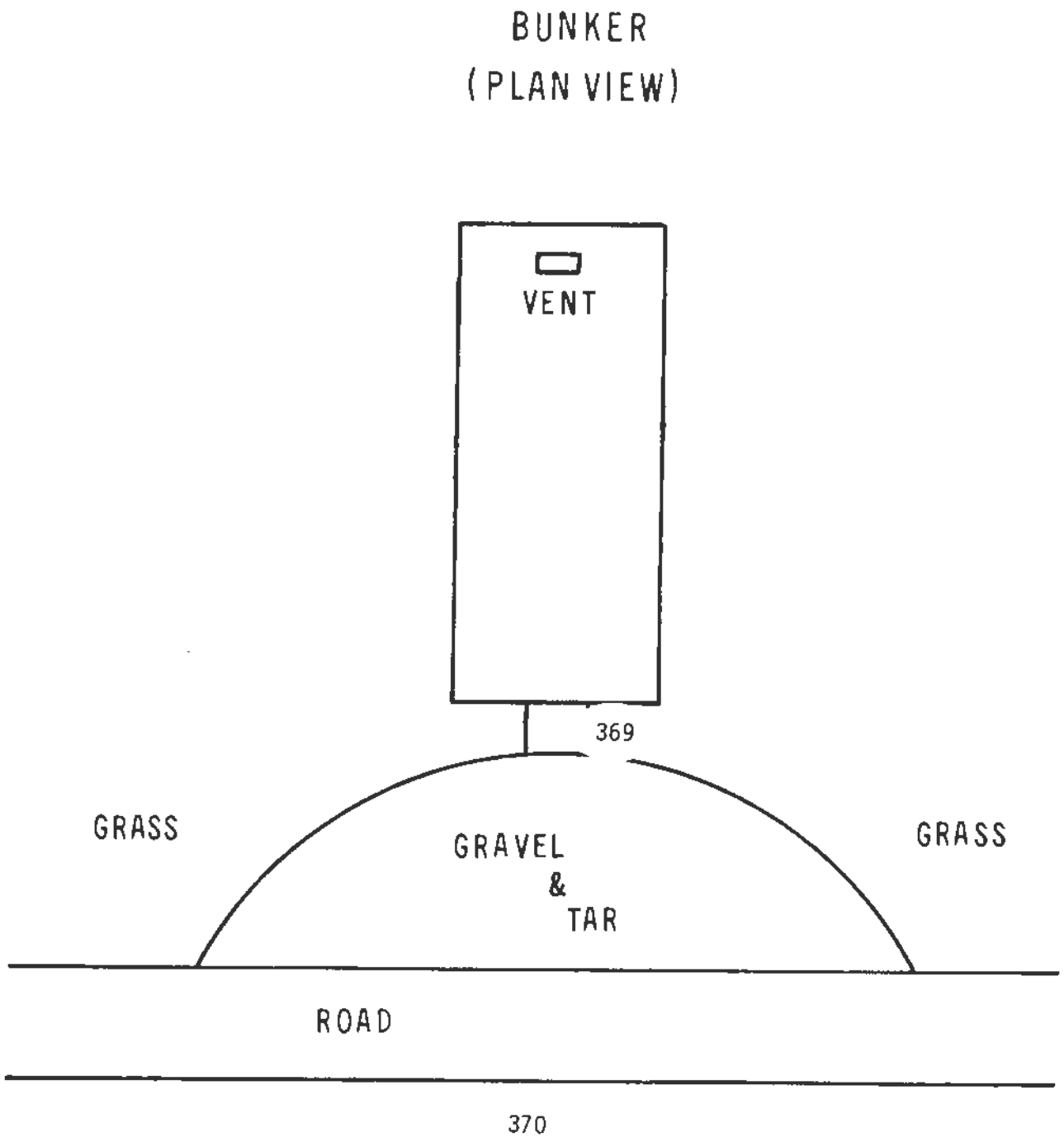


Figure D-4. Second Team Surveyed Positions: Building 804 (Exterior)

TABLE D-4. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-804-GRID

Data Point Location Number		FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
1	*	8230			9		
2	*	8980			9		
3	*	9520			9		
4	*	9380			9		
5	*	9710			11		
6	*	6820			8		
7	*	10330		9	1033		
8	*	8740			9		
9	*	9270			10		
10	*	8410			9		
11	*	8420			8		
12	*	9180			9		
13	*	9220			9		
14	*	5830			7		
15	*	6030			7		

TABLE D-4. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-804-GRID (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
16	Pad	5950			7		
17	Pad	6000			8		
18	Pad	6900			8		
19	Pad	9320			8		
20	Pad	8620			9		
21	Pad	10100			10		
22	Pad	9710			12		
23	Pad	6730			8		
24	Pad	6790			6		
25	Pad	6790			7		
26	Pad	6250			7		
27	Pad	7010			9		
28	Pad	14580			15		
29	Pad	13010			18		
30	Pad	17880			20		

TABLE D-4. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-804-GRID (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
31	Pad	16020	.010	0	23		
32	Pad	167020	.020	50	130		
33	Pad	14830	.010	0	12		
34	Pad	7600		12	9		
35	Pad	6910		9	7		
36	Pad	6390		7	8		
37	Pad	7390		7	6		
38	Pad	9710	.020	14	9		
39	Pad	24220	.050	35	10		
40	Pad	109390	.100	300	9		
41	Pad	13060	.020	25	8		
42	Pad	9710	.020	10	7		
43	Pad	7240	.030	9	8		
44	Pad	6030	.020	8	9		
45	Pad	6520	.020	7	9		

TABLE D-4. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-804-GRID (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
46	Pad	6060	.020	6	8		
47	Pad	5980	.020	7	9		
48	Pad	7740	.020	8	7		
49	Pad	8540	.020	10	9		
50	Pad	11900	.020	13	9		

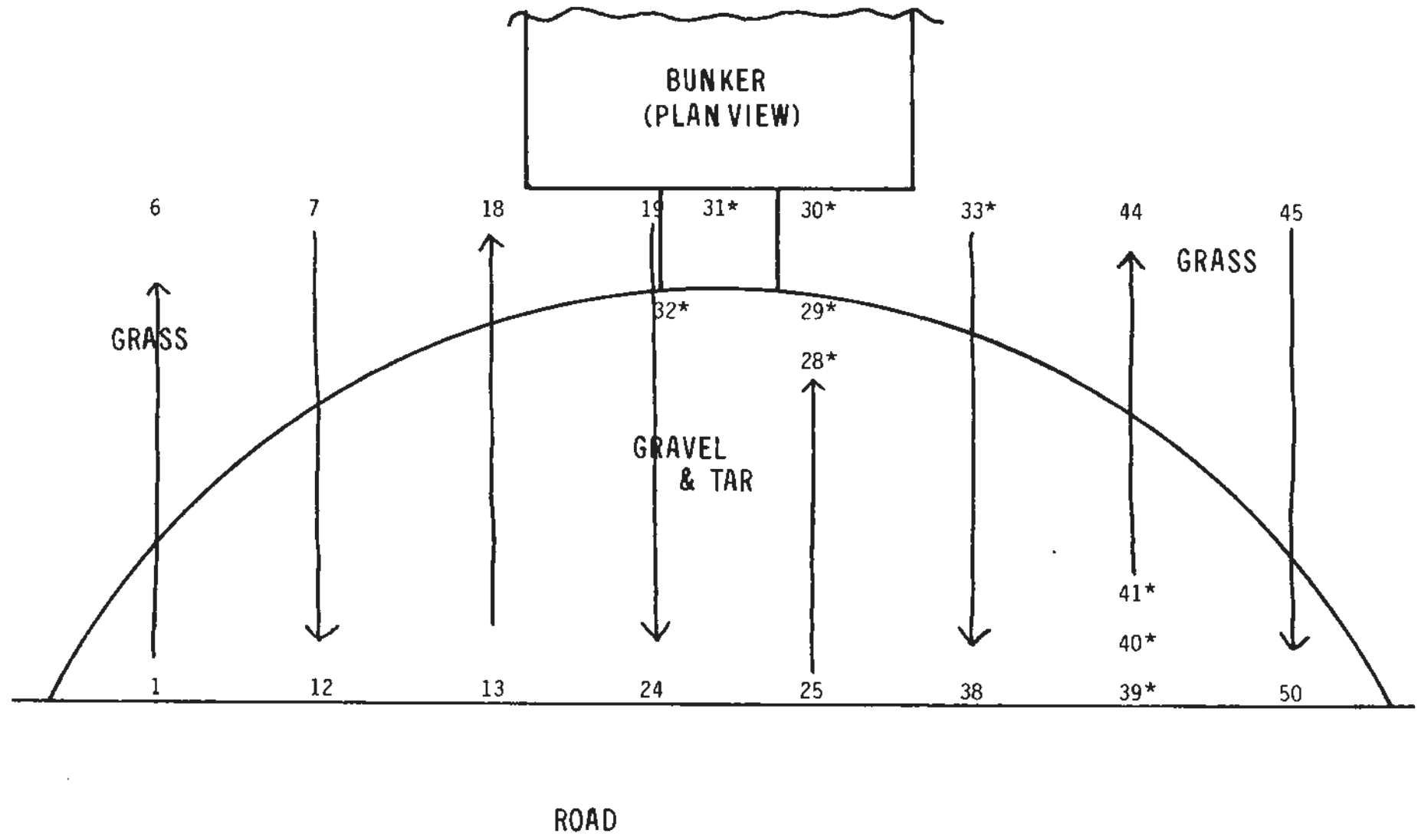
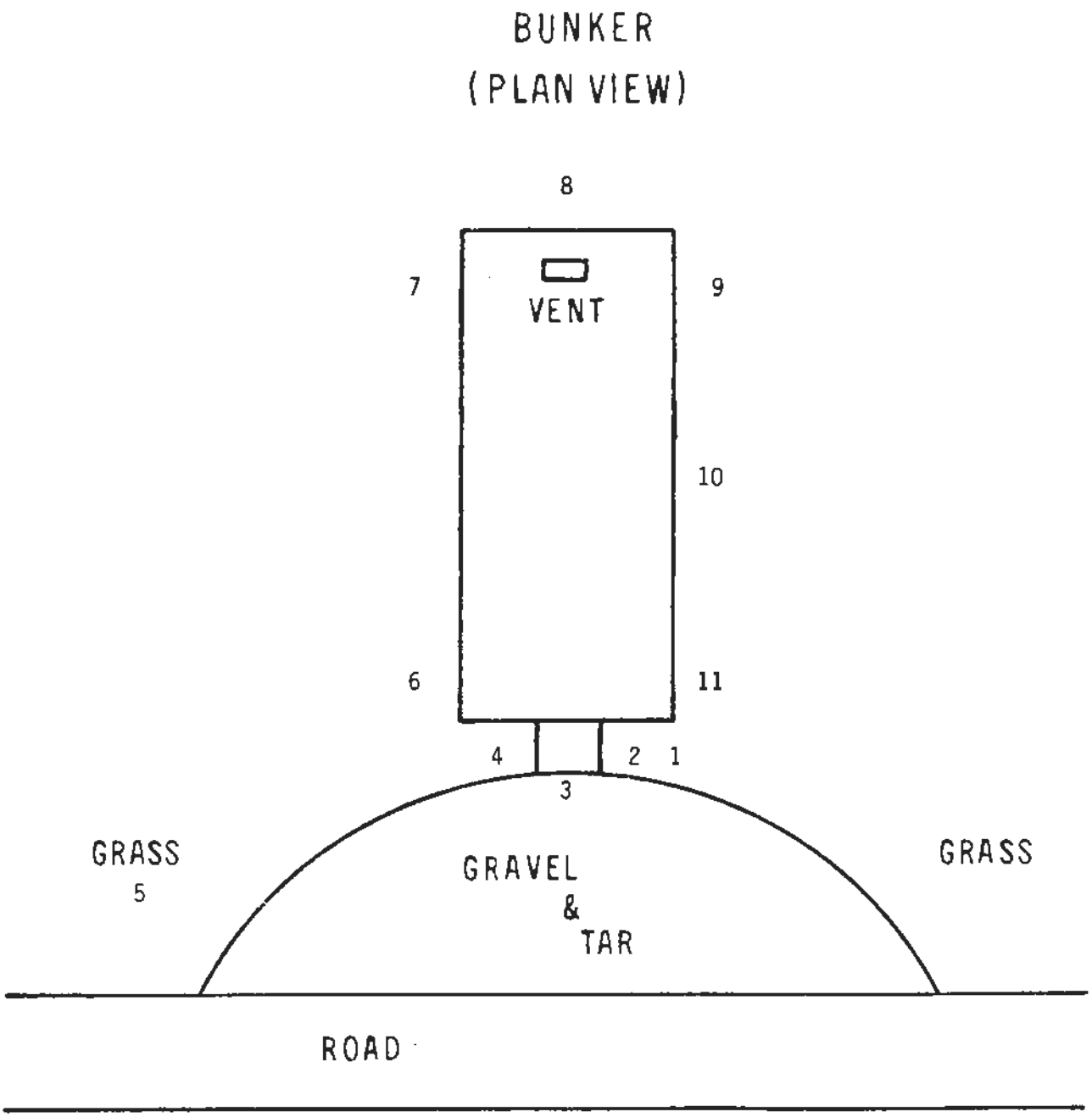


Figure D-5. First Team Surveyed Positions: Building 804-GRID

TABLE D-5. SOIL AND WATER SAMPLE RESULTS : BUILDING EO-804

Lower Level of Detectability 5 X 10^{-7} pCi/ml or g

Data Point Location	Sample No.	µR	Sample Type	Contamination Levels pCi/ml or g ^{226}Ra	^{238}U
1	804-2	500	Soil		2.9±.9
2	804-1	110	Soil	1590±6	916±12
3	804-3	130	Soil		1356±23
4	804-4	35	Soil		2400±43
5	804-1A		Water		
6		9			
7		10			
8		9			
9	804-2A	9	Water		
10		8			
11		14			



Building 804

Figure D-6. Soil and Water Sample Positions: Building 804

Appendix E

RADCON Team Survey Data for Building 805

TABLE E-1. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-805

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
1	Wall	2130	.010	0	8	0	3
2	Floor	2690	.040	0	7	5	6
3	Floor	2050	.030	0	9	0	17
4	Wall	2040	.020	0	8	0	0
5	Wall	2170	.010	0	7	0	0
6	Floor	2050	.030	0	10	0	2
7	Floor	2010	.030	0	8	0	4
8	Wall	2350	.020	0	8	0	3
9	Wall	2420	.030	0	8	0	5
10	Floor	2250	.030	0	7	0	3
11	Floor	2500	.020	0	9	0	4
12	Wall	2070	.020	50	8	0	0
13	Wall	2110	.020	0	8	0	1
14	Floor	2260	.020	50	7	0	6
15	Floor	2280	.040	0	8	0	9

TABLE E-1. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-805 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
16	Wall	2140	.010	250	8	0	6
17	Wall	2170	.010	0	8	0	0
18	Floor	2220	.080	0	8	0	5
19	Floor	2470	.030	0	8	0	10
20	Wall	2010	.020	0	7	0	10
21	Drain	2620	.020	0	7	0	4
22	Drain	3120	.030	0	9	11	5
23	Pad	2230	.010	0	7	0	7
24	Pad	2790	.020	0	9		
25	Pad	10210	.070	0	20		
26	Pad	3150	.020	0	12		
27	Pad	2890	.020	0	8		
28	Pad	51530	.500	0	90		
29	Pad	30160	.020	0	50		

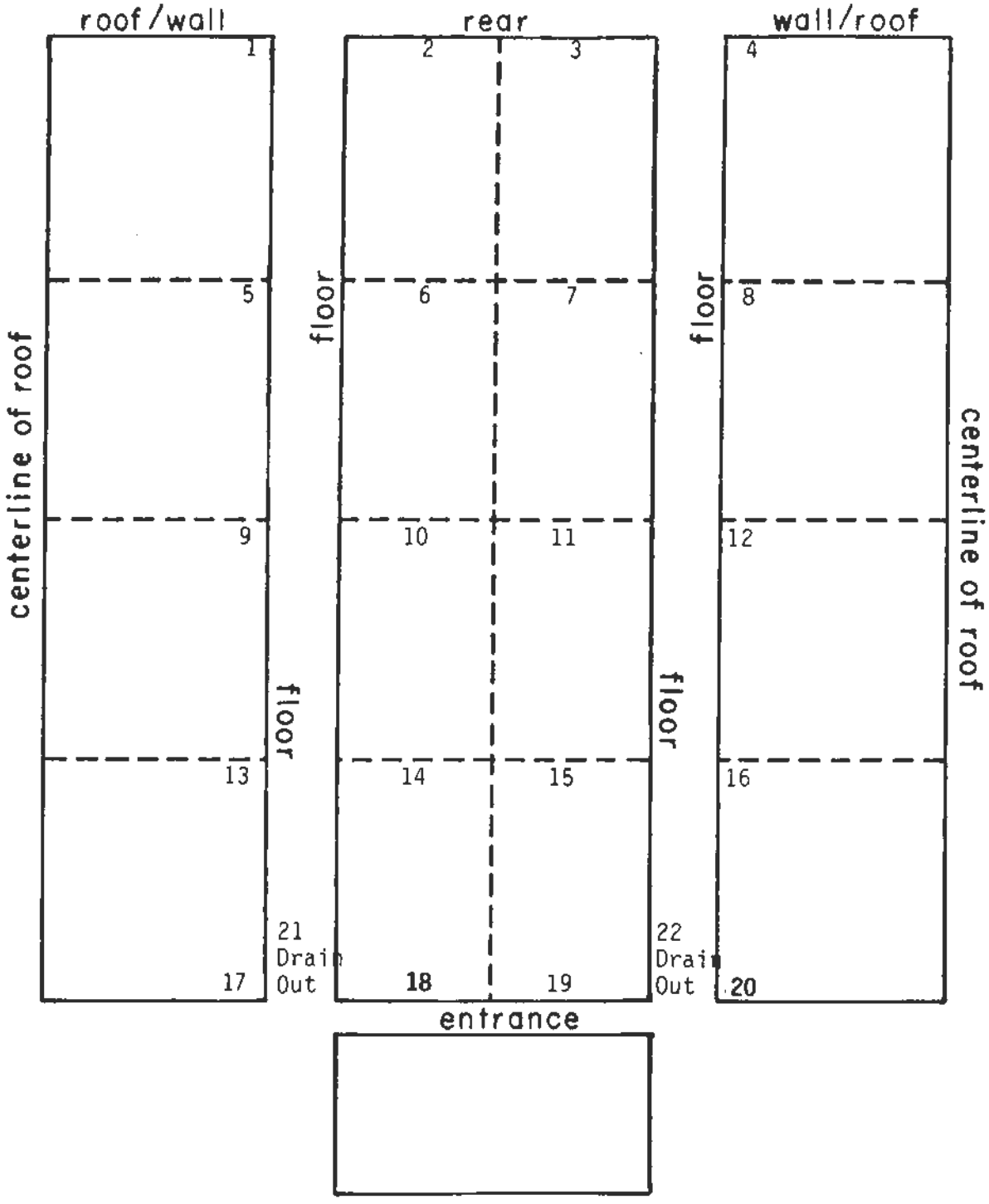


Figure E-1. First Team Surveyed Positions: Building 805 (Interior)

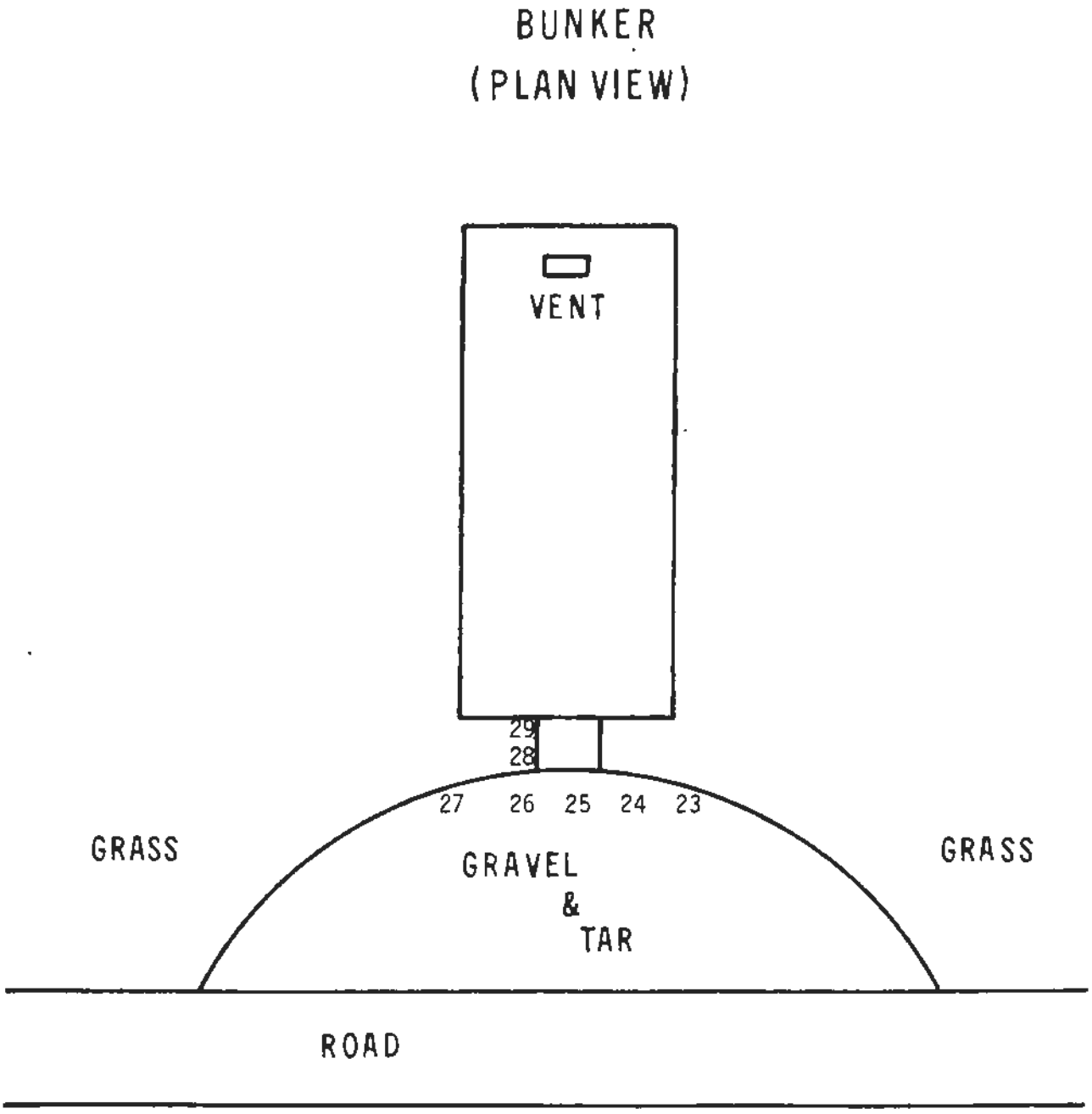


Figure E-2. First Team Surveyed Positions: Building 805 (Exterior)

TABLE E-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-805

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
149	Pad	1500	.030	150	11	5	0
150	Pad	2000	.400	0	40	6	1
151	Floor	800	.050	200	11	0	3
152	Wall	800	.020	0	8	22	2
153	Floor	800	.040	150	8	11	0
154	Wall	800	.030	0	8	6	5
155	Floor	800	.030	200	8	0	5
156	Wall	800	.020	0	8	5	7
157	Floor	800	.030	0	8	5	0
158	Wall	800	.020	0	8	0	0
159	Floor	800	.020	100	8	0	0
160	Wall	800	.020	0	8	5	0
161	Floor	800	.030	0	8	11	3
162	Wall	800	.020	100	8	5	4
163	Floor	800	.020	0	8	17	5

TABLE E-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-805 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
164	Wall	800	.020	0	8	5	6
165	Floor	800	.020	0	8	22	14
166	Wall	800	.020	0	8	11	0
167	Floor	800	.020	0	8	11	0
168	Wall	800	.020	0	8	5	2
169	Floor	800	.030	0	8	0	2
170	Wall	800	.020	0	8	0	0
171	Floor	800	.020	0	8	17	17
172	Wall	800	.020	0	8	11	2
173	Floor	800	.020	0	8	22	7
174	Wall	800	.020	0	8	0	0
175	Floor	800	.020	0	8	22	7
176	Wall	800	.020	0	8	11	0
177	Floor	800	.020	0	8	17	2
178	Wall	800	.020	0	8	0	0

TABLE E-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-805 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
179	Floor	800	.030	0	8	17	9
180	Wall	800	.020	0	8	0	0
181	Floor	800	.020	0	8	0	1
182	Wall	800	.020	0	8	0	11
183	Floor	800	.020	0	8	5	1
184	Wall	800	.020	100	8	0	3
185	Floor	800	.030	50	8	17	72
186	Wall	800	.020	50	8	0	0
187	Floor	800	.020	100	8	0	7
188	Wall	800	.020	100	8	0	1
189	Floor	800	.020	200	8	11	1
190	Wall	800	.020	0	8		

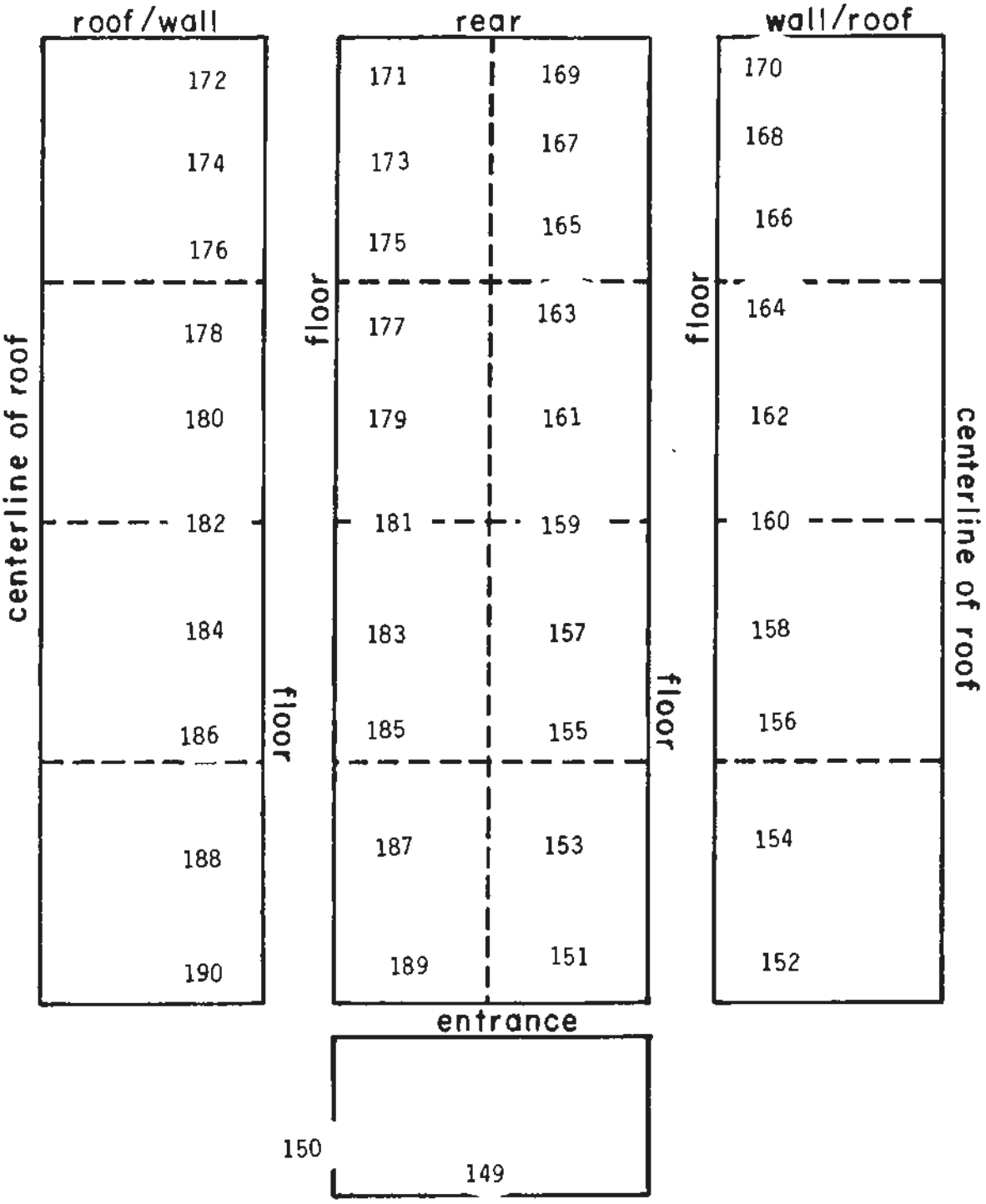


Figure E-3. Second Team Surveyed Positions: Building 805 (Interior)

TABLE E-3. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-805 (Exterior)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
362	Pad	20000	.200	0	80		

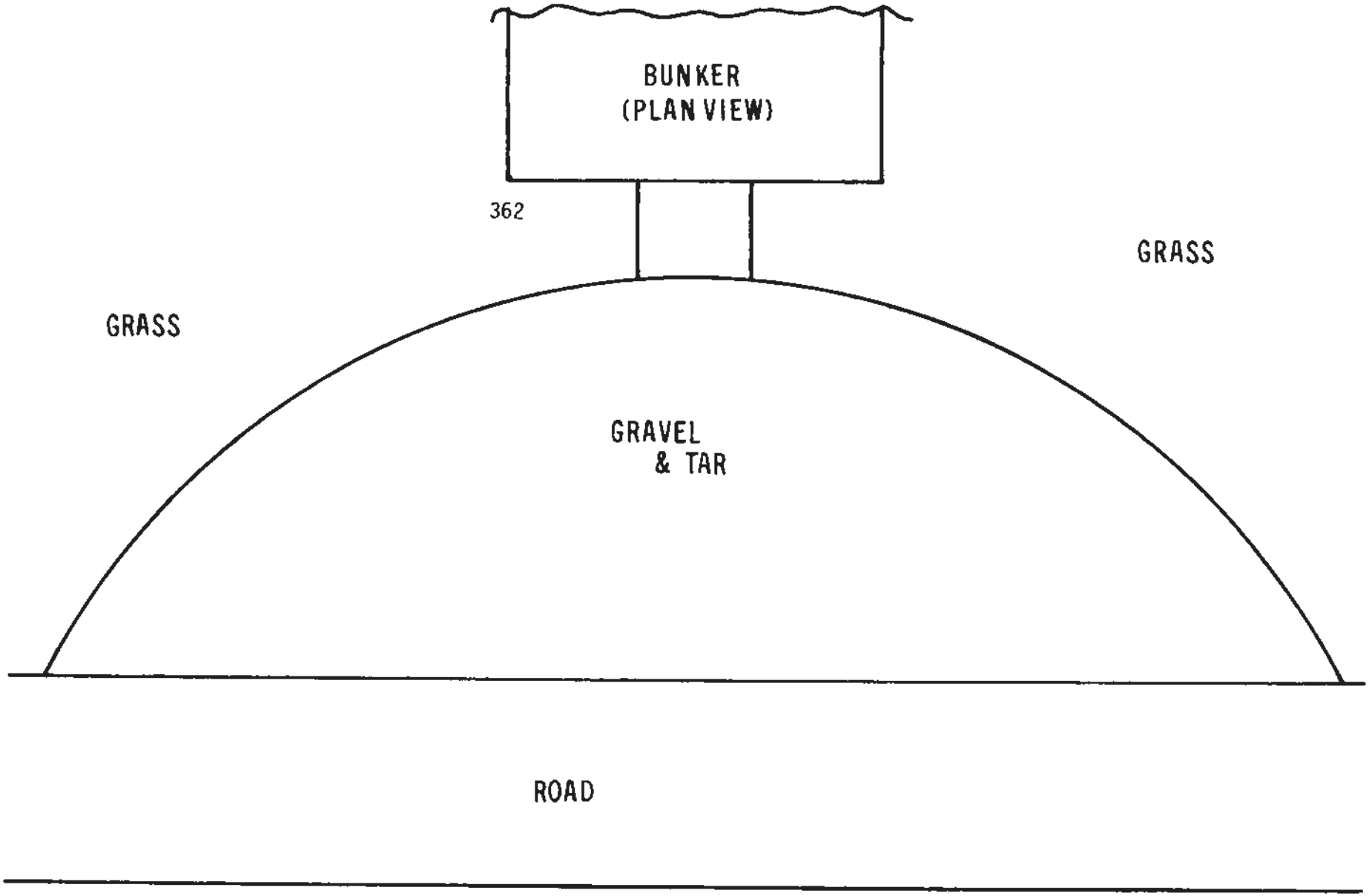
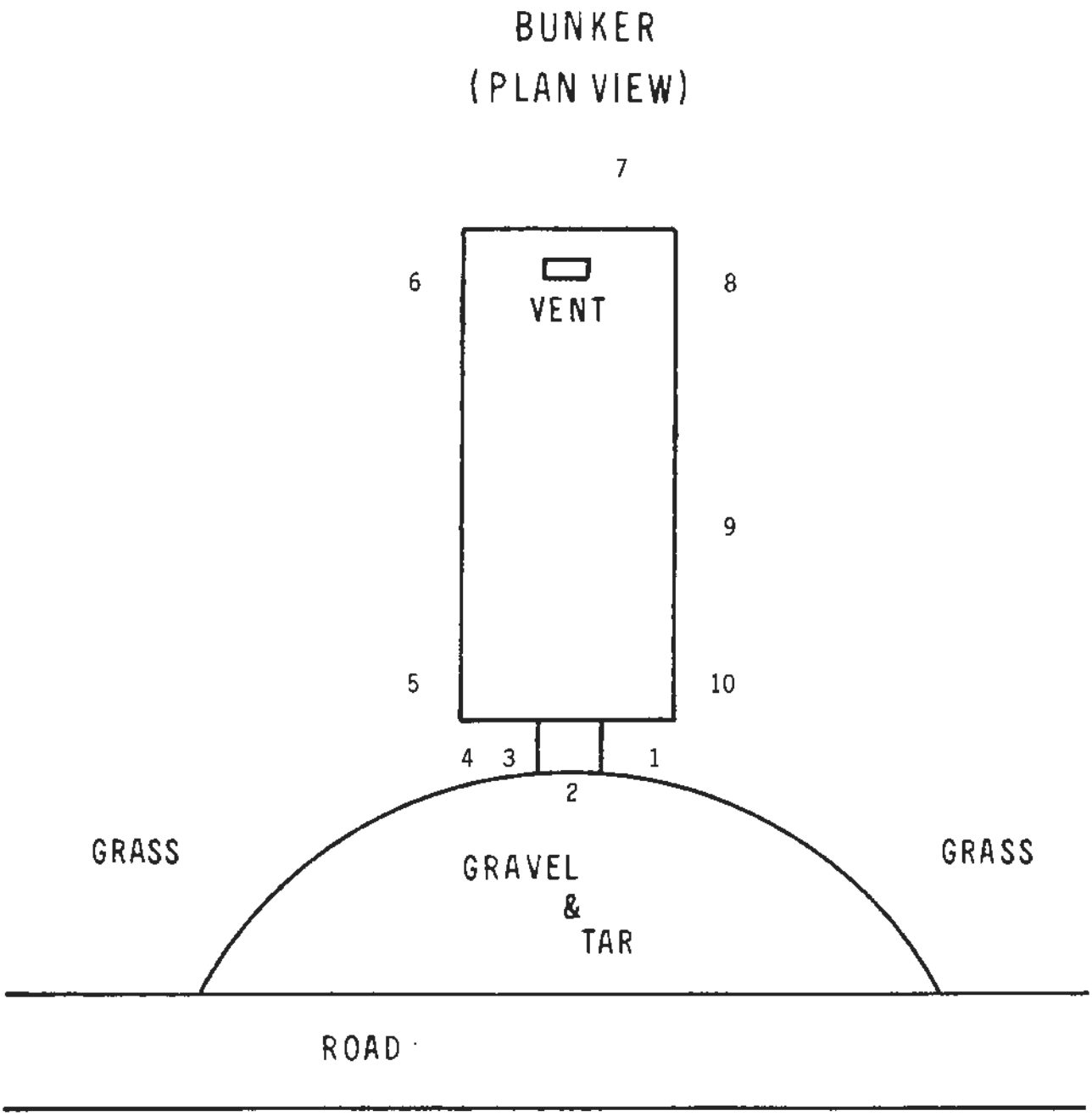


Figure E-4. Second Team Surveyed Positions: Building 805 (Exterior)

TABLE E-4. SOIL AND WATER SAMPLE RESULTS : BUILDING EO-805

Lower Level of Detectability 5 X 10^{-7} pCi/ml or g

Data Point Location	Sample No.	µR	Sample Type	Contamination Levels pCi/ml or g ^{226}Ra	^{238}U
1		12			
2	805-3	30	Soil		43±1.9
3	805-2	50	Soil		35±3.6
4	805-1	34	Soil		
5		9			
6		9			
7		8			
8		9			
9		9			
10		9			



Building 805

Figure E-5. Soil and Water Sample Positions: Building 805

Appendix F

RADCON Team Survey Data for Building 806

TABLE F-1. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-806

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
1	Wall	6810	.030	0	9	0	0
2	Floor	7590	.010	100	11	0	0
3	Floor	7590	.040	0	9	0	0
4	Wall	7220	.020	50	10	0	1
5	Wall	7660	.020	0	10	0	5
6	Floor	7110	.040	0	10	0	12
7	Floor	38150	.850	16000	50	631	615
8	Wall	7190	.040	0	11	0	4
9	Wall	7250	.030	100	10	0	0
10	Floor	7390	.040	50	9	0	0
11	Floor	7530	.070	50	9	0	6
12	Wall	7020	.020	0	11	0	3
13	Wall	7170	.020	0	11	0	0
14	Floor	8120	.020	50	10	0	0
15	Floor	7800	.020	50	11	0	2

TABLE F-1. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-806 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
16	Wall	7560	.010	0	9	0	10
17	Floor	25800	.120	100	25	0	4
18	Floor	7030	.030	0	10	0	0
19	Floor	7350	.020	50	10	0	0
20	Wall	7280	.020	0	9	0	0
21	Pad	16640	.050	0	21		
22	Pad	9680	.020	0	10		
23	Pad	9260	.050	0	12		
24	Pad	7940	.040	0	12		
25	Pad	9200	.020	50	12		

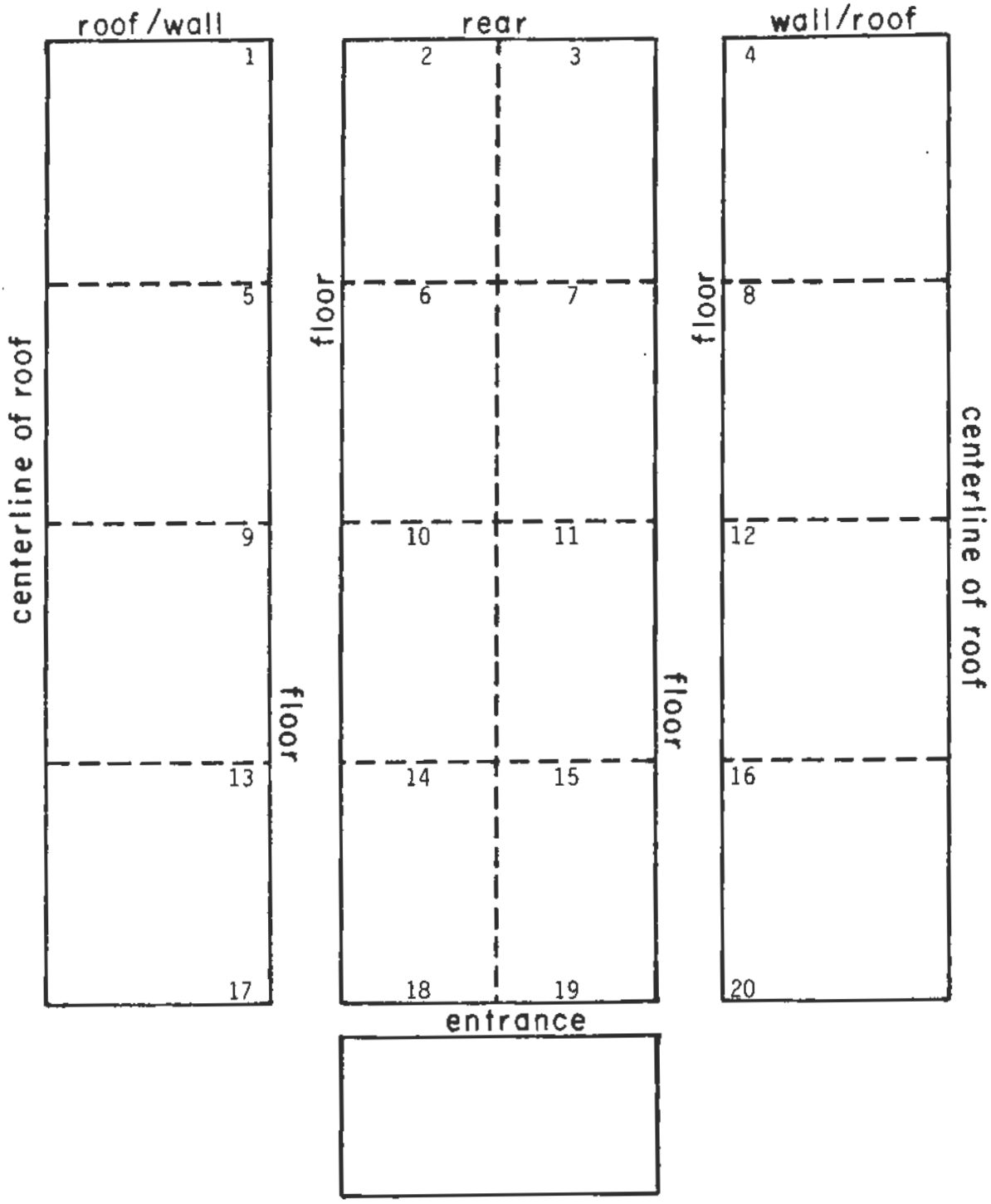


Figure F-1. First Team Surveyed Positions: Building 806 (Interior)

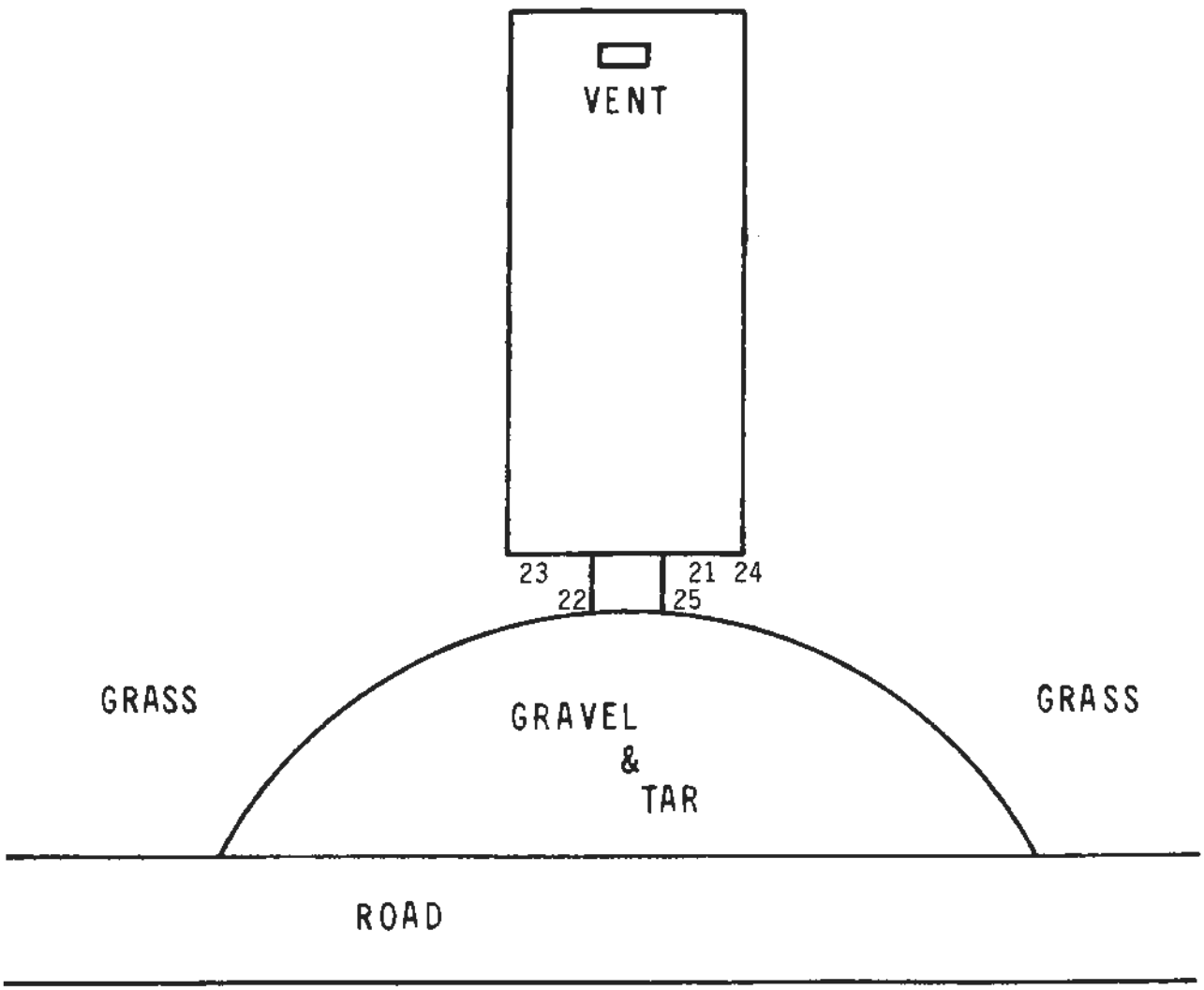


Figure F-2. First Team Surveyed Positions: Building 806 (Exterior)

TABLE F-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-806

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
191	Pad	1000	.020	0	0	0	8
192	Floor	800	.030	100	9	28	3
193	Wall	800	.030	100	9	6	0
194	Floor	800	.040	900	11	11	11
195	Floor	800	.150	900	11	6	0
196	Wall	800	.030	0	9	6	0
197	Floor	800	.040	300	9	6	9
198	Wall	800	.020	100	9	17	5
199	Floor	800	.030	100	9	11	0
200	Wall	800	.030	0	9	11	0
201	Floor	800	.030	100	9	6	11
202	Wall	800	.030	100	9	0	9
203	Floor	800	.030	200	9	0	0
204	Wall	800	.020	100	9	6	3
205	Floor	800	.030	200	9	0	0

TABLE F-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-806 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
206	Wall	800	.020	100	9	17	7
207	Floor	800	.030	500	9	0	0
208	Wall	800	.030	0	9	11	10
209	Floor	800	.030	200	9	0	2
210	Wall	800	.020	0	9	11	7
211	Floor	800	.030	100	9	17	7
212	Wall	800	.030	100	9	6	5
213	Floor	800	.020	0	9	11	4
214	Wall	800	.030	0	9	11	12
215	Floor	800	.030	100	9	0	0
216	Wall	800	.020	0	9	6	0
217	Floor	800	.010	0	9	6	0
218	Wall	800	.010	0	9	22	5
219	Floor	800	.010	100	9	6	0
220	Wall	800	.020	0	9	0	0

TABLE F-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-806 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
221	Floor	800	.030	50	9	6	0
222	Wall	800	.020	0	9	0	6
223	Floor	800	.020	200	9	1	0
224	Wall	800	.010	0	9	6	2
225	Floor	800	.040	200	9	11	0
226	Wall	800	.020	0	9	6	7
227	Floor	800	.020	100	9	0	0
228	Wall	800	.020	100	9		

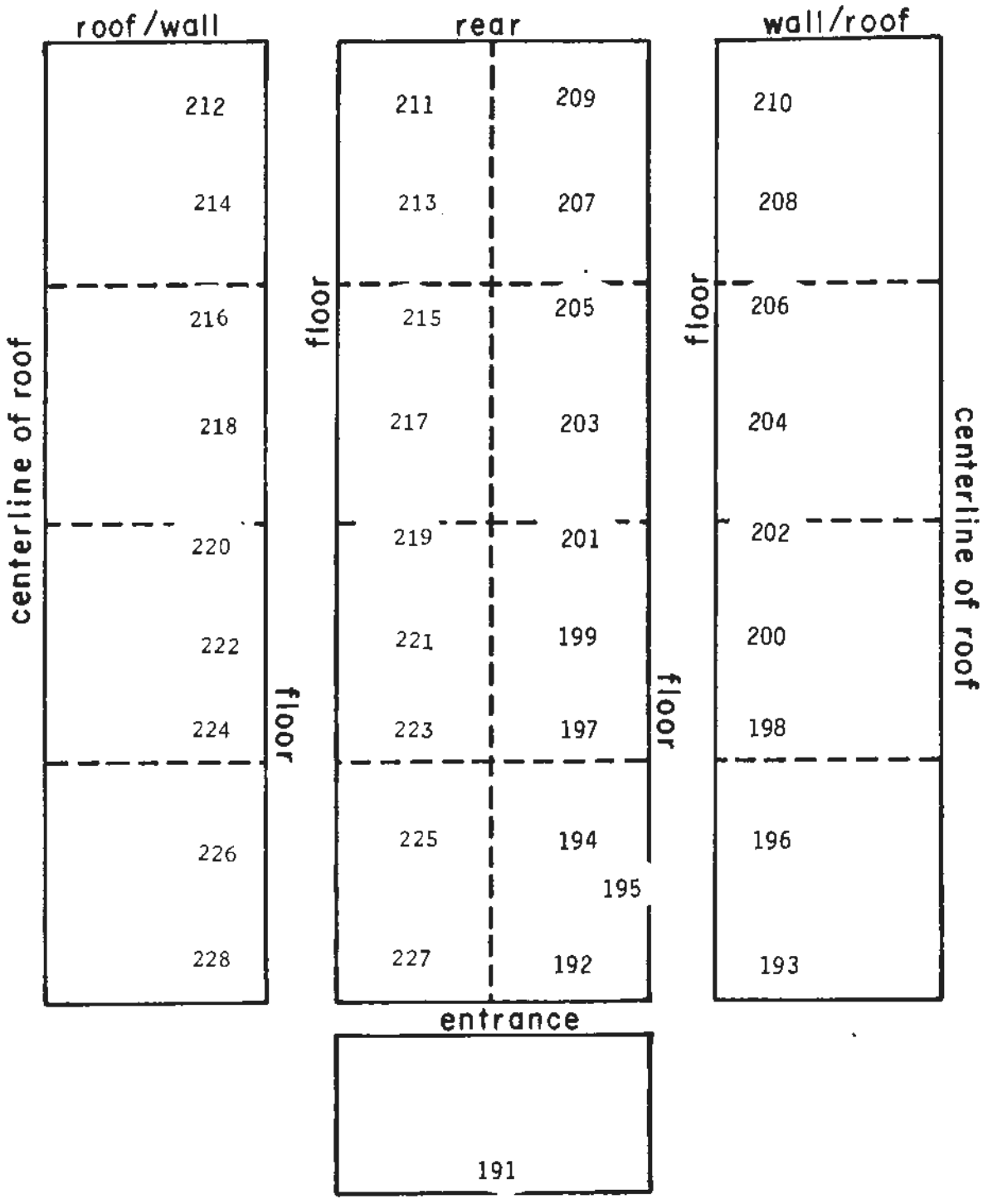


Figure F-3. Second Team Surveyed Positions: Building 806 (Interior)

TABLE F-3. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-806 (Exterior)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
371	Pad	2000		0	20		
372	Pad	0		0	7		

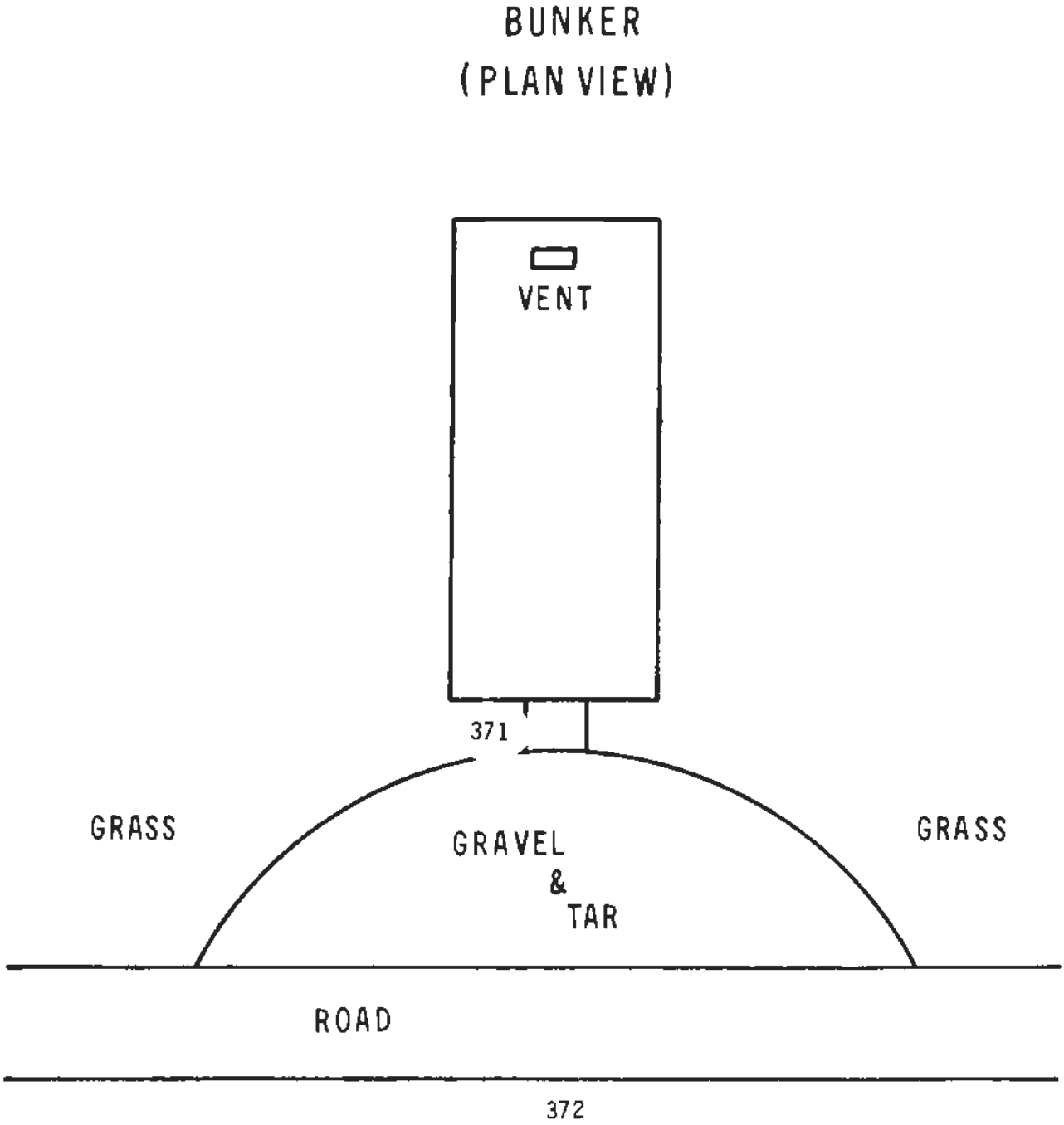
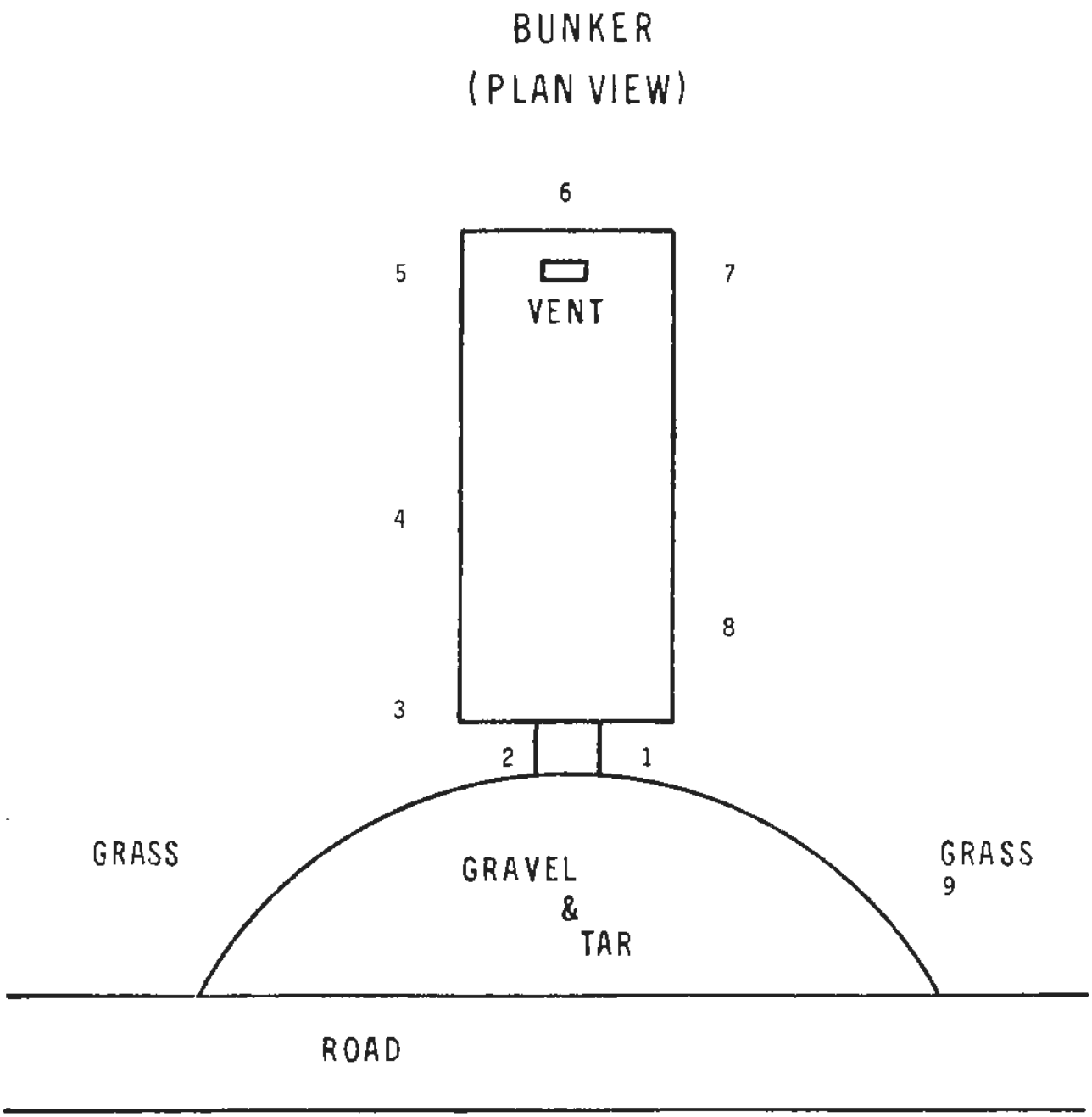


Figure F-4. Second Team Surveyed Positions: Building 806 (Exterior)

TABLE F-4. SOIL AND WATER SAMPLE RESULTS : BUILDING EO-806

Lower Level of Detectability 5 X 10^{-7} pCi/ml or g

Data Point Location	Sample No.	µR	Sample Type	Contamination Levels pCi/ml or g ^{226}Ra	^{238}U
1		9			
2	806-1	8	Soil	7.1±.4	
3		8			
4		8			
5		8			
6		8			
7		5			
8		8			
9	806-1A		Water		2.6±1.7E-7



Building 806

Figure F-5. Soil and Water Sample Positions: Building 806

Appendix G

RADCON Team Survey Data for Building 807

TABLE G-1. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-807

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
1	Wall	2040	.010	0	8	0	5
2	Floor	1910	.010	0	8	0	5
3	Floor	2060	.030	0	8	0	7
4	Wall	2080	.010	0	8	0	2
5	Wall	2360	.010	50	8	0	7
6	Floor	1910	.020	0	8	0	14
7	Floor	2170	.030	50	9	0	14
8	Wall	1890	.020	0	8	0	0
9	Wall	2010	.020	0	7	0	6
10	Floor	2230	.020	0	7	0	1
11	Floor	1990	.010	0	7	0	3
12	Wall	2220	.010	0	7	0	0
13	Wall	2090	.010	0	8	0	8
14	Floor	2280	.010	0	8	0	4
15	Floor	2130	.010	0	8	0	4

TABLE G-1. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-807 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
16	Wall	1950	.010	0	9	0	2
17	Wall	2250	.010	0	7	0	0
18	Floor	1850	.010	0	8	0	1
19	Floor	2070	.020	0	7	0	5
20	Wall	2170	.020	0	7	0	0
21	Pad	2210	.020	0	7		
22	Pad	2520	.030	0	7		
23	Pad	2180	.020	0	5		
24	Pad	2260	.020	0	8		
25	Pad	2370	.010	0	7		

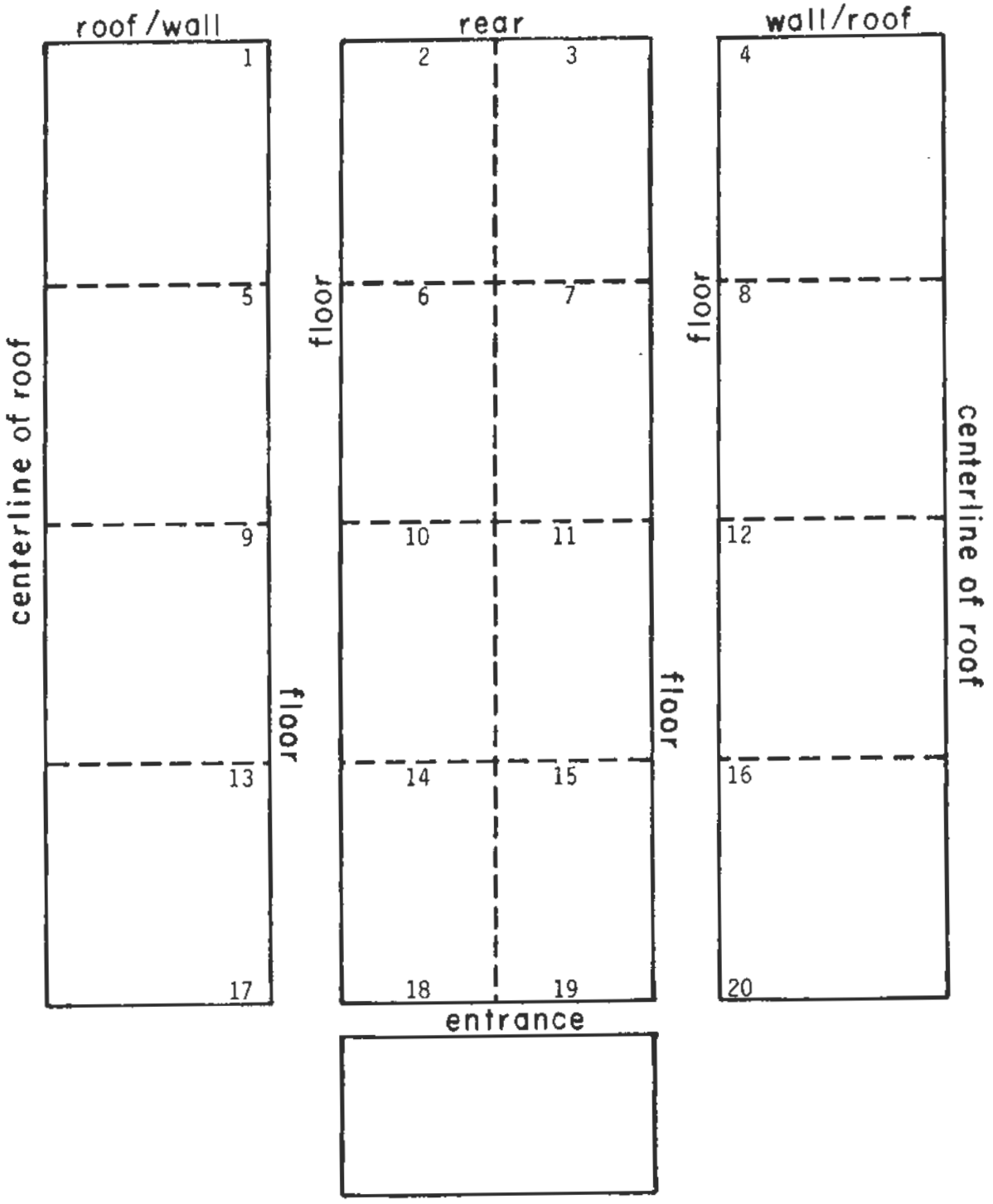


Figure G-1. First Team Surveyed Positions: Building 807 (Interior)

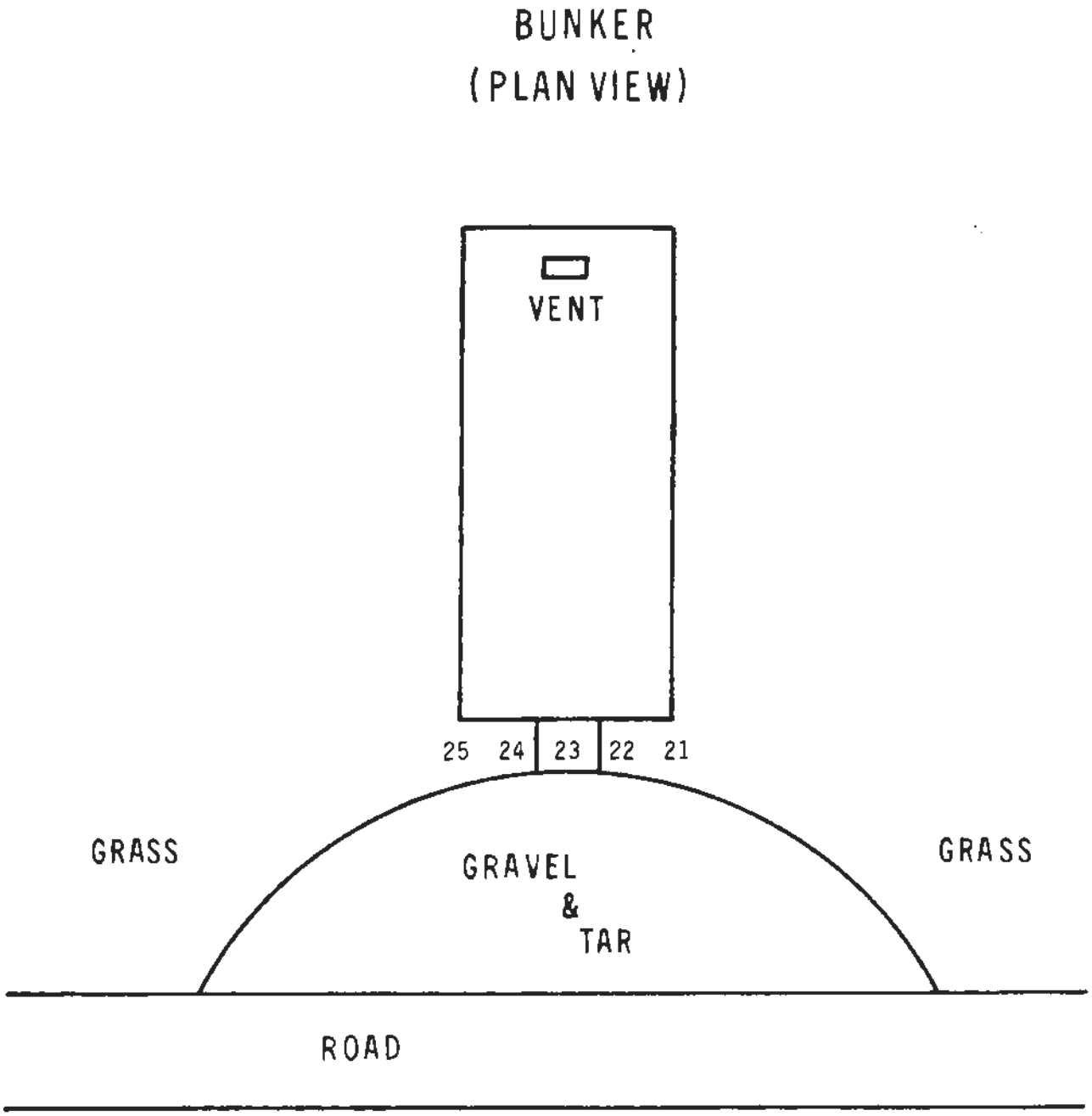


Figure G-2. First Team Surveyed Positions: Building 807 (Exterior)

TABLE G-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-807

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
229	Pad	1000	.010	0	10	0	0
230	Floor	800	.020	0	8	6	0
231	Wall	800	.020	0	8	6	0
232	Floor	800	.010	0	8	11	0
233	Wall	800	.010	0	8	0	1
234	Floor	800	.020	0	8	0	0
235	Wall	800	.010	100	8	0	0
236	Floor	800	.020	0	8	6	0
237	Wall	800	.020	0	8	0	1
238	Floor	800	.020	0	8	0	2
239	Wall	800	.020	0	8	0	7
240	Floor	800	.020	0	8	0	6
241	Wall	800	.020	0	8	0	0
242	Floor	800	.020	0	8	17	0
243	Wall	800	.020	0	8	0	0

TABLE G-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-807 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
244	Floor	800	.020	0	8	11	1
245	Wall	800	.020	0	8	11	0
246	Floor	800	.020	0	8	0	4
247	Wall	800	.020	0	8	0	0
248	Floor	800	.020	100	8	11	3
249	Wall	800	.010	0	8	0	0
250	Floor	800	.020	0	8	22	5
251	Wall	800	.010	0	8	22	0
252	Floor	800	.010	100	8	17	13
253	Wall	800	.010	0	8	0	1
254	Floor	800	.020	0	8	0	0
255	Wall	800	.020	0	8	6	5
256	Floor	800	.020	0	8	0	0
257	Wall	800	.020	0	8	6	1
258	Floor	800	.010	0	8	0	0

TABLE G-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-807 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
259	Wall	800	.010	0	8	0	3
260	Floor	800	.020	0	8	0	0
261	Wall	800	.010	0	8	0	3
262	Floor	800	.020	0	8	0	0
263	Wall	800	.020	0	8	11	0
264	Floor	800	.010	0	8	17	6
265	Wall	800	.010	0	8	11	4

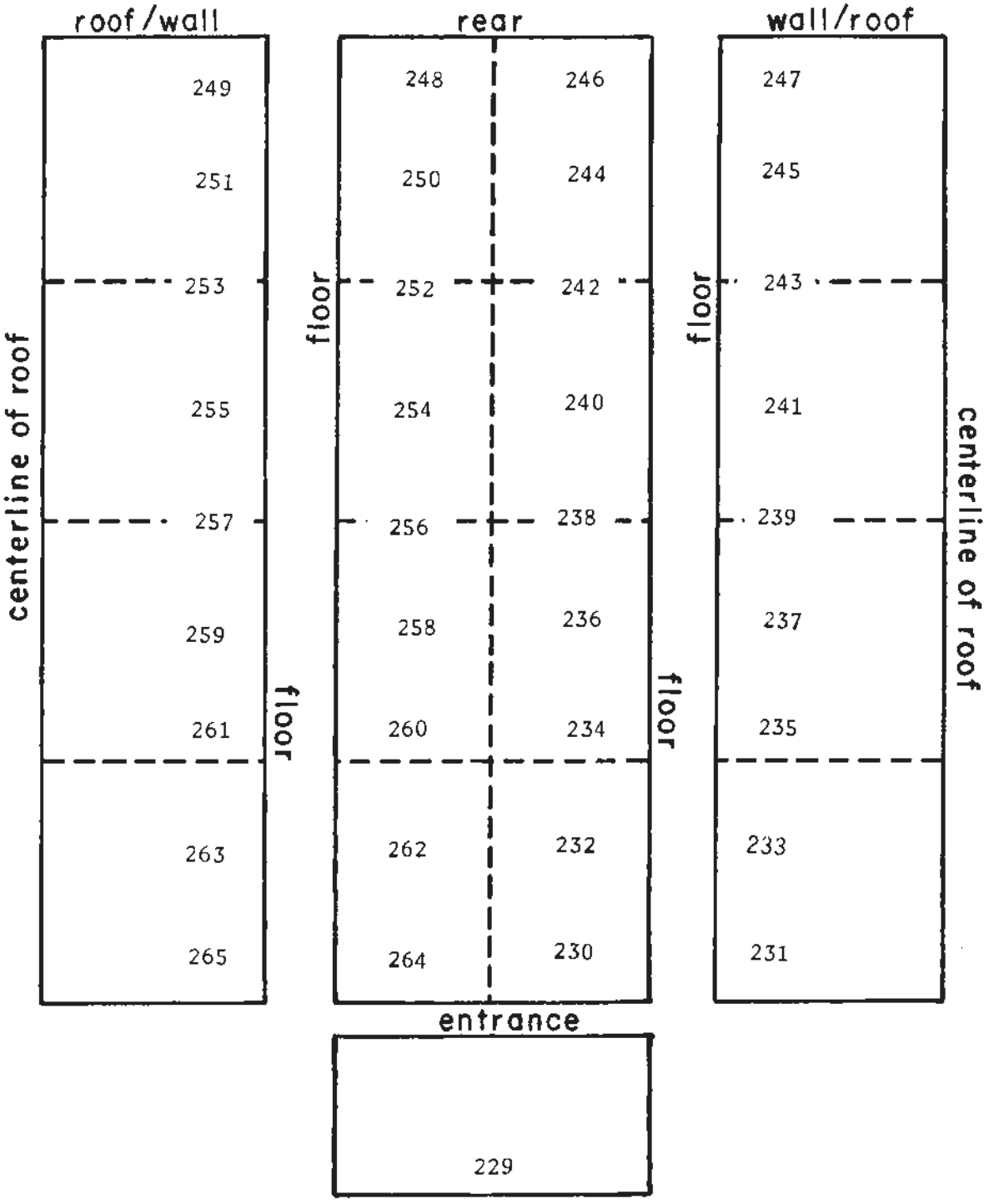
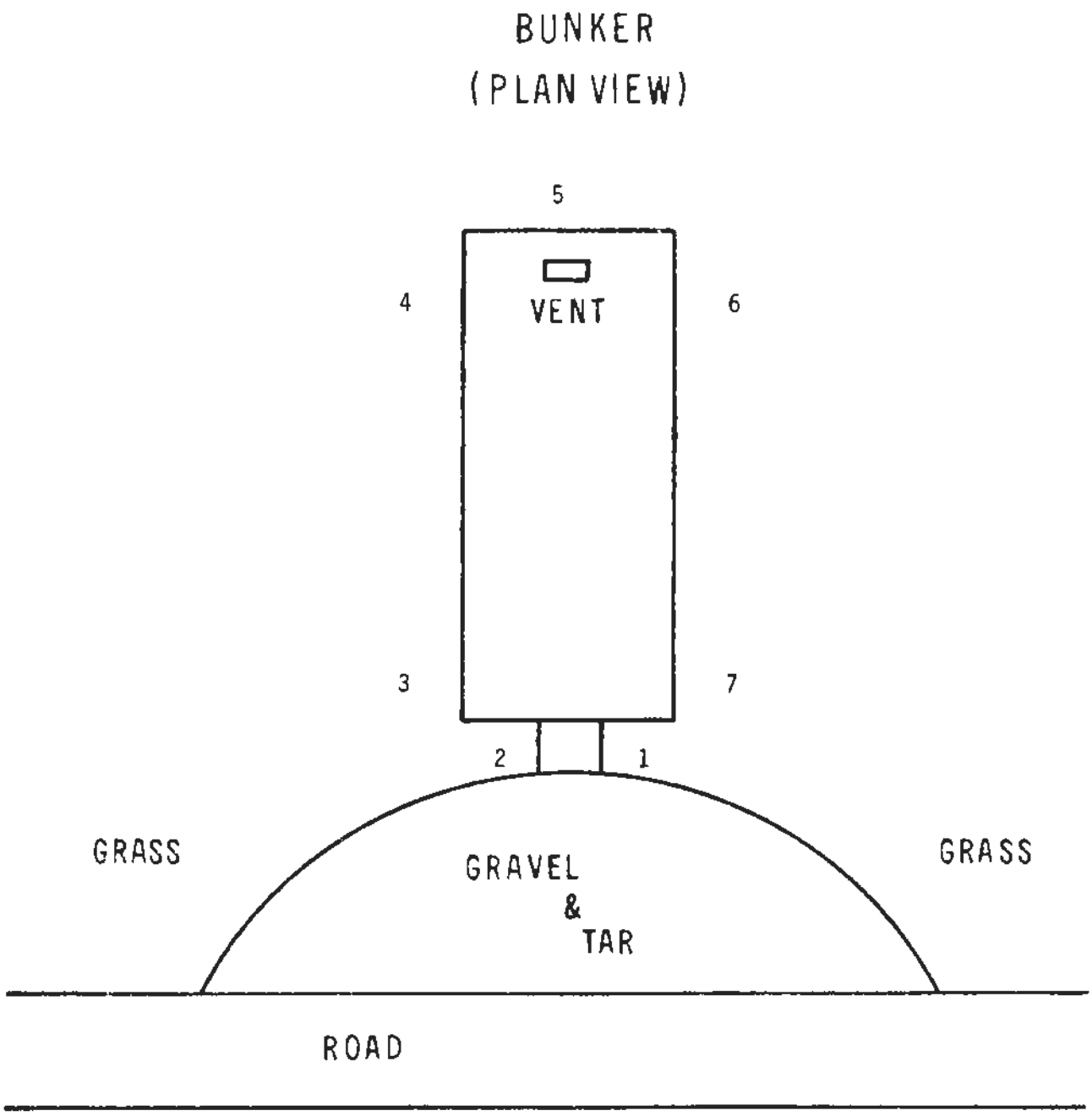


Figure G-3. Second Team Surveyed Positions: Building 807 (Interior)

TABLE G-3. SOIL AND WATER SAMPLE RESULTS : BUILDING EO-807

Lower Level of Detectability 5 X 10^{-7} pCi/ml or g

Data Point Location	Sample No.	µR	Sample Type	Contamination Levels pCi/ml or g ^{226}Ra	Contamination Levels pCi/ml or g ^{238}U
1		6			
2		7			
3		7			
4		8			
5		8			
6	807-1A	7	Water		
7		7			



Building 807

Figure G-4. Soil and Water Sample Positions: Building 807

Appendix H

RADCON Team Survey Data for Building 808

TABLE H-1. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-808

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
1	Wall	6550	.020	0	9	0	0
2	Floor	7340	.040	50	9	0	1
3	Floor	7050	.020	50	10	0	0
4	Wall	7880	.010	0	11	0	7
5	Wall	6760	.020	0	10	0	3
6	Floor	7320	.030	50	10	0	1
7	Floor	7860	.030	150	11	0	0
8	Wall	7020			9	0	0
9	Wall	7370	.010	50	10	0	0
10	Floor	7560	.010	50	10	0	1
11	Floor	7040	.020	0	10	0	1
12	Wall	6850	.030	0	9	0	0
13	Wall	7620			10	0	3
14	Floor	7620	.010	10	10	0	1
15	Floor	7360	.020	0	9	0	0

TABLE H-1. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-808 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
16	Wall	6600	.010	0	10	0	2
17	Wall	6850	.020	0	10	0	5
18	Floor	7180	.010	50	10	0	0
19	Floor	7510	.030	50	10	0	1
20	Wall	6950	.020	0	9	0	0
21	Pad	79730	.150	0	100		
22	Pad	8610	.040	50	12		
23	Pad	8920	.020	0	10		
24	Pad	7540	.020	0	8		
25	Pad	8570	.020	0	8		

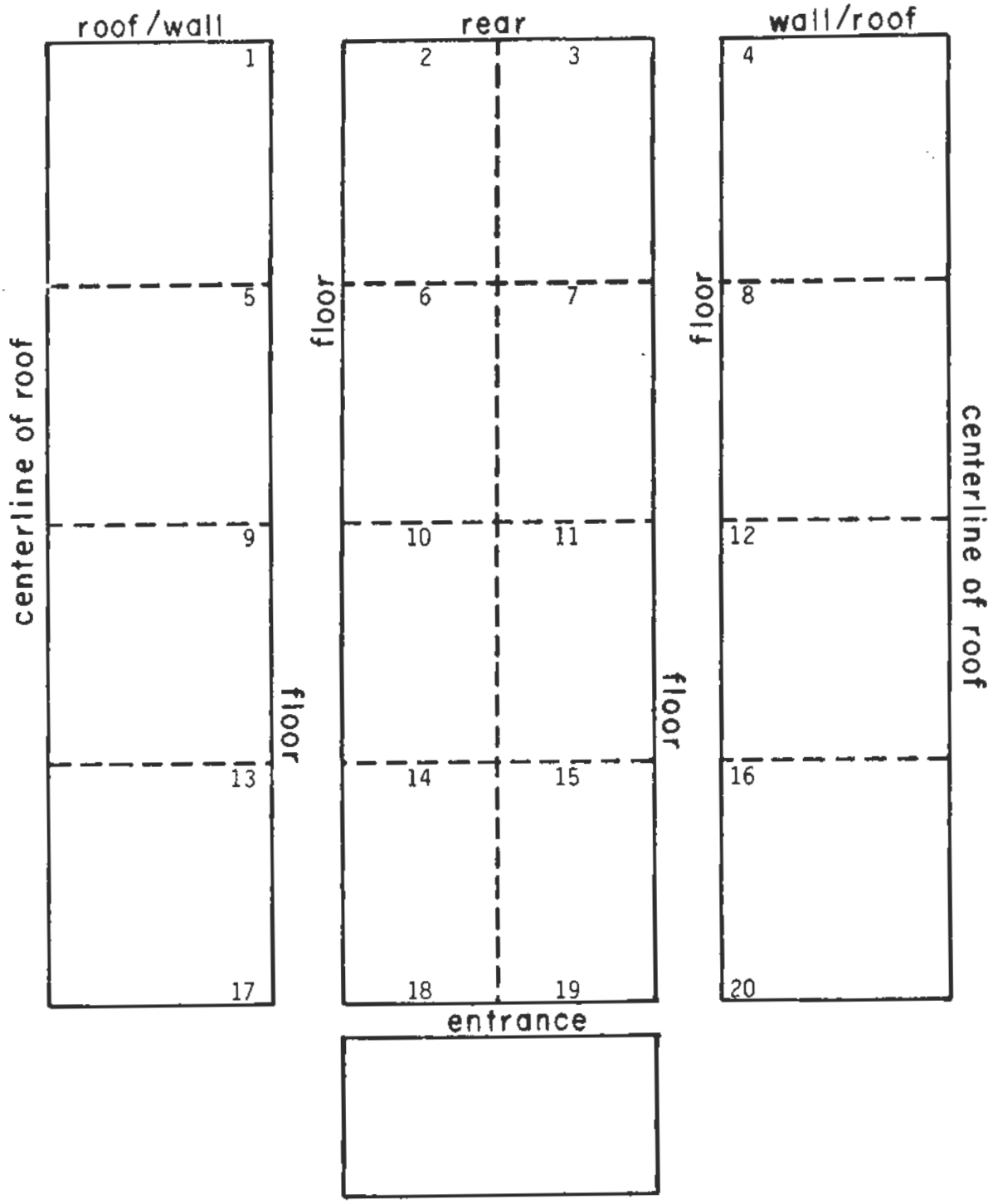


Figure H-1. First Team Surveyed Positions: Building 808 (Interior)

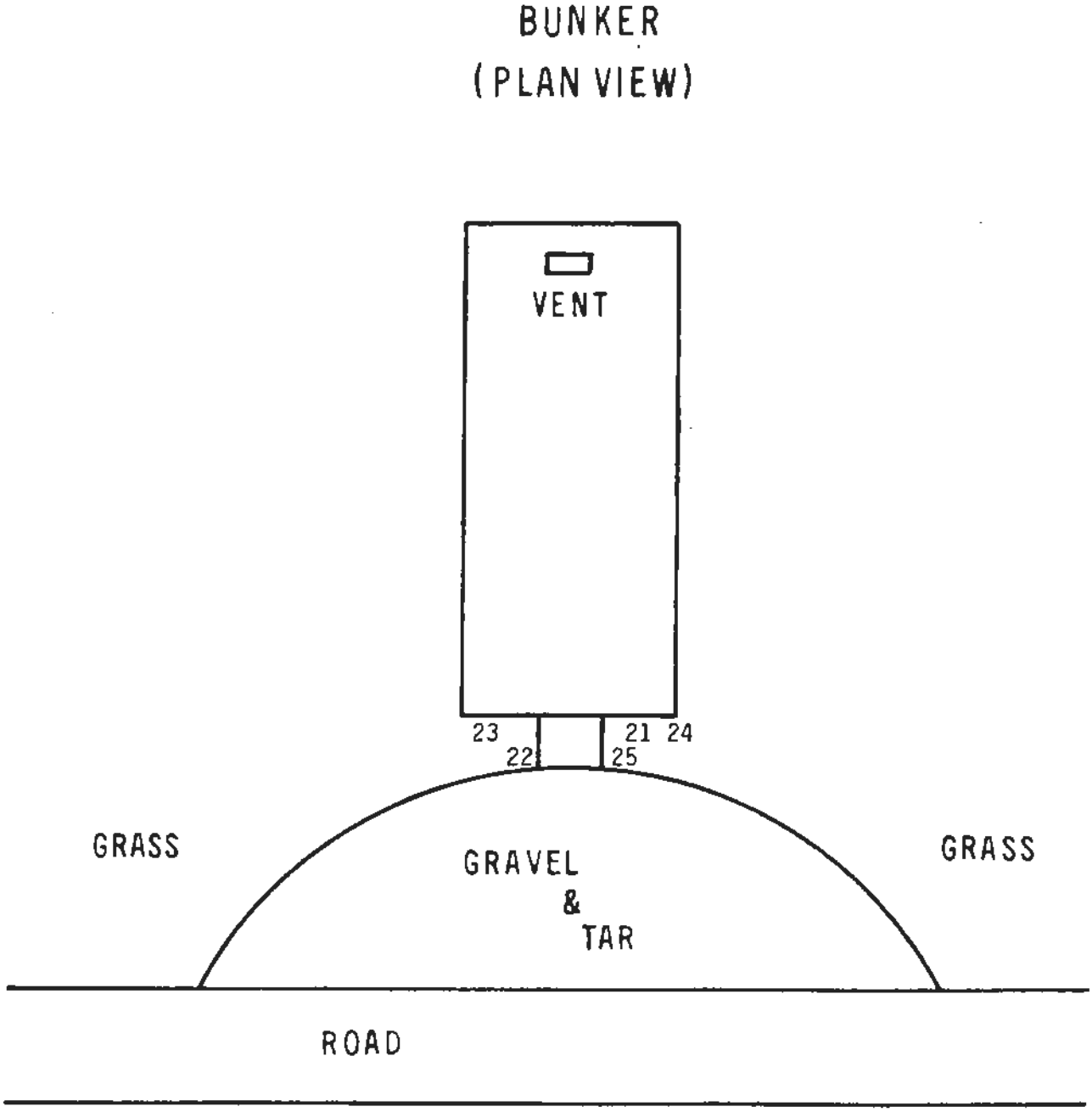


Figure H-2. First Team Surveyed Positions: Building B08 (Exterior)

TABLE H-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-808

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
266	Floor	775	.030	0	9	11	9
267	Wall	775	.020	0	9	11	5
268	Floor	775	.010	0	9	0	16
269	Wall	775	.010	0	9	6	17
270	Floor	775	.020	0	9	6	6
271	Wall	775	.020	0	9	6	12
272	Floor	775	.020	0	9	11	4
273	Wall	775	.020	0	9	11	4
274	Floor	775	.030	0	9	0	10
275	Wall	775	.020	0	9	0	5
276	Floor	775	.020	0	9	0	6
277	Wall	775	.020	0	9	0	9
278	Floor	775	.020	100	9	6	3
279	Wall	775	.020	0	9	0	5
280	Floor	775	.030	200	9	11	10

TABLE H-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-808 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
281	Wall	775	.020	0	9	6	6
282	Floor	775	.020	50	9	6	6
283	Wall	775	.020	0	9	0	0
284	Floor	775	.010	100	9	6	7
285	Wall	775	.020	0	9	6	7
286	Floor	775	.010	100	9	0	0
287	Wall	775	.020	0	9	6	6
288	Floor	775	.030	0	9	6	6
289	Wall	775	.020	50	9	0	5
290	Floor	775	.040	0	9	11	16
291	Wall	775	.020	0	9	0	7
292	Floor	775	.020	50	9	6	11
293	Wall	775	.020	0	9	0	6
294	Floor	775	.010	50	9	0	5
295	Wall	775	.020	100	9	11	5

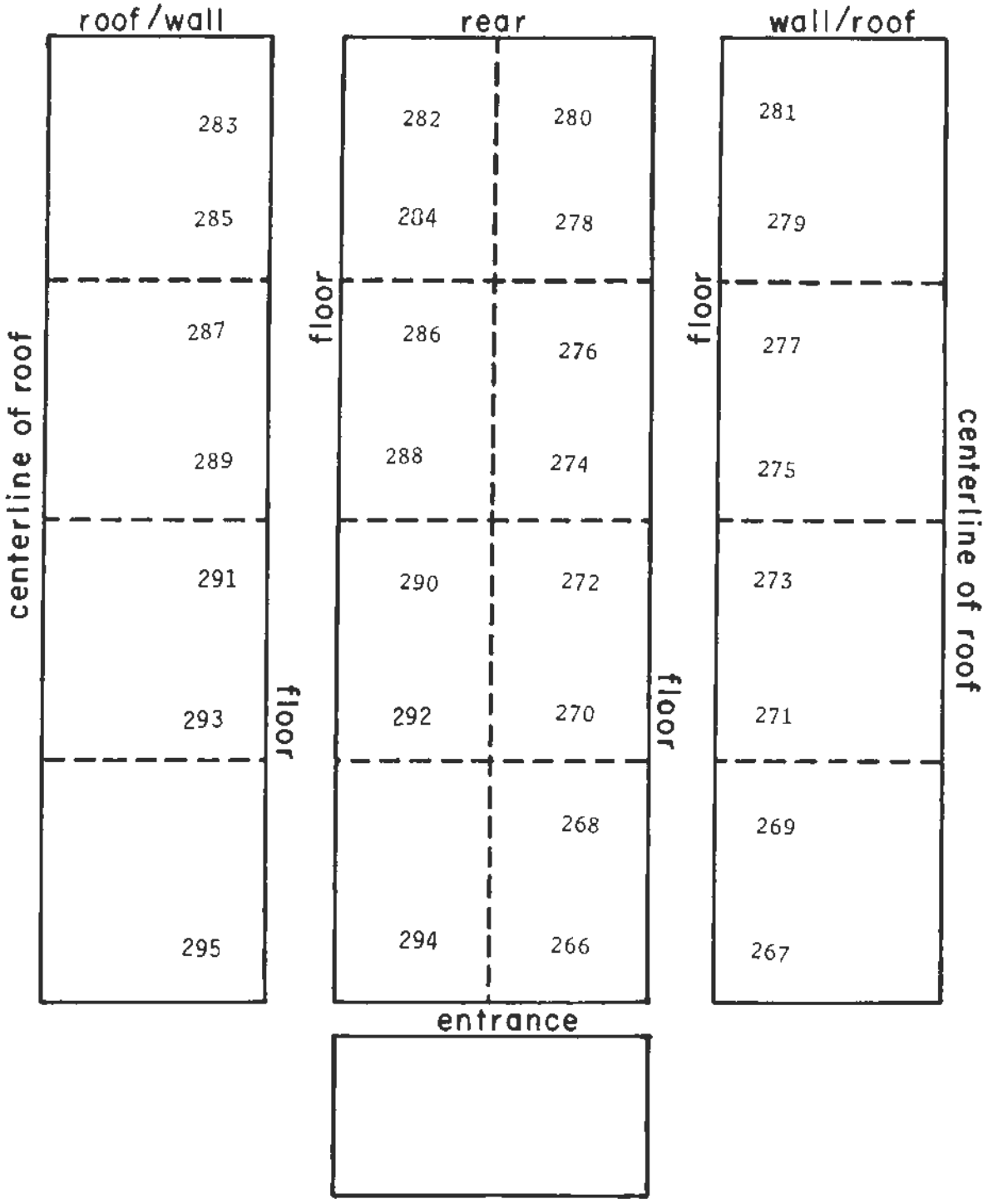


Figure H-3. Second Team Surveyed Positions: Building 808 (Interior)

TABLE H-3. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-808 (Exterior)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
373	Pad	8100		0	40		
374	Pad	0		0	10		

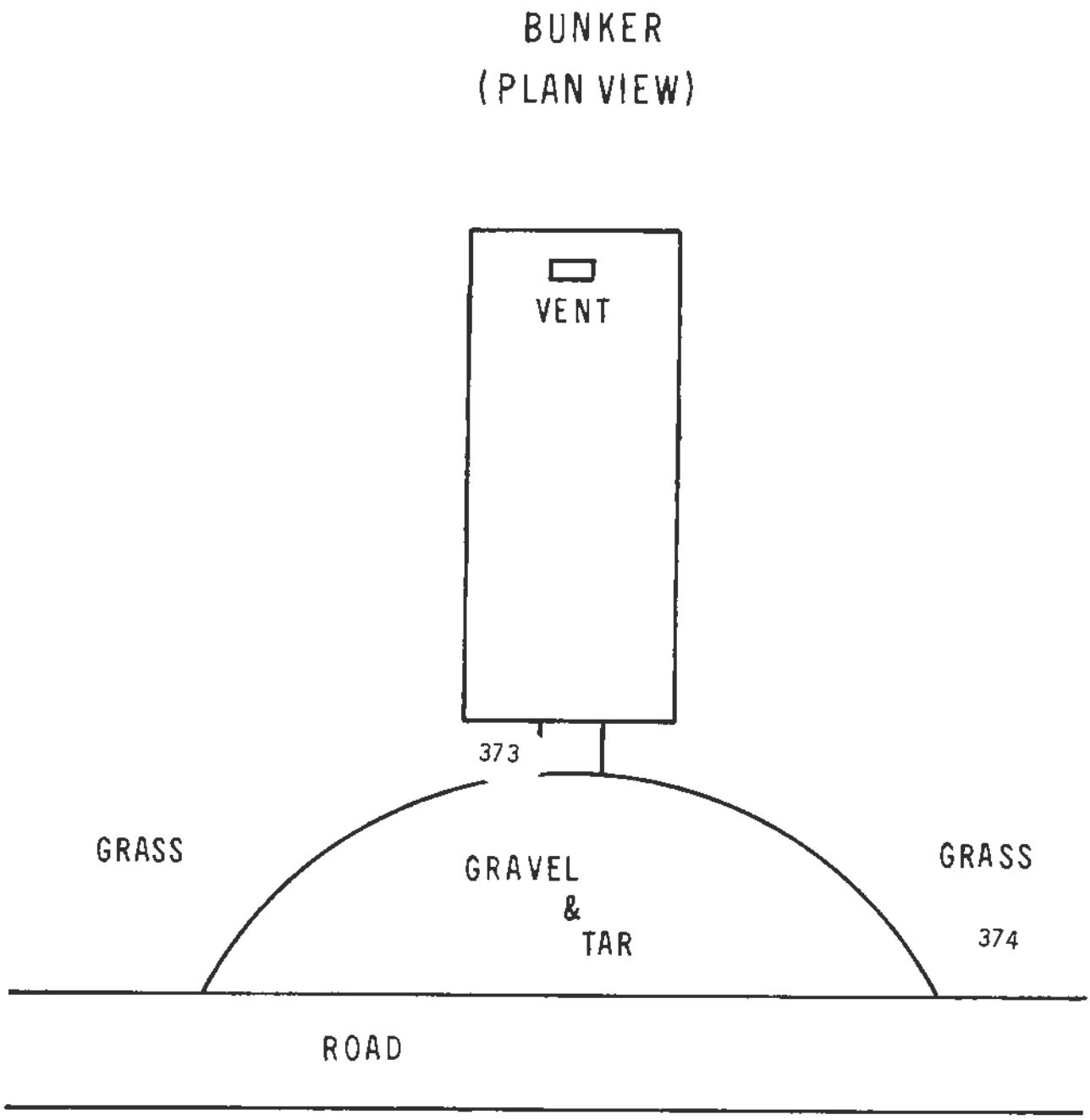
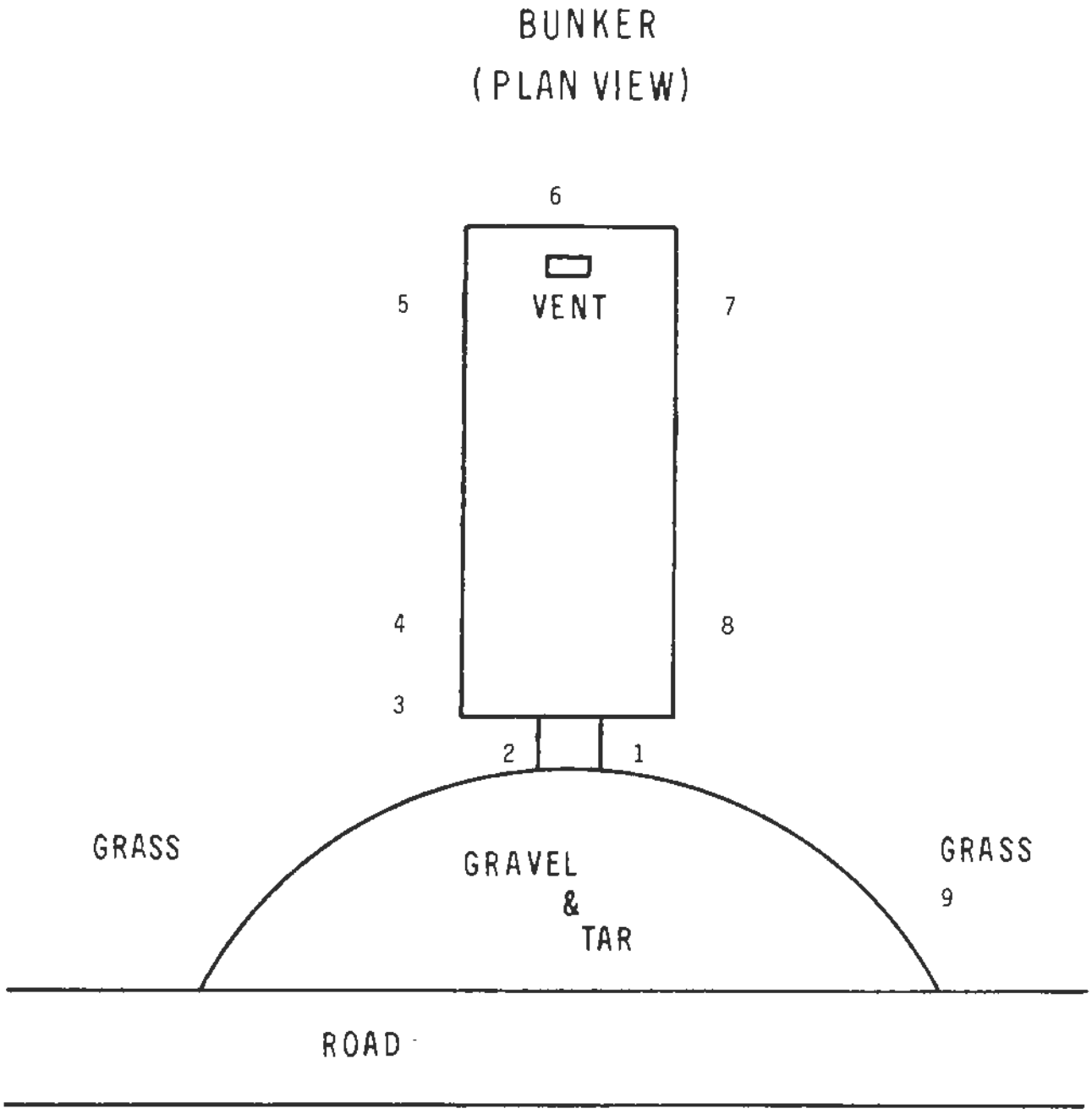


Figure H-4. Second Team Surveyed Positions: Building 808 (Exterior)

TABLE H-4. SOIL AND WATER SAMPLE RESULTS : BUILDING EO-808

Lower Level of Detectability 5 X 10^{-7} pCi/ml or g

Data Point Location	Sample No.	µR	Sample Type	Contamination Levels pCi/ml or g ^{226}Ra	Contamination Levels pCi/ml or g ^{238}U
1		6			
2	808-1	10	Soil		4.1±3.0E-7
3	808-2	7	Soil		
4		7			
5		7			
6		8			
7		7			
8		7			
9	808-1A		Water		4.6±3.0E-7



Building 808

Figure H-5. Soil and Water Sample Positions: Building 808

Appendix I

RADCON Team Survey Data for Building 809

TABLE I-1. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-809

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
1	Wall	2080	.200	0	8	5	2
2	Floor	2160	.030	0	8	17	6
3	Floor	2160	.020	0	8	17	11
4	Wall	2220	.030	0	8	5	7
5	Wall	2210	.020	0	8	5	6
6	Floor	2230	.030	0	8	5	8
7	Floor	1930	.100	300	8	17	13
8	Wall	2060	.020	0	8	0	5
9	Wall	1960	.020	0	8	0	6
10	Floor	2370	.040	100	8	11	21
11	Floor	2080	.060	100	8	17	13
12	Wall	2260	.020	50	8	0	6
13	Wall	2180	.020	0	7	5	4
14	Floor	2540	.040	100	7	5	18
15	Floor	1970	.070	100	8	17	20

TABLE I-1. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-809 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
16	Wall	2390	.020	100	8	11	5
17	Wall	2210	.020	50	8	5	8
18	Floor	2230	.030	100	8	17	12
19	Floor	2260	.010	100	8	0	6
20	Wall	2200	.020	50	8	5	5
21	Pad	2370	.010	0	6		
22	Pad	2720	.020	0	7		
23	Pad	3190	.020	0	6		
24	Pad	2220			7		
25	Pad	2270	.020	0	7		

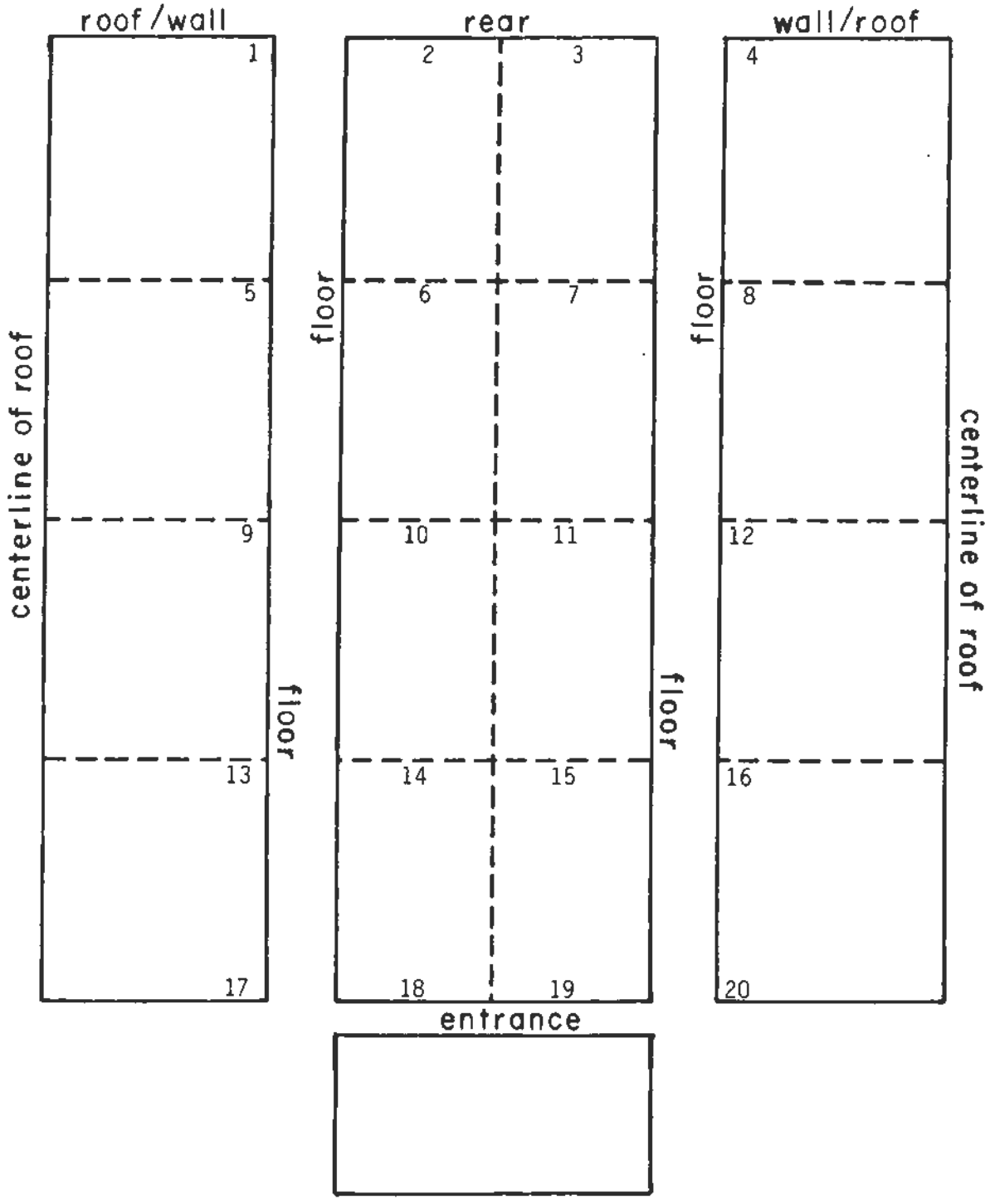


Figure I-1. First Team Surveyed Positions: Building 809 (Interior)

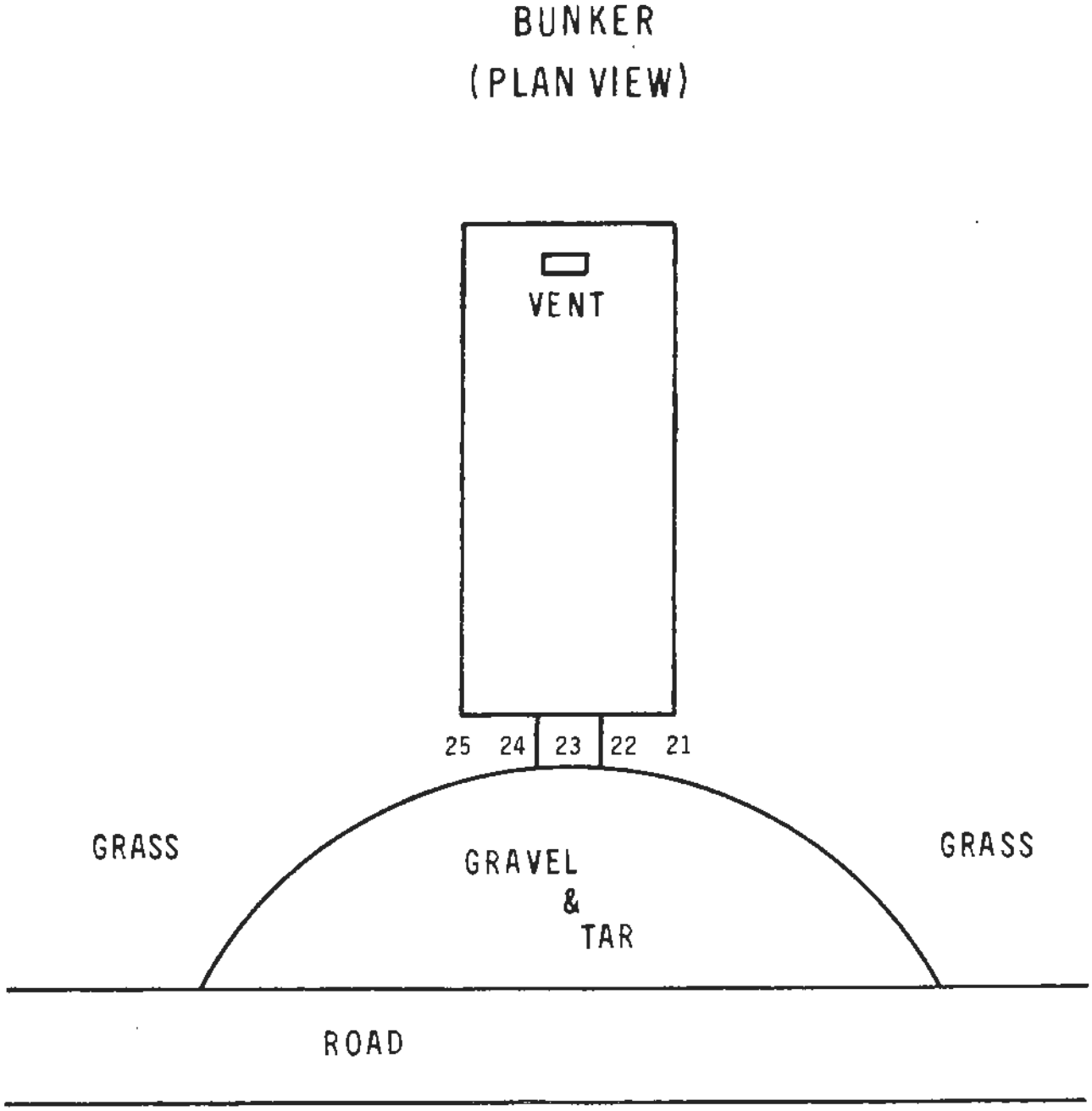


Figure I-2. First Team Surveyed Positions: Building 809 (Exterior)

TABLE I-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-809

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
296	Floor	780	.020	0	5	11	0
297	Wall	780	.020	0	5	0	0
298	Floor	780	.020	0	5	11	0
299	Wall	780	.020	0	5	6	0
300	Floor	780	.010	0	5	0	0
301	Wall	780	.010	0	5	11	3
302	Floor	780	.030	100	5	6	2
303	Wall	780	.020	0	5	0	7
304	Floor	780	.020	300	5	6	0
305	Wall	780	.020	50	5	6	0
306	Floor	780	.020	50	5	11	4
307	Wall	780	.020	0	5	0	0
308	Floor	780	.030	150	5	0	0
309	Wall	780	.020	0	5	6	0
310	Floor	780	.100	250	5	6	0

TABLE I-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-809 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
311	Wall	780	.010	0	5	0	6
312	Floor	780	.030	200	5	6	4
313	Wall	780	.010	0	5	0	0
314	Floor	780	.030	200	5	0	0
315	Wall	780	.010	0	5	0	0
316	Floor	780	.020	0	5	11	0
317	Wall	780	.030	0	5	6	5
318	Floor	780	.010	100	5	0	0
319	Wall	780	.010	0	5	6	1
320	Floor	780	.020	100	5	0	5
321	Wall	780	.010	0	5	0	0
322	Floor	780	.010	0	5	6	0
323	Wall	780	.010	0	5	0	0
324	Floor	780	.020	200	5	11	4
325	Wall	780	.010	100	5	0	0

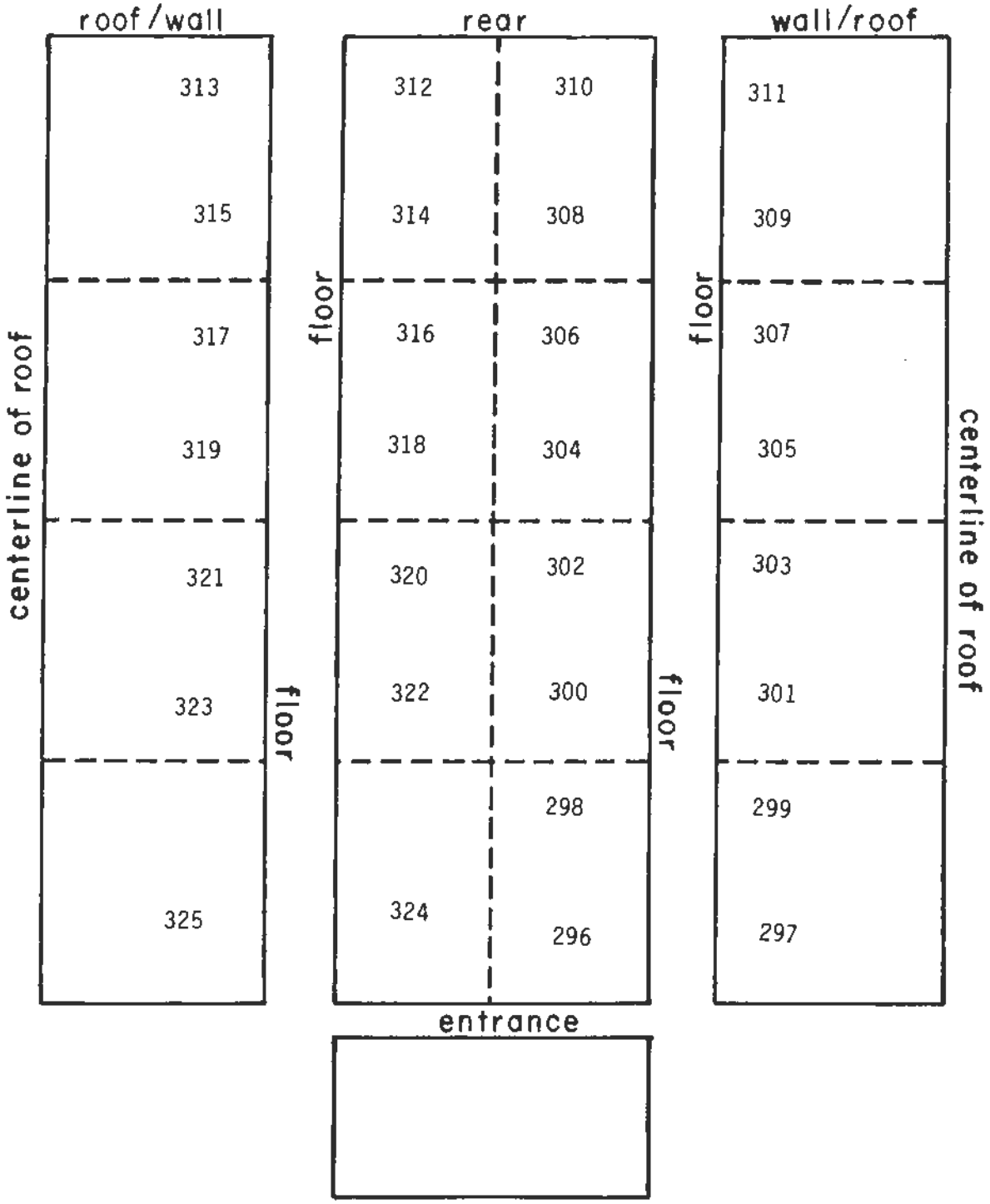


Figure I-3. Second Team Surveyed Positions: Building EO-809 (Interior)

TABLE I-3. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-809 (Exterior)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
375	Pad	2200		0	5		
376	Pad	1100		0	0		
377	Pad	0		0	5		

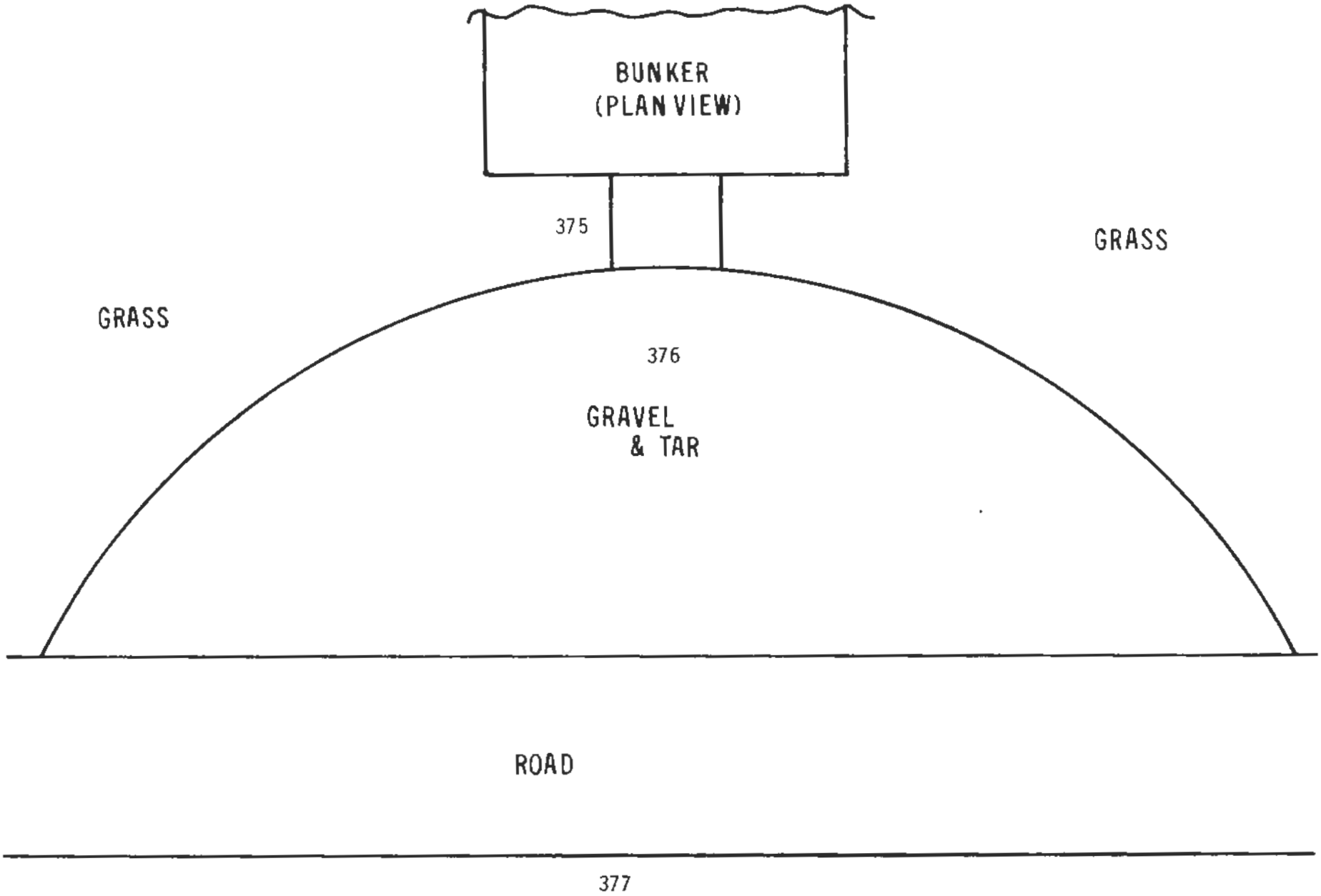
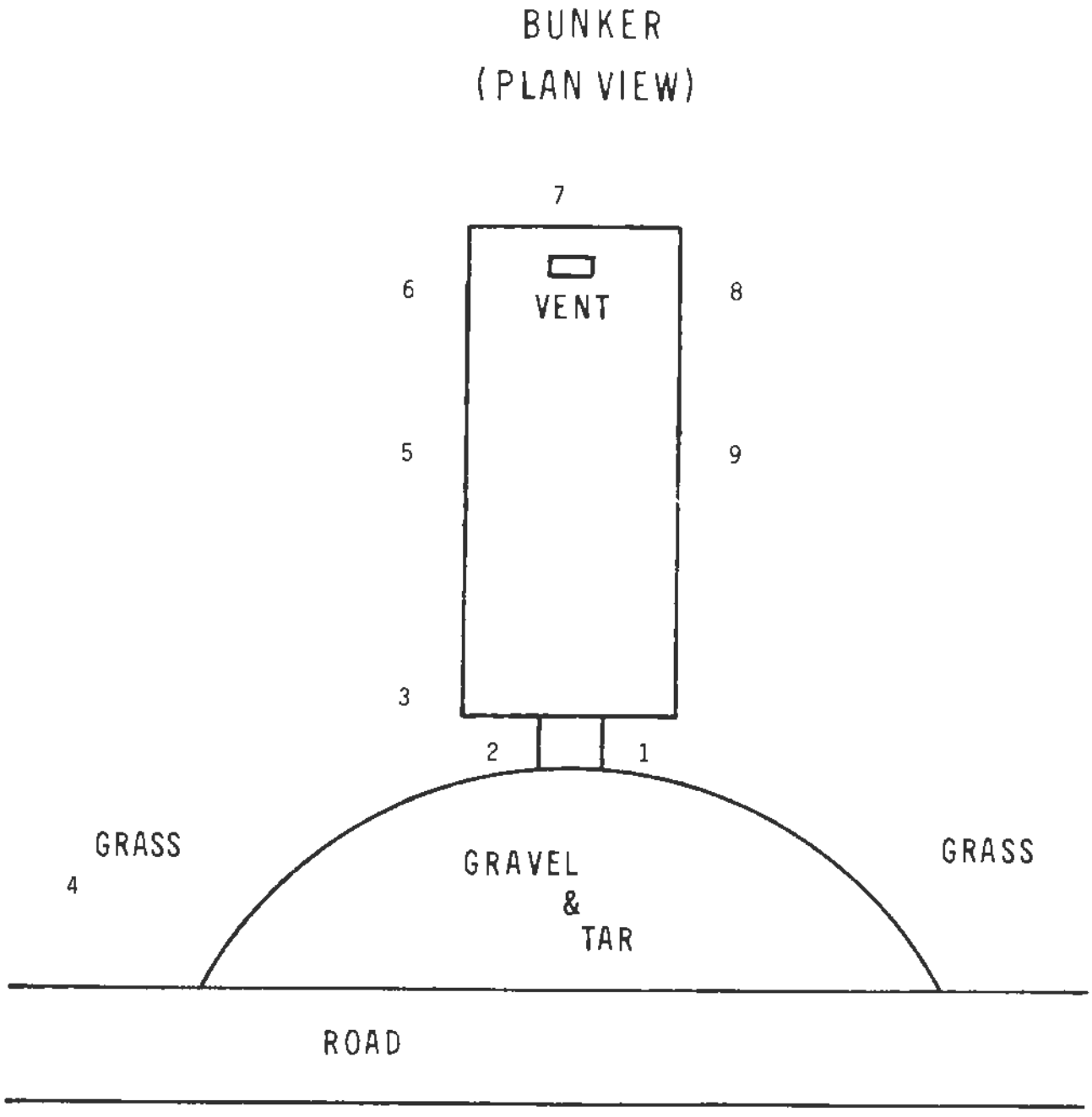


Figure I-4. Second Team Surveyed Positions: Building 809 (Exterior)

TABLE I-4. SOIL AND WATER SAMPLE RESULTS : BUILDING EO-809

Lower Level of Detectability 5 X 10^{-7} pCi/ml or g

Data Point Location	Sample No.	µR	Sample Type	Contamination Levels pCi/ml or g ^{226}Ra	Contamination Levels pCi/ml or g ^{238}U
1		9			
2	809-1	10	Soil	3.9±.2	
3		7			
4	809-1A	5	Water		2.3±1.6E-7
5		7			
6		7			
7		7			
8		8			
9		7			



Building 809

Figure I-5. Soil and Water Sample Positions: Building 809

Appendix J

RADCON Team Survey Data for Building 810

TABLE J-1. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-810

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
1	Wall	7340	.020	0	10	5	0
2	Floor	7480	.020	0	9	5	0
3	Floor	7370	.060	50	11	0	4
4	Wall	7230	.020	0	12	11	0
5	Wall	7450	.010	0	9	0	0
6	Floor	7890	.020	50	11	0	0
7	Floor	7790	.010	100	9	0	0
8	Wall	7200	.020	0	9	11	2
9	Wall	6950	.030	0	9	5	5
10	Floor	7730	.070	150	12	5	2
11	Floor	8270	.090	250	12	5	4
12	Wall	7530	.020	0	9	0	0
13	Wall	6980	.010	0	9	0	7
14	Floor	6980	.010	50	7	5	0
15	Floor	7230	.010	0	8	5	1

TABLE J-1. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-810 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
16	Wall	6880	.020	50	9	0	0
17	Wall	6890	.010	50	9	0	4
18	Floor	6740	.050	50	8	0	0
19	Floor	6900	.020	50	10	11	0
20	Wall	6690	.010	0	9	5	5
21	Pad	25590	.060	0	17		
22	Pad	6290	.030	0	8		
23	Pad	7000	.020	0	7		
24	Pad	8830	.040	0	10		
25	Pad	9380	.030	0	11		

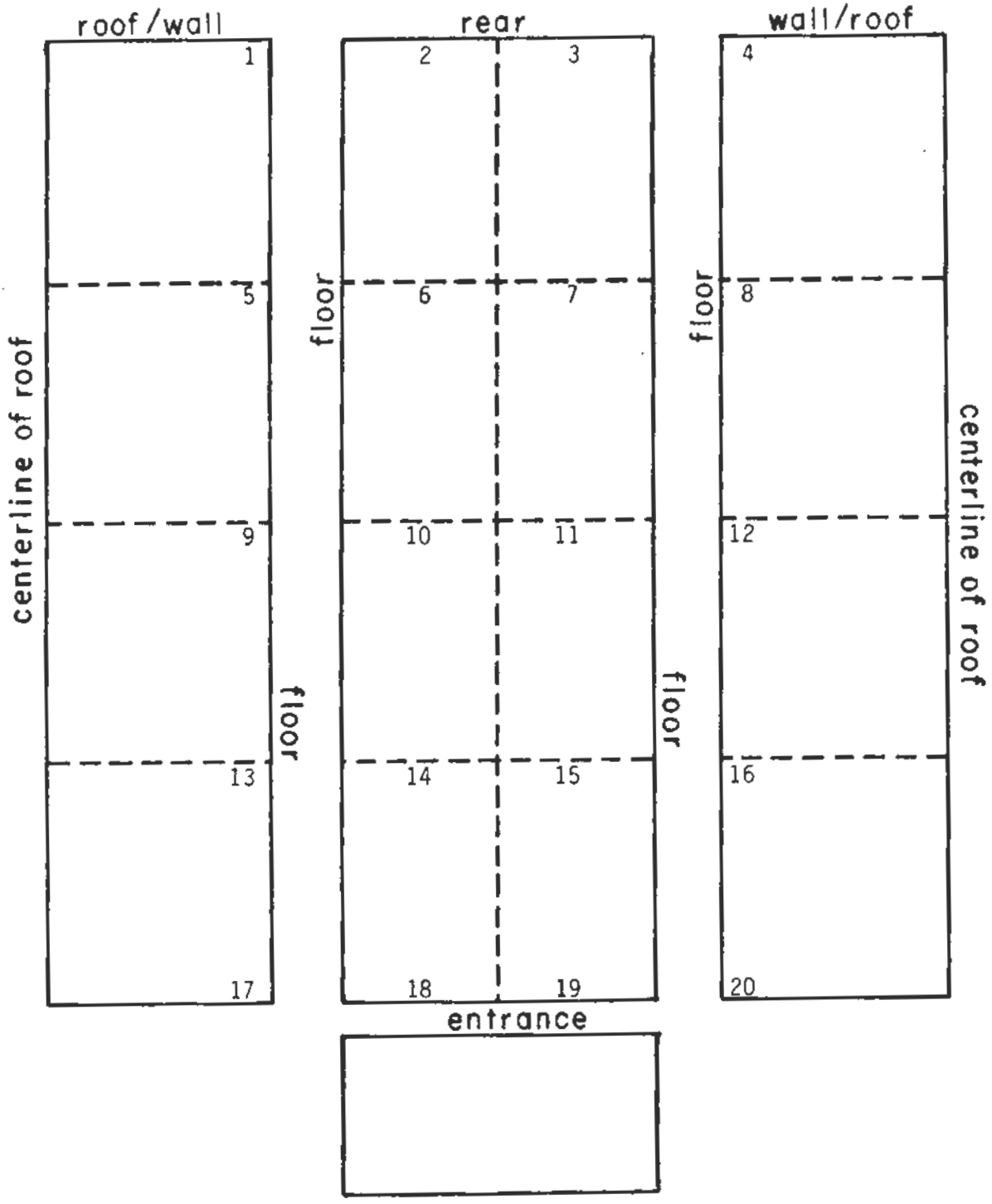


Figure J-1. First Team Surveyed Positions: Building 810 (Interior)

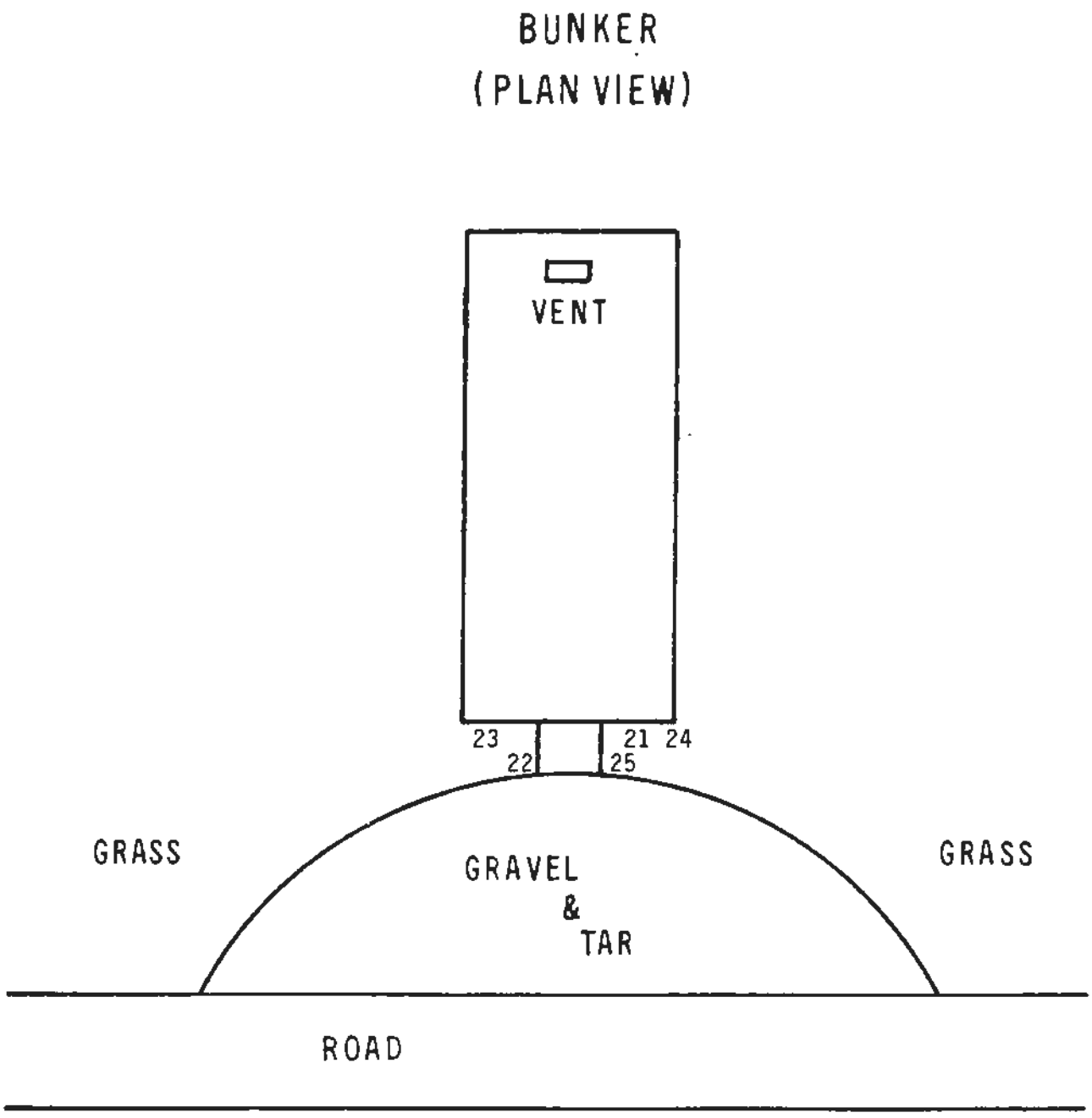
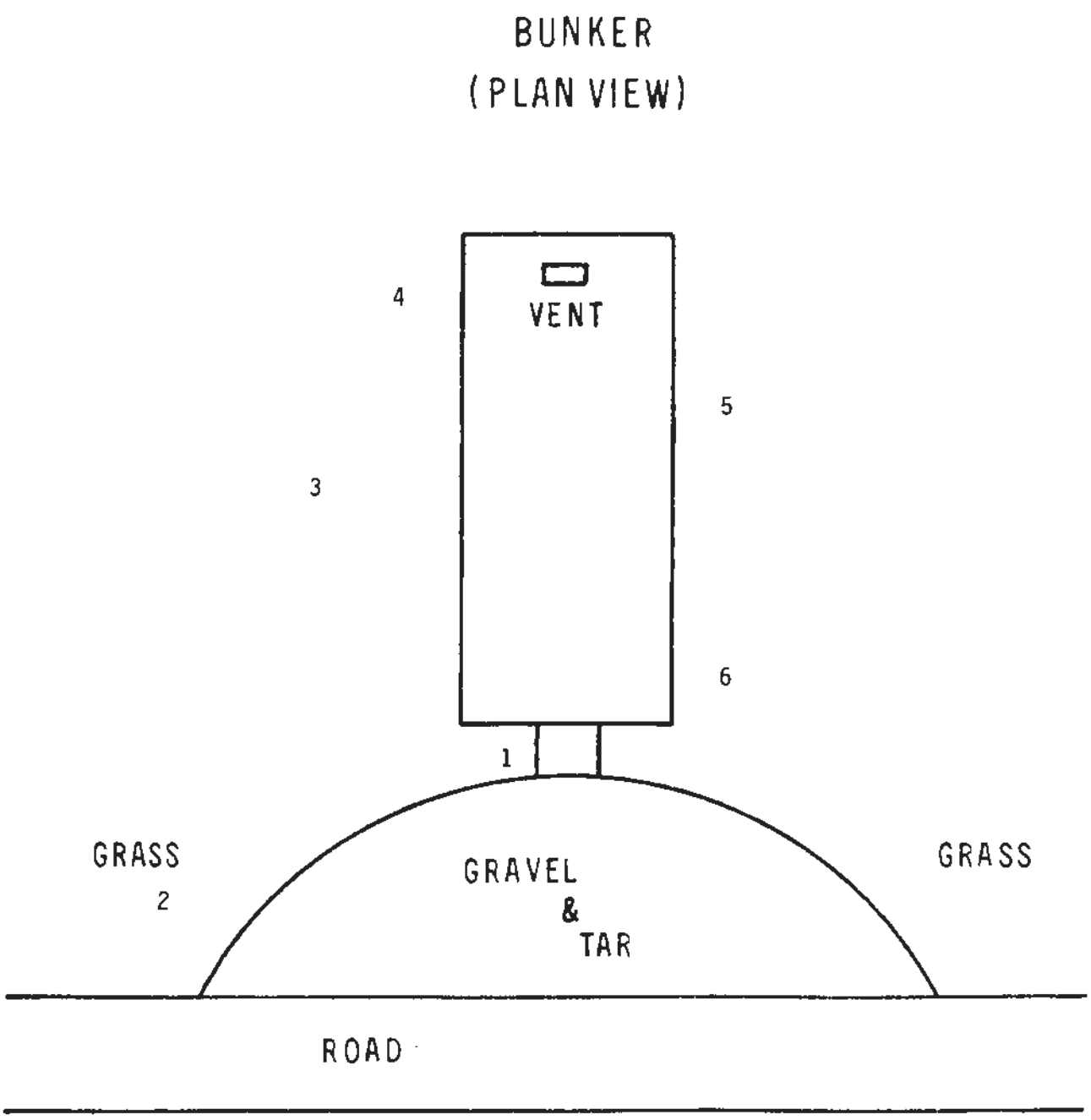


Figure J-2. First Team Surveyed Positions: Building 810 (Exterior)

TABLE J-2. SOIL AND WATER SAMPLE RESULTS : BUILDING EO-810

Lower Level of Detectability 5 X 10^{-7} pCi/ml or g

Data Point Location	Sample No.	µR	Sample Type	Contamination Levels pCi/ml or g ^{226}Ra	^{238}U
1	810-1	10	Soil	4.6±.3	
2	810-2A		Water		2.3±1.8E-7
3	810-1A	7	Water		
4		7			
5		8			
6		7			



Building 810

Figure J-3. Soil and Water Sample Positions: Building 810

Appendix K

RADCON Team Survey Data for Building 811

TABLE K-1. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-811

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
1	Wall	2320	.040	0	9	11	9
2	Floor	2100	.030	0	8	5	6
3	Floor	2140	.030	0	8	5	7
4	Wall	2180	.020	0	8	11	10
5	Wall	2150	.020	0	7	0	6
6	Floor	1960	.030	0	8	5	8
7	Floor	2170	.030	0	8	0	3
8	Wall	2210	.030	0	8	11	4
9	Wall	2240	.030	0	8	0	12
10	Floor	2080	.050	200	10	17	15
11	Floor	2580	.050	0	8	22	26
12	Wall	2120	.020	100	8	5	4
13	Wall	2070	.020	0	8	0	11
14	Floor	2330	.050	100	8	0	29
15	Floor	2550	.030	0	8	5	15

TABLE K-1. FIRST TEAM INITIAL SURVEY DATA : BUILDING EO-811 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
16	Wall	2390	.020	0	8	0	10
17	Wall	2360	.010	0	8	5	9
18	Floor	2280	.030	200	8	11	13
19	Floor	2060	.020	0	8	11	21
20	Wall	2200	.020	0	8	0	7
21	Pad	2540	.100	0	7		
22	Pad	2330	.020	0	9		
23	Pad	20170	.070	0	100		
24	Pad	11830	.200	0	70		
25	Pad	2530	.020	0	11		

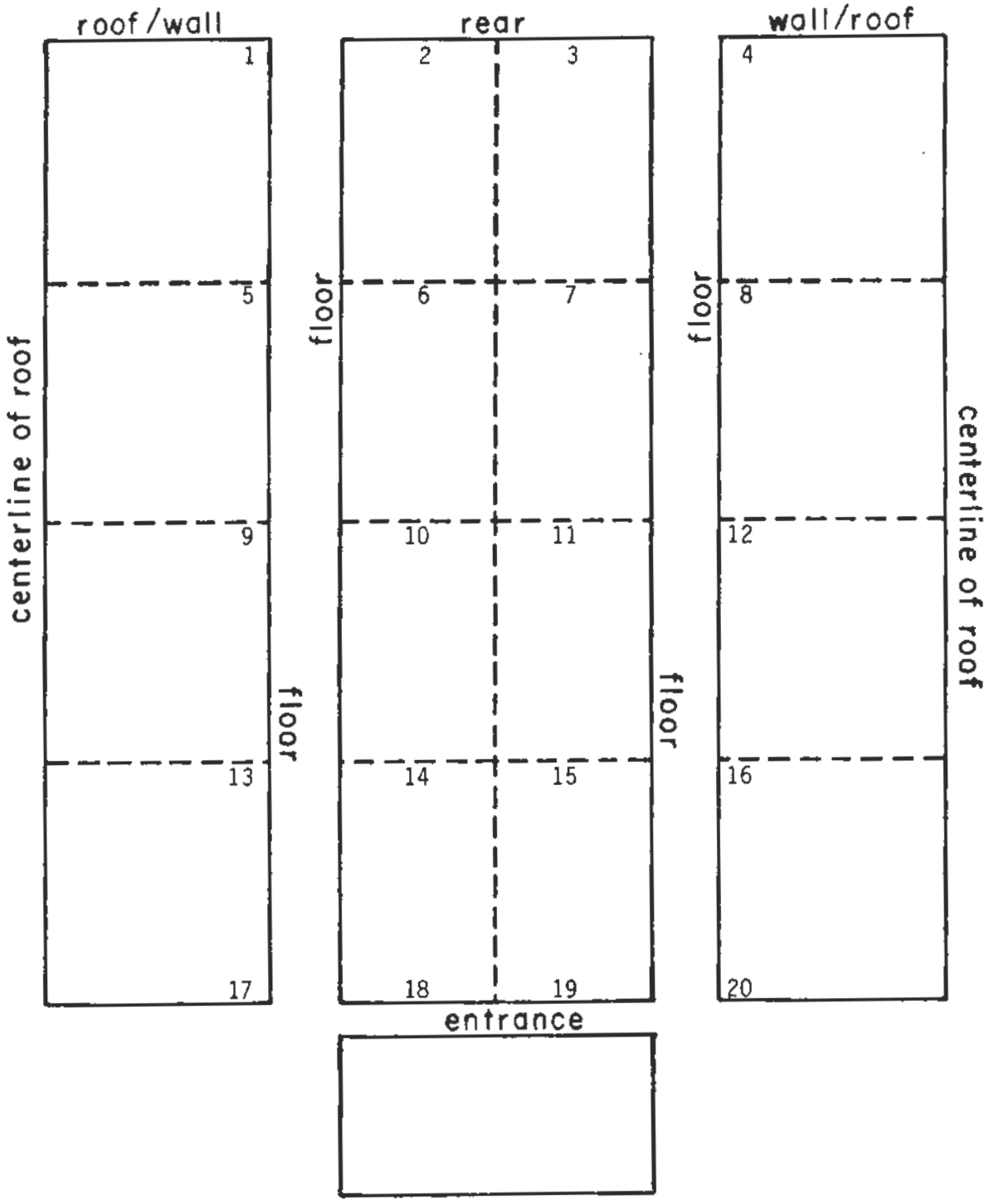


Figure K-1. First Team Surveyed Positions: Building 811 (Interior)

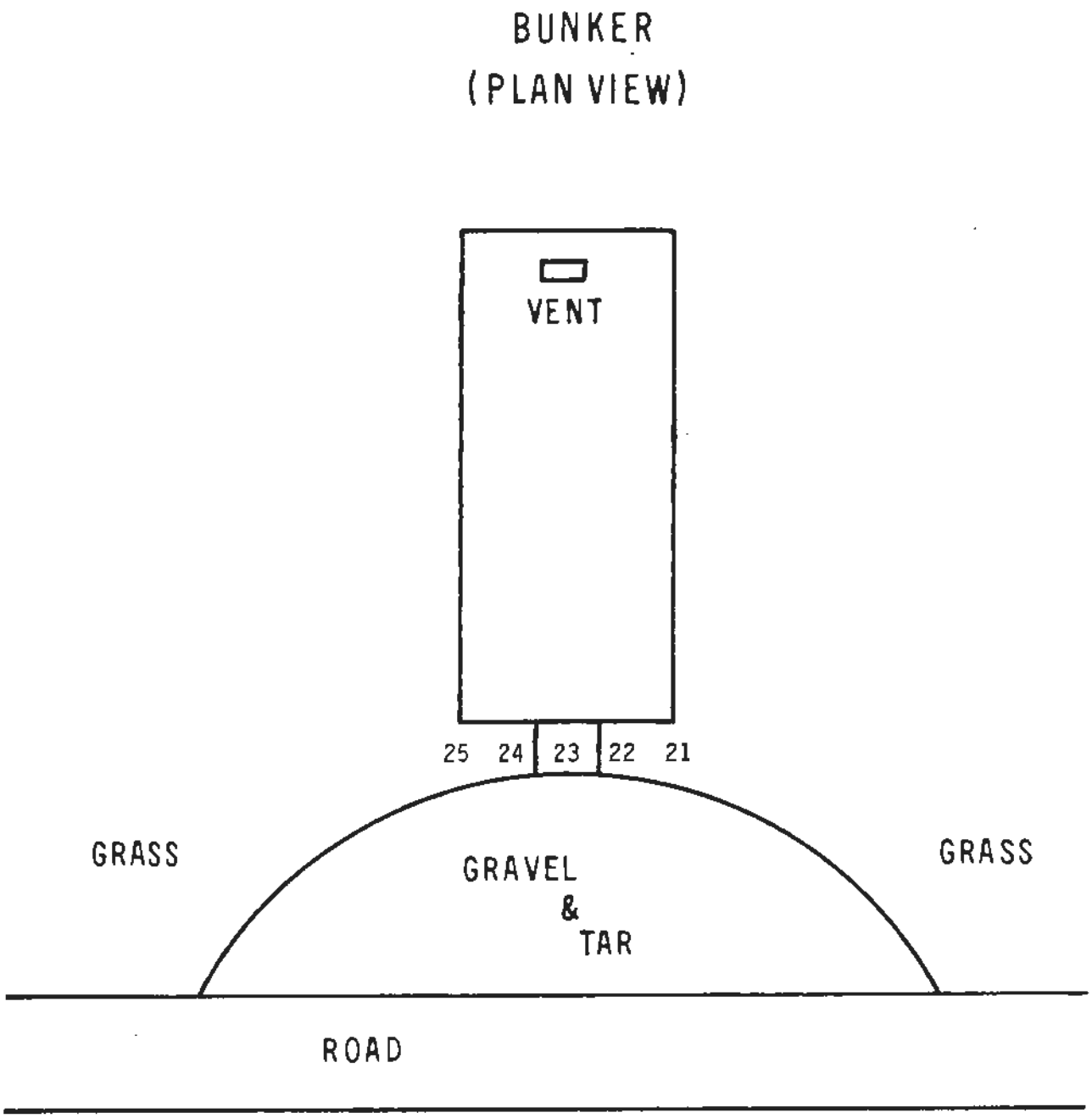


Figure K-2. First Team Surveyed Positions: Building 811 (Exterior)

TABLE K-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-811

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
327	Floor	830	.040	150	8	6	0
328	Wall	830	.020	0	8	6	0
329	Floor	830	.030	250	8	6	1
330	Wall	830	.010	0	8	17	14
331	Floor	830	.020	350	8	17	16
332	Wall	830	.020	0	8	0	0
333	Floor	830	.020	200	8	11	0
334	Wall	830	.020	0	8	6	6
335	Floor	830	.040	300	8	6	1
336	Wall	830	.030	100	8	6	4
337	Floor	830	.030	150	8	6	1
338	Wall	830	.030	100	8	6	1
339	Floor	830	.040	500	8	6	2
340	Wall	830	.020	50	8	11	6
341	Floor	830	.040	300	8	6	5

TABLE K-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-811 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
342	Wall	830	.020	0	8	17	4
343	Floor	830	.020	250	8	11	10
344	Wall	830	.020	0	8	6	3
345	Floor	830	.030	150	8	6	3
346	Wall	830	.020	150	8	0	0
347	Floor	830	.030	100	8	11	7
348	Wall	830	.010	150	8	0	3
349	Floor	830	.010	50	8	22	4
350	Wall	830	.020	100	8	0	4
351	Floor	830	.020	100	8	6	4
352	Wall	830	.020	50	8	11	3
353	Floor	830	.150	150	8	11	0
354	Wall	830	.010	0	8	6	2
355	Floor	830	.040	50	8	11	7
356	Wall	830	.020	0	8	6	1

TABLE K-2. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-811 (cont)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
357	Floor	0	.200	900	0	78	93
358	Floor	830	.020	250	8	6	3
359	Wall	830	.020	50	8	0	4

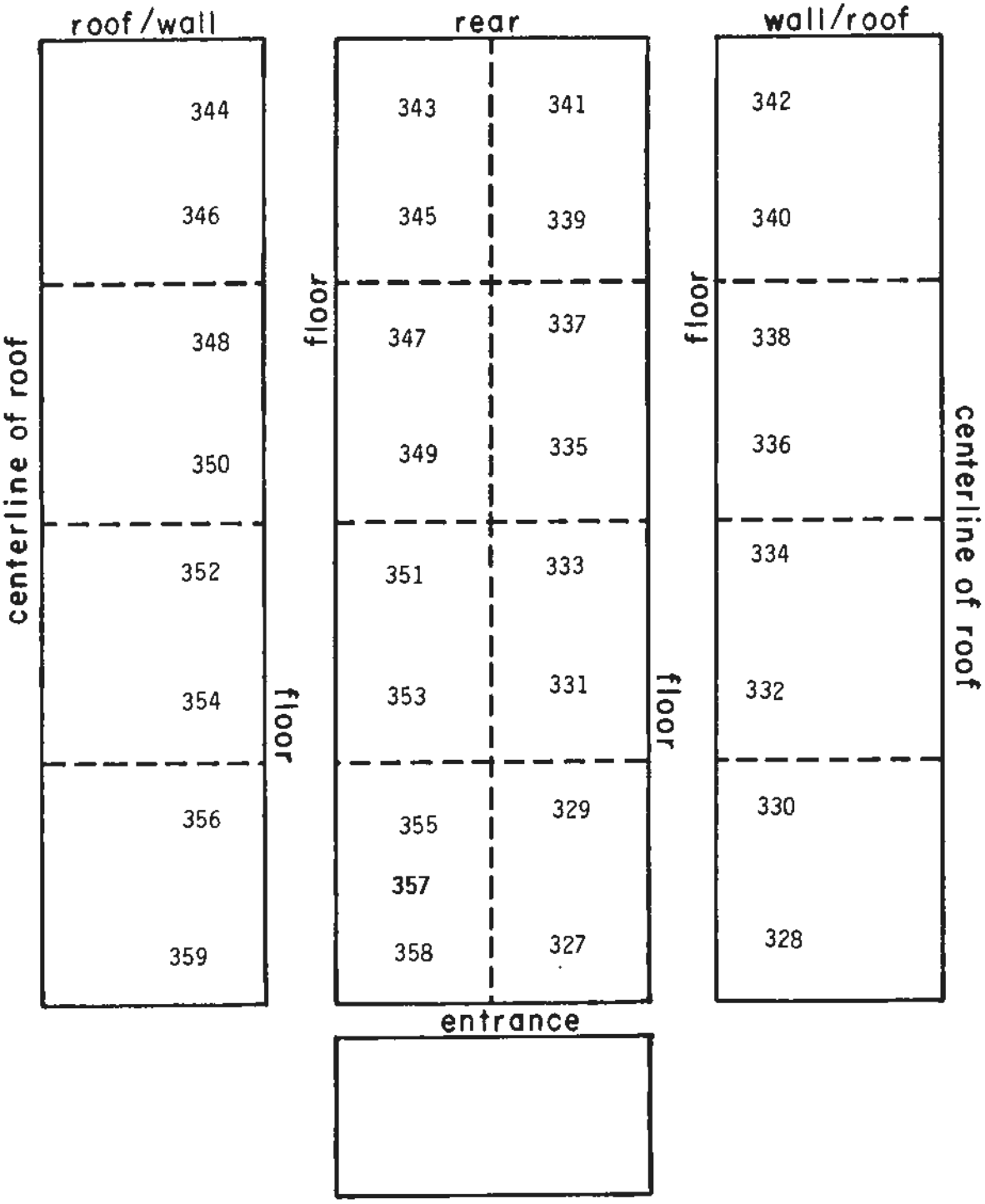


Figure K-3. Second Team Surveyed Positions: Building 811 (Interior)

TABLE K-3. SECOND TEAM INITIAL SURVEY DATA : BUILDING EO-811 (Exterior)

Data Point Number	Location	FIDLER	MOD-3 Pancake	PAC-1SA	LUDLUM-19 Micro R	Removable Contamination Alpha	Beta
		cpm	mr/hr	cpm	µr/hr	Dpm	Dpm
363	Pad	31400	.500	0	100		
364	Pad	0		0	20		
365	Pad	57500		0	0		
366	Pad	0		0	100		
367	Pad	0		0	150		
368	Pad	0		0	10		

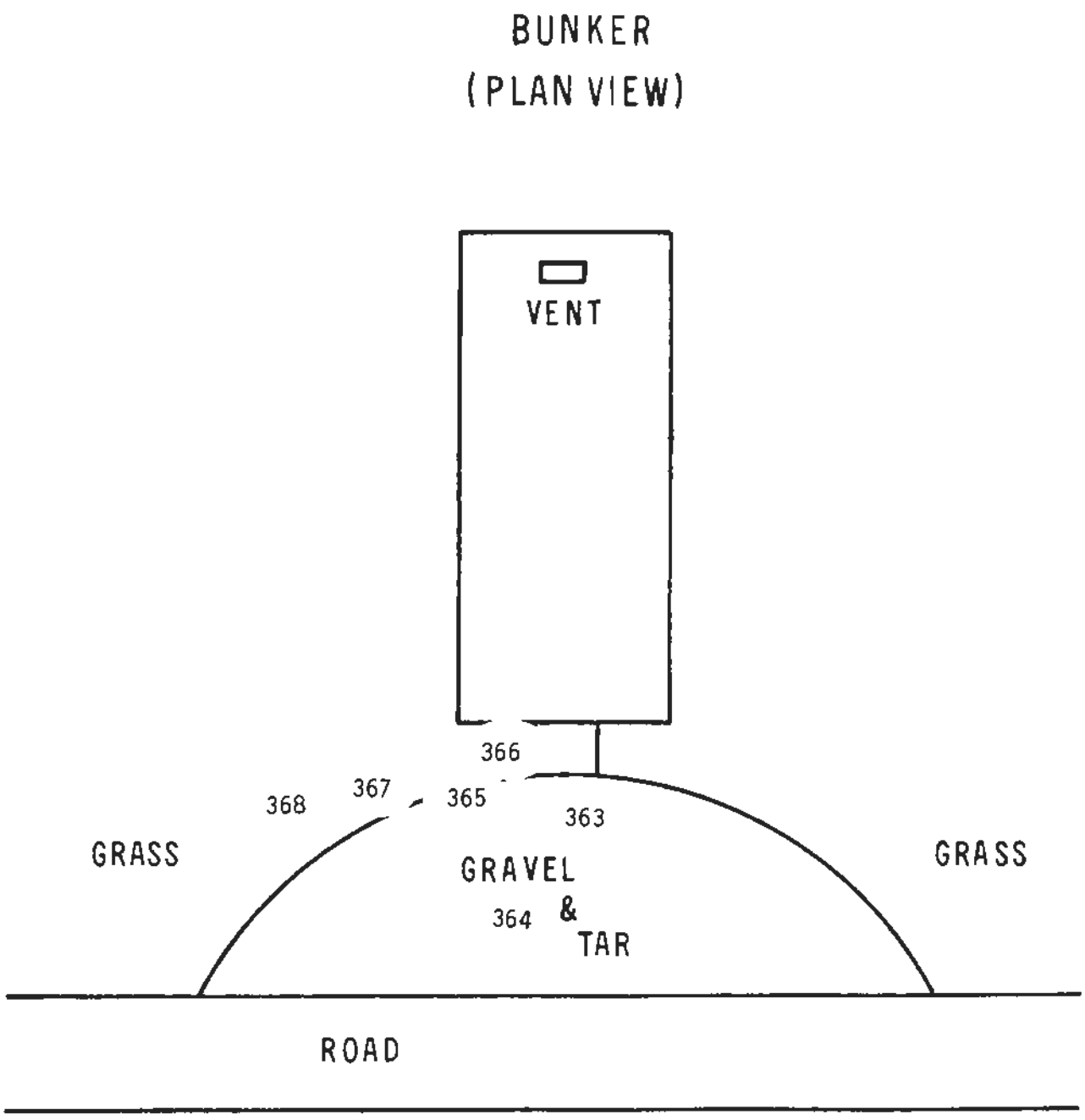
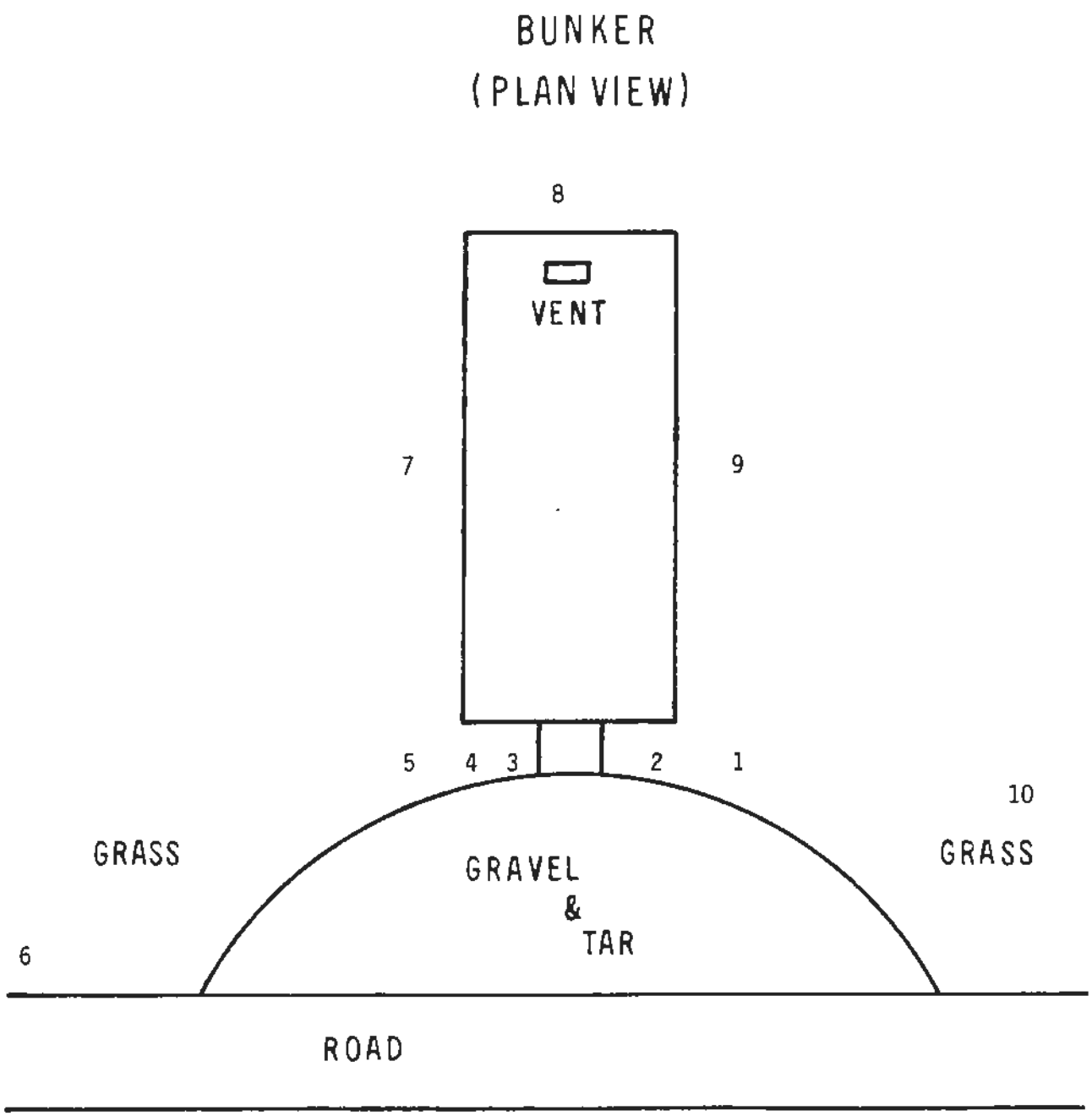


Figure K-4. Second Team Surveyed Positions: Building 811 (Exterior)

TABLE K-4. SOIL AND WATER SAMPLE RESULTS : BUILDING EO-811

Lower Level of Detectability 5 X 10^{-7} pCi/ml or g

Data Point Location	Sample No.	μR	Sample Type	Contamination Levels pCi/ml or g ^{226}Ra	^{238}U
1	811-4	12	Soil		
2	811-3	100	Soil	2.6±.2	2.9±1.0
3	811-6	100	Soil	113±1.2	9.0±1.9
4	811-2	45	Soil	1.0±.1	
5	811-1	12	Soil		
6	811-1A		Water		
7		12			
8		11			
9		12			
10	811-5		Soil		



Building 811

Figure K-5. Soil and Water Sample Positions: Building 811

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