

POLYCYCLIC AROMATIC HYDROCARBON
EXPOSURE OF CHILDREN IN LOW-INCOME FAMILIES

by

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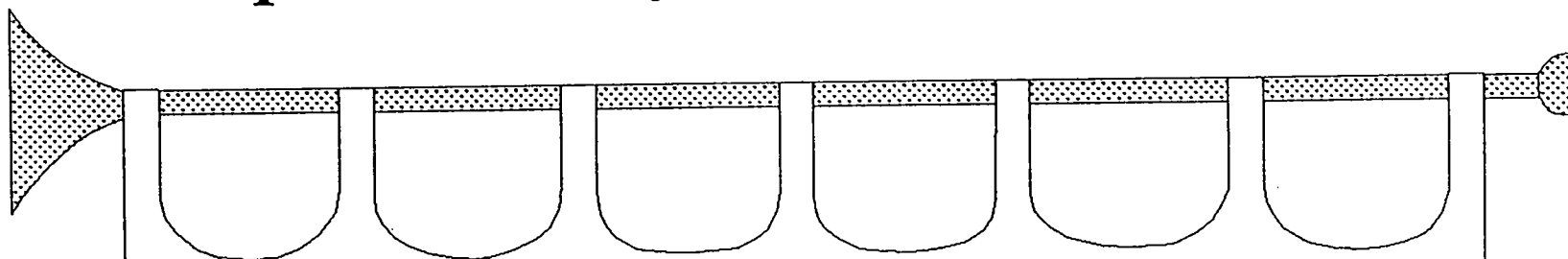
Volume II: Appendices A through F
Cooperative Agreement CR822073

Project Officer,

Nancy K. Wilson
National Exposure Research Laboratory
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711

NATIONAL EXPOSURE RESEARCH LABORATORY
OFFICE OF RESEARCH AND DEVELOPMENT
U.S. ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NORTH CAROLINA 27711

An opportunity to contribute to an important study and receive \$75!



You may be qualified to participate in an environmental study and receive \$75 for your participation if you have a child aged 2 to 5 who stay home with an adult during the day and the child is potty-trained, and you live in a one-story home (can be duplex or one-story apartment).

To find out if you may participate in the study and receive \$75, please call us as soon as possible at (919) 544-3717. This is a local call if you call from Durham. You may call the above numbers collect if it's a long distance call to you.

If you call us, please tell the receptionist that you have questions about the environmental study. Our office hours are 9 to 5, Monday through Friday. Thank you.

ABOUT THE STUDY: The U.S. Environmental Protection Agency is working with Battelle Memorial Institute and Survey Research Associates of Durham on an important environmental study. The purpose of the study is to develop methods to measure potential environmental pollutant exposure among children and adults living in cities and rural areas.

(Please Remove This Flyer After August 4, 1995)

The Environmental Study *** Telephone Screening Form

SRA #:

5. (Do the children/Does the child) aged 2 to 5 go to pre-school or daycare during the day or stay home with an adult during the day?

GO TO PRE-SCHOOL/DAYCARE	..... 1	ASK:	How many hours per day (do the children/does the child) go to pre-school/daycare?
STAY HOME WITH AN ADULT	..... 2		
OTHER	..... 3		_____ Hours/Day.
RF	..... 7		
DK	..... 8		

SPECIFY OTHER: _____

6. (Are the children/Is the child) aged 2 to 5 already potty-trained (stop using diapers)?

YES	..... 1		
NO	..... 2	ASK:	(Are the children/Is the child) in the process of potty training? 1...YES 2...NO
RF	..... 7		
DK	..... 8		

7. The next question is regarding the structure of your home. Is your home (a/an)...[READ CATEGORIES]

One-Story House,	..... 01
One-Story Duplex,	..... 02
Two-Story House,	..... 03
Two-Story Duplex,	..... 04
Trailer/Mobile Home,	..... 05
Apartment, or	..... 06
Any Other Type	..... 07
RF	..... 97
DK	..... 98

SPECIFY OTHER: _____

8. How long have you and your family lived in your current home?

_____ YEARS _____ MONTHS

9. Are you planning to move out of your current home before July 1, 1995?

YES	..... 1
NO	..... 2
RF	..... 7
DK	..... 8

The Environmental Study *** Telephone Screening Form

SRA #: |__| |__| |__|

10. What was your total household income last year?

\$ |__| |__| |__| |__| |__| |__|

[IF RESPONDENT IS HESITANT ABOUT REPORTING INCOME, READ THE FOLLOWING:]

Was it?

- | | | |
|--------------------------------|---|------------|
| Less than \$10,000 | 1 | |
| \$10,000 to \$20,000 | 2 | |
| \$21,000 to \$30,000 | 3 | |
| \$31,000 to \$40,000, or | 4 | |
| More then \$40,000 | 5 | |
| RF | 7 | (GO TO 12) |
| DK | 8 | (GO TO 12) |

11. How many people (including yourself) were supported by this income?

NO. OF PEOPLE: _____

12. Are you receiving any public assistance?

- | | | |
|-----------|---|--|
| YES | 1 | |
| NO | 2 | |
| RF | 7 | |
| DK | 8 | |

INTERVIEW NOTE:

INTERVIEWER CODE: |__| |__|

CONSENT FORM**The Environmental Study****ABOUT THE RESEARCH STUDY**

The U.S. Environmental Protection Agency is working with Battelle/Survey Research Associates, Inc. for an environmental study in the city and rural areas. The goal of this study is to develop a method to measure the amount of potentially hazardous pollutant in the air we breathe, the soil and dust around our houses, and the food we eat. About four smoker-households will be selected to participate in this study. To verify this research study, you may contact Dr. Nancy Wilson, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, or call (919) 541-4723.

DO I HAVE TO PARTICIPATE?

Participation in this study is totally voluntary. There will be no costs to you to participate in the study. All reasonable efforts will be made to protect the confidentiality of information obtained from this study, in keeping with legal requirements. Your name will be removed from the questionnaire before we process the data. No names will appear on any reports. Participation will not affect any government benefits you may receive. You may stop at any time or refuse to answer any questions. If you can participate, you will be helping provide important information about the potentially hazardous pollutant exposure to young children living in the city and rural areas.

WHAT DO I NEED TO DO TO PARTICIPATE IN THE STUDY?

The study will be conducted in August or September 1995. It will take 2 days to do the study. It will take 1 to 2 hours each day for us to meet with you and for us to do the study activities. We will ask you to collect food and urine samples. We will also ask you to complete a child activity diary and a food diary. Our study staff will show you how to collect the samples and record the diaries. It will take you 5 to 15 minutes each time to collect food or urine and to record the diaries. You do not have to change your daily activities for the study. We will schedule an appointment with you at your convenience.

Your participation is very important to the success of this study. Your household was selected in a scientific manner. It is very difficult to replace a household which has been selected for this study. To thank you for your participation, we will pay you \$15 one week before the study begins and \$60 after we complete the study. You will receive a total of \$75 if you complete the study activities with us. We will also give you a certificate recognizing your contribution after the completion of this study. The following is a summary of what we plan to do in each day:

- * We will visit you at the scheduled time one week before Day-1 of the study and pay you \$15. The \$15 is to make up the costs for any extra food for our food samples. We will also put 4 air tracers in your house to measure the air flow. The tracer is only about 1/4 of the size of a pencil. They don't need to be watched and don't make noise. They don't cause any risk or danger to your family. It will take about 15 to 20 minutes for this visit.

Day-1 Study Activities

- a. Two indoor and 2 to 3 outdoor air monitors will be installed. The size of the monitor is about the size of a small microwave oven. They do not need to be watched. The noise that the monitors put out is like a small fan. There is no risk or danger to your family. They will be plugged into an electric outlet in your house. When the monitors are running, they use very little electricity (it costs about 60 cents a day to run the monitors). We will put the indoor monitors in a playpen (we will bring the playpen) and the outdoor monitors in a dog house (we will bring the dog house).
- b. We may put a meteorological monitor (MM) outside your house. The MM is about 10 feet tall. The MM is powered by its own battery and doesn't need to be watched. The MM does not make noise and there is no risk or danger to your family.
- c. Two air tracers will be used to measure the air flow in your home. The tracers are similar to the ones we plan to put in your house about a week before the study begins.
- d. You will be asked to answer questions about your home, your family members, your daily activities, and heaters used in your home.
- e. A Child Activity Diary and a Food Diary will be used to record your child's daily activities and what you and your child eat in a 24-hour monitoring period. We will tell you when the 24-hour monitoring period begins and show you how to record the diaries.
- f. Food and urine samples for the 24-hour monitoring period will be collected. We will give you containers and coolers and show you how to do it.

Day-2 Study Activities

- a. Some areas in your house will be vacuumed and we will take some soil samples around your house.
- b. The air monitors, air tracers and the meteorological monitor will be removed.
- c. We will pick up the Child Activity Diary, Food Diary, food and urine samples, and the coolers.
- d. You will be asked to answer questions about your and your child's daily activities during the 24-hour monitoring period.
- e. We will pay you \$60, ask you to sign a receipt, and present you a certificate to thank you for your participation.

INFORMED CONSENT

I certify that I have read this 3-page consent form, or it has been explained to me, and I understand its contents. I understand that my participation will involve all of the activities described in this consent form. My signature below means that I have freely agreed to participate in this study and I have allowed my child to be included in this study. I understand that I may contact Christopher W. Lyu, Study Manager, at (919) 544-3717 if I have any additional questions about this study. If I believe that there is any infringement upon my rights, I may contact the Administrator for the Institutional Review Board, Charlotte Coley, at (919) 544-3717.

Please Print Your Name

Please Print the Child's Name

Your Signature

Date

Spouse/Partner's Signature
(if applicable)

Date

Study Staff's Signature

Date

THE ENVIRONMENTAL STUDY

Participant Information Sheets

- *1. Child Activity Diary
- *2. Food Diary for Adult
- *3. Food Diary for Child
- *4. Instructions for Adult/Child Urine Sample Collection

Thank you for your participation in this important environmental study. Your assistance in collecting food and urine samples and completing the Child Activity Diary and Food Diary are very important to the success of this study. You should have received \$15 payment for preparing extra foods for our sample collection. After the completion of this study, we will pay you an additional \$60 for your participation.

Our research study staff will show you how to complete the participant information sheets. If you have questions regarding the study or the participant information sheets, please feel free to call Frances Patterson or Christopher Lyu at 544-3717 or 408-0541 for assistance. Once again, thank you for your participation.

Household	Child Activity Diary		FROM:		
V. 09/22/95	Page 2		TO:		
HOURS --->	OUTDOOR ACTIVITIES		HOUR --->	INDOOR ACTIVITIES	
	1. Total hours spent outside the house?			1. Total hours spent inside the house?	
	2. About how many hours did your child play on the ground of the front yard?			2. About how many hours did your child sit or play on the floor inside the house?	
	3. About how many hours did your child play on the ground of the back yard?			Which Room in the House?	
	4. Time Spent In Other Outdoor Activities [List other activities]			3. How many hours of nap time?	
				Which Room in the House?	
				4. How many hours of night sleep?	
				Which Room in the House?	
				5. Time Spent In Other Indoor Activities: [List other activities]	
Did your child do any of the following things outside the house?			Did your child do any of the following things inside the house?		
YES	NO	Please check YES or NO for each question.	YES	NO	Please check YES or NO for each question.
		1. Sucking thumb, fingers, or toe?			1. Sucking thumb, fingers, or toe?
		2. Eating and playing outside the house?			2. Eating and playing on the floor?
		3. Putting toys in the mouth?			3. Putting toys in the mouth?
		4. Eating dirt or sand?			4. Washing hands before eating?
		5. Walking barefoot in the yard?			5. Washing hands after playing outside?
		6. Playing with a cat or dog?			6. Washing hands before going to bed?
		7. Digging in the yard?			7. Walking barefoot inside the house?
		8. Going somewhere away from home?			8. Playing with a cat or dog?

Household		CHILD	From	
		Solid and Liquid Food Diary	To	
What Did Your Child Eat or Drink?			INSTRUCTIONS	
BREAKFAST			<div style="border: 1px solid black; padding: 5px; text-align: center;">General Instructions</div> <ol style="list-style-type: none"> 1. Collect the same amount of food or liquid child ate or drank during the 24-hour period. 2. Record what your child ate or drank on this form. 	
LUNCH			<div style="border: 1px solid black; padding: 5px; text-align: center;">Food Collection Instructions</div> <ol style="list-style-type: none"> 1. Put the SAME amount of solid foods you ate into the plastic container with GREEN labels. 2. Put the SAME amount of liquid foods your child drank into the plastic jar with GREEN labels. 3. Please separate solid foods and liquid foods. If your child eats cereals and milk, please separate cereals and milk. 4. Please remove uneatable parts from the food samples (such as paper wrap or bones). 5. If your child eats out or if you order carry for your child, please buy extra foods. 6. Close the container and jar tightly and put them back into the cooler immediately after each food sample collection. 7. DO NOT put your foods into your child's food container or jar. 	
DINNER				
SNACKS				

Household		ADULT	From	
		Solid and Liquid Food Diary	To	
What Did Your Child Eat or Drink?			INSTRUCTIONS	
BREAKFAST			<div>General Instructions</div> <ol style="list-style-type: none"> 1. Collect the same amount of food or liquid child ate or drank during the 24-hour period. 2. Record what your child ate or drank on the form. <div>Food Collection Instructions</div> <ol style="list-style-type: none"> 1. Put the SAME amount of solid foods you ate into the plastic container with GREEN labels. 2. Put the SAME amount of liquid foods your child drank into the plastic jar with GREEN labels. 3. Please separate solid foods and liquid foods. If your child eats cereals and milk, please separate cereals and milk. 4. Please remove uneatable parts from the food samples (such as paper wrap or bones). 5. If your child eats out or if you order carry for your child, please buy extra foods. 6. Close the container and jar tightly and put them back into the cooler immediately after each food sample collection. 7. DO NOT put your foods into your child's food container or jar. 	
LUNCH				
DINNER				
SNACKS				

Household:

INSTRUCTIONS FOR URINE SAMPLE COLLECTION

Container Number	When Do You Collect?	
	DATE	TIME
1		2 - 3 HOURS AFTER LUNCH
2		2 - 3 HOURS AFTER DINNER OR BEFORE GO TO BED
3		FIRST THING IN THE MORNING AFTER (YOU/THE CHILD) GET UP
4		2 - 3 HOURS AFTER BREAKFAST

About the Urine Sample Containers
<ul style="list-style-type: none">* The containers with ORANGE labels are for ADUL* The containers with GREEN labels are for CHILD.* Please use the right container for each sample.* DO NOT mix adult urine sample with child sample.* The containers are numbered 1 through 4.* Always close the cap TIGHTLY after each collecti* Sit the container in an upright position in the cooler.

How to Collect Urine Sample?
<ul style="list-style-type: none">* First check the container's number and label to see if you get the right one for the urine sample collection.* Use the bonnet to catch the urine at the time of collection. IMMEDIATELY pour the urine into the right container filling it between the black mark and the red mark.* CLOSE the cap of the container TIGHTLY and put the container in the Ziploc bag.* Put the container in an upright position in the cooler immediately after each collection.* After each collection, the bonnet should be rinsed with clear water only. DO NOT USE any soap or detergent to clean the bonnet or urine container.
Questions? If you have questions regarding foods or urine sample collection or about the study, please call Christopher or Frances at 544-3717 or 544-3718. Thank you for your participation in this important study.

APPENDIX D. HOUSE OBSERVATION SURVEY

The Environmental Study
Pre-Monitoring Questionnaire
House Observation Survey

HOUSEHOLD ID

THE ENVIRONMENTAL STUDY
HOUSE OBSERVATION SURVEY

TABLE OF CONTENTS

	PAGE
INTERVIEW INFORMATION	1
SECTION A - HOUSE INTERIOR	
HOUSE FLOOR PLAN	2
SECTION B - HOUSE EXTERIOR	
QUESTION B1	3
SECTION C - HOUSE LOCATION & SURROUNDING AREA	
QUESTION C1	6
LOCATION & SURROUNDINGS OF THE HOUSE/SKETCH	8

INTERVIEW INFORMATION

HOUSEHOLD ID #:

RECORD: 0 1

SUBRECORD: 0 0

VERSION: 0 1

	INTERVIEWER ID #	DATE	TIME STARTED	TIME ENDED	RESULTS (IF INCOMPLETE, SPECIFY REASON)
01	<input type="text"/>	<input type="text"/> <input type="text"/> MM DD YY	<input type="text"/> <input type="text"/> : <input type="text"/> <input type="text"/> AM / PM	<input type="text"/> <input type="text"/> : <input type="text"/> <input type="text"/> AM / PM	COMPLETE ... 1 INCOMPLETE ... 2
02	<input type="text"/>	<input type="text"/> <input type="text"/> MM DD YY	<input type="text"/> <input type="text"/> : <input type="text"/> <input type="text"/> AM / PM	<input type="text"/> <input type="text"/> : <input type="text"/> <input type="text"/> AM / PM	COMPLETE ... 1 INCOMPLETE ... 2
03	<input type="text"/>	<input type="text"/> <input type="text"/> MM DD YY	<input type="text"/> <input type="text"/> : <input type="text"/> <input type="text"/> AM / PM	<input type="text"/> <input type="text"/> : <input type="text"/> <input type="text"/> AM / PM	COMPLETE ... 1 INCOMPLETE ... 2
04	<input type="text"/>	<input type="text"/> <input type="text"/> MM DD YY	<input type="text"/> <input type="text"/> : <input type="text"/> <input type="text"/> AM / PM	<input type="text"/> <input type="text"/> : <input type="text"/> <input type="text"/> AM / PM	COMPLETE ... 1 INCOMPLETE ... 2

REASONS FOR NONCOMPLETION:

01	
02	
03	
04	

SKETCH THE INTERIOR OF THE HOUSE AND MARK AREAS SAMPLED WITH AN "X." USE A COMPASS TO DETERMINE THE DIRECTIONS OF THE HOUSE AND MARK THE DIRECTIONS ON THIS SKETCH.

B1. TYPE OF LIVING STRUCTURE:

ONE-STORY HOUSE 01 ()
 ONE-STORY DUPLEX 02
 TWO-STORY HOUSE 03
 TWO-STORY DUPLEX 04
 TRAILER/MOBILE HOME 05
 APARTMENT 06
 OTHER (SPECIFY) 07
 REFUSED 97
 DK 98

[SPECIFY OTHER:] ☐ ()

B2. BUILDING MATERIALS - ROOF:

METAL 1 ()
 WOOD SHINGLES OR PLYWOOD 2
 ASPHALT SHINGLES 3
 OTHER (SPECIFY) 4

[SPECIFY:] ☐ ()

B3. BUILDING MATERIALS - SIDING:

VINYL SIDING ONLY 1 ()
 BRICK ONLY 2
 BEADED SIDING 3
 BLOCK 4
 WOOD 5
 BRICK AND VINYL/BEADED SIDING 6
 BLOCK AND VINYL/BEADED SIDING 7
 OTHER (SPECIFY) 8

[SPECIFY:] ☐ ()

B4. BUILDING FOUNDATION:

BLOCKS 1 ()
 SLAB 2
 CRAWL SPACE 3
 BASEMENT 4
 OTHER (SPECIFY) 5

[SPECIFY:] ☐ ()

B5. IS THERE A FRONT PORCH/
BALCONY?

YES 1 ()
 NO 2

B6. IS THERE A DECK OR PORCH/
BALCONY IN THE BACK OF THE
HOUSE? YES 1 ()
NO 2

B7. IS THERE A CONCRETE (OR PAVED)
DRIVEWAY? YES 1 ()
NO 2

[IF NO, SPECIFY:] _____ ☐ ()

B8. IS THERE A CONCRETE (OR PAVED)
WALKWAY FROM THE DRIVEWAY
TO THE HOUSE? YES 1 ()
NO 2

[IF NO, SPECIFY:] _____ ☐ ()

B9. CONDITION OF EXTERIOR STRUCTURE:

	<u>YES</u>	<u>NO</u>	
a. WELL MAINTAINED	1	2	()
b. PEELING PAINT	1	2	()
c. SIDING IN DISREPAIR	1	2	()
d. PARTS OF SIDING OR ROOFING LYING IN YARD	1	2	()
e. GENERALLY DETERIORATED	1	2	()

B10. DESCRIBE THE AREA OUTSIDE IN
FRONT OF THE HOUSE (>=MORE
THAN): YARD > 50% COVERED WITH LAWN, TREES, ETC. ... 1 ()
YARD > 50% BARE DIRT/MUD 2
YARD > 50% PAVED 3
OTHER (SPECIFY) 4

[SPECIFY:] _____ ☐ ()

B11. DESCRIBE THE AREA OUTSIDE IN
BACK AND ON THE SIDES OF THE
HOUSE (>=MORE THAN): YARD > 50% COVERED WITH LAWN, TREES, ETC. ... 1 ()
YARD > 50% BARE DIRT/MUD 2
YARD > 50% PAVED 3
OTHER (SPECIFY) 4

[SPECIFY:] _____ ☐ ()

B12. IS THERE ANY ODOR OUTSIDE? IF YES, DESCRIBE IT.

	<u>YES</u>	<u>NO</u>	
a. FRONT OF HOUSE	1	2	()
b. BACK OF HOUSE	1	2	()
c. SIDE OF HOUSE	1	2	()

[DESCRIPTION:] _____ ☐ ()

B13. IS THERE STANDING WATER OR ANY DISCHARGE INTO THE YARD? (SUCH AS DISCOLORED WATER/ MUD, ETC. FROM INDUSTRIAL, SEWAGE, OR HOUSEHOLD WASTE)

YES 1 ()

NO 2

[IF YES, CAN YOU SEE WHERE IT'S COMING FROM:]

_____ ☐ ()

B14. IS THERE EVIDENCE THAT RUBBISH/ BURNING IS DONE ON THE PROPERTY?

YES 1 ()

NO 2

[IF YES, DESCRIBE:] _____ ☐ ()

B15. IS GARBAGE DUMPED IN THE YARD?

YES 1 ()

NO 2

[IF YES, DESCRIBE:] _____ ☐ ()

B16. IS GARBAGE STORED IN CONTAINERS IN THE YARD?

YES 1 ()

NO 2

[IF NO, DESCRIBE WHAT/HOW:] _____ ☐ ()

B17. ARE THERE ANIMALS LIVING IN THE YARD?

YES 1 ()

NO 2

[IF YES, DESCRIBE:] _____ ☐ ()

B18. IS THERE ANIMAL FOOD AND/OR DROPPINGS AROUND THE YARD?

YES 1 ()

NO 2

[IF YES, DESCRIBE:] _____ ☐ ()

C1. DISTANCE TO STREET: FRONT OF HOUSE: FT IN ()
[NOT APPLICABLE=996 OR 96] BACK OF HOUSE: FT IN ()
LEFT SIDE OF HOUSE: FT IN ()
RIGHT SIDE OF HOUSE: FT IN ()

C2. TRAFFIC CONDITIONS AT TIME OF OBSERVATION: LIGHT (LESS THAN 1 CAR/5 MIN) 1 ()
MODERATE (1-4 CARS/5 MIN) 2
HEAVY (5 CARS OR MORE/5 MIN) 3
[SPECIFY # OF CARS/MINUTE:] ()
[TIME OF OBSERVATION:] : AM/PM ()

C3. FRONT ENTRANCE OF BUILDING: AT STREET LEVEL 1 ()
BELOW STREET LEVEL 2
ABOVE STREET LEVEL 3

C4. ARE THERE STAIRS AT THE FRONT ENTRANCE? YES 1 ()
NO 2

C5. SURROUNDING AREA: RESIDENTIAL 1 ()
RECREATIONAL 2
COMMERCIAL 3
INDUSTRIAL 4
WOODED 5
MIXED (SPECIFY) 6

[SPECIFY:] ()

C6. HOUSE SURROUNDING AREA:

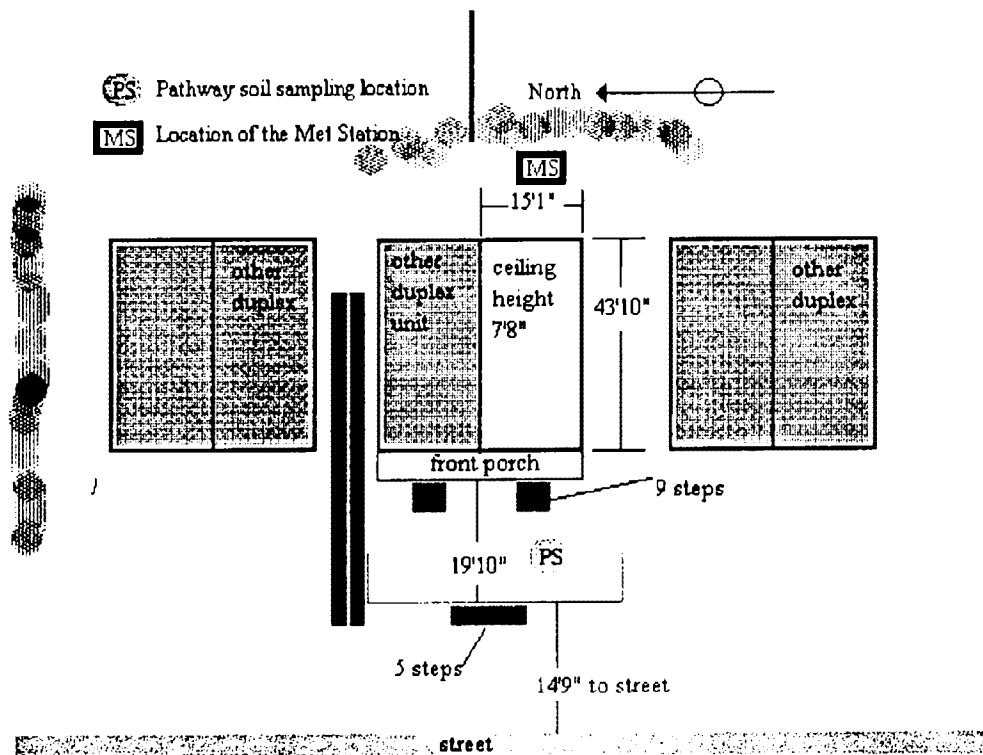
	<u>YES</u>	<u>NO</u>	
a. CONSTRUCTION SITE	1	2	()
b. DEMOLITION SITE	1	2	()
c. VACANT/LITTER/DUMP SITE	1	2	()
d. UNINHABITED BUILDINGS	1	2	()
e. ADJACENT HOMES IN POOR CONDITION	1	2	()
f. PUBLIC HOUSING PROJECT	1	2	()
g. FARM OR AGRICULTURAL AREA	1	2	()
h. LAGOON OR DRAINAGE DITCH	1	2	()
i. POWER LINES	1	2	()
j. MANUFACTURING FACILITIES	1	2	()
k. INDUSTRIAL STORAGE FACILITIES	1	2	()
l. IRRIGATION DITCHES/CANALS	1	2	()
m. GARBAGE DUMPS	1	2	()
n. STANDING WATER	1	2	()
o. RAILROAD/RAILROAD STATION	1	2	()

LOCATION & SURROUNDINGS OF THE HOUSE

SKETCH THE LOCATION AND SURROUNDINGS OF THE HOUSE. MEASURE THE APPROXIMATE DIMENSIONS OF THE HOUSE AND THE SIZE OF THE YARD (FRONT AND BACK).

House Location & Surrounding Area

ID: PNA4

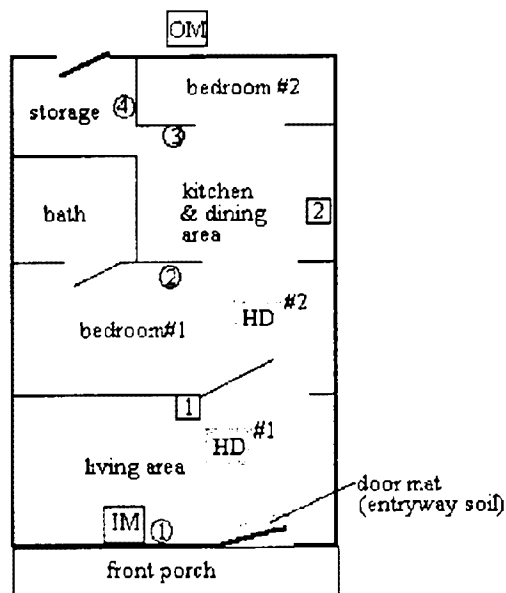


House Floor Plan ID: PNA4

- ① CATS samplers
- ③ PFT source tubes
- HD: House Dust/HVS3 Sampling Area
- IM: Indoor Monitor
- OM: Outdoor Monitor

Sampling Dates: 2/16-17/94

NOTE: Wood floor

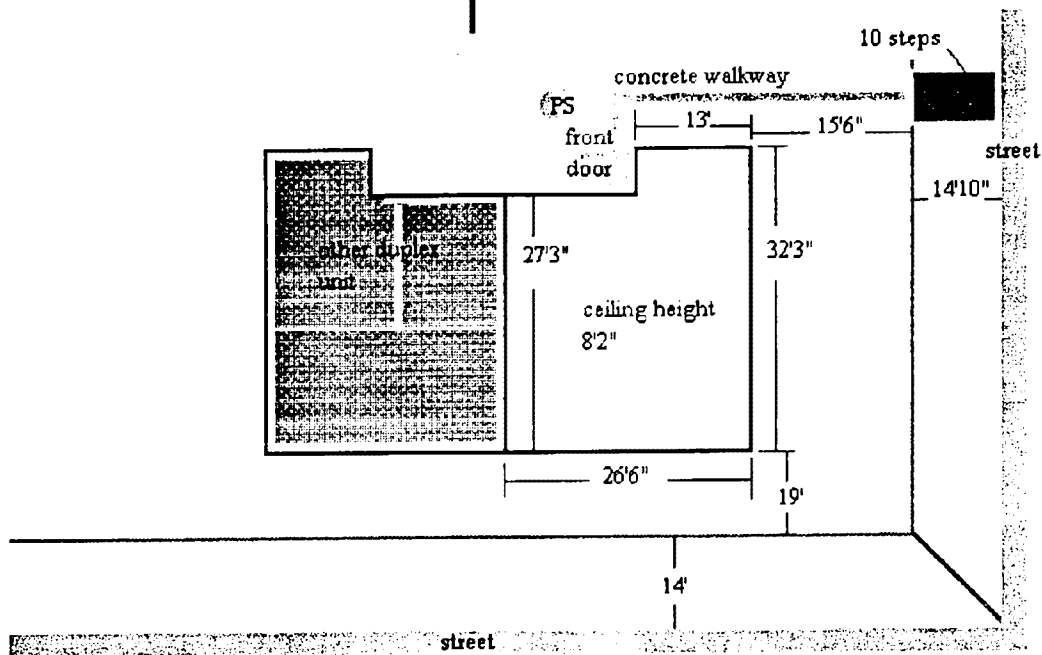


House Location & Surrounding Area

ID: PSB4

(PS) Pathway soil sampling location

North ←



House Floor Plan ID: PSB4

① CATS samplers

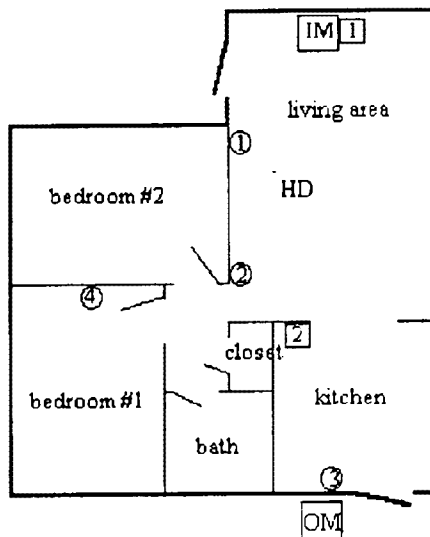
③ PFT source tubes

[HD] House Dust/HVS3 Sampling Area

[IM] Indoor Monitor

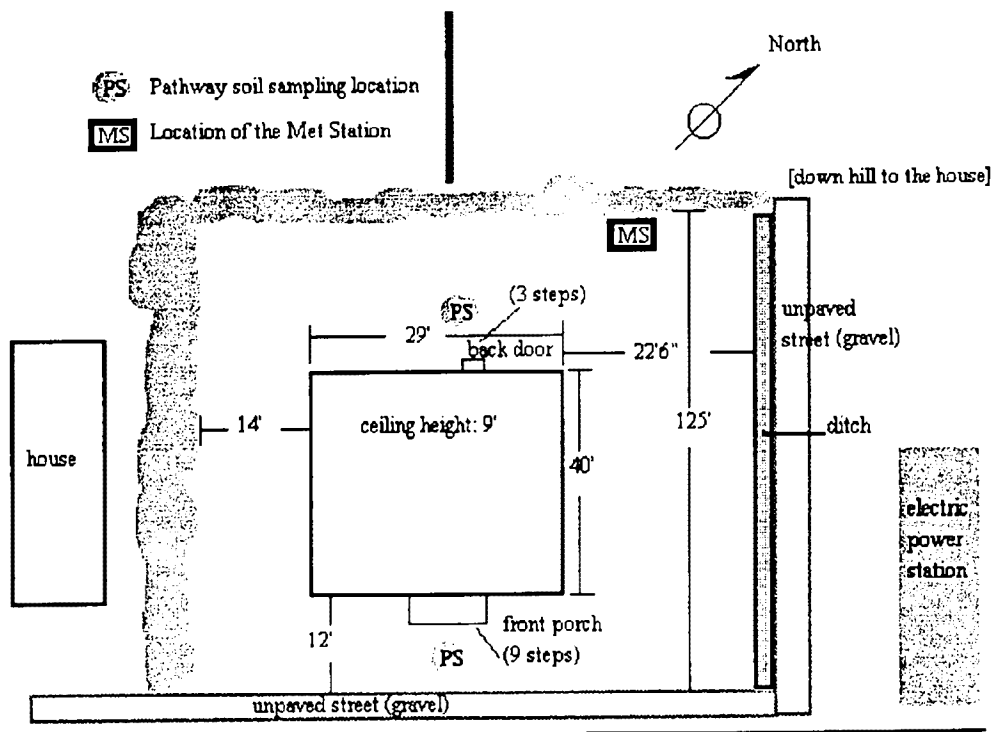
[OM] Outdoor Monitor

Sampling Dates: 2/16-17/94



House Location & Surrounding Area

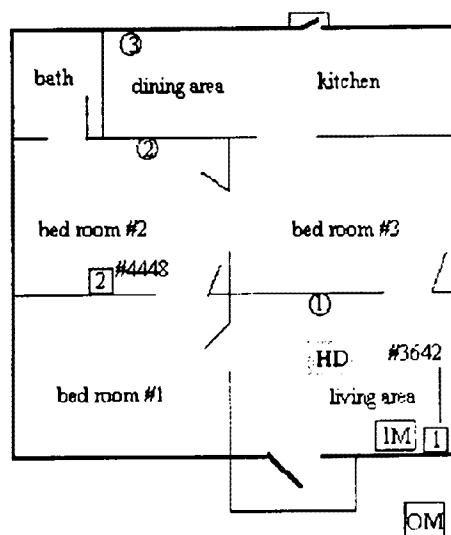
ID: SNA4



House Floor Plan ID: SNA4

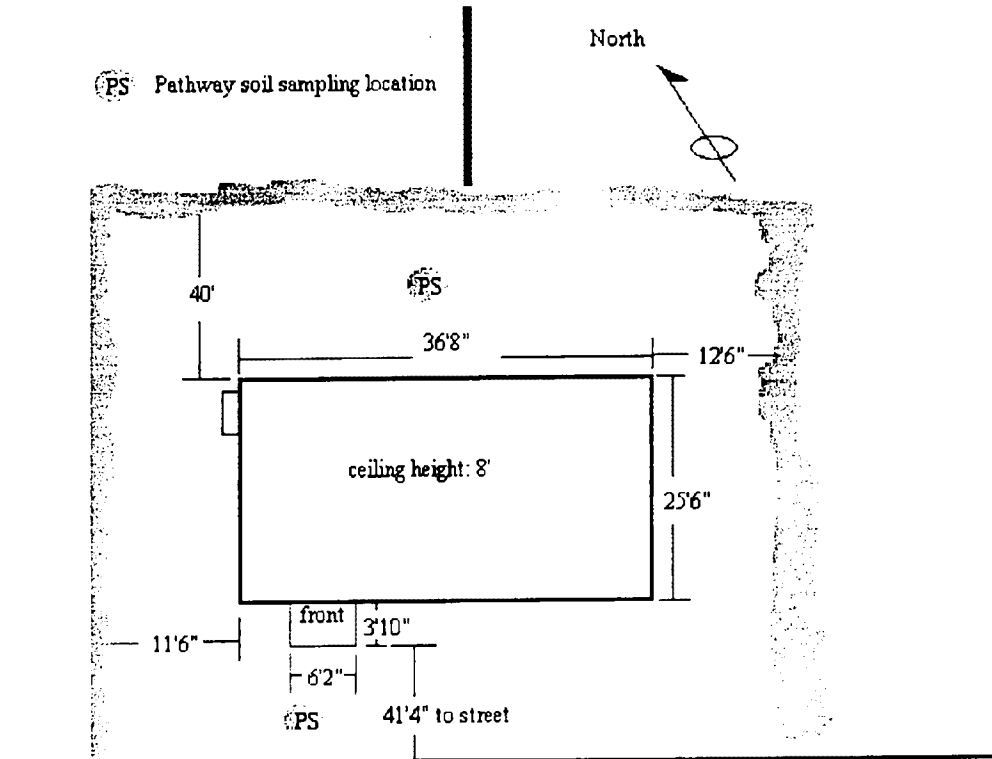
- [1] CATS samplers
- [3] PFT source tubes
- [HD] House Dust/HVS3 Sampling Area
- [IM] Indoor Monitor
- [OM] Outdoor Monitor

House Temperature: 82.4° F (8/14/95); 86.6° F (8/15/95)
 CATS Start Time: #3642 (11:17 am, 8/14/95)
 #4448 (11:20 am, 8/14/95)
 CATS End Time: #3642 (1:26 pm, 8/15/95)
 #4448 (1:24 pm, 8/15/95)



House Location & Surrounding Area

ID: SNB4



House Floor Plan ID: SNB4

- ① CATS samplers
- ③ PFT source tubes
- HD House Dust/HVS3 Sampling Area
- IM Indoor Monitor
- OM Outdoor Monitor

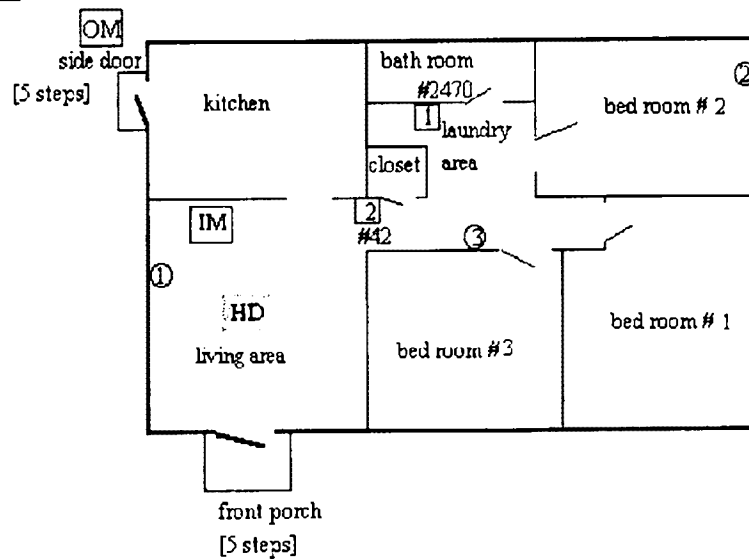
House Temperature: 88.2° F (8/15/95), 86.6° F (8/16/95)

CATS Start Time: #2470 (9:48 am, 8/15/95)

42 (9:50 am, 8/15/95)

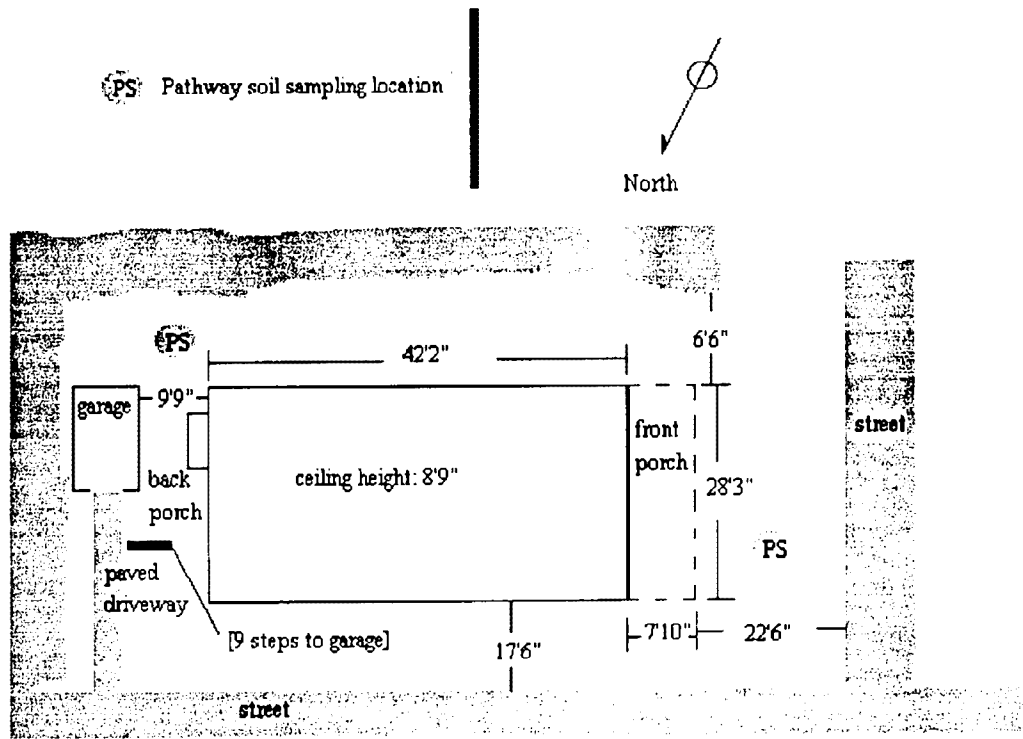
CATS End Time: #2470 (10:08 am, 8/16/95)

42 (10:14 am, 8/16/95)



House Location & Surrounding Area

ID: SNC4



House Floor Plan ID: SNC4

- ① CATS samplers
- ③ PFT source tubes
- HD House Dust/HVS3 Sampling Area
- IM Indoor Monitor
- OM Outdoor Monitor

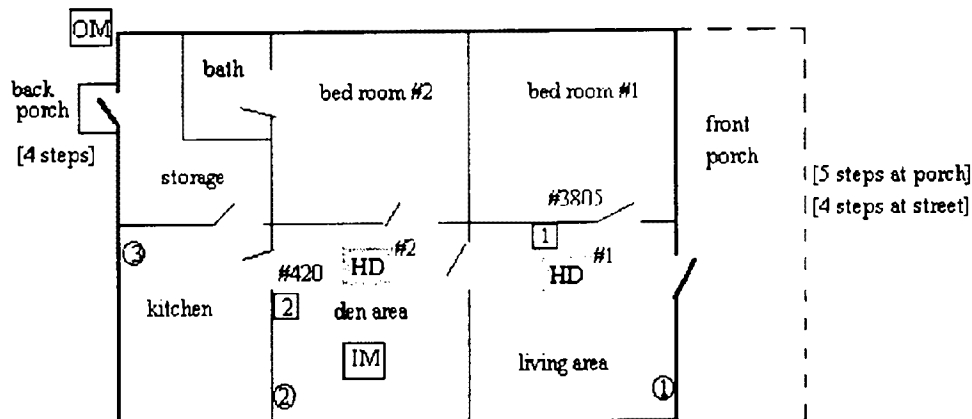
House Temperature: 87.4° F (8/15/95); 85.8° F (8/16/95)

CATS Start Time: #3805 (11:04 am, 8/15/95)

420 (11:07 am, 8/15/95)

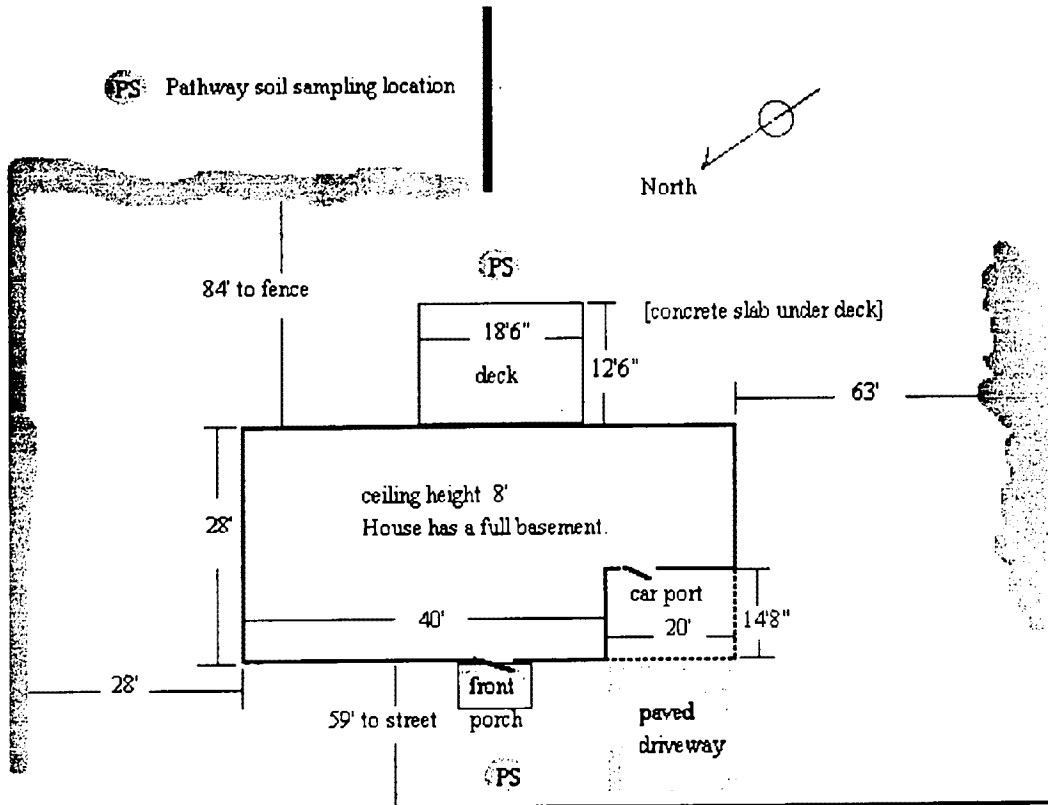
CATS End Time: #3805 (12:21 pm, 8/16/95)

420 (12:22 pm, 8/16/95)



House Location & Surrounding Area

ID: SND4



House Floor Plan ID: SND4

① CATS samplers

③ PFT source tubes

HD House Dust/HVS3 Sampling Area

IM Indoor Monitor

OM Outdoor Monitor

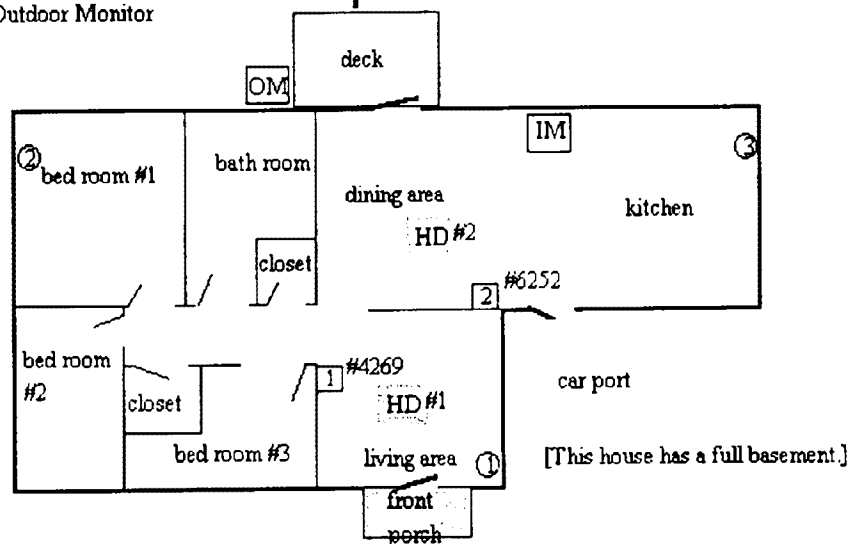
House Temperature: 78.0° F (8/15/95); 73.6° F (8/16/95)

CATS Start Time: #4269 (3:10 pm, 8/15/95)

#6252 (3:14 pm, 8/15/95)

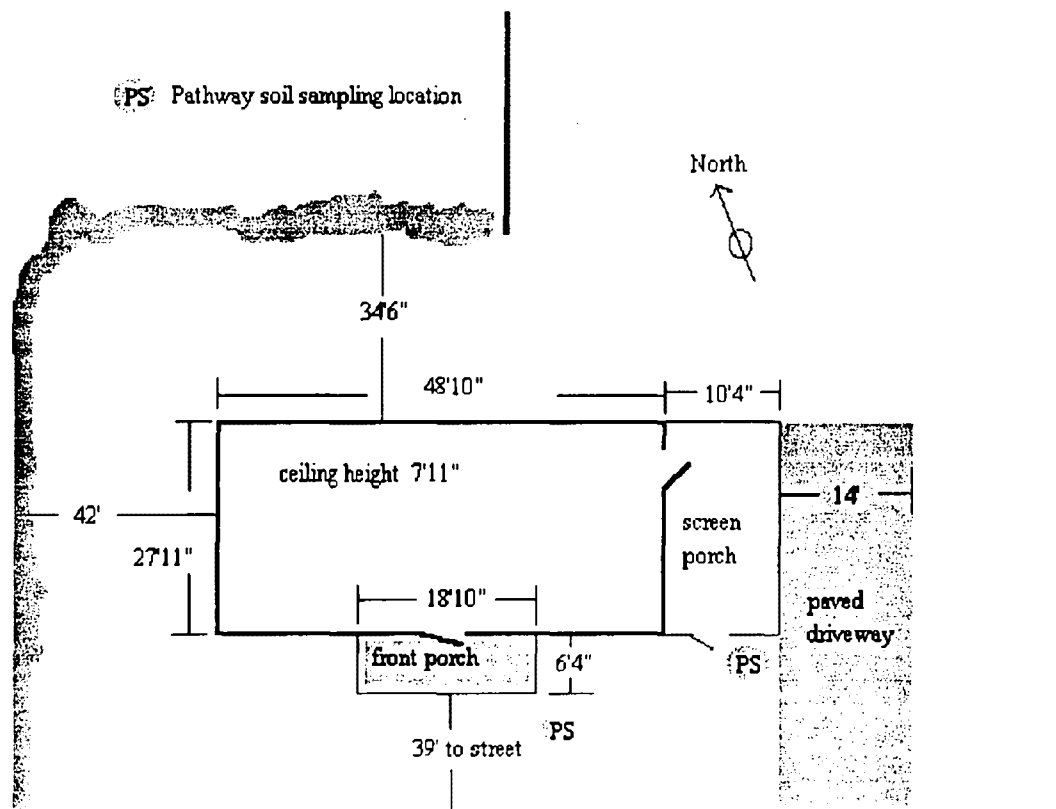
CATS End Time: #4269 (4:16 pm, 8/16/95)

#6252 (4:17 pm, 8/16/95)



House Location & Surrounding Area

ID: SNE4



House Floor Plan ID: SNE4

- ① CATS samplers
- ② PFT source tubes
- HD House Dust/HVS3 Sampling Area
- IM Indoor Monitor
- OM Outdoor Monitor

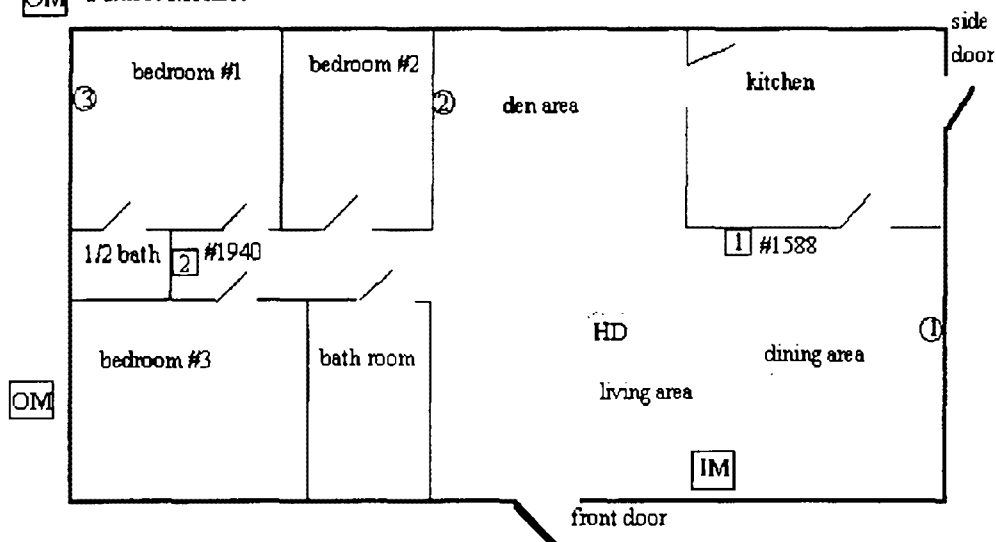
House Temperature: 76.2° F (8/17/95); 77.4° F (8/18/95)

CATS Start Time: #1940 (9:15 am, 8/17/95)

#1588 (9:13 am, 8/17/95)


CATS End Time: #1940 (10:14 am, 8/18/95)


#1588 (10:16 am, 8/18/95)

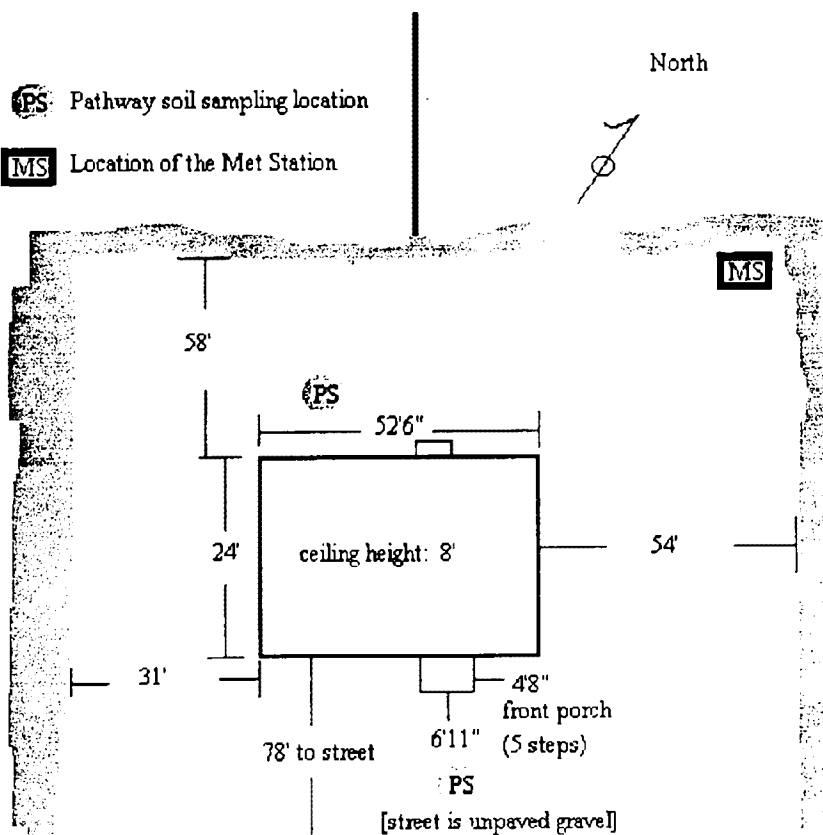


House Location & Surrounding Area

ID: SNH4


 Pathway soil sampling location


 Location of the Met Station




House Floor Plan ID: SNH4

 CATS samplers

 PFT source tubes

 House Dust/HVS3 Sampling Area

 Indoor Monitor

 Outdoor Monitor

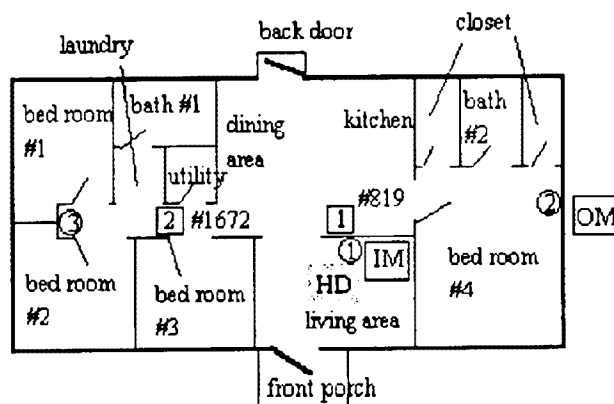
House Temperature: 74.2° F (8/19/95), 78.6° F (8/20/95)

CATS Start Time: # 819 (2:28 pm, 8/19/95)

#1672 (2:29 pm, 8/19/95)

CATS End Time: # 819 (2:09 pm, 8/20/95)

#1672 (2:10 pm, 8/20/95)

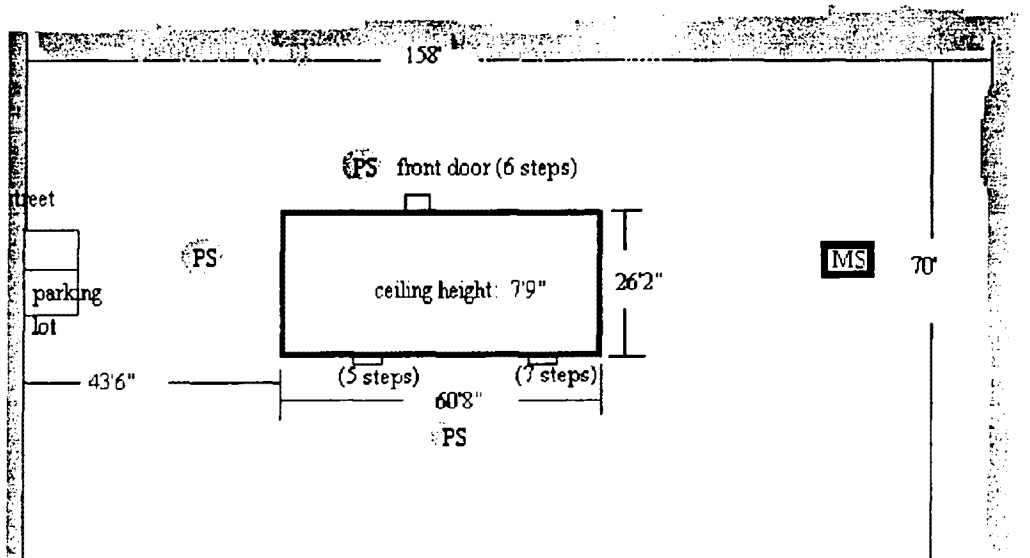
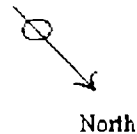


House Location & Surrounding Area

ID: SNI4

PS Pathway soil sampling location

MS Location of the Met Station



House Floor Plan ID: SNI4

1 CATS samplers

3 PFT source tubes

HD House Dust/HVS3 Sampling Area

IM Indoor Monitor

OM Outdoor Monitor

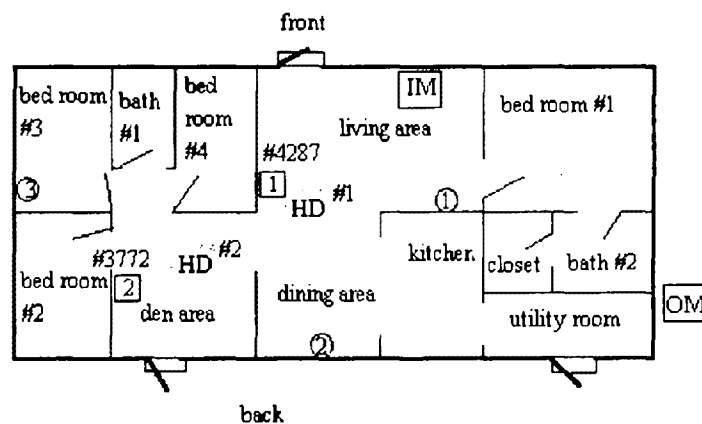
House Temperature: 73.6°F (8/21/95), 75.4°F (8/22/95)

CATS Start Time: #4287 (9:35 am, 8/21/95)

#3772 (9:36 am, 8/21/95)

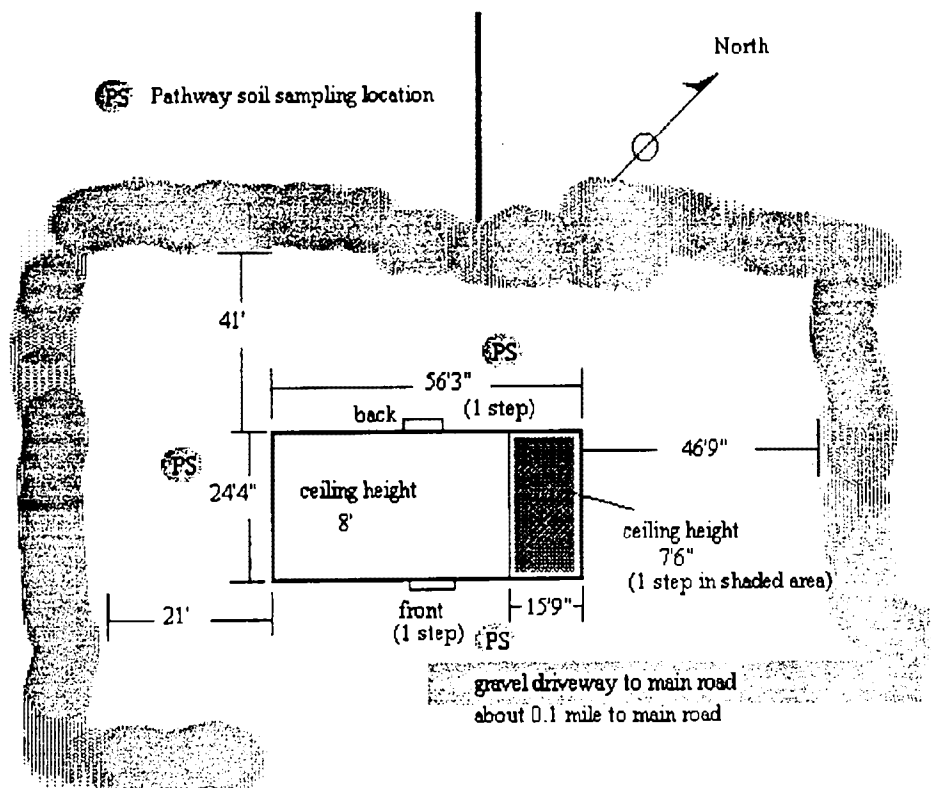
CATS End Time: #4287 (10:14 am, 8/22/95)

#3772 (10:16 am, 8/22/95)



House Location & Surrounding Area

ID: SNJ4



House Floor Plan ID: SNJ4

- ① CATS samplers
- ③ PFT source tubes
- HD House Dust/HVS3 Sampling Area
- IM Indoor Monitor
- OM Outdoor Monitor

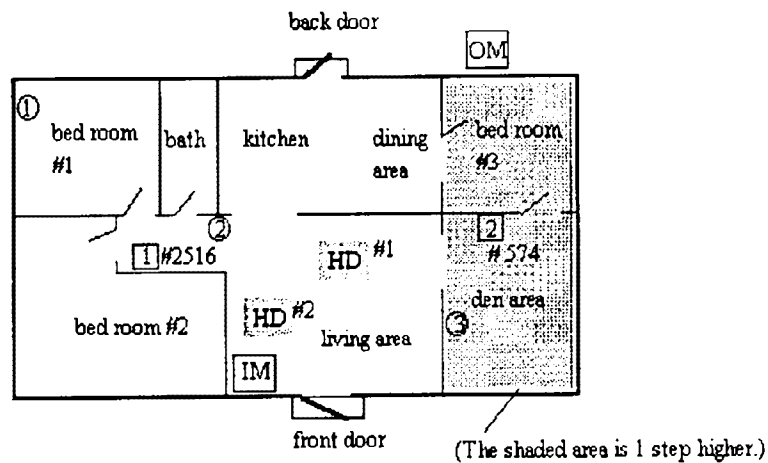
House Temperature: 76.0°F (8/21/95), 85.4°F (8/22/95)

CATS Start Time: #2516 (11:00 am, 8/21/95)

#574 (11:01 am, 8/21/95)

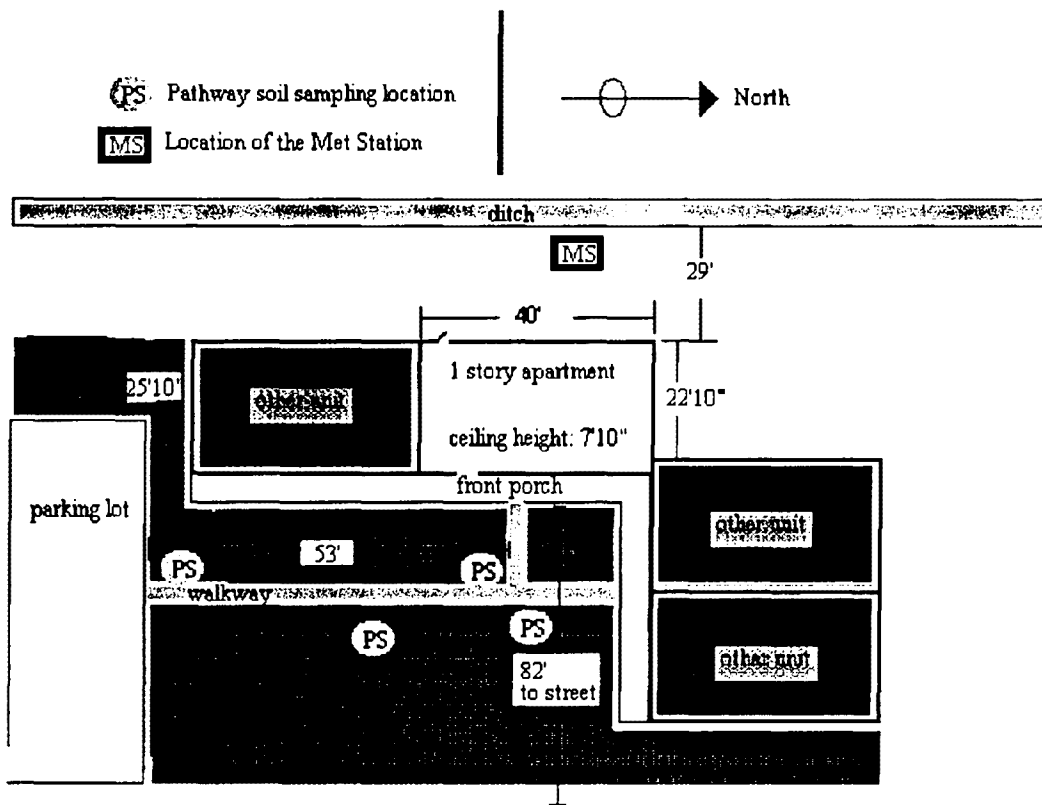
CATS End Time: #2516 (11:54 am, 8/22/95)

#574 (11:55 am, 8/22/95)



House Location & Surrounding Area

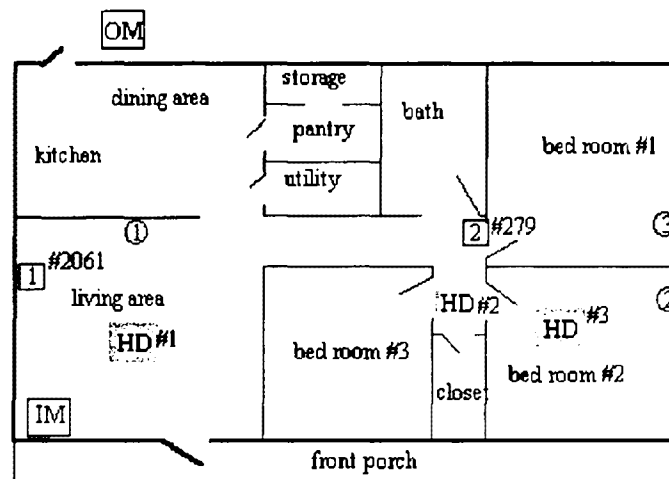
ID: SNL4



House Floor Plan ID: SNL4

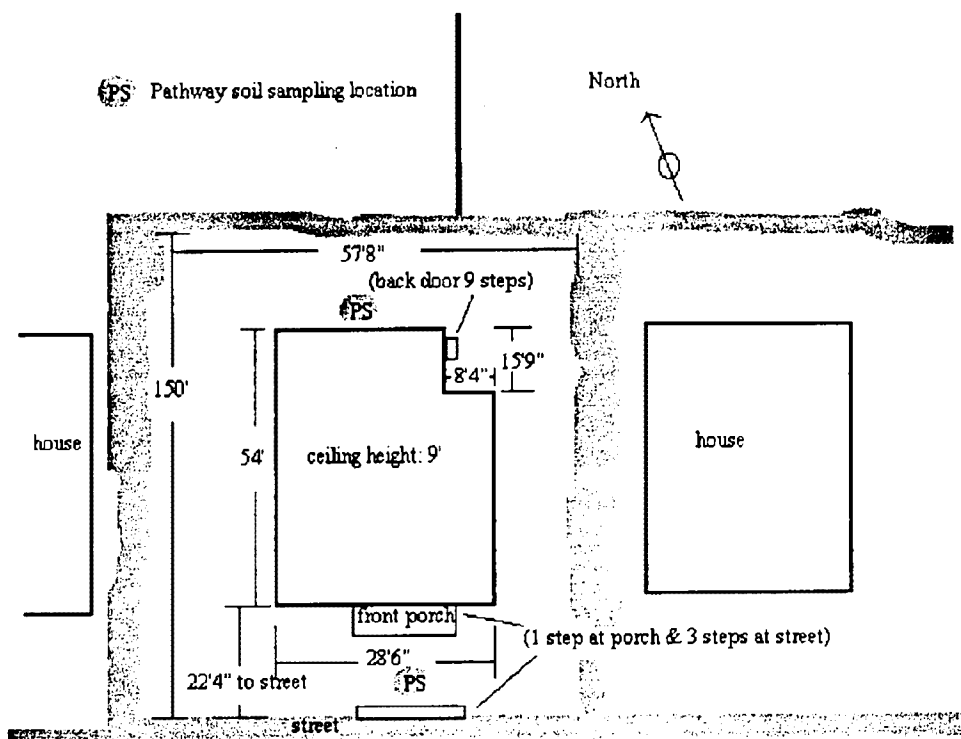
- ① CATS samplers
- ③ PFT source tubes
- HD House Dust/HVS3 Sampling Area
- IM Indoor Monitor
- OM Outdoor Monitor

House Temperature: 76.0° F (8/23/95); 73.4° F (8/24/95)
 CATS Start Time: #2061 (9:18 am, 8/23/95)
 # 279 (9:19 am, 8/23/95)
 CATS End Time: #2061 (10:05 am, 8/24/95)
 # 279 (10:06 am, 8/24/95)



House Location & Surrounding Area

ID: SSF4



House Floor Plan ID: SSF4

- ① CATS samplers
- ③ PFT source tubes
- HD House Dust/HVS3 Sampling Area
- IM Indoor Monitor
- OM Outdoor Monitor

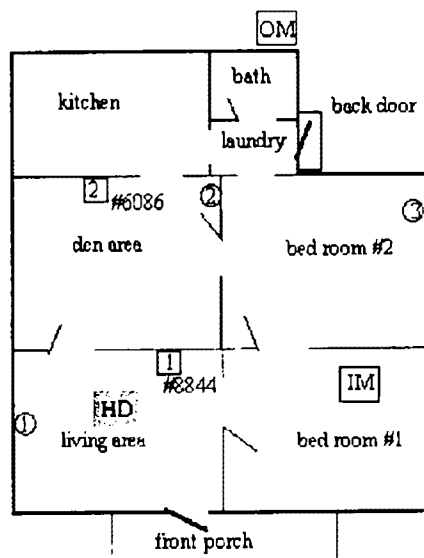
House Temperature: 76.8° F (8/17/95), 80.8° F (8/18/95)

CATS Start Time: #8844 (11:15 am, 8/17/95)

#6086 (11:17 am, 8/17/95)

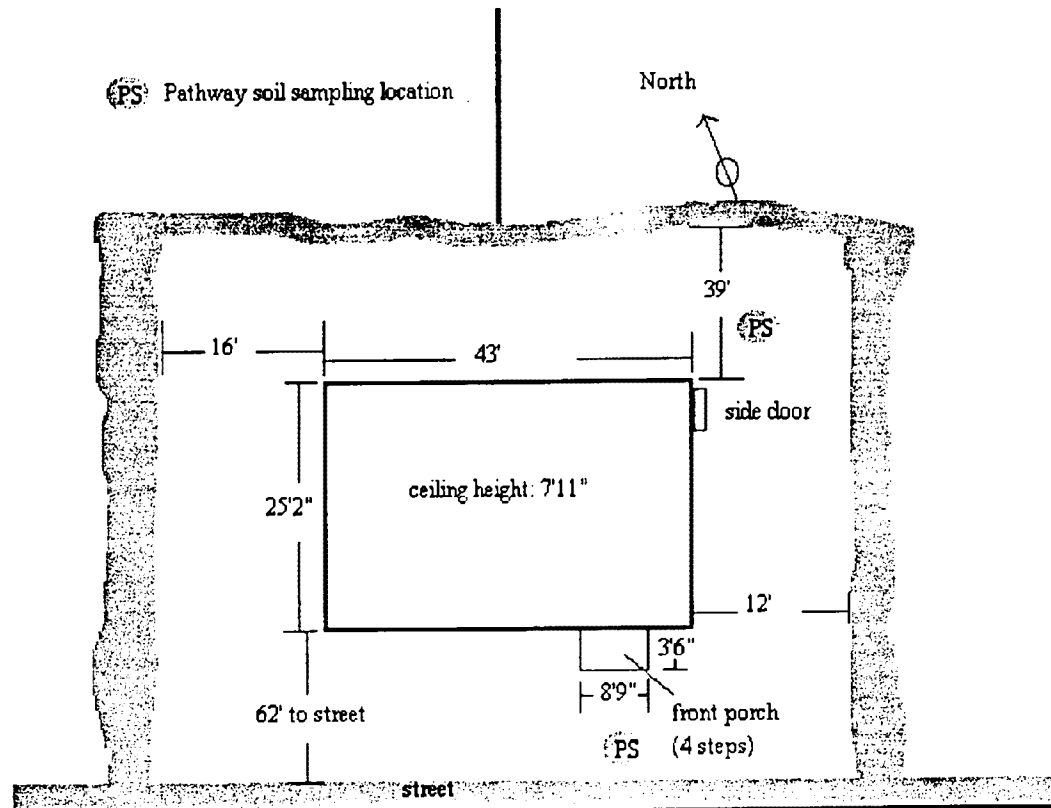
CATS End Time: #8844 (12:20 pm, 8/18/95)

#6086 (12:21 pm, 8/18/95)



House Location & Surrounding Area

ID: SSG4



House Floor Plan ID: SSG4

- ① CATS samplers
- ③ PFT source tubes
- HD House Dust/HVS3 Sampling Area
- IM Indoor Monitor
- OM Outdoor Monitor

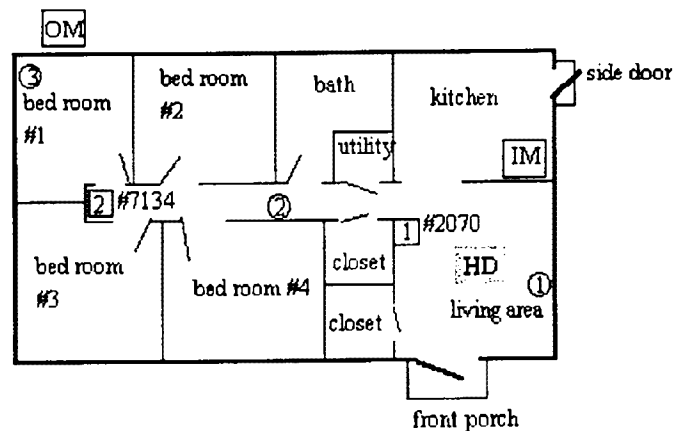
House Temperature: 87.0° F (8/17/95), 76.2° F (8/18/95)

CATS Start Time: #2070 (2:08 pm, 8/17/95)

#7134 (2:10 pm, 8/17/95)

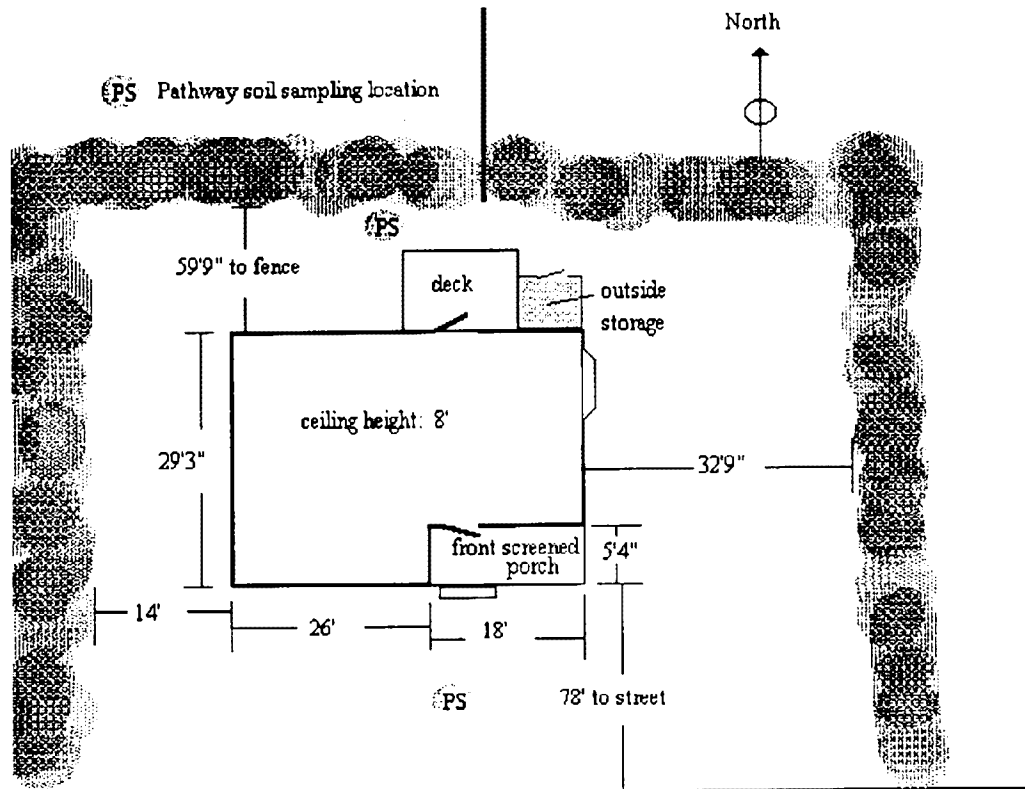
CATS End Time: #2070 (3:24 pm, 8/18/95)

#7134 (3:23 pm, 8/18/95)



House Location & Surrounding Area

ID: SSK4



House Floor Plan ID: SSK4

- [1] CATS samplers
- [3] PFT source tubes
- [HD] House Dust/HVS3 Sampling Area
- [IM] Indoor Monitor
- [OM] Outdoor Monitor

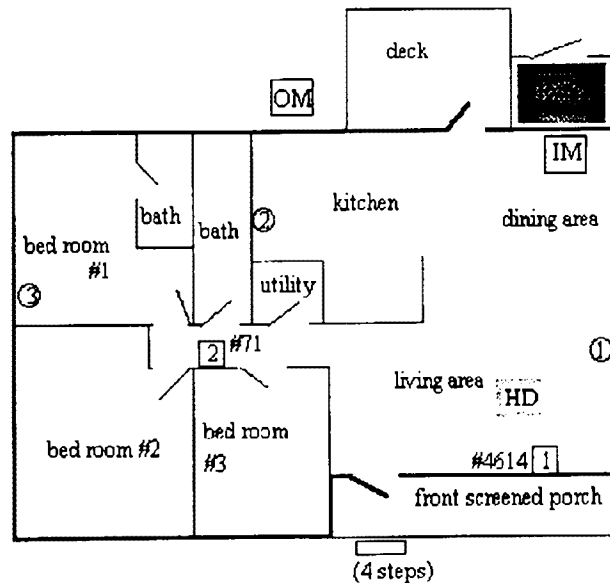
House Temperature: 79.6°F (8/21/95), 79.4°F (8/22/95)

CATS Start Time: #4614 (2:05 pm, 8/21/95)

71 (2:06 pm, 8/21/95)

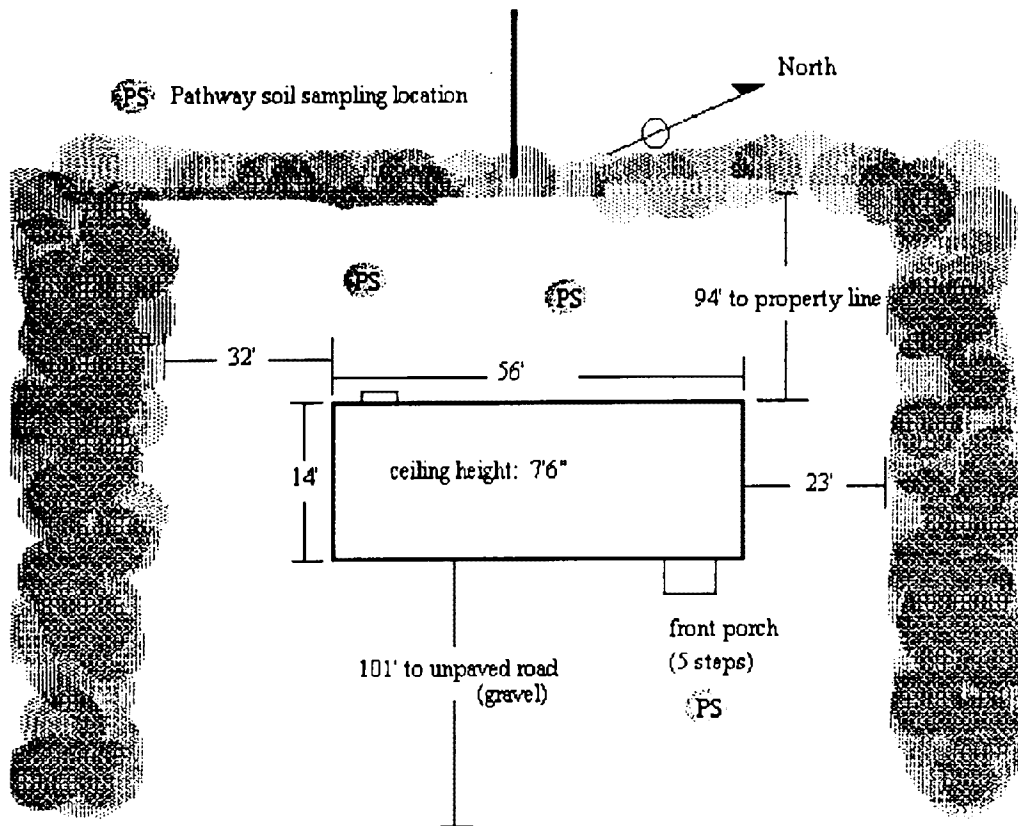
CATS End Time: #4614 (2:52 pm, 8/22/95)

71 (2:53 pm, 8/22/95)



House Location & Surrounding Area

ID: SSM4



House Floor Plan ID: SSM4

- ① CATS samplers
- ③ PFT source tubes
- HD House Dust/HVS3 Sampling Area
- IM Indoor Monitor
- OM Outdoor Monitor

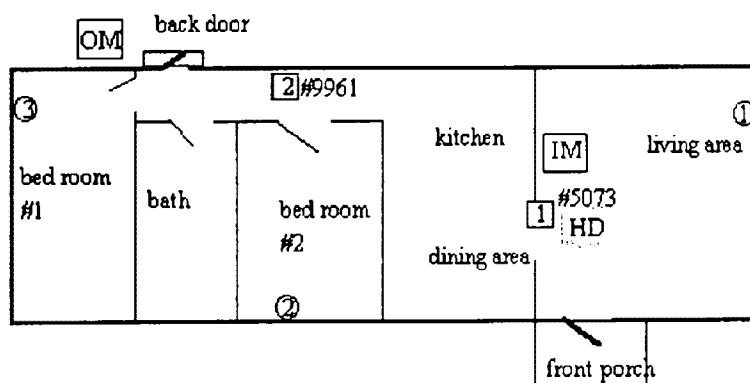
House Temperature: 75.6° F (8/23/95); 77.8° F (8/24/95)

CATS Start Time: #5073 (10:46 am, 8/23/95)

#9961 (10:47 am, 8/23/95)

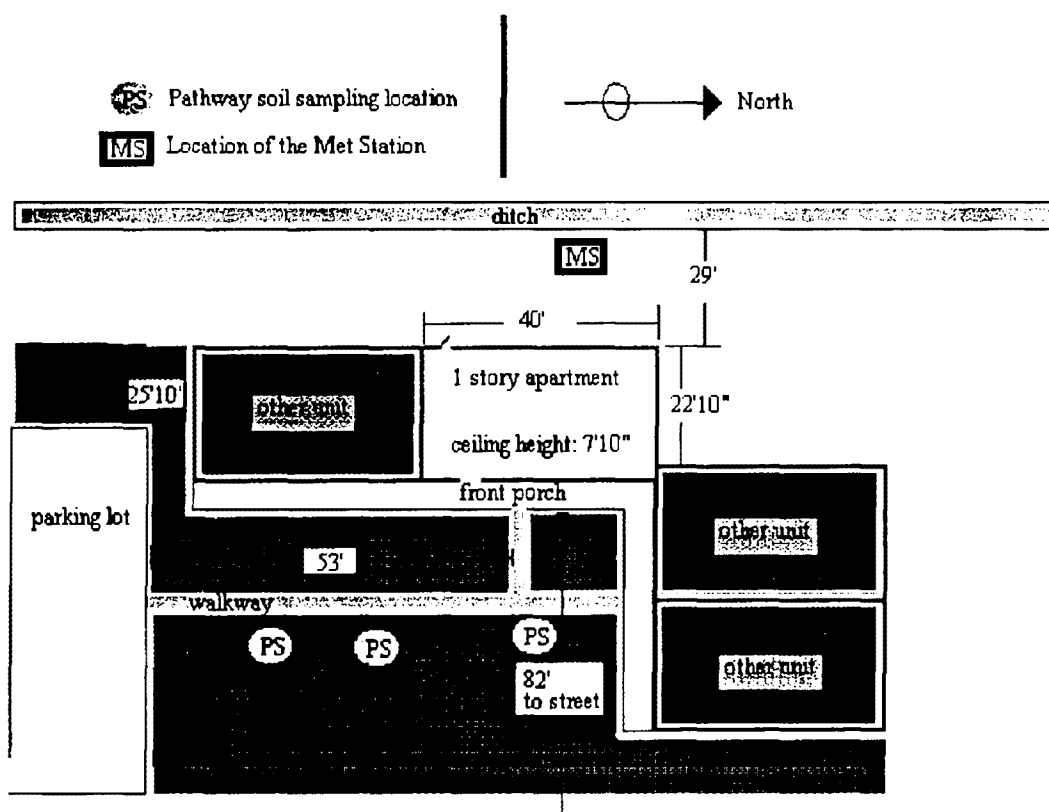
CATS End Time: #5073 (12:10 pm, 8/24/95)

#9961 (12:11 pm, 8/24/95)



House Location & Surrounding Area

ID: WNA4 (ref: SNL4)



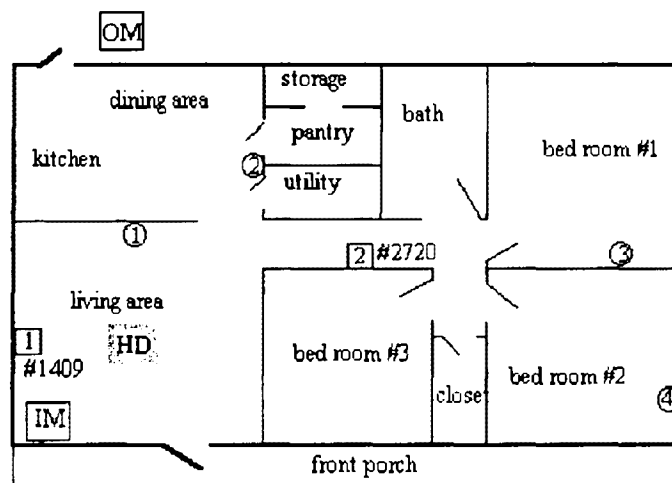
House Floor Plan ID: WNA4 (ref: SNL4)

- ① CATS samplers
- ③ PFT source tubes
- HD House Dust/HVS3 Sampling Area
- IM Indoor Monitor
- OM Outdoor Monitor

House Temperature: 69°F (1/31/95), 71°F (2/1/95)

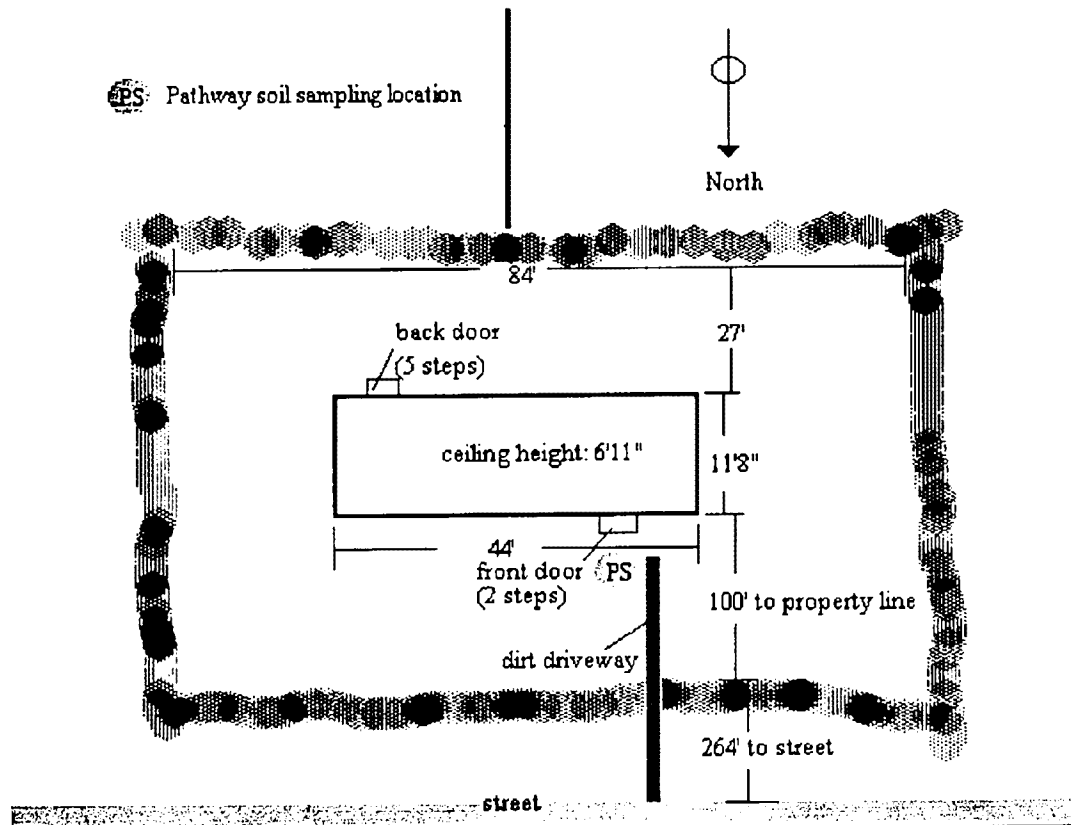
CATS Start Time: #1409 (9 am, 1/31/95)
#2720 (9:01 am, 1/31/95)

CATS End Time: #1409 (11 am, 2/1/95)
#2720 (11:01 am, 2/1/95)



House Location & Surrounding Area

ID: WNB4



House Floor Plan ID: WNB4

- ① CATS samplers
- ③ PFT source tubes
- HD House Dust/HVS3 Sampling Area
- IM Indoor Monitor
- OM Outdoor Monitor

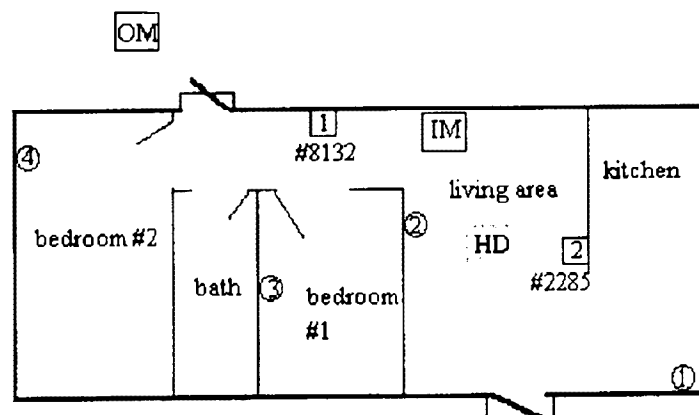
House Temperature: 76°F (1/31/95), 76°F (2/1/95)

CATS Start Time: #8132 (3 pm, 1/31/95)

#2285 (3:01 pm, 1/31/95)

CATS End Time: #8132 (3:10 pm, 2/1/95)

#2285 (3:11 pm, 2/1/95)

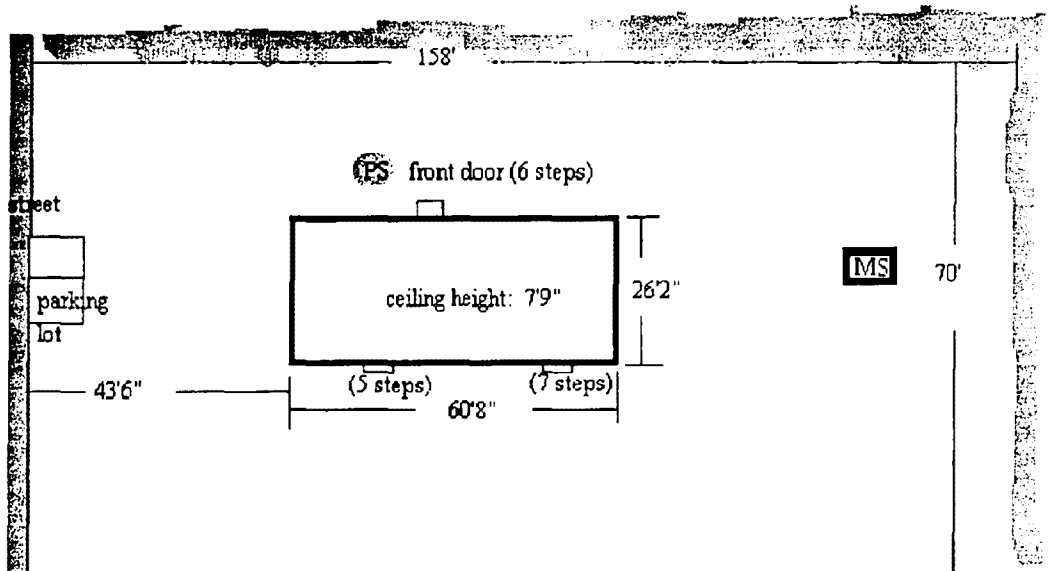
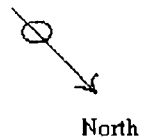


House Location & Surrounding Area

ID: WNC4 (ref: SNI4)

PS Pathway soil sampling location

MS Location of the Met Station



House Floor Plan ID: WNC4 (ref: SNI4)

1 CATS samplers

3 PFT source tubes

HD House Dust/HVS3 Sampling Area

IM Indoor Monitor

OM Outdoor Monitor

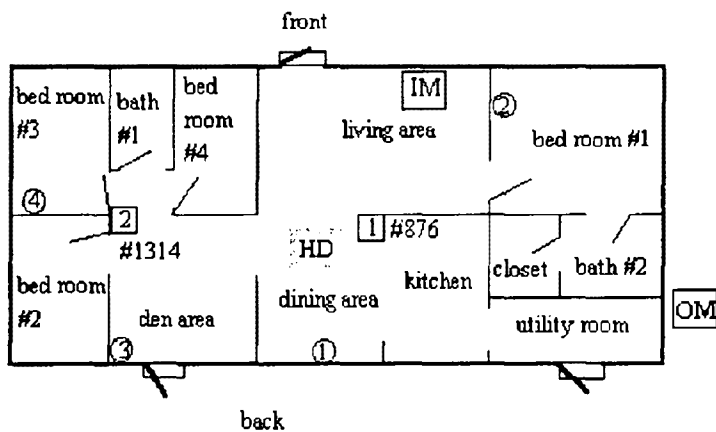
House Temperature: 66°F (2/2/95), 57°F (2/3/95)

CATS Start Time: #876 (9 am, 2/2/95)

#1314 (9:01 am, 2/2/95)

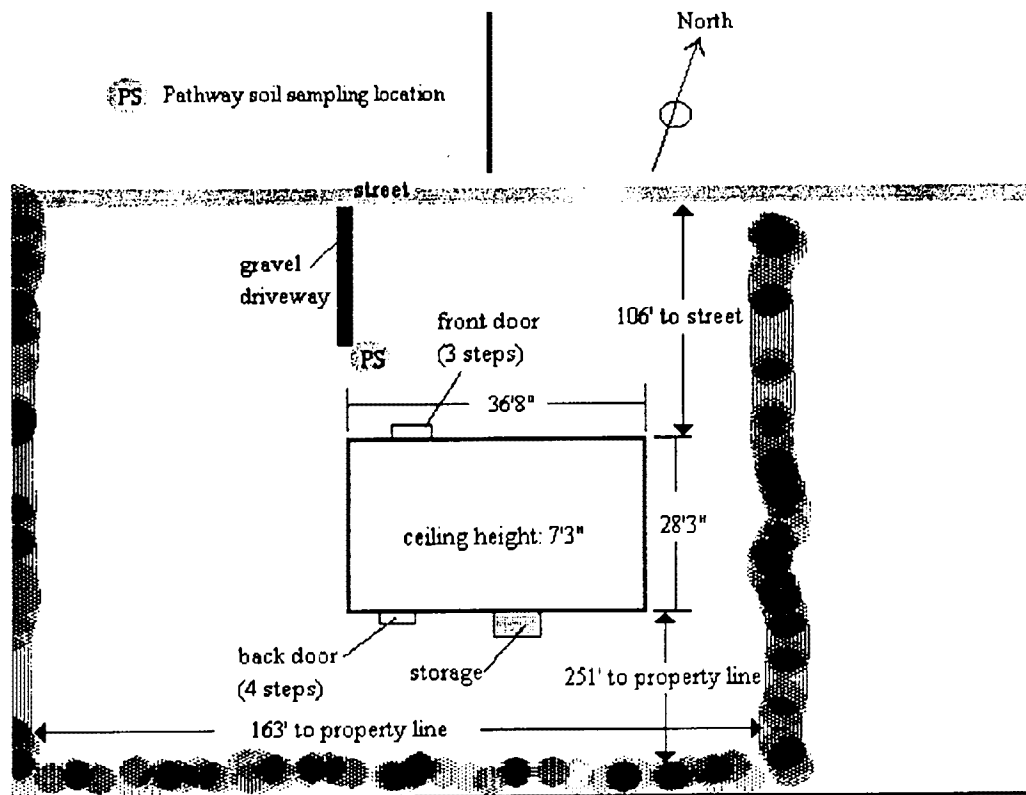
CATS End Time: #876 (11:05 am, 2/3/95)

#1314 (11:06 am, 2/3/95)



House Location & Surrounding Area

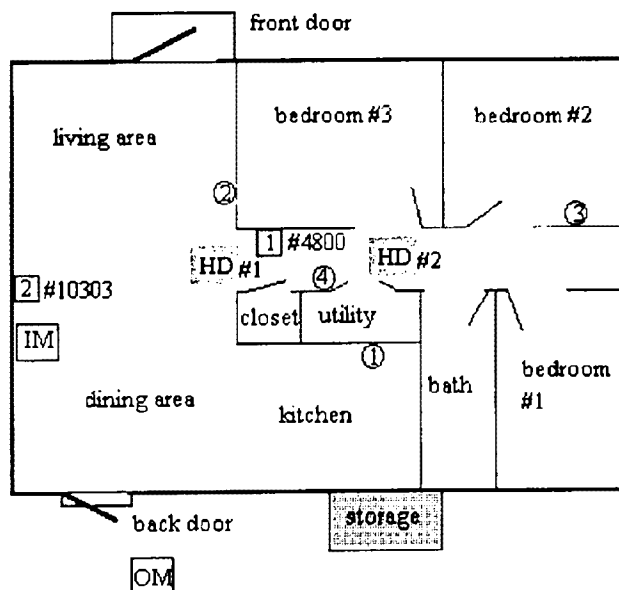
ID: WND4



House Floor Plan ID: WND4

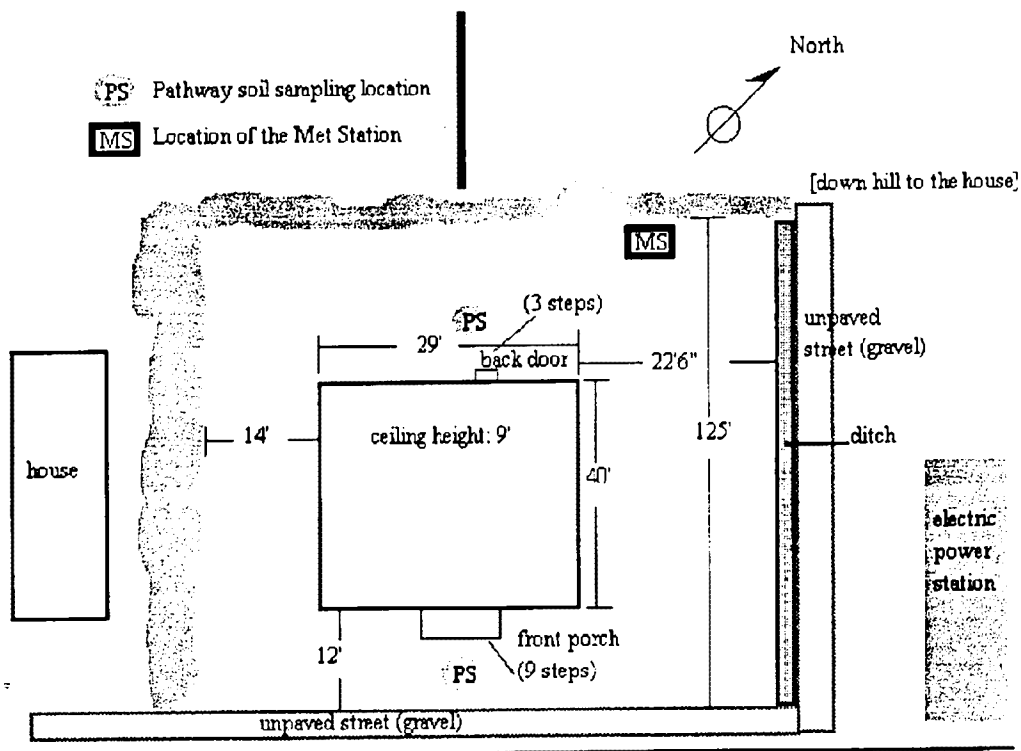
- ① CATS samplers
- ② PFT source tubes
- HD House Dust/HVS3 Sampling Area
- IM Indoor Monitor
- OM Outdoor Monitor

House Temperature: 76°F (2/2/95), 76°F (2/3/95)
 CATS Start Time: #4800 (11:20 am, 2/2/95)
 #10303 (11:21 am, 2/2/95)
 CATS End Time: #4800 (2:50 pm, 2/3/95)
 #10303 (2:51 pm, 2/3/95)



House Location & Surrounding Area

ID: WNE4 (ref: SNA4)



House Floor Plan ID: WNE4 (ref: SNA4)

- ① CATS samplers
- ③ PFT source tubes
- HD House Dust/HVS3 Sampling Area
- IM Indoor Monitor
- OM Outdoor Monitor

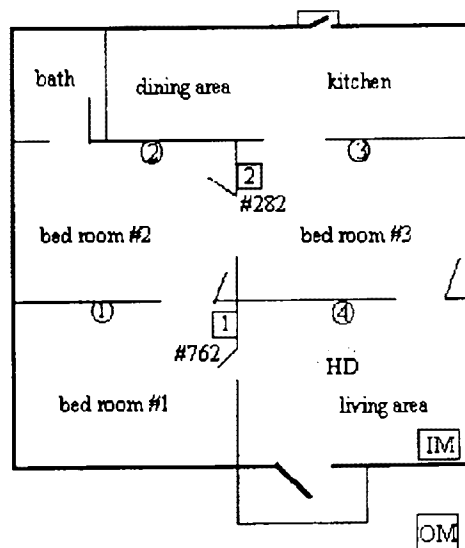
House Temperature: 72°F (2/4/95); 72°F (2/5/95)

CATS Start Time: #762 (9:10 am, 2/4/95)

#282 (9:11 am, 2/4/95)

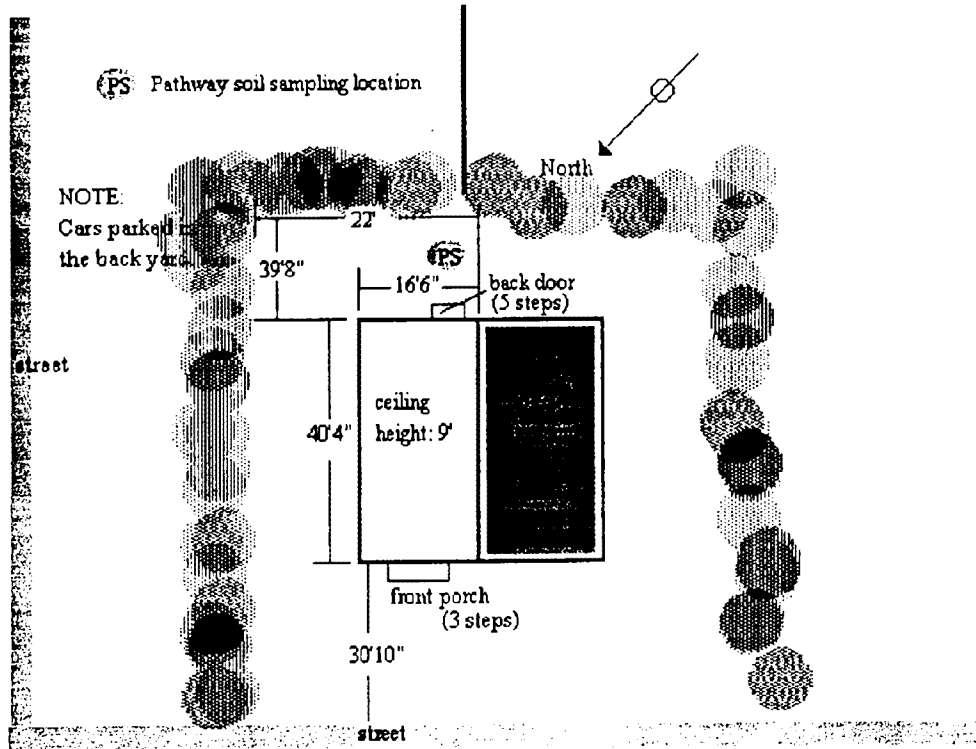
CATS End Time: #762 (11:10 am, 2/5/95)

#282 (11:11 am, 2/5/95)



House Location & Surrounding Area

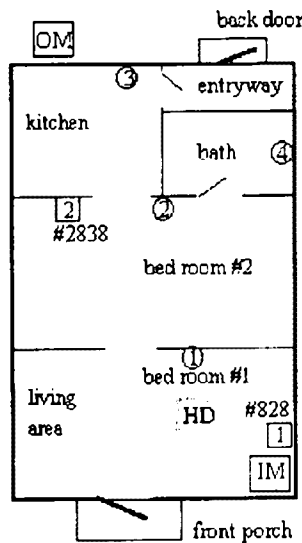
ID: WNF4



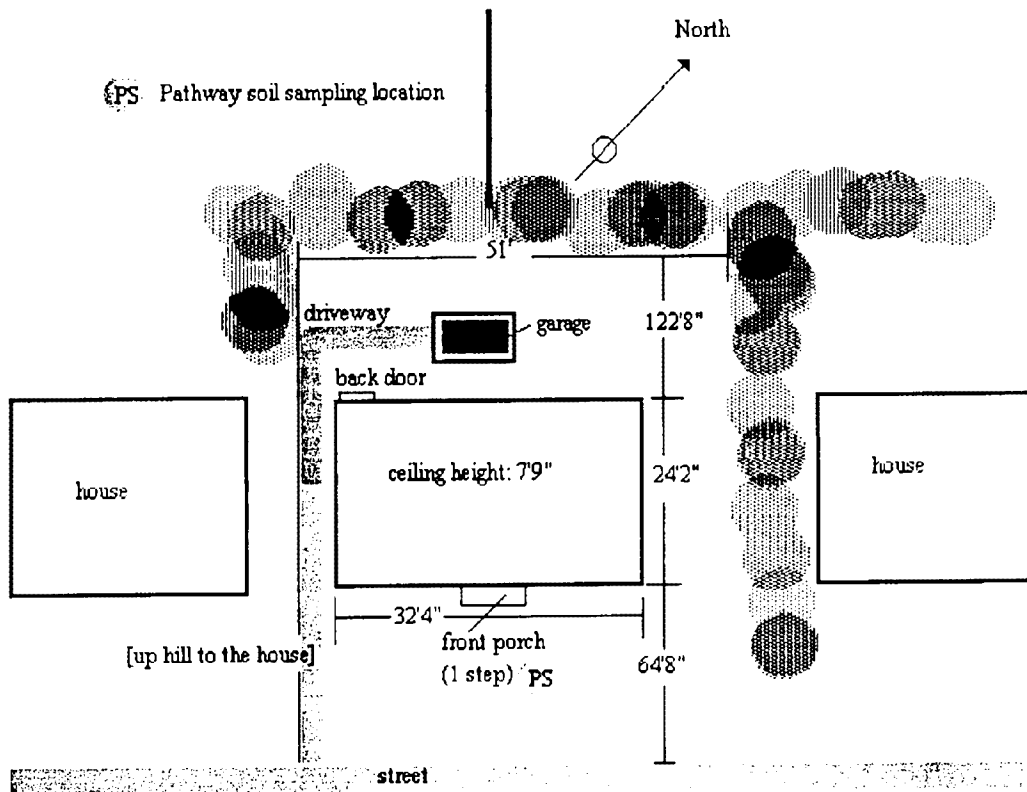
House Floor Plan ID: WNF4

- [1] CATS samplers
- [3] PFT source tubes
- [HD] House Dust/HVS3 Sampling Area
- [IM] Indoor Monitor
- [OM] Outdoor Monitor

House Temperature: 56°F (2/6/95), 58°F (2/7/95)
 CATS Start Time: #828 (9:25 am, 2/6/95)
 #2838 (9:30 am, 2/6/95)
 CATS End Time: #828 (11:00 am, 2/7/95)
 #2838 (11:01 am, 2/7/95)



ID: WNG4



House Floor Plan ID: WNG4

- 1 CATS samplers
- 2 PFT source tubes
- HD House Dust/HVS3 Sampling Area
- IM Indoor Monitor
- OM Outdoor Monitor

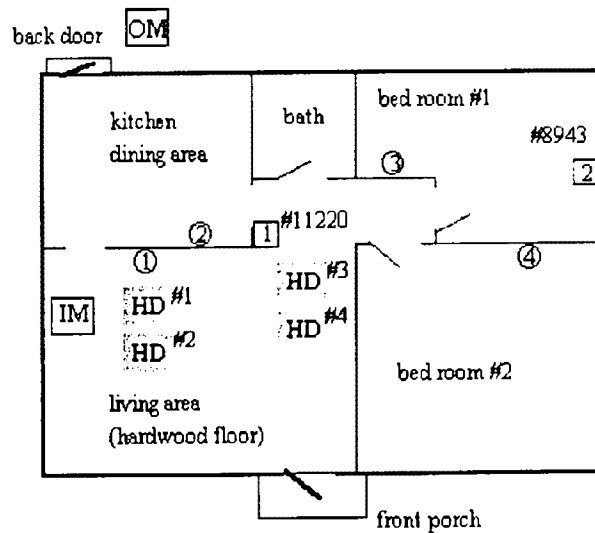
House Temperature: 78°F (2/16/95); 78°F (2/17/95)

CATS Start Time: #11220 (2 pm, 2/6/95)

#8943 (2:05 pm, 2/6/95)

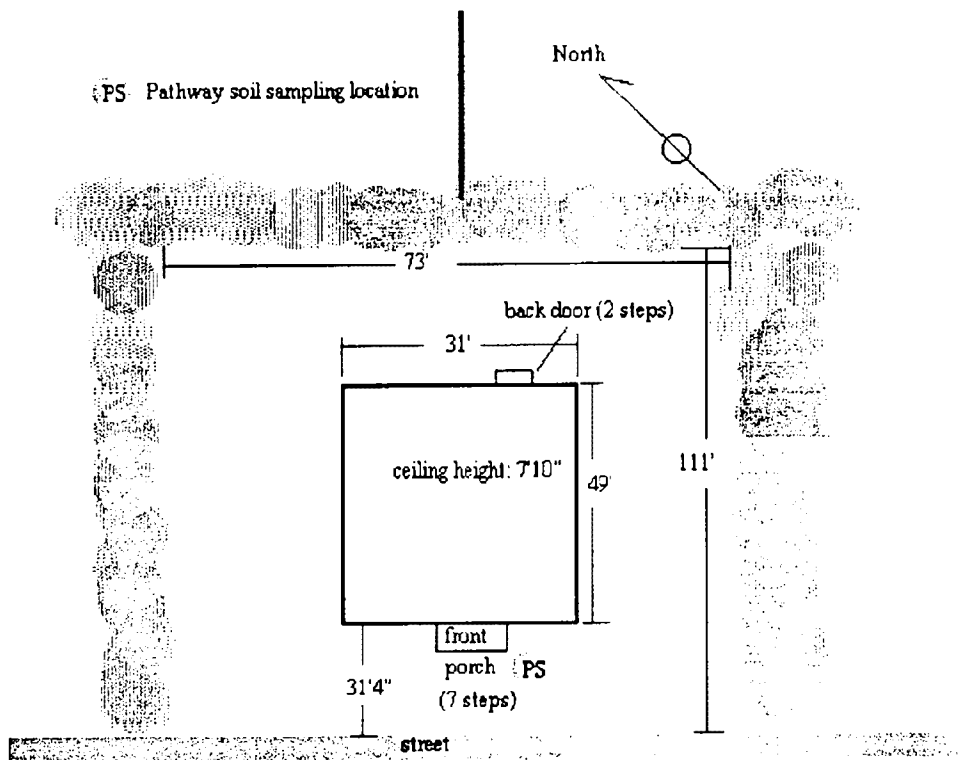
CATS End Time: #11220 (3:00 pm, 2/7/95)

#8943 (3:01 pm, 2/7/95)



House Location & Surrounding Area

ID: WNH4



House Floor Plan ID: WNH4

- 1 CATS samplers
- PFT source tubes
- HD House Dust/HVS3 Sampling Area
- IM Indoor Monitor
- OM Outdoor Monitor

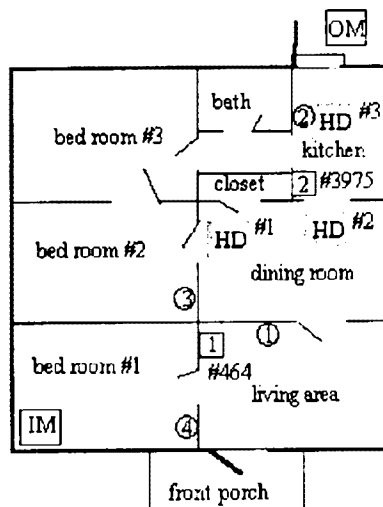
House Temperature: 63°F (2/8/95); 73°F (2/9/95)

CATS Start Time: # 464 (10:40 am, 2/8/95)

#3975 (10:41 am, 2/8/95)

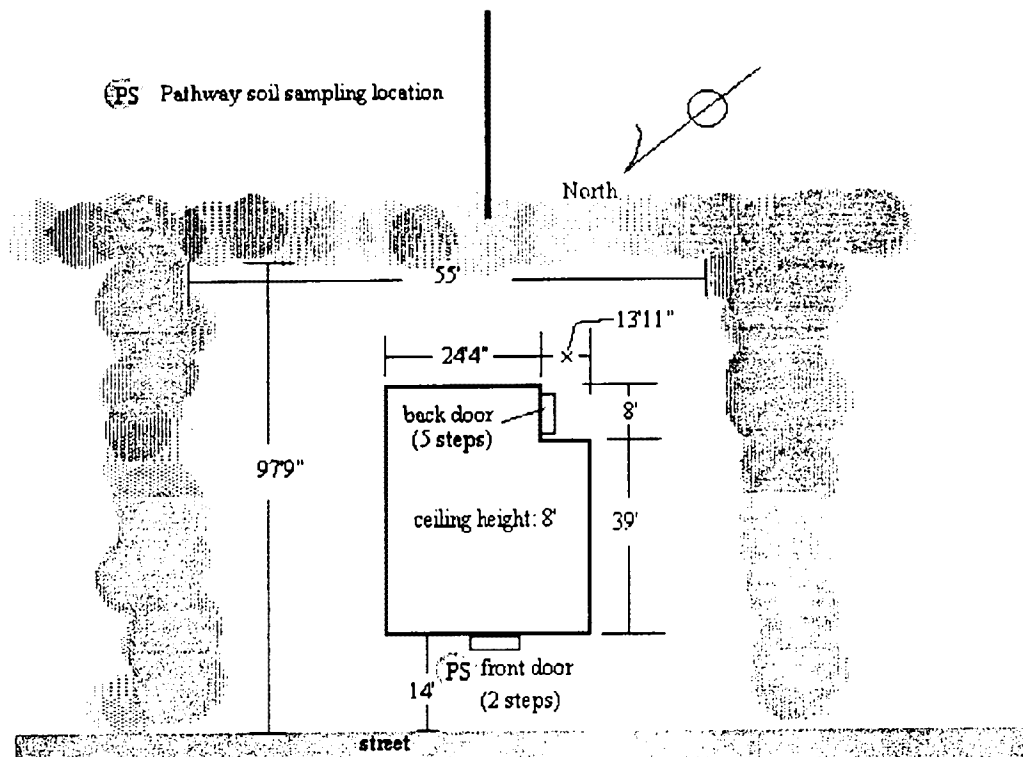
CATS End Time: # 464 (11 am, 2/9/95)

#3975 (11:01 am, 2/9/95)



House Location & Surrounding Area

ID: WNI4



House Floor Plan ID: WNI4

- ① CATS samplers
- ③ PFT source tubes
- HD House Dust/HVS3 Sampling Area
- IM Indoor Monitor
- OM Outdoor Monitor

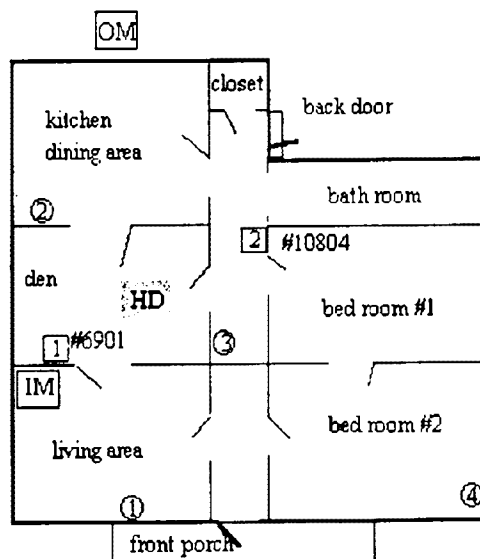
House Temperature: 70°F (2/9/95); 63°F (2/10/95)

CATS Start Time: #6901 (9:20 am, 2/9/95)

#10804 (9:21 am, 2/9/95)

CATS End Time: #6901 (8:55 am, 2/10/95)

#10804 (8:56 am, 2/10/95)



The Environmental Study
Pre-Monitoring Questionnaire

HOUSEHOLD ID

THE ENVIRONMENTAL STUDY PRE-MONITORING QUESTIONNAIRE

TABLE OF CONTENTS

	PAGE
INTERVIEW INFORMATION	
HOUSEHOLD IDENTIFICATION INFORMATION	0
SECTION A CHARACTERISTICS OF THE HOUSE	1
QUESTIONS A1 - A19	
SECTION B HOUSEHOLD INFORMATION	4
QUESTIONS B1 - B44	
SECTION C CHILD ACTIVITY INFORMATION	9
QUESTIONS C1 - C24	
SECTION D FOOD CONSUMPTION INFORMATION	12
QUESTIONS D1 - D6	
CONCLUDING STATEMENT	19
(SCHEDULE NEXT VISIT)	

HOUSEHOLD IDENTIFICATION INFORMATION

RECORD THE FOLLOWING INFORMATION FROM THE SCREENING QUESTIONNAIRE. VERIFY RESPONDENT'S NAME, ADDRESS, AND TELEPHONE NUMBER BEFORE THE INTERVIEW.

(1) NAME: _____

(2) ADDRESS: _____

(3) CITY, STATE, ZIP: _____

(4) TELEPHONE NUMBER: _____

NO PHONE.99

INTERVIEW INFORMATION

HOUSEHOLD ID: RECORD: SUBRECORD: VERSION:

	INTERVIEWER ID #	DATE	TIME STARTED	TIME ENDED	RESULTS (IF INCOMPLETE, SPECIFY REASON)
01	<input type="text"/>	<input type="text"/> MM DD YY	<input type="text"/> : <input type="text"/> AM / PM	<input type="text"/> : <input type="text"/> AM / PM	COMPLETE 1 INCOMPLETE 2
02	<input type="text"/>	<input type="text"/> MM DD YY	<input type="text"/> : <input type="text"/> AM / PM	<input type="text"/> : <input type="text"/> AM / PM	COMPLETE 1 INCOMPLETE 2
03	<input type="text"/>	<input type="text"/> MM DD YY	<input type="text"/> : <input type="text"/> AM / PM	<input type="text"/> : <input type="text"/> AM / PM	COMPLETE 1 INCOMPLETE 2
04	<input type="text"/>	<input type="text"/> MM DD YY	<input type="text"/> : <input type="text"/> AM / PM	<input type="text"/> : <input type="text"/> AM / PM	COMPLETE 1 INCOMPLETE 2

REASONS FOR NONCOMPLETION:

01	
02	
03	
04	

RESPONDENT'S COOPERATION WAS:

VERY GOOD 1
 GOOD 2
 FAIR 3
 POOR 4

THE OVERALL QUALITY OF THIS
INTERVIEW WAS:

HIGH QUALITY 1
 GENERALLY RELIABLE 2
 QUESTIONABLE (SPECIFY BELOW) ... 3
 UNSATISFACTORY (SPECIFY BELOW) ... 4

REASON(S) FOR THE UNRELIABLE OR QUESTIONABLE QUALITY OF THE INTERVIEW:

HOUSEHOLD IDENTIFICATION INFORMATION

RECORD THE FOLLOWING INFORMATION FROM THE SCREENING QUESTIONNAIRE. VERIFY RESPONDENT'S NAME, ADDRESS, AND TELEPHONE NUMBER BEFORE THE INTERVIEW.

(1) NAME: _____

(2) ADDRESS: _____

(3) CITY, STATE, ZIP: _____

(4) TELEPHONE NUMBER: _____

NO PHONE.99

SECTION A

CHARACTERISTICS OF THE HOUSE

In this interview we will be discussing a number of topics including your home, your family, and foods you usually eat. I'd like to begin by asking some questions about the house.

A1. How old is the house?

YEARS

(DK = 998)

A2. Do you own or rent this house? (IF RENT, ASK
NAME AND PHONE NUMBER OF OWNER OR
LANDLORD)

Own 1

Rent 2

Other 3

DK 8

[SPECIFY OTHER:]

NAME OF OWNER/LANDLORD: _____

TELEPHONE NUMBER: _____

[USE HOUSE FLOOR PLAN TO IDENTIFY EACH ROOM. ASK A3 FOR ALL ROOMS. THEN ASK A4-A7 FOR EACH ROOM.]

A3.	A4.	A5.	A6.	A7.
Would you tell me what rooms you have in the house?	Is there carpet in the (ROOM)?	How old is the carpet in the (ROOM)?	In the past 3 months, was the carpet in the (ROOM) steam- or dry-cleaned?	In the past week, was the carpet in the (ROOM) vacuumed?
ROOM	Yes No	DK=98	Yes No DK	Yes No DK
<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div>	1 2	<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> Years <div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> Months	1 2 8	1 2 8
<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div>	1 2	<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> Years <div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> Months	1 2 8	1 2 8
<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div>	1 2	<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> Years <div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> Months	1 2 8	1 2 8
<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div>	1 2	<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> Years <div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> Months	1 2 8	1 2 8
<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div>	1 2	<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> Years <div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> Months	1 2 8	1 2 8
<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div>	1 2	<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> Years <div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> Months	1 2 8	1 2 8
<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div>	1 2	<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> Years <div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> Months	1 2 8	1 2 8
<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div>	1 2	<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> Years <div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> Months	1 2 8	1 2 8

A8. Is there a fireplace in this house?

YES 1
 NO (GO TO A12) 2
 DK . (ASK TO CHECK THE HOUSE) . . . 8

A9. During the cold weather in the past year, did you use the fireplace?

YES 1
 NO (GO TO A11) 2
 DK (GO TO A11) 8

A10. On the average, about how many times per week or month did you use it?

Times Per
 WEEK 1
 MONTH 2
 DK 8

- A11. When was the fireplace last used?
(DK = 98 98 98)

()
MM DD YY

- A12. Is your house located within a quarter mile of any major freeway or industrial or incineration plants that produce lots of smoke or a strange smell?

YES 1 ()
NO 2
DK 8

[IF YES, SPECIFY:]

()

- A13. What type of sewage system is used in your home?

MUNICIPAL 1 ()
SEPTIC TANK 2
CESSPOOL 3
OTHER 4
DK 8

[SPECIFY OTHER:]

()

- A14. Did you ever see sewage in the yard?

YES 1 ()
NO (GO TO A16) 2
DK (GO TO A16) 8

- A15. About how many times per (day/week/month/or year) did this happen (sewage in the yard)?

Times Per ()

DAY 1
WEEK 2
MONTH 3
YEAR 4
DK 8

- A16. About what time during a day do you think that there is the most traffic near your house?

()

SECTION B

HOUSEHOLD INFORMATION

Next I would like to ask you some questions about the members of your household. [ASK B1 - B5. IF B2=NO, SKIP TO B5]

B1.

B2.

B3.

B4.

B5.

Would you tell me the first name of everyone living in this household, their ages, and their relationships to you? Let's start with you. [CLARIFY SEX IF NECESSARY]			Does anyone in the household regularly smoke cigarettes, cigars, or a pipe in the house? Would you tell me who they are? [NO ---> B5]		On average, what is the total number of cigarettes, cigars, or pipesful of tobacco per day that (PEOPLE) smoke in the house?			Where do (PEOPLE) usually smoke in the house?		Who in your household stays home most of the day?	
PEOPLE/NAME	AGE	RELATIONS SHIP	YES	NO	CIGS/ DAY	CIGARS/D AY	PIPES/ DAY	WHERE SMOKE	HOME	NOT HOME	
PERSON #1	<input type="text"/>	SELF <input type="text"/>	1	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	1	2	
PERSON #2	<input type="text"/>	<input type="text"/>	1	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	1	2	
PERSON #3	<input type="text"/>	<input type="text"/>	1	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	1	2	
PERSON #4	<input type="text"/>	<input type="text"/>	1	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	1	2	
PERSON #5	<input type="text"/>	<input type="text"/>	1	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	1	2	
PERSON #6	<input type="text"/>	<input type="text"/>	1	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	1	2	
PERSON #7	<input type="text"/>	<input type="text"/>	1	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	1	2	
PERSON #8	<input type="text"/>	<input type="text"/>	1	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	1	2	

PERSON #9	<input type="text"/>	<input type="text"/>	1	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	1	2	()
PERSON #10	<input type="text"/>	<input type="text"/>	1	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	1	2	()

The next few questions are about the employment of your household members.

B6. Are you currently employed? YES 1 ()
 NO (GO TO B10) 2

B7. Who do you work for? [IF SELF-EMPLOYED, GO TO B9] _____ ()

B8. What does the (company/person) do? _____ ()

B9. What kind of work do you do? _____ ()

B10. Is anyone else living in the household employed? YES 1 ()
 NO (GO TO B18) 2

[IF YES, SPECIFY WHO:] _____ ()

B11. Who does (he/she) work for? [IF SELF-EMPLOYED, GO TO B13]

--	--

()

B12. What does the (company/person) do?

--	--

()

B13. What kind of work does (he/she) do?

--	--

()

B14. Is anyone else living in the household employed?

YES 1
NO (GO TO B18) 2

()

[IF YES, SPECIFY WHO:] _____

--	--

()

B15. Who does (he/she) work for? [IF SELF-EMPLOYED, GO TO B17]

_____ ()

B16. What does the (company/person) do?

_____ ()

B17. What kind of work does (he/she) do?

_____ ()

Now I am going to ask you some questions about the daily activities of your household.

B18.

B19.

What do you use to cook or heat food?		How often do you use (APPLIANCE)?				
Appliance		Per				
		# Times	Day	Week	Month	Don't Know
1	_____	<input type="text"/> <input type="text"/>	1	2	3	8
2	_____	<input type="text"/> <input type="text"/>	1	2	3	8
3	_____	<input type="text"/> <input type="text"/>	1	2	3	8

B20. How do you heat your home during the winter time?

_____ ()

B21. How often do you clean the house?

Times Per ()

DAY 1
 WEEK 2
 MONTH 3
 YEAR 4
 DK 8

B22. When you clean the house, do you usually...?

	Yes	No	DK	
a. Vacuum the house	1	2	8	()
b. Wet-mop the floor	1	2	8	()
c. Sweep the floor and entrance	1	2	8	()

B23. What are the sources of drinking water for the household?

B24. Do you filter your drinking water?

YES 1
 NO 2
 DK 8

B25. What are the sources of water for cooking and bathing?

COOKING:

BATHING:

B26. Do you have any pets?

YES 1
 NO (GO TO B29) 2

B27. What kind of pets do you have?

B28. Do you keep your pets inside the house or outside the house?

Inside 1
 Outside 2
 Other 3

[SPECIFY OTHER:]

B29. Do you or others in your household often walk barefoot INSIDE the house?

YES 1
 NO 2

[IF YES, WHO:]

B30. Do you or others in your household often walk barefoot OUTSIDE the house?

YES 1
 NO 2

[IF YES, WHO:]

B31. Does anyone in your household frequently work or play in the yard that would involve contact with soil?

YES 1
 NO 2

[IF YES, WHO:]

B32. Does anyone in your household change automobile oil in the driveway (or garage)?

YES 1
NO (GO TO B35) 2

(IF YES, WHO:) _____

_____ ☐ ☐

B33. How often (does/do) (PEOPLE IN B32) change oil in the driveway (or garage)?

☐ ☐ Times Per

MONTH 1
YEAR 2
DK 8

B34. How (do/does) (they/you/he/she) dispose of the automobile oil?

_____ ☐

B35. How do you dispose of your garbage?

_____ ☐

B36. What months of the year do you usually close all of the exterior doors and windows because of heating or air conditioning? [READ EACH MONTH:]

	<u>Yes</u>	<u>No</u>	
a. January	1	2	()
b. February	1	2	()
c. March	1	2	()
d. April	1	2	()
e. May	1	2	()
f. June	1	2	()
g. July	1	2	()
h. August	1	2	()
i. September	1	2	()
j. October	1	2	()
k. November	1	2	()
l. December	1	2	()

SECTION C

CHILD ACTIVITY INFORMATION

Now I am going to ask you some questions about (CHILD'S NAME)'s daily activities during the last month. Please take a moment to think about what (CHILD'S NAME) did inside the house and outside the house during this past January...

- C1. On the average, about how many hours a day, including nap time, did (CHILD'S NAME) sleep? [WE NEED AN AVERAGE OF JANUARY/31 DAYS]

HOURS/DAY

- C2. On the average, about how many hours a day did (he/she) stay outside the house (including playing, shopping with mom, etc.)? [WE NEED AN AVERAGE OF JANUARY/31 DAYS]

HOURS/DAY

- C3. On the average, about how many hours a day did (he/she) stay inside the house? [YOU MAY USE $24 - C2 = C3$]

HOURS/DAY

- C4. Where did (he/she) usually play outside the house?

- C5. Could you give me an estimate of about how many hours per day (he/she) walked barefoot outside the house? [WHAT % OF C2 IS C5. $C5 \leq C2$]

HOURS/DAY

- C6. Could you give me an estimate of about how many hours per day (he/she) ate or drank outside the house (such as taking a baby bottle or eating snacks when he/she played outside)? [WHAT % OF C2 IS C6. $C6 \leq C2$]

HOURS/DAY

- C7. When (CHILD'S NAME) was outside the house, about how many hours per day did (he/she) sit or play on the ground? [WHAT % OF C2 IS C7. $C7 \leq C2$]

HOURS/DAY

C8. Where did (he/she) usually play inside the house?

()

C9. Could you give me an estimate of about how many hours per day (he/she) walked barefoot inside the house? [WHAT % OF C3 IS C9. C9 <= C3]

HOURS/DAY

()

C10. When (CHILD'S NAME) was inside the house, about how many hours per day did (he/she) sit or play on the floor? [WHAT % OF C3 IS C10. C10 <= C3]

HOURS/DAY

()

C11. Did you ever see (him/her) eat dirt or sand?

YES 1
NO 2
DK 8

()

C12. Did you ever see (him/her) eat snow?

YES 1
NO 2
DK 8

()

C13. Did (CHILD'S NAME) use a pacifier?

YES 1
NO 2
DK 8

()

C14.

C15.

Did (he/she) suck (his/her)...?				How often did (he/she) suck (his/her) (SUCK IN C14)? Would you say...?			
	Yes	No	Don't Know	Most of the Time	Sometimes	Rarely/ Almost Never	DK
a. Thumb	1	2	8	1	2	3	8
b. Fingers	1	2	8	1	2	3	8
c. Toe	1	2	8	1	2	3	8

()

()

()

- C16. Did you ever see (CHILD'S NAME) chew
(his/her) finger nails or toe nails? YES 1
NO 2
DK 8
- C17. How many times did you cut (his/her) finger
nails and/or toe nails in the past January? Times
- C18. How often did (CHILD'S NAME) put toys in
(his/her) mouth? Would you say...? Most of the time 1
Sometimes, or 2
Rarely or almost never 3
DK 8
- C19. Did (he/she) put any things other than toys or
foods in (his/her) mouth? YES 1
NO (GO TO C21) 2
DK 8
- C20. What did (he/she) put in (his/her) mouth?
- C21. In the past January, how often were (CHILD'S
NAME)'s hands washed before eating meals?
Would you say...? Most of the time 1
Sometimes, or 2
Rarely or almost never 3
DK 8
- C22. How often were (his/her) hands washed before
eating snacks? Would you say...? Most of the time 1
Sometimes, or 2
Rarely or almost never 3
DK 8
- C23. How often were (his/her) hands washed after
playing outside the house? Would you say...? Most of the time 1
Sometimes, or 2
Rarely or almost never 3
DK 8
- C24. How often were (his/her) hands washed before
going to bed? Would you say...? Most of the time 1
Sometimes, or 2
Rarely or almost never 3
DK 8

SECTION D

FOOD CONSUMPTION INFORMATION

Now I'd like to ask you some questions about you and (CHILD'S NAME)'s usual eating habits over the past year. I'll read a list of food and beverage items and ask you how often, on average, you and your child ate or drank each of the following items. If you're not sure about an answer, please give your best guess. You may answer in per day, per week, or per month. For example, once per day, twice per week, or 3 times per month.

D1.

D2.

FOOD {Less than once per month = Rarely/Never = 00}	How Often Did You Eat?					How Often Did (CHILD'S NAME) Eat?				
	WRITE # OF TIMES, THEN CIRCLE THE NUMBER FOR DAY, WEEK, OR MONTH					WRITE # OF TIMES, THEN CIRCLE THE NUMBER FOR DAY, WEEK, OR MONTH				
	# times (00 = rarely/never)	day	week	month	DK	# times (00 = rarely/never)	day	week	month	DK
A. Apples, applesauce, pears	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
B. Cantaloupe (in season)	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
C. Oranges	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
D. Orange juice or grapefruit juice	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
E. Grapefruit	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
F. Other fruit juices, fortified fruit drinks	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
G. Beans such as baked beans, pintos, kidneys, limas, or in chili	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8

D1.

D2.

FOOD [Less than once per month = Rarely/Never = 00]	How Often Did You Eat?					How Often Did (CHILD'S NAME) Eat?				
	WRITE # OF TIMES, THEN CIRCLE THE NUMBER FOR DAY, WEEK, OR MONTH					WRITE # OF TIMES, THEN CIRCLE THE NUMBER FOR DAY, WEEK, OR MONTH				
	# times (00=rarely/ne ver)	day	week	month	DK	# times (00=rarely/ne ver)	day	week	month	DK
H. Tomatoes, tomato juice	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
I. Broccoli	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
J. Spinach	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
K. Mustard greens, turnip greens, collards	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
L. Cole slaw, cabbage, sauerkraut	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
M. Carrots, or mixed vegetables containing carrots	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
N. Green salad	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
O. Salad dressing, mayonnaise (including on sandwiches)	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
P. French fries and fried potatoes	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
Q. Sweet potatoes, yams	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8

D1.

D2.

FOOD [Less than once per month = Rarely/Never = 00]	How Often Did You Eat?					How Often Did (CHILD'S NAME) Eat?				
	WRITE # OF TIMES, THEN CIRCLE THE NUMBER FOR DAY, WEEK, OR MONTH					WRITE # OF TIMES, THEN CIRCLE THE NUMBER FOR DAY, WEEK, OR MONTH				
	# times (00=rarely/ne ver)	day	week	month	DK	# times (00=rarely/ne ver)	day	week	month	DK
R. Other potatoes, including boiled, baked, potato salad, mashed	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
S. Rice	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
T. Hamburgers, cheeseburgers, meatloaf	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
U. Beef (steaks or roasts)	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
V. Beef stew or pot pie with carrots, other vegetables	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
W. Liver, including chicken livers	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
X. Pork, including chops, roasts	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
Y. Fried chicken	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
Z. Chicken or turkey, baked, roasted, stewed or broiled	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
AA. Fried fish or fish sandwich	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8

D1.

D2.

FOOD (Less than once per month = Rarely/Never = 00)	How Often Did You Eat?					How Often Did (CHILD'S NAME) Eat?				
	WRITE # OF TIMES, THEN CIRCLE THE NUMBER FOR DAY, WEEK, OR MONTH					WRITE # OF TIMES, THEN CIRCLE THE NUMBER FOR DAY, WEEK, OR MONTH				
	# times (00=rarely/never)	day	week	month	DK	# times (00=rarely/never)	day	week	month	DK
BB. Other fish, broiled or baked	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
CC. Spaghetti, lasagna, other pasta with tomato sauce	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
DD. Hot dogs	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
EE. Ham, lunch meats	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
FF. Vegetable soup, vegetable beef, minestrone, tomato soup	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
GG. White bread (including sandwiches), bagels, crackers, etc.	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
HH. Dark bread, including whole wheat, rye, pumpernickel	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
II. Corn bread, corn muffins, corn tortillas	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
JJ. Salty snacks (such as chips, popcorn, pretzels)	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8

D1.

D2.

FOOD (Less than once per month = Rarely/Never = 00)	How Often Did You Eat?					How Often Did (CHILD'S NAME) Eat?				
	WRITE # OF TIMES, THEN CIRCLE THE NUMBER FOR DAY, WEEK, OR MONTH					WRITE # OF TIMES, THEN CIRCLE THE NUMBER FOR DAY, WEEK, OR MONTH				
	# times (00 = rarely/never)	day	week	month	DK	# times (00 = rarely/never)	day	week	month	DK
KK. Peanuts, peanut butter	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
LL. Margarine on bread or rolls	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
MM Butter on bread or rolls	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
NN. High fiber, bran or granola cereals, shredded wheat	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
OO. Highly fortified cereals, such as Product 19, Total, or Most	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
PP. Other cold cereals, such as Corn Flakes, Rice Krispies, Cheerios	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
QQ. Cooked cereals	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
RR. Eggs	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
SS. Bacon	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
TT. Sausage	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8

D1.

D2.

FOOD [Less than once per month = Rarely/Never = 00]	How Often Did You Eat?					How Often Did (CHILD'S NAME) Eat?				
	WRITE # OF TIMES, THEN CIRCLE THE NUMBER FOR DAY, WEEK, OR MONTH					WRITE # OF TIMES, THEN CIRCLE THE NUMBER FOR DAY, WEEK, OR MONTH				
	# times (00=rarely/never)	day	week	month	DK	# times (00=rarely/never)	day	week	month	DK
UU. Ice cream	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
VV. Doughnuts, cookies, cakes, pastry	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
WW Pies	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
XX. Chocolate candy	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
YY. Cheeses and cheese spreads, not including cottage cheese	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
ZZ. Whole milk and beverages with whole milk (including on cereal)	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
AA 2% milk and beverages A. with 2% milk (including on cereal)	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
BBB Skim milk, 1% milk or buttermilk (including on cereal)	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
CC Regular soft drinks (not diet)	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8

D1.

D2.

FOOD [Less than once per month=Rarely/Never=00]	How Often Did You Eat?					How Often Did (CHILD'S NAME) Eat?				
	WRITE # OF TIMES, THEN CIRCLE THE NUMBER FOR DAY, WEEK, OR MONTH					WRITE # OF TIMES, THEN CIRCLE THE NUMBER FOR DAY, WEEK, OR MONTH				
	# times (00=rarely/ne ver)	day	week	month	DK	# times (00=rarely/ne ver)	day	week	month	DK
DD Beer D.	<input type="text"/>	1	2	3	8	<input type="text"/>				
EEE Wine .	<input type="text"/>	1	2	3	8	<input type="text"/>				
FFF Liquor .	<input type="text"/>	1	2	3	8	<input type="text"/>				
GG Milk or cream in coffee G. or tea	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8
HH Sugar in coffee or tea, or H. on cereal	<input type="text"/>	1	2	3	8	<input type="text"/>	1	2	3	8

D3.

Now I would like to ask you how often in the past year you used any of the following methods to cook or heat food.

METHOD	# times (00=never in past year)					
		day	week	month	year	DK
a. Barbecue (grill, broil, or roast)	<input type="text"/>	1	2	3	4	8
b. Deep-fry	<input type="text"/>	1	2	3	4	8
c. Fry	<input type="text"/>	1	2	3	4	8
d. Stir-fry (or sauté)	<input type="text"/>	1	2	3	4	8
e. Microwave	<input type="text"/>	1	2	3	4	8
f. Steam	<input type="text"/>	1	2	3	4	8
g. Bake	<input type="text"/>	1	2	3	4	8
h. Stew (slow cooking, or simmer)	<input type="text"/>	1	2	3	4	8
i. Boil	<input type="text"/>	1	2	3	4	8
j. Other	<input type="text"/>	1	2	3	4	8
[SPECIFY OTHER:] _____						

D4. What kinds of fat did you usually use in cooking (to deep-fry, fry, or stir-fry) in the past year?
Did you use...?

	<u>Yes</u>	<u>No</u>	<u>Don't Know</u>	
a. Vegetable oil	1	2	8	()
b. Corn oil	1	2	8	()
c. Peanut oil	1	2	8	()
d. Butter	1	2	8	()
e. Margarine	1	2	8	()
f. Bacon fat	1	2	8	()
g. Lard/fatback	1	2	8	()
h. Other	1	2	8	()
[SPECIFY OTHER:] _____				

D5.

D6.

How often did you eat the following foods from restaurants or carry-outs in the past year?						How often did (CHILD'S NAME) eat the following foods from restaurants or carry-outs in the past year?						
FOOD	# times (00=never in past year)	day	week	month	year	DK	# times (00=never in past year)	day	week	month	year	DK
a. Fried chicken	<input type="text"/>	1	2	3	4	8	<input type="text"/>	1	2	3	4	8
b. Burgers	<input type="text"/>	1	2	3	4	8	<input type="text"/>	1	2	3	4	8
c. Pizza	<input type="text"/>	1	2	3	4	8	<input type="text"/>	1	2	3	4	8
d. Chinese food	<input type="text"/>	1	2	3	4	8	<input type="text"/>	1	2	3	4	8
e. Mexican food	<input type="text"/>	1	2	3	4	8	<input type="text"/>	1	2	3	4	8
f. Fried fish	<input type="text"/>	1	2	3	4	8	<input type="text"/>	1	2	3	4	8
g. Barbecue	<input type="text"/>	1	2	3	4	8	<input type="text"/>	1	2	3	4	8

CONCLUDING STATEMENT

Thank you very much for your time, (Mr./Mrs./Ms.) (RESPONDENT'S LAST NAME). That concludes our interview for today. We really appreciate your willingness to answer our questions and to participate in this important study. You've been very helpful. Is there anything else you think we should know that has not been asked?

SCHEDULE AN APPOINTMENT WITH THE RESPONDENT FOR THE NEXT DAY'S VISIT.

Now I would like to schedule a time for us to come back to visit you tomorrow. When will be convenient for you tomorrow?

DATE: / /

TIME: AM / PM

Thank you again for taking part in this important study. We'll see you tomorrow around (TIME). (EXTEND HAND)

COMMENTS?

YES 1
NO 2

COMPLETE INTERVIEW INFORMATION ON THE FRONT PAGE OF THIS QUESTIONNAIRE.

REVIEW THE ENTIRE QUESTIONNAIRE FOR MISSING INFORMATION OR APPARENT ERRORS AS SOON AS POSSIBLE.

The Environmental Study
Post-Monitoring Questionnaire

HOUSEHOLD ID

INTERVIEW INFORMATION

HOUSEHOLD ID

RECORD: 0 1

SUBRECORD: 0 0

VERSION: 0 1

	INTERVIEWER ID #	DATE	TIME STARTED	TIME ENDED	RESULTS (IF INCOMPLETE, SPECIFY REASON)
01	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> MM DD YY	<input type="text"/> : <input type="text"/> AM / PM	<input type="text"/> : <input type="text"/> AM / PM	COMPLETE 1 INCOMPLETE . . . 2
02	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> MM DD YY	<input type="text"/> : <input type="text"/> AM / PM	<input type="text"/> : <input type="text"/> AM / PM	COMPLETE 1 INCOMPLETE . . . 2
03	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> MM DD YY	<input type="text"/> : <input type="text"/> AM / PM	<input type="text"/> : <input type="text"/> AM / PM	COMPLETE 1 INCOMPLETE . . . 2
04	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> MM DD YY	<input type="text"/> : <input type="text"/> AM / PM	<input type="text"/> : <input type="text"/> AM / PM	COMPLETE 1 INCOMPLETE . . . 2

REASONS FOR NONCOMPLETION:

01

02

03

04

RESPONDENT'S COOPERATION WAS:

VERY GOOD 1
GOOD 2
FAIR 3
POOR 4

THE OVERALL QUALITY OF THIS
INTERVIEW WAS:

HIGH QUALITY 1
GENERALLY RELIABLE 2
QUESTIONABLE (SPECIFY BELOW). . 3
UNSATISFACTORY (SPECIFY BELOW). . 4

REASON(S) FOR THE UNRELIABLE OR QUESTIONABLE QUALITY OF THE INTERVIEW:

I would like to ask you some questions about what you and (CHILD'S NAME) did during the 24-hour period, that is from _____ to _____. First,

1. Did you or (CHILD'S NAME) do anything during the 24-hour period that brought you or (him/her) near any of the following materials, places, or activities?

	ADULT		CHILD			
	<u>YES</u>	<u>NO</u>	<u>YES</u>	<u>NO</u>	<u>IF YES, WHERE</u>	
a. freshly applied paint	1	2	1	2	_____	()
b. food being fried, grilled, or barbecued	1	2	1	2	_____	()
c. burning of rubbish, garbage, or yard waste . .	1	2	1	2	_____	()
d. other open flames, including barbecue flames, fires	1	2	1	2	_____	()
e. glues or other adhesives	1	2	1	2	_____	()
f. solvents, fumes, or odorous chemicals	1	2	1	2	_____	()
g. floor wax, furniture wax, or shoe polish . . .	1	2	1	2	_____	()
h. gasoline- or diesel-powered equipment other than automobiles, including lawn mowers . .	1	2	1	2	_____	()
i. household cleaning agents, such as scouring powders or ammonia	1	2	1	2	_____	()
j. excessive dust in the air	1	2	1	2	_____	()
k. stain or spot removers	1	2	1	2	_____	()
l. gas station or auto repair shop	1	2	1	2	_____	()
m. pump any gasoline or around where anyone was pumping gasoline	1	2	1	2	_____	()
n. using a gas range/oven or in the home when it was used	1	2	1	2	_____	()
o. using a microwave oven	1	2	1	2	_____	()
p. freshly applied insecticides	1	2	1	2	_____	()
q. freshly applied herbicides (in farm fields or gardens)	1	2	1	2	_____	()
r. roofing tar or road tar	1	2	1	2	_____	()
s. changing automobile oil	1	2	1	2	_____	()

[ASK 2-4 FOR ADULT FIRST. THEN ASK 2-4 FOR CHILD.]

	2.		3.	4.
PEOPLE	Yes	No	Name	Amount
(ADULT/YOU)	1	2	a. _____ b. _____ c. _____	a. _____ b. _____ c. _____
(CHILD'S NAME)	1	2	a. _____ b. _____ c. _____	a. _____ b. _____ c. _____

5.		6.
Did you use your (heating system/heaters) during the 24-hour period? YES.....1 [RECORD HEATER & ASK Qx 6] NO.....2 [GO TO 7]		When did you use the (HEATING SYSTEM/HEATERS)?
HEATING SYSTEM/HEATERS	TIME (FROM)	TIME (TO)
a.		
b.		

7. Did anyone smoke cigarettes, cigars, or a pipe inside your house during the 24-hour period?

YES 1
NO (GO TO 9) 2

8. About how many cigarettes, cigars, or pipesful of tobacco were smoked in the house during the 24-hour period?
[COLLECT CIGARETTE BUTTS]

CIGARETTES CIGARS PIPES

9. Did you cook in the house during the 24-hour period?

YES 1
NO (GO TO 12) 2

10. About how many hours did you cook in the house during the 24-hour period?

HOURS MINUTES

11. What (appliance) did you use to cook in the house during the 24-hour period?

12. Did you cook outside the house during the 24-hour period? YES 1 ()
 NO (GO TO 15) 2 ()
13. Where did you cook outside the house during the 24-hour period? _____ ()
14. About how many hours did you cook outside the house during the 24-hour period? HOURS MINUTES ()
15. What (appliance) did you use to cook outside the house during the 24-hour period? _____ ()

[ASK 16-20 FOR ADULT FIRST. THEN ASK 16-20 FOR THE CHILD. CHECK CHILD ACTIVITY DIARY]

	16.		17.		18.				19.		20.		
	Did (PEOPLE) go anywhere outside the house during the 24-hour period?		[IF YES] Where did (PEOPLE) go? (Did you/CHILD'S NAME go anywhere else during the 24-hour period?) [COMPARE 17 TO 1 AND CHILD ACTIVITY DIARY FOR POSSIBLE DISCREPANCY.]		Did (PEOPLE) go by car, by bus, by truck, or by foot?				What (were/was) (PEOPLE) doing (at/in) (WHERE)?		About how many hours did (PEOPLE) spend (at/in) (WHERE)?		
PEOPLE	Yes	No	Where		Car	Bus	Truck	Foot	Activity		Hours	Mins	
(ADULT/ YOU)	1	2	a.	_____	1	2	3	4	a.	_____	<input type="text"/>	<input type="text"/>	()
			b.	_____	1	2	3	4	b.	_____	<input type="text"/>	<input type="text"/>	()
			c.	_____	1	2	3	4	c.	_____	<input type="text"/>	<input type="text"/>	()
			d.	_____	1	2	3	4	d.	_____	<input type="text"/>	<input type="text"/>	()
(CHILD/ NAME)	1	2	a.	_____	1	2	3	4	a.	_____	<input type="text"/>	<input type="text"/>	()
			b.	_____	1	2	3	4	b.	_____	<input type="text"/>	<input type="text"/>	()
			c.	_____	1	2	3	4	c.	_____	<input type="text"/>	<input type="text"/>	()
			d.	_____	1	2	3	4	d.	_____	<input type="text"/>	<input type="text"/>	()

[INTERVIEWER: ADD THE TOTAL # OF HOURS SPENT OUTSIDE THE HOUSE AND RECORD BELOW]

ADULT _____ CHILD _____

TOTAL TIME SPENT OUTSIDE = 20a. _____ 20c. _____

TOTAL TIME SPENT INSIDE = 20b. _____ 20d. _____

TOTAL = 24 24

[CHECK CHILD'S HOURS HERE AND HOURS ON THE CHILD ACTIVITY DIARY]

21. Did you work in the yard or do work that involved contact with dirt or soil during the 24-hour period? YES 1 ()
NO 2
22. Did you sweep or vacuum the floor or rugs inside your house during the 24-hour period? YES 1 ()
NO 2
23. Did you walk barefoot inside the house during the 24-hour period? YES 1 ()
NO 2
DK 8
24. Did you walk barefoot outside the house during the 24-hour period? YES 1 ()
NO 2
DK 8
25. About how many hours, including nap time, did you sleep during the 24-hour period? HOURS ()
26. How often did (CHILD'S NAME) suck (his/her) thumb, fingers, or toe during the 24-hour period? Would you say...? Most of the time during the day, . . . 1 ()
[CHECK DIARY #1] Sometimes, or . . . 2
Only once or twice . . . 3
DID NOT SUCK . . . 4
DK . . . 8
27. Did you see (CHILD'S NAME) chew (his/her) finger or toe nails during the 24-hour period? YES 1 ()
NO 2
DK 8
28. Did you cut (his/her) finger nails or toe nails in the past two weeks? YES 1 ()
NO 2
DK 8
29. How often did (he/she) put toys in (his/her) mouth during the 24-hour period? Would you say...? Most of the time during the day, . . . 1 ()
[CHECK DIARY #3] Sometimes, or . . . 2
Only once or twice . . . 3
DID NOT PUT TOYS IN MOUTH . 4
DK . . . 8

30. Did you see (CHILD'S NAME) put any things other than food or toys in (his/her) mouth during the 24-hour period?
- YES 1
NO (GO TO 32) 2
DK (GO TO 32) 8
31. What did (he/she) put in (his/her) mouth? _____
32. How often were (CHILD'S NAME)'s hands washed before eating meals during the 24-hour period? Would you say...? [CHECK DIARY #4]
- Every time before eating meals, . . . 1
Most of the time, 2
Sometimes, or 3
Rarely/Almost never 4
DK 8
33. How often were (his/her) hands washed before eating snacks during the 24-hour period? Would you say...? [CHECK DIARY #4]
- Every time before eating snacks, . . . 1
Most of the time, 2
Sometimes, or 3
Rarely/Almost never 4
DK 8
34. How often were (his/her) hands washed after playing outside during the 24-hour period? Would you say...? [CHECK DIARY #5]
- Every time after playing outside, . . . 1
Most of the time, 2
Sometimes, or 3
Rarely/Almost never 4
DID NOT PLAY OUTSIDE 5
DK 8

Now I would like to ask you some questions about your opinions on this study.

35. When you think about all of the study activities over the past two days, was there anything that particularly bothered you or that you feel was too difficult for you and your child to do?

36. Do you feel that any of the following activities was too much of a burden, too confusing, or caused too much inconvenience to you and your family? [READ LIST:]

	YES	NO	IF YES, WHY?	
a. Collecting urine samples	1	2	_____	()
b. Collecting food samples	1	2	_____	()
c. Recording Child Activity and Food Diaries . . .	1	2	_____	()
d. Conducting air sampling inside your home . . .	1	2	_____	()
e. Conducting air sampling outside your home . . .	1	2	_____	()
f. Completing our interviews with you	1	2	_____	()

37. Would it be a problem to you if we gave you a check
instead of cash for your participation in this study? YES 1
NO 2

38. Would you be willing to participate in this study if the
payment for your participation was \$50? YES 1
NO 2

CONCLUDING STATEMENT

Thank you very much for your time, (Mr./Mrs./Ms.) (RESPONDENT'S LAST NAME). That concludes our interview for today. We really appreciate your willingness to answer our questions and to participate in this important study. You've been very helpful. Is there anything else you think we should know that has not been asked? Thank you again for taking part in this important study.

COLLECT THE CHILD ACTIVITY DIARY AND FOOD DIARY AND REVIEW THE DIARIES WITH THE RESPONDENT. CORRECT THE INFORMATION IN THE DIARIES IF NECESSARY. PICK UP FOOD AND URINE SAMPLES AS WELL AS COOLERS. CHECK THE SAMPLES AND LABELS. VERIFY THE LABELS WITH THE RESPONDENT. COMPLETE THE CHECKLIST. PAY THE RESPONDENT \$60 AND ASK FOR A RECEIPT.

COMMENTS?

YES 1
NO 2

COMPLETE INTERVIEW INFORMATION ON THE FRONT PAGE OF THIS QUESTIONNAIRE.

REVIEW THE ENTIRE QUESTIONNAIRE FOR MISSING INFORMATION OR APPARENT ERRORS AS SOON AS POSSIBLE.

NERL-RTP-O-578		TECHNICAL REPORT DATA	
1. REPORT NO. 600/R-98/163b	2	3. RECIPIENT'S ACCESSION NO.	
4. TITLE AND SUBTITLE Polycyclic Aromatic Hydrocarbon Exposure of Children in Low-Income Families Volume II: Appendices A through F		5. REPORT DATE	
		6. PERFORMING ORGANIZATION CODE	
7. AUTHOR(S) Jane C. Chuang et al.		8. PERFORMING ORGANIZATION REPORT NO.	
9. PERFORMING ORGANIZATION NAME AND ADDRESS Battelle Memorial Institute 505 King Avenue Columbus, Ohio 43201		10. PROGRAM ELEMENT NO. Projects E0608 and E0460	
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12. SPONSORING AGENCY NAME AND ADDRESS National Exposure Research Laboratory U. S. Environmental Protection Agency Research Triangle Park, NC 27711		13. TYPE OF REPORT AND PERIOD COVERED Published Report, 12/93-12/97	
		14. SPONSORING AGENCY CODE EPA/600/09	
15. SUPPLEMENTARY NOTES			
16. ABSTRACT In four small studies, the exposures of preschool children to polycyclic aromatic hydrocarbons (PAH) through dietary ingestion, nondietary ingestion, and inhalation were examined. Data were combined to estimate PAH exposures and potential doses for children in 24 families. In air, indoor PAH levels were higher than those outdoors, and in smokers' homes compared to nonsmokers' homes. Outdoor air PAH levels were higher in inner city compared to rural areas. The relative concentrations of PAH in dust and soil were house dust > entry way dust > pathway soil. The PAH concentrations in adults' food were higher than those in children's food. However, children's potential daily doses of PAH were higher than those of adults in the same households. Inhalation was an important pathway for children's exposure to total PAH, but dietary and nondietary ingestion were more important for exposure to B2 PAH (probable human carcinogens). Statistical analysis suggested that inner city children have higher exposure to B2 PAH than do rural children.			
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