

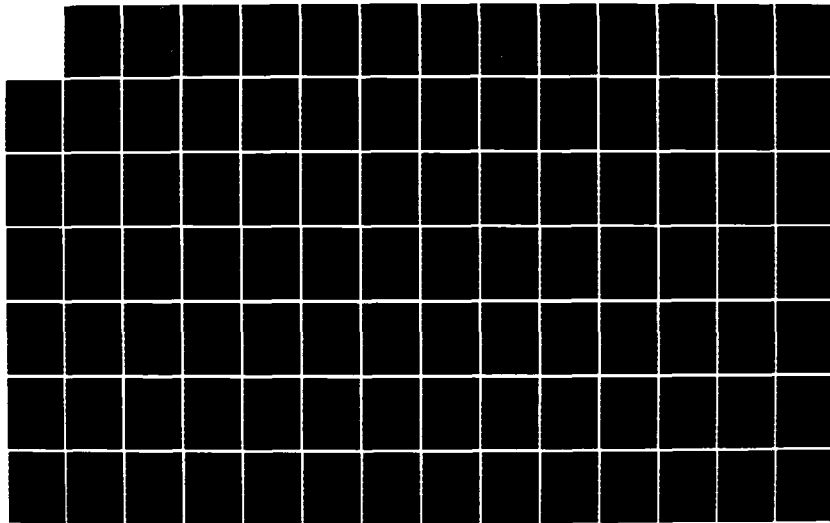
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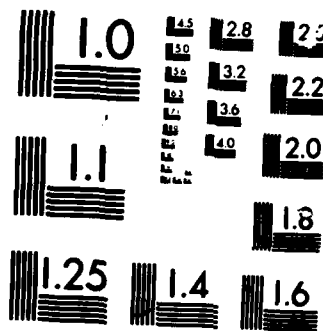
A DESCRIPTION OF THE BUILDING MATERIALS DATA BASE FOR  
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# Special Report 85-19

November 1985



**US Army Corps  
of Engineers**

Cold Regions Research &  
Engineering Laboratory

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## *A description of the building materials data base for New Haven, Connecticut*

Carolyn J. Merry and Perry J. LaPotin

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| 20. ABSTRACT (Continue on reverse side if necessary and identify by block number)<br>A building material sampling program for the New Haven, Connecticut, region was conducted in March and April of 1984 to examine the types and amounts of building surface materials exposed to acid deposition. A stratified, systematic, unaligned random sampling approach was used to generate sample points across the five sampling frame areas. A minimum of 107 sample points was examined per sampling frame to yield a total sample size of 576 points. Building sizes, surface materials, roof characteristics, roof-mounted apparatus, chimneys, gutters, downspouts, fences and miscellaneous outdoor accessories were recorded. This report provides an initial summary of the data collected. Sample sizes indicate that additional sampling is required to produce the desired 70 sites (with buildings) per frame. |                                            |                                                                |

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## PREFACE

This report was prepared by Carolyn J. Merry, Geologist, Earth Sciences Branch, Research Division, U.S. Army Cold Regions Research and Engineering Laboratory, and Perry J. LaPotin, Research Engineer, Thayer School of Engineering, Dartmouth College, Hanover, New Hampshire.

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A DESCRIPTION OF THE BUILDING MATERIALS DATA BASE  
FOR NEW HAVEN, CONNECTICUT

Carolyn J. Merry and Perry J. LaPotin

INTRODUCTION

The Interagency Task Force on Acid Precipitation manages the National Acid Precipitation Assessment Program (NAPAP). There are ten Task Groups, one for each of the nine research areas in the national program and one for international activities (Table 1). The goal of NAPAP is to develop and improve a data base that will help us understand the causes and effects of acid deposition and how it can be effectively managed. Our work on the acid rain program has been with the Environmental Protection Agency in support of Task Group G, which looks at the Effects on Building Materials and Cultural Resources.

New Haven, Connecticut, was selected by Task Group G in December 1983 as the first New England test site (Fig. 1) to obtain ground truth data on building surface materials. Data were to be collected as part of an on-going effort to examine the type and magnitude of building materials exposed to acid deposition in New England. Our data bases were to build upon prior data bases (St. Louis, Missouri; Baltimore, Maryland; Boston, Massachusetts) collected in support of the EPA Acid Precipitation Assessment Program (McFadden and Koontz 1980, TRC Consultants, Inc. 1983). Once sensitive building materials are located and their distribution understood within a few representative locations, the information will then be extrapolated and applied to other cities in the United States (Merry and McKim 1984).

This paper presents the data collected for New Haven, Connecticut. They will be presented as distribution summaries in the form of frequency tables, illustrative histograms and bar charts. In future reports the data will be analyzed to determine the suitability of various indicators in predicting building materials distribution.

Table 1. The ten Task Groups within the National Acid Precipitation Assessment Program (after Interagency Task Force on Acid Precipitation 1984).

| <u>Task group</u> |                                             | <u>Coordinating agency</u> |
|-------------------|---------------------------------------------|----------------------------|
| A                 | Natural sources                             | NOAA                       |
| B                 | Man-made sources                            | DOE                        |
| C                 | Atmospheric processes                       | NOAA                       |
| D                 | Deposition monitoring                       | DOI                        |
| E                 | Aquatic effects                             | EPA                        |
| F                 | Terrestrial effects                         | USDA                       |
| G                 | Effects on materials and cultural resources | DOI                        |
| H                 | Control technologies                        | EPA                        |
| I                 | Assessments                                 | EPA                        |
| J                 | International activities                    | DOS                        |

NOAA - National Oceanic and Atmospheric Administration  
 DOE - Department of Energy  
 DOI - Department of Interior  
 EPA - Environmental Protection Agency  
 USDA - United States Department of Agriculture  
 DOS - Department of State

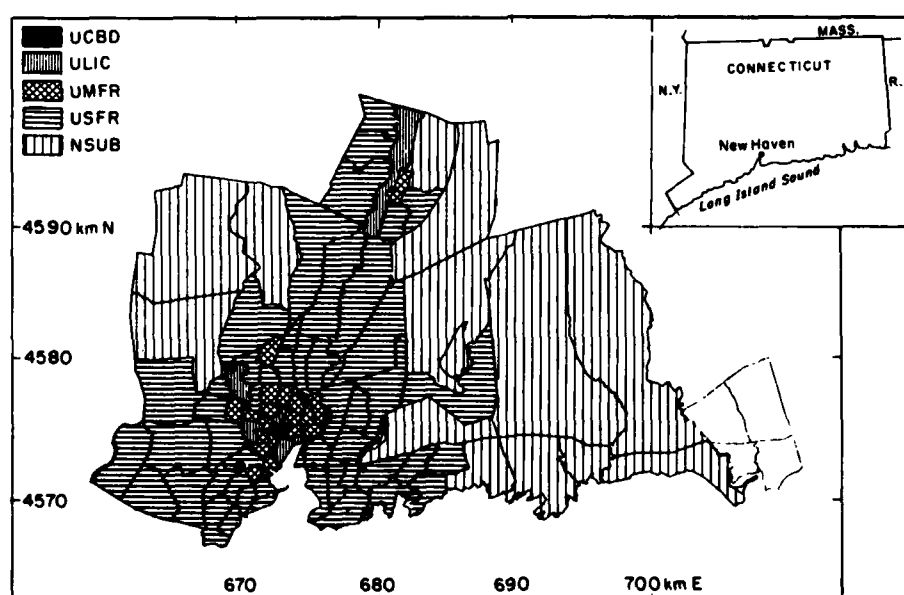


Figure 1. Sampling frames for the New Haven, Connecticut, area (after Rosenfield 1984).

## DESIGN OF THE FIELD SAMPLING PROGRAM

### Sampling frame definition

The city of New Haven, Connecticut, was subdivided into the sampling frames of Urban Central Business District (UCBD), Urban Livelihood, Industrial-Commercial (ULIC), Urban Multi-Family Residential (UMFR), Urban Single-Family Residential (USFR) and Nonurban Suburbanizing (NSUB) (Fig. 1). Each sampling frame consists of a number of census tracts that have a

Table 2. The U.S. Geological Survey land use and land cover categories (after Anderson et al. 1976 and Rosenfield 1984).

| <u>Collapsed categories<br/>used in this study</u> | <u>Level I</u>          | <u>Level II</u>                                                                 |
|----------------------------------------------------|-------------------------|---------------------------------------------------------------------------------|
| Built<br>residential                               | 1 Urban or builtup land | 11 Residential                                                                  |
| Built<br>nonresidential                            |                         | 12 Commercial and services                                                      |
|                                                    |                         | 13 Industrial                                                                   |
|                                                    |                         | 14 Transportation, communications and<br>utilities                              |
|                                                    |                         | 15 Industrial and commercial complexes                                          |
|                                                    |                         | 16 Mixed urban or builtup land                                                  |
|                                                    |                         | 17 Other urban or builtup land                                                  |
| Open land,<br>with buildings                       | 2 Agricultural land     | 21 Cropland and pasture                                                         |
|                                                    |                         | 22 Orchards, groves, vineyards, nurseries<br>and ornamental horticultural areas |
|                                                    |                         | 23 Confined feeding operations                                                  |
|                                                    |                         | 24 Other agricultural land                                                      |
| Open land,<br>without buildings                    | 3 Rangeland             | 31 Herbaceous rangeland                                                         |
|                                                    |                         | 32 Shrub and brush rangeland                                                    |
|                                                    |                         | 33 Mixed rangeland                                                              |
|                                                    | 4 Forest land           | 41 Deciduous forest land                                                        |
|                                                    |                         | 42 Evergreen forest land                                                        |
|                                                    |                         | 43 Mixed forest land                                                            |
| Omitted from<br>analysis                           | 5 Water                 | 51 Streams and canals                                                           |
|                                                    |                         | 52 Lakes                                                                        |
|                                                    |                         | 53 Reservoirs                                                                   |
|                                                    |                         | 54 Bays and estuaries                                                           |
| Open land,<br>without buildings                    | 6 Wetland               | 61 Forested wetland                                                             |
|                                                    |                         | 62 Nonforested wetland                                                          |
|                                                    | 7 Barren land           | 71 Dry salt flats                                                               |
|                                                    |                         | 72 Beaches                                                                      |
|                                                    |                         | 73 Sandy areas other than beaches                                               |
|                                                    |                         | 74 Bare exposed rocks                                                           |
|                                                    |                         | 75 Strip mines, quarries, and gravel pits                                       |
|                                                    |                         | 76 Transitional areas                                                           |
|                                                    |                         | 77 Mixed barren land                                                            |



### Selection of sample points

We needed to sample 70 buildings in each sampling frame, a number calculated previously from the Revere, Massachusetts, data base of buildings (Merry and LaPotin 1985) by multiplying the minimum sample size determined from the cumulative multi-nomial distribution (30) by the design effect (2.34) (see Rosenfield 1984). To ensure at least 70 "hits" per sampling frame, we selected a minimum of 107 sample points for each sampling frame (thus allowing for no building being found in 35% of the sampled locations).

We digitized the irregular polygon outlines of the census tracts that composed each of the sampling frames from U.S. Geological Survey topographic maps. The polygon outlines were run through a computer program that determined the minimum and maximum x,y boundary points (in Universal Transverse Mercator [UTM] coordinates) of the smallest rectangle that could contain the polygon. We determined the area of the polygon and the area of the minimum-sized rectangle that contained the polygon. By knowing the ratio of the polygon area to the rectangle area, we could generate the appropriate number of points so that at least 107 points fell within each of the polygons that made up the total sampling frame.

The sample points were generated using a stratified, systematic, unaligned random sampling procedure (Fig. 3 and Appendix A). A similar sampling procedure (stratified, systematic, unaligned) was used previously by the U.S. Geological Survey for selecting samples for use in testing the

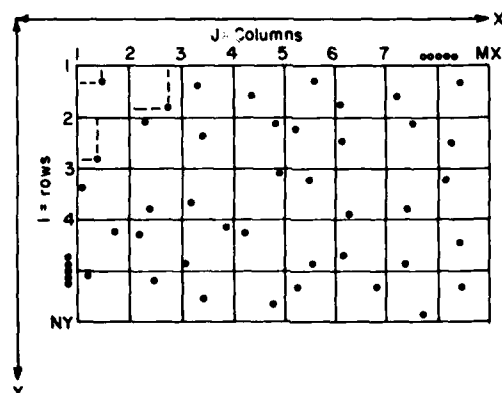


Figure 3. Schematic of stratified, systematic, unaligned random sampling scheme (after Rosenfield 1984).

Table 3. Number of sample points for the New Haven, Connecticut, building materials inventory.

| Sampling frame | With buildings | Empty     | Total      |
|----------------|----------------|-----------|------------|
| UCBD           | 90 (84%)       | 17 (16%)  | 107 (100%) |
| ULIC           | 53 (45%)       | 65 (55%)  | 118 (100%) |
| UMFR           | 66 (60%)       | 45 (40%)  | 111 (100%) |
| USFR           | 35 (31%)       | 78 (69%)  | 113 (100%) |
| NSUB           | 41 (32%)       | 86 (68%)  | 127 (100%) |
| Total          | 285 (49%)      | 291 (51%) | 576 (100%) |

accuracy of the land use and land cover maps produced under the National Land Use and Land Cover Mapping Program (Ling and Rosenfield 1980). We modified the computer program to randomize the selection of points within the unaligned grid. Table 3 shows the total number of points that were generated for the New Haven field survey program. The UTM coordinates for each sample point are shown in Appendix B.

Each sample point had a corresponding "footprint" or a given spatial area on the ground that had to be sampled in the field. To determine the footprint size for each sampling frame, black and white aerial photography of New Haven (scale 1:12,000) was examined to determine the density of buildings in each of the five sampling frames. We wanted to make the footprint size large enough to capture at least one building, but small enough so that the field sampling program would be manageable.

A 100 by 100 ft (30.5 by 30.5 m) grid was passed over selected portions of the photography for each of the sampling frames to determine the likelihood of encountering a building. These density values were then used in a simple PASCAL program to determine the footprint size for each sampling frame (Appendix A). The footprint areas were then constrained to sample approximately 30% of the total area within the UCBD frame.\* The final footprint sizes are presented in Table 4.

\*Given that 107 samples were required within the UCBD, an "alpha" or proportionality coefficient was obtained. The proportionality value was then linearly applied to the remaining four sampling frames to determine footprint size as a function of frame density.

Table 4. Footprint sizes for the New Haven, Connecticut, sampling frames.

| Sampling frame | Footprint size |     |
|----------------|----------------|-----|
|                | (ft)           | (m) |
| UCBD           | 139            | 42  |
| ULIC           | 144            | 44  |
| UMFR           | 90             | 27  |
| USFR           | 87             | 26  |
| NSUB           | 364            | 111 |

#### Field survey

The field program began in March 1984 and was completed within two months by two-person teams. One person normally recorded the dimensions and material types of the building; the other person took photographs of the building and used an optical rangefinder to determine building height.

The building worksheet was developed by a committee composed of representatives from CRREL, the EPA's Environmental Sciences Research Laboratory at Research Triangle Park and the U.S. Bureau of Standards. The worksheet form was designed to provide information on: the spatial location of the building in UTM coordinates; characteristics of the surrounding terrain in terms of census tract, land use type and sampling frame; dimensions and type of building; lot size dimensions; material distribution percentages in the foundation, first story, and all above stories; and the surface area and material types for the roof, roof-mounted apparatus (vents, flues, stacks, skylights and flashing), chimneys, rain gutters, downspouts and fences, and outdoor accessories for each structure. The final worksheet used in the New Haven field survey is shown in Appendix B.

#### DATA DESCRIPTION

The data from the building worksheets were coded using the format described in Appendix B, Building Worksheet section. Each sample point was recorded on an individual data sheet during the survey. If the sample point was empty, the sections that concerned the description of the

building were coded as zeros. If there was more than one building per sample point, a separate worksheet was completed for every building. These worksheets were used to develop a composite building, which represented the average distribution of materials found for all the buildings in the footprint.\* The UTM coordinates for each point are shown in Appendix B. The procedures used to check the data are also outlined in Appendix B. They were analyzed using the Statistical Package for the Social Sciences (SPSS) software on a VAX-11/785 minicomputer (see Nie et al. 1975).

In Appendix C is a description of the variables assigned to the New Haven field data. The frequency runs for the variables are also in Appendix C. Page formats are organized so that for each variable, numeric summaries are provided first (for example, the labels for each value with frequency of occurrence and percent of the distribution), followed by graphic presentation (histogram or bar chart), and ending with statistical summaries (for example, mean, mode, skewness, kurtosis). The sample size is presented at the bottom of each summary section, along with the number of missing cases (or observations). Each observation corresponds to a footprint sample point for the five sampling frames in New Haven.

Variables with continuous distributions or discrete variables with large numeric diversity are graphically presented within a histogram. Variables with small numbers of categories (for example, sampling frame and land use) are presented by horizontal bar charts with the sample sizes shown within the bar areas. Summary statistics are included to describe the variable's distribution (for example, skewness and kurtosis).

Certain variables act as descriptors of building materials' exposure and distribution, for example, exposed walls in footprint (EWIF) and average wall height (HT). Their corresponding frequency runs are tabulated using the sample of size 285, the number of footprints where buildings were observed (Table 3). All other variables, not related to the building description, use the 576 total cases.

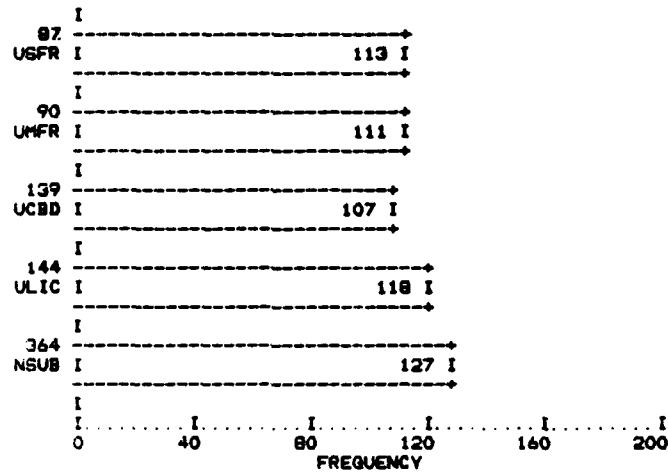
We did not achieve the minimum of 70 structures per sampling frame in New Haven (Table 3). For future sampling programs, more than 107 sample

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\*Building averages were weighted according to the proportion of the structure contained within the footprint. Therefore, buildings that covered the majority of the footprint were weighted to account for their predominance.

FOOT FOOTPRINT SIZE

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID PERCENT | CUM PERCENT |
|-------------|-------|-----------|---------|---------------|-------------|
| USFR        | 87    | 113       | 19.6    | 19.6          | 19.6        |
| UMFR        | 90    | 111       | 19.3    | 19.3          | 38.9        |
| UCBD        | 139   | 107       | 18.6    | 18.6          | 57.5        |
| ULIC        | 144   | 118       | 20.5    | 20.5          | 78.0        |
| NSUB        | 364   | 127       | 22.0    | 22.0          | 100.0       |
| TOTAL       |       | 576       | 100.0   | 100.0         |             |



|          |         |          |           |          |           |
|----------|---------|----------|-----------|----------|-----------|
| MEAN     | 169.990 | STD ERR  | 4.413     | MEDIAN   | 139.000   |
| MODE     | 364.000 | STD DEV  | 109.922   | VARIANCE | 11219.520 |
| KURTOSIS | -.363   | S E KURT | 1.997     | SKEWNESS | 1.176     |
| S E SKEW | .102    | RANGE    | 277.000   | MINIMUM  | 87.000    |
| MAXIMUM  | 364.000 | SUM      | 97914.000 |          |           |

| PERCENTILE | VALUE   | PERCENTILE | VALUE   | PERCENTILE | VALUE   |
|------------|---------|------------|---------|------------|---------|
| 10.00      | 87.000  | 25.00      | 90.000  | 33.30      | 90.000  |
| 50.00      | 139.000 | 66.70      | 144.000 | 75.00      | 144.000 |
| 90.00      | 364.000 |            |         |            |         |

VALID CASES 576 MISSING CASES 0

Figure 4. Sample page of frequency analysis data.

points per frame would be needed. Another way to achieve the minimum, recommended by the U.S. Geological Survey, is to mask out all land areas in which the likelihood of encountering a building would be low before selecting the points. These areas would include land use types greater than 24 (see Table 2), which include rangeland, forest land, water, wetlands and barren land.

In Appendix C the column headings marked VALUE represent the actual observed value for the variable. FREQUENCY represents the number of cases of the individual values for the variable. Percent (PCT) and cumulative percent (CUM PCT) represent the percent of the total falling within the

specified category and the running cumulative percent, respectively; the cumulative percent for the last category is always 100. Figure 4 is an example of how the frequency runs are presented in Appendix C.

A more in-depth discussion of the summary statistics provided can be found in most elementary applied statistics texts (e.g. Snedecor and Cochran 1980).

## DISCUSSION

The frequencies provided in Appendix C are separated into six sections.

In the Major Classification Variables section, the variables include the distribution of footprint size (FOOT), land use designation (LU), sampling frame (SFRAME), sample point number (SPOINT) and census tract (TRACT) for the 576 total observations.

The data for the variable FOOT are also shown in Tables 3 and 4. As noted, there are 107 sample points (footprints) in the UCBD sampling frame; the footprint size is 139 ft (42 m). The sample points were found to be equally divided between all five sampling frames, with approximately 20% of the sample points falling in each frame. The footprint sizes for each point within a sampling frame were calculated using the algorithm provided in Appendix A.

The land use classification for each sample point (LU) was based on digital land use information from the Geographic Information Retrieval and Analysis System (GIRAS) (Mitchell et al. 1977). The aerial photography source materials used in GIRAS are dated from 1972-74 (Loelkes 1977). The minimum mapping unit for the land cover map is 10 acres (0.04 sq km) for the level II categories 11-17, 23-24, 51-54, 75 and urban occurrences of 76 (see Table 2). The minimum mapping unit for the remaining level II categories was 40 acres (0.16 sq km).

When we examine land use designations, nearly 70% of the sampled footprints fall within the residential (24.0%), mixed urban or builtup land (22.4%) and deciduous forest (22.9%) categories. Cumulative percents indicate that 67.2% of the sampled structures fall within the level I category of urban or builtup land. The remaining 32.8% of the sampled footprints fall within the level I categories of agriculture, forest, water, wetlands and barren land, indicating empty footprints.

The sample point number (SPOINT) represents the sequence number of the sampled footprint within a given sampling frame. In the variable SFRAME, the minimum number of sampled points for a given subcategory is 107, corresponding to the UCBD class. The frequency table for SFRAME displays the sampled distribution and illustrates that all sampling frames contain the minimum of 107 points (four frames contain 111 points and above, three contain 113 and above, two contain 118 and above, and the last frame contains 127 sample points).

The census tract (TRACT) variable represents the distribution of sampled footprints within a given tract. The majority of sample points (19%) occur in census tract 1 (census tract 1401, see Fig. 2 and Appendix C, Description of Variables section) corresponding to the UCBD sampling frame. Tract 7 (census tract 1754), which is part of the ULIC sampling frame, contains 10% of the sample points. The census tracts with 20 observations and above (tracts 1401, 1413, 1417, 1611, 1754, 1847 and 1903) have 283 of the possible 576 sample locations (49%). The remaining 51% are distributed uniformly, ranging from 0 to 5%, across the remaining census tracts.

The Census Tract Data section includes the available census tract information from the U.S. Bureau of Census and the U.S. Geological Survey GIRAS data base that corresponds to the 91 census tracts in the New Haven area. There were eight variables, based on the 1970 census, coded into our New Haven data base: the total population in the census tract (POP), the total number of housing (dwelling) units in a census tract (DU), the number of dwelling units in one-unit structures (U1), the total land area of the census tract (ALAND), the built residential land use (ABR), the built nonresidential land use (ABNR), the open land containing buildings (AOB) and the open land containing no buildings (AO). The land area values are displayed in millions of square feet.

The built residential category includes the level II urban category, residential (see Table 2). The built nonresidential category includes the urban categories of commercial and services, industrial, transportation, communications and utilities, industrial and commercial complexes, and the mixed urban or builtup land. The open land with buildings category includes the other urban or builtup land, and the entire level I agricultural, rangeland and forest land categories. The open without buildings includes the level I categories of wetlands and barren land.

The tract population (POP) variable shows a minimum value of 273 persons. A significant portion of the cases (19%) corresponded to census tract 1401 for the UCBD sampling frame. The average population per tract is 4092 persons. The range of population values found within the New Haven tracts vary from 273 to over 9100 people per census tract.

The total dwelling units (DU) in a given tract varies from 85 to over 3800. The average number of units is 1325, however; and 19% of the samples fall at 509 dwelling units, which again corresponded to the UCBD sampling frame (which has only one census tract in it).

The average number of dwelling units in one-unit structures (U1) is 689. The range of dwelling units is large, ranging from 17 to over 2300 units.

The remainder of the census tract variables in this section represent the millions of square feet of land within the built residential (ABR), built nonresidential (ABNR), open land with buildings (AOB), open land without buildings (AO), and the total land coverage (ALAND) (U.S. Bureau of Census 1970). In comparing the means of the above five variables, we find that the majority of the land in New Haven is open with buildings (AOB). Overall, we found the least amount of land in the category of open land without buildings (AO), averaging  $5.4 \times 10^6$  ft<sup>2</sup>. The built residential category occurs slightly more often than the built nonresidential category (31.5 vs  $11.6 \times 10^2$  ft<sup>2</sup> observed).

In the General Building Description section, frequencies are tabulated using the 285 cases where buildings were observed from the total 576 points sampled. Variables include the approximate age of the structure (AGE), exposed walls in the footprint (EWIF), average wall height (HT), lot size (LOT) and the building type (TYPE).

The first variable, AGE, represents the approximate age of the structure using the year 1900 as a base. For example, 1984 is represented as 84, 1900 as 0, and 1801 as -99. Only 8% of the observed structures were built prior to 1900. The majority of the structures observed were built from 1950 to 1984 (63%). The range of values shows a spread of 183 years in building age, a mean construction date of 1944 and a median construction date of 1950. The upper third of the building age distribution begins in 1965 and ends in 1984, the year representing the newest structure.

The exposed walls in footprint (EWIF) is the perimeter (feet) of the building, or buildings, in the footprint. EWIF is recorded to ultimately calculate the exposure of building wall surfaces observed within a sampled footprint. Of the 285 structures sighted, 67% had 232 ft or less of exposed wall surface. The histogram indicates that the distribution is skewed to the right (skewness = 1.97) with a mean value of 218 ft and a median exposure of 180 ft. The percentiles indicate that only 10% of the observed structures within footprints had 400 ft or more of exposed wall surfaces.

The average wall height (HT) in feet for a sampled structure is also provided in this section. The cumulative percentages suggest that the majority of observed wall heights are below 45 ft (80%). Using a 12-ft per story average (and 2-ft average for the foundation), we find that 16% of the observations are of one-story, or even smaller, structures, 48% are of two stories or less, and 68% are of three stories or less. The mean value of 36 ft corresponds to an average building size of three stories. The standard deviation of 34 ft reflects the variance in height of structures; the maximum observed height was 300 ft.

Lot size (LOT) represents the plot of ground surrounding the building being sampled. The person on the survey team estimated the lot size in the field by using markers, such as fences and the proximity of adjacent buildings. The units of lot size are in feet, the square root of a rectangular or square lot surrounding the structure. This variable is skewed to the right, reflecting the relatively small lots surrounding the majority of sampled New Haven structures. For 25% of the structures sampled, lots of 90 ft or less or 270 ft and above were observed. The mean value of 215 ft reflects the tail-effect of observations in the upper 33% and the corresponding large variance. Thus, the median of 150 ft ( $22,500 \text{ ft}^2$ ) is probably more representative of the true lot size.

The building type classification (TYPE) is useful in determining the distribution of individual structures by their type or use. Of the 285 footprints containing buildings, 100 were found to be one-unit detached (35.1%). The majority of the remaining 185 structures observed were office or other commercial buildings (32.3%). Only one structure could not be identified by building use.

Actual spatial areas are presented in the Spatial Areas of Building Materials section for the five composite building material classifications recommended by the Interagency Task Force.\* These areas represent square feet of building surface walls potentially exposed to acid deposition.

The five composite building materials computed included galvanized metal (AGALV), mortar-masonry (AMORT), painted materials (APAIN), stone materials (ASTONE) and all other materials (AOTHER). From the original building worksheet (Appendix B), the galvanized metal category includes bare galvanized steel. The mortar-masonry composite includes bare brick, bare block and bare field stone. Painted materials include the painted wood (excluding stained), painted steel, painted aluminum, painted masonry, painted concrete, painted stucco and all other painted surfaces. Stone materials encompass bare marble, bare limestone and bare granite. All other materials, the bare wood (including stained), bare concrete, bare glass, bare vinyl and other bare materials are contained within the AOTHER category.

Examining the area of painted materials, we see that 29% of the sampled structures have no painted wall surfaces. For those structures with painted surfaces, the exposure rises uniformly, with a mean exposure at 2402 ft<sup>2</sup> and a median of 928 ft<sup>2</sup>. A standard deviation of 4359 ft<sup>2</sup> reflects the wide range of exposures between individual structures (minimum of 0 ft<sup>2</sup>, maximum of 47,033 ft<sup>2</sup>). The distribution is strongly skewed to the right (skewness = 5.3) and is far more peaked (kurtosis = 42.9) than a normal distribution with similar mean and standard error. Percentiles indicate that 67% of the sampled buildings had 2337 ft<sup>2</sup> or less of exposed painted materials.

Areas of exposed mortar and masonry were observed for 152 structures, indicating that 47% of the buildings had no mortar or masonry wall exposure. (Of the total 576 sampled footprints, 26% contained buildings with mortar-masonry walls). The mean mortar-masonry surface area (2166 ft<sup>2</sup>) differs significantly from the median exposure (160 ft<sup>2</sup>), reflecting the skewness of the distribution to the right (skewness = 3.8). The range of mortar-masonry surface area is 35,056 ft<sup>2</sup> and illustrates the large variability in walls with mortar-masonry construction (standard deviation of

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\*Personal communication with F. Lipfert, Brookhaven National Laboratory, 1984.

4539 ft<sup>2</sup>). The quartile values indicate that 75% of the structures have exposures ranging from no mortar to 2696 ft<sup>2</sup>. Less than 50% of the structures had exposures greater than 160 ft<sup>2</sup>.

The distribution of exposed wall areas in bare stone materials (ASTONE) shows the relative scarcity of this material in the sampled footprints. Cumulative frequencies indicate that 93.3% of the footprints with buildings have no exposed bare stone surfaces (only 19 stone facings for 285 buildings). Summary statistics suggest that buildings with exposed stone surfaces tend to be small in area (86 to 31,172 ft<sup>2</sup>) when compared to the exposed mortar-masonry and painted surfaces.

A small number of structures had bare galvanized steel. Of the 285 footprints with buildings, 16 structures were built with some portion of bare galvanized steel. The summary statistics reflect the strong absence of galvanized walls, with median and mode values of 0. Of the sample footprints with buildings, 94% have no galvanized steel exposure.

The fifth composite material class is the category that includes all materials that were not classified in the previously mentioned categories. The frequency tables show that the areas of materials found within the AOTHER category are relatively continuous, nonclustering, and have a relatively uniform frequency distribution. The percentile values reflect the uniformity of the distribution for surface wall areas below the 75th percentile (1998 ft<sup>2</sup>). The upper 4% of the distribution rises sharply to a maximum exposure for an individual building of 55,680 ft<sup>2</sup> of material.

The Roof Materials section includes the variables of the presence of chimneys (CHIM), exposed chimney area (CAREA), chimney material (CMAT), exposed roof area (ESAREA), roof material (ERMAT), roof slope (SLOPE) and the roof apparatus items for the observed buildings (AAP), roof apparatus material (RMAT), and number of roof apparatus items (ITEMS).

The mean surface area of an observed chimney (CAREA) is 73 ft<sup>2</sup> with a standard deviation of 334 ft<sup>2</sup>. Examining the percentiles, we see that the majority of chimney surface areas fall in the upper 10% of the distribution, with values greater than 120 ft<sup>2</sup>. Chimney areas ranged from no chimney observed (55%) to the largest 4320-ft<sup>2</sup> chimney. Most chimneys were brick (32%), with roughly 6% of those chimneys observed being unidentifiable because the observer couldn't get a good look at it. There were 13 painted chimneys.

The exposed surface area of the roof (ESAREA) shows a wide range of values from 12 to 185,000 ft<sup>2</sup>. The mean surface area observed was 11,664 ft<sup>2</sup>. The roof material (ERMAT) was about equally divided between tar (37%) and asphalt shingles (40%). Most roofs were sloped (59%) rather than flat (41%), as shown by the SLOPE variable.

There were 30 roof apparatus (APP) items observed in New Haven. Most of these were vents, flues and stacks (83% of 30). The roof apparatus material (RMAT) was primarily other material types (37% of 30), followed by painted and bare aluminum surfaces (approximately 25% each of 30). A small amount of bare galvanized material (10% of 30) was observed for the roof apparatus items. Generally, a single roof item (ITEMS) was observed, with a maximum of 23 items observed per footprint.

The Rain Gutters, Downspouts, Fences and Other Accessories section contains that information for the 285 sampled structures.

Rain gutters (RGUT) were found on 101 structures (35%). Most rain gutters (RGMAT) were painted or bare galvanized steel and copper.

Downspouts (DSPOUT) were observed on 122 structures. The majority of downspouts were painted (84% of the 122 downspouts observed), with a small exposure of bare galvanized steel and copper. The average downspout (DSLENG) was 29 ft long with a maximum observed length of greater than 999 ft. Most spouts were between 20 and 40 ft long, corresponding to the first and second-story heights of an average-sized building. Note that the median and mode downspout length is 0 because of the large percentage of structures without downspouts (57%).

There were 77 fences (FENCE) observed within the sampled footprints. The majority of fences were either bare chain link (38% of the fences observed) or bare galvanized wire (19% of the observed) and masonry (17% of the observed). Percentiles indicate that 73% of the structures had no fences. The upper 75% of fence length ranges from 17 to 900 ft. Fence heights were primarily below 4 ft (90%) with a maximum observed height of 30 ft.

Up to five accessory types could be recorded for a structure within a given footprint. A maximum of three accessory types (ACCESS1-ACCESS3) were actually observed within any given footprint. The most prevalent accessory types were handrails, signs, poles and mailboxes. The material types observed were basically other materials, ornamental metal and painted

material surfaces. The surface areas of the observed first accessory type ranged from 2 to 2400 ft<sup>2</sup>. The remaining accessory types (second and third) were minor in their distribution, with 1% or less observed in any given category.

## CONCLUSIONS

A building material sampling program for the New Haven, Connecticut, area was conducted during March and April of 1984. The stratified, systematic, unaligned random sampling procedure was applied to generate sample points across the five sampling frame areas. Using this procedure, we surveyed a total of 576 points representing a minimum of 107 sample footprints per frame. Diverse data were taken on building size and surface material, roof characteristics and roof apparatus, chimneys, gutters, downspouts, fences and other outdoor accessories.

The summaries provided present the New Haven data according to overall distribution by structure. Observed sample sizes indicate that greater than 65% over-sampling is required in New Haven to obtain the desired 70 footprints with buildings per sampling frame.

A summary of the composite material classes is provided in Table 5. Notice that 93% and 94% of the sampled structures exhibited, respectively, no bare stone and bare galvanized steel exposure. Of the remaining three categories, mortar-masonry exposure and other materials exposure were sighted on more than half of the sampled structures (53% and 95%, respectively). Median exposures suggest that APAINT and AOTHER account for the majority of material exposure per structure in New Haven. The relative scarcity of the ASTONE and AGALV classes, coupled with small mean surface

Table 5. Summary statistics of the composite material classes.

| Composite material class | Mean exposure (ft <sup>2</sup> ) | Median exposure (ft <sup>2</sup> ) | Inner quartile (ft <sup>2</sup> ) | Range (ft <sup>2</sup> ) | Percent of structures not exhibiting the material class |
|--------------------------|----------------------------------|------------------------------------|-----------------------------------|--------------------------|---------------------------------------------------------|
| APAINT                   | 2402                             | 928                                | 0 to 3270                         | 47,033                   | 29                                                      |
| AMORT                    | 2166                             | 160                                | 0 to 2696                         | 35,056                   | 47                                                      |
| AGALV                    | 773                              | 0                                  | 0 to 0                            | 35,028                   | 94                                                      |
| ASTONE                   | 463                              | 0                                  | 0 to 0                            | 31,172                   | 93                                                      |
| AOTHER                   | 2185                             | 740                                | 328 to 1998                       | 55,680                   | 5                                                       |

areas on buildings when sighted, strongly suggest that additional composite classes should be considered to adequately summarize the five composite materials.

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## APPENDIX A: PROGRAM LISTINGS

### Determining footprint size for each sampling frame

**program** FootSize (input, output);

{Footsize is a simple program for calculating footprint size for other}

{sampling frames based on some assumptions placed in the UCBD. The}

{following assumption pertain to the UCBD :}

{1. The sample size will be 107, allowing for empty footprints in 35% of  
{the sampled locations.}

{2. The alpha or proportionality coefficient, used to scale the remaining}  
{sampling frames will be set to ensure that 35% of the spacial area }  
{remains open in the UCBD}

**const**

size = 107;

{sample size in the UCBD}

frames = 5;

{# of sampling frames}

alpha = 0.009923;

{proportionality coefficient derived}  
{from the 35% open area in the UCBD}

**var**

footFt, footM : integer;

{footprint size in both Feet and Meters}

Alabel : str255;

{A labeler for the sampling frames}

i : integer;

{some counter variable OK?}

**function** density (frame : integer) : real;

{A simple function to return the density values to the main loop, it also}

{sets a labeler to be used in the final output table.}

**begin**

**case** frame of

1 :

**begin**

density := 5.5e-5;

Alabel := 'UCBD:';

**end;**

2 :

**begin**

density := 5.1e-5;

Alabel := 'ULIC:';

**end;**

3 :

**begin**

density := 13.0e-5;

Alabel := 'UMFR:';

**end;**

```

4:
  begin
    density := 14.0e-5;
    Alabel := 'USFR: ';
  end;
5:
  begin
    density := 0.8e-5;
    Alabel := 'NSUB: ';
  end;
  otherwise
end, (Case frame of)
end, (Adensity)

begin (main)
(Label the simple table and calculate the footprint sizes, first in feet)
(and then in meters. Print back out the label, density, and footprint)
(sizes on the current textport window)

writeln('    DENSITY    < FOOT>');
showText;
for i := 1 to frames do
  begin
    footFt := round(sqrt(alpha * size / density(i)));
    footM := round(sqrt((alpha * size / density(i)) / 10.76));
    writeln(Alabel, density(i) : 5, footFt : 5, 'ft', footM : 5, 'm');
  end,
end.

```

|       | DENSITY | < FOOT> |      |
|-------|---------|---------|------|
| UCBD: | 5.5e-5  | 139ft   | 42m  |
| ULIC  | 5.1e-5  | 144ft   | 44m  |
| UMFR  | 1.3e-4  | 90ft    | 28m  |
| USFR: | 1.4e-4  | 87ft    | 27m  |
| NSUB: | 8.0e-6  | 364ft   | 111m |

### Stratified, systematic, unaligned random sampling scheme

**program** SystemRS (input, output);

{program SystemRS is useful for calculating two vectors of samples}  
{according to the Stratified Systematic Unaligned Random Sample routine}  
{the following variables are significant:}

{Size = the sample size or # of sample points to be generated by the program}  
{Xmin,Ymin = the minimum X & Y coordinate allowable - needed to set the spacial plane}  
{Xmax,Ymax = the maximum X & Y coordinate allowable - needed to set the spacial plane}

{For nice I/O the user should add a more lively Solicit and printback procedure, this}  
{example simply illustrates the algorithm to be used. It is written in vanilla Pascal}  
{so as to be transportable to other non-Mac environments. The function GetRandom}  
{will probably have to be changed on the non-Mac host but is general enough that this}  
{should cause no hardship... I hope}

**var**

Size, Xmin, Ymin, Xmax, Ymax : integer;

**procedure** SolicitInfo;

{A simple procedure to solicit information in the current textport}  
{it assumes that the solicited variables are declared within the main}

**begin**

write('input the desired sample size:');  
read(Size);  
write('input the minimum X and Y coordinate:');  
read(Xmin, Ymin);  
write('input the maximum X and Y coordinate:');  
read(Xmax, Ymax);

**end;**{SolicitInfo}

**procedure** GeneratePts;

{here is the meat of the program. This procedure calls the GetRandom function to supply}  
{it with a random value between zero and 1. Based on the min and max values for both}  
{X and Y, the block size BlockLength is calculated and used to figure out the approximate}  
{no. of blocks that will fit in both the X and the Y plane (Xblock,Yblock). The systematic}  
{unaligned random sample points are calculated across the X,Y plane and assigned to}  
{the variables Xrandom and Yrandom}

**var**

BlockLength : real;  
Xblock, Yblock, Xrandom, Yrandom : LongInt;  
X, Y : integer;

```

function GetRandom : real;
[GetRandom returns a random number from between lower and upper]
[it calls the Mac Random * generator and uses a random seed digit]
[in this way the procedure is randomly random, which I should think]
[is more than random enough!]

var
    bone : Longint;

begin
    RandSeed := Random; (first set the seed value to be random)
    bone := Random; (set some variable, that we don't care about to be the)
    (re-randomized value which is somewhere between -32768 and 32767)
    bone := trunc(abs(bone - 1)); (we need a positive longint value Oh!)
    (bone now varies between 0 and 32767)

    GetRandom := bone / 32767; (returns first, a real value that ranges from zero to 1)

end; (GetRandom)

begin (GeneratePts)

[calculate the individual block sizes]
    BlockLength := round(Sqrt((Xmax - Xmin) * (Ymax - Ymin) / Size));

[next, determine the approx * of blocks in the x,y plane]
    Xblock := round((Xmax - Xmin) / BlockLength);
    Yblock := round((Ymax - Ymin) / BlockLength);

    writeln('*');
    writeln(Xmin, Ymin, Xmax, Ymax);
    writeln('*');

    for X = 1 to Xblock do
        begin (X)
            for Y = 1 to Yblock do
                begin (Y)
                    Xrandom := trunc(BlockLength * (GetRandom + X - 1)) + Xmin;
                    Yrandom := trunc(BlockLength * ((Yblock - Y + 1) - GetRandom)) + Ymin;

                    [ now print the Vector of SURS values ]
                    writeln('X = ', Xrandom, '    Y = ', Yrandom);
                end; (Y)
            end; (X)
        end; (GeneratePts)

```

```
begin (main)
  showText;
  SolicitInfo;
  GeneratePts;
end.
```

# APPENDIX B: DATA

## UTM coordinates for each sample point

| Number | UTM East  | UTM North  |     |           |            |
|--------|-----------|------------|-----|-----------|------------|
| 1      | 673019.13 | 4574509.00 | 54  | 673741.50 | 4574590.00 |
| 2      | 673140.88 | 4574643.00 | 55  | 673763.63 | 4574490.00 |
| 3      | 673141.63 | 4574543.00 | 56  | 673742.88 | 4574411.00 |
| 4      | 673142.38 | 4574486.00 | 57  | 673743.63 | 4574353.00 |
| 5      | 673143.00 | 4574407.00 | 58  | 673779.75 | 4574217.00 |
| 6      | 673174.25 | 4574688.00 | 59  | 673780.38 | 4574139.00 |
| 7      | 673231.75 | 4574630.00 | 60  | 673759.75 | 4574082.00 |
| 8      | 673232.50 | 4574530.00 | 61  | 673803.13 | 4574998.00 |
| 9      | 673233.25 | 4574473.00 | 62  | 673796.50 | 4574983.00 |
| 10     | 673233.88 | 4574394.00 | 63  | 673818.50 | 4574882.00 |
| 11     | 673257.75 | 4574740.00 | 64  | 673819.25 | 4574825.00 |
| 12     | 673258.50 | 4574604.00 | 65  | 673819.88 | 4574725.00 |
| 13     | 673259.25 | 4574525.00 | 66  | 673820.63 | 4574668.00 |
| 14     | 673273.88 | 4574489.00 | 67  | 673856.75 | 4574532.00 |
| 15     | 673261.88 | 4574366.00 | 68  | 673857.50 | 4574474.00 |
| 16     | 673284.00 | 4574343.00 | 69  | 673858.13 | 4574374.00 |
| 17     | 673325.63 | 4574636.00 | 70  | 673804.50 | 4574293.00 |
| 18     | 673361.75 | 4574557.00 | 71  | 673862.00 | 4574213.00 |
| 19     | 673362.50 | 4574500.00 | 72  | 673812.75 | 4574177.00 |
| 20     | 673384.63 | 4574400.00 | 73  | 673892.38 | 4575043.00 |
| 21     | 673363.88 | 4574286.00 | 74  | 673871.63 | 4574986.00 |
| 22     | 673479.25 | 4574596.00 | 75  | 673915.25 | 4574907.00 |
| 23     | 673437.25 | 4574582.00 | 76  | 673929.88 | 4574771.00 |
| 24     | 673416.63 | 4574502.00 | 77  | 673895.75 | 4574693.00 |
| 25     | 673417.13 | 4574367.00 | 78  | 673875.13 | 4574669.00 |
| 26     | 673439.25 | 4574324.00 | 79  | 673876.50 | 4574534.00 |
| 27     | 673440.00 | 4574245.00 | 80  | 673898.63 | 4574511.00 |
| 28     | 673542.00 | 4574555.00 | 81  | 673920.75 | 4574389.00 |
| 29     | 673521.38 | 4574476.00 | 82  | 673921.50 | 4574311.00 |
| 30     | 673500.63 | 4574362.00 | 83  | 673900.75 | 4574275.00 |
| 31     | 673501.38 | 4574339.00 | 84  | 673922.75 | 4574153.00 |
| 32     | 673502.00 | 4574260.00 | 85  | 673902.00 | 4574095.00 |
| 33     | 673481.38 | 4574204.00 | 86  | 674017.00 | 4574940.00 |
| 34     | 673562.50 | 4574591.00 | 87  | 674017.75 | 4574861.00 |
| 35     | 673584.63 | 4574512.00 | 88  | 673977.25 | 4574802.00 |
| 36     | 673585.38 | 4574377.00 | 89  | 673978.00 | 4574745.00 |
| 37     | 673586.00 | 4574334.00 | 90  | 673957.25 | 4574666.00 |
| 38     | 673622.13 | 4574219.00 | 91  | 673958.00 | 4574530.00 |
| 39     | 673622.88 | 4574140.00 | 92  | 673958.63 | 4574451.00 |
| 40     | 673582.38 | 4574124.00 | 93  | 673959.25 | 4574373.00 |
| 41     | 673698.75 | 4574768.00 | 94  | 673960.00 | 4574350.00 |
| 42     | 673699.38 | 4574710.00 | 95  | 674017.50 | 4574236.00 |
| 43     | 673678.75 | 4574631.00 | 96  | 673996.88 | 4574157.00 |
| 44     | 673700.75 | 4574552.00 | 97  | 673997.50 | 4574099.00 |
| 45     | 673658.75 | 4574495.00 | 98  | 674098.50 | 4574937.00 |
| 46     | 673659.38 | 4574417.00 | 99  | 674056.50 | 4574879.00 |
| 47     | 673638.75 | 4574359.00 | 100 | 674078.38 | 4574822.00 |
| 48     | 673682.25 | 4574258.00 | 101 | 674057.75 | 4574721.00 |
| 49     | 673682.75 | 4574201.00 | 102 | 674058.38 | 4574643.00 |
| 50     | 673662.13 | 4574122.00 | 103 | 674037.75 | 4574585.00 |
| 51     | 673743.13 | 4574823.00 | 104 | 674057.50 | 4574352.00 |
| 52     | 673761.50 | 4574705.00 | 105 | 674117.88 | 4574918.00 |
| 53     | 673740.75 | 4574648.00 | 106 | 674120.00 | 4574681.00 |
|        |           |            | 107 | 674105.63 | 4574602.00 |

|     |           |            |     |           |            |
|-----|-----------|------------|-----|-----------|------------|
| 108 | 659756.00 | 4583907.00 | 169 | 670709.88 | 4572158.00 |
| 109 | 659896.63 | 4584677.00 | 170 | 670854.50 | 4571842.00 |
| 110 | 660149.63 | 4584218.00 | 171 | 679953.88 | 4589000.00 |
| 111 | 659904.63 | 4583759.00 | 172 | 679834.50 | 4588668.00 |
| 112 | 660621.00 | 4584408.00 | 173 | 679815.88 | 4588236.00 |
| 113 | 660500.50 | 4583867.00 | 174 | 680352.13 | 4589504.00 |
| 114 | 661104.38 | 4584174.00 | 175 | 680151.75 | 4589254.00 |
| 115 | 660953.00 | 4583621.00 | 176 | 680155.63 | 4588798.00 |
| 116 | 661124.50 | 4583119.00 | 177 | 680406.50 | 4588343.00 |
| 117 | 661303.88 | 4584180.00 | 178 | 680687.75 | 4590194.00 |
| 118 | 661269.00 | 4583760.00 | 179 | 680815.13 | 4589492.00 |
| 119 | 661522.13 | 4583052.00 | 180 | 680738.25 | 4589242.00 |
| 120 | 661238.25 | 4582880.00 | 181 | 680618.75 | 4588786.00 |
| 121 | 662043.00 | 4584146.00 | 182 | 680541.88 | 4588412.00 |
| 122 | 662047.00 | 4583437.00 | 183 | 681160.13 | 4591978.00 |
| 123 | 662051.00 | 4582978.00 | 184 | 681096.50 | 4591590.00 |
| 124 | 662187.63 | 4583876.00 | 185 | 680896.13 | 4590888.00 |
| 125 | 662522.38 | 4583542.00 | 186 | 681227.88 | 4590557.00 |
| 126 | 662195.63 | 4582958.00 | 187 | 681027.50 | 4589978.00 |
| 127 | 662729.88 | 4583665.00 | 188 | 681603.38 | 4594242.00 |
| 128 | 673604.63 | 4573462.00 | 189 | 681742.75 | 4592749.00 |
| 129 | 673273.13 | 4572996.00 | 190 | 681623.38 | 4592417.00 |
| 130 | 673612.88 | 4572530.00 | 191 | 681627.38 | 4591839.00 |
| 131 | 673747.38 | 4573899.00 | 192 | 682240.38 | 4595286.00 |
| 132 | 674004.13 | 4573525.00 | 193 | 682082.50 | 4594993.00 |
| 133 | 674008.25 | 4573059.00 | 194 | 682209.88 | 4594414.00 |
| 134 | 674012.25 | 4572719.00 | 195 | 682136.88 | 4594159.00 |
| 135 | 674277.25 | 4573840.00 | 196 | 682225.75 | 4593743.00 |
| 136 | 674881.88 | 4574033.00 | 197 | 682106.38 | 4593164.00 |
| 137 | 675126.38 | 4573878.00 | 198 | 681948.50 | 4592994.00 |
| 138 | 675040.88 | 4573874.00 | 199 | 681913.88 | 4592454.00 |
| 139 | 671134.38 | 4575379.00 | 200 | 682617.25 | 4596263.00 |
| 140 | 671142.25 | 4574350.00 | 201 | 682463.25 | 4596135.00 |
| 141 | 671146.25 | 4574020.00 | 202 | 682343.88 | 4595634.00 |
| 142 | 671722.13 | 4575118.00 | 203 | 682347.88 | 4595179.00 |
| 143 | 671480.38 | 4574910.00 | 204 | 682351.75 | 4594396.00 |
| 144 | 671730.13 | 4574211.00 | 205 | 682355.75 | 4594268.00 |
| 145 | 671734.00 | 4573881.00 | 206 | 682359.75 | 4593813.00 |
| 146 | 672310.00 | 4574979.00 | 207 | 682487.13 | 4593235.00 |
| 147 | 672191.13 | 4574772.00 | 208 | 682803.00 | 4596302.00 |
| 148 | 669774.88 | 4579063.00 | 209 | 682930.38 | 4595950.00 |
| 149 | 670344.13 | 4578917.00 | 210 | 683057.75 | 4595618.00 |
| 150 | 670347.88 | 4578490.00 | 211 | 682938.38 | 4595163.00 |
| 151 | 670044.00 | 4578371.00 | 212 | 682942.25 | 4594584.00 |
| 152 | 670355.38 | 4577751.00 | 213 | 682749.88 | 4593423.00 |
| 153 | 670167.25 | 4577516.00 | 214 | 683478.13 | 4596346.00 |
| 154 | 670605.75 | 4579195.00 | 215 | 683239.63 | 4595640.00 |
| 155 | 670549.63 | 4578828.00 | 216 | 682025.75 | 4597046.00 |
| 156 | 670669.25 | 4578285.00 | 217 | 682133.63 | 4597421.00 |
| 157 | 670557.13 | 4577857.00 | 218 | 682238.25 | 4597204.00 |
| 158 | 670676.75 | 4577314.00 | 219 | 682346.13 | 4596624.00 |
| 159 | 670564.63 | 4577119.00 | 220 | 682723.13 | 4597191.00 |
| 160 | 671119.00 | 4578990.00 | 221 | 682625.13 | 4596715.00 |
| 161 | 671130.25 | 4577708.00 | 222 | 683103.38 | 4596978.00 |
| 162 | 670826.25 | 4577396.00 | 223 | 683005.38 | 4596706.00 |
| 163 | 670830.00 | 4577161.00 | 224 | 683214.50 | 4596968.00 |
| 164 | 671371.88 | 4577890.00 | 225 | 683319.13 | 4596864.00 |
| 165 | 671375.63 | 4577271.00 | 226 | 670047.63 | 4576826.00 |
| 166 | 671379.38 | 4577151.00 | 227 | 670184.13 | 4576206.00 |
| 167 | 671383.13 | 4576724.00 | 228 | 670188.38 | 4575850.00 |
| 168 | 670393.63 | 4571847.00 | 229 | 670376.13 | 4576629.00 |

|     |           |            |     |           |            |
|-----|-----------|------------|-----|-----------|------------|
| 230 | 670380.38 | 4576493.00 | 291 | 674720.88 | 4576988.00 |
| 231 | 670316.38 | 4575722.00 | 292 | 674989.63 | 4576368.00 |
| 232 | 670452.88 | 4575453.00 | 293 | 674861.63 | 4575880.00 |
| 233 | 670991.88 | 4576497.00 | 294 | 674865.88 | 4575392.00 |
| 234 | 670863.88 | 4576009.00 | 295 | 674870.25 | 4574904.00 |
| 235 | 671521.00 | 4575836.00 | 296 | 674874.50 | 4574549.00 |
| 236 | 671525.25 | 4575348.00 | 297 | 675200.13 | 4576641.00 |
| 237 | 671674.50 | 4573529.00 | 298 | 675336.63 | 4576504.00 |
| 238 | 671354.50 | 4571650.00 | 299 | 675341.00 | 4576016.00 |
| 239 | 671776.88 | 4575844.00 | 300 | 675345.25 | 4575396.00 |
| 240 | 672004.50 | 4575352.00 | 301 | 675349.50 | 4574909.00 |
| 241 | 672013.00 | 4574377.00 | 302 | 675353.75 | 4574421.00 |
| 242 | 672153.88 | 4573401.00 | 303 | 676012.25 | 4576796.00 |
| 243 | 672158.13 | 4572913.00 | 304 | 676016.50 | 4576176.00 |
| 244 | 671710.13 | 4571427.00 | 305 | 675756.25 | 4575953.00 |
| 245 | 671846.63 | 4571291.00 | 306 | 676025.00 | 4575200.00 |
| 246 | 672338.75 | 4577436.00 | 307 | 675828.75 | 4575045.00 |
| 247 | 672343.00 | 4576729.00 | 308 | 675700.75 | 4574557.00 |
| 248 | 672347.25 | 4576460.00 | 309 | 675705.00 | 4574070.00 |
| 249 | 672351.50 | 4576105.00 | 310 | 676140.25 | 4577151.00 |
| 250 | 672355.75 | 4575485.00 | 311 | 676148.75 | 4576527.00 |
| 251 | 672492.25 | 4575129.00 | 312 | 676504.38 | 4575820.00 |
| 252 | 672496.63 | 4574641.00 | 313 | 676157.25 | 4575332.00 |
| 253 | 672368.63 | 4574021.00 | 314 | 676512.88 | 4574712.00 |
| 254 | 672240.63 | 4573666.00 | 315 | 676851.38 | 4575824.00 |
| 255 | 672377.13 | 4573046.00 | 316 | 676548.75 | 4574717.00 |
| 256 | 672381.38 | 4572690.00 | 317 | 672184.88 | 4579484.00 |
| 257 | 672517.88 | 4572202.00 | 318 | 672666.50 | 4580061.00 |
| 258 | 672261.88 | 4571227.00 | 319 | 672670.63 | 4579591.00 |
| 259 | 672882.00 | 4577860.00 | 320 | 672802.00 | 4579122.00 |
| 260 | 672886.25 | 4577372.00 | 321 | 673271.38 | 4580724.00 |
| 261 | 672690.00 | 4576733.00 | 322 | 673148.25 | 4580509.00 |
| 262 | 672826.50 | 4576597.00 | 323 | 673152.25 | 4580040.00 |
| 263 | 672830.75 | 4576109.00 | 324 | 673029.13 | 4579571.00 |
| 264 | 672835.13 | 4575489.00 | 325 | 673634.00 | 4580827.00 |
| 265 | 672707.13 | 4575133.00 | 326 | 673387.75 | 4580143.00 |
| 266 | 672711.38 | 4574645.00 | 327 | 681436.88 | 4591209.00 |
| 267 | 672847.88 | 4574158.00 | 328 | 682094.50 | 4592208.00 |
| 268 | 672984.38 | 4573538.00 | 329 | 681901.00 | 4591634.00 |
| 269 | 672988.63 | 4573182.00 | 330 | 681904.88 | 4591186.00 |
| 270 | 672992.88 | 4572430.00 | 331 | 682365.25 | 4592625.00 |
| 271 | 672997.13 | 4572074.00 | 332 | 682247.50 | 4592055.00 |
| 272 | 673278.75 | 4577112.00 | 333 | 682129.88 | 4591728.00 |
| 273 | 673634.25 | 4576624.00 | 334 | 682133.75 | 4591280.00 |
| 274 | 673163.50 | 4575644.00 | 335 | 682728.63 | 4592463.00 |
| 275 | 673190.63 | 4574298.00 | 336 | 682611.00 | 4591813.00 |
| 276 | 673194.88 | 4574162.00 | 337 | 670099.63 | 4581166.00 |
| 277 | 673199.13 | 4573674.00 | 338 | 670585.88 | 4579691.00 |
| 278 | 673977.13 | 4577380.00 | 339 | 672368.50 | 4581043.00 |
| 279 | 673716.75 | 4577025.00 | 340 | 671781.00 | 4578966.00 |
| 280 | 673985.63 | 4576272.00 | 341 | 671958.25 | 4576596.00 |
| 281 | 673994.13 | 4575297.00 | 342 | 673857.38 | 4582056.00 |
| 282 | 674456.38 | 4577385.00 | 343 | 673632.38 | 4579787.00 |
| 283 | 674328.38 | 4577029.00 | 344 | 675686.50 | 4581234.00 |
| 284 | 674332.63 | 4576409.00 | 345 | 675387.88 | 4579782.00 |
| 285 | 674469.13 | 4575789.00 | 346 | 674610.50 | 4578809.00 |
| 286 | 674341.13 | 4575433.00 | 347 | 675629.88 | 4573017.00 |
| 287 | 674349.75 | 4574941.00 | 348 | 677442.13 | 4581229.00 |
| 288 | 674354.00 | 4574453.00 | 349 | 677622.25 | 4579298.00 |
| 289 | 674358.25 | 4574098.00 | 350 | 677009.63 | 4578160.00 |
| 290 | 674848.88 | 4577343.00 | 351 | 676685.38 | 4576734.00 |

|     |           |            |     |           |            |
|-----|-----------|------------|-----|-----------|------------|
| 352 | 676731.75 | 4570165.00 | 413 | 687360.50 | 4577258.00 |
| 353 | 677704.75 | 4569191.00 | 414 | 686097.50 | 4576279.00 |
| 354 | 668682.75 | 4577708.00 | 415 | 688613.13 | 4579525.00 |
| 355 | 668571.63 | 4574855.00 | 416 | 688312.88 | 4577584.00 |
| 356 | 669177.75 | 4575496.00 | 417 | 679098.25 | 4571594.00 |
| 357 | 668991.00 | 4575213.00 | 418 | 679113.88 | 4569321.00 |
| 358 | 669006.13 | 4573481.00 | 419 | 678644.63 | 4568017.00 |
| 359 | 668788.88 | 4572011.00 | 420 | 679645.88 | 4571047.00 |
| 360 | 668327.00 | 4570728.00 | 421 | 679176.50 | 4569258.00 |
| 361 | 667552.00 | 4568490.00 | 422 | 681950.75 | 4570515.00 |
| 362 | 669327.75 | 4571949.00 | 423 | 683270.13 | 4572257.00 |
| 363 | 669343.13 | 4570189.00 | 424 | 683770.63 | 4570468.00 |
| 364 | 669358.63 | 4568428.00 | 425 | 683301.38 | 4568680.00 |
| 365 | 671627.13 | 4570127.00 | 426 | 686060.00 | 4571725.00 |
| 366 | 671642.50 | 4569157.00 | 427 | 685105.63 | 4570421.00 |
| 367 | 660529.00 | 4571548.00 | 428 | 668641.88 | 4567643.00 |
| 368 | 660544.63 | 4571048.00 | 429 | 679037.88 | 4587883.00 |
| 369 | 663379.25 | 4574013.00 | 430 | 677778.88 | 4587387.00 |
| 370 | 663394.88 | 4572226.00 | 431 | 677794.38 | 4585618.00 |
| 371 | 662925.88 | 4570438.00 | 432 | 678769.50 | 4582888.00 |
| 372 | 664728.63 | 4579265.00 | 433 | 679760.25 | 4587640.00 |
| 373 | 665228.75 | 4577962.00 | 434 | 680255.50 | 4587145.00 |
| 374 | 665244.38 | 4575206.00 | 435 | 679791.13 | 4585375.00 |
| 375 | 664775.50 | 4574388.00 | 436 | 680766.38 | 4583605.00 |
| 376 | 665327.63 | 4572549.00 | 437 | 682056.25 | 4590127.00 |
| 377 | 664858.75 | 4570277.00 | 438 | 682102.75 | 4584818.00 |
| 378 | 665859.13 | 4579103.00 | 439 | 682118.25 | 4583048.00 |
| 379 | 665874.75 | 4576832.00 | 440 | 683093.38 | 4589570.00 |
| 380 | 667271.00 | 4574951.00 | 441 | 678846.13 | 4595056.00 |
| 381 | 665999.75 | 4574451.00 | 442 | 677611.50 | 4590998.00 |
| 382 | 666015.38 | 4573148.00 | 443 | 678109.63 | 4590500.00 |
| 383 | 666515.50 | 4570392.00 | 444 | 679406.50 | 4596259.00 |
| 384 | 666062.38 | 4569073.00 | 445 | 679904.63 | 4595278.00 |
| 385 | 670957.75 | 4584318.00 | 446 | 680719.13 | 4592700.00 |
| 386 | 671450.75 | 4582079.00 | 447 | 679935.75 | 4591720.00 |
| 387 | 672005.38 | 4585017.00 | 448 | 681730.75 | 4597463.00 |
| 388 | 674799.00 | 4583969.00 | 449 | 681746.25 | 4595201.00 |
| 389 | 676031.63 | 4589721.00 | 450 | 665882.75 | 4591359.00 |
| 390 | 675091.75 | 4588915.00 | 451 | 665899.75 | 4589942.00 |
| 391 | 676226.75 | 4586511.00 | 452 | 665916.75 | 4587998.00 |
| 392 | 676719.75 | 4583795.00 | 453 | 668405.00 | 4591291.00 |
| 393 | 676735.13 | 4582511.00 | 454 | 667894.88 | 4589347.00 |
| 394 | 677451.63 | 4589300.00 | 455 | 667039.00 | 4587403.00 |
| 395 | 677284.25 | 4588016.00 | 456 | 668456.00 | 4585986.00 |
| 396 | 677438.63 | 4586568.00 | 457 | 669872.88 | 4591223.00 |
| 397 | 677454.00 | 4585284.00 | 458 | 669017.00 | 4588752.00 |
| 398 | 677586.25 | 4582567.00 | 459 | 669051.00 | 4586263.00 |
| 399 | 678145.38 | 4580953.00 | 460 | 671554.38 | 4592013.00 |
| 400 | 678646.88 | 4580451.00 | 461 | 671571.75 | 4588965.00 |
| 401 | 678176.75 | 4578659.00 | 462 | 670517.13 | 4588060.00 |
| 402 | 679164.13 | 4576381.00 | 463 | 672194.25 | 4591182.00 |
| 403 | 678693.88 | 4575075.00 | 464 | 672211.50 | 4590284.00 |
| 404 | 679195.50 | 4572797.00 | 465 | 672228.75 | 4588307.00 |
| 405 | 680501.63 | 4581663.00 | 466 | 672246.13 | 4586867.00 |
| 406 | 679728.50 | 4579369.00 | 467 | 672799.25 | 4583818.00 |
| 407 | 680230.13 | 4578382.00 | 468 | 673623.25 | 4591102.00 |
| 408 | 679759.88 | 4577076.00 | 469 | 673923.00 | 4587149.00 |
| 409 | 680261.50 | 4575284.00 | 470 | 673957.50 | 4584619.00 |
| 410 | 681860.13 | 4582081.00 | 471 | 664042.88 | 4585352.00 |
| 411 | 681588.38 | 4576219.00 | 472 | 664060.25 | 4584796.00 |
| 412 | 687345.00 | 4579514.00 | 473 | 663539.00 | 4582810.00 |

|     |           |            |     |           |            |
|-----|-----------|------------|-----|-----------|------------|
| 474 | 664633.50 | 4580285.00 | 526 | 691682.75 | 4571561.00 |
| 475 | 665560.13 | 4586696.00 | 527 | 691700.13 | 4568513.00 |
| 476 | 665577.50 | 4584709.00 | 528 | 693140.38 | 4580785.00 |
| 477 | 666133.38 | 4582185.00 | 529 | 693693.50 | 4578809.00 |
| 478 | 665612.25 | 4580737.00 | 530 | 693175.00 | 4577368.00 |
| 479 | 668189.38 | 4584066.00 | 531 | 693728.00 | 4574857.00 |
| 480 | 668206.75 | 4582080.00 | 532 | 692380.00 | 4573710.00 |
| 481 | 667604.50 | 4579822.00 | 533 | 693820.38 | 4570846.00 |
| 482 | 668513.63 | 4578374.00 | 534 | 692414.63 | 4568335.00 |
| 483 | 670517.38 | 4584246.00 | 535 | 694315.63 | 4577651.00 |
| 484 | 683400.38 | 4594283.00 | 536 | 694799.00 | 4581728.00 |
| 485 | 684908.13 | 4594710.00 | 537 | 695261.75 | 4574985.00 |
| 486 | 684925.13 | 4592758.00 | 538 | 696345.13 | 4581575.00 |
| 487 | 686944.75 | 4594607.00 | 539 | 696886.75 | 4580165.00 |
| 488 | 686961.75 | 4592656.00 | 540 | 696903.75 | 4577704.00 |
| 489 | 686631.88 | 4591052.00 | 541 | 696395.88 | 4575769.00 |
| 490 | 682782.25 | 4587912.00 | 542 | 696937.50 | 4573833.00 |
| 491 | 682551.25 | 4585175.00 | 543 | 698348.25 | 4581491.00 |
| 492 | 685028.38 | 4588454.00 | 544 | 697756.38 | 4577620.00 |
| 493 | 684520.50 | 4587043.00 | 545 | 697237.00 | 4575684.00 |
| 494 | 684537.38 | 4585632.00 | 546 | 698801.25 | 4573207.00 |
| 495 | 685079.13 | 4582648.00 | 547 | 688542.38 | 4594212.00 |
| 496 | 687014.50 | 4588911.00 | 548 | 688086.88 | 4592477.00 |
| 497 | 687031.38 | 4586451.00 | 549 | 688572.63 | 4590741.00 |
| 498 | 686523.63 | 4585040.00 | 550 | 688117.25 | 4589005.00 |
| 499 | 686540.50 | 4583105.00 | 551 | 688680.13 | 4587868.00 |
| 500 | 684081.88 | 4581070.00 | 552 | 688160.25 | 4586424.00 |
| 501 | 684098.38 | 4579686.00 | 553 | 689251.88 | 4583906.00 |
| 502 | 685161.38 | 4581020.00 | 554 | 690713.00 | 4587798.00 |
| 503 | 684663.13 | 4579121.00 | 555 | 690730.38 | 4585817.00 |
| 504 | 686047.13 | 4577222.00 | 556 | 690210.50 | 4584373.00 |
| 505 | 686578.63 | 4580970.00 | 557 | 693265.75 | 4589173.00 |
| 506 | 682340.63 | 4575840.00 | 558 | 692746.00 | 4587729.00 |
| 507 | 682357.75 | 4574595.00 | 559 | 692763.25 | 4585748.00 |
| 508 | 684890.63 | 4575959.00 | 560 | 692243.50 | 4584304.00 |
| 509 | 684907.88 | 4573994.00 | 561 | 694224.50 | 4588800.00 |
| 510 | 685509.50 | 4575340.00 | 562 | 694778.88 | 4587660.00 |
| 511 | 685526.75 | 4573908.00 | 563 | 695333.38 | 4585679.00 |
| 512 | 686627.25 | 4570859.00 | 564 | 693924.13 | 4583161.00 |
| 513 | 688077.00 | 4574721.00 | 565 | 695922.38 | 4587053.00 |
| 514 | 687085.50 | 4572349.00 | 566 | 697626.25 | 4585349.00 |
| 515 | 687102.75 | 4571799.00 | 567 | 697395.38 | 4583080.00 |
| 516 | 688980.88 | 4580140.00 | 568 | 699180.00 | 4583796.00 |
| 517 | 689551.13 | 4577610.00 | 569 | 699576.63 | 4578483.00 |
| 518 | 689568.50 | 4575098.00 | 570 | 700017.13 | 4576482.00 |
| 519 | 689049.88 | 4573658.00 | 571 | 699604.13 | 4574908.00 |
| 520 | 689067.25 | 4571146.00 | 572 | 700044.75 | 4572907.00 |
| 521 | 691596.38 | 4580906.00 | 573 | 701233.25 | 4576399.00 |
| 522 | 691077.88 | 4578930.00 | 574 | 701687.75 | 4575252.00 |
| 523 | 690559.38 | 4577489.00 | 575 | 701274.75 | 4574091.00 |
| 524 | 691112.50 | 4574977.00 | 576 | 702917.50 | 4574008.00 |
| 525 | 691129.75 | 4573537.00 |     |           |            |

Building worksheet

Final Draft  
1/3/84

BUILDING INVENTORY WORKSHEET

For Pilot Study

1. Building Identifiers:

1.1 State \_\_\_\_\_ County \_\_\_\_\_ Tract/MCD \_\_\_\_\_

Land use class \_\_\_\_\_

Photo ID \_\_\_\_\_

Street address \_\_\_\_\_

1.2 UTM Coord. \_\_\_\_\_  
N km E km

Geog Coord. \_\_\_\_\_ lat N long W

USGS quad, date \_\_\_\_\_

2. Building Description:

2.1 Type of Structure (Check One)

Residential Building

Housing Unit

1 Unit Detached \_\_\_\_\_

1 Unit Attached \_\_\_\_\_

2 Units \_\_\_\_\_

3 and 4 Units \_\_\_\_\_

5 to 9 Units \_\_\_\_\_

10 to 19 Units \_\_\_\_\_

20 to 49 Units \_\_\_\_\_

50 or More Units \_\_\_\_\_

Nonhousekeeping (i.e., hotels,  
motels, dormitories, fraternity  
and sorority houses, nurses homes,  
and similar facilities) \_\_\_\_\_

Nonresidential Building

|                           |       |
|---------------------------|-------|
| Office Building           | _____ |
| Other Commercial          | _____ |
| Industrial                | _____ |
| Hospital or Institutional | _____ |
| Religious                 | _____ |
| Educational               | _____ |
| Other Nonresidential      | _____ |

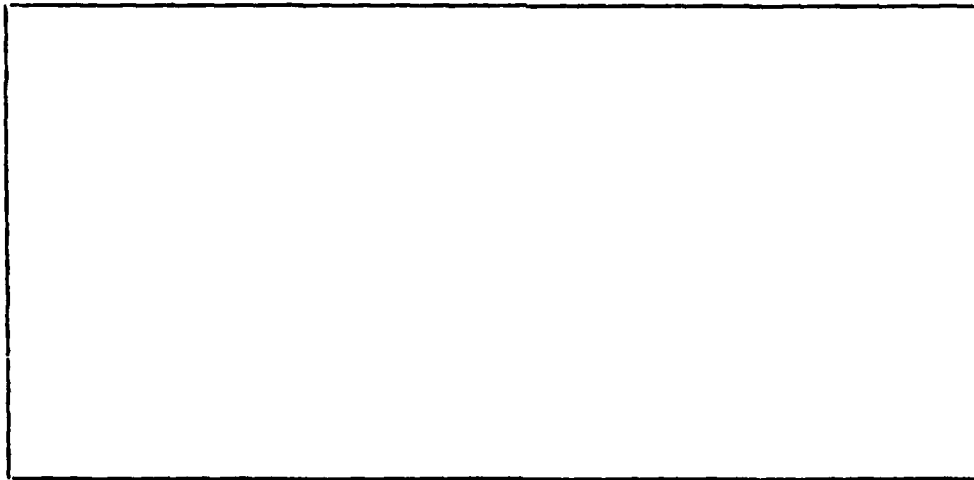
Farm (nonresidential) \_\_\_\_\_

Other (Identify structure \_\_\_\_\_) \_\_\_\_\_

Cannot Identify \_\_\_\_\_

2.2 Gross Lot Dimensions, including extension to center  
of street (f). \_\_\_\_\_

2.3 Sketch Building Exterior Plan, indicating (1) dimensions of building  
exterior (f) and (2) the location of horizontal guttering runs  
with dashed lines.



2.4 Number of Stories, excluding foundation \_\_\_\_\_

2.5 Average Wall Height (f) \_\_\_\_\_  
(from grade to roof)

2.6 Approximate Age of Structure (yrs) \_\_\_\_\_

### 3. Materials Inventory:

#### 3.1 Walls

(Indicate type of wall by entering the percentages of exterior wall surface area beside each type. Include areas of glazing and doorway under their proper material types.)

| 3.1.1 Painted Walls<br>(Indicate percentages for each substrate material.) | Percent (%) of Wall Area of<br>Each Horizontal Section |              |                          | Percent (%) of<br>Total Wall Area |
|----------------------------------------------------------------------------|--------------------------------------------------------|--------------|--------------------------|-----------------------------------|
|                                                                            | Founda-<br>tion                                        | 1st<br>Story | All Stories<br>Above 1st |                                   |
| 3.1.1.1 Wood (excl. stained)                                               | _____                                                  | _____        | _____                    | _____                             |
| 3.1.1.2 Steel                                                              | _____                                                  | _____        | _____                    | _____                             |
| 3.1.1.3 Aluminum                                                           | _____                                                  | _____        | _____                    | _____                             |
| 3.1.1.4 Masonry                                                            | _____                                                  | _____        | _____                    | _____                             |
| 3.1.1.5 Concrete                                                           | _____                                                  | _____        | _____                    | _____                             |
| 3.1.1.6 Stucco                                                             | _____                                                  | _____        | _____                    | _____                             |
| 3.1.1.7 Other (Identify<br>Material _____)                                 | _____                                                  | _____        | _____                    | _____                             |
| 3.1.1.8 Cannot Identify                                                    | _____                                                  | _____        | _____                    | _____                             |
| TOTAL                                                                      | 100                                                    | 100          | 100                      | 100                               |

| 3.1.2 Bare Walls<br>(Indicate percentages for each surface material.)           | Percent (%) of Wall Area of<br>Each Horizontal Section |              |                          | Percent (%) of<br>Total Wall Area |
|---------------------------------------------------------------------------------|--------------------------------------------------------|--------------|--------------------------|-----------------------------------|
|                                                                                 | Founda-<br>tion                                        | 1st<br>Story | All Stories<br>Above 1st |                                   |
| 3.1.2.1 Masonry (Check<br>Brick _____,<br>Block _____, or<br>Field Stone _____) | _____                                                  | _____        | _____                    | _____                             |
| 3.1.2.2 Concrete                                                                | _____                                                  | _____        | _____                    | _____                             |
| 3.1.2.3 Marble                                                                  | _____                                                  | _____        | _____                    | _____                             |
| 3.1.2.4 Limestone                                                               | _____                                                  | _____        | _____                    | _____                             |
| 3.1.2.5 Granite                                                                 | _____                                                  | _____        | _____                    | _____                             |
| 3.1.2.6 Galvanized Steel                                                        | _____                                                  | _____        | _____                    | _____                             |
| 3.1.2.7 Wood (incl. stained)                                                    | _____                                                  | _____        | _____                    | _____                             |
| 3.1.2.8 Glass                                                                   | _____                                                  | _____        | _____                    | _____                             |
| 3.1.2.9 Vinyl                                                                   | _____                                                  | _____        | _____                    | _____                             |
| 3.1.2.10 Other (Identify<br>Material _____)                                     | _____                                                  | _____        | _____                    | _____                             |
| 3.1.2.11 Cannot Identify                                                        | _____                                                  | _____        | _____                    | _____                             |
| TOTAL                                                                           | 100                                                    | 100          | 100                      | 100                               |

#### 3.2 Roofs

3.2.1 Configuration: Check whether  
Sloped \_\_\_\_\_ or Flat \_\_\_\_\_

3.2.2 Area of Exposed Surface (f<sup>2</sup>) \_\_\_\_\_

3.2.3 Exposed Roof Material  
(Check Predominant Material)

- 3.2.3.1 Asphalt Shingle \_\_\_\_\_
- 3.2.3.2 Wood \_\_\_\_\_
- 3.2.3.3 Painted Metal \_\_\_\_\_
- 3.2.3.4 Bare Galvanized \_\_\_\_\_
- 3.2.3.5 Tile \_\_\_\_\_
- 3.2.3.6 Slate \_\_\_\_\_
- 3.2.3.7 Copper \_\_\_\_\_
- 3.2.3.8 Other (Identify Material \_\_\_\_\_)
- 3.2.3.9 Cannot Identify \_\_\_\_\_

3.2.4 Roof-Mounted Apparatus

Material  
 [Enter material: painted, bare  
 galvanized, bare aluminum, other  
 (identify material), or cannot  
 identify. For skylights, enter  
 framing material only.]

Number  
 of  
Items

- 3.2.4.1 Vents, Flues, Stacks \_\_\_\_\_
- 3.2.4.2 Skylights \_\_\_\_\_
- 3.2.4.3 Flashing \_\_\_\_\_

N.A.

3.3 Chimneys

3.3.1 Exposed Surface Area Above Roof ( $f^2$ ) \_\_\_\_\_

3.3.2 Enter Material: Painted, Brick, Stone, Other (Identify Material),  
 or Cannot Identify. \_\_\_\_\_

3.4 Rain Gutters

3.4.1 Check if No Gutters \_\_\_\_\_

3.4.2 Horizontal Runs

Enter Material: Bare Galvanized, Vinyl, Painted, Copper,  
 Other (Identify Material), or Cannot Identify \_\_\_\_\_

3.4.3 Downspouts  
 (Enter sum of heights for all downspouts.)

Downspouts  
 (f)

- 3.4.3.1 Bare Galvanized \_\_\_\_\_
- 3.4.3.2 Vinyl \_\_\_\_\_
- 3.4.3.3 Painted \_\_\_\_\_
- 3.4.3.4 Copper \_\_\_\_\_
- 3.4.3.5 Other (Identify Material \_\_\_\_\_)
- 3.4.3.6 Cannot Identify \_\_\_\_\_

3.5 Fences

(Enter length and height.)

Length (f)

Height (f)

- 3.5.1 Bare Galvanized Chain Link \_\_\_\_\_
- 3.5.2 Bare Galvanized Wire Mesh \_\_\_\_\_

|                                                                             | Length (f) | Height (f) |
|-----------------------------------------------------------------------------|------------|------------|
| 3.5.3 Painted<br>(Enter percent of area that is<br>solid _____ %.)          | _____      | _____      |
| 3.5.4 Masonry (Check Brick _____,<br>Block _____, or<br>Field Stone _____.) | _____      | _____      |
| 3.5.5 Unpainted Wood                                                        | _____      | _____      |
| 3.5.6 Other (Identify Material<br>_____)                                    | _____      | _____      |
| 3.5.7 Cannot Identify                                                       | _____      | _____      |

3.6 Outdoor Accessories. Describe all other accessories (e.g., sheds, storage tanks, handrails, poles, mailboxes, benches, signs, ornamental building features) of the following materials: painted, bare galvanized, bare aluminum, bare steel, copper, concrete, ornamental metal.

| Accessory | Material | Exposed Surface Area (f <sup>2</sup> ) |
|-----------|----------|----------------------------------------|
| _____     | _____    | _____                                  |
| _____     | _____    | _____                                  |
| _____     | _____    | _____                                  |
| _____     | _____    | _____                                  |

#### Procedures used to check the data

The data were checked several ways to ensure that the data base was correct.

A major check of the material type percentages and the Exposed Wall in Footprint (EWIF) value in comparison to the lot size and building dimensions was done before printing a frequency run of the entire data set.

We checked the percentage to ensure that the sum of all material types for the three stories of the building totaled 100%. Also, during the same computer run, we checked to see that every building had a foundation. (In some cases, the field team had not recorded a foundation. For these cases, the photograph of the building was examined to determine the material type of the foundation.) We assumed 12 ft for the first story component of the building. During the same computer run, we would print out cases where the building height was greater than 14 ft (assuming 2 ft for the foundation

and 12 ft for the first story) and there were no percentages recorded for the second and above stories.

The EWIF value was compared against the lot size and the building side dimensions. A printout of these values was obtained for every building. We assumed that the building sides were the square root of the exposed roof area (ESAREA value) and would check to make sure that the EWIF was not larger than the building sides. There was also a check to ensure that the building was not larger than the lot size dimensions.

Several hand calculations were done for the building surface wall areas and compared against the computer-calculated wall surface areas. These values had to be consistent for different types of materials for a given building.

The frequency runs were checked several times for every variable. The empty footprints were noted for each sampling frame and verified against the number of buildings expected for each sampling frame. The tally of land use and census tract numbers also had to be correct for each sampling frame. The number of roof areas had to equal the number of buildings.

The number of cases had to be the same for a given accessory. For example, the number of material types and the surface area values had to be the same for the variables of roofs, fences, downspouts, rain gutters and roof-mounted apparatus. Although not every building had all these components, if the value was recorded, then each material type had to have a corresponding surface area.

Strange or unexpected numbers for all the variables were always double-checked against the building worksheets. For example, the EWIF values were always fairly even or divisible by 5 (as most people estimated building height in terms of 5-ft intervals). Any unusual numbers or large numbers were double-checked, not only for the EWIF, but for the other variables as well.

# APPENDIX C. RESULTS OF FREQUENCY RUNS

## Description of variables

| <u>Variable name</u> | <u>Brief description</u> | <u>Detailed description</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FOOT                 | Footprint size           | Footprint size (ft) associated with sampling point. For New Haven the footprint sizes were: UCBD = 139 ft, ULIC = 144 ft, UMFR = 90 ft, USFR = 87 ft and NSUB = 364 ft.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| LU                   | Land use designation     | U.S. Geological Survey land use classification, where:<br><br>11 = residential, 12 = commercial and services, 13 = industrial, 14 = transportation, communications and utilities, 15 = industrial and commercial complexes, 16 = mixed urban or builtup land, 17 = other urban and or builtup land, 21 = cropland and pasture, 22 = orchard, groves, vineyards, nurseries, and ornamental agricultural areas, 23 = confined feeding operations, 24 = other agricultural land, 31 = herbaceous rangeland, 32 = shrub and brush rangeland, 33 = mixed rangeland, 41 = deciduous forestland, 42 = evergreen forestland, 43 = mixed forestland, 51 = streams and canals, 52 = lakes, 53 = reservoirs, 54 = bays and estuaries, 61 = forested wetland, 62 = nonforested wetland, 71 = dry salt flats, 72 = beaches, 73 = sandy areas other than beaches, 74 = bare exposed rock, 75 = strip mines, quarries, and gravel pits, 76 = transitional areas, 77 = mixed barren land.                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| SFRAME               | Sampling frame           | Sampling frame, where:<br><br>1 = UCBD<br>2 = ULIC<br>3 = UMFR<br>4 = USFR<br>5 = NSUB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| SPOINT               | Sample point number      | Sampling point number within sampling frame.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| TRACT                | Census tract             | Census tract number, see Figure 2, where:<br><br>1 = 1401      2 = 1402      3 = 1408      4 = 1413      5 = 1417<br>6 = 1543      7 = 1754      8 = 1403      9 = 1404      10 = 1406<br>11 = 1405      12 = 1407      13 = 1409      14 = 1410      15 = 1415<br>16 = 1418      17 = 1419      18 = 1420      19 = 1421      20 = 1422<br>21 = 1423      22 = 1424      23 = 1425      24 = 1545      25 = 1751<br>26 = 1752      27 = 1656      28 = 1801      29 = 1601      30 = 1412<br>31 = 1410      32 = 1411      33 = 1541      34 = 1574      35 = 1573<br>36 = 1572      37 = 1571      38 = 1544      39 = 1542      40 = 1546<br>41 = 1547      42 = 1548      43 = 1549      44 = 1550      45 = 1551<br>46 = 1861      47 = 1806      48 = 1805      49 = 1426      50 = 1427<br>51 = 1428      52 = 1802      53 = 1803      54 = 1804      55 = 1841<br>56 = 1842      57 = 1843      58 = 1844      59 = 1845      60 = 1673<br>61 = 1651      62 = 1652      63 = 1653      64 = 1654      65 = 1655<br>66 = 1414      67 = 1657      68 = 1658      69 = 1660      70 = 1671<br>71 = 1672      72 = 1757      73 = 1756      74 = 1755      75 = 1753<br>76 = 1759      77 = 1901      78 = 1941      79 = 1602      80 = 1611<br>81 = 1659      82 = 1758      83 = 1760      84 = 1862      85 = 1847<br>86 = 1846      87 = 1902      88 = 1903      89 = 1942      90 = 1416<br>91 = 1627 |

|         |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ABR     | Area of built residential           | Land area of census tract in built residential (millions of $\text{ft}^2$ ).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ABNR    | Area of built nonresidential        | Land area of census tract in built nonresidential (millions of $\text{ft}^2$ ).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| AOB     | Area of open land with buildings    | Land area of census tract in open land with buildings (millions of $\text{ft}^2$ ).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| AO      | Area of open land without buildings | Land area of census tract in open land without buildings (millions of $\text{ft}^2$ ).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| ALAND   | Area of land coverage               | Total land area of census tract (million of $\text{ft}^2$ ).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| DU      | Total dwelling units in tract       | Total number of housing units in census tract.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| POP     | Tract population                    | Total population in census tract.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| U1      | One unit structures in tract        | Number of dwelling units in one-unit structures in census tract.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| AGE     | Approx. age of structure            | Approximate age of the building. 1900 is the base year (year 0). To obtain age, add the value of 1900. Ages less than 1900 are coded as negative values.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| EWIF    | Exposed wall in footprint           | Exposed walls within a given footprint (ft).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| HT      | Average wall height                 | Average building height (ft).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| LOT     | Lot size                            | Lot size associated with sampling point (ft). The square root of the lot area associated with the building was recorded.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| TYPE    | Structure type-usage                | Value label assigned to structure, where:<br><br>0 = No building, 1 = 1 detached housing unit, 2 = 1 attached housing unit, 3 = 2 housing units, 4 = 3 to 4 housing units, 5 = 5 to 9 housing units, 6 = 10 to 19 housing units, 7 = 20 to 49 housing units, 8 = 50 or more housing units, 9 = nonhousekeeping (i.e., hotels, motels, dormitories, fraternity and sorority houses, nursing homes and similar facilities), 10 = office buildings, 11 = other commercial buildings, 12 = industrial buildings, 13 = hospital or institutional buildings, 14 = religious building, 15 = educational building, 16 = other nonresidential buildings, 17 = farm (nonresidential), 18 = other buildings, 19 = cannot identify building. |
| AGALV   | Area of galvanized surface          | The total surface area of a building ( $\text{ft}^2$ ) containing galvanized material.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| AMORT   | Area of mortar-masonry surfaces     | The total surface area of a building ( $\text{ft}^2$ ) containing mortar and masonry materials.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| APAI NT | Area of painted surfaces            | The total surface area of a building ( $\text{ft}^2$ ) containing painted materials.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| ASTONE  | Area of stone surfaces              | The total surface area of a building ( $\text{ft}^2$ ) containing stone materials.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

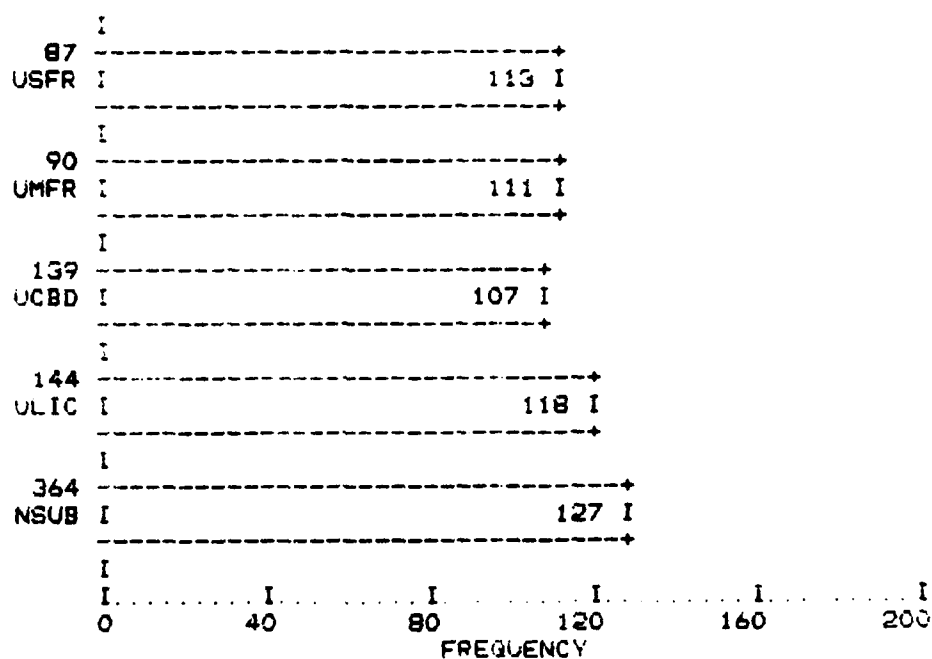
|        |                                |                                                                                                                                                                                                                                                 |
|--------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AOTHER | Area of other materials        | The total surface area of a building (ft <sup>2</sup> ) containing all other materials.                                                                                                                                                         |
| CHIM   | Indicator:<br>chimneys         | Chimneys observed (1) or not observed (0).                                                                                                                                                                                                      |
| CMAT   | Chimney material               | Chimney material, where:<br><br>1 = painted, 2 = brick, 3 = stone, 4 = other chimney material, 9 = cannot identify chimney material.                                                                                                            |
| CAREA  | Exposed chimney area           | Exposed surface area of chimney above roof (ft <sup>2</sup> ).                                                                                                                                                                                  |
| SLOPE  | Indicator:<br>roof slope       | Roof configuration: 0 = sloped, 1 = flat.                                                                                                                                                                                                       |
| ERMAT  | Roof material type             | Exposed roof material, where:<br><br>0 = tar, 1 = asphalt shingle, 2 = wood, 3 = painted metal, 4 = bare galvanized, 5 = tile, 6 = slate, 7 = copper, 8 = other roof material, 9 = cannot identify roof material.                               |
| ESAREA | Area of exposed roof           | Exposed roof area of footprint (ft).                                                                                                                                                                                                            |
| APP    | Indicator:<br>roof apparatus   | Roof mounted apparatus, where:<br><br>0 = none, 1 = vents, flues, stacks, 2 = skylights, 3 = flashing.                                                                                                                                          |
| RMAT   | Roof apparatus material        | Material type of the roof-mounted apparatus, where:<br><br>1 = painted, 2 = bare galvanized, 3 = bare aluminum, 4 = other roof-mounted apparatus material, 9 = cannot identify roof-mounted apparatus material.                                 |
| ITEMS  | Number of roof apparatus items | Number of items of roof-mounted apparatus (not applicable for flashing).                                                                                                                                                                        |
| RGUT   | Indicator:<br>roof gutters     | Rain gutters observed (1) or not observed (0).                                                                                                                                                                                                  |
| RGMAT  | Rain gutter material           | Rain gutter material type, where:<br><br>1 = bare galvanized, 2 = vinyl, 3 = painted, 4 = copper, 5 = other rain gutter material, 9 = cannot identify rain gutter material.                                                                     |
| DSPOUT | Material of downspout          | Material type of downspouts, where:<br><br>0 = no downspout observed, 1 = bare galvanized, 2 = vinyl, 3 = painted, 4 = copper, 5 = other downspout material, 9 = cannot identify downspout material.                                            |
| DSLENG | Downspout length               | Length of downspout (ft).                                                                                                                                                                                                                       |
| FENCE  | Fence type                     | Material type of fences, where:<br><br>0 = no fences observed, 1 = bare galvanized chain link, 2 = bare galvanized wire mesh, 3 = painted fence, 4 = masonry, 5 = unpainted wood, 6 = other fence material, 9 = cannot identify fence material. |

|         |                            |                                                                                                                                                                                                                       |
|---------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FLENG   | Fence length               | Length of fence (ft).                                                                                                                                                                                                 |
| FHT     | Fence height               | Height of fence (ft).                                                                                                                                                                                                 |
| ACCESS1 | First access.<br>type      | First outdoor accessory, where:<br><br>1 = sheds, 2 = storage tanks, 3 = handrails, 4 = poles, 5 =<br>mailboxes, 6 = benches, 7 = signs, 8 = ornamental building<br>features, 9 = other outdoor accessory material.   |
| AMAT1   | First access.<br>material  | First outdoor accessory material type, where:<br><br>1 = painted, 2 = bare galvanized, 3 = bare aluminum, 4 = bare<br>steel, 5 = copper, 6 = concrete, 7 = ornamental metal, 9 =<br>other outdoor accessory material. |
| AAREA1  | First access.<br>area      | Exposed surface area of first outdoor accessory (ft <sup>2</sup> ).                                                                                                                                                   |
| ACCESS2 | Second access.<br>area     | Second outdoor accessory, see above list.                                                                                                                                                                             |
| AMAT2   | Second access.<br>type     | Second outdoor accessory material type, see above list.                                                                                                                                                               |
| AAREA2  | Second access.<br>area     | Exposed surface area of outdoor accessory (ft <sup>2</sup> ).                                                                                                                                                         |
| ACCESS3 | Third access.<br>type      | Third outdoor accessory, see above list.                                                                                                                                                                              |
| AMAT3   | Third access.<br>material  | Third outdoor accessory material type, see above list.                                                                                                                                                                |
| AAREA3  | Third access.<br>area      | Exposed surface area of outdoor accessory (ft <sup>2</sup> ).                                                                                                                                                         |
| ACCESS4 | Fourth access.<br>type     | Fourth outdoor accessory, see above list.                                                                                                                                                                             |
| AMAT4   | Fourth access.<br>material | Fourth outdoor accessory material type, see above list.                                                                                                                                                               |
| AAREA4  | Fourth access.<br>area     | Exposed surface area of outdoor accessory (ft <sup>2</sup> ).                                                                                                                                                         |
| ACCESS5 | Fifth access.<br>type      | Fifth outdoor accessory, see above list.                                                                                                                                                                              |
| AMAT5   | Fifth access.<br>material  | Fifth outdoor accessory material type, see above list.                                                                                                                                                                |
| AAREA5  | Fifth access.<br>area      | Exposed surface area of outdoor accessory (ft <sup>2</sup> ).                                                                                                                                                         |

# Major classification variables

FOOT FOOTPRINT SIZE

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID PERCENT | CUM PERCENT |
|-------------|-------|-----------|---------|---------------|-------------|
| USFR        | 87    | 113       | 19.6    | 19.6          | 19.6        |
| UMFR        | 90    | 111       | 19.3    | 19.3          | 38.9        |
| UCBD        | 139   | 107       | 18.6    | 18.6          | 57.5        |
| ULIC        | 144   | 118       | 20.5    | 20.5          | 78.0        |
| NSUB        | 364   | 127       | 22.0    | 22.0          | 100.0       |
|             | TOTAL | 576       | 100.0   | 100.0         |             |



|          |         |          |           |          |           |
|----------|---------|----------|-----------|----------|-----------|
| MEAN     | 169.990 | STD ERR  | 4.413     | MEDIAN   | 139.000   |
| MODE     | 364.000 | STD DEV  | 105.922   | VARIANCE | 11219.520 |
| KURTOSIS | -.363   | S E KURT | 1.997     | SKEWNESS | 1.176     |
| S E SKEW | .102    | RANGE    | 277.000   | MINIMUM  | 87.000    |
| MAXIMUM  | 364.000 | SUM      | 97914.000 |          |           |

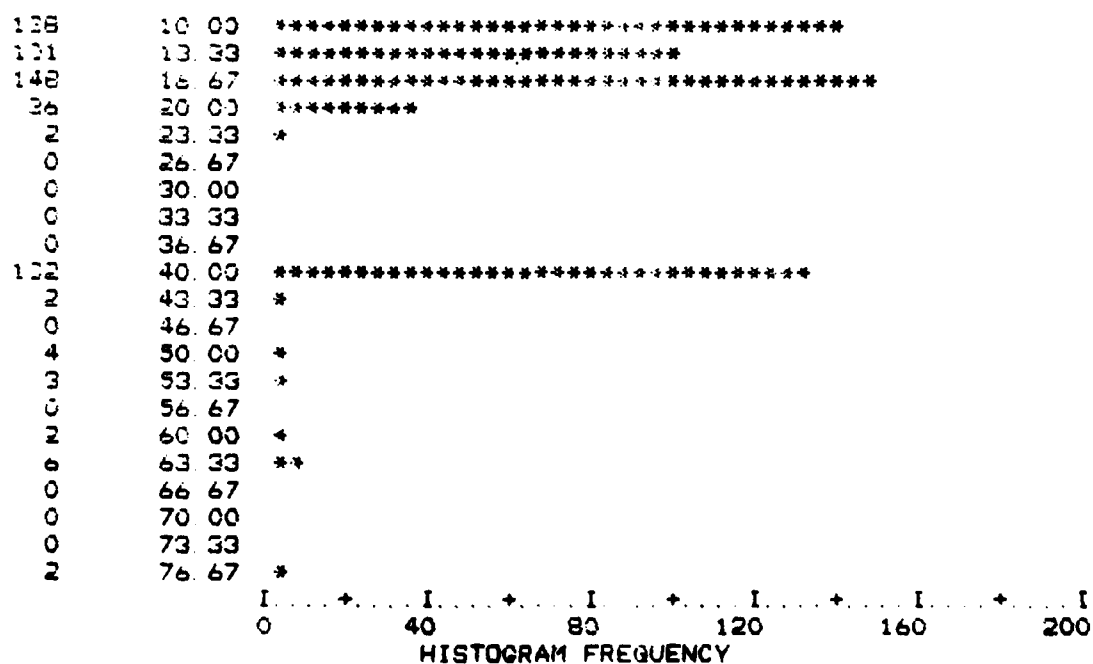
| PERCENTILE | VALUE   | PERCENTILE | VALUE   | PERCENTILE | VALUE   |
|------------|---------|------------|---------|------------|---------|
| 10.00      | 87.000  | 25.00      | 90.000  | 33.30      | 90.000  |
| 50.00      | 139.000 | 66.70      | 144.000 | 75.00      | 144.000 |
| 90.00      | 364.000 |            |         |            |         |

VALID CASES 576 MISSING CASES 0

LAND USE DESIGNATION

| VALUE LABEL         | VALUE | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|---------------------|-------|-----------|---------|------------------|----------------|
| RESIDENTIAL         | 11    | 138       | 24.0    | 24.0             | 24.0           |
| COMMERCIAL SERVICES | 12    | 33        | 5.7     | 5.7              | 29.7           |
| INDUSTRIAL          | 13    | 36        | 6.3     | 6.3              | 35.9           |
| TRANSPORTATION      | 14    | 32        | 5.6     | 5.6              | 41.5           |
| MIXED URBAN         | 16    | 129       | 22.4    | 22.4             | 63.9           |
| OTHER URBAN         | 17    | 19        | 3.3     | 3.3              | 67.2           |
| CROPLAND            | 21    | 36        | 6.3     | 6.3              | 73.4           |
| ORCHARD             | 22    | 2         | .3      | .3               | 73.8           |
| DECIDUOUS FOREST    | 41    | 132       | 22.9    | 22.9             | 96.7           |
| MIXED FOREST        | 43    | 2         | .3      | .3               | 97.0           |
| STREAMS AND CANALS  | 51    | 4         | .7      | .7               | 97.7           |
| LAKES               | 52    | 1         | .2      | .2               | 97.9           |
| RESERVOIRS          | 53    | 2         | .3      | .3               | 98.3           |
| FOREST WETLAND      | 61    | 2         | .3      | .3               | 98.6           |
| NON FOREST WETLAND  | 62    | 6         | 1.0     | 1.0              | 99.7           |
| TRANSITIONAL AREAS  | 76    | 2         | .3      | .3               | 100.0          |
| TOTAL               |       | 576       | 100.0   | 100.0            |                |

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 4.00 OCCURRENCES



LU

LAND USE DESIGNATION

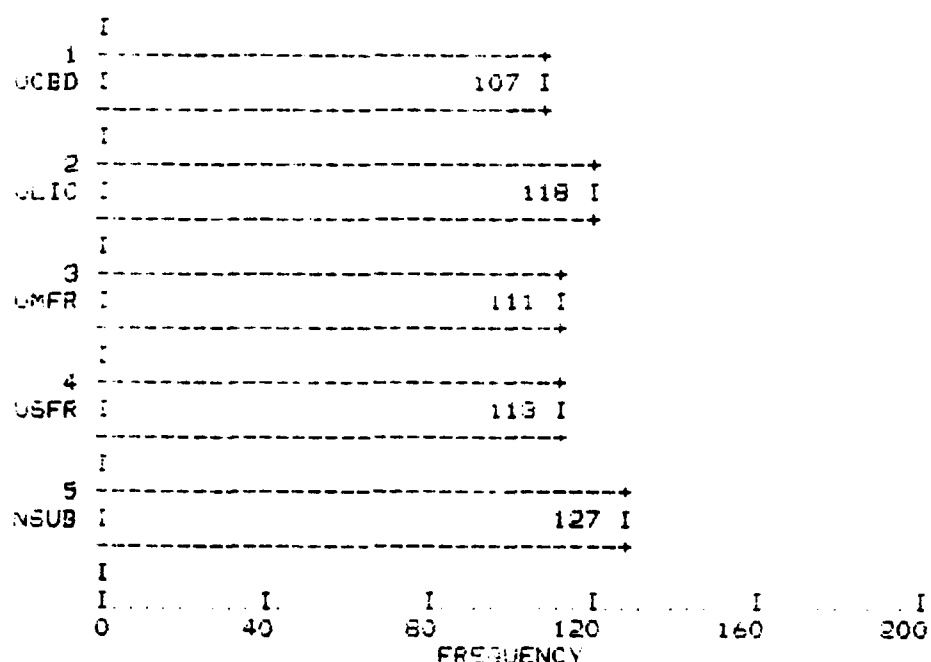
|          |        |          |           |          |         |
|----------|--------|----------|-----------|----------|---------|
| MEAN     | 21.741 | STD ERR  | .558      | MEDIAN   | 16.000  |
| MODE     | 11.000 | STD DEV  | 13.402    | VARIANCE | 179.604 |
| KURTOSIS | .509   | S E KURT | 1.997     | SKEWNESS | 1.244   |
| S E SKEW | .102   | RANGE    | 65.000    | MINIMUM  | 11.000  |
| MAXIMUM  | 76.000 | SUM      | 12523.000 |          |         |

| PERCENTILE | VALUE  | PERCENTILE | VALUE  | PERCENTILE | VALUE  |
|------------|--------|------------|--------|------------|--------|
| 10.00      | 11.000 | 25.00      | 12.000 | 33.30      | 13.000 |
| 50.00      | 16.000 | 66.70      | 17.000 | 75.00      | 41.000 |
| 90.00      | 41.000 |            |        |            |        |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 576 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

SFRAME SAMPLING FRAME

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID PERCENT | CUM PERCENT |
|-------------|-------|-----------|---------|---------------|-------------|
| UCBD        | 1     | 107       | 18.6    | 18.6          | 18.6        |
| ULIC        | 2     | 118       | 20.5    | 20.5          | 39.1        |
| UMFR        | 3     | 111       | 19.3    | 19.3          | 58.3        |
| USFR        | 4     | 113       | 19.6    | 19.6          | 78.0        |
| NSUB        | 5     | 127       | 22.0    | 22.0          | 100.0       |
| TOTAL       |       | 576       | 100.0   | 100.0         |             |



|           |        |           |          |          |       |
|-----------|--------|-----------|----------|----------|-------|
| MEAN      | 3.061  | STD ERR   | .059     | MEDIAN   | 3.000 |
| MODE      | 3.000  | STD DEV   | 1.423    | VARIANCE | 2.026 |
| KURTOSIS  | -1.319 | S.E. KURT | 1.997    | SKEWNESS | -.035 |
| S.E. SKEW | .102   | RANGE     | 4.000    | MINIMUM  | 1.000 |
| MAXIMUM   | 5.000  | SUM       | 1763.000 |          |       |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 1.000 | 25.00      | 2.000 | 33.30      | 2.000 |
| 50.00      | 3.000 | 66.70      | 4.000 | 75.00      | 4.000 |
| 90.00      | 5.000 |            |       |            |       |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 576 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

SPOINT SAMPLE POINT NUMBER

| VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT |
|-------|------|-----|------------|-------|------|-----|------------|-------|------|-----|------------|
| 1     | 5    | 1   | 1          | 44    | 5    | 1   | 38         | 87    | 5    | 1   | 76         |
| 2     | 5    | 1   | 2          | 45    | 5    | 1   | 39         | 88    | 5    | 1   | 76         |
| 3     | 5    | 1   | 3          | 46    | 5    | 1   | 40         | 89    | 5    | 1   | 77         |
| 4     | 5    | 1   | 3          | 47    | 5    | 1   | 41         | 90    | 5    | 1   | 76         |
| 5     | 5    | 1   | 4          | 48    | 5    | 1   | 42         | 91    | 5    | 1   | 79         |
| 6     | 5    | 1   | 5          | 49    | 5    | 1   | 43         | 92    | 5    | 1   | 80         |
| 7     | 5    | 1   | 6          | 50    | 5    | 1   | 44         | 93    | 5    | 1   | 81         |
| 8     | 5    | 1   | 7          | 51    | 5    | 1   | 44         | 94    | 5    | 1   | 82         |
| 9     | 5    | 1   | 8          | 52    | 5    | 1   | 45         | 95    | 5    | 1   | 82         |
| 10    | 5    | 1   | 9          | 53    | 5    | 1   | 46         | 96    | 5    | 1   | 83         |
| 11    | 5    | 1   | 10         | 54    | 5    | 1   | 47         | 97    | 5    | 1   | 84         |
| 12    | 5    | 1   | 10         | 55    | 5    | 1   | 48         | 98    | 5    | 1   | 85         |
| 13    | 5    | 1   | 11         | 56    | 5    | 1   | 49         | 99    | 5    | 1   | 86         |
| 14    | 5    | 1   | 12         | 57    | 5    | 1   | 49         | 100   | 5    | 1   | 87         |
| 15    | 5    | 1   | 13         | 58    | 5    | 1   | 50         | 101   | 5    | 1   | 88         |
| 16    | 5    | 1   | 14         | 59    | 5    | 1   | 51         | 102   | 5    | 1   | 89         |
| 17    | 5    | 1   | 15         | 60    | 5    | 1   | 52         | 103   | 5    | 1   | 89         |
| 18    | 5    | 1   | 16         | 61    | 5    | 1   | 53         | 104   | 5    | 1   | 90         |
| 19    | 5    | 1   | 16         | 62    | 5    | 1   | 54         | 105   | 5    | 1   | 91         |
| 20    | 5    | 1   | 17         | 63    | 5    | 1   | 55         | 106   | 5    | 1   | 92         |
| 21    | 5    | 1   | 18         | 64    | 5    | 1   | 56         | 107   | 5    | 1   | 93         |
| 22    | 5    | 1   | 19         | 65    | 5    | 1   | 56         | 108   | 4    | 1   | 94         |
| 23    | 5    | 1   | 20         | 66    | 5    | 1   | 57         | 109   | 4    | 1   | 94         |
| 24    | 5    | 1   | 21         | 67    | 5    | 1   | 58         | 110   | 4    | 1   | 95         |
| 25    | 5    | 1   | 22         | 68    | 5    | 1   | 59         | 111   | 4    | 1   | 96         |
| 26    | 5    | 1   | 23         | 69    | 5    | 1   | 60         | 112   | 3    | 1   | 96         |
| 27    | 5    | 1   | 23         | 70    | 5    | 1   | 61         | 113   | 3    | 1   | 97         |
| 28    | 5    | 1   | 24         | 71    | 5    | 1   | 62         | 114   | 2    | 0   | 97         |
| 29    | 5    | 1   | 25         | 72    | 5    | 1   | 63         | 115   | 2    | 0   | 97         |
| 30    | 5    | 1   | 26         | 73    | 5    | 1   | 63         | 116   | 2    | 0   | 98         |
| 31    | 5    | 1   | 27         | 74    | 5    | 1   | 64         | 117   | 2    | 0   | 98         |
| 32    | 5    | 1   | 28         | 75    | 5    | 1   | 65         | 118   | 2    | 0   | 98         |
| 33    | 5    | 1   | 29         | 76    | 5    | 1   | 66         | 119   | 1    | 0   | 99         |
| 34    | 5    | 1   | 30         | 77    | 5    | 1   | 67         | 120   | 1    | 0   | 99         |
| 35    | 5    | 1   | 30         | 78    | 5    | 1   | 68         | 121   | 1    | 0   | 99         |
| 36    | 5    | 1   | 31         | 79    | 5    | 1   | 69         | 122   | 1    | 0   | 99         |
| 37    | 5    | 1   | 32         | 80    | 5    | 1   | 69         | 123   | 1    | 0   | 99         |
| 38    | 5    | 1   | 33         | 81    | 5    | 1   | 70         | 124   | 1    | 0   | 99         |
| 39    | 5    | 1   | 34         | 82    | 5    | 1   | 71         | 125   | 1    | 0   | 100        |
| 40    | 5    | 1   | 35         | 83    | 5    | 1   | 72         | 126   | 1    | 0   | 100        |
| 41    | 5    | 1   | 36         | 84    | 5    | 1   | 73         | 127   | 1    | 0   | 100        |
| 42    | 5    | 1   | 36         | 85    | 5    | 1   | 74         |       |      |     |            |
| 43    | 5    | 1   | 37         | 86    | 5    | 1   | 75         |       |      |     |            |

EPPOINT SAMPLE POINT NUMBER

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 60 OCCURRENCES

|    |     |       |
|----|-----|-------|
| 20 | 4   | ***** |
| 30 | 10  | ***** |
| 30 | 16  | ***** |
| 30 | 22  | ***** |
| 30 | 28  | ***** |
| 30 | 34  | ***** |
| 30 | 40  | ***** |
| 30 | 46  | ***** |
| 30 | 52  | ***** |
| 30 | 58  | ***** |
| 30 | 64  | ***** |
| 30 | 70  | ***** |
| 30 | 76  | ***** |
| 30 | 82  | ***** |
| 30 | 88  | ***** |
| 30 | 94  | ***** |
| 30 | 100 | ***** |
| 20 | 106 | ***** |
| 20 | 112 | ***** |
| 10 | 118 | ***** |
| 1  | 124 | ***** |

|                     | 4  | 10 | 16 | 22 | 28 | 34 | 40 | 46 | 52 | 58 | 64 | 70 | 76 | 82 | 88 | 94 | 100 | 106 | 112 | 118 | 124 |
|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|
| HISTOGRAM FREQUENCY | 20 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 20  | 20  | 10  | 1   |     |

|            |         |           |           |          |          |
|------------|---------|-----------|-----------|----------|----------|
| MEAN       | 58.006  | STD. ERR. | 1.402     | MEDIAN   | 58.000   |
| MODE       | 1.000   | STD. DEV. | 33.646    | VARIANCE | 1132.035 |
| KURTOSIS   | -1.143  | S.E. KURT | 1.997     | SKEWNESS | .039     |
| S.E. SKEW. | .002    | RANGE     | 126.000   | MINIMUM  | 1.000    |
| MAXIMUM    | 127.000 | SUM       | 33584.000 |          |          |

| PERCENTILE | VALUE   | PERCENTILE | VALUE  | PERCENTILE | VALUE  |
|------------|---------|------------|--------|------------|--------|
| 10.00      | 12.000  | 25.00      | 29.000 | 33.30      | 39.000 |
| 50.00      | 58.000  | 66.70      | 77.000 | 75.00      | 87.000 |
| 90.00      | 104.000 |            |        |            |        |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 576 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

TRACT CENSUS TRACT

| VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT |
|-------|------|-----|------------|-------|------|-----|------------|-------|------|-----|------------|
| 1     | 107  | 19  | 19         | 28    | 4    | 1   | 58         | 60    | 5    | 1   | 69         |
| 2     | 11   | 2   | 20         | 29    | 4    | 1   | 59         | 61    | 1    | 0   | 70         |
| 3     | 9    | 2   | 22         | 32    | 2    | 0   | 59         | 64    | 3    | 1   | 70         |
| 4     | 20   | 3   | 26         | 33    | 4    | 1   | 60         | 66    | 1    | 0   | 70         |
| 5     | 20   | 3   | 29         | 34    | 3    | 1   | 61         | 67    | 1    | 0   | 70         |
| 6     | 9    | 1   | 30         | 35    | 7    | 1   | 62         | 68    | 7    | 1   | 72         |
| 7     | 55   | 10  | 39         | 36    | 3    | 1   | 62         | 69    | 5    | 1   | 73         |
| 8     | 6    | 1   | 40         | 37    | 4    | 1   | 63         | 70    | 8    | 1   | 74         |
| 9     | 3    | 1   | 41         | 39    | 1    | 0   | 63         | 71    | 7    | 1   | 75         |
| 10    | 4    | 1   | 41         | 40    | 1    | 0   | 63         | 72    | 3    | 1   | 76         |
| 11    | 5    | 1   | 42         | 41    | 2    | 0   | 64         | 73    | 2    | 0   | 76         |
| 12    | 6    | 1   | 43         | 42    | 1    | 0   | 64         | 74    | 4    | 1   | 77         |
| 13    | 6    | 1   | 44         | 43    | 1    | 0   | 64         | 75    | 1    | 0   | 77         |
| 14    | 8    | 1   | 46         | 44    | 1    | 0   | 64         | 76    | 1    | 0   | 77         |
| 15    | 7    | 1   | 47         | 45    | 1    | 0   | 64         | 79    | 8    | 1   | 78         |
| 16    | 6    | 1   | 48         | 46    | 5    | 1   | 65         | 80    | 27   | 5   | 83         |
| 17    | 5    | 1   | 49         | 47    | 3    | 1   | 66         | 81    | 3    | 1   | 84         |
| 18    | 5    | 1   | 50         | 48    | 3    | 1   | 66         | 82    | 2    | 0   | 84         |
| 19    | 4    | 0   | 50         | 49    | 1    | 0   | 66         | 84    | 12   | 2   | 86         |
| 20    | 4    | 1   | 51         | 51    | 1    | 0   | 67         | 85    | 23   | 4   | 90         |
| 21    | 6    | 1   | 52         | 53    | 3    | 1   | 67         | 86    | 1    | 0   | 90         |
| 22    | 4    | 1   | 53         | 54    | 1    | 0   | 67         | 87    | 6    | 1   | 92         |
| 23    | 4    | 1   | 54         | 55    | 1    | 0   | 68         | 88    | 31   | 5   | 97         |
| 24    | 2    | 0   | 54         | 56    | 1    | 0   | 68         | 89    | 12   | 2   | 99         |
| 25    | 4    | 1   | 55         | 57    | 1    | 0   | 68         | 90    | 4    | 1   | 100        |
| 26    | 3    | 0   | 55         | 58    | 3    | 1   | 68         | 91    | 1    | 0   | 100        |
| 27    | 11   | 2   | 56         | 59    | 1    | 0   | 69         |       |      |     |            |

TRACT CENSUS TRACT

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 4.00 OCCURRENCES

```

127  -4
104  1 *****
24   6 *****
22   11 *****
22   16 *****
22   21 *****
26   26 *****
21   31 ***
27   36 ***
26   41 **
26   46 ***
21   51 *
26   56 **
21   61 **
26   66 ***
26   71 *****
26   76 **
26   81 *****
26   86 *****
26   91 ***
26   96

```

```

1  + 1  + 1  + 1  + 1  + 1  + 1  + 1  + 1
1  40  80 120 160 200
HISTOGRAM FREQUENCY

```

|           |        |           |           |          |          |
|-----------|--------|-----------|-----------|----------|----------|
| MEAN      | 14.544 | STD ERR   | 1.408     | MEDIAN   | 19.000   |
| MODE      | 1.000  | STD DEV   | 33.775    | VARIANCE | 1142.156 |
| KURTOSIS  | -1.413 | S.E. KURT | 1.557     | SKWNESS  | 537      |
| S.E. SKEW | 112    | RANGE     | 90.000    | MINIMUM  | 1.000    |
| MAXIMUM   | 91.000 | SUM       | 19782.000 |          |          |

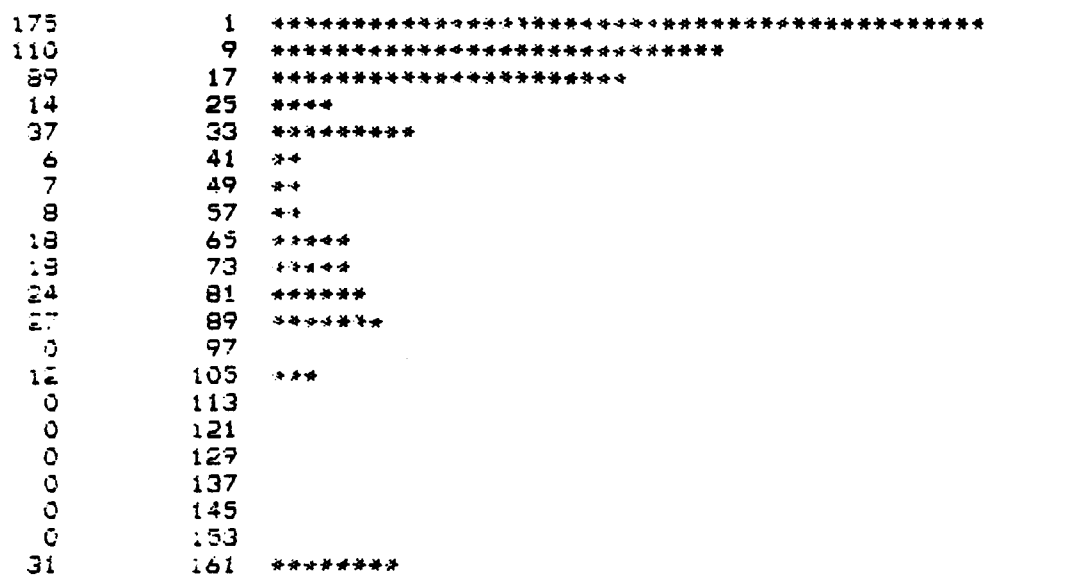
| PERCENTILE | VALUE  | PERCENTILE | VALUE  | PERCENTILE | VALUE  |
|------------|--------|------------|--------|------------|--------|
| 10.00      | 1.000  | 25.00      | 4.000  | 35.00      | 7.000  |
| 50.00      | 19.000 | 66.70      | 52.718 | 75.00      | 71.000 |
| 90.00      | 89.000 |            |        |            |        |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 876 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

# Census tract data

A3R AREA: BUILT RESIDENTIAL

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 4.00 OCCURRENCES



|          |         |          |           |          |          |
|----------|---------|----------|-----------|----------|----------|
| MEAN     | 31.511  | STD ERR  | 1.777     | MEDIAN   | 13.778   |
| MODE     | 0.0     | STD DEV  | 42.647    | VARIANCE | 1818.725 |
| KURTOSIS | 2.268   | S E KURT | 1.997     | SKEWNESS | 1.720    |
| S E SKEW | 102     | RANGE    | 161.459   | MINIMUM  | 0.0      |
| MAXIMUM  | 161.459 | SUM      | 18150.536 |          |          |

| PERCENTILE | VALUE  | PERCENTILE | VALUE  | PERCENTILE | VALUE  |
|------------|--------|------------|--------|------------|--------|
| 10.00      | 0.0    | 25.00      | 2.583  | 33.30      | 5.167  |
| 50.00      | 13.778 | 66.70      | 25.833 | 75.00      | 47.361 |
| 90.00      | 26.972 |            |        |            |        |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 576 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

422

AREA: BUILT RESIDENTIAL

| VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT | VALUE  | FREQ | PCT | CUM<br>PCT |
|-------|------|-----|------------|-------|------|-----|------------|--------|------|-----|------------|
| 0.0   | 108  | 19  | 19         | 13.78 | 55   | 10  | 59         | 31.00  | 4    | 1   | 69         |
| .86   | 20   | 3   | 22         | 14.21 | 2    | 0   | 59         | 32.29  | 4    | 1   | 70         |
| 1.72  | 9    | 2   | 24         | 14.64 | 14   | 2   | 62         | 35.74  | 23   | 4   | 74         |
| 2.58  | 19   | 3   | 27         | 15.93 | 1    | 0   | 62         | 37.89  | 3    | 1   | 74         |
| 3.01  | 4    | 1   | 28         | 16.36 | 7    | 1   | 63         | 40.47  | 3    | 1   | 75         |
| 4.74  | 15   | 3   | 30         | 16.79 | 1    | 0   | 63         | 47.36  | 7    | 1   | 76         |
| 5.17  | 19   | 3   | 34         | 17.65 | 3    | 1   | 64         | 56.40  | 3    | 1   | 77         |
| 5.60  | 10   | 2   | 35         | 18.51 | 1    | 0   | 64         | 58.13  | 5    | 1   | 77         |
| 6.03  | 4    | 1   | 36         | 19.38 | 1    | 0   | 64         | 64.15  | 8    | 1   | 79         |
| 7.02  | 9    | 2   | 38         | 19.81 | 1    | 0   | 64         | 64.58  | 5    | 1   | 80         |
| 8.18  | 2    | 0   | 38         | 20.24 | 1    | 0   | 65         | 65.88  | 5    | 1   | 81         |
| 8.61  | 20   | 3   | 41         | 20.67 | 2    | 0   | 65         | 72.76  | 8    | 1   | 82         |
| 9.93  | 9    | 2   | 43         | 21.53 | 2    | 0   | 65         | 74.06  | 10   | 2   | 84         |
| 10.33 | 1    | 0   | 43         | 21.96 | 3    | 1   | 66         | 79.65  | 12   | 2   | 86         |
| 10.76 | 10   | 2   | 45         | 24.11 | 1    | 0   | 66         | 83.10  | 8    | 1   | 87         |
| 11.19 | 1    | 0   | 45         | 25.83 | 6    | 1   | 67         | 84.39  | 4    | 1   | 88         |
| 11.63 | 7    | 1   | 46         | 26.26 | 1    | 0   | 67         | 86.97  | 27   | 5   | 93         |
| 12.06 | 16   | 3   | 49         | 27.56 | 1    | 0   | 67         | 108.50 | 12   | 2   | 95         |
| 12.49 | 1    | 0   | 49         | 29.28 | 2    | 0   | 68         | 161.46 | 31   | 5   | 100        |
| 12.92 | 1    | 0   | 49         | 30.14 | 4    | 1   | 68         |        |      |     |            |

48NR

AREA: BUILT NON-RESIDENTIAL

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|-------------|-------|-----------|---------|------------------|----------------|
|             | 0.0   | 5         | .9      | .9               | .9             |
|             | .43   | 10        | 1.7     | 1.7              | 2.6            |
|             | .86   | 14        | 2.4     | 2.4              | 5.0            |
|             | 1.29  | 20        | 3.5     | 3.5              | 8.5            |
|             | 1.72  | 13        | 2.3     | 2.3              | 10.8           |
|             | 2.15  | 4         | .7      | .7               | 11.5           |
|             | 2.58  | 5         | .9      | .9               | 12.3           |
|             | 3.01  | 7         | 1.2     | 1.2              | 13.5           |
|             | 3.44  | 5         | .9      | .9               | 14.4           |
|             | 3.88  | 14        | 2.4     | 2.4              | 16.8           |
|             | 4.31  | 29        | 5.0     | 5.0              | 21.9           |
|             | 4.74  | 8         | 1.4     | 1.4              | 23.3           |
|             | 5.03  | 10        | 1.7     | 1.7              | 25.0           |
|             | 5.46  | 37        | 6.4     | 6.4              | 31.4           |
|             | 5.89  | 115       | 20.0    | 20.0             | 51.4           |
|             | 6.75  | 8         | 1.4     | 1.4              | 52.8           |
|             | 7.18  | 4         | .7      | .7               | 53.5           |
|             | 7.61  | 19        | 3.3     | 3.3              | 56.8           |
|             | 8.04  | 8         | 1.4     | 1.4              | 58.2           |
|             | 8.90  | 32        | 5.6     | 5.6              | 63.7           |
|             | 10.33 | 30        | 5.2     | 5.2              | 68.9           |
|             | 10.76 | 2         | .3      | .3               | 69.3           |
|             | 11.19 | 5         | .9      | .9               | 70.1           |
|             | 11.63 | 24        | 4.2     | 4.2              | 74.3           |
|             | 12.49 | 13        | 2.3     | 2.3              | 76.6           |
|             | 12.92 | 1         | .2      | .2               | 76.7           |
|             | 13.35 | 44        | 7.6     | 7.6              | 84.4           |
|             | 14.64 | 8         | 1.4     | 1.4              | 85.8           |
|             | 15.93 | 11        | 1.9     | 1.9              | 87.7           |
|             | 22.39 | 4         | .7      | .7               | 88.4           |
|             | 23.25 | 5         | .9      | .9               | 89.2           |
|             | 40.47 | 55        | 9.5     | 9.5              | 98.8           |
|             | 63.29 | 7         | 1.2     | 1.2              | 100.0          |
| TOTAL       |       | 576       | 100.0   | 100.0            |                |

AGNR AREA: BUILT NON-RESIDENTIAL

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 4 00 OCCURRENCES

|     |       |       |
|-----|-------|-------|
| 0   | -1.67 |       |
| 78  | 1.67  | ***** |
| 103 | 5.00  | ***** |
| 126 | 8.33  | ***** |
| 75  | 11.67 | ***** |
| 63  | 15.00 | ***** |
| 0   | 18.33 |       |
| 9   | 21.67 | **    |
| 0   | 25.00 |       |
| 0   | 28.33 |       |
| 0   | 31.67 |       |
| 0   | 35.00 |       |
| 0   | 38.33 |       |
| 55  | 41.67 | ***** |
| 0   | 45.00 |       |
| 0   | 48.33 |       |
| 0   | 51.67 |       |
| 0   | 55.00 |       |
| 0   | 58.33 |       |
| 7   | 61.67 | **    |
| 0   | 65.00 |       |

I + I + I + I + I + I + I  
 0 40 80 120 160 200  
 HISTOGRAM FREQUENCY

|          |        |          |          |          |         |
|----------|--------|----------|----------|----------|---------|
| MEAN     | 11.591 | STD ERR  | 497      | MEDIAN   | 6.889   |
| MODE     | 6.889  | STD DEV  | 11.927   | VARIANCE | 142.244 |
| KURTOSIS | 4.765  | S E KURT | 1.997    | SKEWNESS | 2.241   |
| S E SKEW | 102    | RANGE    | 63.292   | MINIMUM  | 0.0     |
| MAXIMUM  | 63.292 | SUM      | 6676.632 |          |         |

| PERCENTILE | VALUE  | PERCENTILE | VALUE  | PERCENTILE | VALUE  |
|------------|--------|------------|--------|------------|--------|
| 10.00      | 1.722  | 25.00      | 6.135  | 33.30      | 6.889  |
| 50.00      | 6.889  | 66.70      | 10.333 | 75.00      | 12.486 |
| 90.00      | 40.472 |            |        |            |        |

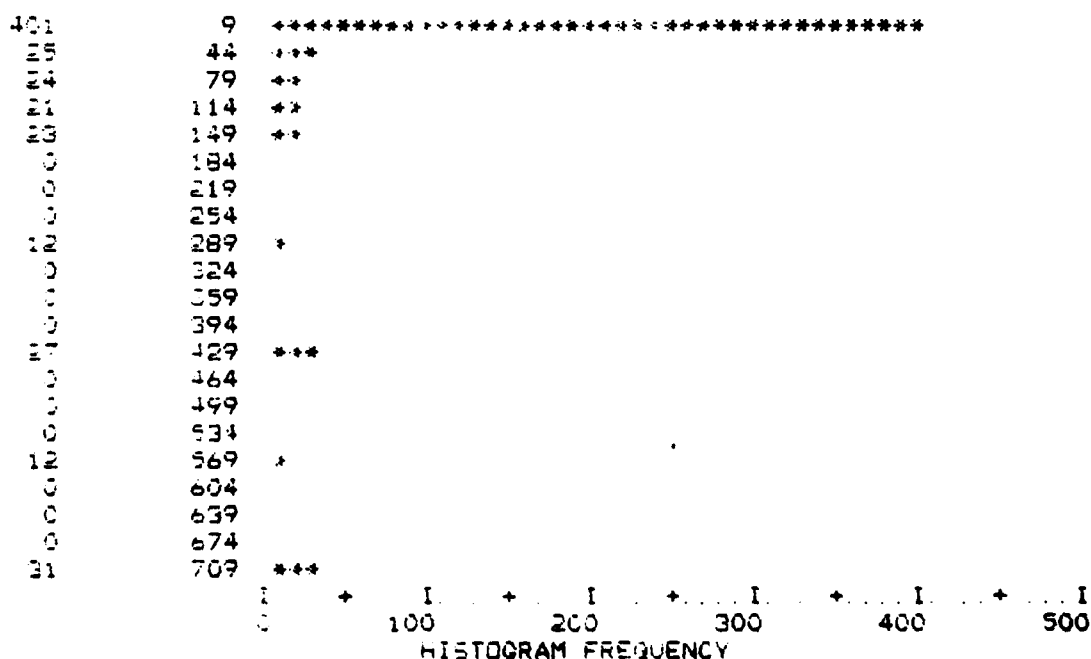
VALID CASES 576 MISSING CASES 0

AOB

AREA: OPEN WITH BUILDINGS

| VALUE | FREQ | PCT | CUM PCT | VALUE | FREQ | PCT | CUM PCT | VALUE  | FREQ | PCT | CUM PCT |
|-------|------|-----|---------|-------|------|-----|---------|--------|------|-----|---------|
| 0.0   | 204  | 35  | 35      | 14.21 | 8    | 1   | 63      | 62.75  | 4    | 1   | 75      |
| .43   | 18   | 3   | 39      | 15.07 | 4    | 1   | 63      | 64.15  | 5    | 1   | 76      |
| .86   | 2    | 0   | 39      | 16.79 | 2    | 0   | 64      | 66.74  | 3    | 1   | 76      |
| 1.29  | 5    | 1   | 40      | 18.08 | 20   | 3   | 67      | 74.06  | 1    | 0   | 76      |
| 1.72  | 8    | 1   | 41      | 19.38 | 3    | 1   | 68      | 79.22  | 4    | 1   | 77      |
| 2.15  | 9    | 2   | 43      | 20.24 | 1    | 0   | 68      | 87.40  | 7    | 1   | 78      |
| 2.58  | 22   | 4   | 47      | 20.67 | 4    | 1   | 68      | 112.38 | 5    | 1   | 79      |
| 3.01  | 1    | 0   | 47      | 21.10 | 3    | 1   | 69      | 116.68 | 3    | 1   | 80      |
| 3.44  | 2    | 0   | 47      | 22.82 | 3    | 1   | 69      | 124.43 | 8    | 1   | 81      |
| 3.87  | 1    | 0   | 47      | 24.11 | 1    | 0   | 70      | 127.01 | 5    | 1   | 82      |
| 4.30  | 9    | 2   | 49      | 26.69 | 1    | 0   | 70      | 158.44 | 23   | 4   | 86      |
| 4.73  | 1    | 0   | 49      | 27.13 | 8    | 1   | 71      | 304.83 | 12   | 2   | 88      |
| 5.16  | 7    | 1   | 50      | 27.99 | 3    | 1   | 72      | 436.58 | 27   | 5   | 93      |
| 5.59  | 3    | 1   | 51      | 37.06 | 2    | 0   | 72      | 576.08 | 12   | 2   | 95      |
| 6.02  | 59   | 10  | 61      | 37.89 | 8    | 1   | 73      | 717.31 | 31   | 5   | 100     |
| 6.45  | 1    | 0   | 61      | 58.99 | 2    | 1   | 74      |        |      |     |         |

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 10.00 OCCURRENCES



AOB AREA OPEN WITH BUILDINGS

|          |         |          |           |          |           |
|----------|---------|----------|-----------|----------|-----------|
| MEAN     | 76.081  | STD ERR  | 8.142     | MEDIAN   | 8.611     |
| MODE     | 0.0     | STD DEV  | 195.413   | VARIANCE | 38186.131 |
| KURTOSIS | 3.817   | S E KURT | 1.997     | SKEWNESS | 2.251     |
| S E SKEW | .102    | RANGE    | 717.307   | MINIMUM  | 0.0       |
| MAXIMUM  | 717.307 | SUM      | 55342.859 |          |           |

| PERCENTILE  | VALUE   | PERCENTILE    | VALUE  | PERCENTILE | VALUE  |
|-------------|---------|---------------|--------|------------|--------|
| 10.00       | 0.0     | 25.00         | 0.0    | 33.30      | 0.0    |
| 50.00       | 8.611   | 66.70         | 18.083 | 75.00      | 64.153 |
| 90.00       | 436.584 |               |        |            |        |
| VALID CASES | 576     | MISSING CASES | 0      |            |        |

AO AREA OPEN WITHOUT BLDGS

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID PERCENT | CUM PERCENT |
|-------------|-------|-----------|---------|---------------|-------------|
|             | 0.0   | 312       | 54.2    | 57.2          | 57.2        |
|             | .43   | 35        | 6.1     | 6.4           | 63.7        |
|             | .86   | 1         | .2      | .2            | 63.9        |
|             | 1.29  | 5         | .9      | .9            | 64.8        |
|             | 1.72  | 2         | .3      | .4            | 65.1        |
|             | 2.15  | 1         | .2      | .2            | 65.3        |
|             | 2.58  | 3         | .5      | .6            | 65.9        |
|             | 3.01  | 14        | 2.4     | 2.6           | 68.4        |
|             | 3.44  | 4         | .7      | .7            | 69.2        |
|             | 3.88  | 1         | .2      | .2            | 69.4        |
|             | 4.31  | 8         | 1.4     | 1.5           | 70.8        |
|             | 5.17  | 5         | .9      | .9            | 71.7        |
|             | 6.03  | 29        | 5.0     | 5.3           | 77.1        |
|             | 6.89  | 3         | .5      | .6            | 77.6        |
|             | 7.75  | 7         | 1.2     | 1.3           | 78.9        |
|             | 8.18  | 1         | .2      | .2            | 79.1        |
|             | 8.61  | 1         | .2      | .2            | 79.3        |
|             | 9.04  | 2         | .5      | .6            | 79.8        |
|             | 9.47  | 3         | .5      | .6            | 80.4        |
|             | 10.76 | 1         | .2      | .2            | 80.6        |
|             | 12.06 | 12        | 2.1     | 2.2           | 82.8        |
|             | 15.07 | 5         | .9      | .9            | 83.7        |
|             | 19.38 | 2         | .3      | .4            | 84.0        |
|             | 20.67 | 4         | .7      | .7            | 84.8        |
|             | 21.53 | 55        | 9.5     | 10.1          | 94.9        |
|             | 23.25 | 4         | .7      | .7            | 95.6        |
|             | 24.11 | 8         | 1.4     | 1.5           | 97.1        |
|             | 25.40 | 1         | .2      | .2            | 97.2        |
|             | 37.03 | 3         | 1.4     | 1.5           | 98.7        |
|             | 41.76 | 7         | 1.2     | 1.3           | 100.0       |
|             |       | 31        | 5.4     | MISSING       |             |
| TOTAL       |       | 576       | 100.0   | 100.0         |             |

20

AREA: OPEN WITHOUT BLDGS

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 8.00 OCCURRENCES

|     |    |       |
|-----|----|-------|
| 355 | 1  | ***** |
| 23  | 3  | ***   |
| 13  | 5  | **    |
| 39  | 7  | ***** |
| 8   | 9  | *     |
| 1   | 11 |       |
| 12  | 13 | **    |
| 5   | 15 | *     |
| 0   | 17 |       |
| 2   | 19 |       |
| 59  | 21 | ***** |
| 4   | 23 | *     |
| 4   | 25 | *     |
| 0   | 27 |       |
| 0   | 29 |       |
| 0   | 31 |       |
| 0   | 33 |       |
| 0   | 35 |       |
| 8   | 37 | *     |
| 10  | 39 | *     |
|     | 41 | *     |

+ + + + +  
 60 160 240 320 400  
 HISTOGRAM FREQUENCY

|          |        |          |          |          |        |
|----------|--------|----------|----------|----------|--------|
| MEAN     | 5.347  | STD ERR  | .406     | MEDIAN   | 0.0    |
| MODE     | 0.0    | STD DEV  | 9.470    | VARIANCE | 89.687 |
| KURTOSIS | 3.073  | S E KURT | 1.996    | SKEWNESS | 1.923  |
| S E SKEW | .105   | RANGE    | 41.764   | MINIMUM  | 0.0    |
| MAXIMUM  | 41.764 | SUM      | 2914.006 |          |        |

| PERCENTILE | VALUE  | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|--------|------------|-------|------------|-------|
| 10.00      | 0.0    | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0    | 66.70      | 3.014 | 75.00      | 6.028 |
| 90.00      | 21.528 |            |       |            |       |

|             |     |               |    |
|-------------|-----|---------------|----|
| VALID CASES | 545 | MISSING CASES | 31 |
|-------------|-----|---------------|----|

ALAND AREA: LAND COVERAGE

| VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT | VALUE   | FREQ | PCT | CUM<br>PCT |
|-------|------|-----|------------|-------|------|-----|------------|---------|------|-----|------------|
| 0.0   | 1    | 0   | 0          | 24.54 | 1    | 0   | 45         | 76.21   | 3    | 1   | 59         |
| 3.01  | 3    | 1   | 1          | 24.97 | 11   | 2   | 47         | 106.78  | 4    | 1   | 60         |
| 5.17  | 2    | 0   | 1          | 28.42 | 3    | 1   | 48         | 111.08  | 55   | 10  | 69         |
| 6.89  | 113  | 20  | 21         | 30.14 | 1    | 0   | 48         | 117.97  | 3    | 1   | 70         |
| 7.32  | 4    | 1   | 21         | 31.00 | 1    | 0   | 48         | 119.26  | 1    | 0   | 70         |
| 8.18  | 8    | 1   | 23         | 35.31 | 7    | 1   | 49         | 148.97  | 4    | 1   | 73         |
| 8.61  | 3    | 1   | 23         | 36.60 | 1    | 0   | 49         | 152.85  | 3    | 1   | 71         |
| 9.04  | 6    | 1   | 24         | 38.32 | 20   | 3   | 53         | 155.00  | 2    | 0   | 71         |
| 9.90  | 7    | 1   | 26         | 40.90 | 1    | 0   | 53         | 179.54  | 8    | 1   | 73         |
| 10.76 | 20   | 3   | 29         | 42.19 | 1    | 0   | 53         | 180.40  | 7    | 1   | 74         |
| 11.19 | 10   | 2   | 31         | 42.63 | 2    | 0   | 53         | 188.58  | 4    | 1   | 75         |
| 11.63 | 5    | 1   | 32         | 44.76 | 3    | 1   | 54         | 189.44  | 5    | 1   | 76         |
| 12.49 | 1    | 0   | 32         | 47.36 | 1    | 0   | 54         | 211.40  | 5    | 1   | 76         |
| 14.64 | 6    | 1   | 33         | 47.79 | 1    | 0   | 54         | 215.28  | 8    | 1   | 78         |
| 15.07 | 7    | 1   | 34         | 51.24 | 1    | 0   | 55         | 217.00  | 7    | 1   | 79         |
| 15.50 | 15   | 3   | 37         | 52.10 | 3    | 1   | 55         | 224.75  | 23   | 4   | 83         |
| 15.93 | 6    | 1   | 38         | 52.96 | 2    | 0   | 55         | 228.19  | 5    | 1   | 84         |
| 15.96 | 1    | 0   | 38         | 55.97 | 1    | 0   | 56         | 287.18  | 3    | 1   | 84         |
| 17.22 | 1    | 0   | 38         | 56.40 | 1    | 0   | 56         | 338.42  | 8    | 1   | 86         |
| 17.65 | 7    | 1   | 39         | 57.26 | 1    | 0   | 56         | 471.46  | 12   | 2   | 88         |
| 18.08 | 3    | 1   | 40         | 58.56 | 4    | 1   | 57         | 575.65  | 27   | 5   | 93         |
| 18.51 | 10   | 3   | 43         | 62.43 | 3    | 1   | 57         | 722.47  | 12   | 2   | 95         |
| 19.38 | 8    | 1   | 45         | 70.61 | 4    | 1   | 58         | 1001.04 | 31   | 5   | 100        |
| 21.10 | 1    | 0   | 45         | 71.47 | 1    | 0   | 58         |         |      |     |            |
| 21.52 | 1    | 0   | 45         | 73.63 | 2    | 0   | 58         |         |      |     |            |

AREA: LAND COVERAGE

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 8.00 OCCURRENCES

```

311      21 *****
28       69 ****
63      117 *****
28      165 ****
53      213 *****
0       261
3       309
8       357 *
0       405
12      453 **
0       501
0       549
27      597 ***
0       645
0       693
12      741 **
0       759
0       837
0       885
0       933
31      981 ****

```

A histogram showing the frequency distribution of data. The x-axis is labeled 'HISTOGRAM FREQUENCY' and has major tick marks at 80, 160, 240, 320, and 400. The y-axis is labeled 'FREQUENCY' and has major tick marks at 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000. The histogram consists of 10 bars, each with a width of 40 units. The heights of the bars are approximately: 10, 20, 30, 40, 50, 60, 70, 80, 90, and 100.

|          |          |          |           |          |           |
|----------|----------|----------|-----------|----------|-----------|
| MEAN     | 153.408  | STD ERR  | 10.862    | MEDIAN   | 38.320    |
| MODE     | 6.889    | STD DEV  | 260.683   | VARIANCE | 67955.746 |
| KURTOSIS | 3.640    | S E KURT | 1.997     | SKEWNESS | 2.122     |
| S E SKEW | .102     | RANGE    | 1001.044  | MINIMUM  | 0.0       |
| MAXIMUM  | 1001.044 | SUM      | 94123.073 |          |           |

| PERCENTILE | VALUE   | PERCENTILE | VALUE   | PERCENTILE | VALUE   |
|------------|---------|------------|---------|------------|---------|
| 10.00      | 6.889   | 25.00      | 9.903   | 33.30      | 15.069  |
| 50.00      | 38.320  | 66.70      | 111.084 | 75.00      | 189.445 |
| 90.00      | 575.654 |            |         |            |         |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 576 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

50

TOTAL DWELLING UNITS IN TRACT

| VALUE        | FREQ | PCT | CUM PCT | VALUE   | FREQ | PCT | CUM PCT | VALUE   | FREQ | PCT | CUM PCT |
|--------------|------|-----|---------|---------|------|-----|---------|---------|------|-----|---------|
| 85.00        | 11   | 2   | 2       | 1189.00 | 3    | 1   | 44      | 1770.00 | 4    | 1   | 76      |
| 447.00       | 1    | 0   | 2       | 1218.00 | 3    | 1   | 44      | 1776.00 | 3    | 1   | 76      |
| 509.00       | 107  | 19  | 21      | 1234.00 | 1    | 0   | 44      | 1842.00 | 2    | 0   | 77      |
| 594.00       | 20   | 3   | 24      | 1236.00 | 7    | 1   | 46      | 1852.00 | 1    | 0   | 77      |
| 606.00       | 2    | 0   | 25      | 1237.00 | 1    | 0   | 46      | 1855.00 | 2    | 0   | 77      |
| 619.00       | 2    | 1   | 25      | 1309.00 | 2    | 0   | 46      | 1887.00 | 1    | 0   | 77      |
| 624.00       | 4    | 1   | 26      | 1337.00 | 1    | 0   | 46      | 1902.00 | 3    | 1   | 78      |
| 646.00       | 7    | 1   | 27      | 1343.00 | 6    | 1   | 47      | 1921.00 | 6    | 1   | 79      |
| 657.00       | 1    | 0   | 27      | 1367.00 | 1    | 0   | 47      | 1925.00 | 4    | 1   | 79      |
| 708.00       | 3    | 1   | 28      | 1369.00 | 1    | 0   | 48      | 1938.00 | 31   | 5   | 85      |
| 712.00       | 2    | 1   | 29      | 1385.00 | 8    | 1   | 49      | 1942.00 | 7    | 1   | 86      |
| 713.00       | 1    | 0   | 29      | 1402.00 | 12   | 2   | 51      | 1968.00 | 1    | 0   | 86      |
| 751.00       | 1    | 0   | 29      | 1404.00 | 3    | 1   | 52      | 1992.00 | 6    | 1   | 87      |
| 753.00       | 2    | 0   | 30      | 1471.00 | 1    | 0   | 52      | 2037.00 | 1    | 0   | 87      |
| 849.00       | 23   | 4   | 34      | 1494.00 | 1    | 0   | 52      | 2045.00 | 1    | 0   | 88      |
| 862.00       | 2    | 0   | 34      | 1498.00 | 55   | 10  | 62      | 2188.00 | 11   | 2   | 90      |
| 894.00       | 4    | 1   | 35      | 1535.00 | 3    | 1   | 62      | 2196.00 | 7    | 1   | 91      |
| 920.00       | 4    | 1   | 35      | 1543.00 | 3    | 1   | 63      | 2244.00 | 8    | 1   | 92      |
| 969.00       | 3    | 1   | 36      | 1552.00 | 5    | 1   | 63      | 2294.00 | 4    | 1   | 93      |
| 1034.00      | 2    | 0   | 36      | 1565.00 | 9    | 2   | 65      | 2435.00 | 4    | 1   | 94      |
| 1046.00      | 2    | 1   | 37      | 1577.00 | 20   | 3   | 69      | 2444.00 | 8    | 1   | 95      |
| 1067.00      | 4    | 1   | 38      | 1611.00 | 5    | 1   | 69      | 2447.00 | 7    | 1   | 96      |
| 1117.00      | 27   | 5   | 42      | 1631.00 | 5    | 1   | 70      | 2583.00 | 5    | 1   | 97      |
| 1132.00      | 1    | 0   | 42      | 1638.00 | 9    | 2   | 72      | 2619.00 | 4    | 1   | 98      |
| 1138.00      | 3    | 1   | 43      | 1658.00 | 6    | 1   | 73      | 3018.00 | 7    | 1   | 99      |
| 1184.00      | 1    | 0   | 43      | 1709.00 | 12   | 2   | 75      | 3834.00 | 6    | 1   | 100     |
| MISSING DATA |      |     |         |         |      |     |         |         |      |     |         |
| VALUE        | FREQ |     |         | VALUE   | FREQ |     |         | VALUE   | FREQ |     |         |
| -99.00       | 1    |     |         |         |      |     |         |         |      |     |         |

50 TOTAL DWELLING UNITS IN TRACT

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 4.00 OCCURRENCES

|     |      |       |
|-----|------|-------|
| 11  | 170  | ***   |
| 0   | 349  |       |
| 130 | 528  | ***** |
| 30  | 707  | ***** |
| 36  | 886  | ***** |
| 40  | 1065 | ***** |
| 18  | 1244 | ***** |
| 59  | 1423 | ***** |
| 89  | 1602 | ***** |
| 24  | 1781 | ***** |
| 34  | 1960 | ***** |
| 106 | 2139 | ***** |
| 100 | 2318 | ***   |
| 24  | 2497 | ***** |
| 4   | 2676 | *     |
| 1   | 2855 |       |
| 1   | 3034 | **    |
| 0   | 3213 |       |
| 0   | 3392 |       |
| 0   | 3571 |       |
| 0   | 3750 | **    |

1 + I + I + I + I + I + I  
0 40 80 120 160 200  
HISTOGRAM FREQUENCY

|           |          |           |            |          |            |
|-----------|----------|-----------|------------|----------|------------|
| MEAN      | 1034.157 | STD. ERR. | 28.444     | MEDIAN   | 1402.000   |
| MODE      | 309.000  | STD. DEV. | 695.261    | VARIANCE | 483387.669 |
| KURTOSIS  | 496      | S.E. KURT | 1.937      | SKEWNESS | .592       |
| S.E. SKEW | 102      | RANGE     | 3749.000   | MINIMUM  | 85.000     |
| MAXIMUM   | 3834.000 | SUM       | 761390.000 |          |            |

| PERCENTILE | VALUE    | PERCENTILE | VALUE    | PERCENTILE | VALUE    |
|------------|----------|------------|----------|------------|----------|
| 10.00      | 309.000  | 25.00      | 619.000  | 33.30      | 849.000  |
| 50.00      | 1402.000 | 66.70      | 1577.000 | 75.00      | 1770.000 |
| 90.00      | 2139.000 |            |          |            |          |

VALID CASES 375 MISSING CASES 1

POP TRACT POPULATION

| VALUE        | FREQ | PCT | CUM<br>PCT | VALUE   | FREQ | PCT | CUM<br>PCT | VALUE   | FREQ | PCT | CUM<br>PCT |
|--------------|------|-----|------------|---------|------|-----|------------|---------|------|-----|------------|
| 273.00       | 11   | 2   | 2          | 3889.00 | 1    | 0   | 41         | 5477.00 | 20   | 3   | 75         |
| 590.00       | 3    | 1   | 2          | 3924.00 | 1    | 0   | 42         | 5512.00 | 7    | 1   | 76         |
| 1147.00      | 107  | 19  | 21         | 3929.00 | 3    | 1   | 42         | 5611.00 | 4    | 1   | 77         |
| 1665.00      | 1    | 0   | 21         | 3943.00 | 1    | 0   | 42         | 5613.00 | 5    | 1   | 78         |
| 2047.00      | 1    | 0   | 21         | 4261.00 | 3    | 1   | 43         | 5617.00 | 8    | 1   | 79         |
| 2084.00      | 1    | 0   | 22         | 4263.00 | 55   | 10  | 52         | 5717.00 | 1    | 0   | 79         |
| 2109.00      | 4    | 1   | 22         | 4316.00 | 9    | 2   | 54         | 5786.00 | 12   | 2   | 81         |
| 2165.00      | 4    | 1   | 23         | 4346.00 | 8    | 1   | 55         | 5825.00 | 5    | 1   | 82         |
| 2176.00      | 8    | 1   | 24         | 4421.00 | 6    | 1   | 56         | 6051.00 | 1    | 0   | 82         |
| 2179.00      | 3    | 1   | 25         | 4426.00 | 4    | 1   | 57         | 6279.00 | 11   | 2   | 84         |
| 2207.00      | 2    | 0   | 25         | 4426.00 | 3    | 1   | 58         | 6289.00 | 2    | 0   | 85         |
| 2296.00      | 2    | 0   | 26         | 4435.00 | 8    | 1   | 59         | 6316.00 | 1    | 0   | 85         |
| 2306.00      | 2    | 0   | 26         | 4481.00 | 1    | 0   | 59         | 6471.00 | 31   | 5   | 90         |
| 2369.00      | 7    | 1   | 27         | 4627.00 | 1    | 0   | 59         | 6588.00 | 1    | 0   | 90         |
| 2511.00      | 3    | 1   | 28         | 4639.00 | 1    | 0   | 59         | 6593.00 | 6    | 1   | 91         |
| 2595.00      | 1    | 0   | 28         | 4715.00 | 6    | 1   | 61         | 7068.00 | 3    | 1   | 92         |
| 2708.00      | 23   | 4   | 32         | 4724.00 | 6    | 1   | 62         | 7250.00 | 4    | 1   | 93         |
| 2915.00      | 5    | 1   | 32         | 4730.00 | 2    | 0   | 62         | 7272.00 | 7    | 1   | 94         |
| 3016.00      | 2    | 0   | 33         | 4785.00 | 3    | 1   | 62         | 7283.00 | 4    | 1   | 94         |
| 3089.00      | 1    | 0   | 33         | 5022.00 | 2    | 0   | 63         | 7428.00 | 8    | 1   | 96         |
| 3122.00      | 3    | 1   | 33         | 5024.00 | 1    | 0   | 63         | 7587.00 | 4    | 1   | 97         |
| 3238.00      | 4    | 1   | 34         | 5127.00 | 6    | 1   | 64         | 8339.00 | 5    | 1   | 97         |
| 3331.00      | 1    | 0   | 34         | 5151.00 | 4    | 1   | 65         | 8545.00 | 1    | 0   | 98         |
| 3470.00      | 7    | 1   | 35         | 5165.00 | 12   | 2   | 67         | 8941.00 | 7    | 1   | 99         |
| 3478.00      | 3    | 1   | 36         | 5166.00 | 5    | 1   | 68         | 9121.00 | 7    | 1   | 100        |
| 3736.00      | 3    | 1   | 37         | 5198.00 | 1    | 0   | 68         |         |      |     |            |
| 3857.00      | 27   | 5   | 41         | 5218.00 | 20   | 3   | 71         |         |      |     |            |
| MISSING DATA |      |     |            |         |      |     |            |         |      |     |            |
| VALUE        | FREQ |     |            | VALUE   | FREQ |     |            | VALUE   | FREQ |     |            |
| -99.00       | 1    |     |            |         |      |     |            |         |      |     |            |

POP TRACT POPULATION

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 4.00 OCCURRENCES

|     |      |       |
|-----|------|-------|
| 14  | 477  | ****  |
| 0   | 899  |       |
| 107 | 1321 | ***** |
| 1   | 1743 |       |
| 34  | 2165 | ***** |
| 27  | 2587 | ***** |
| 9   | 3009 | **    |
| 15  | 3431 | ***   |
| 36  | 3853 | ***** |
| 97  | 4275 | ***** |
| 19  | 4697 | ***** |
| 51  | 5119 | ***** |
| 45  | 5541 | ***** |
| 18  | 5963 | ***   |
| 52  | 6385 | ***** |
| 0   | 6807 |       |
| 26  | 7229 | ***** |
| 0   | 7651 |       |
| 4   | 8073 | +     |
| 6   | 8495 | **    |
| 14  | 8917 | ****  |

I + I + I + I + I + I + I + I  
0 40 80 120 160 200  
HISTOGRAM FREQUENCY

|          |          |          |            |          |            |
|----------|----------|----------|------------|----------|------------|
| MEAN     | 4091.755 | STD ERR  | 38.937     | MEDIAN   | 4263.000   |
| MODE     | 1147.000 | STD DEV  | 2132.642   | VARIANCE | 4548162.08 |
| KURTOSIS | - .676   | S E KURT | 1.997      | SKEWNESS | .076       |
| S E SKEW | 102      | RANGE    | 8848.000   | MINIMUM  | 273.000    |
| MAXIMUM  | 9121.000 | SUM      | 2352759.00 |          |            |

| PERCENTILE | VALUE    | PERCENTILE | VALUE    | PERCENTILE | VALUE    |
|------------|----------|------------|----------|------------|----------|
| 10.00      | 1147.000 | 25.00      | 2207.000 | 33.30      | 3122.000 |
| 50.00      | 4263.000 | 66.70      | 5165.192 | 75.00      | 5512.000 |
| 90.00      | 5517.800 |            |          |            |          |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 575 | MISSING CASES | 1 |
|-------------|-----|---------------|---|

ONE UNIT STRUCTURES IN TRACT

| VALUE  | FREQ | PCT | CUM PCT | VALUE  | FREQ | PCT | CUM PCT | VALUE   | FREQ | PCT | CUM PCT |
|--------|------|-----|---------|--------|------|-----|---------|---------|------|-----|---------|
| 17.00  | 11   | 2   | 2       | 502.00 | 2    | 0   | 45      | 940.00  | 4    | 1   | 71      |
| 19.00  | 107  | 19  | 21      | 528.00 | 7    | 1   | 46      | 1008.00 | 1    | 0   | 71      |
| 20.00  | 2    | 0   | 21      | 549.00 | 3    | 1   | 47      | 1069.00 | 27   | 5   | 76      |
| 62.00  | 20   | 4   | 25      | 562.00 | 2    | 0   | 47      | 1104.00 | 4    | 1   | 76      |
| 63.00  | 4    | 1   | 25      | 587.00 | 1    | 0   | 47      | 1122.00 | 3    | 1   | 77      |
| 110.00 | 6    | 1   | 25      | 593.00 | 3    | 1   | 48      | 1142.00 | 8    | 1   | 78      |
| 127.00 | 10   | 2   | 28      | 604.00 | 4    | 1   | 49      | 1164.00 | 1    | 0   | 78      |
| 139.00 | 9    | 2   | 30      | 613.00 | 55   | 10  | 58      | 1172.00 | 2    | 0   | 79      |
| 150.00 | 3    | 1   | 30      | 625.00 | 1    | 0   | 58      | 1232.00 | 4    | 1   | 80      |
| 179.00 | 2    | 1   | 31      | 630.00 | 7    | 1   | 60      | 1308.00 | 1    | 0   | 80      |
| 212.00 | 5    | 1   | 32      | 667.00 | 1    | 0   | 60      | 1365.00 | 12   | 2   | 82      |
| 221.00 | 2    | 0   | 32      | 673.00 | 6    | 1   | 61      | 1385.00 | 3    | 1   | 82      |
| 236.00 | 6    | 1   | 33      | 675.00 | 1    | 0   | 61      | 1386.00 | 5    | 1   | 83      |
| 235.00 | 5    | 1   | 34      | 716.00 | 1    | 0   | 62      | 1417.00 | 11   | 2   | 85      |
| 260.00 | 4    | 1   | 35      | 760.00 | 1    | 0   | 62      | 1497.00 | 5    | 1   | 86      |
| 285.00 | 4    | 1   | 35      | 762.00 | 23   | 4   | 66      | 1512.00 | 4    | 1   | 87      |
| 307.00 | 6    | 1   | 36      | 781.00 | 8    | 1   | 67      | 1615.00 | 7    | 1   | 88      |
| 312.00 | 7    | 1   | 38      | 818.00 | 2    | 0   | 68      | 1624.00 | 2    | 0   | 88      |
| 322.00 | 1    | 0   | 38      | 826.00 | 1    | 0   | 68      | 1648.00 | 12   | 2   | 90      |
| 351.00 | 20   | 4   | 41      | 841.00 | 1    | 0   | 68      | 1707.00 | 3    | 1   | 91      |
| 382.00 | 6    | 1   | 43      | 886.00 | 1    | 0   | 68      | 1869.00 | 1    | 0   | 91      |
| 395.00 | 1    | 0   | 43      | 904.00 | 3    | 1   | 69      | 1874.00 | 31   | 5   | 96      |
| 473.00 | 1    | 0   | 43      | 912.00 | 4    | 1   | 69      | 2140.00 | 8    | 1   | 98      |
| 488.00 | 3    | 1   | 44      | 932.00 | 3    | 1   | 70      | 2146.00 | 5    | 1   | 99      |
| 501.00 | 1    | 1   | 45      | 935.00 | 1    | 0   | 70      | 2387.00 | 7    | 1   | 100     |

MISSING DATA

| VALUE | FREQ | VALUE  | FREQ | VALUE | FREQ |
|-------|------|--------|------|-------|------|
|       | 1    | -99.00 | 4    |       |      |

ONE UNIT STRUCTURES IN TRACT

COUNT

MIDPOINT

ONE SYMBOL EQUALS APPROXIMATELY 4.00 OCCURRENCES

```

150          72 *****
44          185 *****
22          298 *****
29          411 *****
25          524 *****
81          637 *****
33          750 *****
12          863 ***
9           976 **
42          1069 *****
7           1202 *
12          1315 ***
19          1428 ****
9           1541 **
24          1654 *****
0           1767
32          1880 *****
0           1993
13          2106 ***
0           2219
7           2332 **

```

HISTOGRAM FREQUENCY

|          |          |          |            |          |            |
|----------|----------|----------|------------|----------|------------|
| MEAN     | 169.329  | STD ERR  | 26.580     | MEDIAN   | 613.000    |
| MODE     | 19.000   | STD DEV  | 635.154    | VARIANCE | 403421.081 |
| KURTOSIS | -348     | S E KURT | 1.997      | SKEWNESS | .800       |
| S E SKEN | 102      | RANGE    | 2370.000   | MINIMUM  | 17.000     |
| MAXIMUM  | 2187.000 | SUM      | 393607.000 |          |            |

| PERCENTILE  | VALUE    | PERCENTILE    | VALUE   | PERCENTILE | VALUE    |
|-------------|----------|---------------|---------|------------|----------|
| 10.00       | 19.000   | 25.00         | 63.000  | 33.30      | 235.000  |
| 50.00       | 813.000  | 66.70         | 781.000 | 75.00      | 1069.000 |
| 90.00       | 1648.000 |               |         |            |          |
| VALID CASES | 571      | MISSING CASES | 5       |            |          |

# General building descriptions

AGE                      APPROX AGE OF STRUCTURE

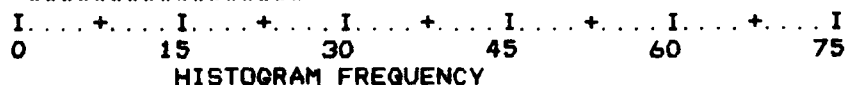
| VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT |
|-------|------|-----|------------|-------|------|-----|------------|-------|------|-----|------------|
| -99   | 3    | 1   | 1          | 15    | 4    | 1   | 15         | 55    | 8    | 3   | 55         |
| -94   | 1    | 0   | 1          | 16    | 2    | 1   | 16         | 59    | 2    | 1   | 56         |
| -92   | 1    | 0   | 2          | 20    | 9    | 3   | 19         | 60    | 19   | 7   | 62         |
| -90   | 1    | 0   | 2          | 24    | 12   | 4   | 23         | 64    | 10   | 4   | 66         |
| -66   | 4    | 1   | 4          | 25    | 6    | 2   | 25         | 65    | 4    | 1   | 67         |
| -40   | 1    | 0   | 4          | 26    | 1    | 0   | 26         | 66    | 1    | 0   | 68         |
| -34   | 1    | 0   | 4          | 28    | 1    | 0   | 26         | 67    | 1    | 0   | 68         |
| -22   | 1    | 0   | 5          | 30    | 4    | 1   | 27         | 68    | 1    | 0   | 68         |
| -19   | 1    | 0   | 5          | 34    | 6    | 2   | 29         | 69    | 2    | 1   | 69         |
| -18   | 1    | 0   | 5          | 35    | 4    | 1   | 31         | 70    | 29   | 10  | 79         |
| -16   | 1    | 0   | 6          | 38    | 1    | 0   | 31         | 72    | 8    | 3   | 82         |
| -10   | 6    | 2   | 8          | 40    | 9    | 3   | 34         | 74    | 13   | 5   | 87         |
| 0     | 3    | 1   | 9          | 44    | 2    | 1   | 35         | 75    | 12   | 4   | 91         |
| 1     | 1    | 0   | 9          | 45    | 3    | 1   | 36         | 76    | 1    | 0   | 91         |
| 4     | 2    | 1   | 10         | 47    | 1    | 0   | 36         | 78    | 5    | 2   | 93         |
| 5     | 2    | 1   | 11         | 49    | 1    | 0   | 37         | 79    | 6    | 2   | 95         |
| 6     | 1    | 0   | 11         | 50    | 39   | 14  | 51         | 80    | 11   | 4   | 99         |
| 9     | 1    | 0   | 11         | 52    | 1    | 0   | 51         | 81    | 2    | 1   | 100        |
| 10    | 4    | 1   | 13         | 53    | 1    | 0   | 51         | 84    | 1    | 0   | 100        |
| 14    | 3    | 1   | 14         | 54    | 3    | 1   | 52         |       |      |     |            |

## COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 1.50 OCCURRENCES

```

4      -98   ***
2      -89   *
0      -80
0      -71
4      -62   ***
0      -53
1      -44   *
1      -35   *
1      -26   *
3      -17   **
6       -8   ****
8        1   *****
9       10   *****
15      19   *****
24      28   *****
20      37   *****
46      46   *****
15      55   *****
36      64   *****
65      73   *****
25      82   *****

```



|          |        |          |           |          |          |
|----------|--------|----------|-----------|----------|----------|
| MEAN     | 44.572 | STD ERR  | 2.090     | MEDIAN   | 50.000   |
| MODE     | 50.000 | STD DEV  | 35.287    | VARIANCE | 1245.154 |
| KURTOSIS | 4.516  | S E KURT | 1.993     | SKEWNESS | -1.917   |
| S E SKEW | .144   | RANGE    | 183.000   | MINIMUM  | -99.000  |
| MAXIMUM  | 84.000 | SUM      | 12703.000 |          |          |

| PERCENTILE | VALUE  | PERCENTILE | VALUE  | PERCENTILE | VALUE  |
|------------|--------|------------|--------|------------|--------|
| 10.00      | 4.600  | 25.00      | 25.000 | 33.30      | 40.000 |
| 50.00      | 50.000 | 66.70      | 65.000 | 75.00      | 70.000 |
| 90.00      | 75.000 |            |        |            |        |

VALID CASES        285        MISSING CASES        0

EWIF EXPOSED WALL IN FOOTPRINT

| VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT |
|-------|------|-----|------------|-------|------|-----|------------|-------|------|-----|------------|
| 20    | 2    | 1   | 1          | 157   | 1    | 0   | 39         | 288   | 6    | 2   | 80         |
| 29    | 1    | 0   | 1          | 160   | 10   | 4   | 43         | 290   | 2    | 1   | 81         |
| 30    | 1    | 0   | 1          | 162   | 2    | 1   | 44         | 300   | 1    | 0   | 81         |
| 32    | 1    | 0   | 2          | 167   | 1    | 0   | 44         | 310   | 2    | 1   | 82         |
| 40    | 2    | 1   | 2          | 168   | 1    | 0   | 44         | 318   | 1    | 0   | 82         |
| 45    | 1    | 0   | 3          | 170   | 10   | 4   | 48         | 330   | 1    | 0   | 83         |
| 46    | 1    | 0   | 3          | 171   | 1    | 0   | 48         | 334   | 1    | 0   | 83         |
| 50    | 2    | 1   | 4          | 172   | 1    | 0   | 48         | 340   | 5    | 2   | 85         |
| 58    | 2    | 1   | 5          | 174   | 1    | 0   | 49         | 348   | 2    | 1   | 86         |
| 60    | 2    | 1   | 5          | 179   | 1    | 0   | 49         | 350   | 2    | 1   | 86         |
| 65    | 1    | 0   | 6          | 180   | 6    | 2   | 51         | 352   | 1    | 0   | 87         |
| 70    | 6    | 2   | 8          | 185   | 1    | 0   | 51         | 360   | 2    | 1   | 87         |
| 72    | 1    | 0   | 8          | 189   | 1    | 0   | 52         | 366   | 1    | 0   | 88         |
| 74    | 1    | 0   | 8          | 190   | 7    | 2   | 54         | 370   | 1    | 0   | 88         |
| 75    | 1    | 0   | 9          | 192   | 1    | 0   | 55         | 376   | 1    | 0   | 88         |
| 76    | 1    | 0   | 9          | 194   | 1    | 0   | 55         | 378   | 1    | 0   | 89         |
| 80    | 3    | 1   | 10         | 195   | 1    | 0   | 55         | 384   | 1    | 0   | 89         |
| 85    | 2    | 1   | 11         | 200   | 13   | 5   | 60         | 400   | 2    | 1   | 90         |
| 86    | 1    | 0   | 11         | 202   | 1    | 0   | 60         | 408   | 1    | 0   | 90         |
| 90    | 9    | 3   | 14         | 206   | 1    | 0   | 61         | 428   | 1    | 0   | 91         |
| 93    | 1    | 0   | 15         | 209   | 1    | 0   | 61         | 431   | 1    | 0   | 91         |
| 95    | 1    | 0   | 15         | 210   | 8    | 3   | 64         | 432   | 1    | 0   | 91         |
| 100   | 7    | 2   | 18         | 213   | 2    | 1   | 65         | 438   | 1    | 0   | 92         |
| 104   | 1    | 0   | 18         | 218   | 1    | 0   | 65         | 440   | 2    | 1   | 92         |
| 105   | 1    | 0   | 18         | 220   | 1    | 0   | 65         | 452   | 1    | 0   | 93         |
| 106   | 1    | 0   | 19         | 225   | 1    | 0   | 66         | 460   | 3    | 1   | 94         |
| 108   | 1    | 0   | 19         | 228   | 1    | 0   | 66         | 506   | 1    | 0   | 94         |
| 110   | 5    | 2   | 21         | 230   | 3    | 1   | 67         | 519   | 1    | 0   | 94         |
| 112   | 1    | 0   | 21         | 232   | 1    | 0   | 67         | 550   | 1    | 0   | 95         |
| 120   | 10   | 4   | 25         | 235   | 1    | 0   | 68         | 551   | 1    | 0   | 95         |
| 122   | 1    | 0   | 25         | 240   | 7    | 2   | 70         | 556   | 3    | 1   | 96         |
| 130   | 11   | 4   | 29         | 244   | 1    | 0   | 71         | 574   | 1    | 0   | 96         |
| 134   | 1    | 0   | 29         | 250   | 4    | 1   | 72         | 575   | 1    | 0   | 97         |
| 136   | 1    | 0   | 29         | 254   | 2    | 1   | 73         | 576   | 2    | 1   | 98         |
| 139   | 3    | 1   | 31         | 255   | 1    | 0   | 73         | 620   | 1    | 0   | 98         |
| 140   | 15   | 5   | 36         | 259   | 1    | 0   | 73         | 640   | 1    | 0   | 98         |
| 144   | 1    | 0   | 36         | 260   | 5    | 2   | 75         | 650   | 1    | 0   | 99         |
| 145   | 1    | 0   | 36         | 264   | 1    | 0   | 75         | 700   | 1    | 0   | 99         |
| 146   | 1    | 0   | 37         | 266   | 1    | 0   | 76         | 840   | 1    | 0   | 99         |
| 150   | 3    | 1   | 38         | 269   | 1    | 0   | 76         | 951   | 1    | 0   | 100        |
| 154   | 1    | 0   | 38         | 270   | 2    | 1   | 77         | 999   | 1    | 0   | 100        |
| 156   | 2    | 1   | 39         | 280   | 4    | 1   | 78         |       |      |     |            |

**EXPOSED WALL IN FOOTPRINT**

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 1.20 OCCURRENCES

```

15      40      *****
44      87      *****
53     134      *****
60     181      *****
33     228      *****
26     275      *****
11     322      *****
12     369      *****
 7     416      *****
 6     463      *****
 2     510      **
 9     557      *****
 1     604      *
 2     651      **
 1     698      *
 0     745
 0     792
 1     839      *
 0     886
 1     933      *
 1     980      *

```

I . + I . + I . + I . + I . + I

0            12            24            36            48            60

HISTOGRAM FREQUENCY

|          |         |          |           |          |           |
|----------|---------|----------|-----------|----------|-----------|
| MEAN     | 218.379 | STD ERR  | 8.820     | MEDIAN   | 180.000   |
| MODE     | 140.000 | STD DEV  | 148.907   | VARIANCE | 22173.173 |
| KURTOSIS | 5.497   | S E KURT | 1.993     | SKEWNESS | 1.973     |
| S E SKEW | .144    | RANGE    | 979.000   | MINIMUM  | 20.000    |
| MAXIMUM  | 999.000 | SUM      | 62238.000 |          |           |

| PERCENTILE | VALUE    | PERCENTILE | VALUE    | PERCENTILE | VALUE    |
|------------|----------|------------|----------|------------|----------|
| 10. 00     | 80. 000  | 25. 00     | 126. 000 | 33. 30     | 140. 000 |
| 50. 00     | 180. 000 | 66. 70     | 230. 000 | 75. 00     | 262. 000 |
| 90. 00     | 416. 000 |            |          |            |          |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

HT

## AVERAGE WALL HEIGHT

| VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT |
|-------|------|-----|------------|-------|------|-----|------------|-------|------|-----|------------|
| 3     | 1    | 0   | 0          | 29    | 3    | 1   | 53         | 58    | 5    | 2   | 88         |
| 7     | 1    | 0   | 1          | 30    | 21   | 7   | 60         | 59    | 1    | 0   | 89         |
| 8     | 6    | 2   | 3          | 32    | 5    | 2   | 62         | 60    | 2    | 1   | 89         |
| 9     | 4    | 1   | 4          | 33    | 2    | 1   | 63         | 65    | 7    | 2   | 92         |
| 10    | 10   | 4   | 8          | 34    | 1    | 0   | 63         | 67    | 2    | 1   | 93         |
| 12    | 14   | 5   | 13         | 35    | 9    | 3   | 66         | 68    | 1    | 0   | 93         |
| 13    | 2    | 1   | 13         | 36    | 2    | 1   | 67         | 70    | 2    | 1   | 94         |
| 14    | 9    | 3   | 16         | 37    | 2    | 1   | 68         | 80    | 1    | 0   | 94         |
| 15    | 19   | 7   | 23         | 38    | 2    | 1   | 68         | 85    | 1    | 0   | 94         |
| 16    | 2    | 1   | 24         | 40    | 15   | 5   | 74         | 95    | 1    | 0   | 95         |
| 17    | 2    | 1   | 25         | 41    | 2    | 1   | 74         | 98    | 1    | 0   | 95         |
| 18    | 9    | 3   | 28         | 42    | 2    | 1   | 75         | 100   | 1    | 0   | 95         |
| 19    | 2    | 1   | 28         | 43    | 4    | 1   | 76         | 111   | 1    | 0   | 96         |
| 20    | 25   | 9   | 37         | 45    | 11   | 4   | 80         | 116   | 1    | 0   | 96         |
| 21    | 1    | 0   | 38         | 47    | 2    | 1   | 81         | 120   | 2    | 1   | 97         |
| 22    | 6    | 2   | 40         | 48    | 1    | 0   | 81         | 135   | 1    | 0   | 97         |
| 23    | 1    | 0   | 40         | 50    | 8    | 3   | 84         | 153   | 1    | 0   | 98         |
| 24    | 3    | 1   | 41         | 53    | 1    | 0   | 85         | 158   | 2    | 1   | 98         |
| 25    | 19   | 7   | 48         | 54    | 1    | 0   | 85         | 160   | 2    | 1   | 99         |
| 26    | 2    | 1   | 48         | 55    | 2    | 1   | 86         | 190   | 2    | 1   | 100        |
| 27    | 3    | 1   | 49         | 56    | 1    | 0   | 86         | 300   | 1    | 0   | 100        |
| 28    | 7    | 2   | 52         | 57    | 2    | 1   | 87         |       |      |     |            |

AVERAGE WALL HEIGHT

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 4.00 OCCURRENCES

```

12          2    ***
105         17   *****
78          32   *****
47          47   *****
23          62   *****
3           77   *
3           92   *
2          107   *
3          122   *
1          137
3          152   *
2          167   *
0          182
2          197   *
0          212
0          227
0          242
0          257
0          272
0          287
1          302

```

A histogram showing the frequency distribution of data. The x-axis is labeled 'HISTOGRAM FREQUENCY' and ranges from 0 to 200 with major tick marks at 0, 40, 80, 120, 160, and 200. The y-axis is labeled 'FREQUENCY' and ranges from 0 to 10 with major tick marks at 0, 2, 4, 6, 8, and 10. The histogram consists of 10 bars, each with a width of 20 units. The frequencies for the bins are: 0-20: 1, 20-40: 4, 40-60: 1, 60-80: 4, 80-100: 1, 100-120: 4, 120-140: 1, 140-160: 4, 160-180: 1, and 180-200: 4.

|          |         |          |           |          |          |
|----------|---------|----------|-----------|----------|----------|
| MEAN     | 36.098  | STD ERR  | 1.989     | MEDIAN   | 28.000   |
| MODE     | 20.000  | STD DEV  | 33.572    | VARIANCE | 1127.096 |
| KURTOSIS | 18.012  | S E KURT | 1.993     | SKEWNESS | 3.559    |
| S E SKEW | .144    | RANGE    | 297.000   | MINIMUM  | 3.000    |
| MAXIMUM  | 300.000 | SUM      | 10288.000 |          |          |

| PERCENTILE | VALUE  | PERCENTILE | VALUE  | PERCENTILE | VALUE  |
|------------|--------|------------|--------|------------|--------|
| 10.00      | 12.000 | 25.00      | 18.000 | 33.30      | 20.000 |
| 50.00      | 28.000 | 66.70      | 36.000 | 75.00      | 42.500 |
| 90.00      | 65.000 |            |        |            |        |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

LOT

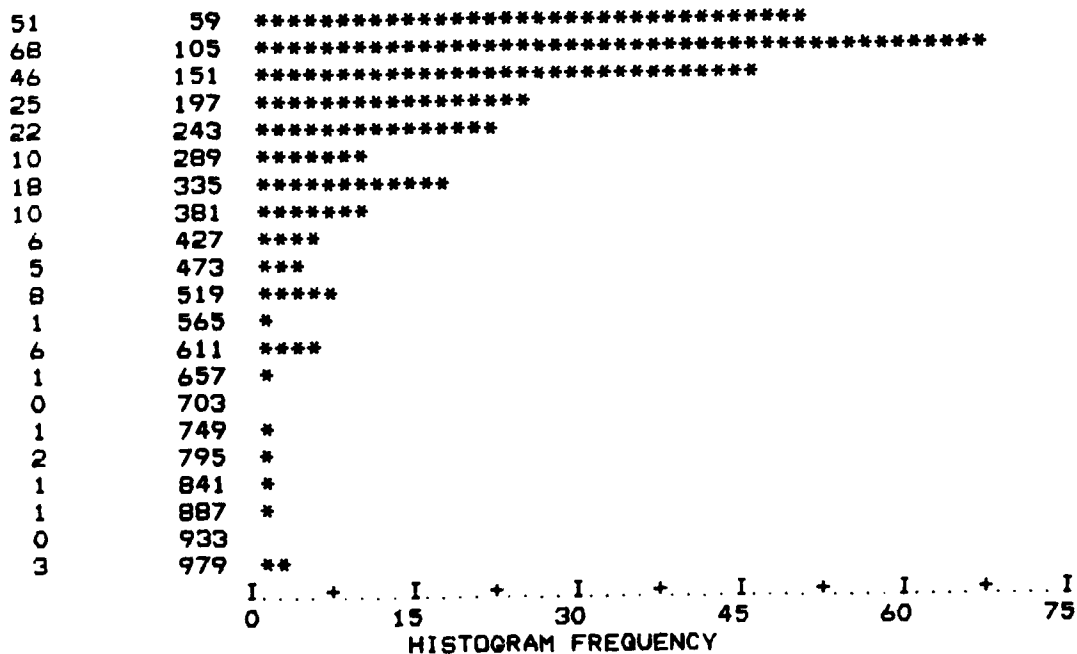
LOT SIZE

| VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT |
|-------|------|-----|------------|-------|------|-----|------------|-------|------|-----|------------|
| 38    | 2    | 1   | 1          | 134   | 2    | 1   | 44         | 262   | 1    | 0   | 74         |
| 49    | 1    | 0   | 1          | 135   | 1    | 0   | 44         | 270   | 2    | 1   | 75         |
| 50    | 3    | 1   | 2          | 137   | 1    | 0   | 45         | 274   | 2    | 1   | 76         |
| 51    | 1    | 0   | 2          | 138   | 1    | 0   | 45         | 277   | 1    | 0   | 76         |
| 55    | 6    | 2   | 5          | 139   | 1    | 0   | 45         | 280   | 1    | 0   | 76         |
| 57    | 1    | 0   | 5          | 140   | 2    | 1   | 46         | 290   | 1    | 0   | 77         |
| 59    | 1    | 0   | 5          | 141   | 1    | 0   | 46         | 300   | 2    | 1   | 78         |
| 60    | 8    | 3   | 8          | 146   | 1    | 0   | 47         | 310   | 1    | 0   | 78         |
| 61    | 1    | 0   | 8          | 150   | 11   | 4   | 51         | 313   | 2    | 1   | 79         |
| 63    | 1    | 0   | 9          | 153   | 1    | 0   | 51         | 316   | 4    | 1   | 80         |
| 65    | 2    | 1   | 9          | 155   | 1    | 0   | 51         | 320   | 1    | 0   | 80         |
| 66    | 1    | 0   | 10         | 157   | 1    | 0   | 52         | 325   | 1    | 0   | 81         |
| 68    | 1    | 0   | 10         | 158   | 1    | 0   | 52         | 331   | 1    | 0   | 81         |
| 70    | 5    | 2   | 12         | 159   | 1    | 0   | 52         | 344   | 2    | 1   | 82         |
| 71    | 1    | 0   | 12         | 160   | 7    | 2   | 55         | 346   | 1    | 0   | 82         |
| 75    | 9    | 3   | 15         | 161   | 2    | 1   | 55         | 348   | 1    | 0   | 82         |
| 76    | 2    | 1   | 16         | 165   | 1    | 0   | 56         | 350   | 2    | 1   | 83         |
| 80    | 4    | 1   | 18         | 170   | 2    | 1   | 56         | 351   | 1    | 0   | 84         |
| 81    | 1    | 0   | 18         | 171   | 2    | 1   | 57         | 354   | 2    | 1   | 84         |
| 84    | 1    | 0   | 18         | 173   | 2    | 1   | 58         | 366   | 2    | 1   | 85         |
| 85    | 5    | 2   | 20         | 175   | 1    | 0   | 58         | 387   | 3    | 1   | 86         |
| 87    | 2    | 1   | 21         | 176   | 1    | 0   | 59         | 395   | 1    | 0   | 86         |
| 89    | 2    | 1   | 21         | 177   | 1    | 0   | 59         | 400   | 4    | 1   | 88         |
| 90    | 11   | 4   | 25         | 179   | 1    | 0   | 59         | 410   | 1    | 0   | 88         |
| 92    | 1    | 0   | 26         | 184   | 3    | 1   | 60         | 412   | 1    | 0   | 88         |
| 95    | 6    | 2   | 28         | 185   | 1    | 0   | 61         | 425   | 1    | 0   | 89         |
| 98    | 1    | 0   | 28         | 189   | 1    | 0   | 61         | 427   | 1    | 0   | 89         |
| 100   | 8    | 3   | 31         | 190   | 2    | 1   | 62         | 447   | 2    | 1   | 90         |
| 101   | 1    | 0   | 31         | 197   | 1    | 0   | 62         | 450   | 2    | 1   | 91         |
| 102   | 1    | 0   | 32         | 200   | 3    | 1   | 63         | 458   | 1    | 0   | 91         |
| 105   | 1    | 0   | 32         | 201   | 1    | 0   | 64         | 487   | 1    | 0   | 91         |
| 106   | 1    | 0   | 32         | 202   | 1    | 0   | 64         | 490   | 1    | 0   | 92         |
| 110   | 10   | 4   | 36         | 210   | 6    | 2   | 66         | 500   | 4    | 1   | 93         |
| 115   | 1    | 0   | 36         | 212   | 1    | 0   | 66         | 540   | 4    | 1   | 94         |
| 117   | 1    | 0   | 36         | 215   | 1    | 0   | 67         | 582   | 1    | 0   | 95         |
| 119   | 1    | 0   | 37         | 220   | 2    | 1   | 67         | 620   | 6    | 2   | 97         |
| 120   | 6    | 2   | 39         | 225   | 3    | 1   | 68         | 650   | 1    | 0   | 97         |
| 121   | 1    | 0   | 39         | 227   | 2    | 1   | 69         | 740   | 1    | 0   | 98         |
| 122   | 2    | 1   | 40         | 230   | 2    | 1   | 70         | 800   | 2    | 1   | 98         |
| 125   | 2    | 1   | 41         | 231   | 1    | 0   | 70         | 850   | 1    | 0   | 99         |
| 126   | 2    | 1   | 41         | 240   | 2    | 1   | 71         | 900   | 1    | 0   | 99         |
| 127   | 1    | 0   | 42         | 245   | 2    | 1   | 72         | 999   | 3    | 1   | 100        |
| 130   | 3    | 1   | 43         | 250   | 6    | 2   | 74         |       |      |     |            |
| 132   | 1    | 0   | 43         | 253   | 1    | 0   | 74         |       |      |     |            |

LOT

LOT SIZE

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 1.50 OCCURRENCES



|          |         |          |           |          |           |
|----------|---------|----------|-----------|----------|-----------|
| MEAN     | 214.874 | STD ERR  | 10.653    | MEDIAN   | 150.000   |
| MODE     | 90.000  | STD DEV  | 179.852   | VARIANCE | 32346.639 |
| KURTOSIS | 4.534   | S E KURT | 1.993     | SKEWNESS | 1.994     |
| S E SKEW | .144    | RANGE    | 961.000   | MINIMUM  | 38.000    |
| MAXIMUM  | 999.000 | SUM      | 61239.000 |          |           |

| PERCENTILE | VALUE   | PERCENTILE | VALUE   | PERCENTILE | VALUE   |
|------------|---------|------------|---------|------------|---------|
| 10.00      | 67.200  | 25.00      | 90.000  | 33.30      | 110.000 |
| 50.00      | 150.000 | 66.70      | 218.810 | 75.00      | 272.000 |
| 90.00      | 450.000 |            |         |            |         |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

TYPE            STRUCTURE TYPE-USAGE

| VALUE LABEL       | VALUE | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|-------------------|-------|-----------|---------|------------------|----------------|
| 1 UNIT DETACHED   | 1     | 100       | 35.1    | 35.1             | 35.1           |
| 2 UNITS           | 3     | 9         | 3.2     | 3.2              | 38.2           |
| 3 TO 4 UNITS      | 4     | 4         | 1.4     | 1.4              | 39.6           |
| 5 TO 9 UNITS      | 5     | 14        | 4.9     | 4.9              | 44.6           |
| 10 TO 19 UNITS    | 6     | 5         | 1.8     | 1.8              | 46.3           |
| 50 OR MORE UNITS  | 8     | 3         | 1.1     | 1.1              | 47.4           |
| NONHOUSEKEEPING   | 9     | 4         | 1.4     | 1.4              | 48.8           |
| OFFICE BUILDING   | 10    | 23        | 8.1     | 8.1              | 56.8           |
| OTHER COMMERCIAL  | 11    | 69        | 24.2    | 24.2             | 81.1           |
| INDUSTRIAL        | 12    | 9         | 3.2     | 3.2              | 84.2           |
| HOSP OR INST      | 13    | 8         | 2.8     | 2.8              | 87.0           |
| RELIGIOUS         | 14    | 12        | 4.2     | 4.2              | 91.2           |
| EDUCATIONAL       | 15    | 15        | 5.3     | 5.3              | 96.5           |
| OTHER NONRESIDENT | 16    | 4         | 1.4     | 1.4              | 97.9           |
| FARM              | 18    | 5         | 1.8     | 1.8              | 99.6           |
| CANNOT ID         | 19    | 1         | .4      | .4               | 100.0          |
| TOTAL             |       | 285       | 100.0   | 100.0            |                |

COUNT            VALUE            ONE SYMBOL EQUALS APPROXIMATELY 2.00 OCCURRENCES

|     |       |       |
|-----|-------|-------|
| 100 | 1.00  | ***** |
| 0   | 2.00  |       |
| 9   | 3.00  | ***** |
| 4   | 4.00  | **    |
| 14  | 5.00  | ***** |
| 5   | 6.00  | ***   |
| 0   | 7.00  |       |
| 3   | 8.00  | **    |
| 4   | 9.00  | **    |
| 23  | 10.00 | ***** |
| 69  | 11.00 | ***** |
| 9   | 12.00 | ***** |
| 8   | 13.00 | ****  |
| 12  | 14.00 | ***** |
| 15  | 15.00 | ***** |
| 4   | 16.00 | **    |
| 0   | 17.00 |       |
| 5   | 18.00 | ***   |
| 1   | 19.00 | *     |

I . . . . . I . . . . . I . . . . . I . . . . . I . . . . . I  
0                    20                    40                    60                    80                    100  
HISTOGRAM FREQUENCY

TYPE            STRUCTURE TYPE-USAGE

|          |        |          |          |          |        |
|----------|--------|----------|----------|----------|--------|
| MEAN     | 7.263  | STD ERR  | .320     | MEDIAN   | 10.000 |
| MODE     | 1.000  | STD DEV  | 5.401    | VARIANCE | 29.173 |
| KURTOSIS | -1.456 | S E KURT | 1.993    | SKEWNESS | .047   |
| S E SKEW | .144   | RANGE    | 18.000   | MINIMUM  | 1.000  |
| MAXIMUM  | 19.000 | SUM      | 2070.000 |          |        |

| PERCENTILE | VALUE  | PERCENTILE | VALUE  | PERCENTILE | VALUE  |
|------------|--------|------------|--------|------------|--------|
| 10.00      | 1.000  | 25.00      | 1.000  | 33.30      | 1.000  |
| 50.00      | 10.000 | 66.70      | 11.000 | 75.00      | 11.000 |
| 90.00      | 14.000 |            |        |            |        |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

# Spatial areas of building materials

AGALV AREA: GALVANIZED SURFACE

| VALUE LABEL | VALUE    | FREQUENCY | PERCENT | VALID PERCENT | CUM PERCENT |
|-------------|----------|-----------|---------|---------------|-------------|
|             | 0.0      | 269       | 94.4    | 94.4          | 94.4        |
|             | 78.40    | 1         | .4      | .4            | 94.7        |
|             | 210.00   | 1         | .4      | .4            | 95.1        |
|             | 902.40   | 1         | .4      | .4            | 95.4        |
|             | 1469.60  | 1         | .4      | .4            | 95.8        |
|             | 2556.00  | 1         | .4      | .4            | 96.1        |
|             | 4190.40  | 1         | .4      | .4            | 96.5        |
|             | 4598.88  | 1         | .4      | .4            | 96.8        |
|             | 8757.00  | 1         | .4      | .4            | 97.2        |
|             | 9232.08  | 1         | .4      | .4            | 97.5        |
|             | 13920.00 | 1         | .4      | .4            | 97.9        |
|             | 19493.76 | 1         | .4      | .4            | 98.2        |
|             | 24992.00 | 1         | .4      | .4            | 98.6        |
|             | 27153.00 | 1         | .4      | .4            | 98.9        |
|             | 32697.00 | 1         | .4      | .4            | 99.3        |
|             | 35028.00 | 2         | .7      | .7            | 100.0       |
| TOTAL       |          | 285       | 100.0   | 100.0         |             |

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 8.00 OCCURRENCES

|     |       |       |
|-----|-------|-------|
| 273 | 834   | ***** |
| 1   | 2502  |       |
| 2   | 4170  |       |
| 0   | 5838  |       |
| 0   | 7506  |       |
| 2   | 9174  |       |
| 0   | 10842 |       |
| 0   | 12510 |       |
| 1   | 14178 |       |
| 0   | 15846 |       |
| 0   | 17514 |       |
| 1   | 19182 |       |
| 0   | 20850 |       |
| 0   | 22518 |       |
| 1   | 24186 |       |
| 0   | 25854 |       |
| 1   | 27522 |       |
| 0   | 29190 |       |
| 0   | 30858 |       |
| 1   | 32526 |       |
| 2   | 34194 |       |

I . . . + . . . I . . . + . . . I . . . + . . . I . . . + . . . I . . . + . . . I . . . + . . . I  
0 80 160 240 320 400  
HISTOGRAM FREQUENCY

AGALV      AREA: GALVANIZED SURFACE

|          |           |          |            |          |            |
|----------|-----------|----------|------------|----------|------------|
| MEAN     | 773.005   | STD ERR  | 260.641    | MEDIAN   | 0.0        |
| MODE     | 0.0       | STD DEV  | 4400.128   | VARIANCE | 19361122.3 |
| KURTOSIS | 42.857    | S E KURT | 1.993      | SKEWNESS | 6.469      |
| S E SKEW | .144      | RANGE    | 35028.000  | MINIMUM  | 0.0        |
| MAXIMUM  | 35028.000 | SUM      | 220306.520 |          |            |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 0.0   | 75.00      | 0.0   |
| 90.00      | 0.0   |            |       |            |       |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

AMORT AREA: MORTAR / MASONRY SURFACE

| VALUE  | FREQ | PCT | CUM<br>PCT | VALUE   | FREQ | PCT | CUM<br>PCT | VALUE    | FREQ | PCT | CUM<br>PCT |
|--------|------|-----|------------|---------|------|-----|------------|----------|------|-----|------------|
| 0.0    | 133  | 47  | 47         | 862.00  | 1    | 0   | 64         | 3510.00  | 1    | 0   | 80         |
| 48.80  | 1    | 0   | 47         | 875.00  | 1    | 0   | 64         | 3519.00  | 1    | 0   | 81         |
| 77.60  | 1    | 0   | 47         | 891.00  | 1    | 0   | 64         | 3585.60  | 1    | 0   | 81         |
| 85.60  | 1    | 0   | 48         | 957.60  | 1    | 0   | 65         | 3609.00  | 1    | 0   | 81         |
| 99.00  | 1    | 0   | 48         | 965.20  | 1    | 0   | 65         | 3711.76  | 1    | 0   | 82         |
| 109.20 | 1    | 0   | 48         | 1038.00 | 1    | 0   | 65         | 3788.40  | 1    | 0   | 82         |
| 116.00 | 1    | 0   | 49         | 1048.32 | 1    | 0   | 66         | 3808.80  | 1    | 0   | 82         |
| 120.00 | 1    | 0   | 49         | 1112.00 | 2    | 1   | 66         | 4098.40  | 1    | 0   | 93         |
| 130.00 | 1    | 0   | 49         | 1125.00 | 1    | 0   | 67         | 4103.50  | 1    | 0   | 83         |
| 144.00 | 1    | 0   | 50         | 1155.00 | 1    | 0   | 67         | 4147.20  | 1    | 0   | 84         |
| 160.00 | 1    | 0   | 50         | 1176.00 | 1    | 0   | 67         | 4186.00  | 1    | 0   | 84         |
| 161.00 | 1    | 0   | 51         | 1204.80 | 1    | 0   | 68         | 4193.00  | 1    | 0   | 84         |
| 220.00 | 1    | 0   | 51         | 1220.00 | 1    | 0   | 68         | 4219.20  | 1    | 0   | 85         |
| 220.00 | 1    | 0   | 51         | 1344.00 | 1    | 0   | 68         | 4297.80  | 1    | 0   | 85         |
| 235.00 | 1    | 0   | 52         | 1365.00 | 1    | 0   | 69         | 4876.40  | 1    | 0   | 85         |
| 240.00 | 1    | 0   | 52         | 1377.00 | 1    | 0   | 69         | 4930.31  | 1    | 0   | 86         |
| 255.00 | 1    | 0   | 52         | 1433.60 | 1    | 0   | 69         | 4939.22  | 1    | 0   | 86         |
| 260.00 | 1    | 0   | 53         | 1638.00 | 1    | 0   | 70         | 5040.00  | 1    | 0   | 86         |
| 272.00 | 1    | 0   | 53         | 1783.08 | 1    | 0   | 70         | 5067.20  | 1    | 0   | 87         |
| 278.00 | 1    | 0   | 53         | 1880.00 | 1    | 0   | 71         | 5290.00  | 1    | 0   | 87         |
| 280.00 | 1    | 0   | 54         | 1945.80 | 1    | 0   | 71         | 5630.00  | 1    | 0   | 87         |
| 280.00 | 1    | 0   | 54         | 1950.00 | 1    | 0   | 71         | 5955.00  | 1    | 0   | 88         |
| 281.60 | 1    | 0   | 54         | 1986.90 | 1    | 0   | 72         | 6240.00  | 1    | 0   | 88         |
| 288.00 | 1    | 0   | 55         | 2002.29 | 1    | 0   | 72         | 6344.40  | 1    | 0   | 88         |
| 292.00 | 1    | 0   | 55         | 2073.60 | 1    | 0   | 72         | 6420.00  | 1    | 0   | 89         |
| 300.00 | 1    | 0   | 55         | 2142.00 | 1    | 0   | 73         | 6528.00  | 1    | 0   | 89         |
| 300.00 | 1    | 0   | 55         | 2172.00 | 1    | 0   | 73         | 6542.40  | 1    | 0   | 89         |
| 312.00 | 1    | 0   | 56         | 2175.60 | 1    | 0   | 73         | 6566.40  | 1    | 0   | 90         |
| 320.00 | 1    | 0   | 56         | 2240.00 | 1    | 0   | 74         | 6789.12  | 1    | 0   | 90         |
| 323.84 | 1    | 0   | 57         | 2267.80 | 1    | 0   | 74         | 6804.48  | 1    | 0   | 91         |
| 340.00 | 2    | 1   | 58         | 2268.00 | 1    | 0   | 74         | 6878.00  | 1    | 0   | 91         |
| 360.00 | 1    | 0   | 58         | 2612.40 | 1    | 0   | 75         | 7260.00  | 1    | 0   | 91         |
| 360.36 | 1    | 0   | 58         | 2670.64 | 1    | 0   | 75         | 7264.40  | 1    | 0   | 92         |
| 399.50 | 1    | 0   | 59         | 2721.70 | 1    | 0   | 75         | 7280.34  | 1    | 0   | 92         |
| 420.00 | 2    | 1   | 59         | 2782.50 | 1    | 0   | 76         | 7322.22  | 1    | 0   | 92         |
| 426.00 | 1    | 0   | 60         | 2808.00 | 1    | 0   | 76         | 7364.16  | 1    | 0   | 93         |
| 471.00 | 1    | 0   | 60         | 2850.00 | 1    | 0   | 76         | 7502.60  | 1    | 0   | 93         |
| 530.00 | 1    | 0   | 60         | 2856.00 | 1    | 0   | 77         | 7525.00  | 1    | 0   | 93         |
| 560.00 | 1    | 0   | 61         | 2975.00 | 1    | 0   | 77         | 7848.00  | 1    | 0   | 94         |
| 595.20 | 1    | 0   | 61         | 3052.50 | 1    | 0   | 78         | 8488.20  | 1    | 0   | 94         |
| 624.37 | 1    | 0   | 61         | 3100.00 | 1    | 0   | 78         | 8754.48  | 1    | 0   | 94         |
| 636.00 | 1    | 0   | 62         | 3112.00 | 2    | 1   | 79         | 9328.00  | 1    | 0   | 95         |
| 646.00 | 1    | 0   | 62         | 3235.92 | 1    | 0   | 79         | 9331.20  | 1    | 0   | 95         |
| 666.40 | 1    | 0   | 62         | 3402.00 | 1    | 0   | 79         | 10127.00 | 1    | 0   | 95         |
| 702.00 | 1    | 0   | 63         | 3465.00 | 1    | 0   | 80         | 10432.52 | 1    | 0   | 96         |
| 732.00 | 1    | 0   | 63         | 3496.00 | 1    | 0   | 80         | 10756.80 | 1    | 0   | 96         |

AMORT AREA: MORTAR / MASONRY SURFACE

| VALUE    | FREQ | PCT | CUM PCT | VALUE    | FREQ | PCT | CUM PCT | VALUE    | FREQ | PCT | CUM PCT |
|----------|------|-----|---------|----------|------|-----|---------|----------|------|-----|---------|
| 10764.00 | 1    | 0   | 96      | 18576.00 | 1    | 0   | 98      | 26853.12 | 1    | 0   | 99      |
| 10893.60 | 1    | 0   | 97      | 18720.00 | 1    | 0   | 98      | 28008.50 | 1    | 0   | 100     |
| 15531.86 | 1    | 0   | 97      | 19707.20 | 1    | 0   | 99      | 35056.00 | 1    | 0   | 100     |
| 17173.40 | 1    | 0   | 98      | 21196.80 | 1    | 0   | 99      |          |      |     |         |

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 4.00 OCCURRENCES

|     |       |       |
|-----|-------|-------|
| 199 | 828   | ***** |
| 26  | 2498  | ***** |
| 20  | 4168  | ***** |
| 11  | 5838  | ***   |
| 11  | 7508  | ***   |
| 4   | 9178  | *     |
| 5   | 10848 | *     |
| 0   | 12518 |       |
| 0   | 14188 |       |
| 1   | 15858 |       |
| 1   | 17528 |       |
| 3   | 19198 | *     |
| 1   | 20868 |       |
| 0   | 22538 |       |
| 0   | 24208 |       |
| 0   | 25878 |       |
| 2   | 27548 | *     |
| 0   | 29218 |       |
| 0   | 30888 |       |
| 0   | 32558 |       |
| 1   | 34228 |       |

I. +. I. +. I. +. I. +. I. +. I. +. I.  
 0 40 80 120 160 200  
 HISTOGRAM FREQUENCY

|          |           |          |            |          |            |
|----------|-----------|----------|------------|----------|------------|
| MEAN     | 2166.280  | STD ERR  | 268.894    | MEDIAN   | 160.000    |
| MODE     | 0.0       | STD DEV  | 4539.447   | VARIANCE | 20606578.0 |
| KURTOSIS | 18.072    | S E KURT | 1.993      | SKEWNESS | 3.782      |
| S E SKEW | .144      | RANGE    | 35056.000  | MINIMUM  | 0.0        |
| MAXIMUM  | 35056.000 | SUM      | 617389.710 |          |            |

| PERCENTILE | VALUE    | PERCENTILE | VALUE    | PERCENTILE | VALUE    |
|------------|----------|------------|----------|------------|----------|
| 10.00      | 0.0      | 25.00      | 0.0      | 33.30      | 0.0      |
| 50.00      | 160.000  | 66.70      | 1147.860 | 75.00      | 2696.170 |
| 90.00      | 6795.264 |            |          |            |          |

VALID CASES 285 MISSING CASES 0

APAINI AREA. PAINTED SURFACE

| VALUE  | FREQ | PCT | CUM<br>PCT | VALUE   | FREQ | PCT | CUM<br>PCT | VALUE   | FREQ | PCT | CUM<br>PCT |
|--------|------|-----|------------|---------|------|-----|------------|---------|------|-----|------------|
| 0.0    | 84   | 29  | 29         | 735.00  | 1    | 0   | 47         | 1854.00 | 1    | 0   | 63         |
| 8.00   | 1    | 0   | 30         | 742.40  | 1    | 0   | 47         | 1872.00 | 1    | 0   | 64         |
| 17.40  | 1    | 0   | 30         | 763.20  | 1    | 0   | 47         | 1880.00 | 1    | 0   | 64         |
| 42.00  | 1    | 0   | 31         | 792.00  | 1    | 0   | 48         | 1932.00 | 1    | 0   | 64         |
| 54.00  | 1    | 0   | 31         | 828.00  | 1    | 0   | 48         | 2040.00 | 1    | 0   | 65         |
| 54.40  | 1    | 0   | 31         | 873.60  | 1    | 0   | 48         | 2108.00 | 1    | 0   | 65         |
| 55.38  | 1    | 0   | 32         | 880.32  | 1    | 0   | 49         | 2136.00 | 1    | 0   | 65         |
| 72.00  | 1    | 0   | 32         | 892.40  | 1    | 0   | 49         | 2142.00 | 1    | 0   | 66         |
| 81.00  | 2    | 1   | 33         | 904.80  | 1    | 0   | 49         | 2208.00 | 1    | 0   | 66         |
| 105.30 | 1    | 0   | 33         | 921.60  | 1    | 0   | 50         | 2254.56 | 1    | 0   | 66         |
| 106.76 | 1    | 0   | 33         | 928.00  | 1    | 0   | 50         | 2325.60 | 1    | 0   | 67         |
| 112.00 | 1    | 0   | 34         | 952.20  | 1    | 0   | 51         | 2340.80 | 1    | 0   | 67         |
| 119.00 | 1    | 0   | 34         | 972.00  | 1    | 0   | 51         | 2343.60 | 1    | 0   | 67         |
| 139.32 | 1    | 0   | 34         | 990.00  | 1    | 0   | 51         | 2368.80 | 1    | 0   | 68         |
| 144.50 | 1    | 0   | 35         | 1012.50 | 1    | 0   | 52         | 2380.56 | 1    | 0   | 68         |
| 207.00 | 1    | 0   | 35         | 1020.00 | 1    | 0   | 52         | 2457.00 | 1    | 0   | 68         |
| 214.00 | 1    | 0   | 35         | 1020.60 | 1    | 0   | 52         | 2462.40 | 1    | 0   | 69         |
| 230.40 | 1    | 0   | 36         | 1029.60 | 1    | 0   | 53         | 2565.64 | 1    | 0   | 69         |
| 252.00 | 1    | 0   | 36         | 1045.00 | 1    | 0   | 53         | 2686.40 | 1    | 0   | 69         |
| 267.20 | 1    | 0   | 36         | 1072.50 | 1    | 0   | 53         | 2692.80 | 1    | 0   | 70         |
| 268.80 | 1    | 0   | 37         | 1076.40 | 1    | 0   | 54         | 2704.00 | 1    | 0   | 70         |
| 272.00 | 1    | 0   | 37         | 1092.00 | 1    | 0   | 54         | 2723.40 | 1    | 0   | 71         |
| 273.40 | 1    | 0   | 38         | 1109.76 | 1    | 0   | 54         | 2735.00 | 1    | 0   | 71         |
| 313.00 | 1    | 0   | 38         | 1150.00 | 1    | 0   | 55         | 2818.80 | 1    | 0   | 71         |
| 342.00 | 1    | 0   | 38         | 1243.55 | 1    | 0   | 55         | 2836.80 | 1    | 0   | 72         |
| 390.00 | 1    | 0   | 39         | 1302.00 | 1    | 0   | 55         | 2845.80 | 1    | 0   | 72         |
| 435.20 | 1    | 0   | 39         | 1326.00 | 1    | 0   | 56         | 2873.00 | 1    | 0   | 72         |
| 436.80 | 1    | 0   | 39         | 1355.20 | 1    | 0   | 56         | 2888.00 | 1    | 0   | 73         |
| 444.00 | 1    | 0   | 40         | 1362.60 | 1    | 0   | 56         | 2896.00 | 1    | 0   | 73         |
| 451.00 | 1    | 0   | 40         | 1380.40 | 1    | 0   | 57         | 2898.00 | 1    | 0   | 73         |
| 456.00 | 1    | 0   | 40         | 1435.20 | 1    | 0   | 57         | 2899.00 | 1    | 0   | 74         |
| 465.50 | 1    | 0   | 41         | 1443.00 | 1    | 0   | 58         | 2901.60 | 1    | 0   | 74         |
| 468.00 | 2    | 1   | 41         | 1450.80 | 1    | 0   | 58         | 3008.46 | 1    | 0   | 74         |
| 486.00 | 2    | 1   | 42         | 1454.40 | 1    | 0   | 58         | 3100.80 | 1    | 0   | 75         |
| 499.20 | 1    | 0   | 42         | 1473.20 | 1    | 0   | 59         | 3239.60 | 1    | 0   | 75         |
| 570.00 | 1    | 0   | 43         | 1483.20 | 1    | 0   | 59         | 3300.10 | 1    | 0   | 75         |
| 600.00 | 1    | 0   | 43         | 1530.00 | 1    | 0   | 59         | 3318.00 | 1    | 0   | 76         |
| 602.00 | 1    | 0   | 44         | 1550.00 | 1    | 0   | 60         | 3421.60 | 1    | 0   | 76         |
| 604.20 | 1    | 0   | 44         | 1554.80 | 1    | 0   | 60         | 3422.40 | 1    | 0   | 76         |
| 608.00 | 1    | 0   | 44         | 1644.00 | 1    | 0   | 60         | 3440.00 | 1    | 0   | 77         |
| 626.50 | 1    | 0   | 45         | 1644.00 | 1    | 0   | 61         | 3458.00 | 1    | 0   | 77         |
| 650.00 | 1    | 0   | 45         | 1710.80 | 1    | 0   | 61         | 3459.20 | 1    | 0   | 78         |
| 650.00 | 1    | 0   | 45         | 1755.60 | 1    | 0   | 61         | 3496.00 | 1    | 0   | 78         |
| 665.00 | 1    | 0   | 46         | 1824.00 | 2    | 1   | 62         | 3498.00 | 1    | 0   | 78         |
| 708.00 | 1    | 0   | 46         | 1830.00 | 1    | 0   | 62         | 3508.80 | 1    | 0   | 79         |
| 713.00 | 1    | 0   | 46         | 1850.00 | 1    | 0   | 63         | 3515.40 | 1    | 0   | 79         |

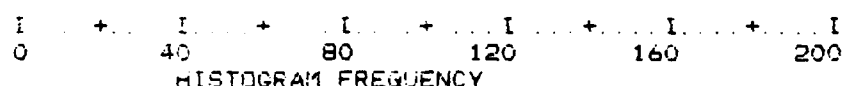
APaint AREA. PAINTED SURFACE

| VALUE   | FREQ | PCT | CUM<br>PCT | VALUE   | FREQ | PCT | CUM<br>PCT | VALUE    | FREQ | PCT | CUM<br>PCT |
|---------|------|-----|------------|---------|------|-----|------------|----------|------|-----|------------|
| 3606.96 | 1    | 0   | 79         | 5273.40 | 1    | 0   | 86         | 7452.00  | 1    | 0   | 93         |
| 3622.50 | 1    | 0   | 80         | 5315.70 | 1    | 0   | 87         | 7526.40  | 1    | 0   | 94         |
| 3643.20 | 1    | 0   | 80         | 5327.60 | 1    | 0   | 87         | 7708.80  | 1    | 0   | 94         |
| 3726.00 | 1    | 0   | 80         | 5605.60 | 1    | 0   | 87         | 7761.60  | 1    | 0   | 94         |
| 3800.80 | 1    | 0   | 81         | 5720.00 | 1    | 0   | 88         | 7788.00  | 1    | 0   | 95         |
| 3933.00 | 1    | 0   | 81         | 5776.00 | 1    | 0   | 88         | 7845.60  | 1    | 0   | 95         |
| 3980.00 | 1    | 0   | 81         | 5896.80 | 1    | 0   | 88         | 8364.00  | 1    | 0   | 95         |
| 4032.00 | 1    | 0   | 82         | 6061.44 | 1    | 0   | 89         | 8645.00  | 1    | 0   | 96         |
| 4107.80 | 1    | 0   | 82         | 6120.00 | 1    | 0   | 89         | 8891.52  | 1    | 0   | 96         |
| 4154.80 | 1    | 0   | 82         | 6249.60 | 1    | 0   | 89         | 9091.50  | 1    | 0   | 96         |
| 4165.00 | 1    | 0   | 83         | 6300.00 | 1    | 0   | 90         | 9405.00  | 1    | 0   | 97         |
| 4211.20 | 1    | 0   | 83         | 6422.00 | 1    | 0   | 90         | 10621.00 | 1    | 0   | 97         |
| 4417.50 | 1    | 0   | 84         | 6451.20 | 1    | 0   | 91         | 10863.00 | 1    | 0   | 98         |
| 4480.00 | 1    | 0   | 84         | 6626.25 | 1    | 0   | 91         | 13094.40 | 1    | 0   | 98         |
| 4576.00 | 1    | 0   | 84         | 6740.00 | 1    | 0   | 91         | 14968.80 | 1    | 0   | 98         |
| 4737.60 | 1    | 0   | 85         | 7017.60 | 1    | 0   | 92         | 18432.00 | 1    | 0   | 99         |
| 4968.00 | 1    | 0   | 85         | 7109.40 | 1    | 0   | 92         | 19780.00 | 1    | 0   | 99         |
| 5151.20 | 1    | 0   | 85         | 7199.07 | 1    | 0   | 92         | 21128.00 | 1    | 0   | 99         |
| 5201.68 | 1    | 0   | 86         | 7208.00 | 1    | 0   | 93         | 25656.40 | 1    | 0   | 100        |
| 5256.00 | 1    | 0   | 86         | 7341.60 | 1    | 0   | 93         | 47032.92 | 1    | 0   | 100        |

AP AINT AREA. PAINTED SURFACE

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 4.00 OCCURRENCES

|     |       |       |
|-----|-------|-------|
| 188 | 1116  | ***** |
| 50  | 3356  | ***** |
| 21  | 5596  | ***** |
| 15  | 7836  | ****  |
| 4   | 10076 | *     |
| 1   | 12316 |       |
| 1   | 14556 |       |
| 0   | 16796 |       |
| 2   | 19036 | *     |
| 1   | 21276 |       |
| 0   | 23516 |       |
| 1   | 25756 |       |
| 0   | 27996 |       |
| 0   | 30236 |       |
| 0   | 32476 |       |
| 0   | 34716 |       |
| 0   | 36956 |       |
| 0   | 39196 |       |
| 0   | 41436 |       |
| 0   | 43676 |       |
| 1   | 45916 |       |



|          |           |          |            |          |            |
|----------|-----------|----------|------------|----------|------------|
| MEAN     | 2401.527  | STD ERR  | 258.179    | MEDIAN   | 928.000    |
| MODE     | 0.0       | STD DEV  | 4358.899   | VARIANCE | 18999999.4 |
| KURTOSIS | 42.909    | S E KURT | 1.993      | SKEWNESS | 5.301      |
| S E SKEW | 144       | RANGE    | 47032.920  | MINIMUM  | 0.0        |
| MAXIMUM  | 47032.920 | SUM      | 684435.250 |          |            |

| PERCENTILE  | VALUE    | PERCENTILE    | VALUE    | PERCENTILE | VALUE    |
|-------------|----------|---------------|----------|------------|----------|
| 10.00       | 0.0      | 25.00         | 0.0      | 33.30      | 108.007  |
| 50.00       | 928.000  | 66.70         | 2337.182 | 75.00      | 3269.850 |
| 90.00       | 6433.680 |               |          |            |          |
| VALID CASES | 285      | MISSING CASES | 0        |            |          |

4STONE AREA: STONE SURFACE

| VALUE LABEL | VALUE    | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|-------------|----------|-----------|---------|------------------|----------------|
|             | 0.0      | 266       | 93.3    | 93.3             | 93.3           |
|             | 86.40    | 1         | .4      | .4               | 93.7           |
|             | 136.00   | 1         | .4      | .4               | 94.0           |
|             | 280.00   | 1         | .4      | .4               | 94.4           |
|             | 520.00   | 1         | .4      | .4               | 94.7           |
|             | 791.80   | 1         | .4      | .4               | 95.1           |
|             | 1036.80  | 1         | .4      | .4               | 95.4           |
|             | 1620.00  | 1         | .4      | .4               | 95.8           |
|             | 2042.88  | 1         | .4      | .4               | 96.1           |
|             | 2505.60  | 1         | .4      | .4               | 96.5           |
|             | 3304.84  | 1         | .4      | .4               | 96.8           |
|             | 4984.00  | 1         | .4      | .4               | 97.2           |
|             | 6464.00  | 1         | .4      | .4               | 97.6           |
|             | 7833.60  | 1         | .4      | .4               | 97.9           |
|             | 11302.20 | 1         | .4      | .4               | 98.2           |
|             | 13017.60 | 2         | .7      | .7               | 98.9           |
|             | 15527.92 | 1         | .4      | .4               | 99.3           |
|             | 16197.60 | 1         | .4      | .4               | 99.6           |
|             | 31171.72 | 1         | .4      | .4               | 100.0          |
|             | TOTAL    | 285       | 100.0   | 100.0            |                |

ASTONE AREA: STONE SURFACE

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 8 00 OCCURRENCES

|     |       |       |
|-----|-------|-------|
| 272 | 736   | ***** |
| 3   | 2221  |       |
| 1   | 3706  |       |
| 1   | 5191  |       |
| 1   | 6676  |       |
| 1   | 8161  |       |
| 0   | 9646  |       |
| 1   | 11131 |       |
| 2   | 12616 |       |
| 0   | 14101 |       |
| 2   | 15586 |       |
| 0   | 17071 |       |
| 0   | 18556 |       |
| 0   | 20041 |       |
| 0   | 21526 |       |
| 0   | 23011 |       |
| 0   | 24496 |       |
| 0   | 25981 |       |
| 0   | 27466 |       |
| 0   | 28951 |       |
| 1   | 30436 |       |

|   |   |    |   |     |   |     |   |     |   |     |
|---|---|----|---|-----|---|-----|---|-----|---|-----|
| I | + | I  | + | I   | + | I   | + | I   | + | I   |
| 0 |   | 80 |   | 160 |   | 240 |   | 320 |   | 400 |

HISTOGRAM FREQUENCY

|          |           |          |            |          |            |
|----------|-----------|----------|------------|----------|------------|
| MEAN     | 462.598   | STD ERR  | 198.558    | MEDIAN   | 0.0        |
| MODE     | 0.0       | STD DEV  | 2676.768   | VARIANCE | 7165085.35 |
| KURTOSIS | 71.952    | S E KURT | 1.993      | SKEWNESS | 7.807      |
| S E SKEW | 144       | RANGE    | 31171.720  | MINIMUM  | 0.0        |
| MAXIMUM  | 31171.720 | SUM      | 131840.560 |          |            |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 0.0   | 75.00      | 0.0   |
| 90.00      | 0.0   |            |       |            |       |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

ADJHER AREA: OTHER MATERIALS

| VALUE  | FREQ | PCT | CUM<br>PCT | VALUE  | FREQ | PCT | CUM<br>PCT | VALUE  | FREQ | PCT | CUM<br>PCT |
|--------|------|-----|------------|--------|------|-----|------------|--------|------|-----|------------|
| 0.0    | 13   | 5   | 5          | 285.60 | 1    | 0   | 22         | 548.68 | 1    | 0   | 39         |
| 32.00  | 1    | 0   | 5          | 285.60 | 1    | 0   | 22         | 554.20 | 1    | 0   | 39         |
| 43.20  | 1    | 0   | 5          | 292.00 | 1    | 0   | 22         | 554.40 | 1    | 0   | 40         |
| 52.50  | 1    | 0   | 6          | 292.40 | 1    | 0   | 23         | 559.00 | 1    | 0   | 40         |
| 78.40  | 1    | 0   | 6          | 301.60 | 1    | 0   | 23         | 560.00 | 1    | 0   | 40         |
| 98.00  | 1    | 0   | 6          | 302.40 | 1    | 0   | 24         | 571.20 | 1    | 0   | 41         |
| 91.20  | 1    | 0   | 7          | 308.00 | 1    | 0   | 24         | 574.00 | 1    | 0   | 41         |
| 100.00 | 1    | 0   | 7          | 322.00 | 1    | 0   | 24         | 576.80 | 1    | 0   | 41         |
| 104.00 | 2    | 1   | 8          | 324.30 | 1    | 0   | 25         | 580.00 | 1    | 0   | 42         |
| 105.60 | 1    | 0   | 8          | 328.00 | 2    | 1   | 25         | 588.80 | 1    | 0   | 42         |
| 108.00 | 1    | 0   | 8          | 330.00 | 1    | 0   | 26         | 605.20 | 1    | 0   | 42         |
| 108.00 | 1    | 0   | 9          | 332.80 | 1    | 0   | 26         | 606.02 | 1    | 0   | 43         |
| 110.50 | 1    | 0   | 9          | 336.60 | 1    | 0   | 26         | 609.60 | 1    | 0   | 43         |
| 112.00 | 1    | 0   | 9          | 337.50 | 1    | 0   | 27         | 624.00 | 1    | 0   | 44         |
| 112.00 | 1    | 0   | 10         | 345.00 | 1    | 0   | 27         | 638.40 | 1    | 0   | 44         |
| 117.00 | 1    | 0   | 10         | 348.48 | 1    | 0   | 27         | 638.40 | 1    | 0   | 44         |
| 133.00 | 1    | 0   | 11         | 369.20 | 1    | 0   | 28         | 642.20 | 1    | 0   | 45         |
| 140.40 | 1    | 0   | 11         | 372.40 | 1    | 0   | 28         | 661.20 | 1    | 0   | 45         |
| 152.00 | 1    | 0   | 11         | 374.40 | 1    | 0   | 28         | 662.40 | 1    | 0   | 45         |
| 156.00 | 2    | 1   | 12         | 376.20 | 1    | 0   | 29         | 671.60 | 1    | 0   | 46         |
| 160.00 | 1    | 0   | 12         | 378.00 | 2    | 1   | 29         | 672.00 | 1    | 0   | 46         |
| 163.20 | 1    | 0   | 13         | 378.00 | 1    | 0   | 30         | 676.60 | 1    | 0   | 46         |
| 164.50 | 1    | 0   | 13         | 380.00 | 1    | 0   | 30         | 684.60 | 1    | 0   | 47         |
| 168.00 | 1    | 0   | 13         | 384.80 | 1    | 0   | 31         | 689.00 | 1    | 0   | 47         |
| 171.00 | 1    | 0   | 14         | 389.20 | 1    | 0   | 31         | 693.00 | 1    | 0   | 47         |
| 176.40 | 1    | 0   | 14         | 395.20 | 2    | 1   | 32         | 694.71 | 1    | 0   | 48         |
| 179.20 | 1    | 0   | 14         | 400.40 | 1    | 0   | 32         | 695.52 | 1    | 0   | 48         |
| 182.00 | 1    | 0   | 15         | 408.00 | 1    | 0   | 32         | 699.84 | 1    | 0   | 48         |
| 192.60 | 1    | 0   | 15         | 416.24 | 1    | 0   | 33         | 700.00 | 1    | 0   | 49         |
| 193.80 | 1    | 0   | 15         | 421.20 | 1    | 0   | 33         | 702.00 | 1    | 0   | 49         |
| 207.00 | 1    | 0   | 16         | 425.00 | 1    | 0   | 33         | 721.28 | 1    | 0   | 49         |
| 216.00 | 1    | 0   | 16         | 431.20 | 1    | 0   | 34         | 722.00 | 1    | 0   | 50         |
| 216.63 | 1    | 0   | 16         | 437.40 | 1    | 0   | 34         | 740.00 | 1    | 0   | 50         |
| 224.00 | 2    | 1   | 17         | 456.00 | 1    | 0   | 34         | 748.80 | 1    | 0   | 51         |
| 224.40 | 1    | 0   | 18         | 462.00 | 1    | 0   | 35         | 760.00 | 1    | 0   | 51         |
| 230.00 | 1    | 0   | 18         | 468.00 | 1    | 0   | 35         | 774.00 | 2    | 1   | 52         |
| 232.00 | 1    | 0   | 18         | 498.40 | 1    | 0   | 35         | 774.60 | 1    | 0   | 52         |
| 232.50 | 1    | 0   | 19         | 504.00 | 1    | 0   | 36         | 777.60 | 1    | 0   | 52         |
| 237.90 | 1    | 0   | 19         | 504.00 | 1    | 0   | 36         | 788.80 | 1    | 0   | 53         |
| 243.80 | 1    | 0   | 19         | 516.80 | 1    | 0   | 36         | 798.75 | 1    | 0   | 53         |
| 250.60 | 1    | 0   | 20         | 520.00 | 1    | 0   | 37         | 835.20 | 1    | 0   | 53         |
| 252.00 | 1    | 0   | 20         | 525.00 | 1    | 0   | 37         | 840.00 | 2    | 1   | 54         |
| 257.60 | 1    | 0   | 20         | 534.40 | 1    | 0   | 38         | 843.20 | 1    | 0   | 54         |
| 260.00 | 1    | 0   | 21         | 540.80 | 1    | 0   | 38         | 858.00 | 1    | 0   | 55         |
| 275.00 | 1    | 0   | 21         | 546.00 | 1    | 0   | 38         | 868.80 | 1    | 0   | 55         |
| 280.00 | 1    | 0   | 21         | 547.20 | 1    | 0   | 39         | 871.20 | 1    | 0   | 55         |

AOTHER AREA: OTHER MATERIALS

| VALUE   | FREQ | PCT | CUM<br>PCT | VALUE   | FREQ | PCT | CUM<br>PCT | VALUE    | FREQ | PCT | CUM<br>PCT |
|---------|------|-----|------------|---------|------|-----|------------|----------|------|-----|------------|
| 873.60  | 1    | 0   | 56         | 1577.80 | 1    | 0   | 71         | 4160.00  | 1    | 0   | 86         |
| 875.52  | 1    | 0   | 56         | 1612.80 | 1    | 0   | 72         | 4402.20  | 1    | 0   | 86         |
| 910.00  | 1    | 0   | 56         | 1706.40 | 1    | 0   | 72         | 4425.00  | 1    | 0   | 87         |
| 910.80  | 1    | 0   | 57         | 1722.00 | 1    | 0   | 72         | 4594.48  | 1    | 0   | 87         |
| 920.00  | 1    | 0   | 57         | 1740.00 | 1    | 0   | 73         | 4700.00  | 1    | 0   | 87         |
| 950.40  | 1    | 0   | 58         | 1742.00 | 1    | 0   | 73         | 4700.80  | 1    | 0   | 88         |
| 961.80  | 1    | 0   | 58         | 1802.64 | 1    | 0   | 73         | 4736.00  | 1    | 0   | 88         |
| 970.00  | 1    | 0   | 58         | 1803.20 | 1    | 0   | 74         | 4760.00  | 1    | 0   | 88         |
| 972.00  | 1    | 0   | 59         | 1818.00 | 1    | 0   | 74         | 4926.60  | 1    | 0   | 89         |
| 984.40  | 1    | 0   | 59         | 1831.20 | 1    | 0   | 74         | 5100.00  | 1    | 0   | 89         |
| 989.00  | 1    | 0   | 59         | 1984.00 | 1    | 0   | 75         | 5148.00  | 1    | 0   | 89         |
| 994.40  | 1    | 0   | 60         | 1996.92 | 1    | 0   | 75         | 5164.80  | 1    | 0   | 90         |
| 1015.00 | 1    | 0   | 60         | 1999.20 | 1    | 0   | 75         | 5250.00  | 1    | 0   | 90         |
| 1027.00 | 1    | 0   | 60         | 2098.20 | 1    | 0   | 76         | 5511.04  | 1    | 0   | 91         |
| 1036.80 | 1    | 0   | 61         | 2131.50 | 1    | 0   | 76         | 5754.00  | 1    | 0   | 91         |
| 1045.20 | 1    | 0   | 61         | 2137.44 | 1    | 0   | 76         | 5878.40  | 1    | 0   | 91         |
| 1049.20 | 1    | 0   | 61         | 2162.40 | 1    | 0   | 77         | 6300.00  | 1    | 0   | 92         |
| 1055.70 | 1    | 0   | 62         | 2188.80 | 1    | 0   | 77         | 6570.24  | 1    | 0   | 92         |
| 1058.60 | 1    | 0   | 62         | 2198.40 | 1    | 0   | 78         | 6909.54  | 1    | 0   | 92         |
| 1080.00 | 1    | 0   | 62         | 2304.00 | 1    | 0   | 78         | 7056.00  | 1    | 0   | 93         |
| 1083.00 | 1    | 0   | 63         | 2324.08 | 1    | 0   | 78         | 7065.93  | 1    | 0   | 93         |
| 1148.14 | 1    | 0   | 63         | 2400.00 | 1    | 0   | 79         | 7212.78  | 1    | 0   | 93         |
| 1155.00 | 1    | 0   | 64         | 2528.00 | 1    | 0   | 79         | 7520.00  | 1    | 0   | 94         |
| 1178.00 | 1    | 0   | 64         | 2587.50 | 1    | 0   | 79         | 8000.00  | 1    | 0   | 94         |
| 1184.28 | 1    | 0   | 64         | 2660.00 | 1    | 0   | 80         | 8554.40  | 1    | 0   | 94         |
| 1190.00 | 1    | 0   | 65         | 2668.00 | 1    | 0   | 80         | 8629.92  | 1    | 0   | 95         |
| 1196.00 | 1    | 0   | 65         | 2679.60 | 1    | 0   | 80         | 8640.00  | 1    | 0   | 95         |
| 1200.00 | 1    | 0   | 65         | 2778.16 | 1    | 0   | 81         | 8645.00  | 1    | 0   | 95         |
| 1209.60 | 1    | 0   | 66         | 2788.00 | 1    | 0   | 81         | 8960.00  | 1    | 0   | 96         |
| 1248.00 | 1    | 0   | 66         | 2790.00 | 1    | 0   | 81         | 10200.00 | 1    | 0   | 96         |
| 1260.00 | 1    | 0   | 66         | 2835.00 | 1    | 0   | 82         | 11020.00 | 1    | 0   | 96         |
| 1314.00 | 2    | 1   | 67         | 2862.00 | 1    | 0   | 82         | 11050.00 | 1    | 0   | 97         |
| 1337.40 | 1    | 0   | 67         | 2895.60 | 1    | 0   | 82         | 11064.00 | 1    | 0   | 97         |
| 1362.40 | 2    | 1   | 68         | 2969.60 | 1    | 0   | 83         | 11318.40 | 1    | 0   | 98         |
| 1411.20 | 1    | 0   | 68         | 3150.00 | 1    | 0   | 83         | 14500.00 | 1    | 0   | 98         |
| 1441.50 | 1    | 0   | 69         | 3168.00 | 1    | 0   | 84         | 15862.00 | 1    | 0   | 98         |
| 1442.00 | 1    | 0   | 69         | 3231.14 | 1    | 0   | 84         | 17897.60 | 1    | 0   | 99         |
| 1472.00 | 1    | 0   | 69         | 3283.20 | 1    | 0   | 84         | 20416.00 | 1    | 0   | 99         |
| 1480.00 | 1    | 0   | 70         | 3467.20 | 1    | 0   | 85         | 24015.96 | 1    | 0   | 99         |
| 1496.00 | 1    | 0   | 70         | 3500.00 | 1    | 0   | 85         | 24480.00 | 1    | 0   | 100        |
| 1505.00 | 1    | 0   | 71         | 3725.00 | 1    | 0   | 85         | 55680.00 | 1    | 0   | 100        |
| 1549.80 | 1    | 0   | 71         | 3974.40 | 1    | 0   | 86         |          |      |     |            |

ADTHER AREA: OTHER MATERIALS

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 8.00 OCCURRENCES

|     |       |       |
|-----|-------|-------|
| 226 | 1320  | ***** |
| 31  | 3972  | ****  |
| 10  | 6624  | *     |
| 7   | 9276  | *     |
| 4   | 11928 | *     |
| 2   | 14580 |       |
| 1   | 17232 |       |
| 1   | 19884 |       |
| 0   | 22536 |       |
| 2   | 25188 |       |
| 0   | 27840 |       |
| 0   | 30492 |       |
| 0   | 33144 |       |
| 0   | 35796 |       |
| 0   | 38448 |       |
| 0   | 41100 |       |
| 0   | 43752 |       |
| 0   | 46404 |       |
| 0   | 49056 |       |
| 0   | 51708 |       |
| 1   | 54360 |       |

I + I + I + I + I + I + I  
 0 80 160 240 320 400  
 HISTOGRAM FREQUENCY

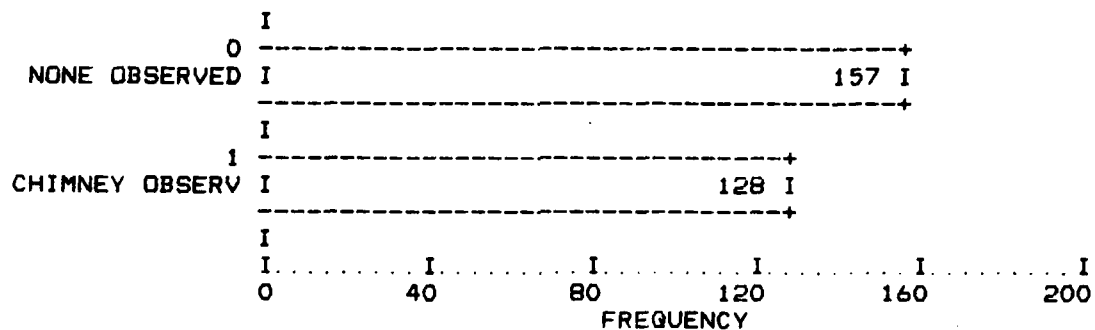
|          |           |          |            |          |            |
|----------|-----------|----------|------------|----------|------------|
| MEAN     | 2154.842  | STD ERR  | 278.016    | MEDIAN   | 740.000    |
| MODE     | 0.0       | STD DEV  | 4693.445   | VARIANCE | 22028427.3 |
| KURTOSIS | 63.221    | S E KURT | 1.993      | SKWNESS  | 6.654      |
| S E SKEL | 144       | RANGE    | 55680.000  | MINIMUM  | 0.0        |
| MAXIMUM  | 55680.000 | SUM      | 622679.960 |          |            |

| PERCENTILE  | VALUE    | PERCENTILE    | VALUE    | PERCENTILE | VALUE    |
|-------------|----------|---------------|----------|------------|----------|
| 10.00       | 115.000  | 25.00         | 328.000  | 33.30      | 426.476  |
| 50.00       | 740.000  | 66.70         | 1314.000 | 75.00      | 1998.060 |
| 90.00       | 5354.416 |               |          |            |          |
| VALID CASES | 285      | MISSING CASES | 0        |            |          |

# Roof materials

CHIM INDICATOR: CHIMNEYS

| VALUE LABEL    | VALUE | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|----------------|-------|-----------|---------|------------------|----------------|
| NONE OBSERVED  | 0     | 157       | 55.1    | 55.1             | 55.1           |
| CHIMNEY OBSERV | 1     | 128       | 44.9    | 44.9             | 100.0          |
|                | TOTAL | 285       | 100.0   | 100.0            |                |



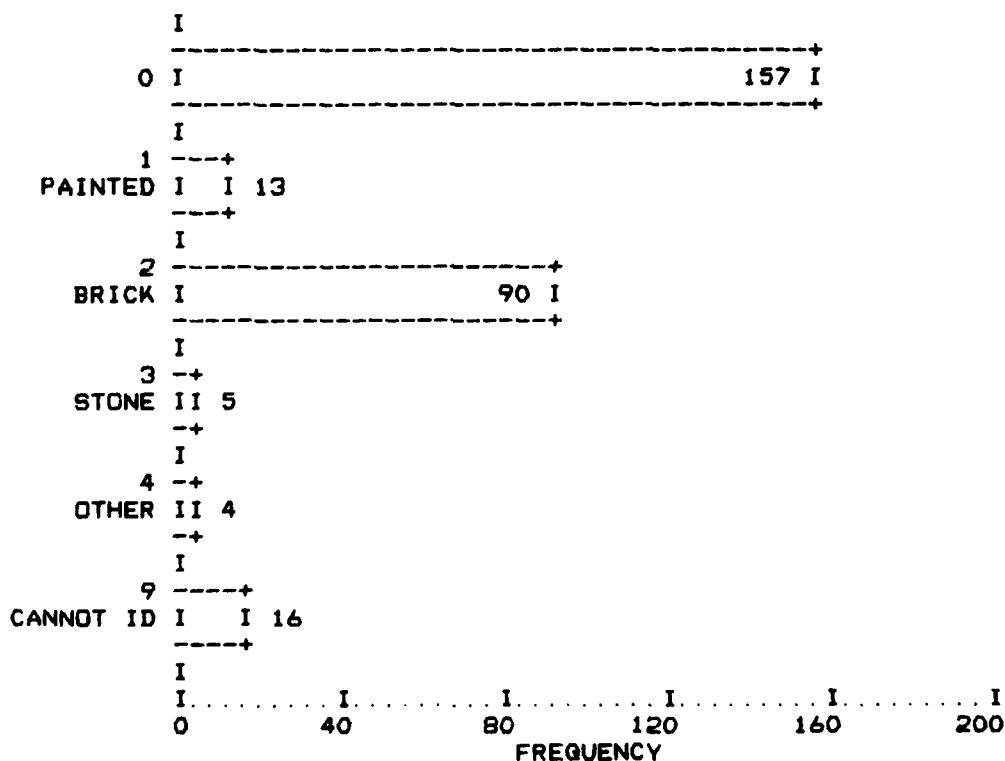
|          |        |          |         |          |      |
|----------|--------|----------|---------|----------|------|
| MEAN     | .449   | STD ERR  | .030    | MEDIAN   | 0.0  |
| MODE     | 0.0    | STD DEV  | .498    | VARIANCE | .248 |
| KURTOSIS | -1.972 | S E KURT | 1.993   | SKEWNESS | .206 |
| S E SKEW | .144   | RANGE    | 1.000   | MINIMUM  | 0.0  |
| MAXIMUM  | 1.000  | SUM      | 128.000 |          |      |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 1.000 | 75.00      | 1.000 |
| 90.00      | 1.000 |            |       |            |       |

VALID CASES 285 MISSING CASES 0

CMAT CHIMNEY MATERIAL

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|-------------|-------|-----------|---------|------------------|----------------|
|             | 0     | 157       | 55.1    | 55.1             | 55.1           |
| PAINTED     | 1     | 13        | 4.6     | 4.6              | 59.6           |
| BRICK       | 2     | 90        | 31.6    | 31.6             | 91.2           |
| STONE       | 3     | 5         | 1.8     | 1.8              | 93.0           |
| OTHER       | 4     | 4         | 1.4     | 1.4              | 94.4           |
| CANNOT ID   | 9     | 16        | 5.6     | 5.6              | 100.0          |
|             | TOTAL | 285       | 100.0   | 100.0            |                |



|          |       |          |         |          |       |
|----------|-------|----------|---------|----------|-------|
| MEAN     | 1.291 | STD ERR  | .127    | MEDIAN   | 0.0   |
| MODE     | 0.0   | STD DEV  | 2.142   | VARIANCE | 4.587 |
| KURTOSIS | 6.746 | S E KURT | 1.993   | SKEWNESS | 2.572 |
| S E SKEW | .144  | RANGE    | 9.000   | MINIMUM  | 0.0   |
| MAXIMUM  | 9.000 | SUM      | 368.000 |          |       |

CMAT CHIMNEY MATERIAL

| PERCENTILE  | VALUE | PERCENTILE    | VALUE | PERCENTILE | VALUE |
|-------------|-------|---------------|-------|------------|-------|
| 10.00       | 0.0   | 25.00         | 0.0   | 33.30      | 0.0   |
| 50.00       | 0.0   | 66.70         | 2.000 | 75.00      | 2.000 |
| 90.00       | 2.000 |               |       |            |       |
| VALID CASES | 285   | MISSING CASES | 0     |            |       |

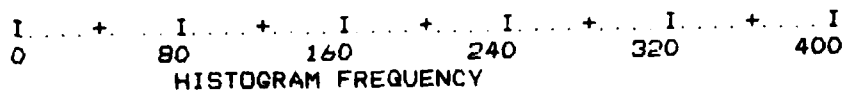
CAREA EXPOSED CHIMNEY AREA

| VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT |
|-------|------|-----|------------|-------|------|-----|------------|-------|------|-----|------------|
| 0     | 157  | 55  | 55         | 44    | 1    | 0   | 79         | 144   | 1    | 0   | 92         |
| 3     | 1    | 0   | 55         | 45    | 1    | 0   | 80         | 150   | 1    | 0   | 92         |
| 4     | 2    | 1   | 56         | 48    | 5    | 2   | 81         | 160   | 1    | 0   | 92         |
| 5     | 1    | 0   | 56         | 50    | 3    | 1   | 82         | 176   | 1    | 0   | 93         |
| 6     | 4    | 1   | 58         | 54    | 1    | 0   | 83         | 180   | 3    | 1   | 94         |
| 8     | 5    | 2   | 60         | 56    | 1    | 0   | 83         | 192   | 1    | 0   | 94         |
| 10    | 2    | 1   | 60         | 58    | 1    | 0   | 84         | 200   | 1    | 0   | 94         |
| 12    | 9    | 3   | 64         | 60    | 1    | 0   | 84         | 230   | 1    | 0   | 95         |
| 14    | 1    | 0   | 64         | 63    | 1    | 0   | 84         | 240   | 1    | 0   | 95         |
| 15    | 1    | 0   | 64         | 64    | 2    | 1   | 85         | 272   | 1    | 0   | 95         |
| 16    | 9    | 3   | 67         | 70    | 1    | 0   | 85         | 318   | 1    | 0   | 96         |
| 17    | 1    | 0   | 68         | 72    | 1    | 0   | 86         | 424   | 1    | 0   | 96         |
| 18    | 2    | 1   | 68         | 80    | 2    | 1   | 86         | 450   | 2    | 1   | 97         |
| 20    | 6    | 2   | 71         | 88    | 2    | 1   | 87         | 480   | 2    | 1   | 98         |
| 24    | 9    | 3   | 74         | 90    | 1    | 0   | 87         | 768   | 2    | 1   | 98         |
| 28    | 2    | 1   | 74         | 92    | 2    | 1   | 88         | 962   | 1    | 0   | 99         |
| 30    | 5    | 2   | 76         | 96    | 3    | 1   | 89         | 1200  | 1    | 0   | 99         |
| 32    | 3    | 1   | 77         | 100   | 1    | 0   | 89         | 1408  | 1    | 0   | 99         |
| 36    | 1    | 0   | 78         | 110   | 1    | 0   | 90         | 2680  | 1    | 0   | 100        |
| 40    | 3    | 1   | 79         | 120   | 3    | 1   | 91         | 4320  | 1    | 0   | 100        |
| 42    | 1    | 0   | 79         | 140   | 1    | 0   | 91         |       |      |     |            |

CAREA EXPOSED CHIMNEY AREA

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 8.00 OCCURRENCES

|     |      |       |
|-----|------|-------|
| 269 | 100  | ***** |
| 4   | 306  | *     |
| 5   | 512  | *     |
| 2   | 718  |       |
| 1   | 924  |       |
| 1   | 1130 |       |
| 1   | 1336 |       |
| 0   | 1542 |       |
| 0   | 1748 |       |
| 0   | 1954 |       |
| 0   | 2160 |       |
| 0   | 2366 |       |
| 0   | 2572 |       |
| 1   | 2778 |       |
| 0   | 2984 |       |
| 0   | 3190 |       |
| 0   | 3396 |       |
| 0   | 3602 |       |
| 0   | 3808 |       |
| 0   | 4014 |       |
| 1   | 4220 |       |



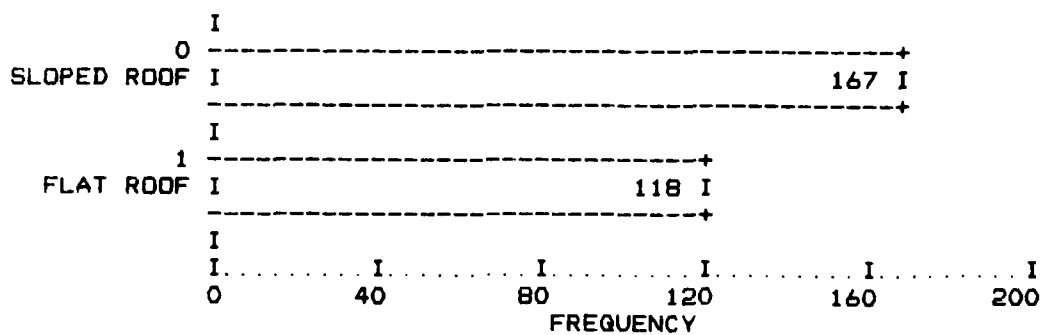
|          |          |          |           |          |            |
|----------|----------|----------|-----------|----------|------------|
| MEAN     | 73.439   | STD ERR  | 19.788    | MEDIAN   | 0.0        |
| MODE     | 0.0      | STD DEV  | 334.068   | VARIANCE | 111601.141 |
| KURTOSIS | 105.929  | S E KURT | 1.993     | SKEWNESS | 9.484      |
| S E SKEW | .144     | RANGE    | 4320.000  | MINIMUM  | 0.0        |
| MAXIMUM  | 4320.000 | SUM      | 20930.000 |          |            |

| PERCENTILE | VALUE   | PERCENTILE | VALUE  | PERCENTILE | VALUE  |
|------------|---------|------------|--------|------------|--------|
| 10.00      | 0.0     | 25.00      | 0.0    | 33.30      | 0.0    |
| 50.00      | 0.0     | 66.70      | 16.000 | 75.00      | 30.000 |
| 90.00      | 120.000 |            |        |            |        |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

SLOPE      INDICATOR: ROOF SLOPE

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|-------------|-------|-----------|---------|------------------|----------------|
| SLOPED ROOF | 0     | 167       | 58.6    | 58.6             | 58.6           |
| FLAT ROOF   | 1     | 118       | 41.4    | 41.4             | 100.0          |
|             | TOTAL | 285       | 100.0   | 100.0            |                |



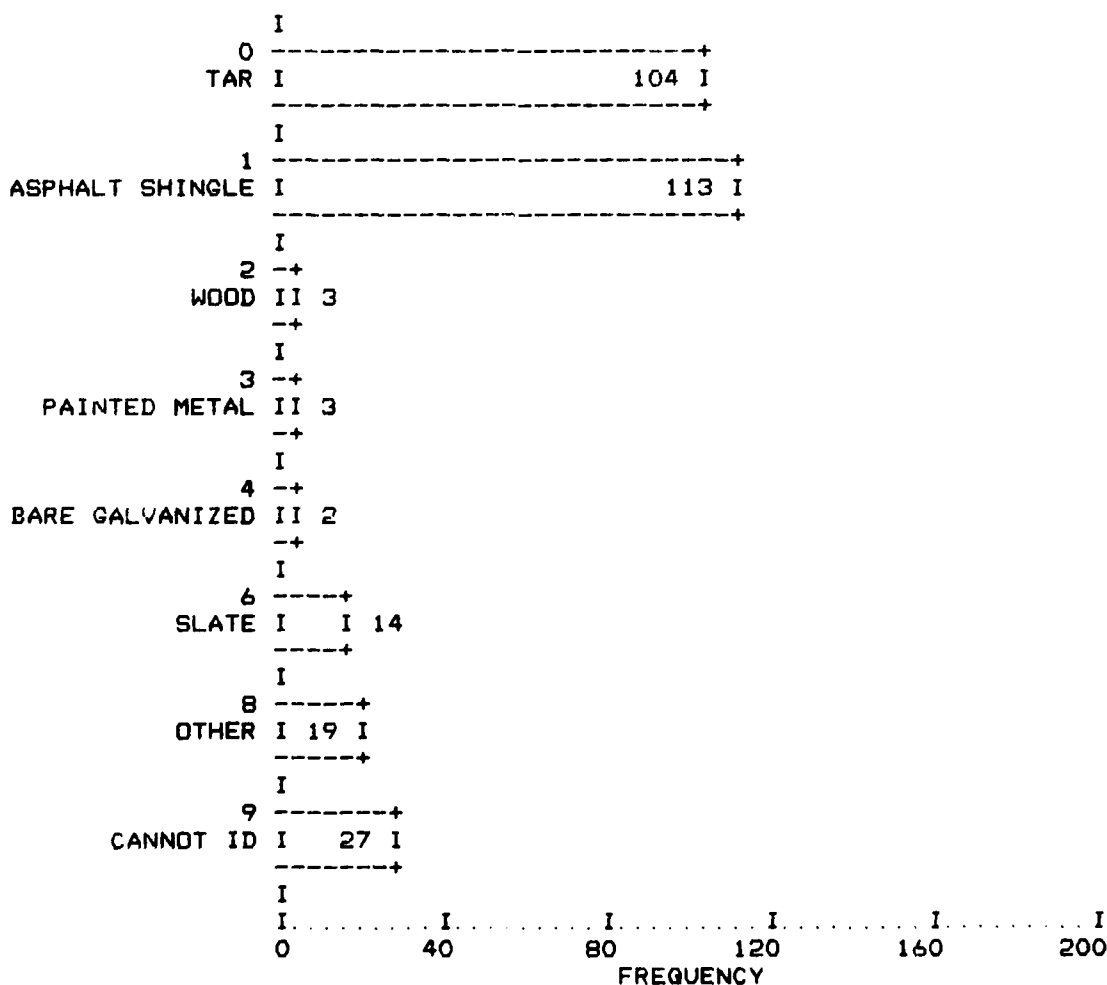
|          |        |          |         |          |      |
|----------|--------|----------|---------|----------|------|
| MEAN     | .414   | STD ERR  | .029    | MEDIAN   | 0.0  |
| MODE     | 0.0    | STD DEV  | .493    | VARIANCE | .243 |
| KURTOSIS | -1.890 | S E KURT | 1.993   | SKEWNESS | .351 |
| S E SKEW | .144   | RANGE    | 1.000   | MINIMUM  | 0.0  |
| MAXIMUM  | 1.000  | SUM      | 118.000 |          |      |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 1.000 | 75.00      | 1.000 |
| 90.00      | 1.000 |            |       |            |       |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

ERMAT ROOF MATERIAL TYPE

| VALUE LABEL     | VALUE | FREQUENCY | PERCENT | VALID PERCENT | CUM PERCENT |
|-----------------|-------|-----------|---------|---------------|-------------|
| TAR             | 0     | 104       | 36.5    | 36.5          | 36.5        |
| ASPHALT SHINGLE | 1     | 113       | 39.6    | 39.6          | 76.1        |
| WOOD            | 2     | 3         | 1.1     | 1.1           | 77.2        |
| PAINTED METAL   | 3     | 3         | 1.1     | 1.1           | 78.2        |
| BARE GALVANIZED | 4     | 2         | .7      | .7            | 78.9        |
| SLATE           | 6     | 14        | 4.9     | 4.9           | 83.9        |
| OTHER           | 8     | 19        | 6.7     | 6.7           | 90.5        |
| CANNOT ID       | 9     | 27        | 9.5     | 9.5           | 100.0       |
| TOTAL           |       | 285       | 100.0   | 100.0         |             |



ERMAT      ROOF MATERIAL TYPE

|          |       |          |         |          |       |
|----------|-------|----------|---------|----------|-------|
| MEAN     | 2.158 | STD ERR  | .185    | MEDIAN   | 1.000 |
| MODE     | 1.000 | STD DEV  | 3.120   | VARIANCE | 9.732 |
| KURTOSIS | .265  | S E KURT | 1.993   | SKEWNESS | 1.404 |
| S E SKEW | .144  | RANGE    | 9.000   | MINIMUM  | 0.0   |
| MAXIMUM  | 9.000 | SUM      | 615.000 |          |       |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 1.000 | 66.70      | 1.000 | 75.00      | 1.000 |
| 90.00      | 8.000 |            |       |            |       |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

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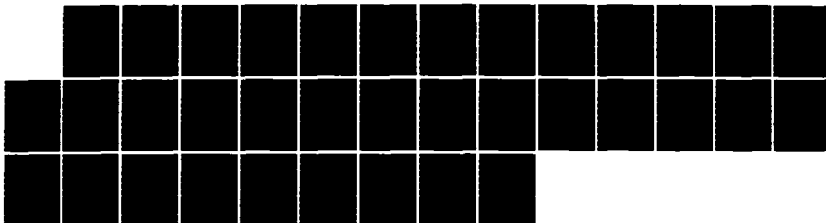
A DESCRIPTION OF THE BUILDING MATERIALS DATA BASE FOR  
NEW HAVEN CONNECTICUT(U) COLD REGIONS RESEARCH AND  
ENGINEERING LAB HANOVER NH C J MERRY ET AL. NOV 85  
CRREL-SR-85-19

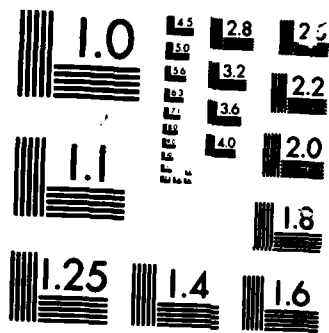
2/2

UNCLASSIFIED

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MICROCOPY RESOLUTION TEST CHART  
1010-A (ANSI/ISO #2)

ESAREA AREA OF EXPOSED ROOF

| VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT |
|-------|------|-----|------------|-------|------|-----|------------|-------|------|-----|------------|
| 12    | 1    | 0   | 0          | 1741  | 1    | 0   | 30         | 5144  | 1    | 0   | 64         |
| 96    | 1    | 0   | 1          | 1750  | 1    | 0   | 31         | 5280  | 1    | 0   | 64         |
| 102   | 1    | 0   | 1          | 1800  | 8    | 3   | 33         | 5334  | 1    | 0   | 65         |
| 110   | 1    | 0   | 1          | 1806  | 1    | 0   | 34         | 5370  | 1    | 0   | 65         |
| 250   | 1    | 0   | 2          | 1900  | 1    | 0   | 34         | 5500  | 1    | 0   | 65         |
| 300   | 1    | 0   | 2          | 2000  | 1    | 0   | 34         | 5600  | 2    | 1   | 66         |
| 320   | 1    | 0   | 2          | 2040  | 1    | 0   | 35         | 5750  | 1    | 0   | 66         |
| 400   | 2    | 1   | 3          | 2100  | 5    | 2   | 36         | 5763  | 1    | 0   | 67         |
| 450   | 1    | 0   | 4          | 2110  | 1    | 0   | 37         | 5800  | 1    | 0   | 67         |
| 456   | 1    | 0   | 4          | 2200  | 1    | 0   | 37         | 5836  | 1    | 0   | 67         |
| 540   | 1    | 0   | 4          | 2250  | 1    | 0   | 38         | 5850  | 1    | 0   | 68         |
| 560   | 2    | 1   | 5          | 2300  | 3    | 1   | 39         | 5889  | 1    | 0   | 68         |
| 590   | 1    | 0   | 5          | 2400  | 6    | 2   | 41         | 6372  | 1    | 0   | 68         |
| 672   | 2    | 1   | 6          | 2450  | 1    | 0   | 41         | 6400  | 1    | 0   | 69         |
| 750   | 2    | 1   | 7          | 2500  | 3    | 1   | 42         | 6500  | 2    | 1   | 69         |
| 800   | 5    | 2   | 8          | 2600  | 1    | 0   | 42         | 6540  | 1    | 0   | 70         |
| 810   | 1    | 0   | 9          | 2700  | 2    | 1   | 43         | 6655  | 1    | 0   | 70         |
| 825   | 1    | 0   | 9          | 2720  | 1    | 0   | 44         | 6656  | 1    | 0   | 71         |
| 840   | 2    | 1   | 10         | 2800  | 4    | 1   | 45         | 6660  | 1    | 0   | 71         |
| 850   | 1    | 0   | 10         | 2900  | 1    | 0   | 45         | 6887  | 1    | 0   | 71         |
| 900   | 1    | 0   | 11         | 3000  | 8    | 3   | 48         | 7000  | 1    | 0   | 72         |
| 960   | 1    | 0   | 11         | 3100  | 1    | 0   | 48         | 7156  | 1    | 0   | 72         |
| 1000  | 3    | 1   | 12         | 3150  | 1    | 0   | 49         | 7396  | 1    | 0   | 72         |
| 1050  | 2    | 1   | 13         | 3200  | 4    | 1   | 50         | 7500  | 1    | 0   | 73         |
| 1100  | 1    | 0   | 13         | 3250  | 1    | 0   | 51         | 7550  | 1    | 0   | 73         |
| 1120  | 1    | 0   | 13         | 3300  | 1    | 0   | 51         | 7569  | 1    | 0   | 73         |
| 1200  | 9    | 3   | 16         | 3400  | 6    | 2   | 53         | 8000  | 1    | 0   | 74         |
| 1225  | 2    | 1   | 17         | 3500  | 2    | 1   | 54         | 8100  | 3    | 1   | 75         |
| 1250  | 1    | 0   | 18         | 3600  | 3    | 1   | 55         | 8320  | 1    | 0   | 75         |
| 1300  | 4    | 1   | 19         | 3680  | 1    | 0   | 55         | 8632  | 1    | 0   | 75         |
| 1312  | 1    | 0   | 19         | 3700  | 1    | 0   | 55         | 8985  | 1    | 0   | 76         |
| 1350  | 1    | 0   | 20         | 3850  | 1    | 0   | 56         | 9000  | 1    | 0   | 76         |
| 1392  | 1    | 0   | 20         | 3915  | 1    | 0   | 56         | 9016  | 1    | 0   | 76         |
| 1400  | 6    | 2   | 22         | 3920  | 1    | 0   | 56         | 9025  | 2    | 1   | 77         |
| 1408  | 1    | 0   | 22         | 3960  | 1    | 0   | 57         | 9200  | 1    | 0   | 78         |
| 1440  | 1    | 0   | 23         | 4000  | 5    | 2   | 59         | 9304  | 1    | 0   | 78         |
| 1470  | 2    | 1   | 24         | 4125  | 1    | 0   | 59         | 9661  | 1    | 0   | 78         |
| 1483  | 1    | 0   | 24         | 4300  | 1    | 0   | 59         | 9852  | 1    | 0   | 79         |
| 1500  | 6    | 2   | 26         | 4400  | 1    | 0   | 60         | 9975  | 2    | 1   | 79         |
| 1550  | 1    | 0   | 26         | 4460  | 1    | 0   | 60         | 10056 | 1    | 0   | 80         |
| 1600  | 3    | 1   | 27         | 4500  | 2    | 1   | 61         | 10800 | 1    | 0   | 80         |
| 1608  | 1    | 0   | 28         | 4700  | 2    | 1   | 61         | 10900 | 1    | 0   | 80         |
| 1680  | 1    | 0   | 28         | 4800  | 2    | 1   | 62         | 10948 | 1    | 0   | 81         |
| 1697  | 1    | 0   | 28         | 4889  | 1    | 0   | 62         | 11504 | 1    | 0   | 81         |
| 1700  | 3    | 1   | 29         | 5000  | 2    | 1   | 63         | 11520 | 1    | 0   | 81         |
| 1733  | 1    | 0   | 30         | 5143  | 1    | 0   | 64         | 11807 | 1    | 0   | 82         |

ESAREA AREA OF EXPOSED ROOF

| VALUE | FREQ | PCT | CUM PCT | VALUE | FREQ | PCT | CUM PCT | VALUE  | FREQ | PCT | CUM PCT |
|-------|------|-----|---------|-------|------|-----|---------|--------|------|-----|---------|
| 11834 | 1    | 0   | 82      | 19321 | 3    | 1   | 88      | 65347  | 1    | 0   | 94      |
| 11887 | 1    | 0   | 82      | 20000 | 1    | 0   | 88      | 66000  | 1    | 0   | 95      |
| 13350 | 1    | 0   | 83      | 22000 | 1    | 0   | 89      | 67200  | 2    | 1   | 95      |
| 13700 | 1    | 0   | 83      | 23500 | 1    | 0   | 89      | 68000  | 1    | 0   | 96      |
| 13844 | 1    | 0   | 84      | 25000 | 1    | 0   | 89      | 78400  | 1    | 0   | 96      |
| 14000 | 1    | 0   | 84      | 25500 | 1    | 0   | 90      | 78500  | 1    | 0   | 96      |
| 14247 | 1    | 0   | 84      | 30000 | 2    | 1   | 91      | 79695  | 1    | 0   | 97      |
| 14803 | 1    | 0   | 85      | 31000 | 1    | 0   | 91      | 81000  | 1    | 0   | 97      |
| 14897 | 1    | 0   | 85      | 33912 | 1    | 0   | 91      | 94000  | 1    | 0   | 98      |
| 15000 | 1    | 0   | 85      | 34000 | 2    | 1   | 92      | 95000  | 1    | 0   | 98      |
| 16090 | 1    | 0   | 86      | 45288 | 1    | 0   | 92      | 104940 | 1    | 0   | 98      |
| 17000 | 1    | 0   | 86      | 48620 | 1    | 0   | 93      | 107100 | 2    | 1   | 99      |
| 17335 | 1    | 0   | 86      | 58000 | 1    | 0   | 93      | 129000 | 1    | 0   | 99      |
| 18700 | 1    | 0   | 87      | 58410 | 1    | 0   | 93      | 129943 | 1    | 0   | 100     |
| 19101 | 1    | 0   | 87      | 62500 | 2    | 1   | 94      | 185000 | 1    | 0   | 100     |

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 8.00 OCCURRENCES

|     |        |       |
|-----|--------|-------|
| 215 | 4416   | ***** |
| 31  | 13225  | ****  |
| 10  | 22034  | *     |
| 6   | 30843  | *     |
| 0   | 39652  |       |
| 2   | 48461  |       |
| 2   | 57270  |       |
| 7   | 66079  | *     |
| 2   | 74888  |       |
| 2   | 83697  |       |
| 2   | 92506  |       |
| 1   | 101315 |       |
| 2   | 110124 |       |
| 0   | 118933 |       |
| 2   | 127742 |       |
| 0   | 136551 |       |
| 0   | 145360 |       |
| 0   | 154169 |       |
| 0   | 162978 |       |
| 0   | 171787 |       |
| 1   | 180596 |       |



ESAREA      AREA OF EXPOSED ROOF

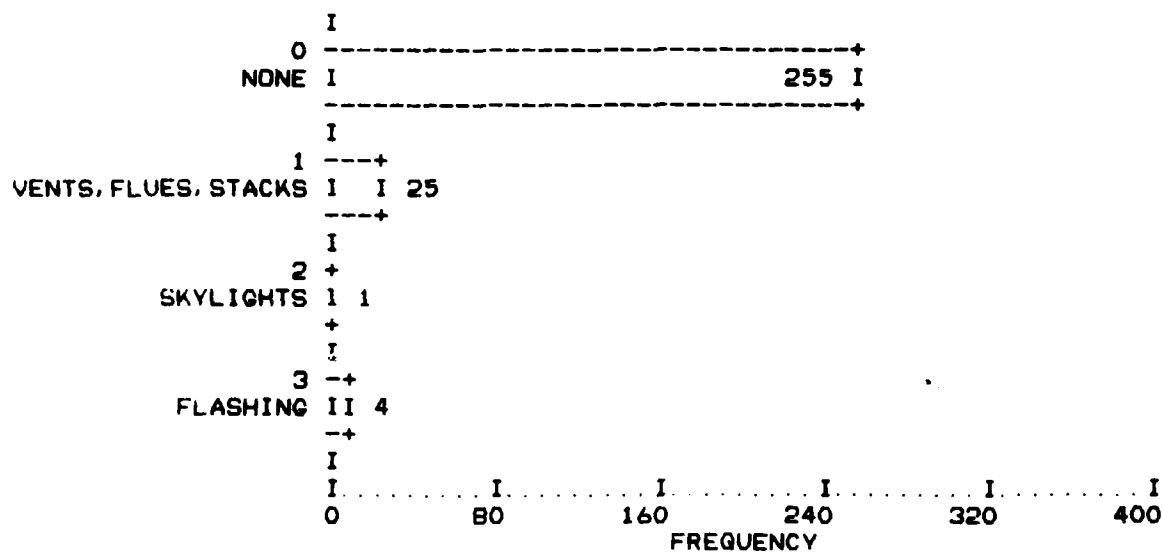
|          |            |          |            |          |           |
|----------|------------|----------|------------|----------|-----------|
| MEAN     | 11663.526  | STD ERR  | 1428.989   | MEDIAN   | 3200.000  |
| MODE     | 1200.000   | STD DEV  | 24124.117  | VARIANCE | 581973009 |
| KURTOSIS | 15.901     | S E KURT | 1.993      | SKEWNESS | 3.711     |
| S E SKEW | .144       | RANGE    | 184988.000 | MINIMUM  | 12.000    |
| MAXIMUM  | 185000.000 | SUM      | 3324105.00 |          |           |

| PERCENTILE | VALUE     | PERCENTILE | VALUE    | PERCENTILE | VALUE    |
|------------|-----------|------------|----------|------------|----------|
| 10.00      | 846.000   | 25.00      | 1500.000 | 33.30      | 1801.428 |
| 50.00      | 3200.000  | 66.70      | 5791.194 | 75.00      | 8476.000 |
| 90.00      | 30000.000 |            |          |            |          |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

APP INDICATOR: ROOF APPARATUS

| VALUE LABEL          | VALUE | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|----------------------|-------|-----------|---------|------------------|----------------|
| NONE                 | 0     | 255       | 89.5    | 89.5             | 89.5           |
| VENTS, FLUES, STACKS | 1     | 25        | 8.8     | 8.8              | 98.2           |
| SKYLIGHTS            | 2     | 1         | .4      | .4               | 98.6           |
| FLASHING             | 3     | 4         | 1.4     | 1.4              | 100.0          |
|                      |       |           |         |                  |                |
|                      | TOTAL | 285       | 100.0   | 100.0            |                |



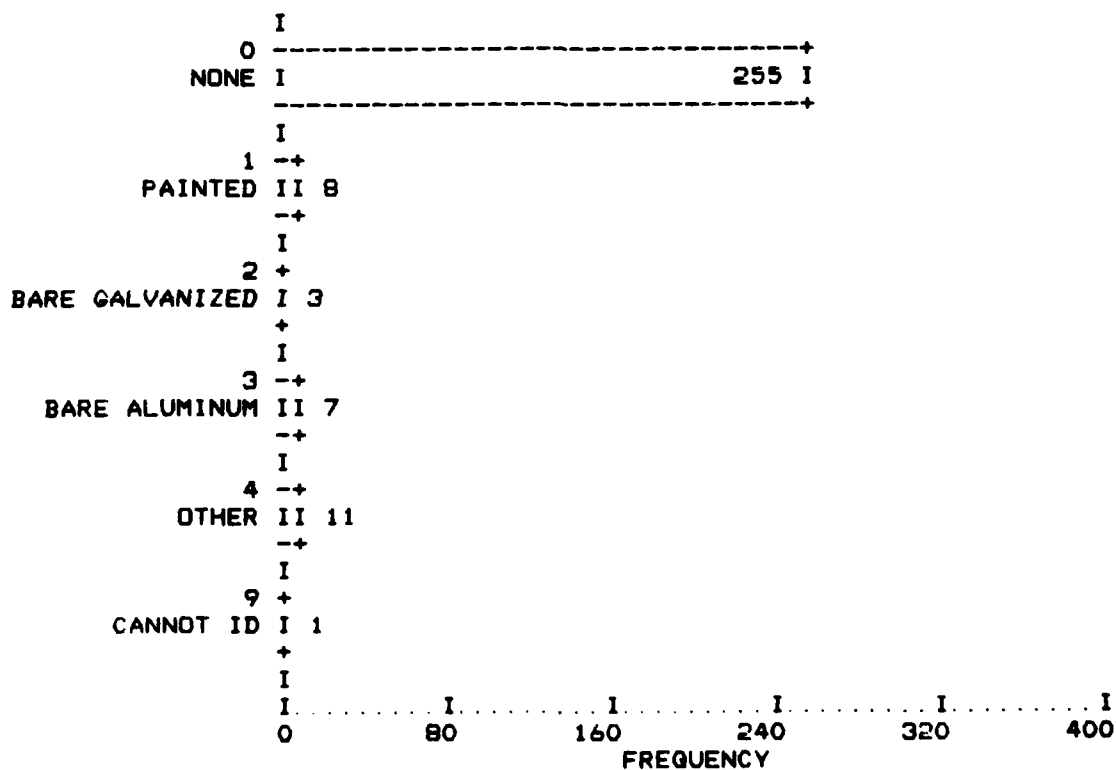
|          |        |          |        |          |       |
|----------|--------|----------|--------|----------|-------|
| MEAN     | .137   | STD ERR  | .027   | MEDIAN   | 0.0   |
| MODE     | 0.0    | STD DEV  | .458   | VARIANCE | .210  |
| KURTOSIS | 20.992 | S E KURT | 1.993  | SKEWNESS | 4.264 |
| S E SKEW | .144   | RANGE    | 3.000  | MINIMUM  | 0.0   |
| MAXIMUM  | 3.000  | SUM      | 39.000 |          |       |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 0.0   | 75.00      | 0.0   |
| 90.00      | 1.000 |            |       |            |       |

VALID CASES 285 MISSING CASES 0

RMAT ROOF APP MATERIAL

| VALUE LABEL     | VALUE | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|-----------------|-------|-----------|---------|------------------|----------------|
| NONE            | 0     | 255       | 89.5    | 89.5             | 89.5           |
| PAINTED         | 1     | 8         | 2.8     | 2.8              | 92.3           |
| BARE GALVANIZED | 2     | 3         | 1.1     | 1.1              | 93.3           |
| BARE ALUMINUM   | 3     | 7         | 2.5     | 2.5              | 95.8           |
| OTHER           | 4     | 11        | 3.9     | 3.9              | 99.6           |
| CANNOT ID       | 9     | 1         | .4      | .4               | 100.0          |
| TOTAL           |       | 285       | 100.0   | 100.0            |                |



|          |        |          |        |          |       |
|----------|--------|----------|--------|----------|-------|
| MEAN     | .309   | STD ERR  | .062   | MEDIAN   | 0.0   |
| MODE     | 0.0    | STD DEV  | 1.050  | VARIANCE | 1.102 |
| KURTOSIS | 21.107 | S E KURT | 1.993  | SKEWNESS | 4.159 |
| S E SKEW | .144   | RANGE    | 9.000  | MINIMUM  | 0.0   |
| MAXIMUM  | 9.000  | SUM      | 88.000 |          |       |

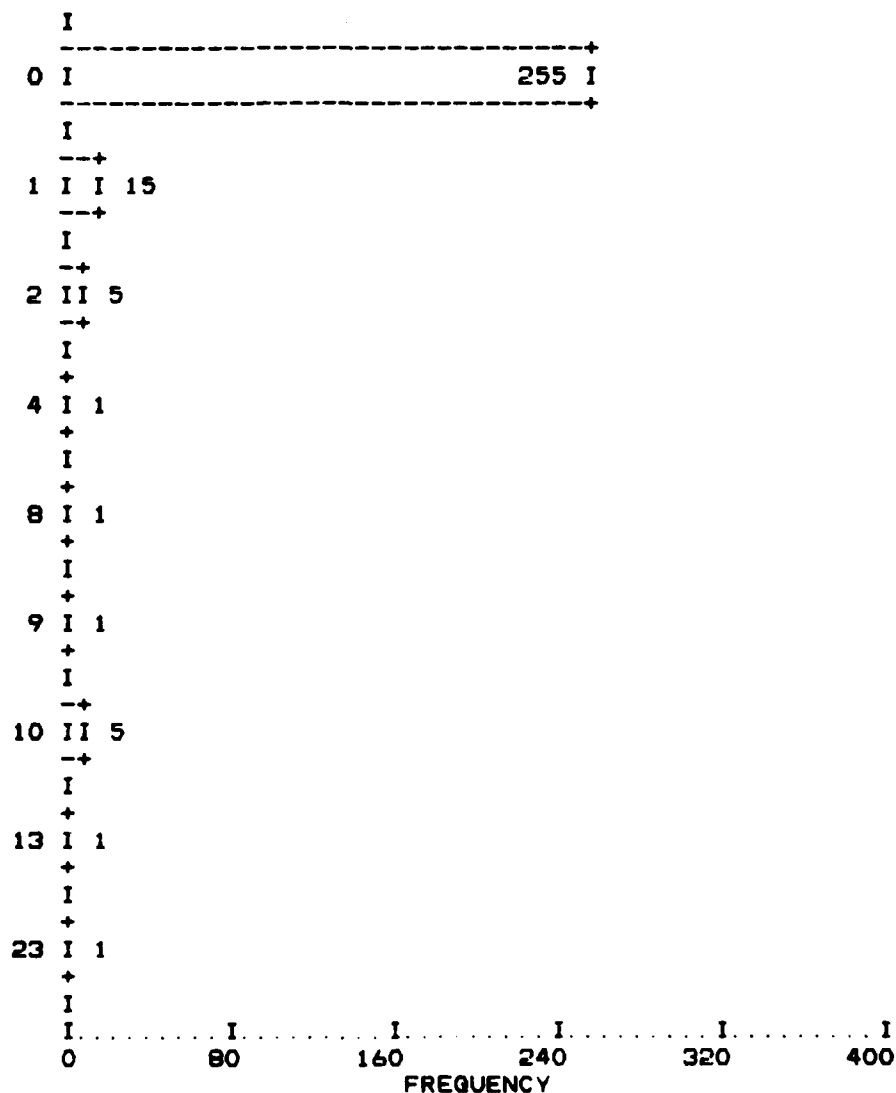
RMAT      ROOF APP MATERIAL

| PERCENTILE  | VALUE | PERCENTILE    | VALUE | PERCENTILE | VALUE |
|-------------|-------|---------------|-------|------------|-------|
| 10.00       | 0.0   | 25.00         | 0.0   | 33.30      | 0.0   |
| 50.00       | 0.0   | 66.70         | 0.0   | 75.00      | 0.0   |
| 90.00       | 1.000 |               |       |            |       |
| VALID CASES | 285   | MISSING CASES | 0     |            |       |

ITEMS      NO OF ROOF APP ITEMS

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID PERCENT | CUM PERCENT |
|-------------|-------|-----------|---------|---------------|-------------|
|             | 0     | 255       | 89.5    | 89.5          | 89.5        |
|             | 1     | 15        | 5.3     | 5.3           | 94.7        |
|             | 2     | 5         | 1.8     | 1.8           | 96.5        |
|             | 4     | 1         | .4      | .4            | 96.8        |
|             | 8     | 1         | .4      | .4            | 97.2        |
|             | 9     | 1         | .4      | .4            | 97.5        |
|             | 10    | 5         | 1.8     | 1.8           | 99.3        |
|             | 13    | 1         | .4      | .4            | 99.6        |
|             | 23    | 1         | .4      | .4            | 100.0       |
| TOTAL       |       | 285       | 100.0   | 100.0         |             |

ITEMS NO OF ROOF APP ITEMS



|          |        |          |         |          |       |
|----------|--------|----------|---------|----------|-------|
| MEAN     | .463   | STD ERR  | .128    | MEDIAN   | 0.0   |
| MODE     | 0.0    | STD DEV  | 2.166   | VARIANCE | 4.693 |
| KURTOSIS | 51.302 | S E KURT | 1.993   | SKEWNESS | 6.572 |
| S E SKEW | .144   | RANGE    | 23.000  | MINIMUM  | 0.0   |
| MAXIMUM  | 23.000 | SUM      | 132.000 |          |       |

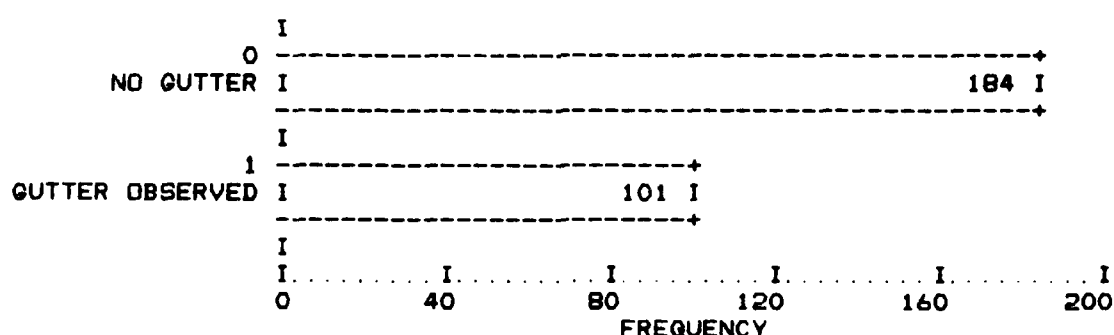
# Rain gutters, downspouts, fences and other accessories

ITEMS NO OF ROOF APP ITEMS

| PERCENTILE  | VALUE | PERCENTILE    | VALUE | PERCENTILE | VALUE |
|-------------|-------|---------------|-------|------------|-------|
| 10.00       | 0.0   | 25.00         | 0.0   | 33.30      | 0.0   |
| 50.00       | 0.0   | 66.70         | 0.0   | 75.00      | 0.0   |
| 90.00       | 1.000 |               |       |            |       |
| VALID CASES | 285   | MISSING CASES | 0     |            |       |

RGUT INDICATOR: RAIN GUTTERS

| VALUE LABEL     | VALUE | FREQUENCY | PERCENT | VALID PERCENT | CUM PERCENT |
|-----------------|-------|-----------|---------|---------------|-------------|
| NO GUTTER       | 0     | 184       | 64.6    | 64.6          | 64.6        |
| GUTTER OBSERVED | 1     | 101       | 35.4    | 35.4          | 100.0       |
|                 | TOTAL | 285       | 100.0   | 100.0         |             |

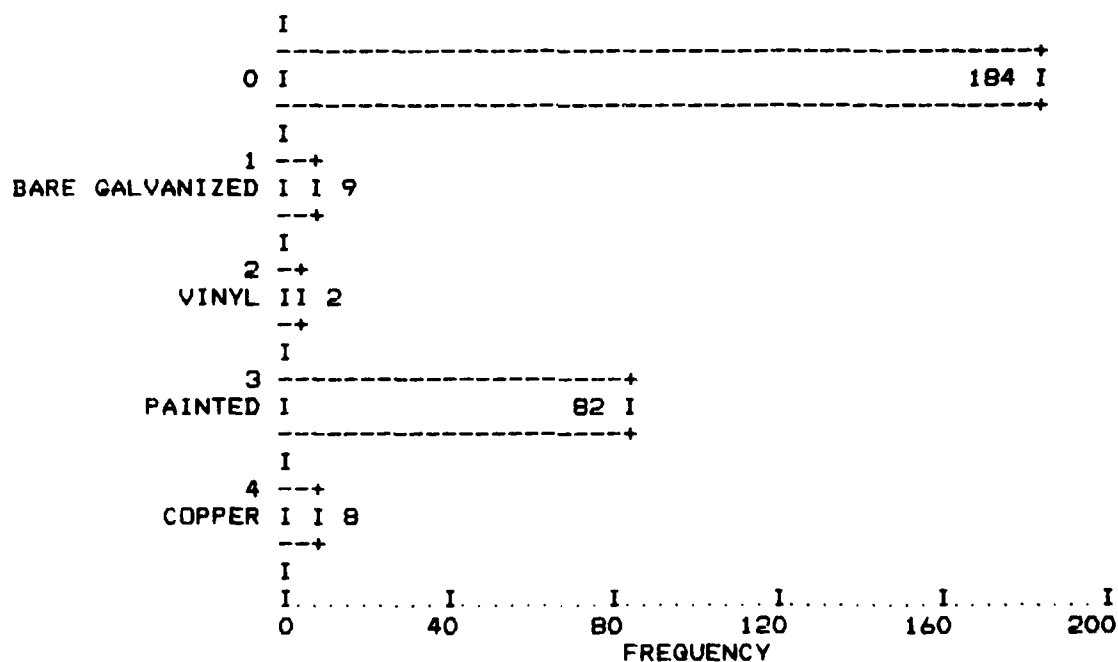


|          |        |          |         |          |      |
|----------|--------|----------|---------|----------|------|
| MEAN     | .354   | STD ERR  | .028    | MEDIAN   | 0.0  |
| MODE     | 0.0    | STD DEV  | .479    | VARIANCE | .230 |
| KURTOSIS | -1.637 | S E KURT | 1.993   | SKEWNESS | .612 |
| S E SKEW | .144   | RANGE    | 1.000   | MINIMUM  | 0.0  |
| MAXIMUM  | 1.000  | SUM      | 101.000 |          |      |

| PERCENTILE  | VALUE | PERCENTILE    | VALUE | PERCENTILE | VALUE |
|-------------|-------|---------------|-------|------------|-------|
| 10.00       | 0.0   | 25.00         | 0.0   | 33.30      | 0.0   |
| 50.00       | 0.0   | 66.70         | 1.000 | 75.00      | 1.000 |
| 90.00       | 1.000 |               |       |            |       |
| VALID CASES | 285   | MISSING CASES | 0     |            |       |

RGMAT RAIN GUTTER MATERIAL

| VALUE LABEL     | VALUE | FREQUENCY | PERCENT | VALID PERCENT | CUM PERCENT |
|-----------------|-------|-----------|---------|---------------|-------------|
|                 | 0     | 184       | 64.6    | 64.6          | 64.6        |
| BARE GALVANIZED | 1     | 9         | 3.2     | 3.2           | 67.7        |
| VINYL           | 2     | 2         | .7      | .7            | 68.4        |
| PAINTED         | 3     | 82        | 28.8    | 28.8          | 97.2        |
| COPPER          | 4     | 8         | 2.8     | 2.8           | 100.0       |
|                 | TOTAL | 285       | 100.0   | 100.0         |             |



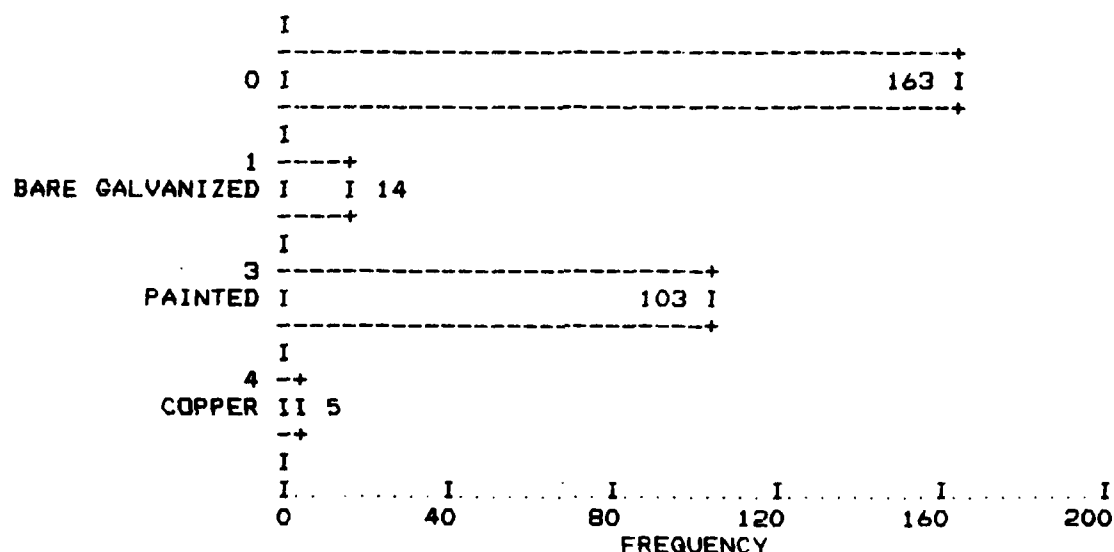
|          |        |          |         |          |       |
|----------|--------|----------|---------|----------|-------|
| MEAN     | 1.021  | STD ERR  | .085    | MEDIAN   | 0.0   |
| MODE     | 0.0    | STD DEV  | 1.436   | VARIANCE | 2.063 |
| KURTOSIS | -1.266 | S E KURT | 1.993   | SKEWNESS | .781  |
| S E SKEW | .144   | RANGE    | 4.000   | MINIMUM  | 0.0   |
| MAXIMUM  | 4.000  | SUM      | 291.000 |          |       |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 1.000 | 75.00      | 3.000 |
| 90.00      | 3.000 |            |       |            |       |

VALID CASES 285 MISSING CASES 0

DSPOUT MATERIAL OF DOWNSPOUT

| VALUE LABEL     | VALUE | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|-----------------|-------|-----------|---------|------------------|----------------|
|                 | 0     | 163       | 57.2    | 57.2             | 57.2           |
| BARE GALVANIZED | 1     | 14        | 4.9     | 4.9              | 62.1           |
| PAINTED         | 3     | 103       | 36.1    | 36.1             | 98.2           |
| COPPER          | 4     | 5         | 1.8     | 1.8              | 100.0          |
|                 | TOTAL | 285       | 100.0   | 100.0            |                |



|          |        |          |         |          |       |
|----------|--------|----------|---------|----------|-------|
| MEAN     | 1.204  | STD ERR  | .087    | MEDIAN   | 0.0   |
| MODE     | 0.0    | STD DEV  | 1.463   | VARIANCE | 2.142 |
| KURTOSIS | -1.683 | S E KURT | 1.993   | SKEWNESS | .478  |
| S E SKEW | .144   | RANGE    | 4.000   | MINIMUM  | 0.0   |
| MAXIMUM  | 4.000  | SUM      | 343.000 |          |       |

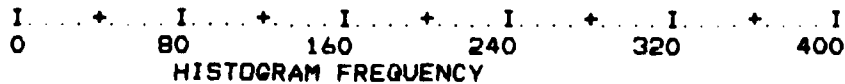
| PERCENTILE  | VALUE | PERCENTILE    | VALUE | PERCENTILE | VALUE |
|-------------|-------|---------------|-------|------------|-------|
| 10.00       | 0.0   | 25.00         | 0.0   | 33.30      | 0.0   |
| 50.00       | 0.0   | 66.70         | 3.000 | 75.00      | 3.000 |
| 90.00       | 3.000 |               |       |            |       |
| VALID CASES | 285   | MISSING CASES | 0     |            |       |

## DSLENG DOWNSPOUT LENGTH

| VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT | VALUE | FREQ | PCT | CUM<br>PCT |
|-------|------|-----|------------|-------|------|-----|------------|-------|------|-----|------------|
| 0     | 163  | 57  | 57         | 37    | 1    | 0   | 77         | 100   | 1    | 0   | 94         |
| 10    | 3    | 1   | 58         | 40    | 15   | 5   | 82         | 102   | 1    | 0   | 94         |
| 12    | 2    | 1   | 59         | 41    | 1    | 0   | 82         | 120   | 3    | 1   | 95         |
| 15    | 2    | 1   | 60         | 45    | 3    | 1   | 84         | 128   | 1    | 0   | 95         |
| 16    | 2    | 1   | 60         | 50    | 7    | 2   | 86         | 134   | 1    | 0   | 96         |
| 18    | 1    | 0   | 61         | 55    | 1    | 0   | 86         | 140   | 1    | 0   | 96         |
| 20    | 11   | 4   | 65         | 56    | 1    | 0   | 87         | 150   | 1    | 0   | 96         |
| 24    | 1    | 0   | 65         | 60    | 7    | 2   | 89         | 170   | 1    | 0   | 97         |
| 25    | 8    | 3   | 68         | 64    | 1    | 0   | 89         | 180   | 1    | 0   | 97         |
| 27    | 1    | 0   | 68         | 65    | 1    | 0   | 90         | 192   | 1    | 0   | 98         |
| 28    | 1    | 0   | 68         | 78    | 1    | 0   | 90         | 200   | 2    | 1   | 98         |
| 29    | 1    | 0   | 69         | 80    | 5    | 2   | 92         | 212   | 1    | 0   | 99         |
| 30    | 14   | 5   | 74         | 90    | 1    | 0   | 92         | 300   | 1    | 0   | 99         |
| 32    | 2    | 1   | 74         | 95    | 1    | 0   | 93         | 360   | 1    | 0   | 99         |
| 35    | 3    | 1   | 75         | 96    | 1    | 0   | 93         | 375   | 1    | 0   | 100        |
| 36    | 3    | 1   | 76         | 98    | 1    | 0   | 93         | 999   | 1    | 0   | 100        |

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 8.00 OCCURRENCES

|     |     |       |
|-----|-----|-------|
| 235 | 20  | ***** |
| 28  | 68  | ****  |
| 10  | 116 | *     |
| 4   | 164 | *     |
| 4   | 212 | *     |
| 0   | 260 |       |
| 1   | 308 |       |
| 2   | 356 |       |
| 0   | 404 |       |
| 0   | 452 |       |
| 0   | 500 |       |
| 0   | 548 |       |
| 0   | 596 |       |
| 0   | 644 |       |
| 0   | 692 |       |
| 0   | 740 |       |
| 0   | 788 |       |
| 0   | 836 |       |
| 0   | 884 |       |
| 0   | 932 |       |
| 1   | 980 |       |



DSLENG      DOWNSPOUT LENGTH

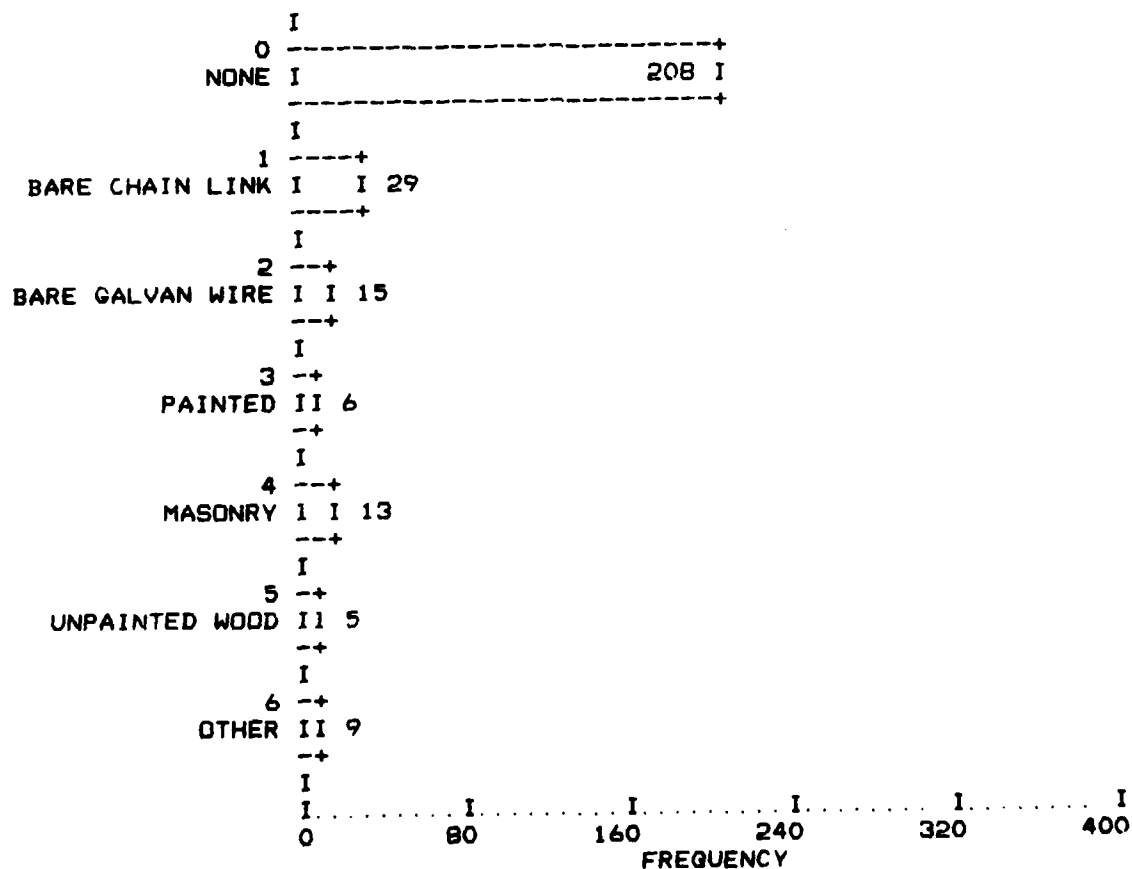
|          |         |          |          |          |          |
|----------|---------|----------|----------|----------|----------|
| MEAN     | 29.267  | STD ERR  | 4.553    | MEDIAN   | 0.0      |
| MODE     | 0.0     | STD DEV  | 76.867   | VARIANCE | 5908.506 |
| KURTOSIS | 91.891  | S E KURT | 1.993    | SKEWNESS | 8.137    |
| S E SKEW | .144    | RANGE    | 999.000  | MINIMUM  | 0.0      |
| MAXIMUM  | 999.000 | SUM      | 8341.000 |          |          |

| PERCENTILE | VALUE  | PERCENTILE | VALUE  | PERCENTILE | VALUE  |
|------------|--------|------------|--------|------------|--------|
| 10.00      | 0.0    | 25.00      | 0.0    | 33.30      | 0.0    |
| 50.00      | 0.0    | 66.70      | 25.000 | 75.00      | 35.000 |
| 90.00      | 78.800 |            |        |            |        |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

FENCE FENCE TYPE

| VALUE LABEL      | VALUE | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|------------------|-------|-----------|---------|------------------|----------------|
| NONE             | 0     | 208       | 73.0    | 73.0             | 73.0           |
| BARE CHAIN LINK  | 1     | 29        | 10.2    | 10.2             | 83.2           |
| BARE GALVAN WIRE | 2     | 15        | 5.3     | 5.3              | 88.4           |
| PAINTED          | 3     | 6         | 2.1     | 2.1              | 90.5           |
| MASONRY          | 4     | 13        | 4.6     | 4.6              | 95.1           |
| UNPAINTED WOOD   | 5     | 5         | 1.8     | 1.8              | 96.8           |
| OTHER            | 6     | 9         | 3.2     | 3.2              | 100.0          |
|                  |       |           |         |                  |                |
|                  | TOTAL | 285       | 100.0   | 100.0            |                |



FENCE FENCE TYPE

|          |       |          |         |          |       |
|----------|-------|----------|---------|----------|-------|
| MEAN     | .730  | STD ERR  | .089    | MEDIAN   | 0.0   |
| MODE     | 0.0   | STD DEV  | 1.511   | VARIANCE | 2.282 |
| KURTOSIS | 4.113 | S E KURT | 1.993   | SKEWNESS | 2.244 |
| S E SKEW | .144  | RANGE    | 6.000   | MINIMUM  | 0.0   |
| MAXIMUM  | 6.000 | SUM      | 208.000 |          |       |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 0.0   | 75.00      | 1.000 |
| 90.00      | 3.000 |            |       |            |       |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

FLENG FENCE LENGTH

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|-------------|-------|-----------|---------|------------------|----------------|
|             | 0     | 208       | 73.0    | 73.0             | 73.0           |
|             | 4     | 1         | .4      | .4               | 73.3           |
|             | 8     | 1         | .4      | .4               | 73.7           |
|             | 10    | 1         | .4      | .4               | 74.0           |
|             | 12    | 1         | .4      | .4               | 74.4           |
|             | 15    | 1         | .4      | .4               | 74.7           |
|             | 17    | 2         | .7      | .7               | 75.4           |
|             | 18    | 1         | .4      | .4               | 75.8           |
|             | 20    | 6         | 2.1     | 2.1              | 77.9           |
|             | 25    | 2         | .7      | .7               | 78.6           |
|             | 30    | 4         | 1.4     | 1.4              | 80.0           |
|             | 40    | 2         | .7      | .7               | 80.7           |
|             | 43    | 1         | .4      | .4               | 81.1           |
|             | 50    | 5         | 1.8     | 1.8              | 82.8           |
|             | 55    | 1         | .4      | .4               | 83.2           |
|             | 60    | 7         | 2.5     | 2.5              | 85.6           |
|             | 80    | 4         | 1.4     | 1.4              | 87.0           |
|             | 100   | 6         | 2.1     | 2.1              | 89.1           |
|             | 120   | 7         | 2.5     | 2.5              | 91.6           |
|             | 140   | 1         | .4      | .4               | 91.9           |
|             | 144   | 1         | .4      | .4               | 92.3           |
|             | 150   | 2         | .7      | .7               | 93.0           |
|             | 200   | 1         | .4      | .4               | 93.3           |
|             | 230   | 1         | .4      | .4               | 93.7           |
|             | 250   | 1         | .4      | .4               | 94.0           |
|             | 260   | 1         | .4      | .4               | 94.4           |
|             | 268   | 1         | .4      | .4               | 94.7           |
|             | 270   | 1         | .4      | .4               | 95.1           |
|             | 300   | 4         | 1.4     | 1.4              | 96.5           |
|             | 301   | 1         | .4      | .4               | 96.8           |
|             | 400   | 1         | .4      | .4               | 97.2           |
|             | 460   | 1         | .4      | .4               | 97.5           |
|             | 500   | 1         | .4      | .4               | 97.9           |
|             | 600   | 2         | .7      | .7               | 98.6           |
|             | 700   | 1         | .4      | .4               | 98.9           |
|             | 800   | 1         | .4      | .4               | 99.3           |
|             | 900   | 2         | .7      | .7               | 100.0          |
| TOTAL       |       | 285       | 100.0   | 100.0            |                |

FLENG      FENCE LENGTH

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 8.00 OCCURRENCES

|     |     |       |
|-----|-----|-------|
| 230 | 20  | ***** |
| 18  | 63  | **    |
| 13  | 106 | **    |
| 4   | 149 | *     |
| 1   | 192 |       |
| 2   | 235 |       |
| 3   | 278 |       |
| 5   | 321 | *     |
| 0   | 364 |       |
| 1   | 407 |       |
| 1   | 450 |       |
| 1   | 493 |       |
| 0   | 536 |       |
| 2   | 579 |       |
| 0   | 622 |       |
| 0   | 665 |       |
| 1   | 708 |       |
| 0   | 751 |       |
| 1   | 794 |       |
| 0   | 837 |       |
| 2   | 880 |       |

0 80 160 240 320 400  
HISTOGRAM FREQUENCY

|          |         |          |           |          |           |
|----------|---------|----------|-----------|----------|-----------|
| MEAN     | 43.586  | STD ERR  | 7.616     | MEDIAN   | 0.0       |
| MODE     | 0.0     | STD DEV  | 128.572   | VARIANCE | 16530.673 |
| KURTOSIS | 22.031  | S E KURT | 1.993     | SKEWNESS | 4.433     |
| S E SKEW | .144    | RANGE    | 900.000   | MINIMUM  | 0.0       |
| MAXIMUM  | 900.000 | SUM      | 12422.000 |          |           |

| PERCENTILE | VALUE   | PERCENTILE | VALUE | PERCENTILE | VALUE  |
|------------|---------|------------|-------|------------|--------|
| 10.00      | 0.0     | 25.00      | 0.0   | 33.30      | 0.0    |
| 50.00      | 0.0     | 66.70      | 0.0   | 75.00      | 17.000 |
| 90.00      | 120.000 |            |       |            |        |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

FHT

FENCE HEIGHT

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID PERCENT | CUM PERCENT |
|-------------|-------|-----------|---------|---------------|-------------|
|             | 0     | 208       | 73.0    | 73.0          | 73.0        |
|             | 2     | 7         | 2.5     | 2.5           | 75.4        |
|             | 3     | 35        | 12.3    | 12.3          | 87.7        |
|             | 4     | 8         | 2.8     | 2.8           | 90.5        |
|             | 5     | 7         | 2.5     | 2.5           | 93.0        |
|             | 6     | 13        | 4.6     | 4.6           | 97.5        |
|             | 7     | 1         | .4      | .4            | 97.9        |
|             | 8     | 1         | .4      | .4            | 98.2        |
|             | 9     | 1         | .4      | .4            | 98.6        |
|             | 10    | 2         | .7      | .7            | 99.3        |
|             | 12    | 1         | .4      | .4            | 99.6        |
|             | 30    | 1         | .4      | .4            | 100.0       |
|             |       | -----     | -----   | -----         |             |
|             | TOTAL | 285       | 100.0   | 100.0         |             |

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 8.00 OCCURRENCES

|     |     |       |
|-----|-----|-------|
| 208 | 0.0 | ***** |
| 7   | 1.5 | *     |
| 35  | 3.0 | ****  |
| 15  | 4.5 | **    |
| 13  | 6.0 | **    |

|   |      |
|---|------|
| 2 | 7.5  |
| 1 | 9.0  |
| 2 | 10.5 |
| 1 | 12.0 |
| 0 | 13.5 |
| 0 | 15.0 |
| 0 | 16.5 |
| 0 | 18.0 |
| 0 | 19.5 |
| 0 | 21.0 |
| 0 | 22.5 |
| 0 | 24.0 |
| 0 | 25.5 |
| 0 | 27.0 |
| 0 | 28.5 |
| 1 | 30.0 |

[illegible]

FHT FENCE HEIGHT

|          |        |          |         |          |       |
|----------|--------|----------|---------|----------|-------|
| MEAN     | 1.228  | STD ERR  | .162    | MEDIAN   | 0.0   |
| MODE     | 0.0    | STD DEV  | 2.734   | VARIANCE | 7.472 |
| KURTOSIS | 43.786 | S E KURT | 1.993   | SKEWNESS | 5.062 |
| S E SKEW | .144   | RANGE    | 30.000  | MINIMUM  | 0.0   |
| MAXIMUM  | 30.000 | SUM      | 350.000 |          |       |

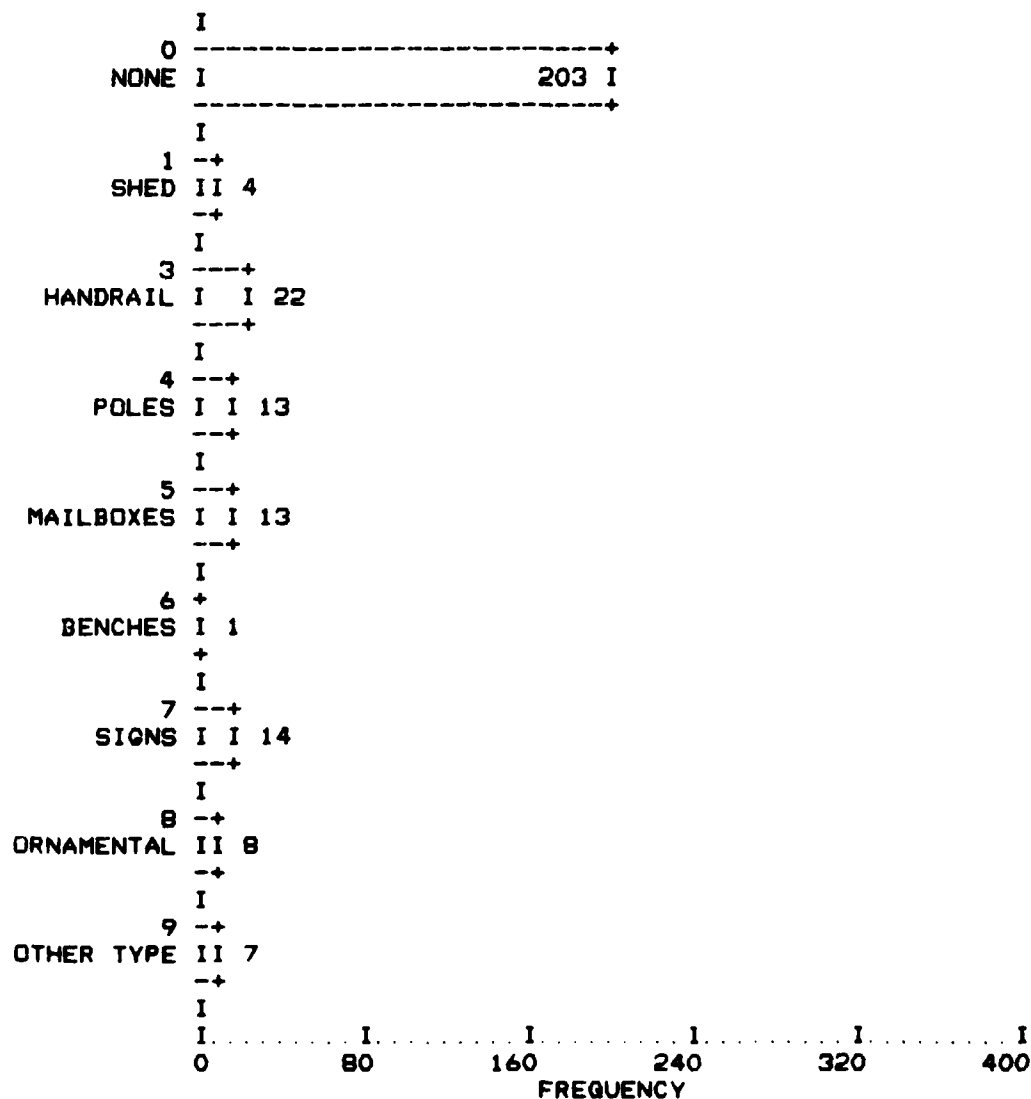
| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 0.0   | 75.00      | 2.000 |
| 90.00      | 4.000 |            |       |            |       |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

ACCESS1 FIRST ACCESS TYPE

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID PERCENT | CUM PERCENT |
|-------------|-------|-----------|---------|---------------|-------------|
| NONE        | 0     | 203       | 71.2    | 71.2          | 71.2        |
| SHED        | 1     | 4         | 1.4     | 1.4           | 72.6        |
| HANDRAIL    | 3     | 22        | 7.7     | 7.7           | 80.4        |
| POLES       | 4     | 13        | 4.6     | 4.6           | 84.9        |
| MAILBOXES   | 5     | 13        | 4.6     | 4.6           | 89.5        |
| BENCHES     | 6     | 1         | .4      | .4            | 89.8        |
| SIGNS       | 7     | 14        | 4.9     | 4.9           | 94.7        |
| ORNAMENTAL  | 8     | 8         | 2.8     | 2.8           | 97.5        |
| OTHER TYPE  | 9     | 7         | 2.5     | 2.5           | 100.0       |
| TOTAL       |       | 285       | 100.0   | 100.0         |             |

ACCESS1 FIRST ACCESS TYPE



|          |       |          |         |          |       |
|----------|-------|----------|---------|----------|-------|
| MEAN     | 1.467 | STD ERR  | .154    | MEDIAN   | 0.0   |
| MODE     | 0.0   | STD DEV  | 2.602   | VARIANCE | 6.771 |
| KURTOSIS | 1.227 | S E KURT | 1.993   | SKEWNESS | 1.592 |
| S E SKEW | .144  | RANGE    | 9.000   | MINIMUM  | 0.0   |
| MAXIMUM  | 9.000 | SUM      | 418.000 |          |       |

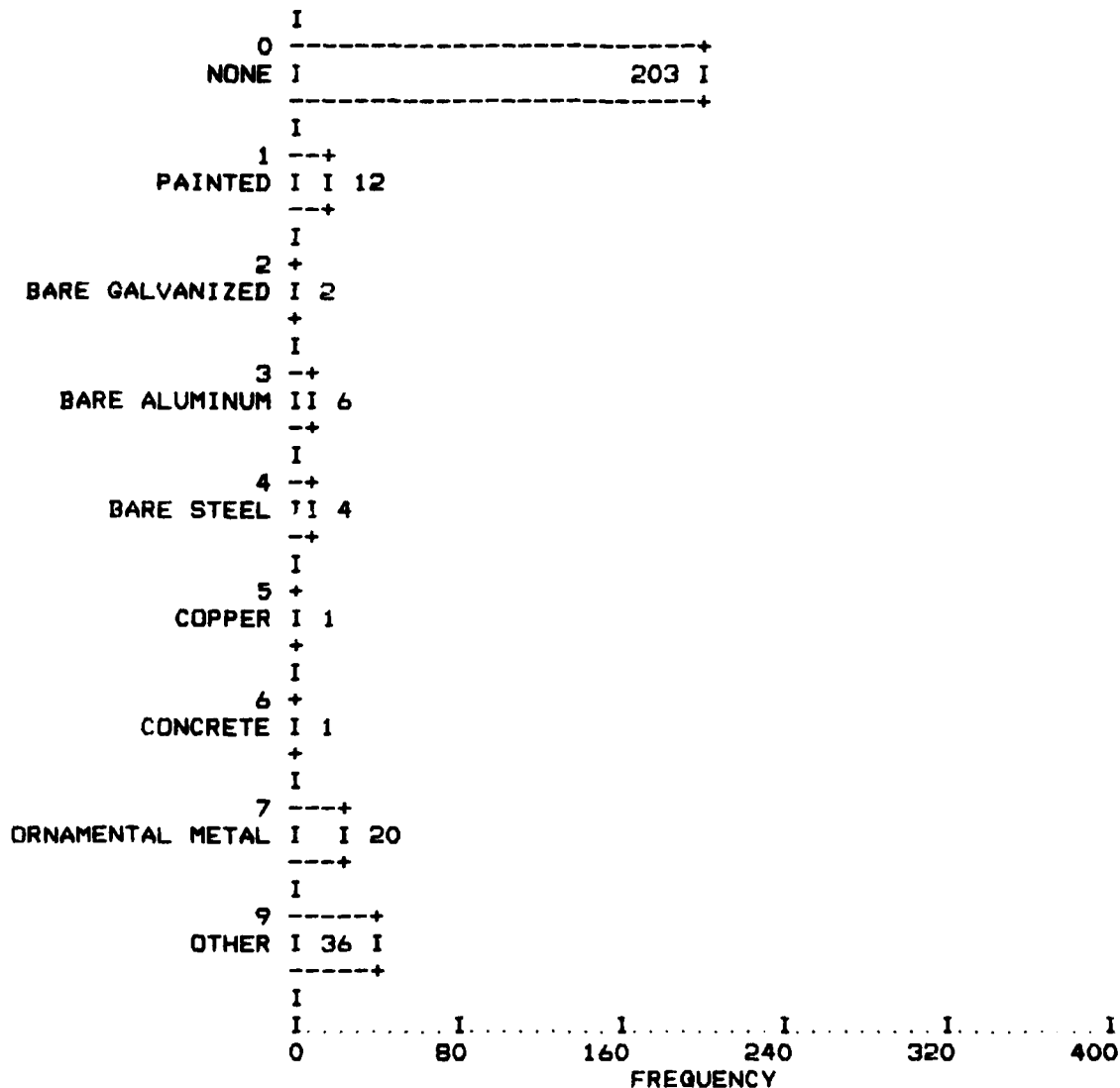
ACCESS1 FIRST ACCESS TYPE

| PERCENTILE  | VALUE | PERCENTILE    | VALUE | PERCENTILE | VALUE |
|-------------|-------|---------------|-------|------------|-------|
| 10.00       | 0.0   | 25.00         | 0.0   | 33.30      | 0.0   |
| 50.00       | 0.0   | 66.70         | 0.0   | 75.00      | 3.000 |
| 90.00       | 7.000 |               |       |            |       |
| VALID CASES | 285   | MISSING CASES | 0     |            |       |

AMAT1 FIRST ACCESS MATERIAL

| VALUE LABEL      | VALUE | FREQUENCY | PERCENT | VALID PERCENT | CUM PERCENT |
|------------------|-------|-----------|---------|---------------|-------------|
| NONE             | 0     | 203       | 71.2    | 71.2          | 71.2        |
| PAINTED          | 1     | 12        | 4.2     | 4.2           | 75.4        |
| BARE GALVANIZED  | 2     | 2         | .7      | .7            | 76.1        |
| BARE ALUMINUM    | 3     | 6         | 2.1     | 2.1           | 78.2        |
| BARE STEEL       | 4     | 4         | 1.4     | 1.4           | 79.6        |
| COPPER           | 5     | 1         | .4      | .4            | 80.0        |
| CONCRETE         | 6     | 1         | .4      | .4            | 80.4        |
| ORNAMENTAL METAL | 7     | 20        | 7.0     | 7.0           | 87.4        |
| OTHER            | 9     | 36        | 12.6    | 12.6          | 100.0       |
| TOTAL            |       | 285       | 100.0   | 100.0         |             |

AMAT1 FIRST ACCESS MATERIAL



|          |       |          |         |          |        |
|----------|-------|----------|---------|----------|--------|
| MEAN     | 1.842 | STD ERR  | .197    | MEDIAN   | 0.0    |
| MODE     | 0.0   | STD DEV  | 3.319   | VARIANCE | 11.014 |
| KURTOSIS | .274  | S E KURT | 1.993   | SKEWNESS | 1.438  |
| S E SKEW | .144  | RANGE    | 9.000   | MINIMUM  | 0.0    |
| MAXIMUM  | 9.000 | SUM      | 525.000 |          |        |

AMAT1 FIRST ACCESS MATERIAL

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 0.0   | 75.00      | 1.000 |
| 90.00      | 9.000 |            |       |            |       |

VALID CASES 285 MISSING CASES 0

AAREA1 FIRST ACCESS AREA

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID PERCENT | CUM PERCENT |
|-------------|-------|-----------|---------|---------------|-------------|
|             | 0     | 203       | 71.2    | 71.2          | 71.2        |
|             | 2     | 12        | 4.2     | 4.2           | 75.4        |
|             | 4     | 1         | .4      | .4            | 75.8        |
|             | 5     | 1         | .4      | .4            | 76.1        |
|             | 6     | 1         | .4      | .4            | 76.5        |
|             | 10    | 6         | 2.1     | 2.1           | 78.6        |
|             | 12    | 1         | .4      | .4            | 78.9        |
|             | 15    | 2         | .7      | .7            | 79.6        |
|             | 16    | 3         | 1.1     | 1.1           | 80.7        |
|             | 20    | 4         | 1.4     | 1.4           | 82.1        |
|             | 24    | 4         | 1.4     | 1.4           | 83.5        |
|             | 30    | 9         | 3.2     | 3.2           | 86.7        |
|             | 32    | 2         | .7      | .7            | 87.4        |
|             | 35    | 1         | .4      | .4            | 87.7        |
|             | 36    | 1         | .4      | .4            | 88.1        |
|             | 40    | 1         | .4      | .4            | 88.4        |
|             | 45    | 1         | .4      | .4            | 88.8        |
|             | 48    | 1         | .4      | .4            | 89.1        |
|             | 50    | 4         | 1.4     | 1.4           | 90.5        |
|             | 52    | 1         | .4      | .4            | 90.9        |
|             | 54    | 1         | .4      | .4            | 91.2        |
|             | 60    | 2         | .7      | .7            | 91.9        |
|             | 64    | 1         | .4      | .4            | 92.3        |
|             | 70    | 1         | .4      | .4            | 92.6        |
|             | 80    | 1         | .4      | .4            | 93.0        |
|             | 90    | 1         | .4      | .4            | 93.3        |
|             | 100   | 2         | .7      | .7            | 94.0        |
|             | 110   | 1         | .4      | .4            | 94.4        |
|             | 115   | 1         | .4      | .4            | 94.7        |
|             | 150   | 1         | .4      | .4            | 95.1        |
|             | 180   | 1         | .4      | .4            | 95.4        |
|             | 200   | 2         | .7      | .7            | 96.1        |
|             | 260   | 1         | .4      | .4            | 96.5        |
|             | 300   | 2         | .7      | .7            | 97.2        |
|             | 400   | 1         | .4      | .4            | 97.5        |
|             | 500   | 1         | .4      | .4            | 97.9        |
|             | 600   | 2         | .7      | .7            | 98.6        |
|             | 630   | 1         | .4      | .4            | 98.9        |
|             | 640   | 1         | .4      | .4            | 99.3        |
|             | 2400  | 2         | .7      | .7            | 100.0       |
| TOTAL       |       | 285       | 100.0   | 100.0         |             |

## AREA1 FIRST ACCESS AREA

COUNT MIDPOINT ONE SYMBOL EQUALS APPROXIMATELY 8.00 OCCURRENCES

|     |      |       |
|-----|------|-------|
| 268 | 50   | ***** |
| 6   | 165  | *     |
| 3   | 280  |       |
| 1   | 395  |       |
| 1   | 510  |       |
| 4   | 625  | *     |
| 0   | 740  |       |
| 0   | 855  |       |
| 0   | 970  |       |
| 0   | 1085 |       |
| 0   | 1200 |       |
| 0   | 1315 |       |
| 0   | 1430 |       |
| 0   | 1545 |       |
| 0   | 1660 |       |
| 0   | 1775 |       |
| 0   | 1890 |       |
| 0   | 2005 |       |
| 0   | 2120 |       |
| 0   | 2235 |       |
| 2   | 2350 |       |

[illegible]

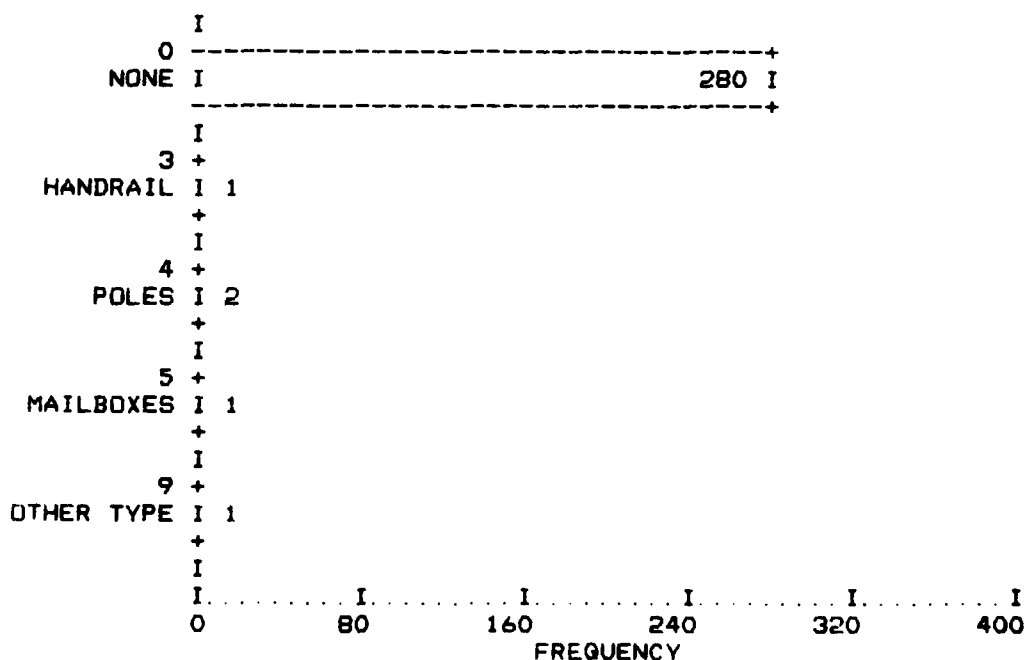
|          |          |          |           |          |           |
|----------|----------|----------|-----------|----------|-----------|
| MEAN     | 41.467   | STD ERR  | 12.898    | MEDIAN   | 0.0       |
| MODE     | 0.0      | STD DEV  | 217.744   | VARIANCE | 47412.595 |
| KURTOSIS | 96.803   | S E KURT | 1.993     | SKEWNESS | 9.340     |
| S E SKEW | .144     | RANGE    | 2400.000  | MINIMUM  | 0.0       |
| MAXIMUM  | 2400.000 | SUM      | 11818.000 |          |           |

| PERCENTILE | VALUE  | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|--------|------------|-------|------------|-------|
| 10.00      | 0.0    | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0    | 66.70      | 0.0   | 75.00      | 2.000 |
| 90.00      | 50.000 |            |       |            |       |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

## ACCESS2 SECOND ACCESS TYPE

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|-------------|-------|-----------|---------|------------------|----------------|
| NONE        | 0     | 280       | 98.2    | 98.2             | 98.2           |
| HANDRAIL    | 3     | 1         | .4      | .4               | 98.6           |
| POLES       | 4     | 2         | .7      | .7               | 99.3           |
| MAILBOXES   | 5     | 1         | .4      | .4               | 99.6           |
| OTHER TYPE  | 9     | 1         | .4      | .4               | 100.0          |
|             | TOTAL | 285       | 100.0   | 100.0            |                |



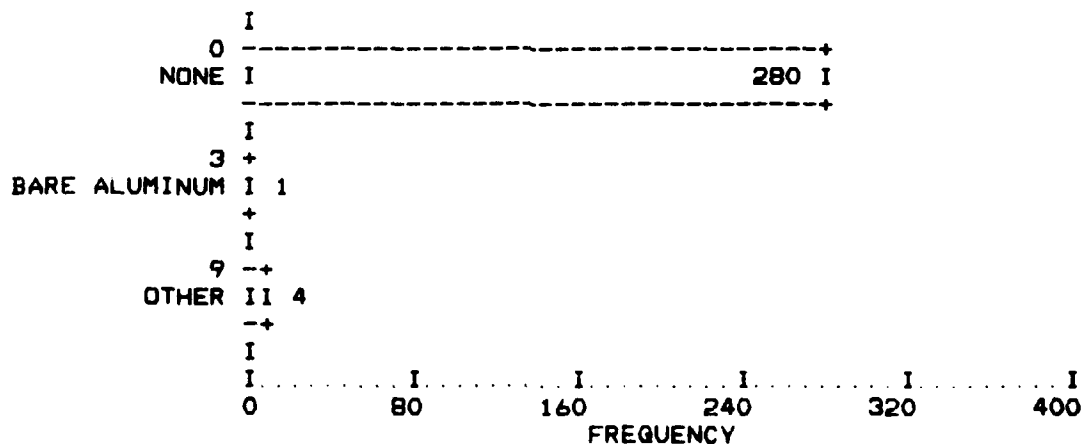
|          |        |          |        |          |       |
|----------|--------|----------|--------|----------|-------|
| MEAN     | .088   | STD ERR  | .042   | MEDIAN   | 0.0   |
| MODE     | 0.0    | STD DEV  | .714   | VARIANCE | .510  |
| KURTOSIS | 99.770 | S E KURT | 1.993  | SKEWNESS | 9.454 |
| S E SKEW | .144   | RANGE    | 9.000  | MINIMUM  | 0.0   |
| MAXIMUM  | 9.000  | SUM      | 25.000 |          |       |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 0.0   | 75.00      | 0.0   |
| 90.00      | 0.0   |            |       |            |       |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

AMAT2 SECOND ACCESS MATERIAL

| VALUE LABEL   | VALUE | FREQUENCY | PERCENT | VALID PERCENT | CUM PERCENT |
|---------------|-------|-----------|---------|---------------|-------------|
| NONE          | 0     | 280       | 98.2    | 98.2          | 98.2        |
| BARE ALUMINUM | 3     | 1         | .4      | .4            | 98.6        |
| OTHER         | 9     | 4         | 1.4     | 1.4           | 100.0       |
| TOTAL         |       | 285       | 100.0   | 100.0         |             |



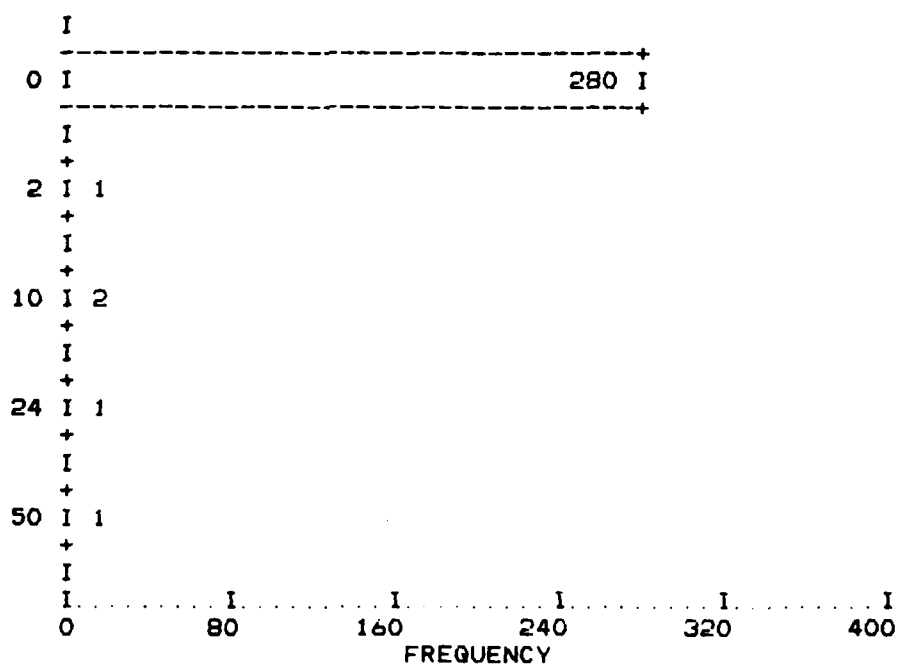
|          |        |          |        |          |       |
|----------|--------|----------|--------|----------|-------|
| MEAN     | .137   | STD ERR  | .064   | MEDIAN   | 0.0   |
| MODE     | 0.0    | STD DEV  | 1.074  | VARIANCE | 1.154 |
| KURTOSIS | 63.839 | S E KURT | 1.993  | SKEWNESS | 8.034 |
| S E SKEW | .144   | RANGE    | 9.000  | MINIMUM  | 0.0   |
| MAXIMUM  | 9.000  | SUM      | 39.000 |          |       |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 0.0   | 75.00      | 0.0   |
| 90.00      | 0.0   |            |       |            |       |

VALID CASES 285 MISSING CASES 0

AAREA2 SECOND ACCESS AREA

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|-------------|-------|-----------|---------|------------------|----------------|
|             | 0     | 280       | 98.2    | 98.2             | 98.2           |
|             | 2     | 1         | .4      | .4               | 98.6           |
|             | 10    | 2         | .7      | .7               | 99.3           |
|             | 24    | 1         | .4      | .4               | 99.6           |
|             | 50    | 1         | .4      | .4               | 100.0          |
|             | TOTAL | 285       | 100.0   | 100.0            |                |



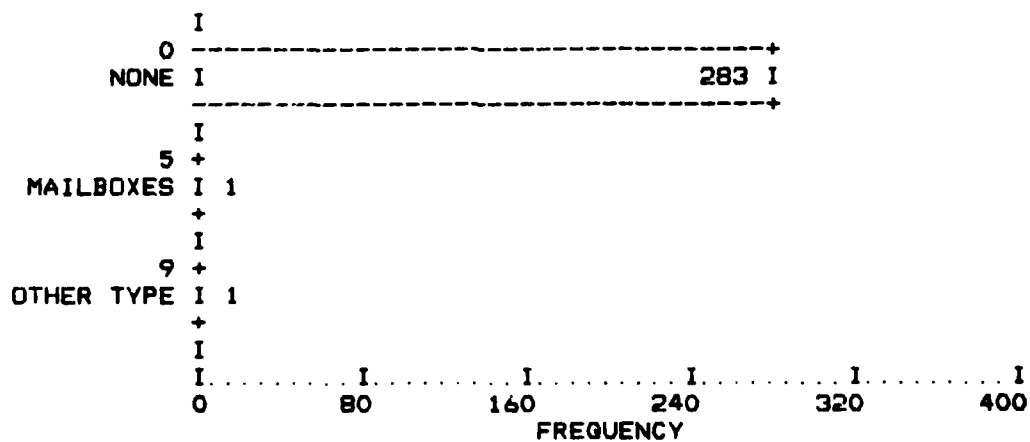
|          |         |          |        |          |        |
|----------|---------|----------|--------|----------|--------|
| MEAN     | .337    | STD ERR  | .200   | MEDIAN   | 0.0    |
| MODE     | 0.0     | STD DEV  | 3.382  | VARIANCE | 11.435 |
| KURTOSIS | 173.368 | S E KURT | 1.993  | SKEWNESS | 12.612 |
| S E SKEW | .144    | RANGE    | 50.000 | MINIMUM  | 0.0    |
| MAXIMUM  | 50.000  | SUM      | 96.000 |          |        |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 0.0   | 75.00      | 0.0   |
| 90.00      | 0.0   |            |       |            |       |

VALID CASES 285 MISSING CASES 0

## ACCESS3 THIRD ACCESS TYPE

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|-------------|-------|-----------|---------|------------------|----------------|
| NONE        | 0     | 283       | 99.3    | 99.3             | 99.3           |
| MAILBOXES   | 5     | 1         | .4      | .4               | 99.6           |
| OTHER TYPE  | 9     | 1         | .4      | .4               | 100.0          |
|             |       |           |         |                  |                |
|             | TOTAL | 285       | 100.0   | 100.0            |                |



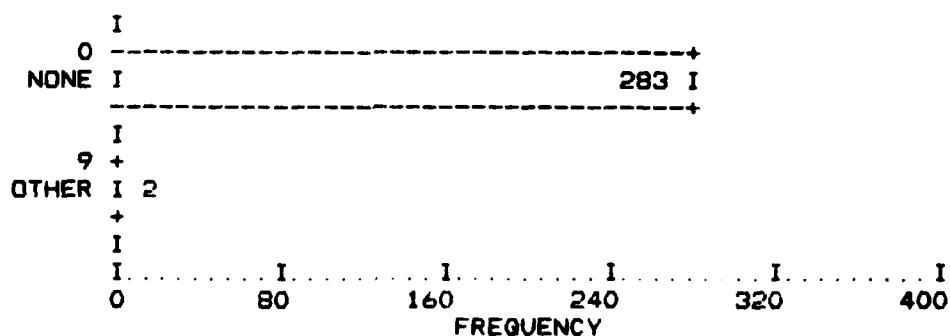
|          |         |          |        |          |        |
|----------|---------|----------|--------|----------|--------|
| MEAN     | .049    | STD ERR  | .036   | MEDIAN   | 0.0    |
| MODE     | 0.0     | STD DEV  | .609   | VARIANCE | .371   |
| KURTOSIS | 180.561 | S E KURT | 1.993  | SKEWNESS | 13.167 |
| S E SKEW | .144    | RANGE    | 9.000  | MINIMUM  | 0.0    |
| MAXIMUM  | 9.000   | SUM      | 14.000 |          |        |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 0.0   | 75.00      | 0.0   |
| 90.00      | 0.0   |            |       |            |       |

VALID CASES 285 MISSING CASES 0

AMAT3 THIRD ACCESS MATERIAL

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID PERCENT | CUM PERCENT |
|-------------|-------|-----------|---------|---------------|-------------|
| NONE        | 0     | 283       | 99.3    | 99.3          | 99.3        |
| OTHER       | 9     | 2         | .7      | .7            | 100.0       |
|             | TOTAL | 285       | 100.0   | 100.0         |             |



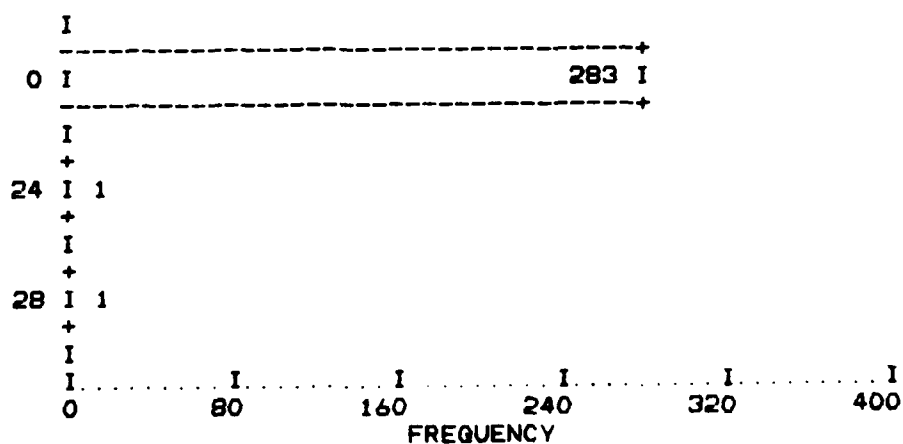
|          |         |          |        |          |        |
|----------|---------|----------|--------|----------|--------|
| MEAN     | .063    | STD ERR  | .045   | MEDIAN   | 0.0    |
| MODE     | 0.0     | STD DEV  | .753   | VARIANCE | .566   |
| KURTOSIS | 139.972 | S E KURT | 1.993  | SKEWNESS | 11.874 |
| S E SKEW | .144    | RANGE    | 9.000  | MINIMUM  | 0.0    |
| MAXIMUM  | 9.000   | SUM      | 18.000 |          |        |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 0.0   | 75.00      | 0.0   |
| 90.00      | 0.0   |            |       |            |       |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

AAREA3 THIRD ACCESS AREA

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID PERCENT | CUM PERCENT |
|-------------|-------|-----------|---------|---------------|-------------|
|             | 0     | 283       | 99.3    | 99.3          | 99.3        |
|             | 24    | 1         | .4      | .4            | 99.6        |
|             | 28    | 1         | .4      | .4            | 100.0       |
|             | TOTAL | 285       | 100.0   | 100.0         |             |



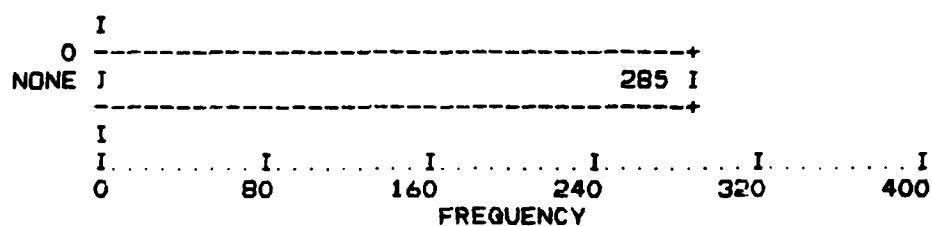
|          |         |          |        |          |        |
|----------|---------|----------|--------|----------|--------|
| MEAN     | .182    | STD ERR  | .129   | MEDIAN   | 0.0    |
| MODE     | 0.0     | STD DEV  | 2.181  | VARIANCE | 4.755  |
| KURTOSIS | 143.376 | S E KURT | 1.993  | SKEWNESS | 11.980 |
| S E SKEW | .144    | RANGE    | 28.000 | MINIMUM  | 0.0    |
| MAXIMUM  | 28.000  | SUM      | 52.000 |          |        |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 0.0   | 75.00      | 0.0   |
| 90.00      | 0.0   |            |       |            |       |

VALID CASES 285 MISSING CASES 0

ACCESS4 FOURTH ACCESS TYPE

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|-------------|-------|-----------|---------|------------------|----------------|
| NONE        | 0     | 285       | 100.0   | 100.0            | 100.0          |
|             | TOTAL | 285       | 100.0   | 100.0            |                |



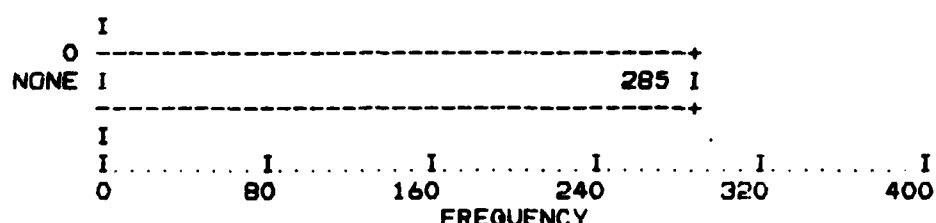
|       |     |         |     |          |     |
|-------|-----|---------|-----|----------|-----|
| MEAN  | 0.0 | STD ERR | 0.0 | MEDIAN   | 0.0 |
| MODE  | 0.0 | STD DEV | 0.0 | VARIANCE | 0.0 |
| RANGE | 0.0 | MINIMUM | 0.0 | MAXIMUM  | 0.0 |
| SUM   | 0.0 |         |     |          |     |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 0.0   | 75.00      | 0.0   |
| 90.00      | 0.0   |            |       |            |       |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

AMAT4      FOURTH ACCESS MATERIAL

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|-------------|-------|-----------|---------|------------------|----------------|
| NONE        | 0     | 285       | 100.0   | 100.0            | 100.0          |
|             | TOTAL | 285       | 100.0   | 100.0            |                |



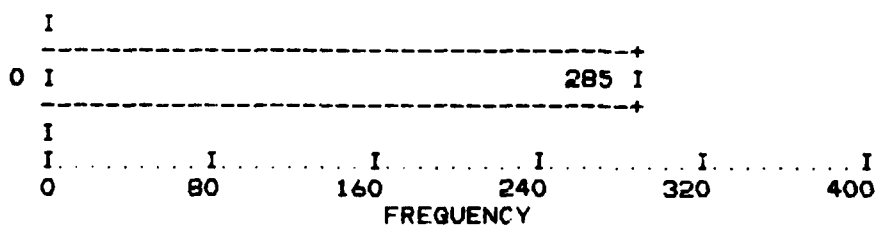
|       |     |         |     |          |     |
|-------|-----|---------|-----|----------|-----|
| MEAN  | 0.0 | STD ERR | 0.0 | MEDIAN   | 0.0 |
| MODE  | 0.0 | STD DEV | 0.0 | VARIANCE | 0.0 |
| RANGE | 0.0 | MINIMUM | 0.0 | MAXIMUM  | 0.0 |
| SUM   | 0.0 |         |     |          |     |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 0.0   | 75.00      | 0.0   |
| 90.00      | 0.0   |            |       |            |       |

|             |     |               |   |
|-------------|-----|---------------|---|
| VALID CASES | 285 | MISSING CASES | 0 |
|-------------|-----|---------------|---|

AAREA4      FOURTH ACCESS AREA

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|-------------|-------|-----------|---------|------------------|----------------|
|             | 0     | 285       | 100.0   | 100.0            | 100.0          |
|             | TOTAL | 285       | 100.0   | 100.0            |                |



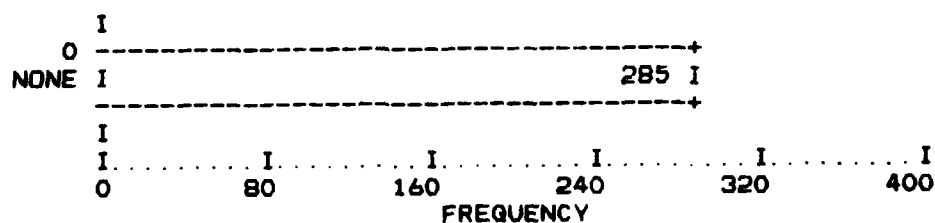
|       |     |         |     |          |     |
|-------|-----|---------|-----|----------|-----|
| MEAN  | 0.0 | STD ERR | 0.0 | MEDIAN   | 0.0 |
| MODE  | 0.0 | STD DEV | 0.0 | VARIANCE | 0.0 |
| RANGE | 0.0 | MINIMUM | 0.0 | MAXIMUM  | 0.0 |
| SUM   | 0.0 |         |     |          |     |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 0.0   | 75.00      | 0.0   |
| 90.00      | 0.0   |            |       |            |       |

VALID CASES      285      MISSING CASES      0

ACCESS5 FIFTH ACCESS TYPE

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID PERCENT | CUM PERCENT |
|-------------|-------|-----------|---------|---------------|-------------|
| NONE        | 0     | 285       | 100.0   | 100.0         | 100.0       |
|             | TOTAL | 285       | 100.0   | 100.0         |             |



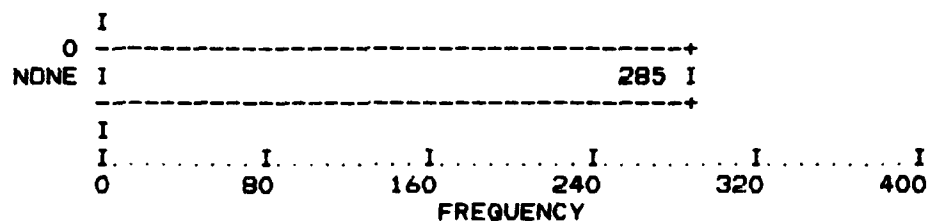
|       |     |         |     |          |     |
|-------|-----|---------|-----|----------|-----|
| MEAN  | 0.0 | STD ERR | 0.0 | MEDIAN   | 0.0 |
| MODE  | 0.0 | STD DEV | 0.0 | VARIANCE | 0.0 |
| RANGE | 0.0 | MINIMUM | 0.0 | MAXIMUM  | 0.0 |
| SUM   | 0.0 |         |     |          |     |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 0.0   | 75.00      | 0.0   |
| 90.00      | 0.0   |            |       |            |       |

VALID CASES 285 MISSING CASES 0

AMAT5 FIFTH ACCESS MATERIAL

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID<br>PERCENT | CUM<br>PERCENT |
|-------------|-------|-----------|---------|------------------|----------------|
| NONE        | 0     | 285       | 100.0   | 100.0            | 100.0          |
|             | TOTAL | 285       | 100.0   | 100.0            |                |



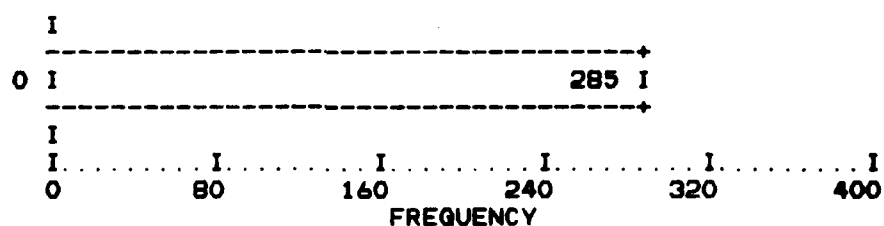
|       |     |         |     |          |     |
|-------|-----|---------|-----|----------|-----|
| MEAN  | 0.0 | STD ERR | 0.0 | MEDIAN   | 0.0 |
| MODE  | 0.0 | STD DEV | 0.0 | VARIANCE | 0.0 |
| RANGE | 0.0 | MINIMUM | 0.0 | MAXIMUM  | 0.0 |
| SUM   | 0.0 |         |     |          |     |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 0.0   | 75.00      | 0.0   |
| 90.00      | 0.0   |            |       |            |       |

VALID CASES 285 MISSING CASES 0

AAREA5 FIFTH ACCESS AREA

| VALUE LABEL | VALUE | FREQUENCY | PERCENT | VALID PERCENT | CUM PERCENT |
|-------------|-------|-----------|---------|---------------|-------------|
|             | 0     | 285       | 100.0   | 100.0         | 100.0       |
|             | TOTAL | 285       | 100.0   | 100.0         |             |



|       |     |         |     |          |     |
|-------|-----|---------|-----|----------|-----|
| MEAN  | 0.0 | STD ERR | 0.0 | MEDIAN   | 0.0 |
| MODE  | 0.0 | STD DEV | 0.0 | VARIANCE | 0.0 |
| RANGE | 0.0 | MINIMUM | 0.0 | MAXIMUM  | 0.0 |
| SUM   | 0.0 |         |     |          |     |

| PERCENTILE | VALUE | PERCENTILE | VALUE | PERCENTILE | VALUE |
|------------|-------|------------|-------|------------|-------|
| 10.00      | 0.0   | 25.00      | 0.0   | 33.30      | 0.0   |
| 50.00      | 0.0   | 66.70      | 0.0   | 75.00      | 0.0   |
| 90.00      | 0.0   |            |       |            |       |

VALID CASES 285 MISSING CASES 0

END