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## LIST OF SYMBOLS

<u>Symbol</u>	<u>Definition</u>
U	Local mean velocity
D	Characteristic dimension (building height, width, etc.)
$\nu, \rho$	Kinematic viscosity and density of approach flow
$\frac{UD}{\nu}$	Reynolds number
E	Mean voltage
A, B	Constants
$U_{rms}$	Root-mean-square of fluctuating velocity
$E_{rms}$	Root-mean-square of fluctuating voltage
$U_{\infty}$	Reference mean velocity outside the boundary layer
X, Y	Horizontal coordinates
Z	Height above surface
$\delta$	Height of boundary layer
$T_u$	Turbulence intensity $\frac{U_{rms}}{U_{\infty}}$ or $\frac{U_{rms}}{U}$
$C_{p_{mean}}$	Mean pressure coefficient, $\frac{(p-p_{\infty})_{mean}}{0.5 \rho U_{\infty}^2}$
$C_{p_{rms}}$	Root-mean-square pressure coefficient, $\frac{((p-p_{\infty})-(p-p_{\infty})_{mean})_{rms}}{0.5 \rho U_{\infty}^2}$
$C_{p_{max}}$	Peak maximum pressure coefficient, $\frac{(p-p_{\infty})_{max}}{0.5 \rho U_{\infty}^2}$
$C_{p_{min}}$	Peak minimum pressure coefficient, $\frac{(p-p_{\infty})_{min}}{0.5 \rho U_{\infty}^2}$
( ) <sub>min</sub>	Minimum value during data record
( ) <sub>max</sub>	Maximum value during data record
p	Fluctuating pressure at a pressure tap on the structure
$p_{\infty}$	Static pressure in the wind tunnel above the model

## 4. MODEL PROPERTIES AND STRUCTURAL RELATIONS

$b$	Length scale, 155 ft full scale
$\lambda_L$	Length scale ratio, $b_m/b_p$
$\rho_s$	Density of structure
$n$	Constant or frequency
$\xi$	Structural damping

### Subscripts

$m$	Model
$p$	Full scale

The building geometry itself may increase or decrease wind loading on the structure. Wind forces may be modified by nearby structures which can produce beneficial shielding or adverse increases in loading. Overstressing loads result in nonconformal design, underestimating may result in cracking or window failures. Tall structures have historically produced unpleasant wind and turbulence conditions at their bases. The intensity and frequency of characteristic wind in production areas is influenced both by the structure shape and by site shape and position of adjacent structures.

Techniques have been developed during the past few years for wind tunnel testing of proposed structures which allow the prediction of wind pressures on existing and proposed structures. Information on wind tunnel testing of structures is available in the literature. The design of structures to resist wind loading is a complex task. It requires a knowledge of the intensity and distribution of the pressure on the structure which is a function of the shape of the structure and the wind direction. The design of the structure must be such that the wind forces are resisted by the structure. The design of the structure must be such that the wind forces are resisted by the structure. The design of the structure must be such that the wind forces are resisted by the structure.

## I. CLADDING PRESSURES AND PEDESTRIAN VELOCITIES

### 1. INTRODUCTION

#### 1.1 General

A significant characteristic of modern building design is lighter cladding and more flexible frames. These features produce an increased vulnerability of glass and cladding to wind damage and result in larger deflections of the building frame. In addition, increased use of pedestrian plazas at the base of the buildings has brought about a need to consider the effects of wind and gustiness in the design of these areas.

The building geometry itself may increase or decrease wind loading on the structure. Wind forces may be modified by nearby structures which can produce beneficial shielding or adverse increases in loading. Overestimating loads results in uneconomical design; underestimating may result in cladding or window failures. Tall structures have historically produced unpleasant wind and turbulence conditions at their bases. The intensity and frequency of objectionable winds in pedestrian areas is influenced both by the structure shape and by the shape and position of adjacent structures.

Techniques have been developed during the past decade for wind tunnel modeling of proposed structures which allow the prediction of wind pressures on cladding and windows, overall structural loading, and also wind velocities and gusts in pedestrian areas adjacent to the building. Information on sidewalk-level gustiness allows plaza areas to be protected by design changes before the structure is constructed. Accurate knowledge of the intensity and distribution of the pressures on the structure permits adequate but economical selection of window strength to meet selected maximum design winds and overall wind loads for the design of the frame for flexural control.



Modeling of the aerodynamic loading on a structure requires special consideration of flow conditions in order to guarantee similitude between model and prototype. A detailed discussion of the similarity requirements and their wind tunnel implementation can be found in References (1), (2), and (3). In general, the requirements are that the model and prototype be geometrically similar, that the approach mean velocity at the building site have a vertical profile shape similar to the full-scale flow, that the turbulence characteristics of the flows be similar, and that the Reynolds number for the model and prototype be equal.

These criteria are satisfied by constructing a scale model of the structure and its surroundings and performing the wind tests in a wind tunnel specifically designed to model atmospheric boundary-layer flows. Reynolds number similarity requires that the quantity  $UD/v$  be similar for model and prototype. Since  $v$ , the kinematic viscosity of air, is identical for both, Reynolds numbers cannot be made precisely equal with reasonable wind velocities. To accomplish this the air velocity in the wind tunnel would have to be as large as the model scale factor times the prototype wind velocity, a velocity which would introduce unacceptable compressibility effects. However, for sufficiently high Reynolds numbers ( $>2 \times 10^4$ ) the pressure coefficient at any location on the structure will be essentially constant for a large range of Reynolds numbers. Typical values encountered are  $10^7$ - $10^8$  for the full-scale and  $10^5$ - $10^6$  for the wind-tunnel model. In this range acceptable flow similarity is achieved without precise Reynolds number equality.

## 1.2 The Wind Tunnel Test

The wind-engineering study is performed on a building or building group modeled at scales ranging from 1:150 to 1:400. The building model

is constructed of clear plastic fastened together with screws. The structure is modeled in detail to provide accurate flow patterns in the wind passing over the building surfaces. The building under test is often located in a surrounding where nearby buildings or terrain may provide beneficial shielding or adverse wind loading. To achieve similarity in wind effects the area surrounding the test building is also modeled. A flow visualization study is first made (smoke is used to make the air currents visible) to define overall flow patterns and identify regions where local flow features might cause difficulties in building curtain-wall design or produce pedestrian discomfort.

The test model, equipped with pressure taps (200 to 600 or more), is exposed to an appropriately modeled atmospheric wind in the wind tunnel and the fluctuating pressure at each tap measured electronically. The model, and the modeled area, are rotated 15 degrees and another set of data recorded for each pressure tap. Normally, 24 sets of data (360 degrees of turning) are taken; however, when flow visualization or recorded data indicate high pressure regions of small azimuthal extent, data is obtained in smaller azimuthal steps.

Data are recorded, analyzed and processed by an on-line computerized data-acquisition system. Pressure coefficients of several types are calculated by the computer for each reading on each piezometer tap and are printed in tabular form as computer readout. Using wind data applicable to the building site, representative wind velocities are selected for combination with measured pressures on the building model. Integration of test data with wind data results in prediction of peak local wind pressures for design of glass or cladding and may include overall forces and moments on the structure (by floor if desired) for design of

the structural frame. Pressure contours are drawn on the developed building surfaces showing the intensity and distribution of peak wind loads on the building. These results may be used to divide the building into zones where lighter or heavier cladding or glass may be desirable.

Based on the visualization (smoke) tests and on a knowledge of heavy pedestrian use areas, a dozen or more locations may be chosen at the base of the building where wind velocities can be measured to determine the relative comfort or discomfort of pedestrians in plaza areas, near building entrances, near building corners, or on sidewalks. Usually a reference pedestrian position is also tested to determine whether the wind environment in the building area is better or worse than the environment a block or so away in an undisturbed area.

The following pages discuss in greater detail the procedures followed and the equipment and data collecting and processing methods used. In addition, the data presentation format is explained and the implications of the data are discussed.

## 2. EXPERIMENTAL CONFIGURATION

### 2.1 Wind Tunnel

Wind-engineering studies are performed in the Fluid Dynamics and Diffusion Laboratory at Colorado State University (Figure 1). Three large wind tunnels are available for wind loading studies depending on the detailed requirements of the study. The wind tunnel used for this investigation is shown in Figure 2. All tunnels have a flexible roof adjustable in height to maintain a zero pressure gradient along the test section. The mean velocity can be adjusted continuously in each tunnel to the maximum velocity available.

### 2.2 Model

In order to obtain an accurate assessment of local pressures using piezometer taps, models are constructed to the largest scale that does not produce significant blockage in the wind-tunnel test section. The models are constructed of 1/2 in. thick Lucite plastic and fastened together with metal screws. Significant variations in the building surface, such as mullions, are machined into the plastic surface. Piezometer taps (1/16 in. dia) are drilled normal to the exterior vertical surfaces in rows at several or more elevations between the bottom and top of the building. Similarly, taps are placed in the roof and on any sloping, protruding, or otherwise distinctive features of the building that might need investigation.

Pressure tap locations are chosen so that the entire surface of the building can be investigated for pressure loading and at the same time permit critical examination of areas where experience has shown that maximum wind effects may be expected to occur. Locations of the pressure taps for this study are shown in Figure 3. Dimensions are given both for

full-scale building (in ft) and for model (in in.). The pressure tap numbers are shown adjacent to the taps.

The pressure tests are sometimes made in two stages. In the first stage measurements are made on the initial distribution of pressure taps. If it becomes apparent from the data that the loading on the building is being influenced by some unsuspected geometry of the building or adjacent structures, additional pressure taps are installed in the critical areas. The locations of the taps are selected so that the maximum loading can be detected and the area over which this loading is acting can be defined. Any added taps are also shown in Figure 3.

A circular area 750 to 2000 ft in radius depending on model scale and characteristics of the surrounding buildings and terrain is modeled in detail. Structures within the modeled region are made from styrofoam and cut to the individual building geometries. They are mounted on the turntable in their proper locations. Significant terrain features are included as needed. The model is mounted on a turntable (Figure 2) near the downwind end of the test section. Any buildings or terrain features which do not fit on the turntable are placed on preshaped pieces which are placed upwind of the turntable for appropriate wind directions. A plan view of the building and its surroundings is shown in Figure 4. The turntable is calibrated to indicate azimuthal orientation to 0.1 degree.

The region upstream from the modeled area is covered with a randomized roughness constructed using various sized cubes placed on the floor of the wind tunnel. Different roughness sizes may be used for different wind directions. Spires are installed at the test-section entrance to provide a thicker boundary-layer than would otherwise be available. The

thicker boundary-layer permits a somewhat larger scale model than would otherwise be possible. The spires are approximately triangularly shaped pieces of 1/2 in. thick plywood 6 in. wide at the base and 1 in. wide at the top, extending from the floor to the top of the test section. They are placed so that the broad side intercepts the flow. A barrier approximately 8 in. high is placed on the test-section floor downstream of the spires to aid in development of the boundary-layer flow.

The distribution of the roughness cubes and the spires in the roughened area was designed to provide a boundary-layer thickness of approximately 4 ft, a velocity profile power-law exponent similar to that expected to occur in the region approaching the modeled area for each wind direction (a number of wind directions may have the same approach roughness). A photograph of the completed model in the wind tunnel is shown in Figure 5. The wind-tunnel ceiling is adjusted after placement of the model to obtain a zero pressure gradient along the test section.

### 3. INSTRUMENTATION AND DATA ACQUISITION

#### 3.1 Flow Visualization

Making the air flow visible in the vicinity of the model is helpful

- (a) in understanding and interpreting mean and fluctuating pressures,
- (b) in defining zones of separated flow and reattachment and zones of vortex formation where pressure coefficients may be expected to be high and
- (c) in indicating areas where pedestrian discomfort may be a problem.

Titanium tetrachloride smoke is released from sources on and near the model to make the flow lines visible to the eye and to make it possible to obtain motion picture records of the tests. Conclusions obtained from these smoke studies are discussed in Sections 4.1 and 5.1.

#### 3.2 Pressures

Mean and fluctuating pressures are measured at each of the pressure taps on the model structure. Data are obtained for 24 wind directions, rotating the entire model assembly in a complete circle. Seventy-six pieces of 1/16 in. I.D. plastic tubing each 18 in. long are used to connect 76 pressure ports at a time to an 80 tap pressure switch mounted inside the model. The switch was designed and fabricated in the Fluid Dynamics and Diffusion Laboratory to minimize the attenuation of pressure fluctuations across the switch. Each of the 76 measurement ports is directed in turn by the switch to one of four pressure transducers mounted close to the switch. The four pressure input taps not used for transmitting building surface pressures are connected to a common tube leading outside the wind tunnel. This arrangement provides both a means of performing in-place calibration of the transducers and, by connecting this tube to a pitot tube mounted inside the wind tunnel, a means of automatically monitoring the tunnel speed. The switch is operated by

means of a shaft projecting through the floor of the wind tunnel. A computer-controlled stopping motor steps the switch into each of the 20 required positions. The computer keeps track of switch position but a digital readout of position is provided at the wind tunnel.

The pressure transducers used are Statham differential strain gage transducers (Model PM 283TC) with a 0.15 psid range. They were selected because of their stability and linearity in the required working range. The resonant frequency of the transducers is approximately 2,000 Hz. This is sufficiently high that transducer resonance effects on the measured pressures can be ignored. Reference pressures are obtained by connecting the reference sides of the four transducers, using plastic tubing, to the static side of a pitot tube mounted in the wind tunnel free stream above the model building. In this way the transducer measures the instantaneous difference between the local pressures on the surface of the building and the static pressure in the free stream above the model.

Each pressure transducer contains a built-in bridge similar to a Wheatstone Bridge. The bridge is monitored by a Honeywell Accudata 118 Gage Control/Amplifier unit which provides excitation to the transducer bridge and amplifies the bridge output. These instruments are characterized by a very stable excitation voltage and amplifier gain. Output from the Honeywell signal conditioners is fed to an on-line data acquisition system consisting of a Hewlett-Packard 21 MX computer, disk unit, card reader, printer, Digi-Data digital tape drive and a Preston Scientific analog-to-digital convertor. The data are processed immediately into pressure coefficient form as described in Section 4.3 and stored for printout or further analysis.



All four transducers are recorded simultaneously for 16 seconds at a 250 sample per second rate. The results of an experiment to determine the length of record required to obtain stable mean and rms (root-mean-square) pressures and to determine the overall accuracy of the pressure data acquisition system is shown in Figure 6. A typical pressure port record was integrated for a number of different time periods to obtain the data shown. Examination of a large number of pressure taps showed that the overall accuracy for a 16 second period is, in pressure coefficient form, 0.03 for mean pressures, 0.1 for peak pressures, and 0.01 for rms pressures. Pressure coefficients are defined in Section 4.3.

### 3.3 Velocity

Mean velocity and turbulence intensity profiles are measured upstream of the model to determine that an approach boundary-layer flow appropriate to the site has been established. Tests are made at one wind velocity in the tunnel. This velocity is well above that required to produce Reynolds number similarity between the model and the prototype as discussed in Section 1.1.

In addition, mean velocity and turbulence intensity measurements are made 5 to 7 feet (prototype) above the surface at a dozen or more locations on and near the building for 16 wind directions. The measurement locations are shown on Figure 4. The surface measurements are indicative of the wind environment to which a pedestrian at the measurement location would be subjected. The locations are chosen to determine the degree of pedestrian comfort or discomfort at the building corners where relatively severe conditions frequently are found, near building entrances and on adjacent sidewalks where pedestrian traffic is heavy, and in open plaza areas. In most studies a reference pedestrian position,

located about a block away, is also tested. These data are helpful in evaluating the degree of pedestrian comfort or discomfort in the proposed plaza area in terms of the undisturbed environment in the immediate vicinity.

Measurements are made with a single hot-wire anemometer mounted with its axis vertical. The instrumentation used is a Thermo Systems constant temperature anemometer (Model 1050) with a 0.001 in. dia platinum film sensing element 0.020 in. long. Output is read from a digital voltmeter with a time-constant circuit for mean voltage and a DISA RMS meter (Model 55035) for rms voltage.

Calibration of the hot-wire anemometer is performed using a Thermo Systems calibrator (Model 1125). The calibration data are fit to a variable exponent King's Law relationship of the form

$$E^2 = A + BU^n$$

where  $E$  is the hot-wire output voltage,  $U$  the velocity and  $A$ ,  $B$ , and  $n$  are coefficients selected to fit the data. The above relationship was used to determine the mean velocity at measurement points using the measured mean voltage. The fluctuating velocity in the form  $U_{rms}$  (root-mean-square velocity) was obtained from

$$U_{rms} = \frac{2 E E_{rms}}{B n U^{n-1}}$$

where  $E_{rms}$  is the root-mean-square voltage output from the anemometer. For interpretation all turbulence measurements were divided by both local mean velocity  $U$  and mean velocity outside the boundary-layer  $U_{\infty}$ . Division by  $U$  gives an indication of the relative unsteadiness at the location while division by  $U_{\infty}$  permits an easy determination of the

actual magnitude of rms velocity fluctuations at a point for various approach velocities.

## 4. RESULTS

### 4.1 Flow Visualization

A film is included as part of this report showing the characteristics of flow about the structure using smoke to make the flow visible. A listing of the contents of the film is shown in Table 1. Several features can be noted from the visualization. As with all large structures, wind approaching the building is deflected down to the plaza level, up over the structure and around the sides. A description of the smoke test results emphasizing flow patterns of concern relative to possible high-wind load areas and pedestrian comfort is given in Section 5.1.

### 4.2 Velocity

Velocity and turbulence profiles are shown in Figures 7a and 7b. These profiles were taken upstream from the model and are characteristic of the boundary-layer approaching the model. As shown in Figure 7a, the boundary-layer thickness,  $\delta$ , was 50 in. The corresponding prototype value of  $\delta$  for this study is shown in Figure 7a. This value was established as a reasonable height for this study. The mean velocity profile has the form

$$\frac{U}{U_{\infty}} = \left(\frac{z}{\delta}\right)^n .$$

The exponent  $n$  for the approach flow established for this study is shown in Figure 7a.

The profile of longitudinal turbulence intensity is shown in Figure 7b. The turbulence intensities are appropriate for the approach mean velocity profile selected. For the purpose of this report, turbulence intensity is defined as the root-mean-square about the mean of the longitudinal velocity fluctuations divided by the reference mean velocity

$U_\infty$  at the outer edge of the boundary layer,

$$Tu_1 = \frac{U_{rms}}{U_\infty},$$

or as the rms velocity divided by the local mean velocity,

$$Tu_2 = \frac{U_{rms}}{U}.$$

Mean velocity  $U/U_\infty$ , turbulence intensity  $U_{rms}/U_\infty$ , and "gustiness"  $U_{rms}/U$  at the pedestrian measuring positions shown in Figure 4 are listed in Table 2 for 16 wind directions and are plotted in polar form in Figures 8a, 8b, etc. Measurements were taken 5 to 7 ft above the ground surface. A site map is superimposed on the polar plots to aid in visualization of the effects of the nearby structures on the velocity and turbulence magnitudes. An analysis of these wind data is given in Section 5.2.

To enable a quantitative assessment of the wind environment, the wind-tunnel data were combined with wind frequency and direction information obtained at the local airport. Table 3 shows wind frequency by direction and magnitude obtained from summaries published by the National Weather Service. These data, usually obtained at an elevation of about 30 to 40 ft, were converted to velocities at the reference velocity height for the wind tunnel measurements and combined with the wind tunnel data to obtain cumulative probability distributions (percent time a given velocity is exceeded) for wind velocity at each measuring location. The percentage times were summed by wind direction to obtain a percent time exceeded at each measuring position independent of wind direction (but accounting for the fact that the wind blows from different directions with varying frequency). These results are plotted in Figure 9a, 9b, etc.

Interpretation of Figure 9 is aided by a description of the effects of wind of various magnitudes on people. The earliest quantitative description of wind effects was established by Sir Francis Beaufort in 1806 for use at sea and is still in use today. Several recent investigators have added to the knowledge of wind effects on pedestrians. These investigations along with suggested criteria for acceptance have been summarized by Penwarden and Wise (4). The Beaufort scale, based on mean velocity only, is reproduced as Table 4 including qualitative descriptions of wind effects. Table 4 suggests that mean wind speeds below 12 mph are of minor concern and that mean speeds above 24 mph are definitely inconvenient. Included in Section 5.2 is an analysis of the percent of time that the 12 and 24 mph magnitude are exceeded by mean winds and implications for pedestrian comfort.

The peak gust values require a somewhat different interpretation. The peak gust curves shown in Figure 9 are the percent of time during which a short gust of the stated magnitude could occur (say less than one of these gusts per hour). Evidence suggests that gusts greater than about 35 mph in magnitude can be a major impediment to pedestrians, particularly the elderly. Most measuring locations experience winds in which gusts of 35 mph or higher occur much less frequently than the 24 mph mean winds. Implications of these data are presented in Section 5.2.

Because some pedestrian wind measuring positions are purposely chosen at sites where the smoke tests showed large velocities of small spacial extent, the general wind environment about the structure may be less severe than one might infer from a strict analysis of Table 2 and Figure 9.

### 4.3 Pressures

For each of the pressure taps examined at each wind direction, the data record is analyzed to obtain four separate pressure coefficients. The first is the mean pressure coefficient

$$C_{p_{\text{mean}}} = \frac{(p-p_{\infty})_{\text{mean}}}{0.5 \rho U_{\infty}^2}$$

where the symbols are as defined in the List of Symbols. It represents the mean of the instantaneous pressure difference between the building pressure tap and the static pressure in the wind tunnel above the building model, nondimensionalized by the dynamic pressure

$$0.5 \rho U_{\infty}^2$$

at the reference velocity position. This relationship produces a dimensionless coefficient which indicates that the mean pressure difference between building and ambient wind at a given point on the structure is some fraction less or some fraction greater than the undisturbed wind dynamic pressure near the upper edge of the boundary layer. Using the measured coefficient, prototype mean pressure values for any wind velocity may then be calculated.

The magnitude of the fluctuating pressure is obtained by the rms pressure coefficient

$$C_{p_{\text{rms}}} = \frac{\left( (p-p_{\infty}) - (p-p_{\infty})_{\text{mean}} \right)_{\text{rms}}}{0.5 \rho U_{\infty}^2}$$

in which the numerator is the root-mean-square of the instantaneous pressure difference about the mean.

If the pressure fluctuations followed a Gaussian probability distribution, no additional data would be required to predict the

frequency with which any given pressure level would be observed. However, the pressure fluctuations do not follow a Gaussian probability distribution so that additional information is required to show the extreme values of pressure expected. The peak maximum and peak minimum pressure coefficients are used to determine these values:

$$C_{p_{\max}} = \frac{(p-p_{\infty})_{\max}}{0.5 \rho U_{\infty}^2}$$

$$C_{p_{\min}} = \frac{(p-p_{\infty})_{\min}}{0.5 \rho U_{\infty}^2}$$

The values of  $p-p_{\infty}$  which were digitized at 250 samples per second for 16 seconds, representing about one hour of time in the full scale, are examined individually by the computer to obtain the most positive and most negative values during the 16 second period. These are converted to  $C_{p_{\max}}$  and  $C_{p_{\min}}$  by nondimensionalizing with the free stream dynamic pressure.

The four pressure coefficients are calculated by the on-line data acquisition system computer and tabulated along with the approach wind azimuth in degrees from true north. The list of coefficients is included as Appendix A. The pressure tap code numbers used in the appendix are explained in Figure 3.

To determine the largest peak loads acting at any point on the structure for cladding design purposes, the pressure coefficients for all wind directions were searched to obtain, at each pressure tap, the largest absolute value of peak pressure coefficient. Table 6 provides these pressure coefficients and associated wind directions. Included in



Section 5.3 is an analysis of the coefficients of Table 6 including the maximum values obtained and where they occurred on the building.

The pressure coefficients of Table 6 can be converted to full-scale loads by multiplication by a suitable reference pressure selected for the field site. This reference pressure is represented in the equations for pressure coefficients by the  $0.5 \rho U_{\infty}^2$  denominator. This value is the dynamic pressure associated with an hourly mean wind at the reference velocity measurement position at the edge of the boundary layer. In general, the method of arriving at a design reference pressure for a particular site involves selection of a design wind velocity, translation of the velocity to an hourly mean wind at the reference velocity location and conversion to a reference pressure. Selection of the design velocity can be made from statistical analysis of extreme wind data or selected from wind maps contained in the proposed wind loading code ANSI A58.1 of the American National Standards Institute (5). The calculation of reference pressure for this study is shown in Table 5. The factor used in Table 5 to reduce gust winds to hourly mean winds is given in reference (6).

The reference pressure associated with the design hourly mean velocity at the reference velocity location can be used directly with the peak-pressure coefficients to obtain peak local design wind loads for cladding design. For glass design pressures, a glass load factor is used to account for the different duration of measured peak pressures and the one minute loading used in glass design charts. Recent research (6) indicates that the period of application of the peak pressures reported herein is about 5-10 seconds or less. If a glass design is based on these peak values, then a glass strength associated with this

duration load is indicated. If the glass design is based on some alternate load duration--say one minute--then some reduction in peak loads should be made. An estimate of a load reduction factor can be obtained from an empirical relation of glass strength as a function of load duration (8). A glass load factor of 0.73 on the reference pressure was used to convert the short 5-10 second pressure peaks to one minute loads typically cited in glass selection charts.

Local, instantaneous peak loads on the full-scale building suitable for cladding design were computed by multiplying the reference pressure of Table 5 by the peak coefficients of Table 6. Loadings appropriate for glass design were computed by multiplying the reference pressure by the peak coefficients of Table 6 with application of the 0.73 load factor. Table 6 shows both of these results. The maximum psf load given at each tap location is the absolute value of the maximum value found in the tests, irrespective of its algebraic sign. For ease in visualizing the loads on the structure, contours of equal peak pressures for glass design shown in Table 6 have been plotted on developed elevation views of the structure, Figure 10. Loads appropriate for design of mullions or other cladding elements can be obtained by using the loads of Table 6 or multiplying the loads of Figure 10 by 1.37.

## 5. DISCUSSION

### 5.1 Flow Visualization

Smoke flow patterns about the Seattle Hotel showed two possible flow patterns which might be expected to produce high local wind loading. For winds approximately parallel to each of the three broad faces of the tower, separation-reattachment flows indicated possible high pressures near the upwind corners. In addition, for flows from azimuths 30 and 150 degrees, winds tended to flow down the upwind face, curve around the left side of the structure (looking downwind) and roll up on an intermittent basis almost into a vortex with vertical axis near the corner of the downwind broad face. This phenomena could lead to large local suctions on the downwind face. A reconfirmation of the flow pattern at 150 degrees was made after pressure measurements showed fairly large pressure coefficients on the downwind face for that wind direction. This flow phenomena is caused primarily by the tower shape and its orientation to the pedestal structure for the 30 degree case and by the tower shape, pedestal structure configuration and influence of tall buildings to the south-southeast of the tower for the 150 degree case. The second flow pattern which might cause large pressures was the flow over the slanted portion of the broad tower sides near the top of the structure. The 4 corners of that slanted face appeared to be the most vulnerable locations with flow separation characteristics indicative of possible high pressures.

Smoke flow on the pedestal building roof indicated moderate wind speeds except for areas within 50 to 70 feet of the tower where

westerly through north to easterly winds caused high wind speeds near the roof surface. Wind flow about the building at street level showed moderate winds except at building corners and at the main entrance to the tower at 6th and Union streets where several wind directions showed flow velocities to be rather high. Velocities in the drive-through area below the pedestal building showed moderate or low velocities for all wind directions.

## 5.2 Pedestrian Winds

Table 2 and Figure 8 show that the largest mean velocities occurred at location 2 at the main entrance for wind directions 292 (WNW) and 315 (NW). Velocities were 82 and 70 percent of the reference velocity at 1250 ft. Location 4 experienced mean winds of 64 to 69 percent of  $U_{\infty}$  for wind directions of 112, 135 and 292. Locations 12 and 13 on the pedestal structure roof showed velocities above 60 percent of  $U_{\infty}$  for a wind direction of 112.

The largest value of fluctuating velocity was found at location 18 for a wind azimuth of 292. The root-mean-square velocity was 21 percent of  $U_{\infty}$ . All other locations showed root-mean-square fluctuating velocities less than 20 percent of  $U_{\infty}$ . All of these values are reasonably moderate.

The largest values of 'gustiness',  $U_{rms}/U$ , were somewhat above 60 percent and were found at a number of locations. Because many of these values resulted from a small value of  $U$  rather than a large value of  $U_{rms}$ , these values do not necessarily indicate an unpleasant environment.

Velocity data integrated with local wind data are shown in Figure 9. Mean winds will be above 12 mph for 3-4 percent of the time at several locations including 4, 11, 12, and 13. All other locations show a smaller percentage. Mean winds will be above 24 mph for 1-2 percent of the time at locations 2, 4, and 13. Other positions show percentages below 1 percent. The largest percentage of time when peak gusts are likely to be greater than 24 mph occurs at location 11 with about 4 percent. Several locations are in the 2-3 percent region. The largest percentage of time when peak gusts are likely to be greater than 35 mph occurs for location 11 with about 0.7 percent. Several other locations showed values in the 0.4-0.5 percent range.

On the whole, the pedestrian wind environment about the structure is rather moderate. The main entrance will experience unpleasant winds on windier days at the critical wind directions. Some areas of the pedestal roof will experience unpleasant winds for critical wind directions on windy days. It is not likely that remedial action will be necessary; however, corrective action at the main entrance and some roof areas may be desirable after experience has been obtained at the locations.

### 5.3 Pressures

The largest peak pressure coefficients measured were 3.29 and 3.06 at taps 518 and 561 for wind directions 195 and 255. Neither tap was located on a window so that appropriate pressure loads using the 33 psf reference pressure for cladding obtained in Table 5 exceeds 100 psf at both taps. As shown in Table 5, these loads would be reduced if an extreme wind prediction technique other than the

ANSI A58.1(5) is used. A number of other tap locations on the building showed peak pressure coefficients above 2.5.

## II. FLUCTUATING MOMENTS, DEFLECTIONS, AND ACCELERATIONS

### 6. INTRODUCTION

Information on the instantaneous values of the fluctuating deflection and acceleration at the top and bending moment at the base of a structure are useful in efforts to determine how the random gust loading may influence stability, maximum stress distribution, fatigue life and the human comfort serviceability requirements. To test the serviceability of a building in extreme wind storms and moderate winds associated with normal weather conditions, the designer must know the wind loads acting on the building and the dynamic response to these loads. Investigation consisting primarily of an aeroelastic model study was conducted to evaluate the dynamic response characteristics of the Seattle hotel in a simulated boundary layer flow. Measurements were made to determine the fluctuating base flexural and torsional bending moments and the deflections and accelerations at the hotel top level for a range of wind speeds and wind directions.

## 7. EXPERIMENTAL PROCEDURE

### 7.1 Aeroelastic Model

A primary-mode, lumped-mass aeroelastic model was constructed with exterior geometry scaled to that of the prototype and pivoted elastically at the base for flexural and torsional degrees of freedom. Figure 11 represents a schematic diagram of such a model capable of simulating two fundamental rectilinear models and a torsional model of (sway) vibration. A detailed treatment of aeroelastic modeling of structures can be found in reference (9).

In order to achieve dynamic similarity between model and prototype the following conditions should be met:

1. geometric --

$$\lambda_L = \frac{b_m}{b_p} = \text{constant},$$

2. density --

$$\left(\frac{\rho}{\rho_s}\right)_m = \left(\frac{\rho}{\rho_s}\right)_p,$$

3. elastic forces --

$$(U_\infty/nb)_m = (U_\infty/nb)_p, \text{ and}$$

4. structural damping --

$$\xi_m = \xi_p.$$

The model employed in the test program was geometrically similar to the Seattle Hotel and the main tower was isolated from the plaza level structure. The model was built from a light aluminum frame assembly covered with a thin skin of machined balsa wood to achieve flexural and torsional rigidity. This assembly was mounted on the elastic strain-gaged



base system (Figure 11). Three different values of damping were used by incorporating a viscous fluid damper in the aeroelastic model (Figure 11). The damping values considered in this investigation cover the range of damping normally found for typical tall buildings at various levels of response amplitudes. The reduced velocity parameter  $U_\infty/nb$  was made equal in the model and prototype. The similarity of the approach flow structure has been described earlier in part I of this report.

The scale ratios for conversion of data from model to prototype are as follows:

1. linear scale --

$$\frac{b_m}{b_p} = 1:300,$$

2. velocity scale --

$$\frac{[U_\infty]_m}{[U_\infty]_p} = 1:5.547,$$

3. frequency scale --

$$\frac{(\overset{n}{x})_m}{(\overset{n}{x})_p} = 54.08,$$

$$\frac{(\overset{n}{y})_m}{(\overset{n}{y})_p} = 54.08,$$

$$\frac{(\overset{n}{z})_m}{(\overset{n}{z})_p} = 52.4,$$

(see Figure 12 for coordinate system)

4. bending moment scale --

$$\frac{M_m}{M_p} = 1:0.83081 \times 10^9,$$

## 5. acceleration scale --

$$\frac{a_m}{a_p} = 1:0.10257.$$

7.2 Calibration and Test Configurations

A static calibration of the aeroelastic model was made to relate the deflection and bending moment to the strain-gage output. There was a slight cross-channel coupling which was included in the calibration matrix. A dynamic calibration was carried out to determine the natural frequencies and damping characteristics of the aeroelastic model. A sub-miniature size piezoresistive accelerometer was mounted on the top floor as shown in Figure 12 to measure the acceleration response. The Seattle hotel model was mounted on a turntable of large inertial mass at the downwind end of the test section in the industrial wind tunnel. The city model surrounding the Seattle hotel and the details of approach flow conditions were similar to the part I measurements. Measurements were made to cover 360° at 15° intervals at one wind speed and damping to identify four critical wind directions. For these selected wind directions fluctuating bending moments, deflections and accelerations were measured for six wind speeds (reduced velocities) ranging from 3.15 to 6.26 and three values of structural damping.

7.3 Data Acquisition and Processing

Each strain-gage bridge of the aeroelastic model was monitored by a Honeywell Accudata 118 gage control/amplifier unit for signal conditioning. The analog output signal of each channel was fed through data lines specially designed to minimize distortion to a Preston Scientific GMAD-4 Analog-to-Digital Converter, and then to a Hewlett-Packard System

1000 minicomputer where the data was analyzed under software control. The computer was programmed to evaluate and convert the model mean, RMS, and peak values of bending moment at the base and associated deflection and acceleration at the top to full-scale values.

## 8. RESULTS

### 8.1 Aeroelastic Response

The results of experimental dynamic response of the Seattle Hotel model, converted to full-scale values are reported in Tables 7 to 10. In Table 7 the bending moments and deflections at the top have been reported for 24 wind directions covering  $360^\circ$  at  $15^\circ$  intervals. Results of bending moments, deflections and acceleration for the critical wind directions  $0^\circ$ ,  $165^\circ$ ,  $255^\circ$ , and  $330^\circ$  are reported in Tables 8 through 10 for structural damping of 0.7, 1.3, and 2.0 percent of the critical damping. The peak deflections, bending moments and accelerations are also plotted in Figures 13 through 16 as a function of non-dimensional reduced velocity ( $U/nb$ ).

Figure 13 shows that the maximum building response occurs for a wind direction of 165 degrees. The response for this wind direction is a result of disturbances to the approach flow caused by the large buildings to the south of the Seattle hotel. Figures 14 through 16 show the improvement in building response with increases in damping. Acceptability of building response hinges on selection of design velocity and human response factors discussed in the following section.

### 8.2 Design Wind Speed and Human Response

A reference pressure for cladding design based on a 50-year recurrence wind from ANSI-A58.1 (5) was calculated in Table 5. A separate analysis of 27 years of fastest mile data obtained at the Seattle-Tacoma airport was made using a Type I extreme value analysis. A load conversion factor was calculated in Table 5 to show how the reference pressure could be modified if the results of the separate

analysis were used. Figure 17 shows more complete results of the Type I extreme value analysis and its comparison with ANSI A58.1 (5).

If the Type I extreme value analysis is used for selection of a design wind, then a reduced velocity at the reference velocity location (at gradient wind level) can be calculated in a manner similar to that of Table 5. The reduced velocities resulting from use of the "all direction" Type I extreme value analysis is shown below:

<u>Return Period</u>	<u>Reduced Velocity(U/nb)</u>
2	2.6
5	3.2
10	3.7
25	4.2
50	4.7
100	5.1

Selection of return periods from Reference (10) would result in significantly higher values of reduced velocity. Consideration of directional variability of winds shown in Figure 11 would allow reduction in predicted response for some wind directions; this should be done with caution since inherent sampling deficiencies in the meteorological data should cause the predictions at some wind directions to be low.

One aspect of structure serviceability is the frequency of occurrence of objectionable building motion. Several references have addressed the level of acceptability of acceleration in a tall building (11,12,13,14). The references differ in detail in their guidelines for acceptability but are in basic agreement on the general levels of acceleration which are acceptable. The reference by Chang (11) provides a convenient breakdown of accelerations and responses:

<u>Milli - g's</u>	<u>Acceptability</u>
< 5	Undetectable
5 - 15	Perceptible, not annoying
15 - 50	Motion annoying
50 - 150	Motion very annoying
> 150	Motion intolerable

Several sources have suggested that one occurrence of annoying acceleration every 2 to 5 years represents an acceptable design level.

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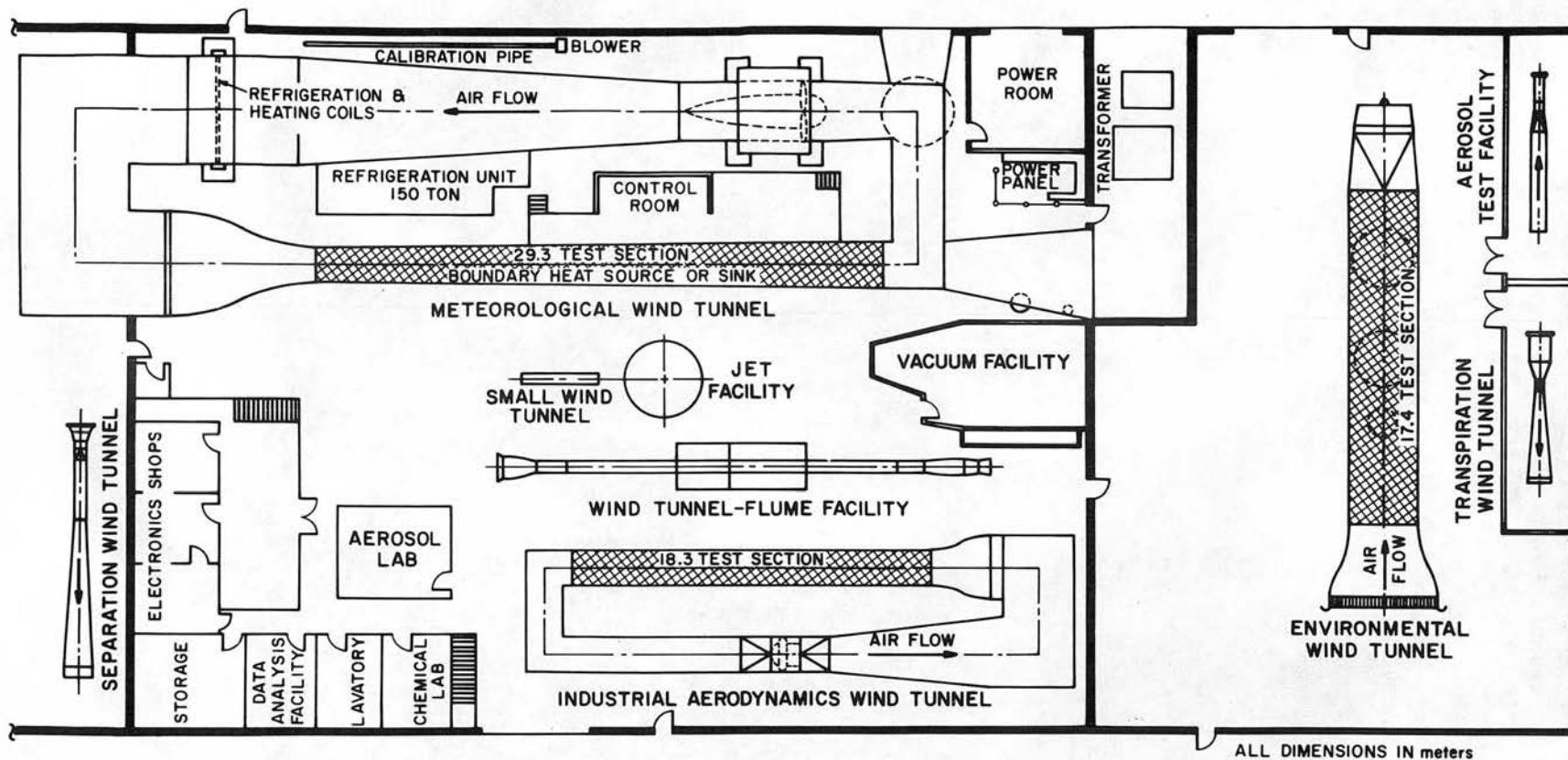
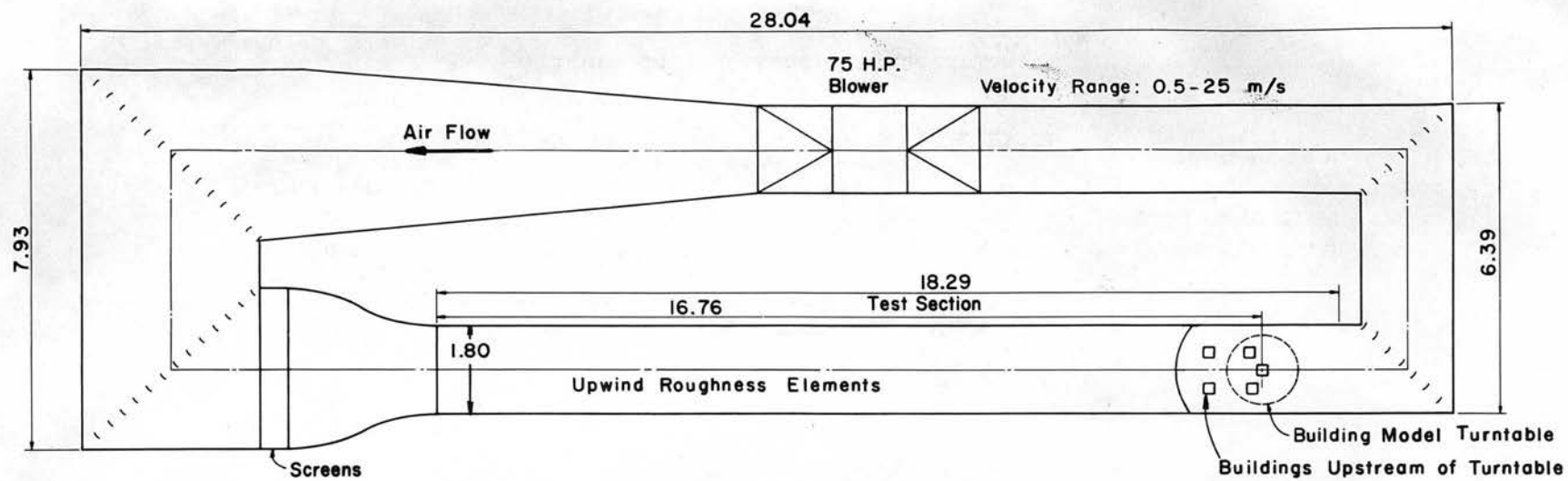
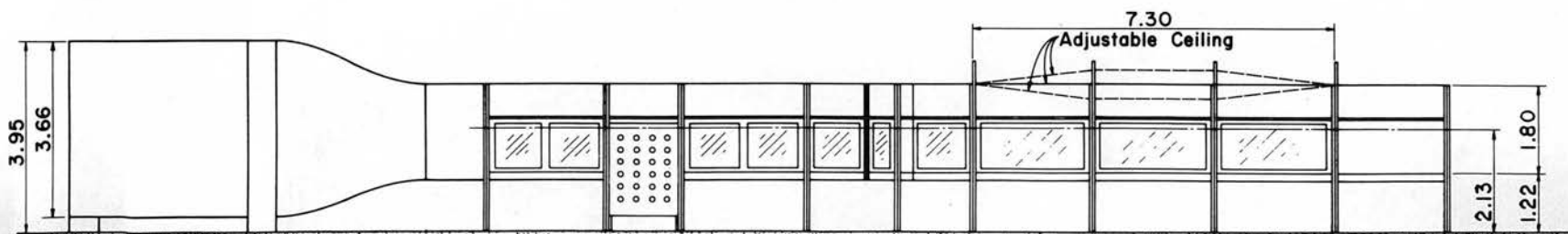
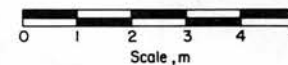


FIGURE 1 - FLUID DYNAMICS AND DIFFUSION LABORATORY  
 COLORADO STATE UNIVERSITY



PLAN



All Dimensions in m

ELEVATION

INDUSTRIAL AERODYNAMICS WIND TUNNEL

Figure 2 - Wind Tunnel Configuration

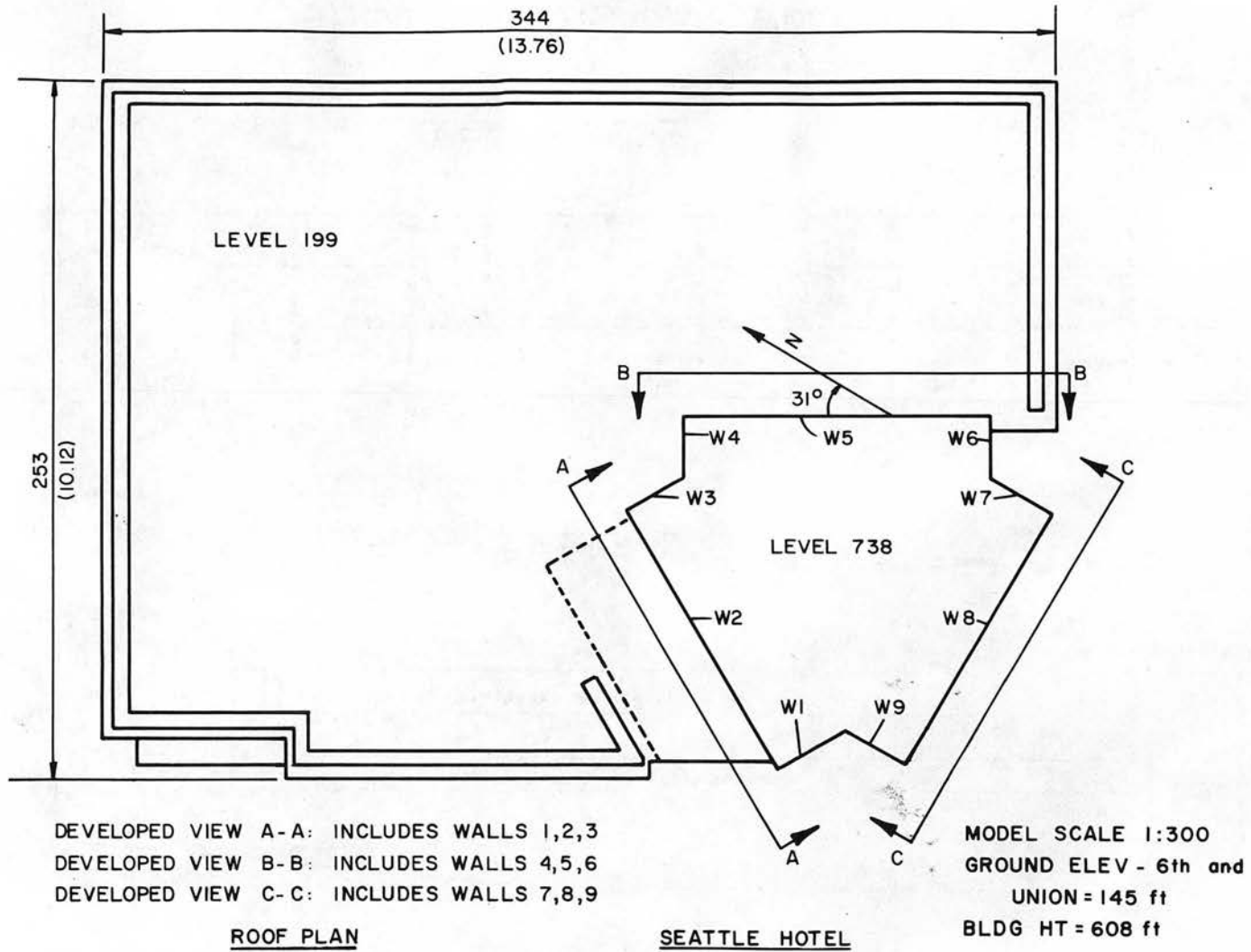


Figure 3a. Pressure Tap Locations.

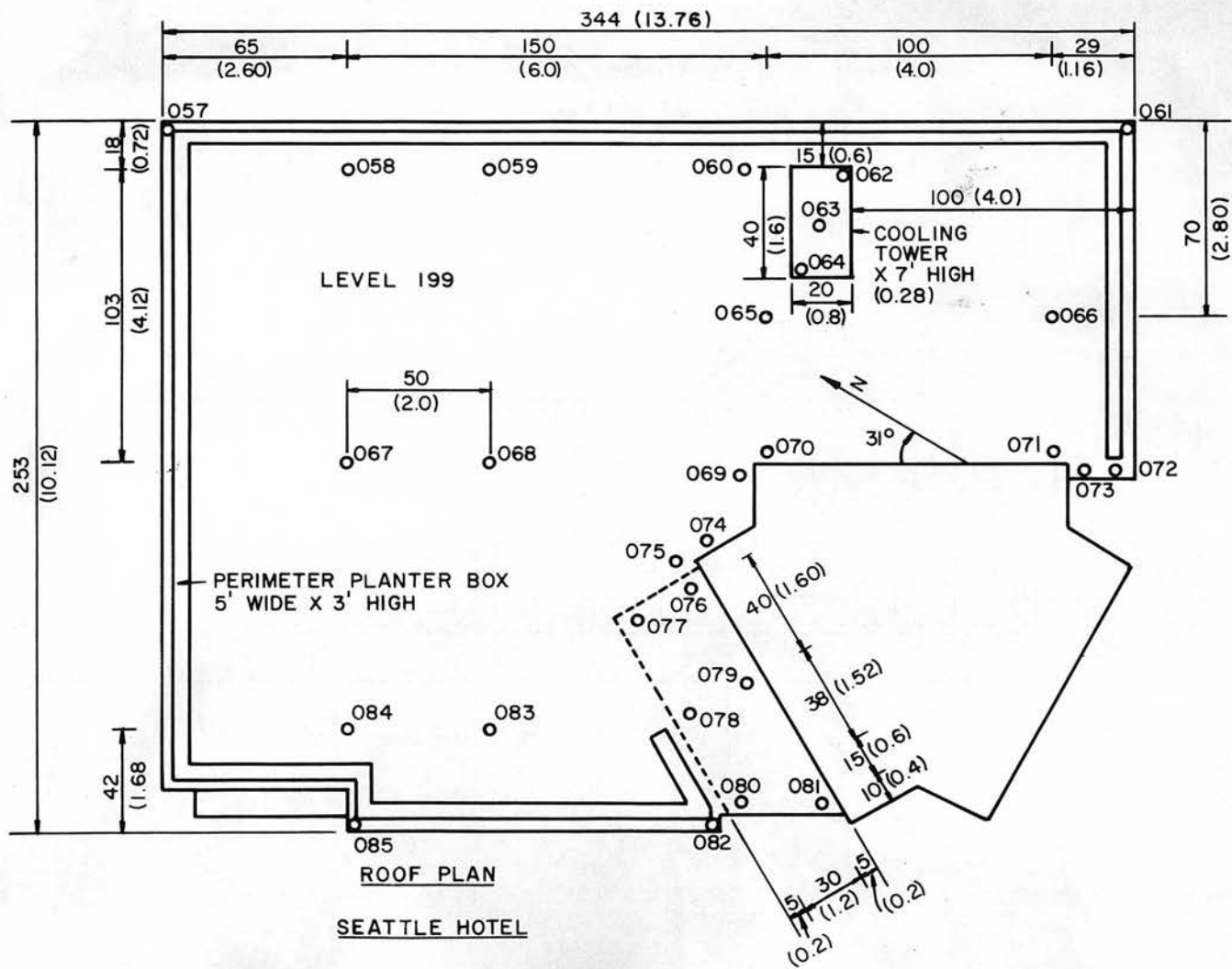


Figure 3b. Pressure Tap Locations.

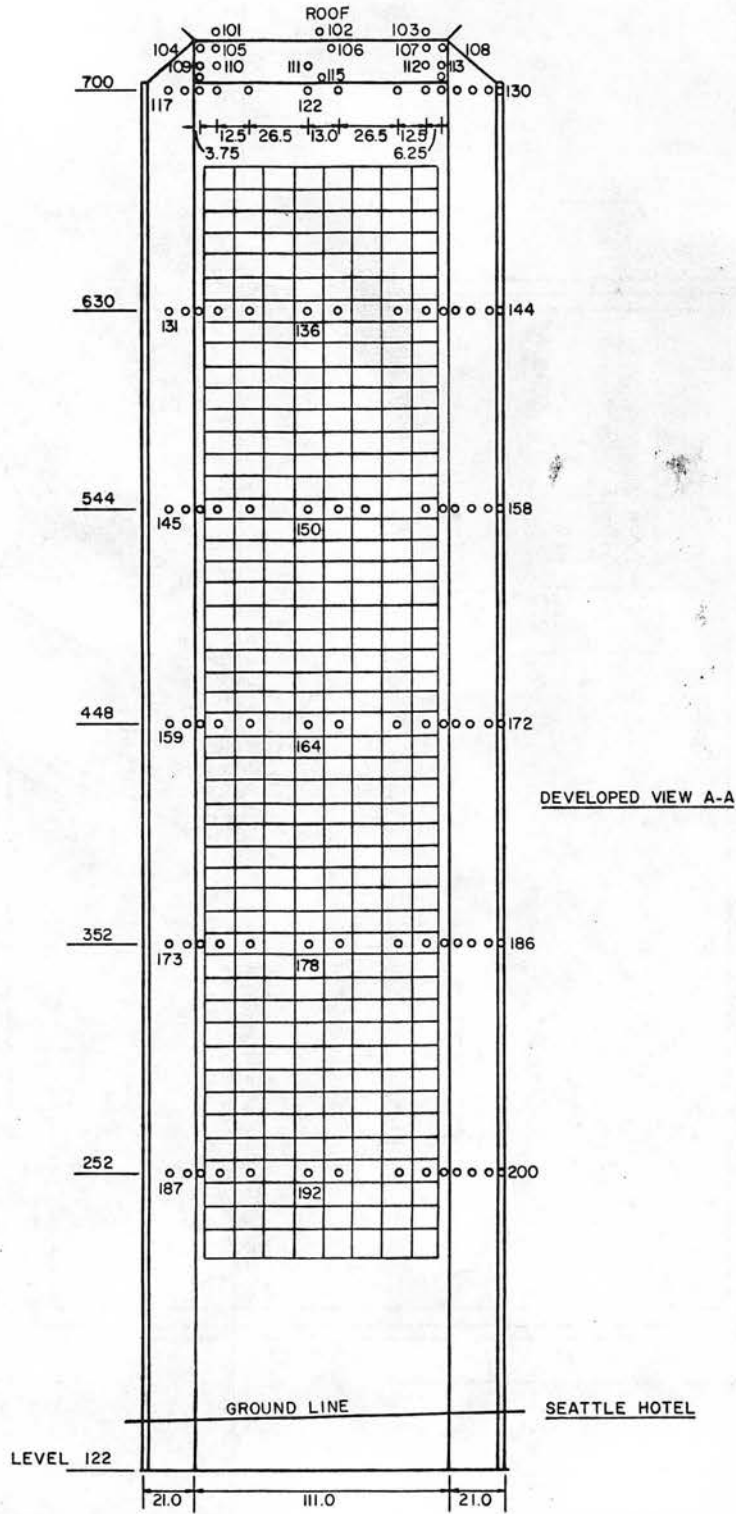


Figure 3c. Pressure Tap Locations.

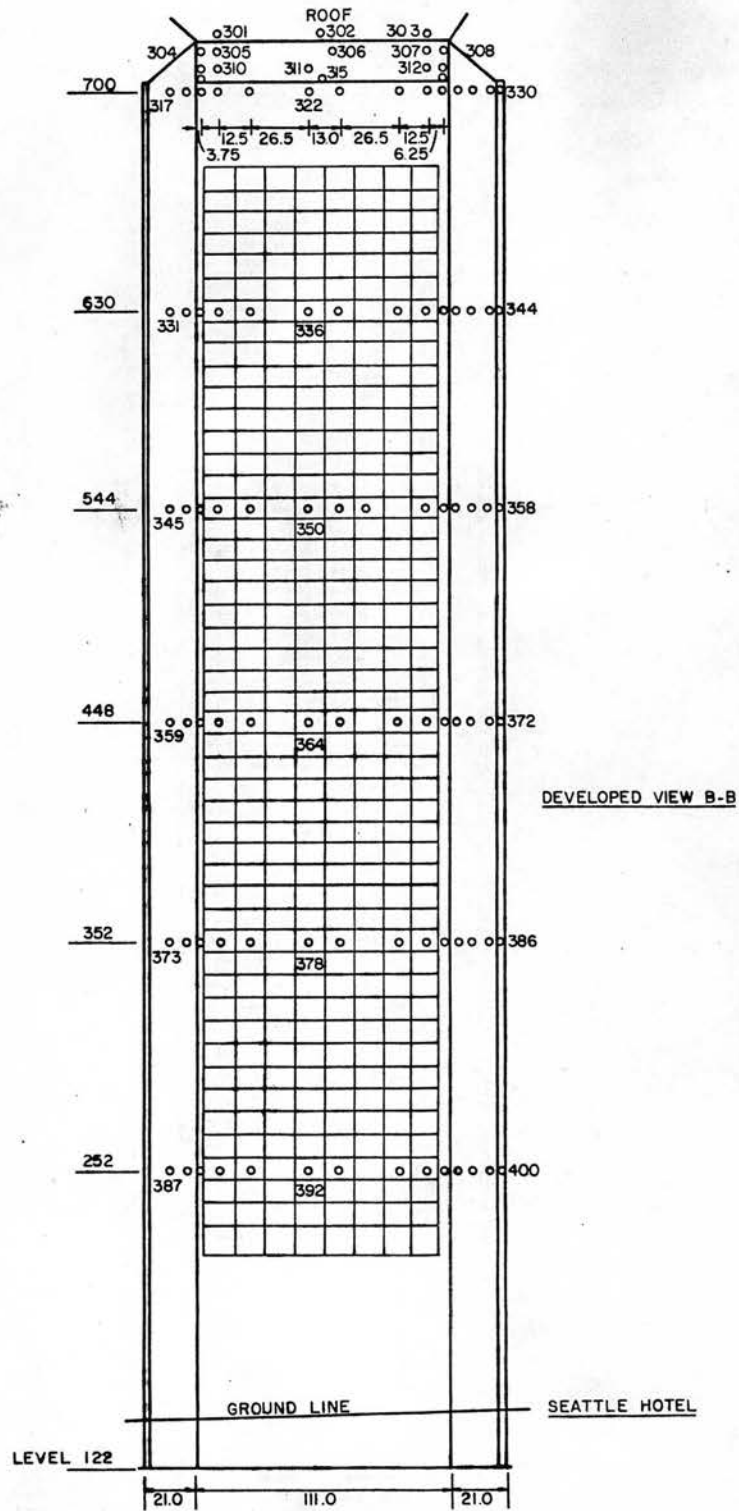


Figure 3d. Pressure Tap Locations.

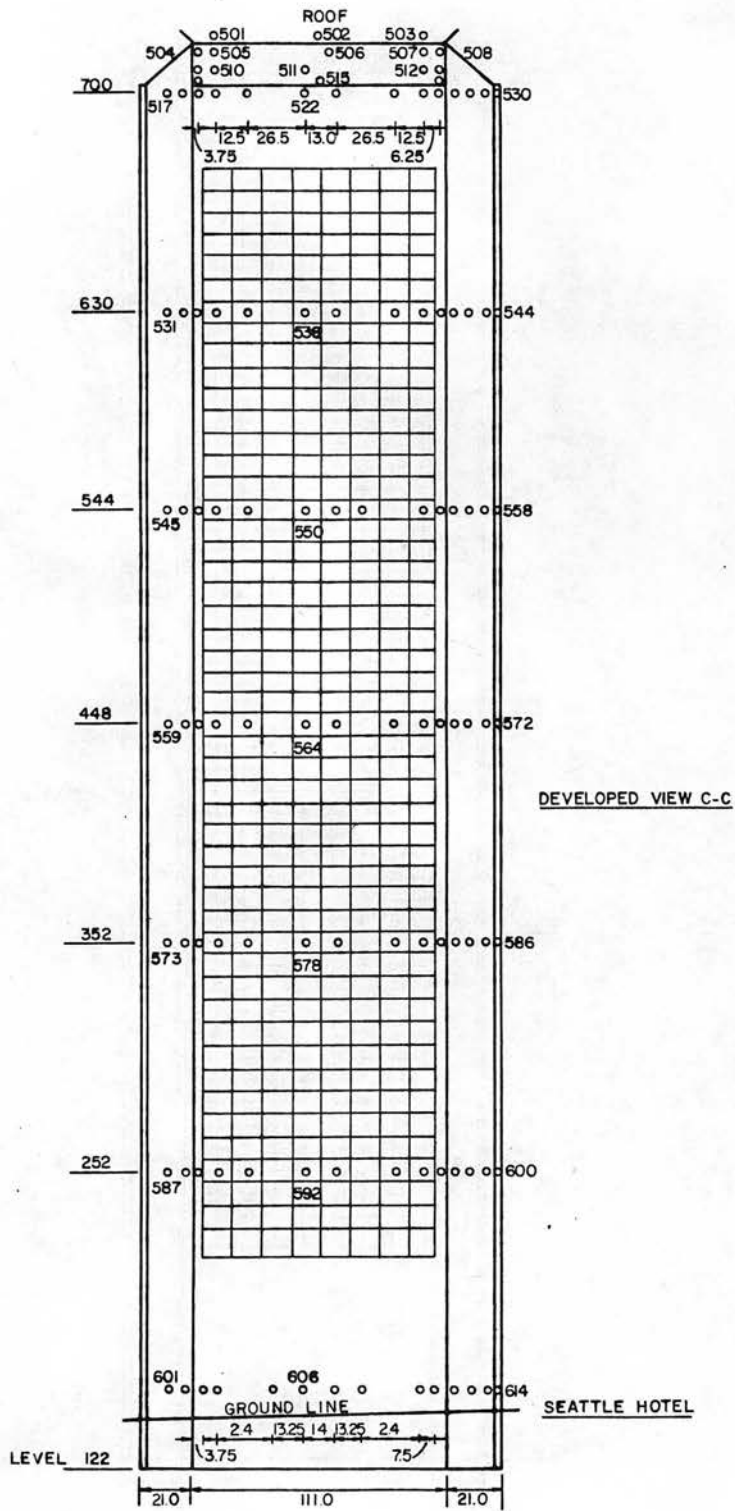
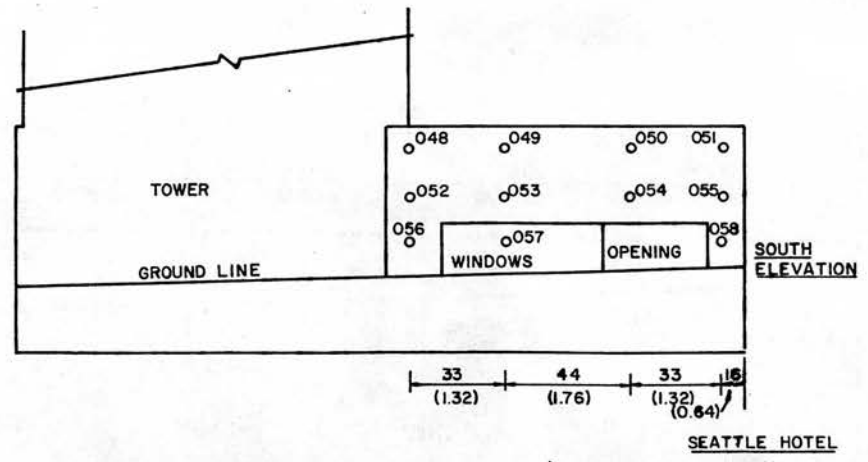
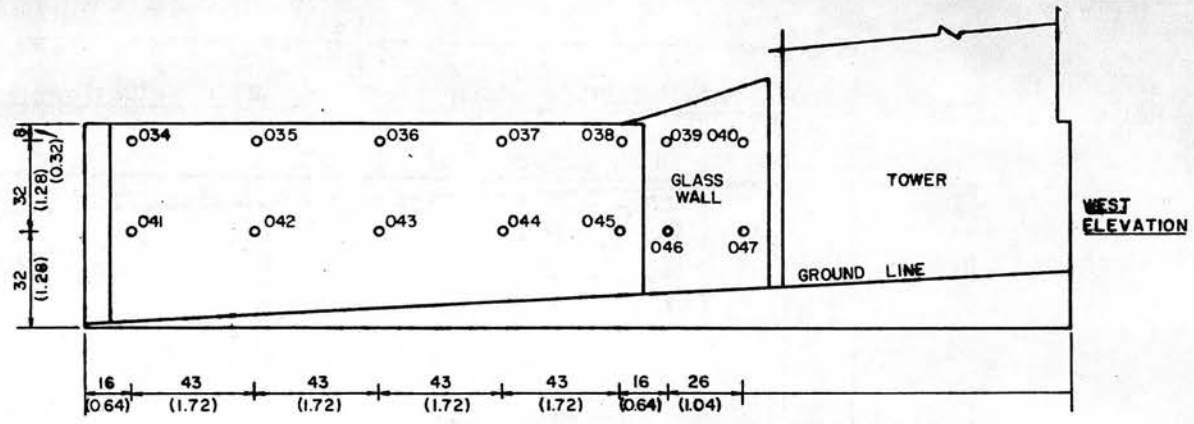


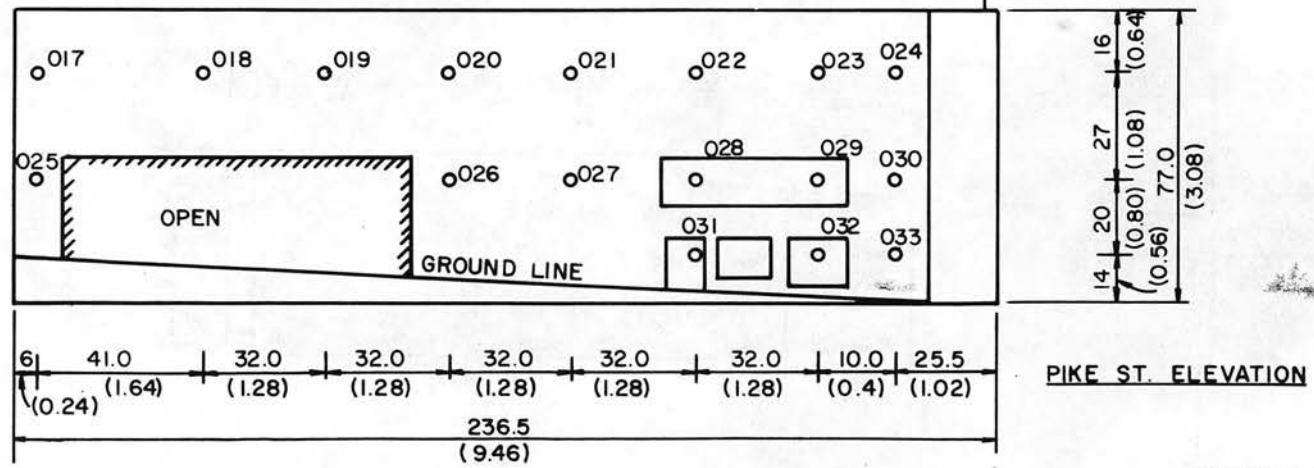
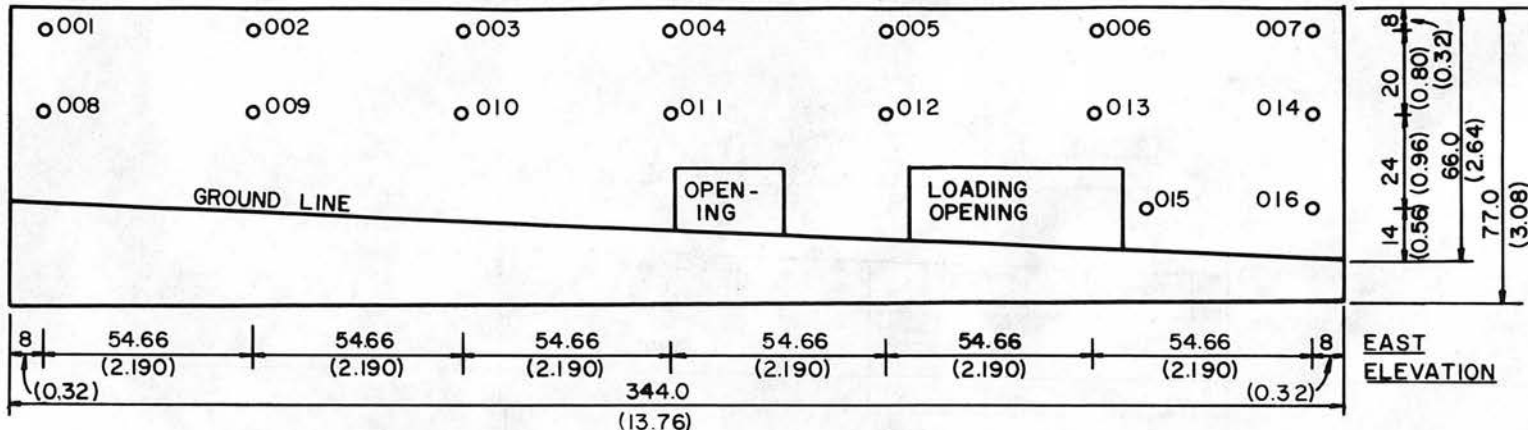
Figure 3e. Pressure Tap Locations.



SEATTLE HOTEL

Figure 3f. Pressure Tap Locations.





SEATTLE HOTEL

Figure 3g. Pressure Tap Locations.

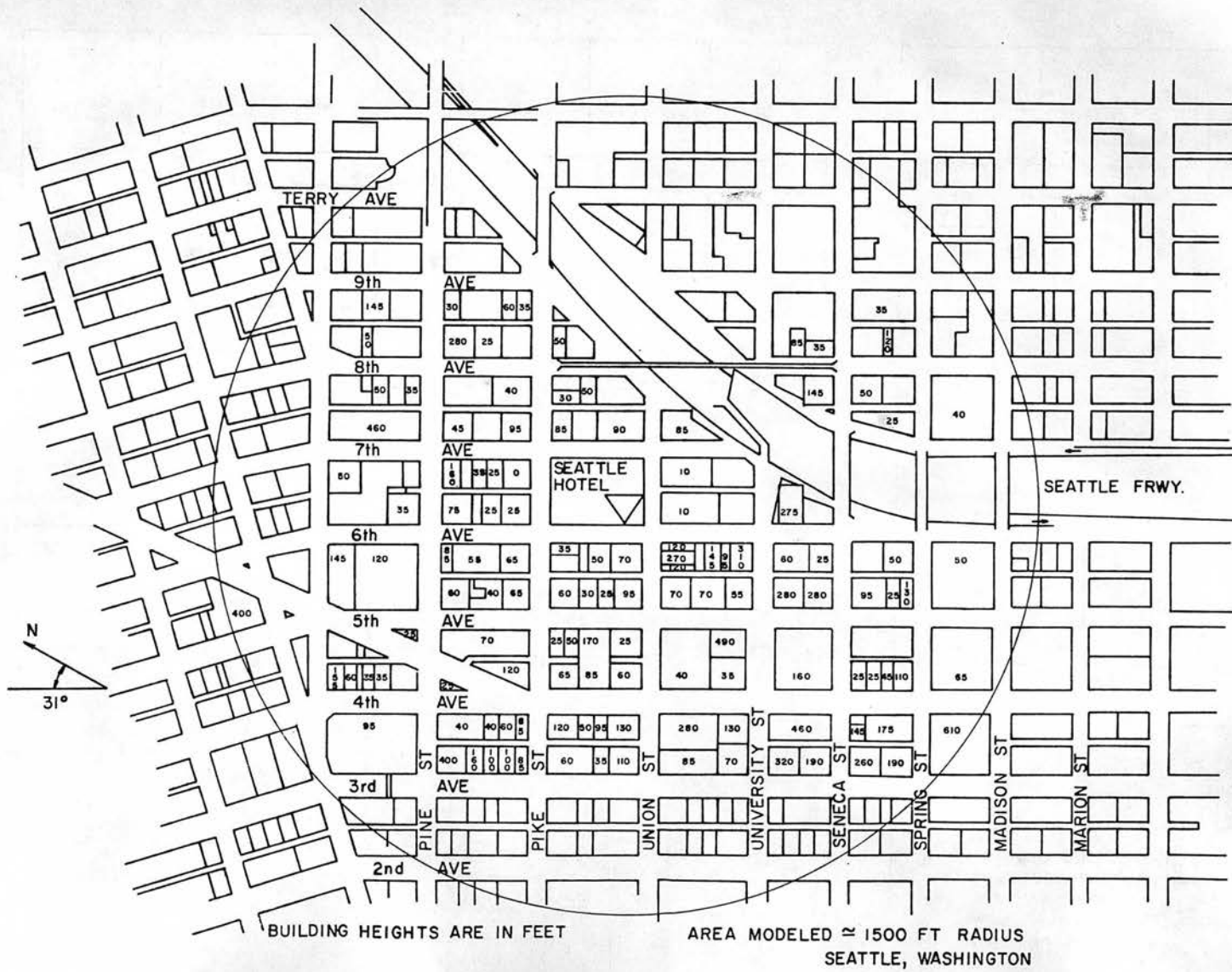


Figure 4a. Building Location and Pedestrian Wind Velocity Measuring Positions.

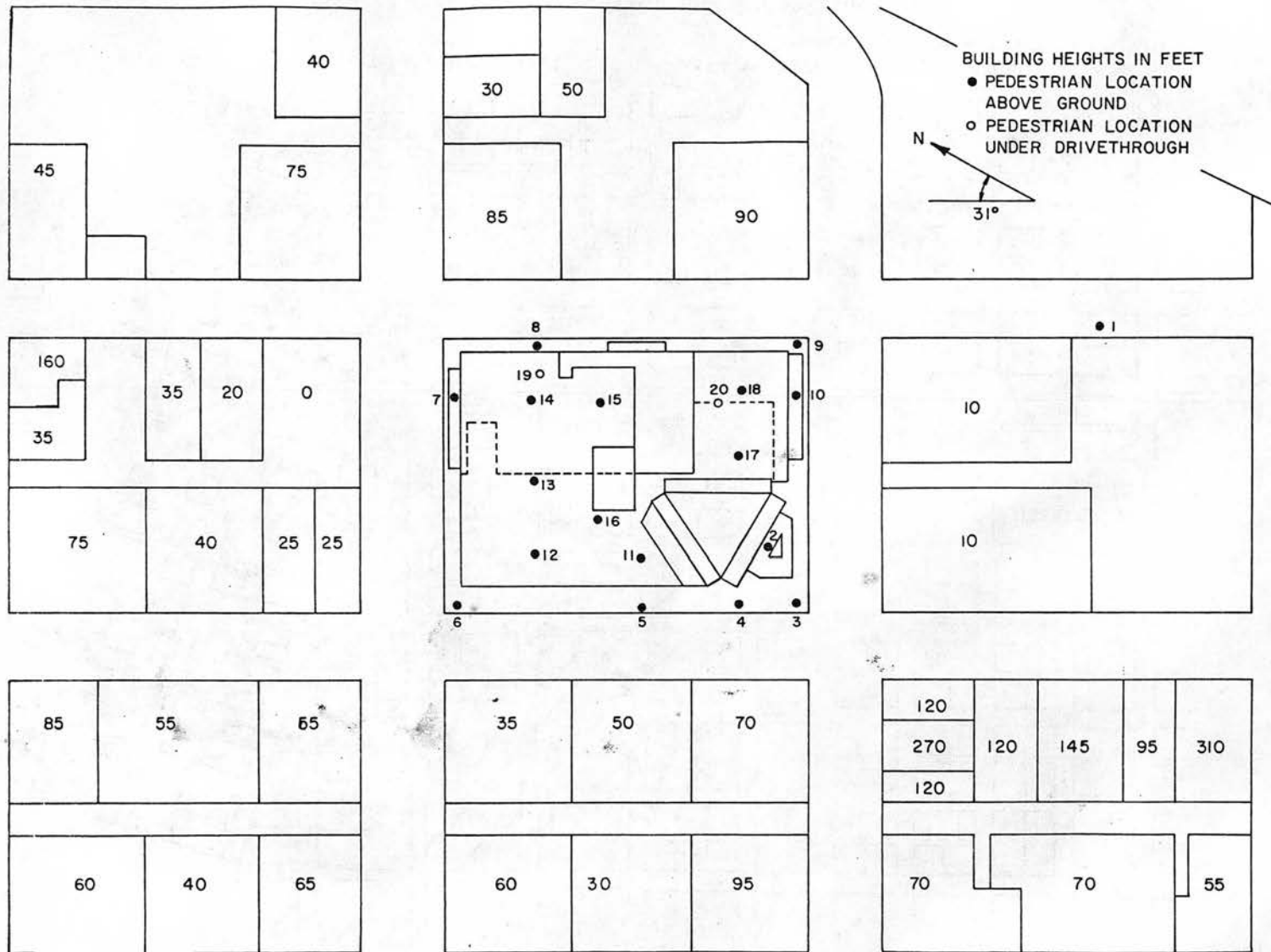


Figure 4b. Building Location and Pedestrian Wind Velocity Measuring Positions.

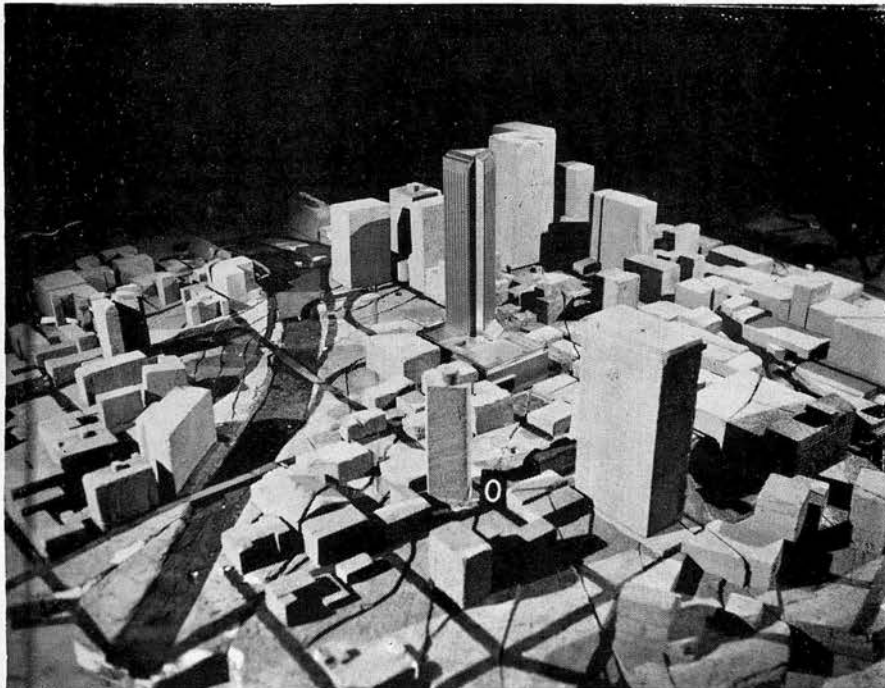
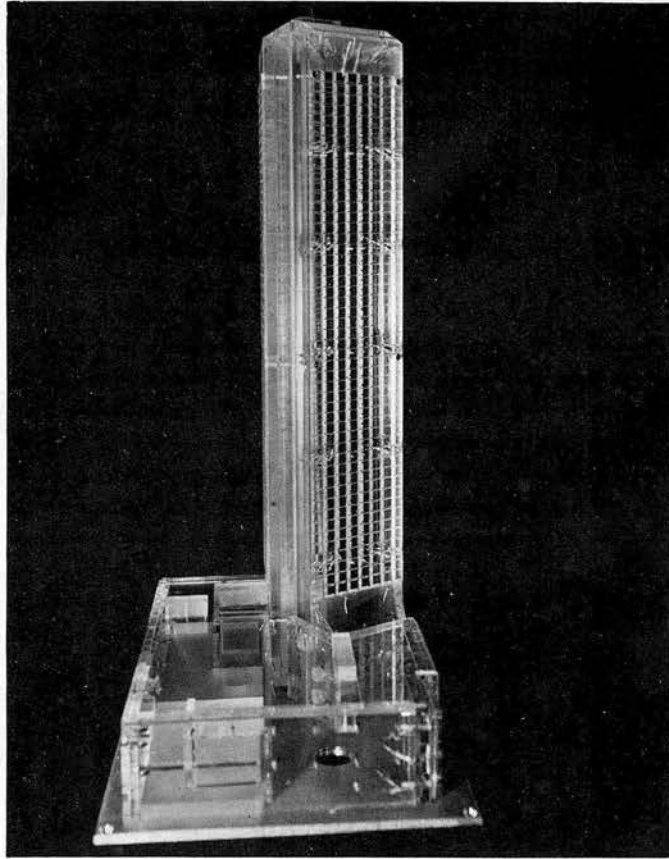


Figure 5. Completed Model in Wind Tunnel.

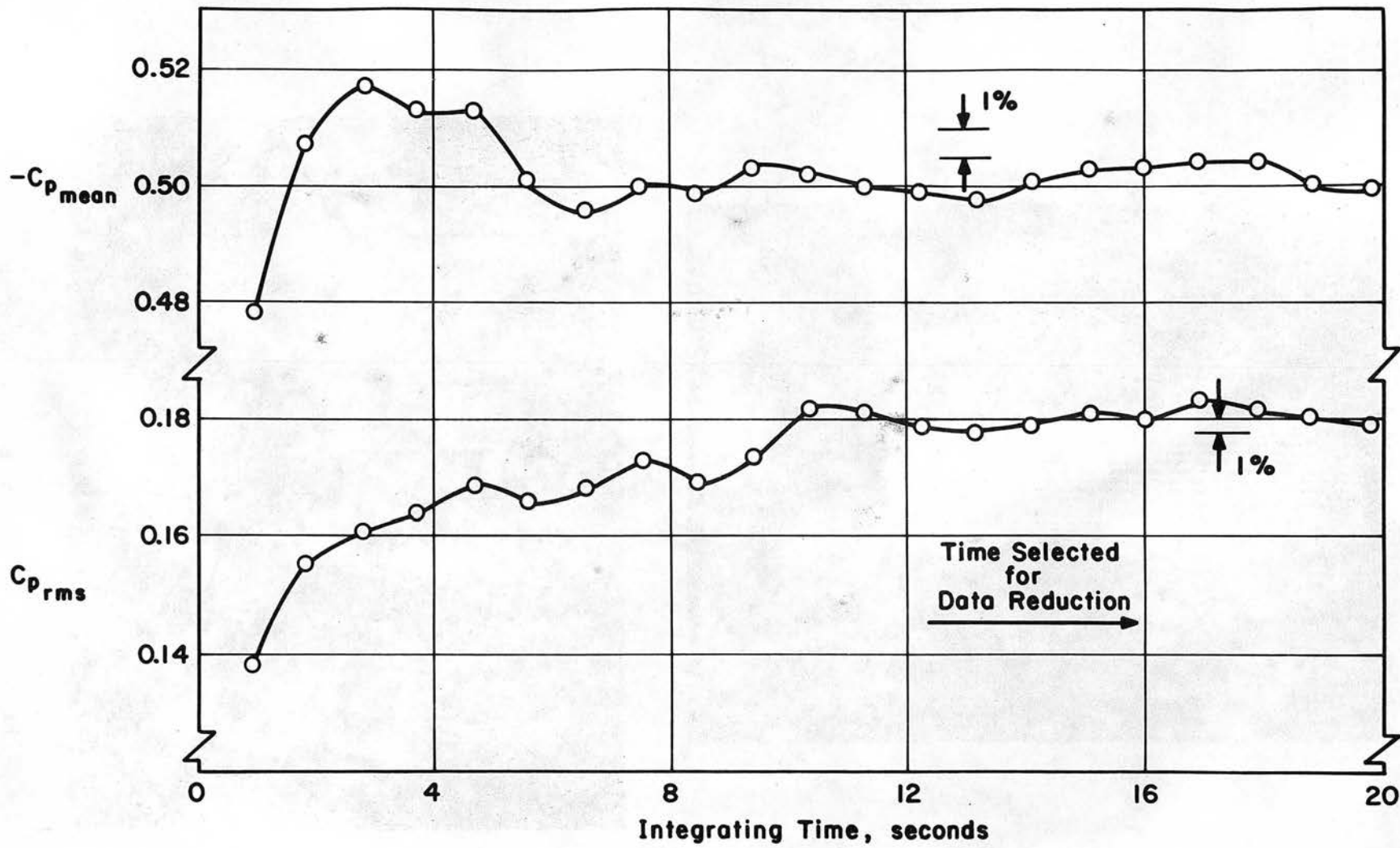


Figure 6 - Data Sampling Time Verification

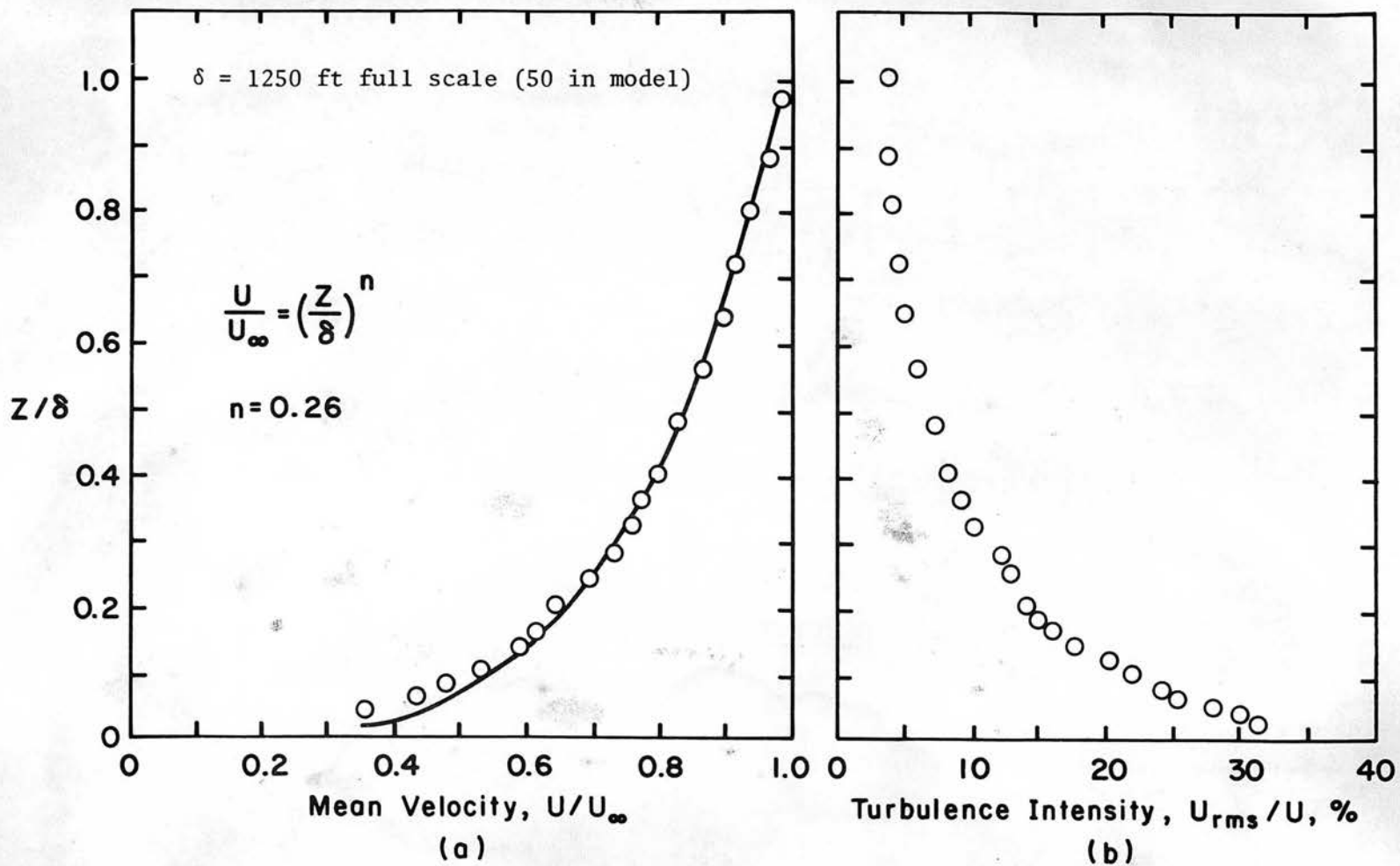


Figure 7 - Velocity and Turbulence Profiles Approaching the Model

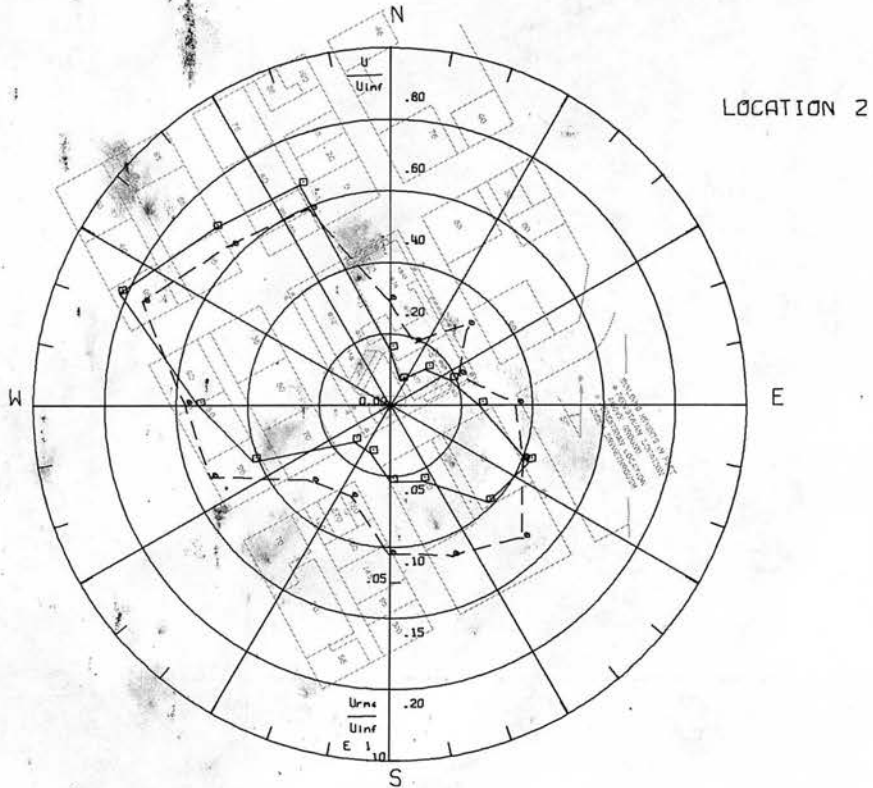
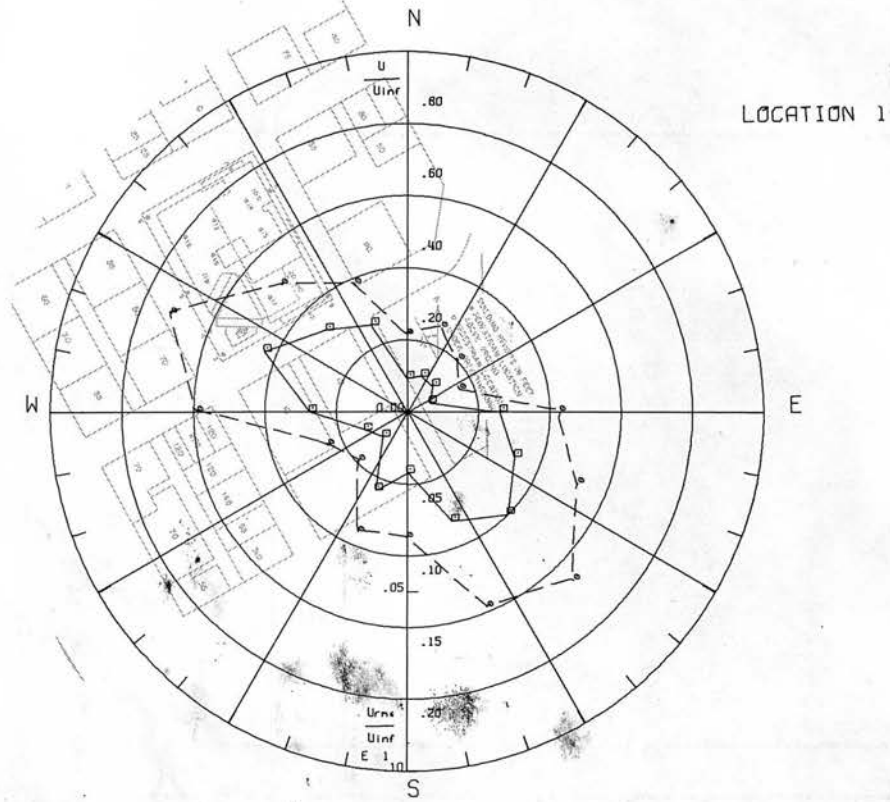


Figure 8a. Mean Velocities and Turbulence Intensities at Pedestrian Locations 1 and 2.

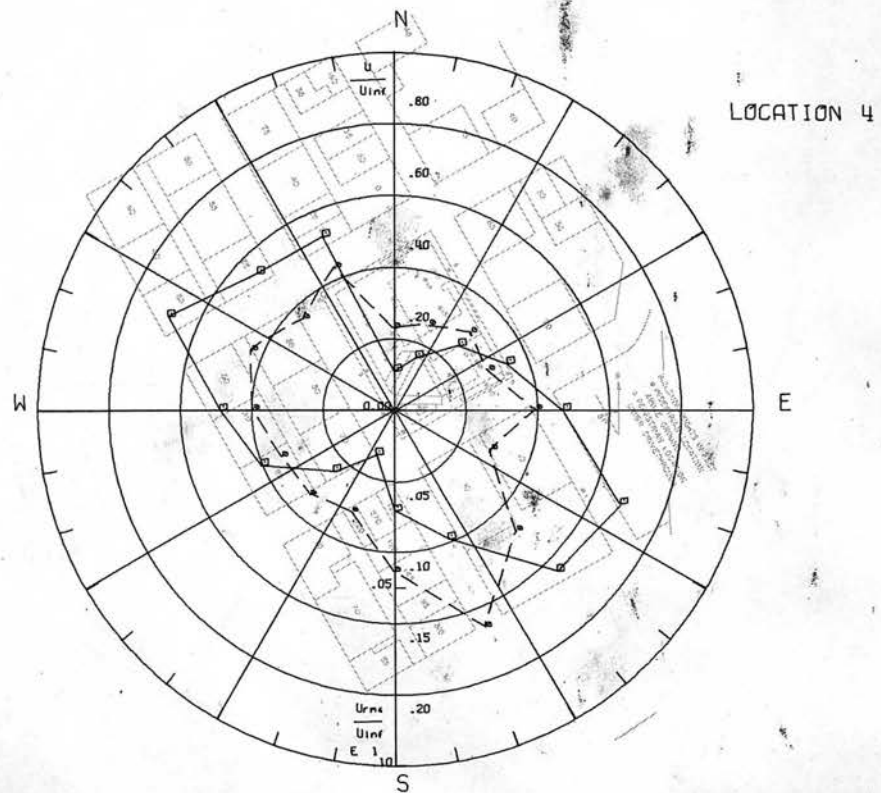
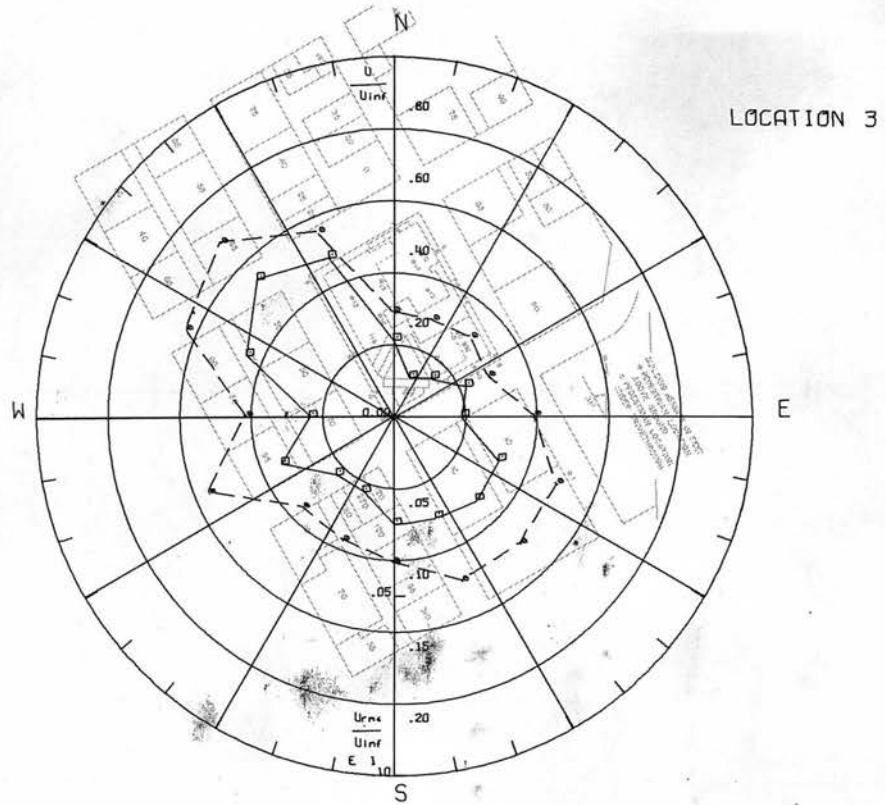


Figure 8b. Mean Velocities and Turbulence Intensities at Pedestrian Locations 3 and 4.



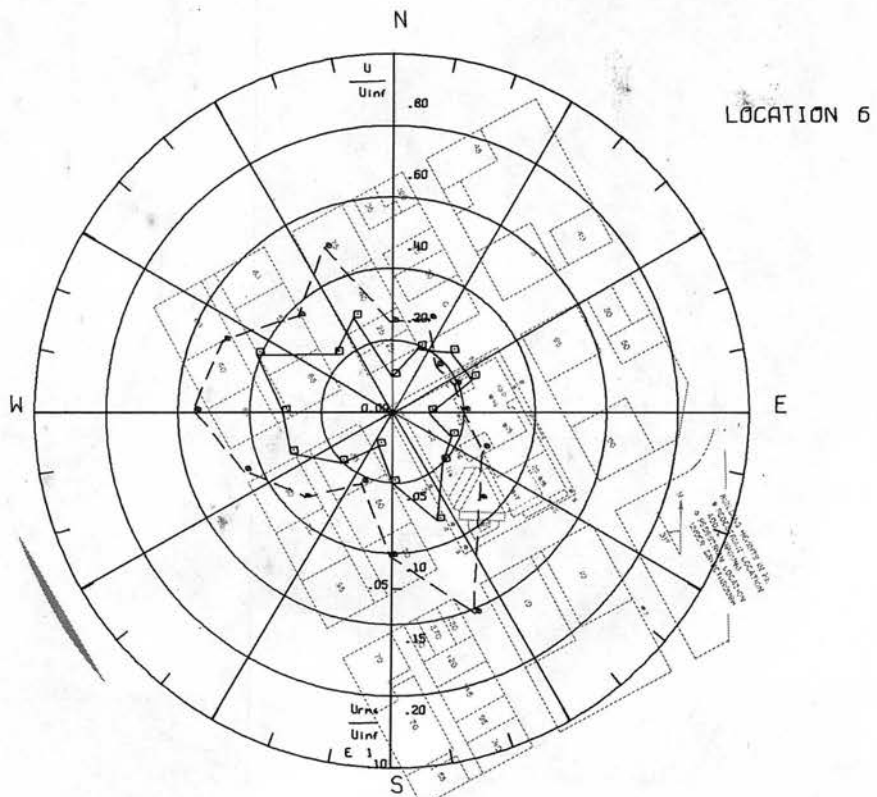
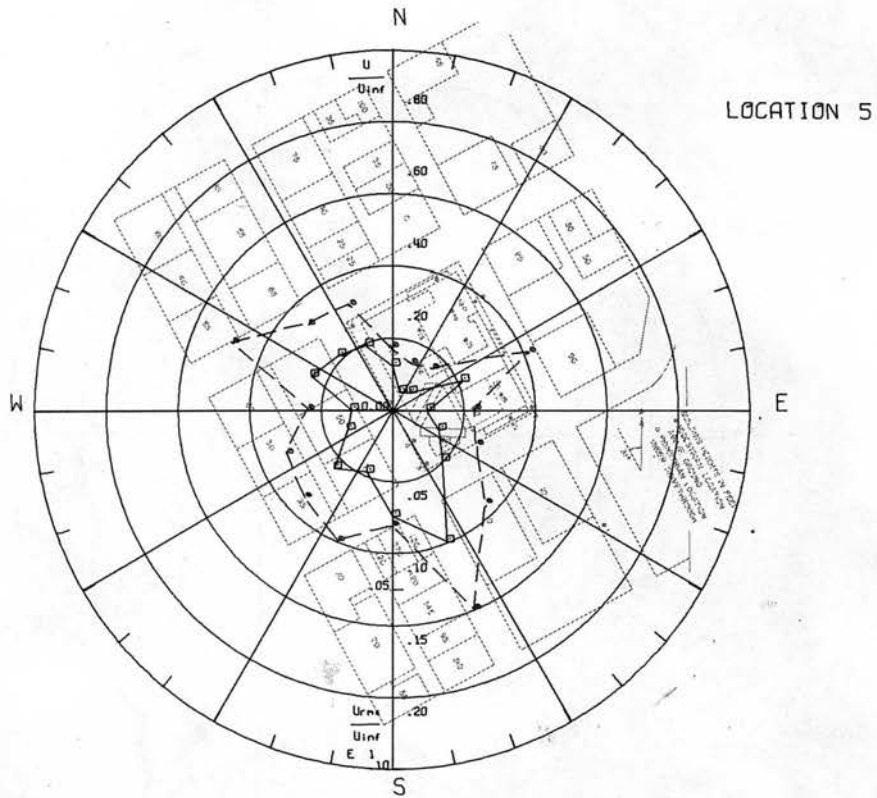


Figure 8c. Mean Velocities and Turbulence Intensities at Pedestrian Locations 5 and 6.

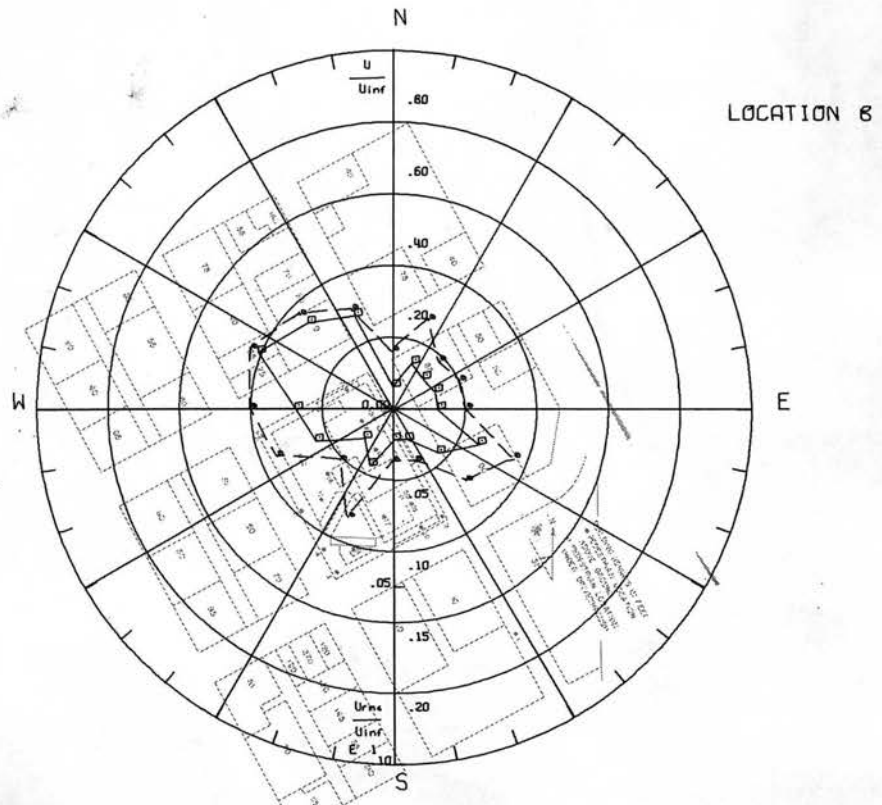
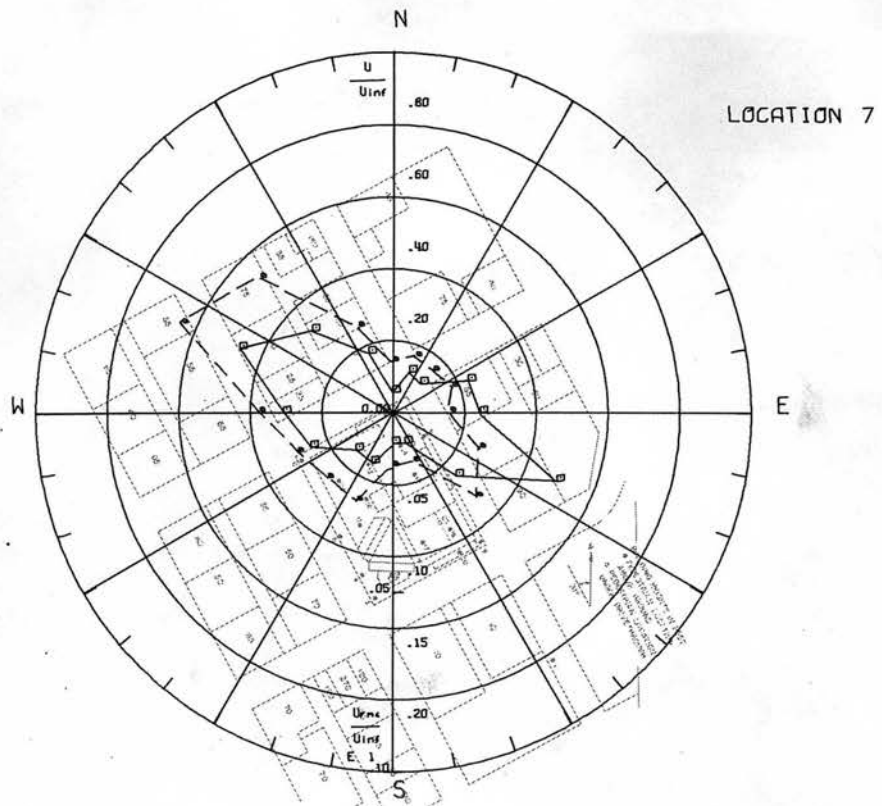


Figure 8d. Mean Velocities and Turbulence Intensities at Pedestrian Locations 7 and 8.

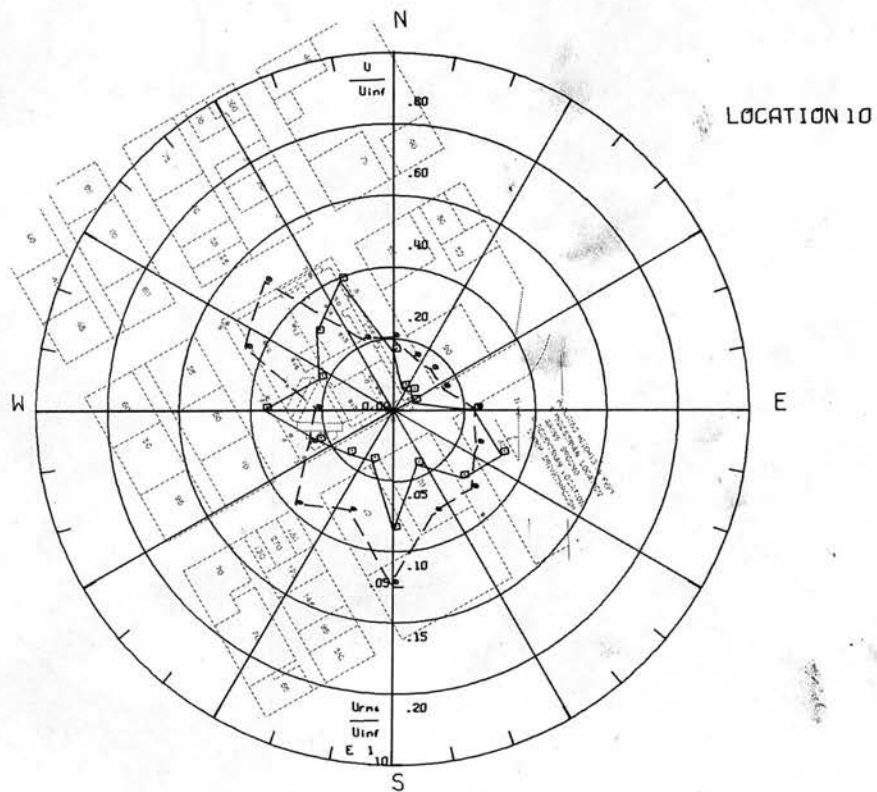
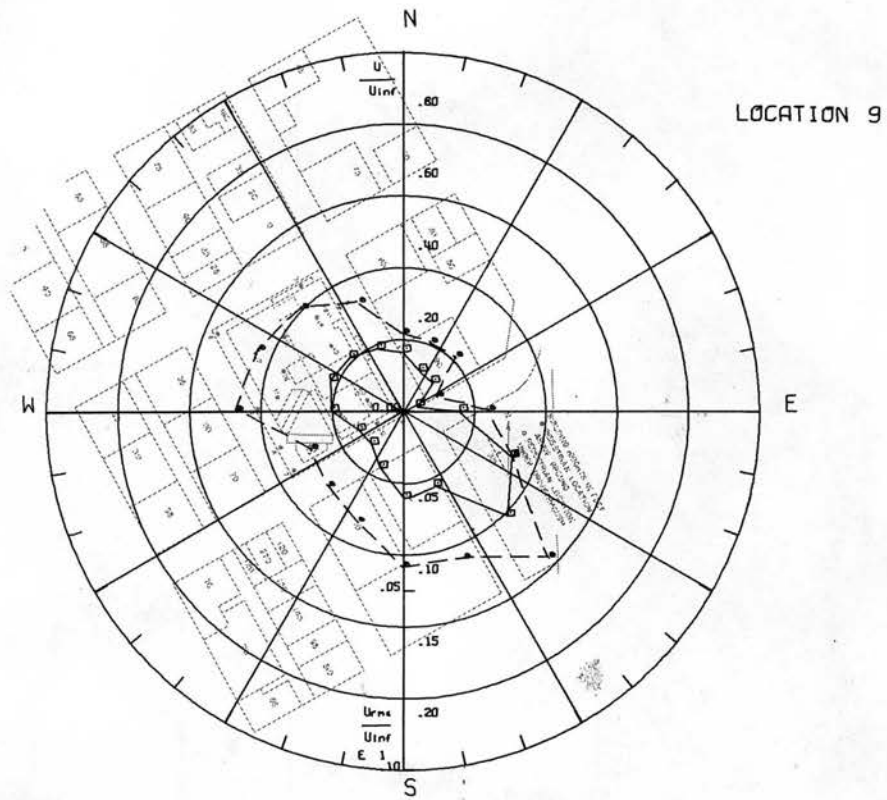


Figure 8e. Mean Velocities and Turbulence Intensities at Pedestrian Locations 9 and 10.

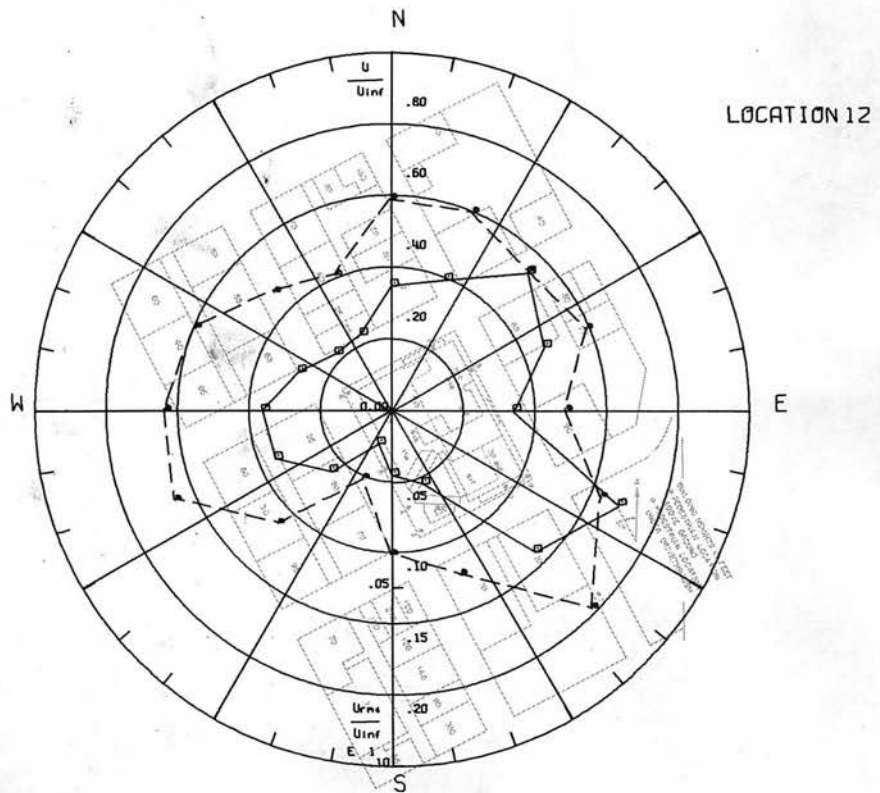
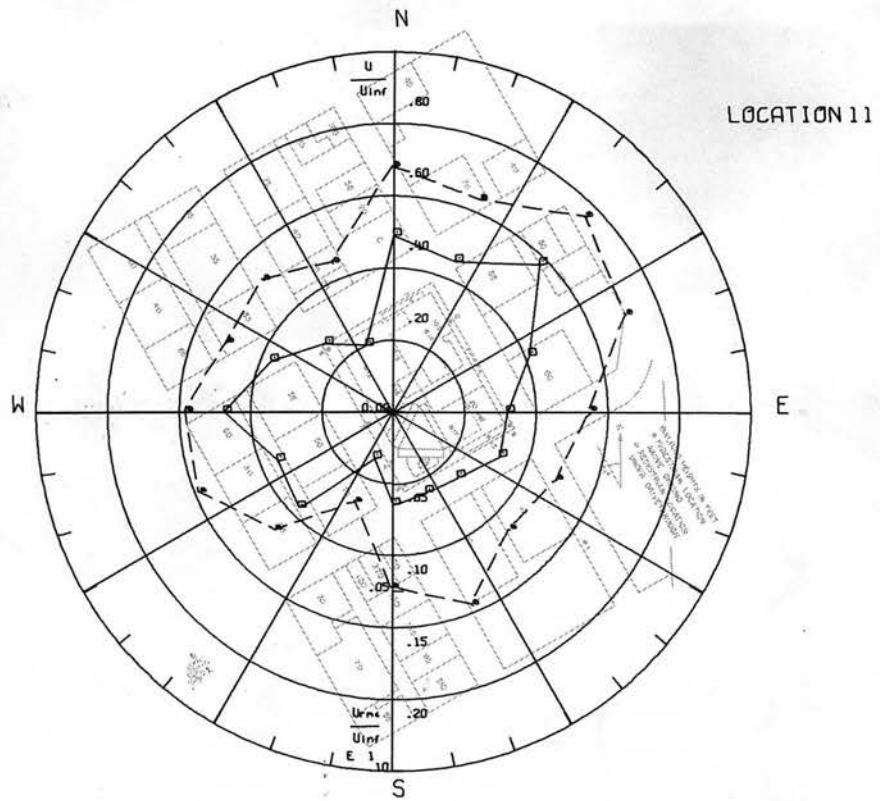


Figure 8f. Mean Velocities and Turbulence Intensities at Pedestrian Locations 11 and 12.

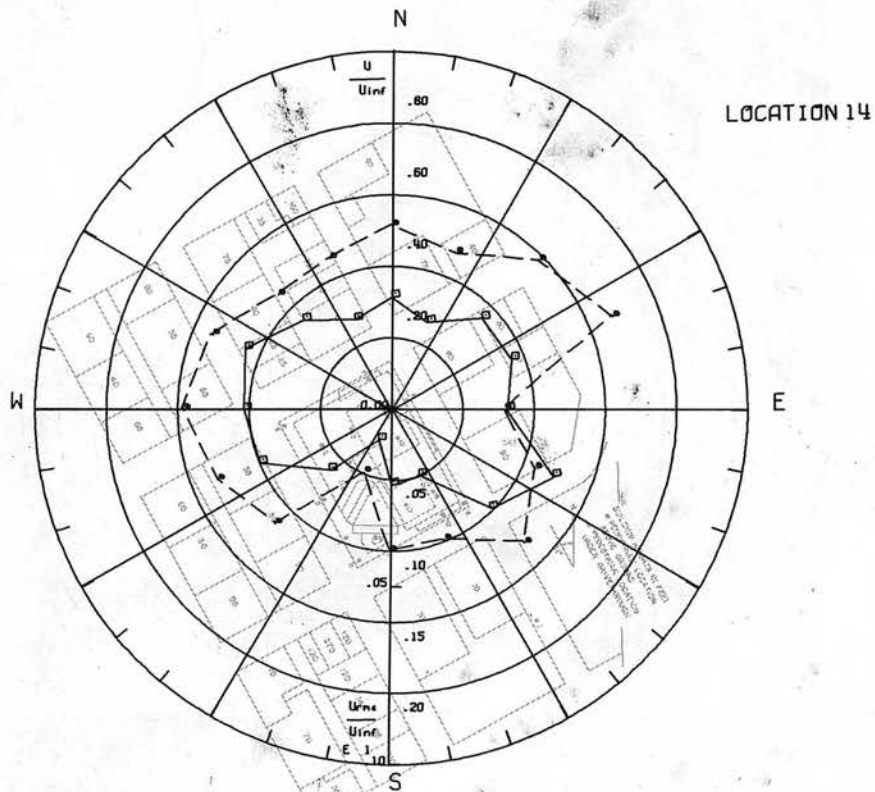
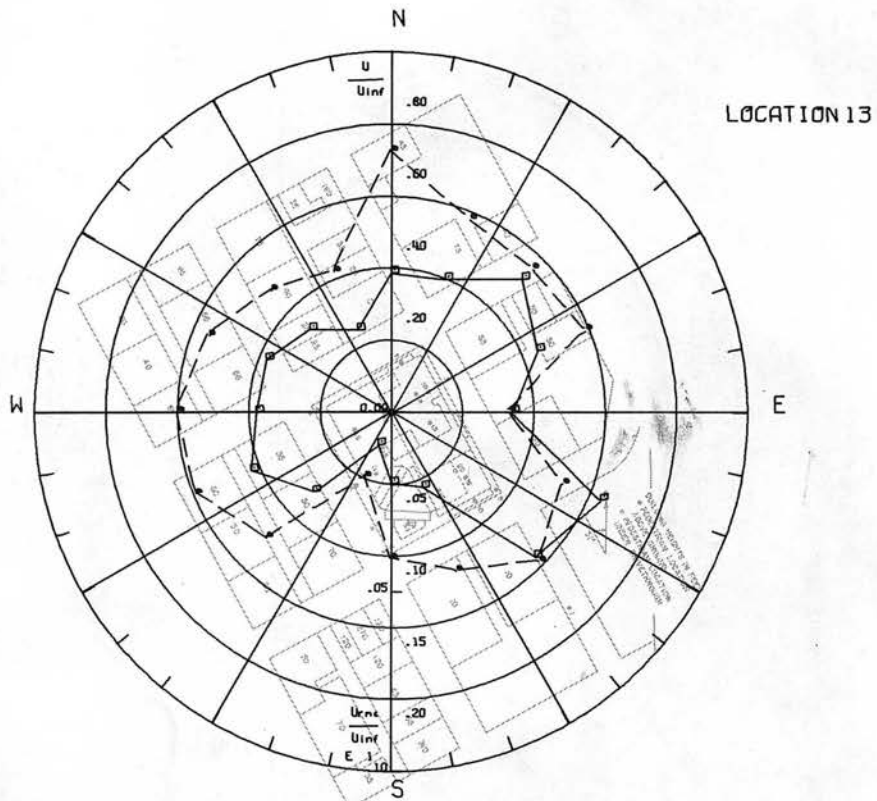


Figure 8g. Mean Velocities and Turbulence Intensities at Pedestrian Locations 13 and 14.

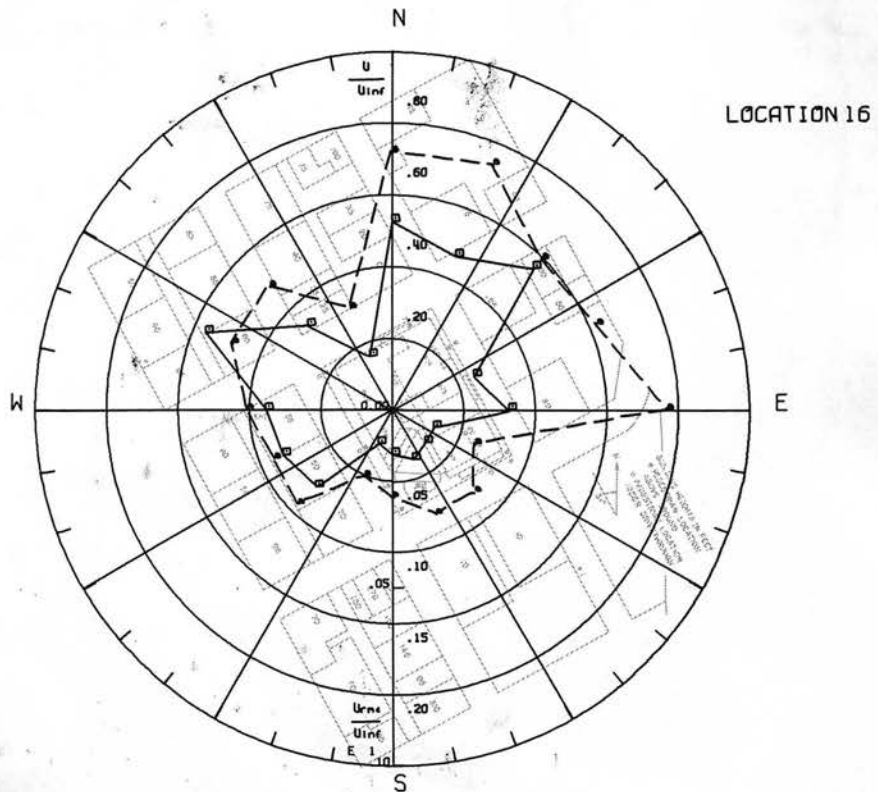
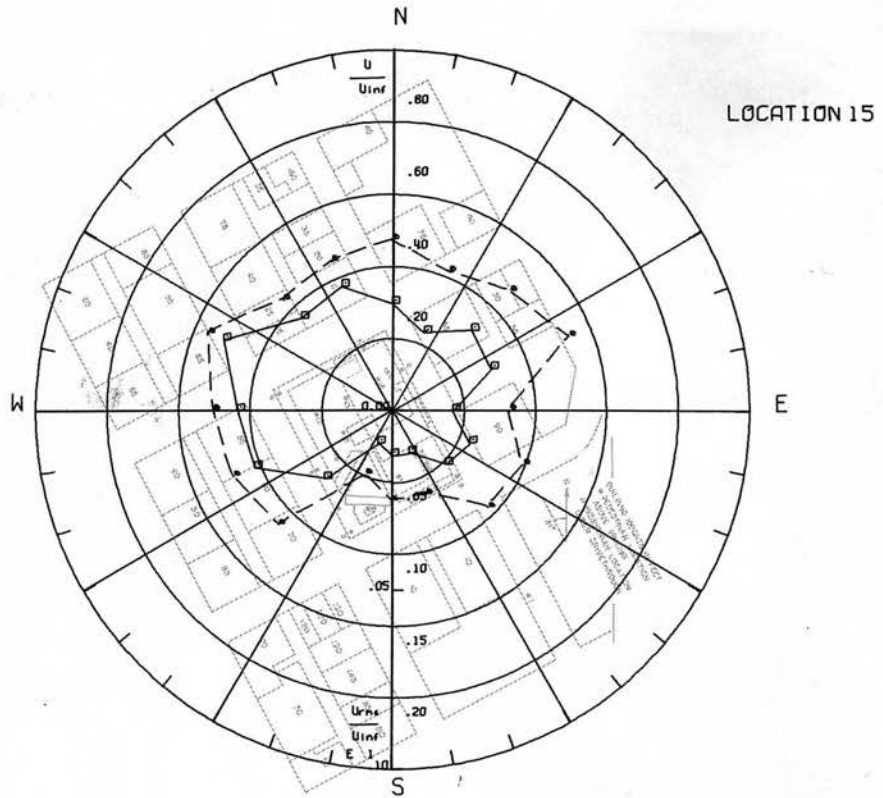


Figure 8h. Mean Velocities and Turbulence Intensities at Pedestrian Locations 15 and 16.

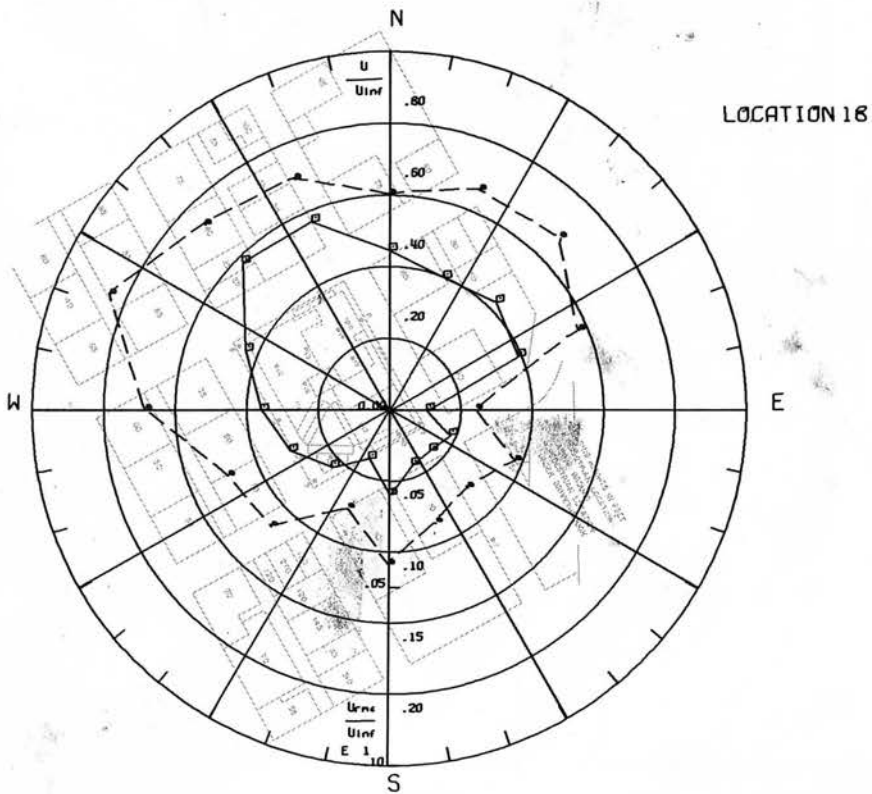
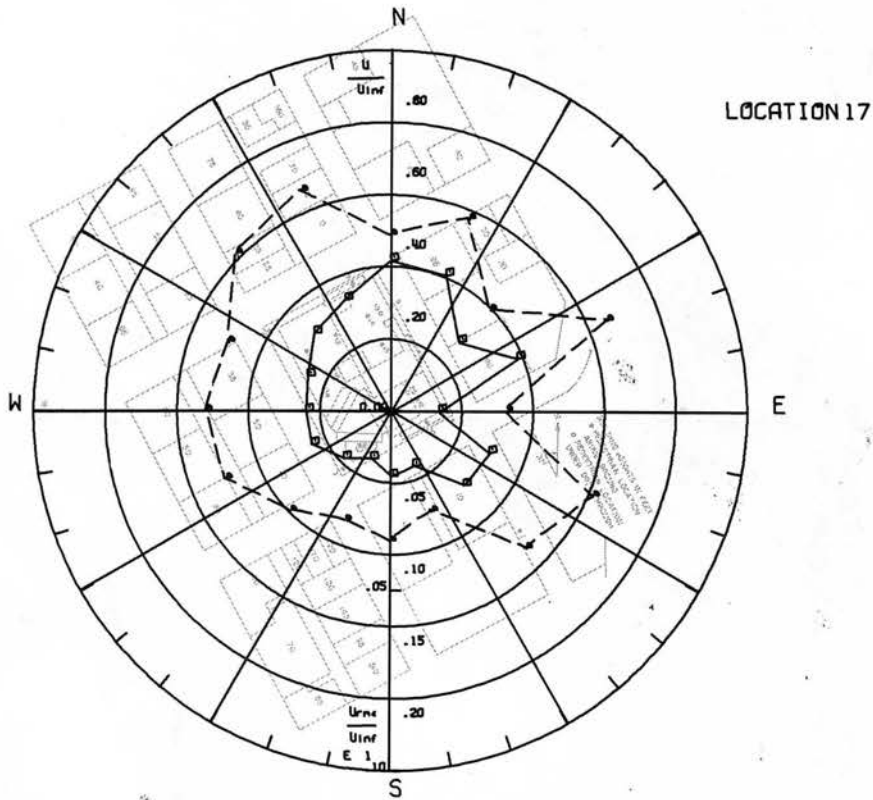


Figure 8i. Mean Velocities and Turbulence Intensities at Pedestrian Locations 17 and 18.

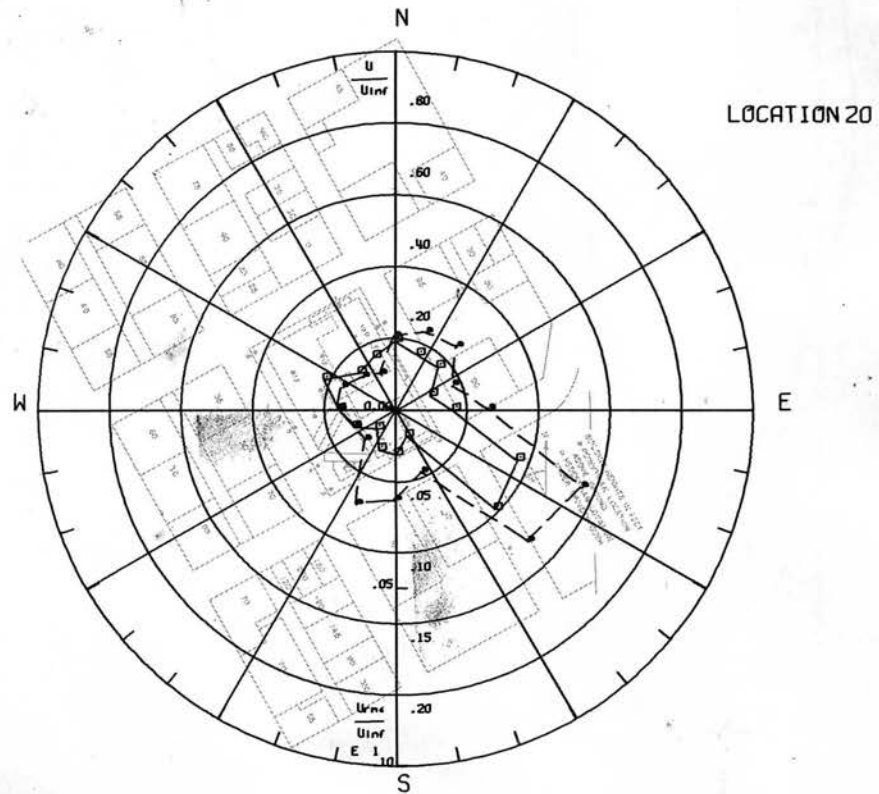
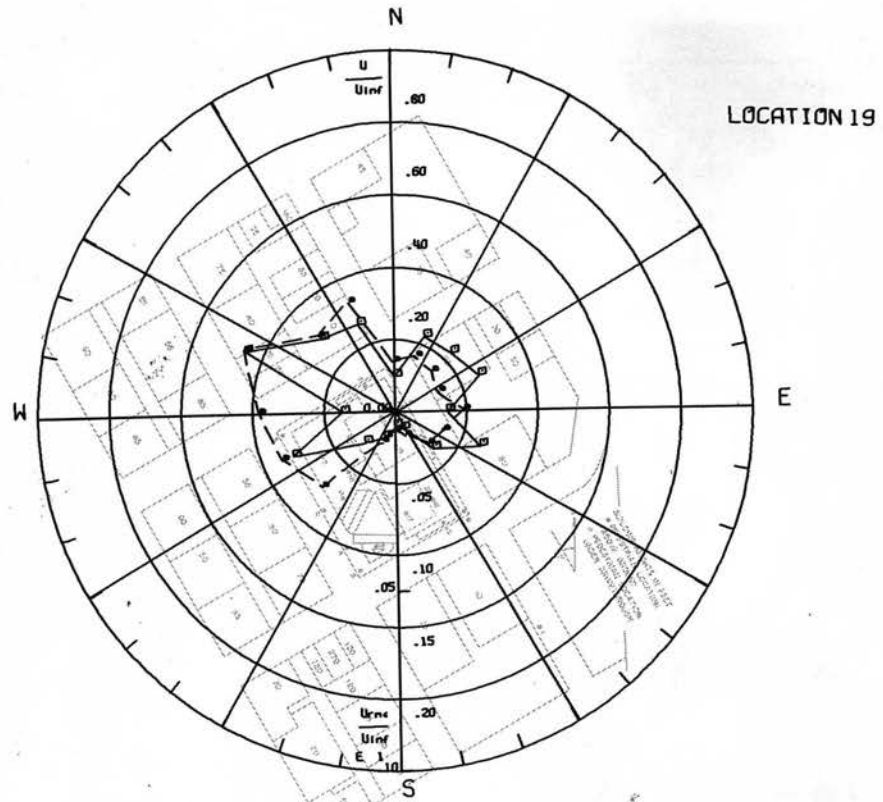


Figure 8j. Mean Velocities and Turbulence Intensities at Pedestrian Locations 19 and 20.



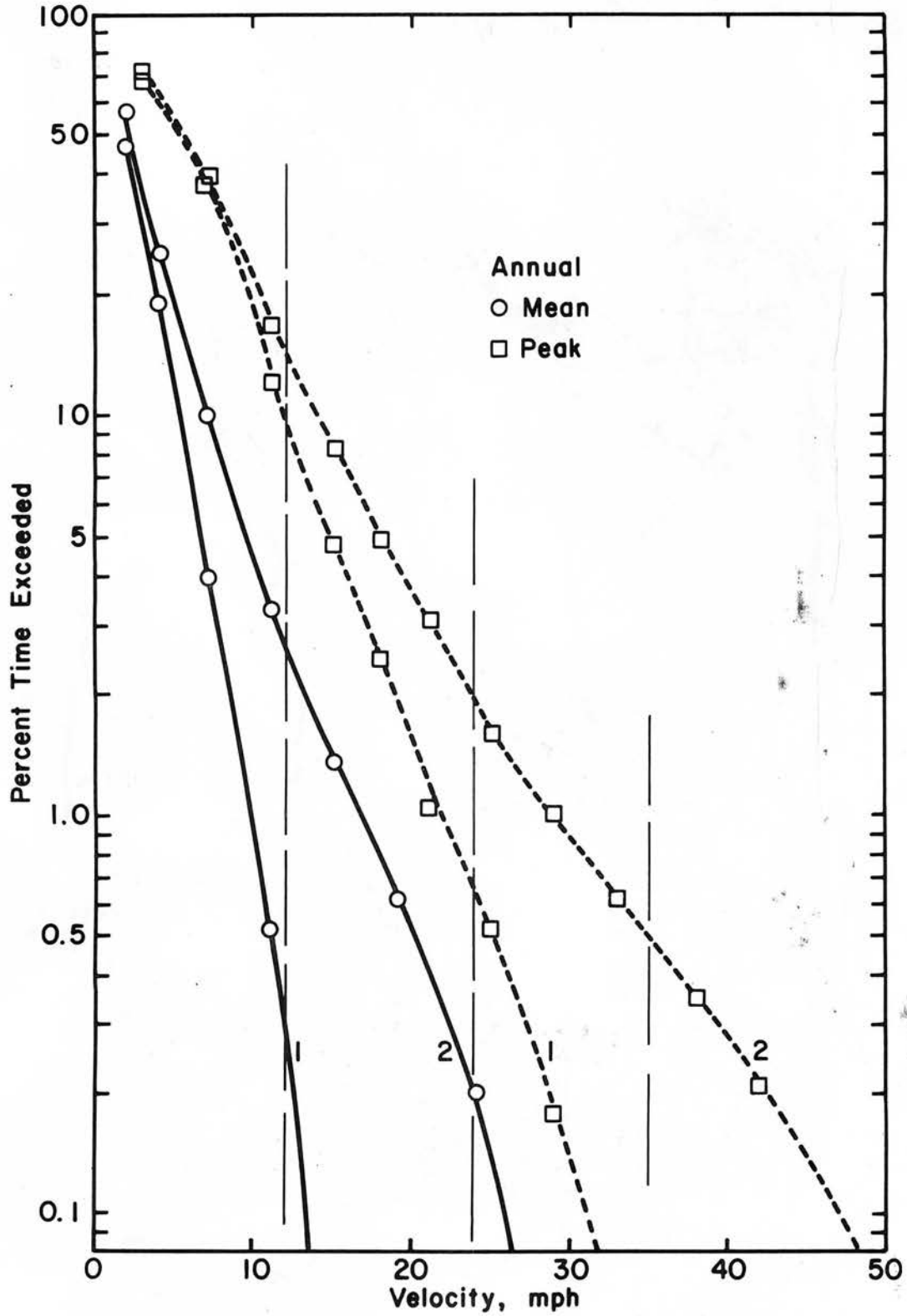


Figure 9a. Wind Velocity Probabilities for Pedestrian Locations.

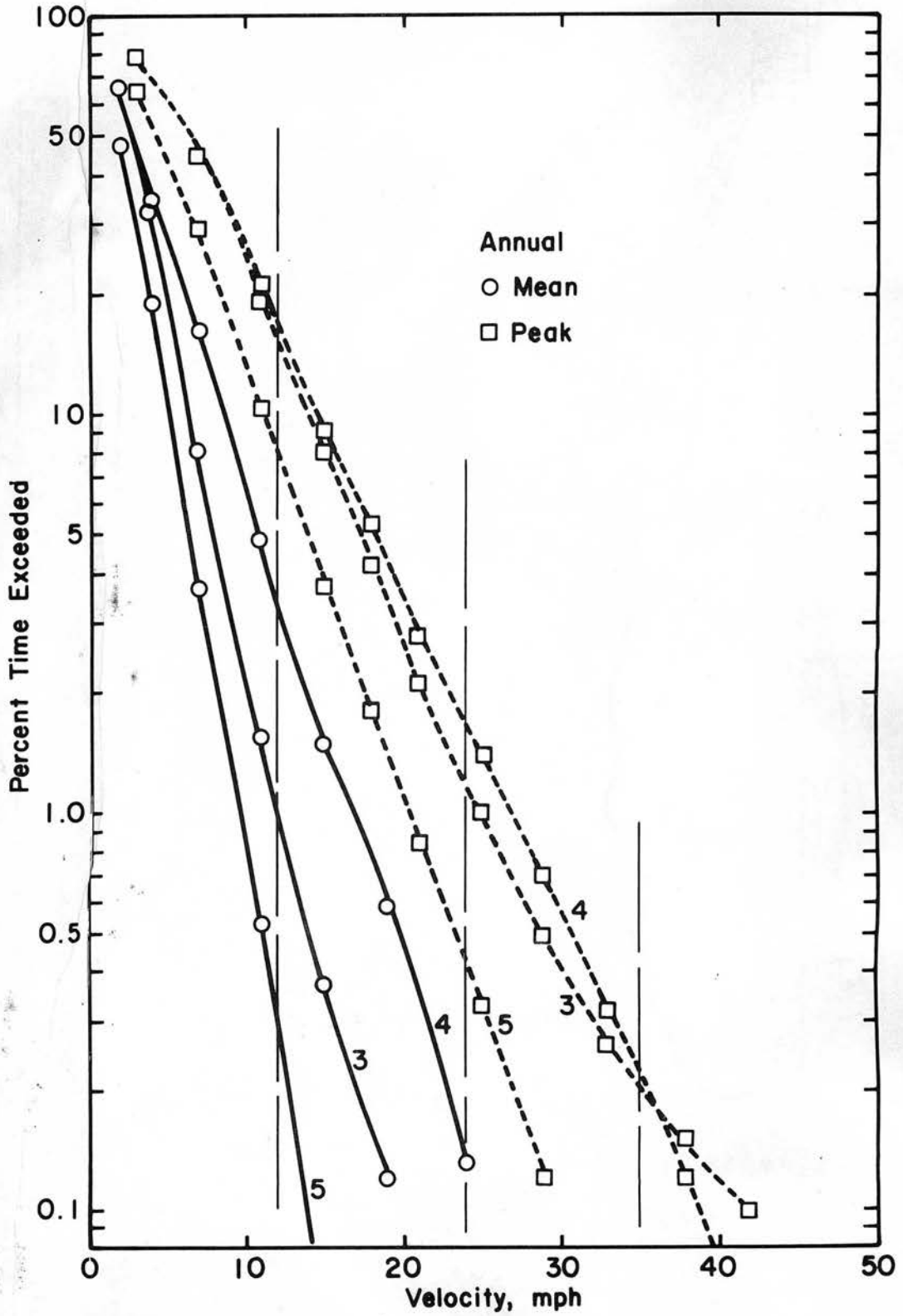


Figure 9b. Wind Velocity Probabilities for Pedestrian Locations.

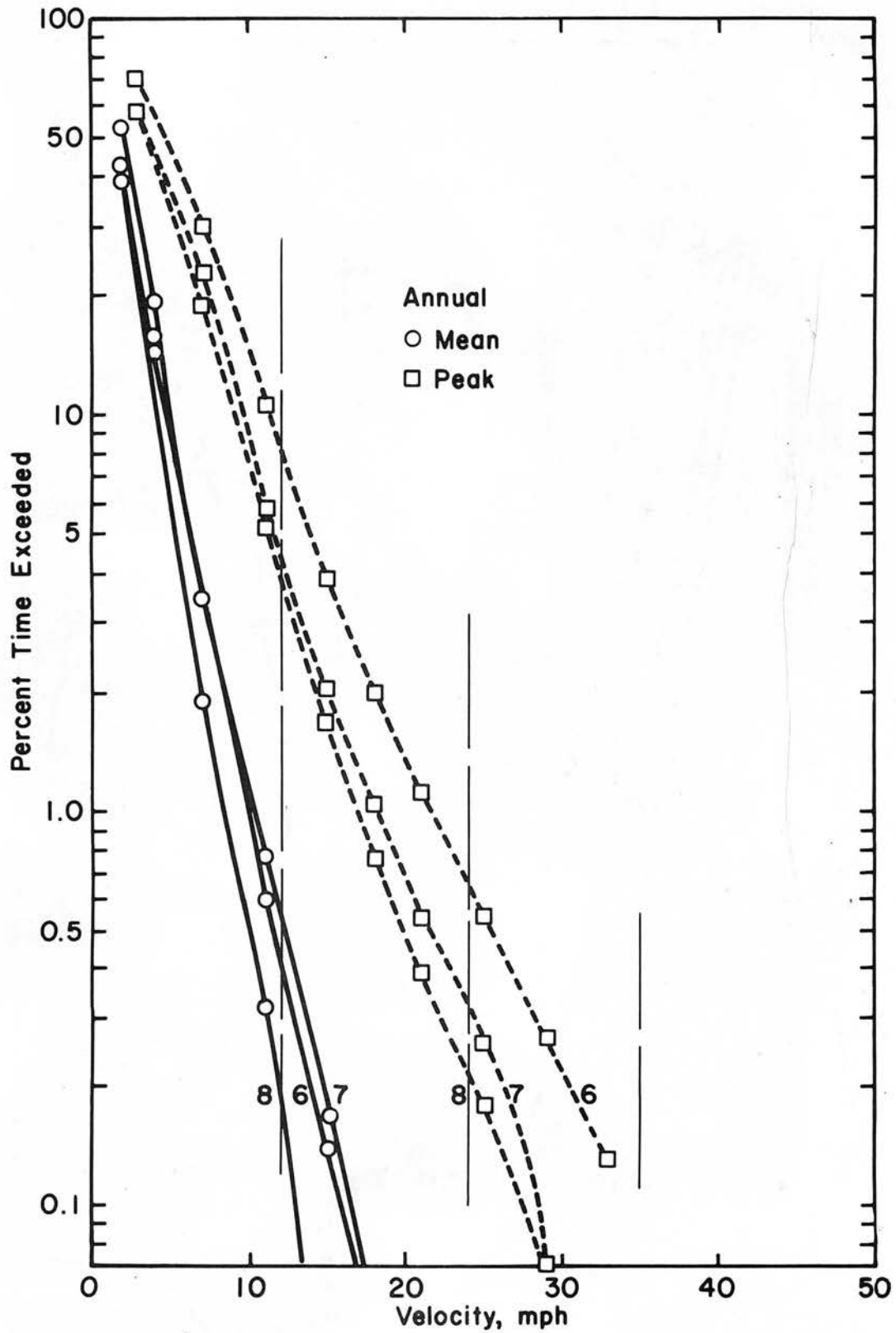


Figure 9c. Wind Velocity Probabilities for Pedestrian Locations.

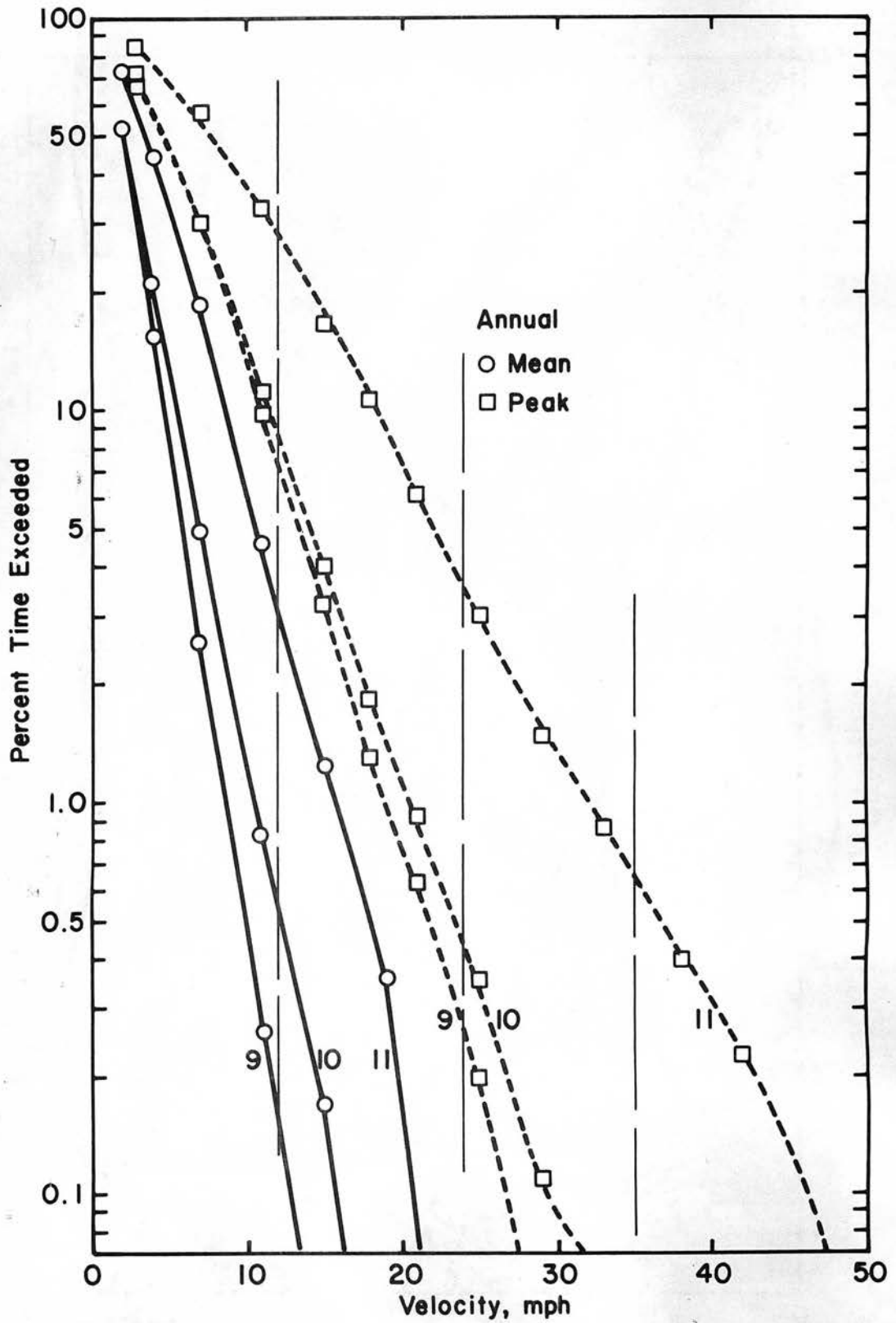


Figure 9d. Wind Velocity Probabilities for Pedestrian Locations.

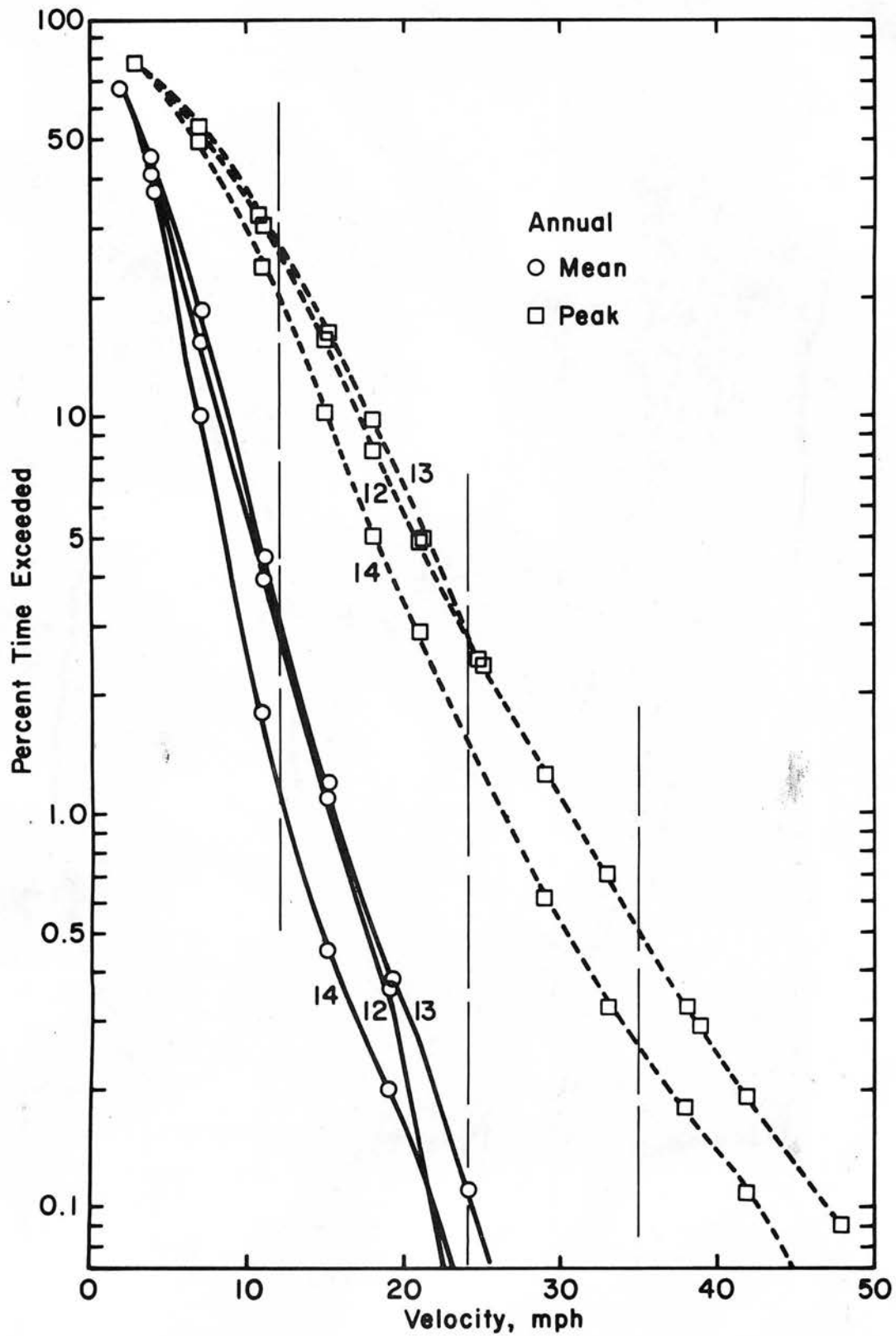


Figure 9e. Wind Velocity Probabilities for Pedestrian Locations.

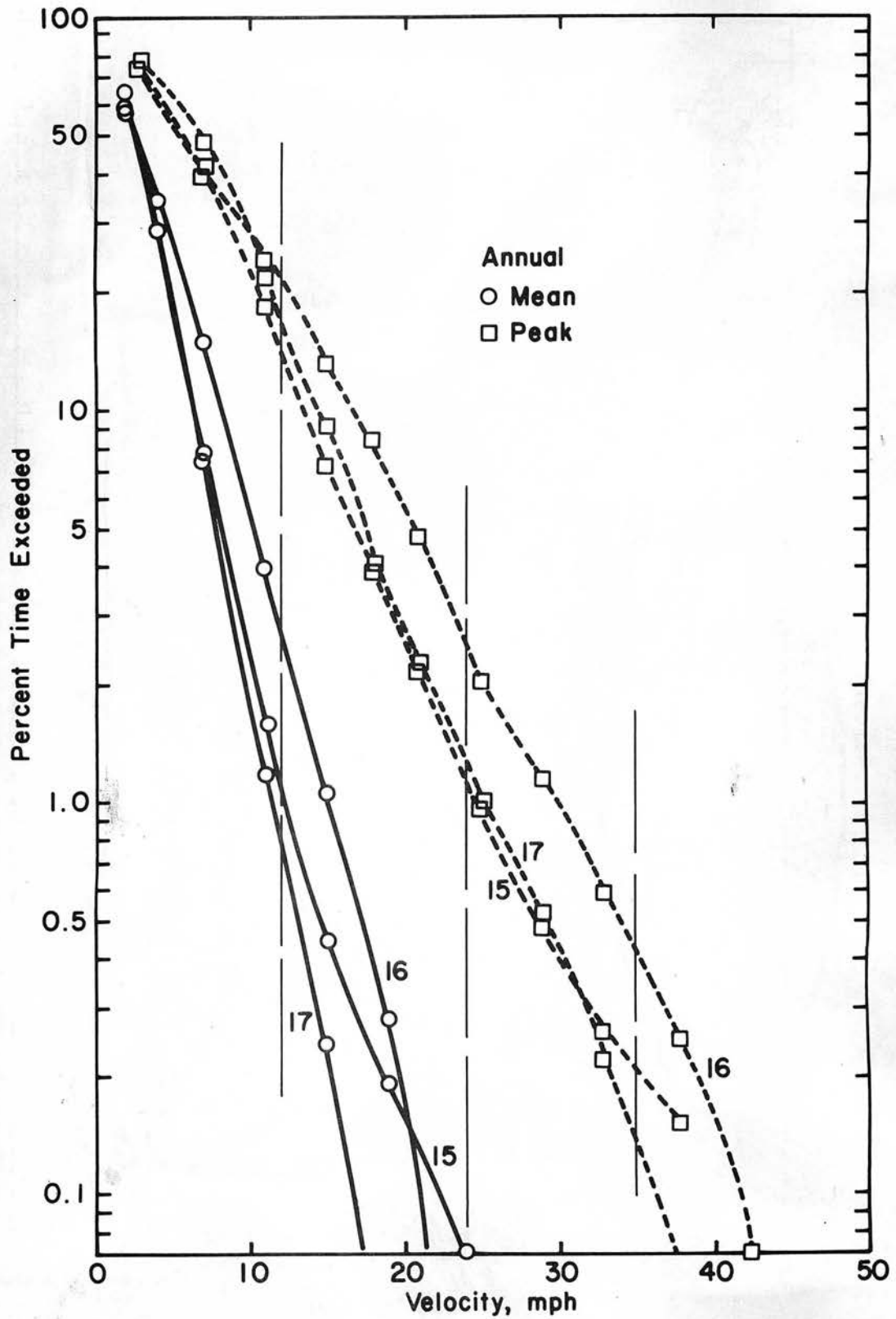


Figure 9f. Wind Velocity Probabilities for Pedestrian Locations.

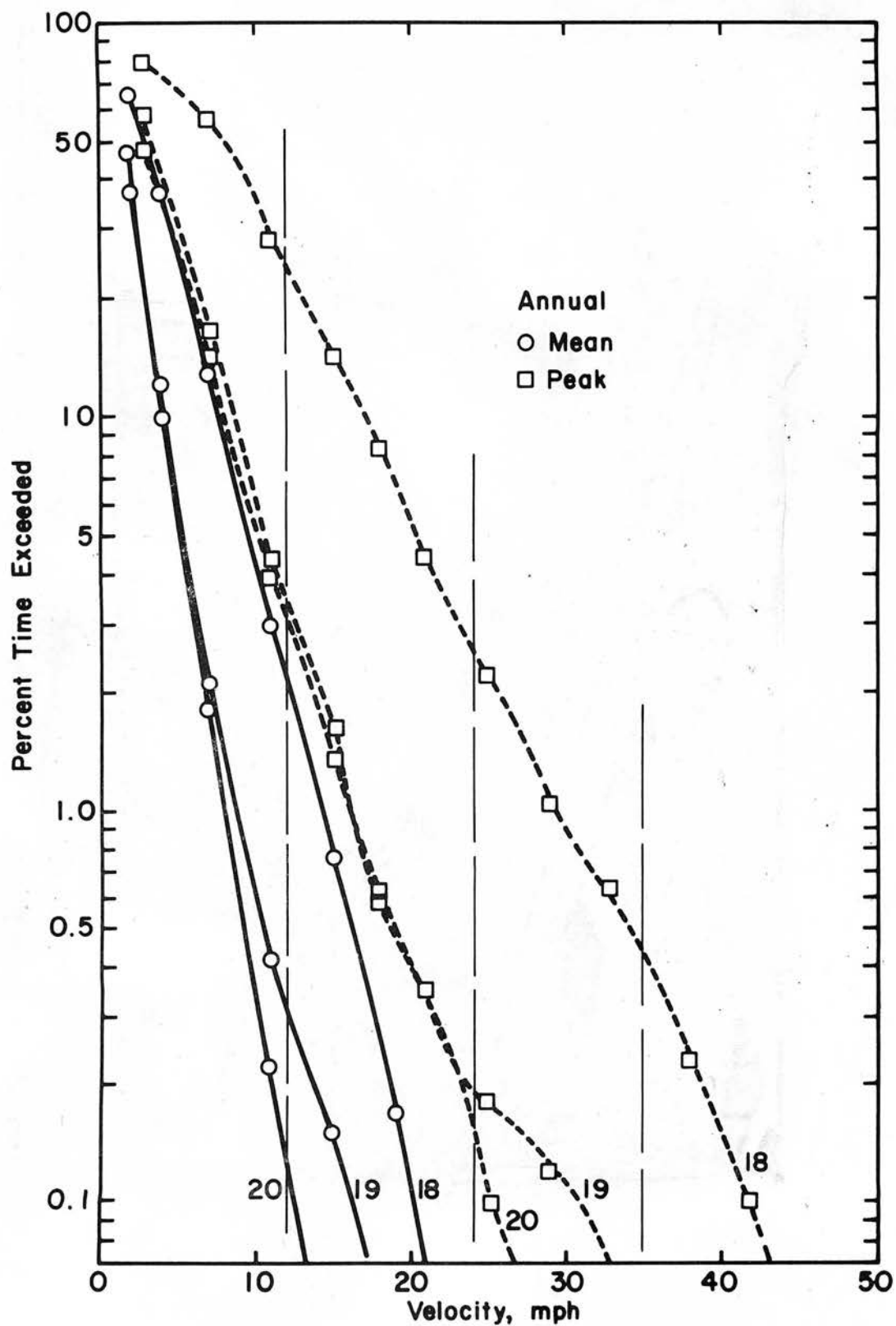
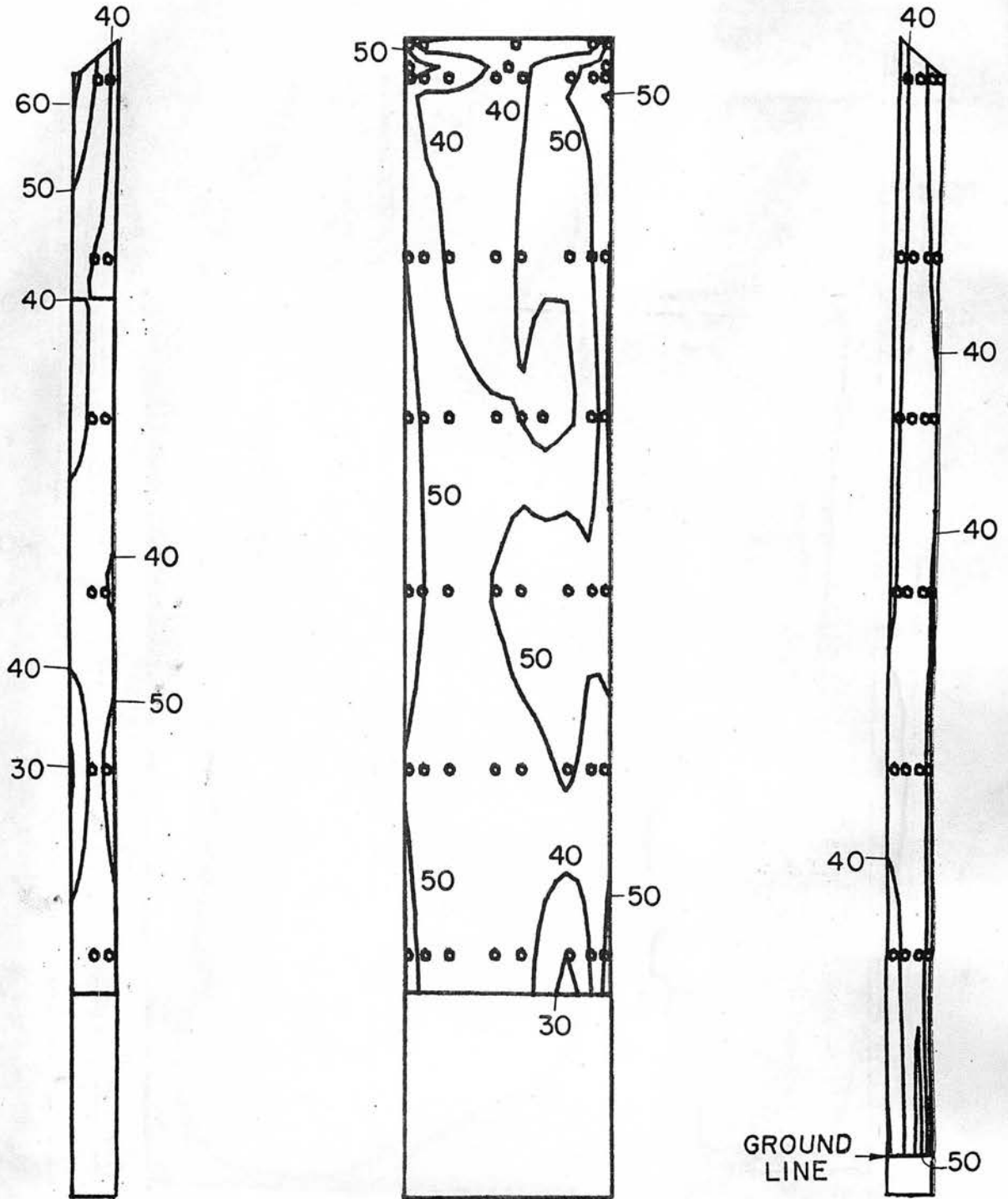


Figure 9g. Wind Velocity Probabilities for Pedestrian Locations.



NORTHWEST WALL (DEVELOPED VIEW A-A)

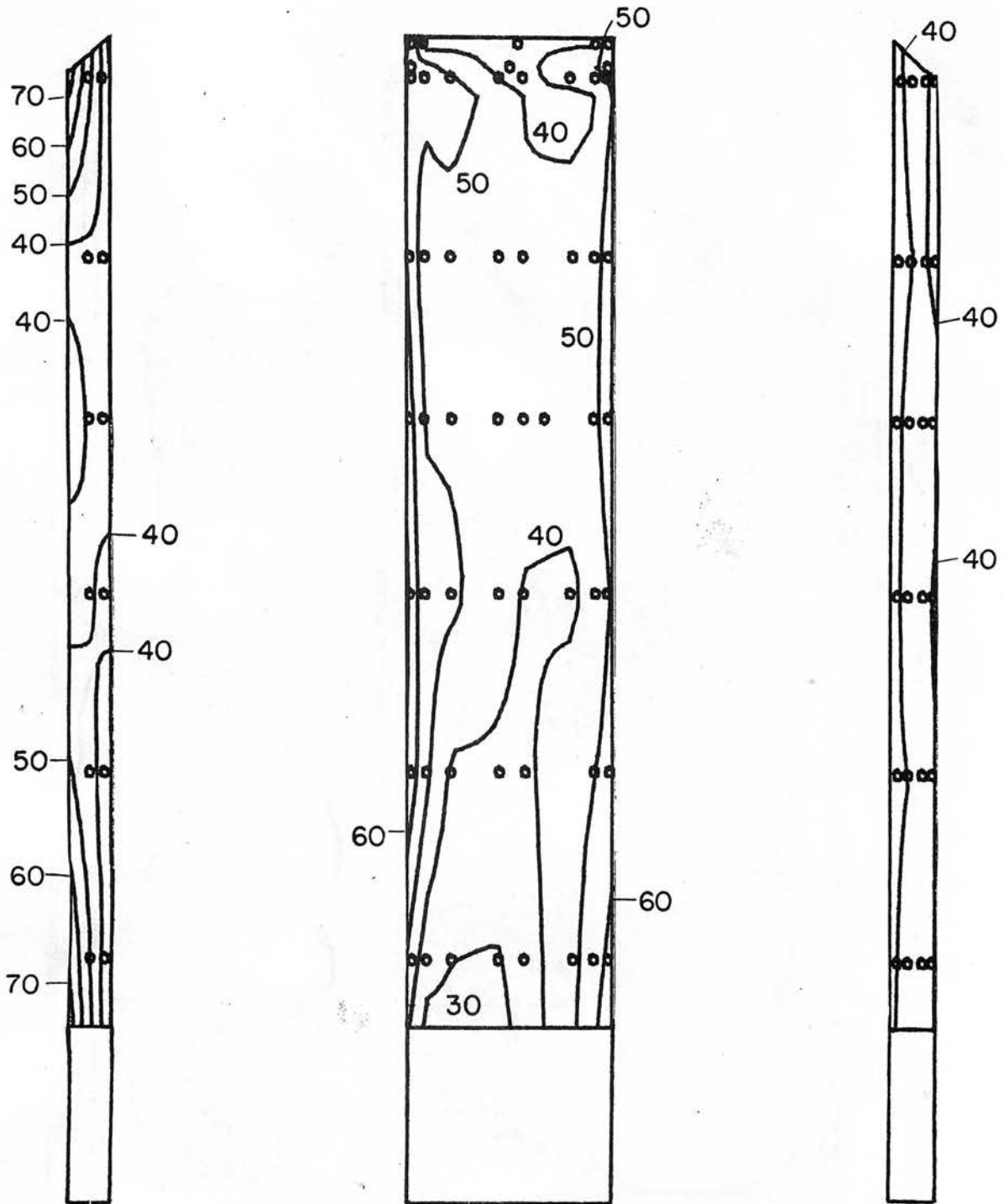
SEATTLE HOTEL

REFERENCE PRESSURE = 33 psf

GLASS LOAD FACTOR = 0.73

Figure 10a. Peak-Pressure Contours on the Building for Glass Loads.



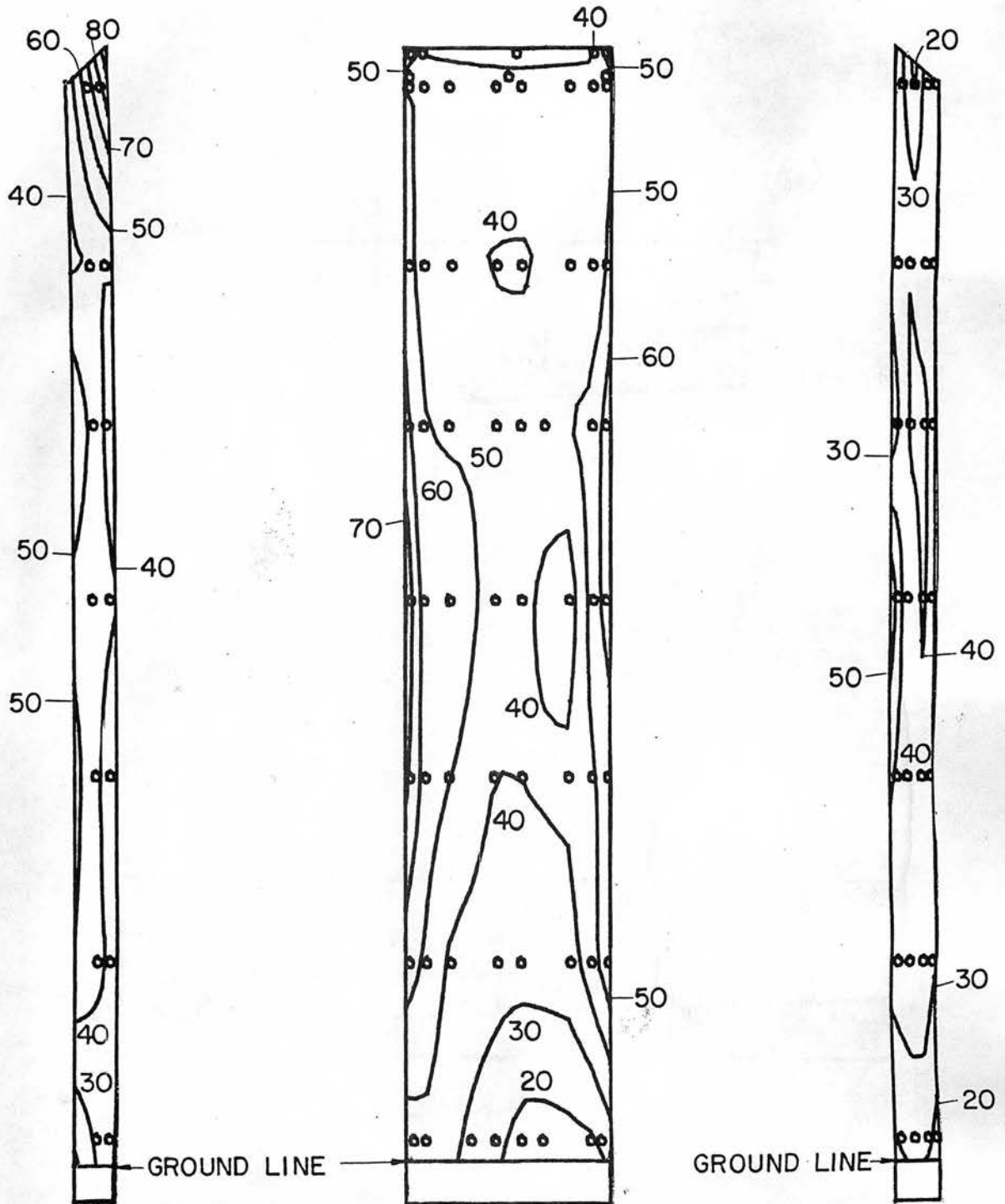


EAST WALL (DEVELOPED VIEW B-B)

SEATTLE HOTEL

REFERENCE PRESSURE = 33 psf  
GLASS LOAD FACTOR = 0.73

Figure 10b. Peak-Pressure Contours on the Building for Glass Loads.

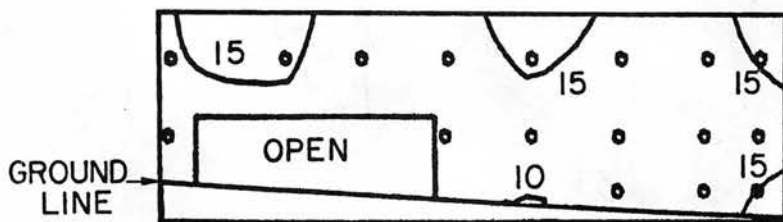


SOUTH WALL (DEVELOPED VIEW C-C)

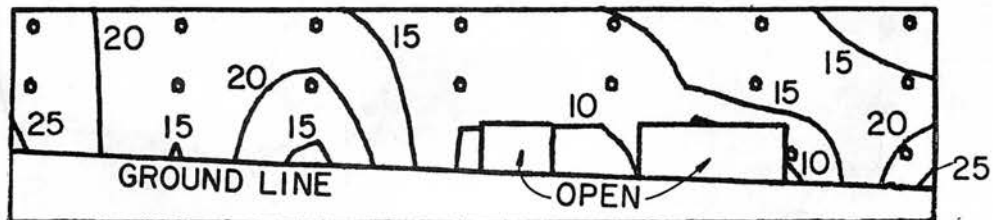
SEATTLE HOTEL

REFERENCE PRESSURE = 33 psf  
GLASS LOAD FACTOR = 0.73

Figure 10c. Peak-Pressure Contours on the Building for Glass Loads.



NORTH WALL

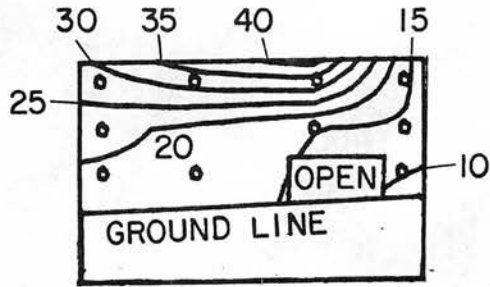


EAST WALL

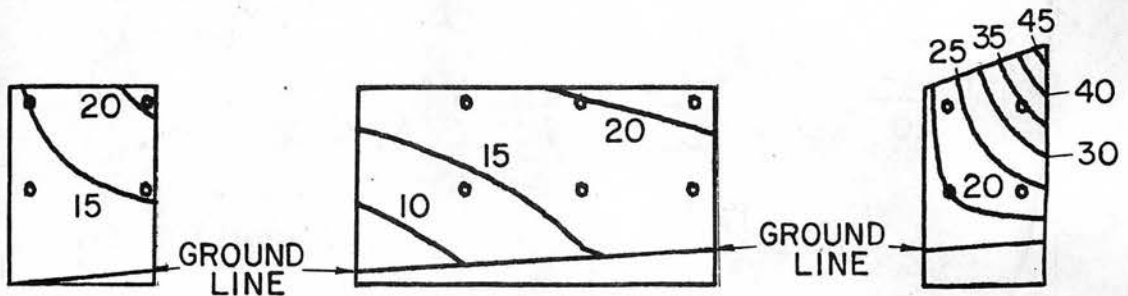
## SEATTLE HOTEL

REFERENCE PRESSURE = 33 psf  
GLASS LOAD FACTOR = 0.73

Figure 10d. Peak-Pressure Contours on the Building for Glass Loads.



SOUTH WALL



WEST WALL

## SEATTLE HOTEL

REFERENCE PRESSURE = 33 psf  
GLASS LOAD FACTOR = 0.73

Figure 10e. Peak-Pressure Contours on the Building for Glass Loads.

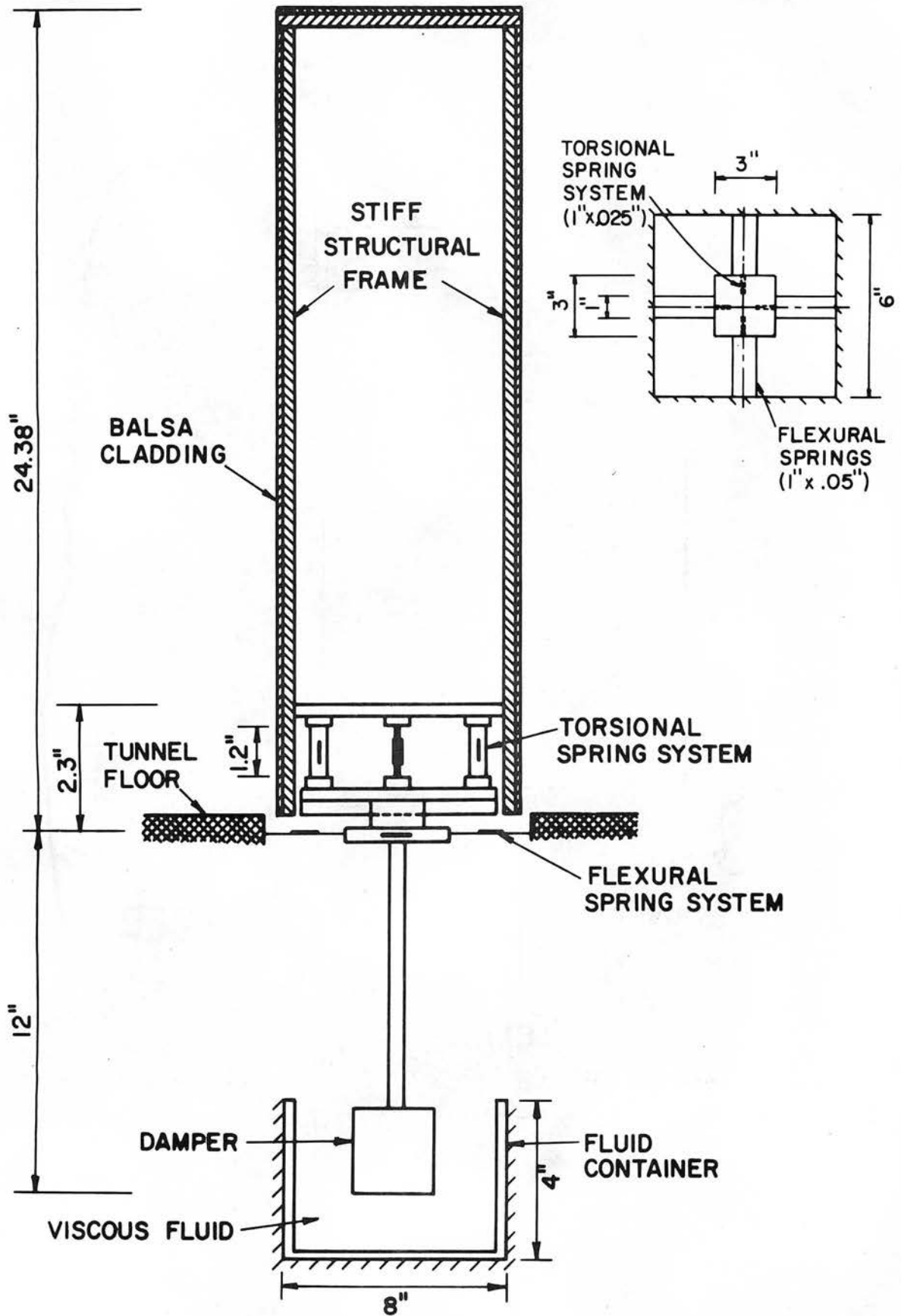


Figure 11. Schematic Diagram of Aeroelastic Model.

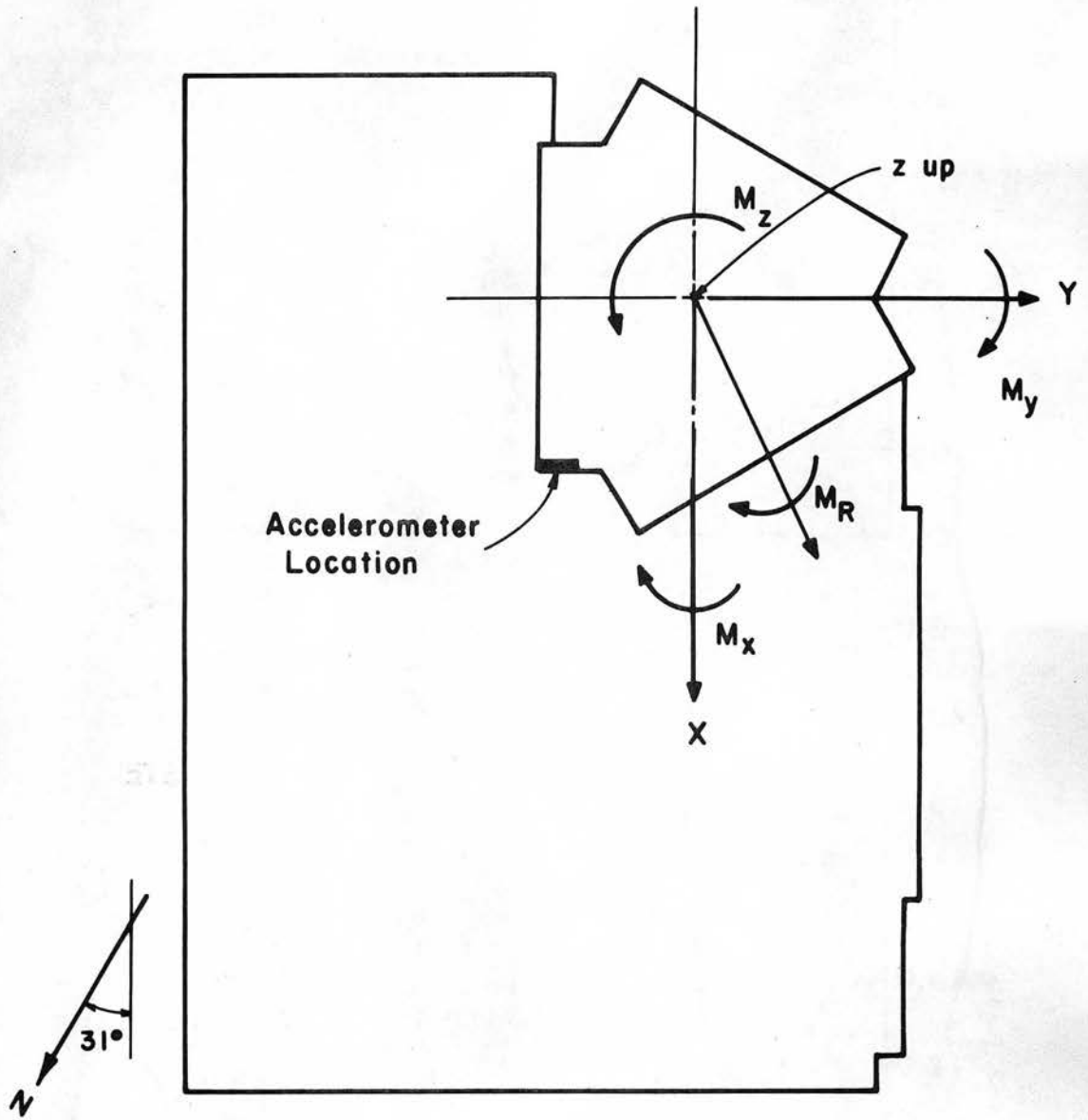


Figure 12. Coordinate System for Aeroelastic Model.

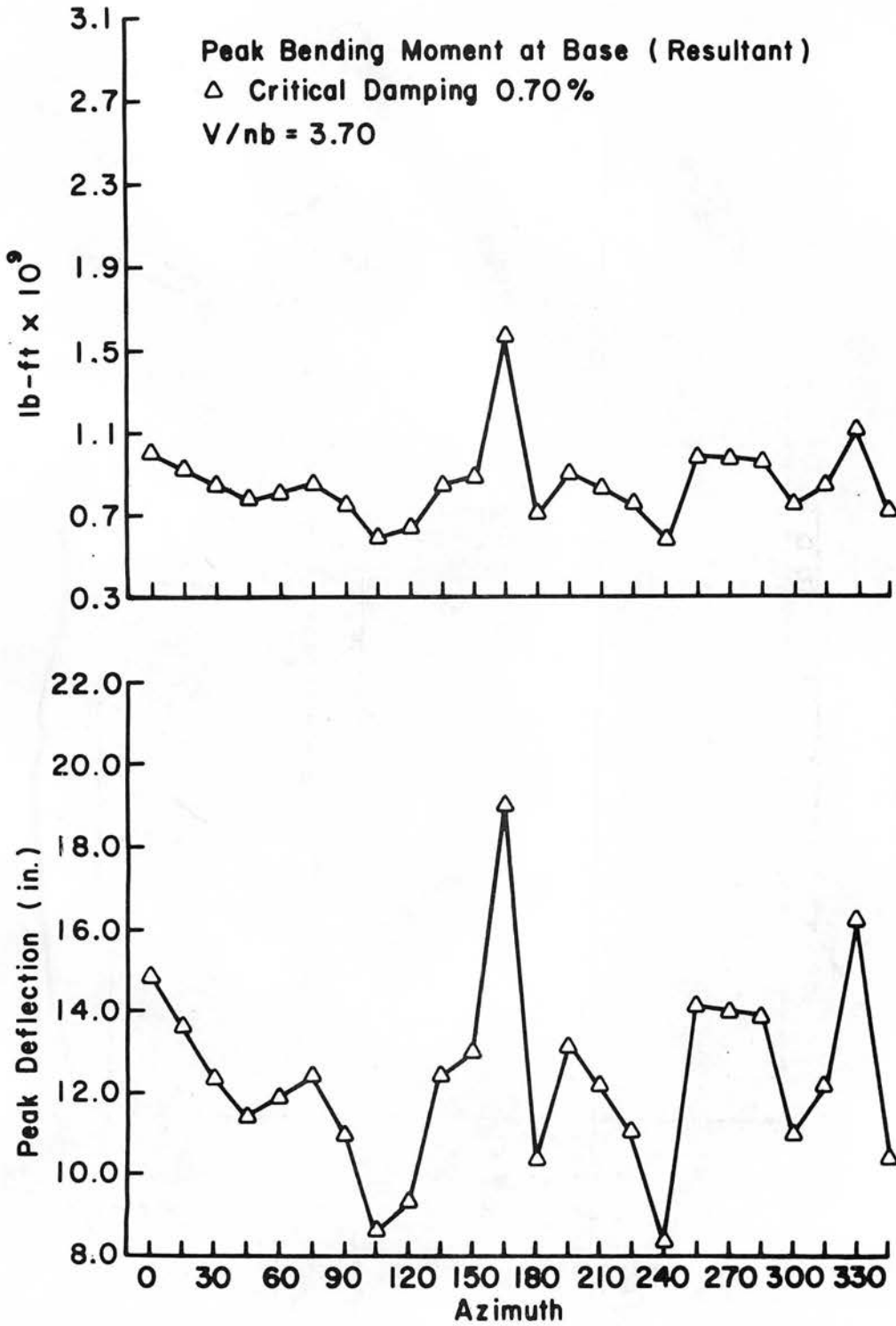


Figure 13. Building Response by Wind Direction.

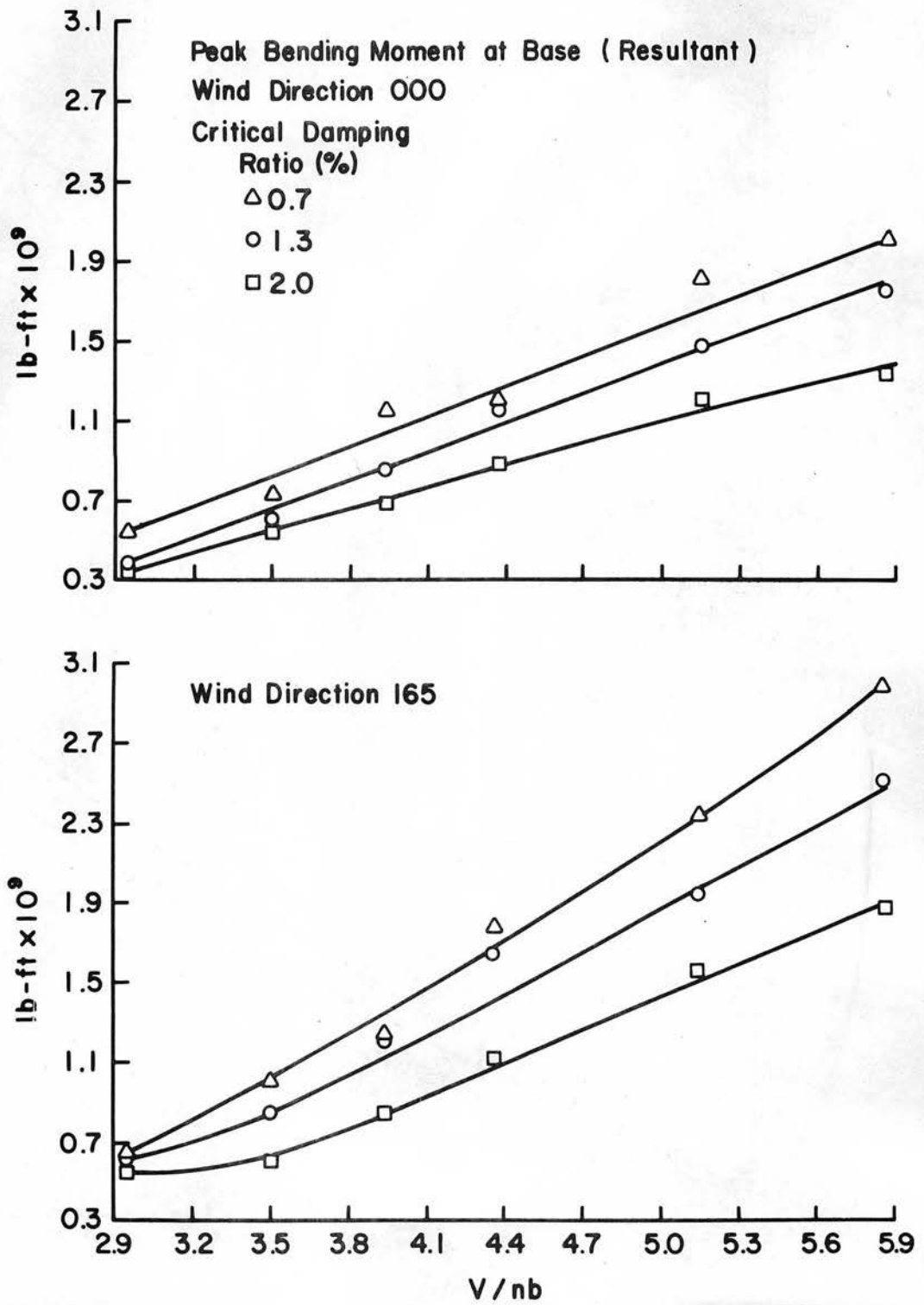


Figure 14a. Bending Moment at the Base.



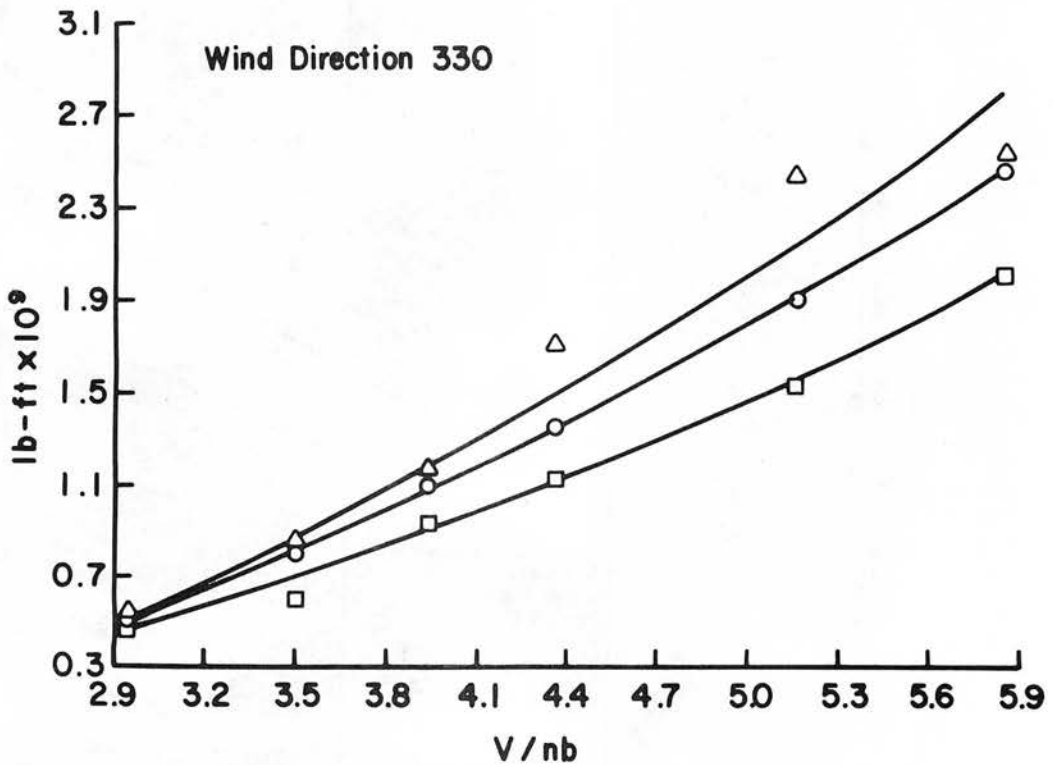
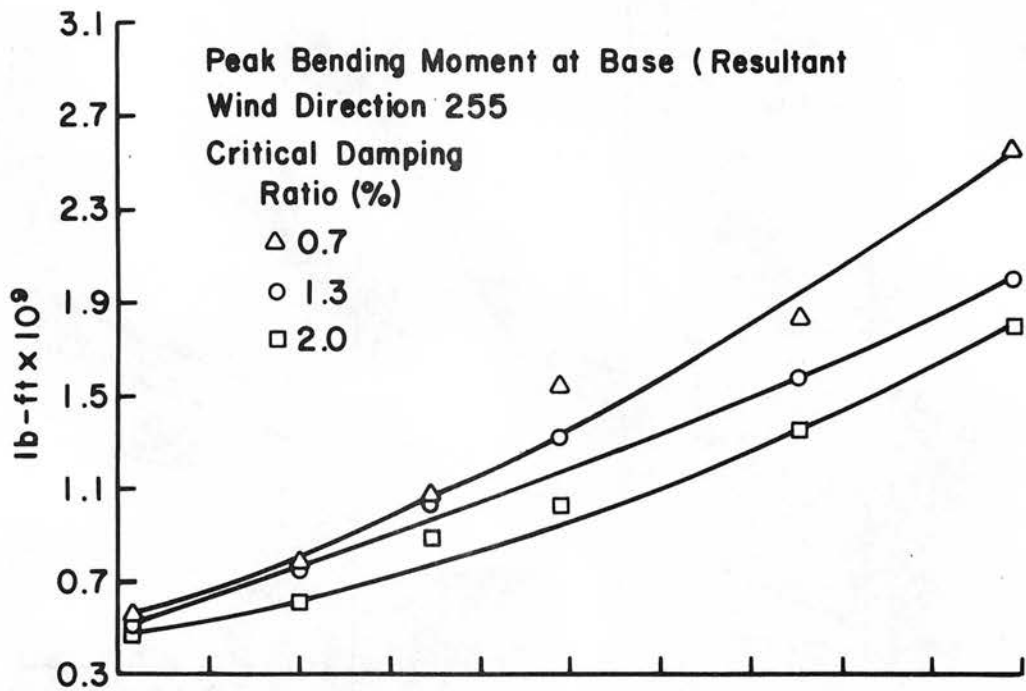


Figure 14b. Bending Moment at the Base.

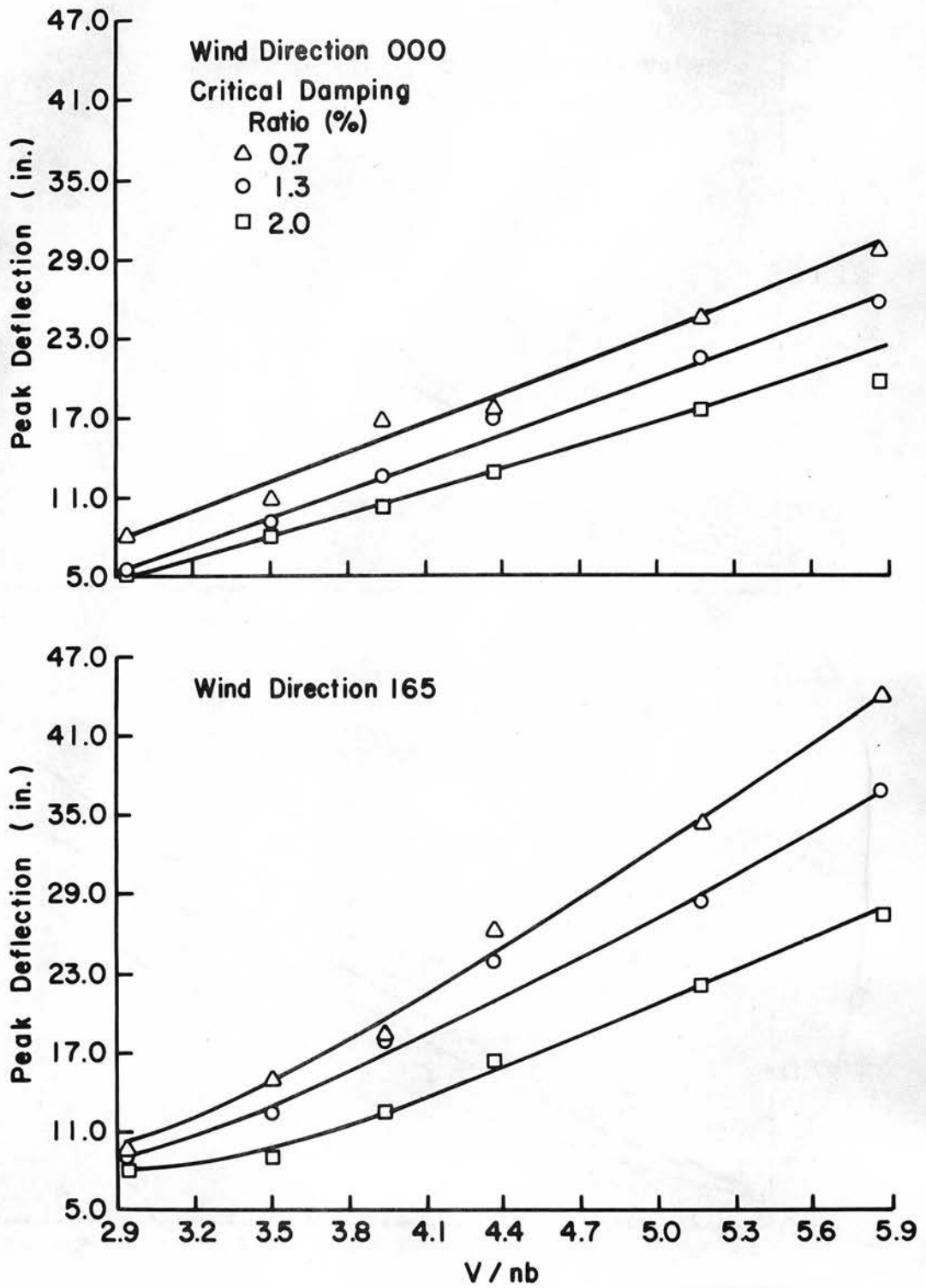


Figure 15a. Deflection at the Building Top.

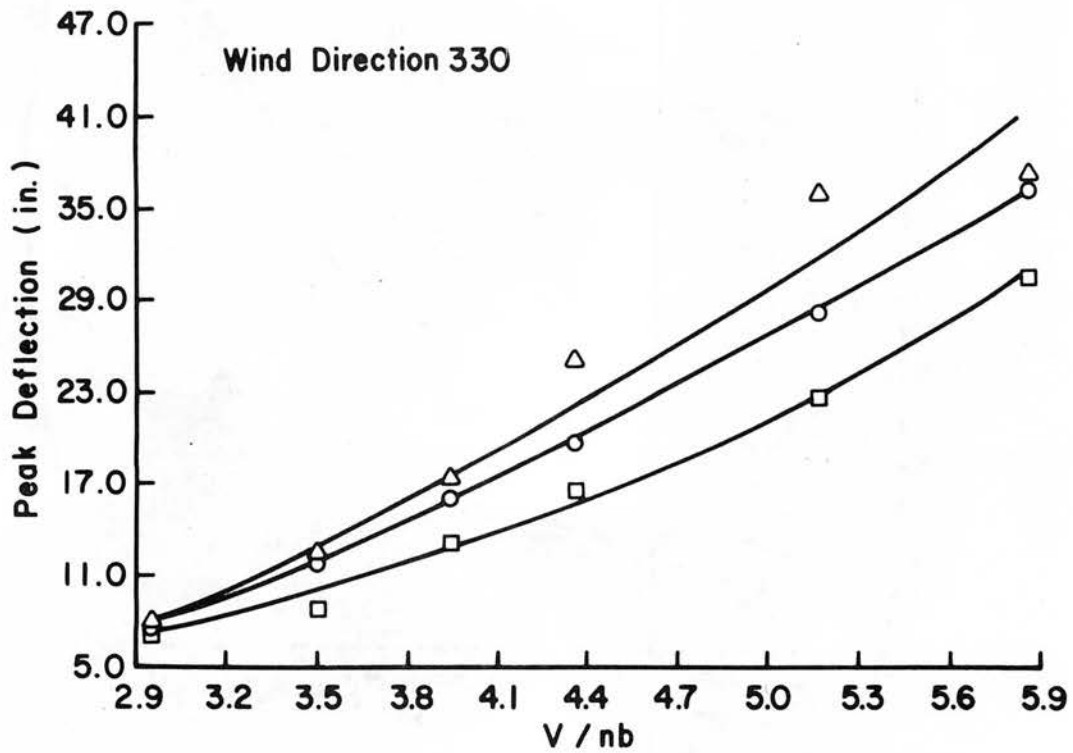
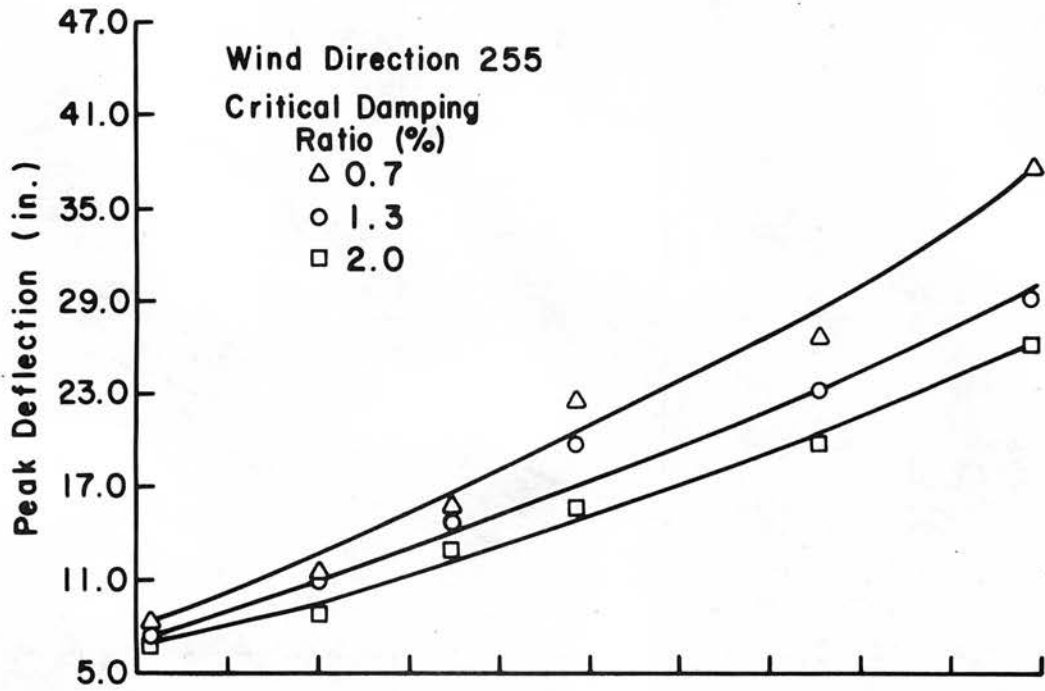


Figure 15b. Deflection at the Building Top.

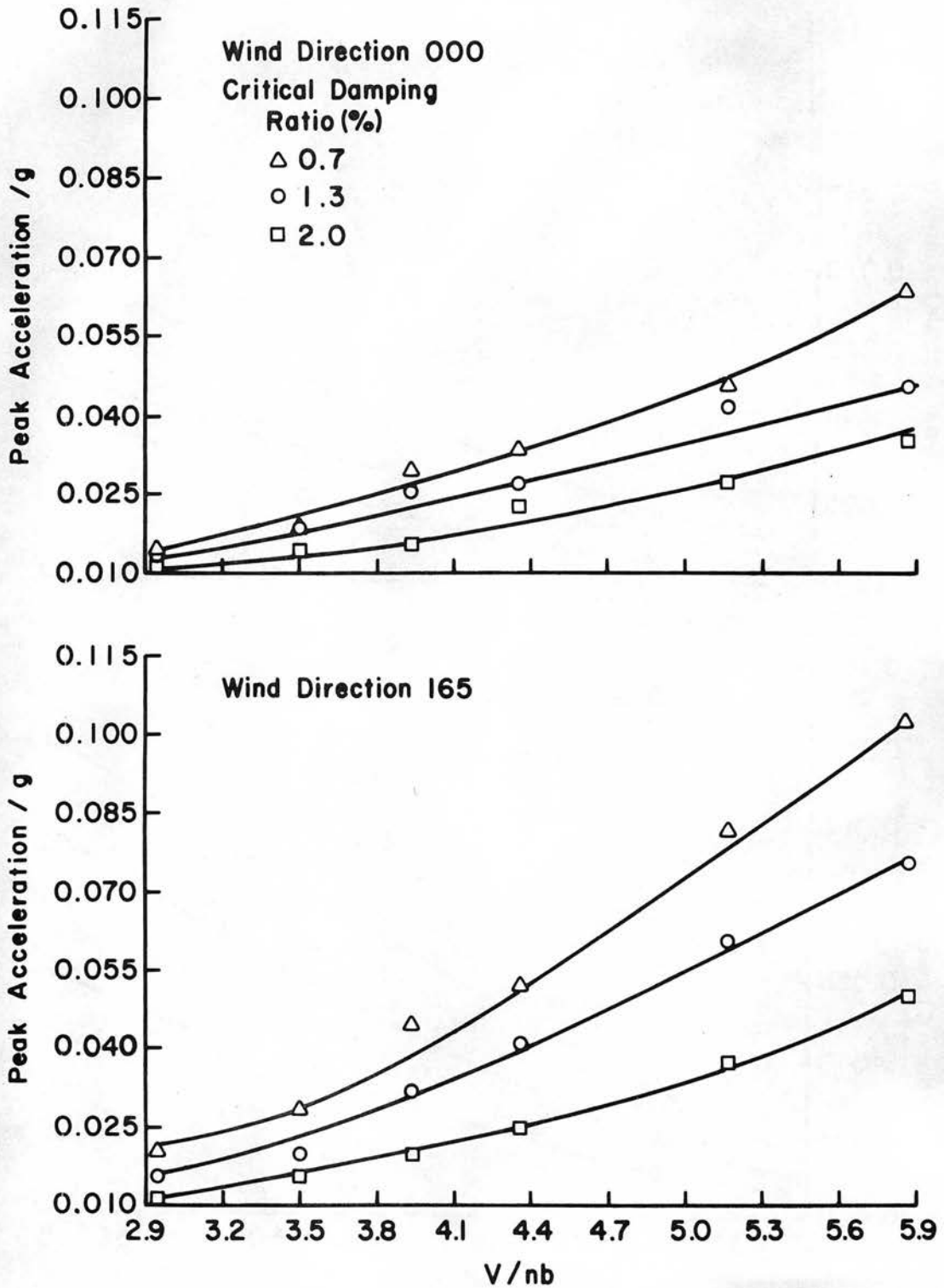


Figure 16a. Acceleration at the Building Top.

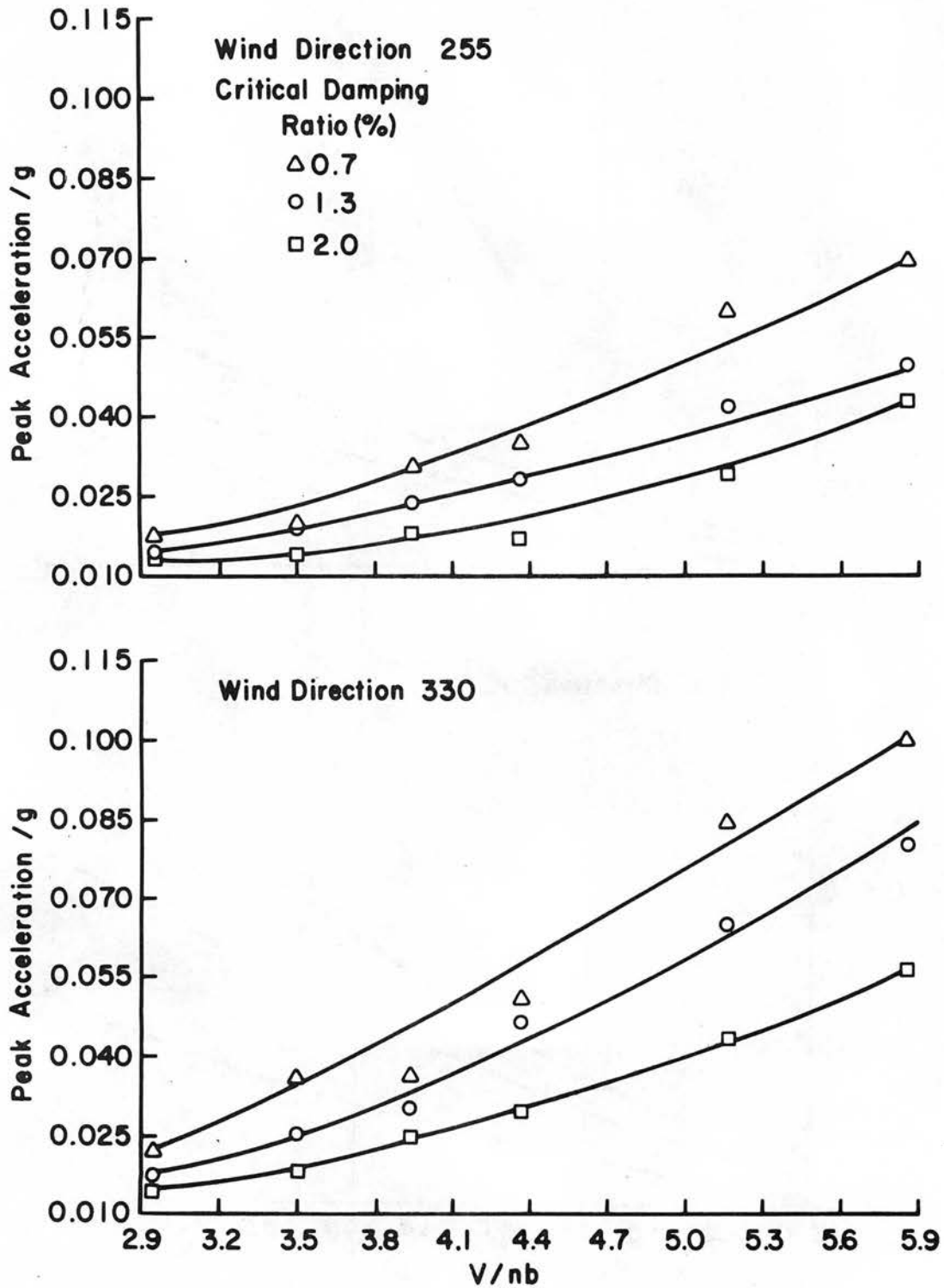


Figure 16b. Acceleration at the Building Top.

TYPE I EXTREME VALUE PREDICTION  
SEATTLE AIRPORT  
27 YEARS RECORD

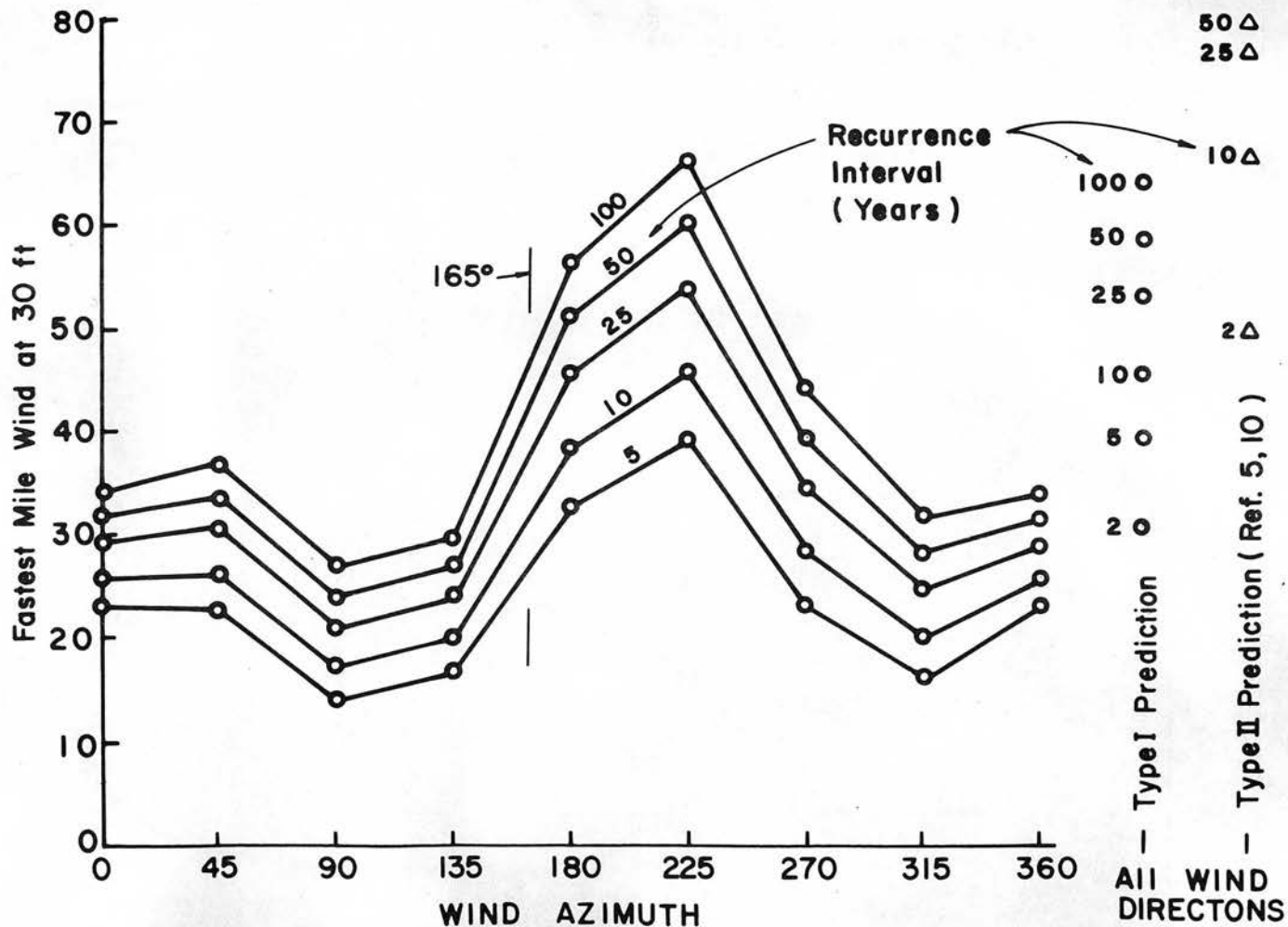


Figure 17. Analysis of Extreme Winds.

TABLE 1. MOTION PICTURE SCENE GUIDE - SEATTLE HOTEL

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Run	Wind Azimuth	View
1	0°	Top
2	45°	Top
3	90°	Top
4	115°	Top
5	160°	Top
6	225°	Top
7	270°	Top
8	315°	Top
9	30°	Top & Side
10	150°	Top

---

Film Length  $\approx$  530 ftRunning Time  $\approx$  15 min

TABLE 2. PEDESTRIAN WIND VELOCITIES AND TURBULENCE INTENSITIES  
SEATTLE HOTEL

POSITION 1				POSITION 2			
WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)	WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0.00	9.3	5.3	57.6	0.00	15.5	7.3	47.0
22.50	10.7	6.3	59.1	22.50	7.4	4.7	62.7
45.00	10.1	5.1	50.5	45.00	14.3	7.8	54.5
67.50	6.7	4.0	59.6	67.50	18.4	5.3	28.9
90.00	26.1	10.7	40.9	90.00	25.2	8.9	35.5
112.50	32.7	13.0	39.7	112.50	42.1	10.2	24.2
135.00	39.9	16.6	41.5	135.00	38.6	13.3	34.4
157.50	32.8	14.7	45.0	157.50	23.1	11.6	50.1
180.00	16.8	8.7	52.0	180.00	21.7	10.6	48.8
202.50	23.4	9.0	38.5	202.50	14.8	7.0	47.7
225.00	9.7	4.8	49.4	225.00	14.6	7.7	52.7
247.50	13.0	6.0	46.4	247.50	41.6	13.5	32.5
270.00	27.6	14.7	53.3	270.00	54.0	14.3	26.5
292.50	43.5	17.9	41.2	292.50	82.1	18.7	22.7
315.00	32.0	12.5	38.9	315.00	69.9	15.7	22.5
337.50	26.1	9.6	36.9	337.50	66.6	14.7	22.1

POSITION 3				POSITION 4			
WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)	WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0.00	21.2	7.2	34.0	0.00	10.9	5.7	52.2
22.50	11.6	7.2	61.6	22.50	15.9	6.4	40.1
45.00	14.9	7.6	51.3	45.00	25.5	7.6	29.8
67.50	21.7	7.2	33.2	67.50	34.2	7.1	20.9
90.00	19.0	9.9	52.0	90.00	47.3	9.9	20.9
112.50	31.8	12.4	38.9	112.50	68.3	7.3	10.7
135.00	32.5	12.6	38.7	135.00	64.0	12.0	18.8
157.50	30.3	12.5	41.2	157.50	39.1	16.5	42.2
180.00	29.9	10.2	34.1	180.00	28.1	11.4	40.6
202.50	22.5	9.3	41.4	202.50	13.4	7.7	57.9
225.00	22.7	9.0	39.4	225.00	24.1	8.4	34.6
247.50	34.0	13.9	41.0	247.50	40.4	8.5	21.1
270.00	23.6	10.3	43.8	270.00	48.8	9.9	20.2
292.50	44.6	15.7	35.2	292.50	68.6	10.8	15.7
315.00	54.2	17.1	31.5	315.00	54.2	9.0	16.6
337.50	47.8	13.8	28.9	337.50	52.6	10.8	20.5



TABLE 2. PEDESTRIAN WIND VELOCITIES AND TURBULENCE INTENSITIES

## SEATTLE HOTEL

POSITION 5

WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0.00	12.3	4.3	35.1
22.50	5.4	3.5	64.5
45.00	6.8	4.0	59.0
67.50	21.0	10.4	49.3
90.00	9.7	5.8	59.7
112.50	14.1	6.4	45.5
135.00	19.8	9.3	46.9
157.50	39.9	15.1	37.8
180.00	29.8	8.1	27.3
202.50	18.8	9.9	52.9
225.00	22.9	8.7	37.7
247.50	13.6	8.0	58.8
270.00	11.6	5.9	51.0
292.50	24.7	12.1	49.0
315.00	21.4	8.3	38.9
337.50	19.4	7.8	40.4

POSITION 6

WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0.00	9.8	6.2	62.7
22.50	19.1	6.9	35.9
45.00	23.2	4.4	18.9
67.50	24.1	4.7	19.7
90.00	10.3	5.0	48.6
112.50	17.7	6.9	39.1
135.00	19.9	8.7	43.9
157.50	33.3	15.5	46.4
180.00	20.2	10.3	51.2
202.50	10.4	5.5	53.1
225.00	20.6	8.6	42.0
247.50	30.9	11.2	36.1
270.00	30.7	13.8	45.0
292.50	41.2	12.8	31.0
315.00	22.5	9.3	41.1
337.50	28.3	12.3	43.4

POSITION 7

WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0.00	5.5	3.5	62.8
22.50	12.1	4.1	34.1
45.00	11.1	4.0	36.0
67.50	22.7	4.5	19.8
90.00	24.4	4.0	16.3
112.50	49.8	6.6	13.2
135.00	25.0	8.3	33.2
157.50	9.0	3.7	41.1
180.00	8.5	3.8	44.4
202.50	15.1	6.7	44.3
225.00	14.6	6.5	44.3
247.50	24.9	7.2	29.0
270.00	30.6	9.3	30.5
292.50	46.4	16.0	34.5
315.00	32.0	13.2	41.2
337.50	17.7	6.4	36.1

POSITION 8

WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0.00	6.2	4.0	63.8
22.50	13.8	6.7	48.3
45.00	11.9	4.6	39.0
67.50	12.7	5.0	39.9
90.00	12.5	5.1	40.8
112.50	25.8	9.1	35.3
135.00	17.6	7.2	40.9
157.50	9.3	4.0	43.2
180.00	8.7	3.8	43.3
202.50	17.2	8.2	47.9
225.00	11.5	5.2	45.1
247.50	23.5	8.8	37.5
270.00	27.5	10.0	36.3
292.50	40.9	10.8	26.3
315.00	33.6	9.2	27.3
337.50	28.0	7.4	26.5

TABLE 2. PEDESTRIAN WIND VELOCITIES AND TURBULENCE INTENSITIES

## SEATTLE HOTEL

## POSITION 9

WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0.00	16.5	5.4	32.4
22.50	12.0	5.1	42.2
45.00	11.4	5.3	46.1
67.50	4.0	2.5	63.4
90.00	15.9	6.0	38.0
112.50	32.9	8.4	25.4
135.00	41.2	14.5	35.1
157.50	22.5	11.1	49.6
180.00	24.1	10.9	45.2
202.50	17.0	8.4	49.1
225.00	12.9	7.4	57.6
247.50	13.8	7.0	50.7
270.00	20.3	11.7	57.4
292.50	22.3	11.0	49.2
315.00	21.1	10.0	47.5
337.50	18.9	8.1	43.1

## POSITION 10

WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0.00	16.3	5.0	30.7
22.50	6.6	3.9	59.5
45.00	7.1	3.9	54.4
67.50	6.0	3.9	64.6
90.00	22.9	5.8	25.5
112.50	32.9	6.4	19.5
135.00	27.2	7.9	28.9
157.50	16.8	7.8	46.6
180.00	33.9	12.4	36.5
202.50	15.6	7.7	49.7
225.00	17.6	9.5	54.1
247.50	22.8	6.2	27.3
270.00	36.2	5.4	14.9
292.50	22.4	11.2	49.8
315.00	30.4	12.6	41.5
337.50	39.1	5.3	13.5

## POSITION 11

WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0.00	49.0	16.9	34.6
22.50	45.2	15.9	35.1
45.00	57.8	19.1	33.0
67.50	41.1	17.6	42.8
90.00	31.9	13.8	43.3
112.50	32.3	12.4	38.5
135.00	25.6	11.6	45.4
157.50	24.1	14.6	60.6
180.00	25.8	12.3	47.8
202.50	13.8	6.8	49.4
225.00	37.5	11.7	31.1
247.50	35.2	14.6	41.6
270.00	47.4	14.5	30.5
292.50	37.0	12.6	33.9
315.00	26.9	12.9	47.9
337.50	20.1	11.1	55.6

## POSITION 12

WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0.00	34.5	14.7	42.5
22.50	39.2	14.9	38.0
45.00	54.0	13.6	25.3
67.50	46.2	14.8	32.0
90.00	34.0	12.2	35.8
112.50	68.7	15.8	23.1
135.00	56.3	19.8	35.1
157.50	22.2	12.6	56.4
180.00	18.2	10.2	56.1
202.50	10.0	5.2	51.9
225.00	24.2	11.3	46.5
247.50	35.3	16.4	46.5
270.00	36.2	15.8	43.7
292.50	28.1	14.9	52.8
315.00	22.1	11.6	52.3
337.50	22.7	10.1	44.7

TABLE 2. PEDESTRIAN WIND VELOCITIES AND TURBULENCE INTENSITIES

## SEATTLE HOTEL

## POSITION 13

WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0.00	38.5	18.1	47.0
22.50	39.7	14.5	36.4
45.00	52.0	14.0	26.9
67.50	44.3	14.7	33.3
90.00	33.8	8.3	24.5
112.50	63.6	13.0	20.5
135.00	57.1	14.7	25.8
157.50	22.6	12.0	53.2
180.00	19.9	10.2	51.4
202.50	9.7	4.9	49.9
225.00	31.1	12.4	39.8
247.50	42.6	14.8	34.7
270.00	37.9	15.0	39.5
292.50	38.0	13.8	36.4
315.00	32.3	11.9	36.8
337.50	24.5	10.5	42.8

## POSITION 14

WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0.00	31.3	12.8	41.0
22.50	26.2	11.8	44.8
45.00	35.8	14.6	40.9
67.50	36.4	16.8	46.3
90.00	32.3	7.9	24.6
112.50	49.3	11.0	22.2
135.00	39.3	13.3	33.9
157.50	20.3	10.0	49.2
180.00	21.4	10.0	46.8
202.50	9.3	4.9	52.3
225.00	24.5	11.4	46.6
247.50	39.9	13.1	32.8
270.00	41.4	14.6	35.1
292.50	44.5	13.6	30.5
315.00	35.2	11.3	32.1
337.50	27.1	11.4	42.1

## POSITION 15

WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0.00	29.7	11.8	39.8
22.50	23.2	10.4	44.6
45.00	31.3	11.7	37.3
67.50	30.0	13.4	44.8
90.00	17.0	8.2	48.4
112.50	23.6	10.0	42.4
135.00	21.2	9.6	45.1
157.50	12.8	6.3	49.2
180.00	12.6	6.3	50.0
202.50	9.9	4.8	48.7
225.00	26.8	11.2	41.9
247.50	41.6	12.0	28.9
270.00	43.4	12.5	28.8
292.50	51.3	14.0	27.3
315.00	36.3	10.8	29.9
337.50	37.4	11.2	29.9

## POSITION 16

WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0.00	52.6	17.9	34.1
22.50	46.5	18.4	39.7
45.00	55.9	14.9	26.6
67.50	24.7	15.5	62.7
90.00	32.6	19.3	59.0
112.50	12.5	6.3	50.2
135.00	12.9	8.1	62.9
157.50	15.0	7.9	52.9
180.00	12.6	6.1	48.7
202.50	10.2	5.1	49.5
225.00	30.3	9.3	30.8
247.50	33.0	8.9	27.1
270.00	35.5	10.2	28.7
292.50	56.4	12.1	21.4
315.00	33.4	12.1	36.4
337.50	16.3	7.6	46.9

TABLE 2. PEDESTRIAN WIND VELOCITIES AND TURBULENCE INTENSITIES

## SEATTLE HOTEL

## POSITION 17

WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0.00	41.7	12.2	29.1
22.50	40.6	14.4	35.3
45.00	27.0	9.9	36.5
67.50	38.4	16.4	42.7
90.00	13.6	8.1	59.5
112.50	30.0	15.4	51.3
135.00	29.1	13.5	46.5
157.50	16.5	7.6	45.9
180.00	18.1	9.1	50.3
202.50	14.3	8.2	57.6
225.00	18.5	9.9	53.3
247.50	24.0	12.5	51.9
270.00	23.8	12.9	54.3
292.50	25.3	12.3	48.5
315.00	30.4	15.4	50.5
337.50	33.4	16.4	49.3

## POSITION 18

WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0.00	44.5	15.0	33.7
22.50	39.9	16.6	41.5
45.00	42.4	16.9	39.9
67.50	39.0	14.4	36.8
90.00	10.5	6.1	58.1
112.50	18.3	9.5	52.1
135.00	16.1	7.8	48.3
157.50	16.7	8.6	51.8
180.00	23.8	10.9	45.8
202.50	14.9	7.5	50.5
225.00	22.8	11.6	51.0
247.50	30.0	12.2	40.6
270.00	35.9	17.1	47.6
292.50	43.6	21.2	48.6
315.00	58.3	18.3	31.4
337.50	57.0	17.4	30.5

## POSITION 19

WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0.00	9.7	3.4	35.2
22.50	22.2	4.0	18.1
45.00	22.7	3.7	16.5
67.50	25.5	3.3	13.1
90.00	14.6	4.8	33.2
112.50	25.7	3.7	14.3
135.00	14.8	3.3	22.4
157.50	5.1	1.9	36.7
180.00	4.1	1.4	34.4
202.50	7.6	2.4	31.1
225.00	11.9	7.3	61.4
247.50	31.0	8.6	27.7
270.00	14.8	9.5	64.0
292.50	45.2	11.3	25.0
315.00	29.0	7.4	25.7
337.50	26.3	8.2	31.3

## POSITION 20

WIND AZIMUTH	U/UINF (PERCENT)	URMS/UINF (PERCENT)	URMS/U (PERCENT)
0.00	19.0	5.0	26.5
22.50	16.5	5.8	34.8
45.00	16.7	6.1	36.7
67.50	10.5	4.4	41.3
90.00	16.2	6.6	40.5
112.50	36.7	14.1	38.4
135.00	39.2	13.1	33.4
157.50	7.9	4.7	60.3
180.00	12.5	6.3	50.6
202.50	12.0	7.2	59.4
225.00	7.4	3.0	39.9
247.50	12.7	3.1	24.1
270.00	16.0	4.0	25.1
292.50	21.7	4.0	18.5
315.00	14.5	3.2	21.7
337.50	15.8	2.6	16.6

TABLE 3

## ANNUAL PERCENTAGE FREQUENCIES OF WIND DIRECTION AND SPEED

Based on Summary of Hourly Observations

Seattle-Tacoma Airport

1951-1960

Anemometer elevation = 110 ft

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Wind Speed--Miles Per Hour

<u>Direction</u>	<u>0-3</u>	<u>4-7</u>	<u>8-12</u>	<u>13-18</u>	<u>19-24</u>	<u>25-31</u>	<u>32-38</u>	<u>39-46</u>	<u>47+</u>	<u>Total</u>
N	0.2	1.1	3.2	2.5	0.4	0.2	0.0			7.6
NNE	0.2	1.0	3.1	2.4	0.4	0.1	0.0			7.3
NE	0.3	1.3	2.6	1.7	0.3	0.1				6.2
ENE	0.2	0.7	0.7	0.4	0.2	0.0				2.1
E	0.3	0.9	1.1	0.7	0.2	0.1				3.4
ESE	0.3	1.2	2.2	1.0	0.3	0.1	0.0			5.0
SE	0.3	1.7	3.1	1.0	0.2	0.0				6.3
SSE	0.2	0.9	2.1	0.7	0.2	0.1				4.2
S	0.3	1.4	3.8	2.8	0.9	0.2	0.1	0.0		9.5
SSW	0.3	1.1	3.5	4.1	1.6	0.4	0.1	0.0		11.0
SW	0.3	1.4	4.0	4.6	1.9	0.7	0.2	0.0		13.0
WSW	0.2	0.6	1.5	1.3	0.4	0.2	0.1	0.1	0.0	4.4
W	0.2	0.6	1.2	0.5	0.2	0.1	0.0			2.8
WNW	0.2	0.5	0.8	0.4	0.1					2.0
NW	0.2	0.7	1.1	0.5	0.1	0.0	0.0	0.0		2.6
NNW	0.2	0.4	1.1	1.0	0.2	0.1	0.0			3.0
CALM	9.9									9.9
Total	13.6	15.4	34.8	25.6	7.5	2.4	0.6	0.2	0.0	100.0

TABLE 4  
SUMMARY OF WIND EFFECTS ON PEOPLE

	<u>Beaufort number</u>	<u>Speed (mph)</u>	<u>Effects</u>
Calm, light air	0,1	0- 3	Calm, no noticeable wind
Light breeze	2	4- 7	Wind felt on face
Gentle breeze	3	8-12	Wind extends light flag Hair is disturbed Clothing flaps
Moderate breeze	4	13-18	Raises dust, dry soil and loose paper Hair disarranged
Fresh breeze	5	19-24	Force of wind felt on body Drifting snow becomes airborne Limit of agreeable wind on land
Strong breeze	6	25-31	Umbrellas used with difficulty Hair blown straight Difficult to walk steadily Wind noise on ears unpleasant Windborne snow above head height (blizzard)
Near gale	7	32-38	Inconvenience felt when walking
Gale	8	39-46	Generally impedes progress Great difficulty with balance in gusts
Strong gale	9	47-54	People blown over by gusts

Note: Table from Reference 4, p. 40

TABLE 5

## CALCULATION OF REFERENCE PRESSURE

## Seattle Hotel

1. Basic wind speed from ANSI A58.1 (Ref. 5):

50 yr fastest mile at 30 ft = 80 mph

Mean hourly wind speed, 30 ft =  $\frac{80}{1.28} = 62.5$  mph

Mean hourly wind speed, gradient level =  $U_{\infty} = 62.5 \left(\frac{1000}{30}\right)^{.17} = 113.4$  mph

Reference pressure =  $0.5 \rho U_{\infty}^2 = \underline{\underline{33 \text{ psf}}}$

To reduce cladding peak pressures to 1 minute equivalent load for glass, multiply by glass load factor = 0.73 (Ref. 8)

Loads for 100 year recurrence wind:

100 year fastest mile at 30 ft = 90 mph

Multiplication factor for 100 year winds =  $\left(\frac{90}{80}\right)^2 = 1.27$

2. Alternate wind speed -

From a Type I extreme value distribution analysis of 27 years of fastest mile data at Seattle airport:

50 year recurrence wind at 30 ft = 59 mph

Multiplication factor from ANSI 50 yr wind =  $\left(\frac{59}{80}\right)^2 = 0.54$

100 year recurrence wind at 30 ft = 65 mph

Multiplication factor from ANSI 50 yr wind =  $\left(\frac{65}{80}\right)^2 = 0.81$

TABLE 6 --

PEAK LOADS-- SEATTLE HOTEL -- SEATTLE, WASHINGTON  
 LARGEST VALUE OF ABS(CPMAX) OR ABS(CPMIN) AND PSF LOAD FOR REFERENCE PRESSURE = 33 PSF, GLASS LOAD FACTOR = 0.73

TAP	AZI-MUTH	PRESS COEFF	PSF LOAD	TAP	AZI-MUTH	PRESS COEFF	PSF LOAD	TAP	AZI-MUTH	PRESS COEFF	PSF LOAD	TAP	AZI-MUTH	PRESS COEFF	PSF LOAD
317	45	2.21	53.1	367	330	1.78	42.8	517	180	2.69	64.6	566	285	1.38	33.1
318	45	1.65	39.6	368	345	2.02	48.5	518	195	3.29	78.9	567	90	2.35	56.3
319	45	1.11	27.1	369	210	1.61	38.8	519	255	2.19	52.4	568	90	2.66	63.8
320	45	0.55	13.5	370	285	1.85	44.4	520	270	1.85	44.4	569	0	1.98	47.4
321	45	0.00	0.0	371	285	1.83	43.3	521	270	1.88	45.1	570	45	1.32	31.7
322	45	0.00	0.0	372	285	1.65	39.9	522	285	2.03	48.8	571	45	1.73	41.5
323	45	0.00	0.0	373	45	1.77	45.5	523	285	1.81	43.5	572	45	1.50	35.9
324	45	0.00	0.0	374	45	1.52	36.6	524	90	1.76	42.1	573	45	1.76	42.3
325	45	0.00	0.0	375	150	2.22	55.9	525	90	1.78	44.4	574	150	1.45	34.8
326	45	0.00	0.0	376	150	2.16	53.4	526	90	1.88	45.2	575	150	1.45	34.8
327	45	0.00	0.0	377	150	1.60	36.6	527	210	1.32	31.8	576	270	2.85	66.3
328	45	0.00	0.0	378	150	1.61	36.8	528	0	1.79	43.1	577	270	2.29	50.0
329	45	0.00	0.0	379	285	1.61	36.8	529	195	1.50	33.6	578	315	1.66	40.4
330	45	0.00	0.0	380	0	2.00	44.4	530	45	1.40	33.3	579	45	1.68	40.2
331	45	0.00	0.0	381	315	2.06	44.4	531	315	1.65	40.3	580	90	1.77	42.4
332	45	0.00	0.0	382	330	2.26	53.8	532	180	1.68	40.3	581	75	2.06	42.2
333	45	0.00	0.0	383	150	1.62	38.9	533	255	2.22	53.2	582	90	2.19	42.2
334	45	0.00	0.0	384	150	1.66	39.3	534	270	1.81	43.4	583	0	1.62	36.8
335	45	0.00	0.0	385	285	1.96	47.0	535	255	1.78	42.8	584	45	1.48	33.3
336	45	0.00	0.0	386	150	1.77	42.5	536	270	1.61	38.7	585	45	1.57	36.6
337	45	0.00	0.0	387	45	2.09	45.1	537	90	1.64	39.3	586	45	1.42	34.2
338	45	0.00	0.0	388	30	1.55	37.7	538	90	1.74	41.7	587	150	1.76	42.3
339	45	0.00	0.0	389	45	1.88	45.5	539	90	1.63	39.1	588	150	1.60	38.3
340	45	0.00	0.0	390	270	1.41	33.9	540	90	2.11	50.7	589	285	2.24	53.7
341	45	0.00	0.0	391	270	1.25	30.0	541	45	1.47	35.3	590	270	2.00	47.9
342	45	0.00	0.0	392	330	1.48	37.0	542	45	1.66	39.8	591	270	1.58	37.8
343	45	0.00	0.0	393	330	1.98	44.4	543	45	1.47	35.4	592	315	1.43	34.3
344	45	0.00	0.0	394	330	2.32	53.8	544	45	1.40	34.4	593	315	1.42	34.0
345	45	0.00	0.0	395	330	2.55	53.8	545	315	1.95	44.6	594	30	1.50	36.6
346	45	0.00	0.0	396	330	2.66	53.8	546	165	1.59	36.0	595	45	1.93	44.0
347	45	0.00	0.0	397	285	1.55	36.6	547	255	2.52	60.5	596	45	1.47	36.0
348	45	0.00	0.0	398	285	1.77	42.0	548	255	2.13	51.1	597	225	1.47	33.3
349	45	0.00	0.0	399	285	1.77	42.0	549	270	1.98	47.5	598	15	1.56	36.6
350	45	0.00	0.0	400	285	1.71	40.0	550	270	2.01	48.2	599	30	1.64	34.4
351	45	0.00	0.0	501	270	1.51	36.6	551	270	1.79	42.9	600	45	1.39	33.3
352	45	0.00	0.0	502	315	1.21	30.0	552	90	1.90	45.6	601	90	1.33	31.9
353	45	0.00	0.0	503	90	1.46	35.5	553	90	2.26	54.1	602	90	1.57	37.7
354	45	0.00	0.0	504	270	2.40	57.7	554	90	2.65	63.5	603	330	1.50	36.0
355	45	0.00	0.0	505	270	1.66	39.9	555	270	1.21	29.1	604	300	1.56	37.5
356	45	0.00	0.0	506	165	1.32	31.6	556	45	1.76	42.3	605	315	1.16	27.8
357	45	0.00	0.0	507	90	1.49	35.5	557	45	1.76	42.3	606	300	.96	23.0
358	45	0.00	0.0	508	90	2.44	58.8	558	45	1.46	35.0	607	315	.67	16.0
359	45	0.00	0.0	509	270	1.25	30.0	559	315	1.84	44.1	608	30	.64	15.3
360	45	0.00	0.0	510	270	1.75	41.9	560	15	1.74	41.7	609	30	.77	18.4
361	45	0.00	0.0	511	165	1.39	33.4	561	255	3.06	73.4	610	30	.93	22.3
362	45	0.00	0.0	512	75	1.71	41.0	562	255	2.20	52.7	611	285	.87	20.9
363	45	0.00	0.0	513	90	1.02	26.7	563	270	1.57	41.1	612	285	.97	23.4
364	45	0.00	0.0	514	270	1.90	44.8	564	270	1.78	42.8	613	285	.91	21.7
365	45	0.00	0.0	515	180	1.86	44.3	565	285	1.76	42.2	614	285	.73	17.6
366	45	0.00	0.0	516	120	1.98	47.7	566	0	1.76	42.2				



TABLE 6 --

PEAK LOADS--  
LARGEST VALUE OF ABS(CPMAX) OR ABS(CPMIN) AND PSF LOAD FOR REFERENCE PRESSURE =SEATTLE HOTEL -- SEATTLE, WASHINGTON  
33 PSF, GLASS LOAD FACTOR = 0.73

33 PSF, GLASS LOAD FACTOR = 0.73

TAP	AZI-MUTH	PRESS COEFF	PSF LOAD	TAP	AZI-MUTH	PRESS COEFF	PSF LOAD	TAP	AZI-MUTH	PRESS COEFF	PSF LOAD	TAP	AZI-MUTH	PRESS COEFF	PSF LOAD
1	135	.90	21.5	51	135	.68	16.4	117	285	2.02	48.4	167	150	2.18	52.3
2	270	.75	18.0	52	15	.89	21.4	118	285	1.69	40.6	168	150	2.36	56.6
3	270	.71	17.0	54	120	.63	15.2	119	15	1.75	42.1	169	150	1.68	40.3
4	255	.47	11.2	55	255	.59	14.2	120	75	1.50	36.0	170	165	1.80	43.1
5	270	.60	14.5	56	30	.80	19.2	121	30	1.60	38.4	171	165	1.87	45.0
6	255	.73	17.5	57	300	.79	18.9	122	30	1.54	37.0	172	165	1.64	39.4
7	300	.49	11.9	58	120	.44	10.5	123	195	1.59	38.2	173	150	1.77	42.5
8	135	.96	23.1	59	135	.43	10.3	124	195	2.17	52.0	174	150	2.21	53.1
9	285	.68	16.4	60	135	.83	20.0	125	195	2.15	51.5	175	30	2.01	48.2
10	255	.90	21.6	61	135	1.15	27.6	126	195	2.04	48.9	176	30	1.90	45.5
11	255	.44	10.5	62	270	1.80	43.3	127	315	1.67	40.0	177	15	1.88	45.2
12	270	.49	11.8	63	285	1.53	36.6	128	315	1.80	43.1	178	150	1.66	39.9
13	255	.76	18.3	64	120	1.61	38.8	129	315	1.56	37.5	179	150	1.79	42.9
14	300	.65	15.7	65	225	1.30	31.3	130	165	1.45	35.7	180	150	2.20	50.9
15	255	.46	11.1	66	225	1.46	35.0	131	285	1.63	39.5	181	150	1.88	45.5
16	300	.87	20.8	67	180	.52	12.6	132	285	1.59	39.1	182	165	1.86	44.6
17	120	.62	14.9	68	135	.72	17.4	133	15	2.05	49.3	183	150	1.78	42.6
18	300	.65	15.7	69	135	1.82	43.9	134	15	1.88	45.2	184	75	1.72	41.4
19	120	.51	12.1	70	285	1.90	45.6	135	13	1.61	38.6	185	150	1.78	42.6
20	120	.52	12.4	71	225	1.33	31.9	136	15	1.34	32.1	186	150	1.61	38.8
21	300	.66	15.9	72	15	1.49	35.8	137	30	1.78	42.8	187	285	1.88	45.2
22	330	.55	13.2	73	15	2.14	51.3	138	195	1.69	40.6	188	285	1.87	45.9
23	120	.54	12.9	74	285	1.63	39.1	139	195	2.06	49.4	189	30	2.22	53.3
24	120	.64	15.3	75	135	1.74	41.8	140	210	2.42	58.2	190	30	1.96	47.0
25	150	.62	14.8	76	45	1.97	47.2	141	180	1.59	38.2	191	30	1.76	42.1
26	120	.50	11.9	77	45	2.07	49.6	142	180	1.77	42.4	192	45	1.79	42.9
27	300	.52	12.5	78	90	1.51	36.1	143	180	1.71	41.2	193	75	1.85	44.4
28	120	.51	12.2	79	75	2.39	57.4	144	180	1.51	36.3	194	150	1.21	28.9
29	135	.52	12.4	80	150	1.71	41.0	145	75	1.73	41.4	195	150	1.72	41.3
30	120	.52	12.4	81	150	1.46	35.0	146	75	1.90	45.6	196	150	2.11	50.5
31	300	.53	12.7	82	150	1.91	45.9	147	15	2.26	54.1	197	330	1.59	38.1
32	120	.50	12.0	83	135	1.09	26.1	148	15	2.02	48.5	198	330	1.73	45.5
33	150	.63	15.1	84	120	1.52	36.5	149	15	1.79	43.0	199	330	2.02	48.6
34	120	.63	15.1	85	120	1.11	26.7	150	165	1.71	41.1	200	315	1.43	34.4
35	120	.85	20.5	101	285	1.14	27.4	151	165	1.64	39.3	301	90	1.26	30.3
36	120	.76	18.2	102	270	1.32	31.7	152	150	1.43	34.8	302	285	1.40	33.0
37	135	.83	19.8	103	270	1.33	31.9	153	210	1.74	41.7	303	30	1.29	29.9
38	330	.86	20.7	104	30	1.88	45.1	154	210	2.36	56.7	304	150	2.43	58.8
39	105	.93	22.3	105	30	1.39	33.4	155	150	1.66	39.8	305	150	1.47	35.5
40	330	1.43	34.3	106	165	1.49	35.7	156	150	1.84	44.1	306	285	1.60	38.8
41	90	.56	13.5	107	165	1.38	33.0	157	165	1.92	46.0	307	330	1.64	39.9
42	120	.65	15.5	108	210	2.03	48.7	158	165	1.79	42.9	308	330	2.33	56.6
43	120	.57	13.8	109	30	1.64	39.4	159	285	1.82	43.6	309	150	2.35	56.4
44	120	.70	16.9	110	300	1.59	38.2	160	75	1.66	39.8	310	150	1.83	45.9
45	120	.76	18.2	111	285	1.52	36.5	161	15	2.36	56.7	311	90	1.49	35.7
46	105	.83	20.0	112	210	1.44	34.6	162	15	2.09	50.1	312	330	1.51	36.3
47	105	.97	23.2	113	195	2.18	52.4	163	30	1.88	45.1	313	330	1.89	45.4
48	30	1.16	27.8	114	315	2.33	56.6	164	165	2.14	51.5	314	75	2.02	45.8
49	30	1.33	31.9	115	285	1.48	35.5	165	165	2.53	60.6	315	285	1.46	35.9
50	30	1.41	33.9	116	270	2.31	55.5	166	150	2.48	59.6	316	45	2.18	52.9

TABLE 6 --

PEAK LOADS-- SEATTLE HOTEL -- SEATTLE, WASHINGTON  
 LARGEST VALUE OF ABS(CPMAX) OR ABS(CPMIN) AND PSF LOAD FOR REFERENCE PRESSURE = 33 PSF

TAP	AZI-MUTH	PRESS COEFF	PSF LOAD	TAP	AZI-MUTH	PRESS COEFF	PSF LOAD	TAP	AZI-MUTH	PRESS COEFF	PSF LOAD	TAP	AZI-MUTH	PRESS COEFF	PSF LOAD
317	45	2.21	73.0	367	330	1.78	58.9	317	180	2.69	88.9	366	285	1.38	45.5
318	45	1.65	54.4	368	345	2.22	76.6	318	195	3.29	108.4	367	90	2.35	77.4
319	150	2.11	69.6	369	355	1.61	53.0	319	255	2.19	72.1	368	90	2.66	87.8
320	150	2.21	72.9	370	355	1.61	53.0	320	270	1.85	61.0	369	0	1.98	65.2
321	150	2.45	80.8	371	355	1.11	33.3	321	270	1.88	62.0	370	45	1.32	43.6
322	150	1.87	61.8	372	355	1.66	54.4	322	285	2.03	66.7	371	45	1.73	57.0
323	330	1.66	54.7	373	355	1.11	33.3	323	285	1.81	59.8	372	45	1.50	49.4
324	330	1.52	50.2	374	355	1.45	44.4	324	300	1.76	55.0	373	150	1.76	56.2
325	330	1.60	52.9	375	355	1.11	33.3	325	300	1.78	55.9	374	150	1.45	47.5
326	45	1.88	61.1	376	355	1.11	33.3	326	300	1.88	62.0	375	270	2.29	75.7
327	75	2.00	66.6	377	355	1.11	33.3	327	300	1.32	44.4	376	270	2.29	75.7
328	75	1.73	57.1	378	355	1.11	33.3	328	195	1.50	44.4	377	315	1.66	54.8
329	285	1.51	49.9	379	355	1.11	33.3	329	345	1.40	42.2	378	45	1.68	54.3
330	45	1.59	52.5	380	355	1.11	33.3	330	345	1.65	54.4	379	90	1.77	54.4
331	270	1.41	46.2	381	355	1.11	33.3	331	180	1.68	54.4	380	90	2.06	67.8
332	135	2.22	73.0	382	355	1.11	33.3	332	255	2.22	73.0	381	75	2.19	72.1
333	135	1.83	60.0	383	355	1.11	33.3	333	255	1.81	57.7	382	90	2.19	72.1
334	135	1.75	56.6	384	355	1.11	33.3	334	270	1.78	54.4	383	90	1.62	43.3
335	150	1.65	54.4	385	355	1.11	33.3	335	270	1.61	43.3	384	45	1.48	43.3
336	150	1.70	56.6	386	355	1.11	33.3	336	300	1.64	43.3	385	45	1.57	43.3
337	345	1.11	33.3	387	355	1.11	33.3	337	300	1.74	43.3	386	45	1.42	43.3
338	345	1.87	61.1	388	355	1.11	33.3	338	300	1.63	43.3	387	150	1.76	43.3
339	345	2.32	76.6	389	355	1.11	33.3	339	300	1.11	33.3	388	150	1.60	43.3
340	285	1.43	43.3	390	355	1.11	33.3	340	45	1.66	43.3	389	150	1.24	33.3
341	285	1.64	44.4	391	355	1.11	33.3	341	45	1.47	43.3	390	270	2.00	54.4
342	285	1.55	44.4	392	355	1.11	33.3	342	45	1.66	43.3	391	270	1.58	43.3
343	45	1.55	44.4	393	355	1.11	33.3	343	45	1.47	43.3	392	315	1.43	43.3
344	45	1.55	44.4	394	355	1.11	33.3	344	45	1.40	43.3	393	315	1.42	43.3
345	270	1.55	44.4	395	355	1.11	33.3	345	315	1.95	66.6	394	300	1.50	43.3
346	135	2.65	88.8	396	355	1.11	33.3	346	315	1.53	43.3	395	45	1.93	66.6
347	135	2.05	66.6	397	355	1.11	33.3	347	330	1.32	43.3	396	45	2.37	77.4
348	150	2.00	66.6	398	355	1.11	33.3	348	330	1.32	43.3	397	2	1.47	43.3
349	150	1.77	54.4	399	355	1.11	33.3	349	270	1.98	66.6	398	15	1.56	43.3
350	330	1.11	33.3	400	355	1.11	33.3	350	270	2.01	66.6	399	30	1.64	43.3
351	330	1.82	61.1	401	355	1.11	33.3	351	270	1.79	54.4	400	45	1.33	43.3
352	330	1.87	61.1	402	355	1.11	33.3	352	90	2.26	77.4	401	90	1.57	43.3
353	345	1.11	33.3	403	355	1.11	33.3	353	90	2.65	87.7	402	90	1.33	43.3
354	345	2.39	78.8	404	355	1.11	33.3	354	270	2.11	66.6	403	330	1.50	43.3
355	285	1.54	43.3	405	355	1.11	33.3	355	90	2.21	66.6	404	300	1.56	43.3
356	285	1.86	61.1	406	355	1.11	33.3	356	45	1.76	43.3	405	315	1.16	33.3
357	285	2.09	69.6	407	355	1.11	33.3	357	45	1.76	43.3	406	300	.96	31.6
358	285	1.92	63.3	408	355	1.11	33.3	358	45	1.46	43.3	407	315	.67	22.0
359	45	1.63	53.3	409	355	1.11	33.3	359	74	1.84	48.8	408	300	.64	21.0
360	45	1.74	57.4	410	355	1.11	33.3	360	74	1.47	43.3	409	30	.77	22.2
361	135	2.86	94.4	411	355	1.11	33.3	361	15	1.74	43.3	410	30	.93	30.7
362	150	2.03	73.3	412	355	1.11	33.3	362	46	3.06	101.1	411	30	.77	22.2
363	150	2.00	72.1	413	355	1.11	33.3	363	56	2.20	72.2	412	285	.87	28.8
364	150	1.79	55.9	414	355	1.11	33.3	364	66	1.57	43.3	413	285	.97	31.1
365	330	1.64	54.4	415	355	1.11	33.3	365	70	1.78	43.3	414	285	.91	28.9
366	330	1.58	52.2	416	355	1.11	33.3	366	85	1.76	43.3	415	285	.73	24.2

TABLE 6 --

PEAK LOADS-- SEATTLE HOTEL -- SEATTLE, WASHINGTON  
 LARGEST VALUE OF ABS(CPMAX) DR ABS(CPMIN) AND PSF LOAD FOR REFERENCE PRESSURE = 33 PSF

TAP	AZI-MUTH	PRESS COEFF	PSF LOAD	TAP	AZI-MUTH	PRESS COEFF	PSF LOAD	TAP	AZI-MUTH	PRESS COEFF	PSF LOAD	TAP	AZI-MUTH	PRESS COEFF	PSF LOAD
1	135	.90	29.3	51	135	.68	22.6	117	285	2.02	66.5	167	150	2.18	72.0
2	270	.75	24.7	52	15	.89	29.4	118	285	1.69	55.9	168	150	2.36	77.8
3	270	.71	23.4	54	120	.63	20.8	119	15	1.75	57.9	169	150	1.68	55.4
4	235	.47	15.4	55	255	.59	19.6	120	75	1.50	49.4	170	165	1.80	59.3
5	270	.60	19.9	56	30	.80	26.4	121	30	1.60	52.9	171	165	1.87	61.9
6	255	.73	24.0	57	300	.79	25.9	122	30	1.54	50.9	172	165	1.64	54.2
7	300	.49	16.3	58	120	.44	14.5	123	195	1.59	52.6	173	150	1.77	58.4
8	135	.96	31.8	59	135	.43	14.2	124	195	2.17	71.5	174	150	2.21	73.0
9	285	.68	22.6	60	135	.83	27.5	125	195	2.15	70.8	175	30	2.01	66.3
10	285	.90	29.9	61	135	1.15	37.9	126	195	2.04	67.3	176	30	1.90	62.6
11	285	.44	14.4	62	270	1.80	59.5	127	315	1.67	55.0	177	15	1.88	62.1
12	285	.49	16.4	63	285	1.53	50.5	128	315	1.80	59.3	178	150	1.66	54.9
13	235	.76	25.2	64	120	1.61	53.3	129	315	1.56	51.5	179	150	1.79	58.9
14	235	.65	21.6	65	225	1.30	43.1	130	165	1.45	47.7	180	150	2.20	72.7
15	235	.46	15.3	66	225	1.46	48.2	131	285	1.65	54.3	181	150	1.88	62.2
16	300	.87	28.8	67	180	.52	17.3	132	285	1.59	52.4	182	165	1.86	61.4
17	120	.62	20.0	68	135	.72	23.9	133	15	2.05	67.8	183	150	1.78	58.6
18	300	.65	21.6	69	135	1.83	60.4	134	15	1.88	62.2	184	75	1.72	56.9
19	120	.51	16.7	70	285	1.90	62.7	135	15	1.61	53.0	185	150	1.78	58.8
20	120	.52	17.1	71	225	1.33	43.9	136	15	1.34	44.1	186	150	1.61	53.1
21	300	.55	21.9	72	225	1.49	49.2	137	30	1.78	58.9	187	285	1.88	62.1
22	330	.35	18.8	73	13	2.14	70.5	138	195	1.69	55.8	188	285	1.87	61.7
23	120	.54	17.7	74	285	1.63	53.8	139	195	2.06	68.0	189	30	2.22	73.3
24	120	.64	21.0	75	135	1.74	57.4	140	210	2.42	80.0	190	30	1.96	64.6
25	150	.62	20.0	76	45	1.97	64.9	141	180	1.59	52.5	191	30	1.76	57.9
26	150	.62	20.0	77	45	2.07	68.2	142	180	1.77	58.3	192	45	1.79	59.0
27	300	.52	19.6	78	90	1.51	49.7	143	180	1.71	56.6	193	75	1.85	61.1
28	120	.51	19.6	79	75	2.39	78.9	144	180	1.51	49.9	194	150	1.21	39.8
29	135	.52	17.7	80	150	1.71	56.3	145	75	1.73	57.0	195	150	1.72	56.8
30	120	.52	17.7	81	150	1.46	48.1	146	75	1.90	62.7	196	150	2.11	69.5
31	300	.53	17.7	82	150	1.91	63.1	147	15	2.26	74.4	197	330	1.59	52.3
32	120	.50	16.5	83	135	1.09	35.9	148	15	2.02	66.7	198	330	1.73	57.0
33	150	.63	20.0	84	120	1.52	50.2	149	15	1.79	59.2	199	330	2.02	66.8
34	120	.63	20.0	85	120	1.11	36.7	150	165	1.71	56.6	200	315	1.43	47.3
35	120	.85	28.8	101	285	1.14	37.7	151	165	1.64	54.0	301	90	1.26	41.6
36	120	.76	25.5	102	270	1.32	43.7	152	150	1.45	47.9	302	285	1.40	46.1
37	135	.83	27.7	103	270	1.33	43.8	153	210	1.74	57.3	303	30	1.29	42.5
38	330	.86	30.8	104	30	1.88	62.0	154	210	2.36	78.0	304	150	2.43	80.3
39	105	.93	30.0	105	30	1.39	45.9	155	150	1.66	54.7	305	150	1.47	48.6
40	330	1	43.7	106	165	1.49	49.1	156	150	1.84	60.6	306	285	1.60	52.7
41	90	.54	18.8	107	165	1.38	45.4	157	165	1.92	63.3	307	330	1.64	54.0
42	120	.65	21.6	108	210	2.03	66.9	158	165	1.79	59.0	308	330	2.33	77.0
43	120	.57	18.8	109	30	1.64	53.4	159	285	1.82	60.0	309	150	2.35	77.5
44	120	.70	23.3	110	300	1.59	52.6	160	75	1.66	54.7	310	150	1.83	60.4
45	120	.76	25.5	111	285	1.52	50.2	161	15	2.36	78.0	311	90	1.49	49.1
46	105	.83	27.7	112	210	1.44	47.6	162	15	2.09	68.8	312	330	1.51	49.8
47	105	.97	31.9	113	195	2.18	72.1	163	30	1.88	62.0	313	330	1.89	62.5
48	30	1.16	38.8	114	315	2.35	77.4	164	165	2.14	70.7	314	75	2.32	76.7
49	30	1.33	43.9	115	285	1.48	48.8	165	165	2.53	83.4	315	285	1.46	48.0
50	30	1.41	46.6	116	270	2.31	76.3	166	150	2.48	81.9	316	45	2.18	72.0

TABLE 7. BUILDING RESPONSE BY WIND DIRECTION

Bending Moment at the Base  
Damping 0.70 Percent

Reduced Velocity	Wind Direction	M <sub>y</sub> (lb-ft)			M <sub>x</sub> (lb-ft)			M <sub>z</sub> (lb-ft)			M <sub>R</sub> (lb-ft)	
		Mean	RMS	Peak	Mean	RMS	Peak	Mean	RMS	Peak	Peak	Peak
3.96	000	-.176E+09	.170E+09	-.9529E+09	-.733E+08	.119E+09	-.5159E+09	.190E+08	.859E+07	.7560E+08	.1009E+10	
3.96	015	-.310E+09	.169E+09	-.8989E+09	-.752E+07	.124E+09	-.5176E+09	.562E+07	.886E+07	.6228E+08	.9268E+09	
3.96	030	-.338E+09	.165E+09	-.8300E+09	-.609E+08	.148E+09	-.6098E+09	.112E+08	.721E+07	.6534E+08	.8412E+09	
3.96	045	-.305E+09	.105E+09	-.6040E+09	-.454E+08	.142E+09	-.5683E+09	.870E+07	.670E+07	.4902E+08	.7760E+09	
3.96	060	-.297E+09	.131E+09	-.7602E+09	-.655E+08	.172E+09	-.7344E+09	.975E+08	.523E+07	.4486E+08	.8097E+09	
3.96	075	+.323E+09	.147E+09	+.8374E+09	-.522E+08	.159E+09	-.7826E+09	.167E+08	.632E+07	.5899E+08	.8452E+09	
3.96	090	+.288E+09	.122E+09	+.6879E+09	-.400E+08	.131E+09	-.5807E+09	.172E+08	.575E+07	.4732E+08	.7441E+09	
3.96	105	+.184E+09	.962E+08	+.5359E+09	-.178E+09	.898E+08	-.5882E+09	.930E+07	.493E+07	.3572E+08	.5883E+09	
3.96	120	+.836E+08	.952E+08	+.4112E+09	-.229E+09	.961E+08	-.6098E+09	.158E+08	.558E+07	.4486E+08	.6332E+09	
3.96	135	+.503E+08	.171E+09	+.6457E+09	-.246E+09	.128E+09	-.7261E+09	-.529E+07	.727E+07	.3765E+08	.8428E+09	
3.96	150	+.958E+08	.199E+09	+.8233E+09	-.277E+09	.137E+09	-.7361E+09	.265E+07	.766E+07	.4320E+08	.8860E+09	
3.96	165	+.470E+08	.298E+09	+.1264E+10	+.241E+09	.224E+09	+.1088E+10	-.135E+07	.724E+07	-.5483E+08	.1561E+10	
3.96	180	+.635E+08	.178E+09	+.6588E+09	+.178E+09	.125E+09	+.6563E+09	.223E+07	.642E+07	.3905E+08	.7084E+09	
3.96	195	+.525E+08	.215E+09	+.7760E+09	+.138E+09	.172E+09	+.7378E+09	.244E+07	.656E+07	.5151E+08	.8996E+09	
3.96	210	+.487E+08	.159E+09	+.5907E+09	+.212E+08	.204E+09	+.8291E+09	.221E+08	.584E+07	.7726E+08	.8288E+09	
3.96	225	+.138E+09	.130E+09	+.6007E+09	+.879E+07	.168E+09	+.6871E+09	.113E+08	.556E+07	.6896E+08	.7514E+09	
3.96	240	+.191E+09	.911E+08	+.4844E+09	+.105E+09	.110E+09	+.5334E+09	.168E+08	.740E+07	.5566E+08	.5709E+09	
3.96	255	-.184E+09	.112E+09	-.6995E+09	+.239E+09	.144E+09	+.9438E+09	.307E+08	.674E+07	.7469E+08	.9689E+09	
3.96	270	-.210E+09	.161E+09	-.7336E+09	+.307E+09	.180E+09	+.9529E+09	-.136E+08	.599E+07	-.5816E+08	.9579E+09	
3.96	285	-.233E+09	.172E+09	-.8998E+09	+.235E+09	.170E+09	+.9272E+09	.413E+07	.638E+07	.436 E+08	.9480E+09	
3.96	300	-.892E+08	.127E+09	-.5550E+09	+.277E+09	.119E+09	+.7211E+09	.134E+08	.484E+07	.4902E+08	.7483E+09	
3.96	315	-.874E+08	.150E+09	-.5973E+09	+.320E+09	.126E+09	+.8200E+09	.107E+08	.551E+07	.4652E+08	.8314E+09	
3.96	330	-.149E+09	.200E+09	-.8765E+09	+.279E+09	.146E+09	+.7984E+09	.149E+08	.824E+07	.8973E+08	.1106E+10	
3.96	345	-.398E+08	.189E+09	-.6522E+09	-.159E+09	.133E+09	-.6115E+09	.937E+07	.550E+07	.4406E+08	.7095E+09	

TABLE 7. (continued)

Deflection at the Top  
Damping 0.70 Percent

Reduced Velocity	Wind Direction	X (inches)			Y (inches)			Z (degrees)			R(inches)
		Mean	RMS	Peak	Mean	RMS	Peak	Mean	RMS	Peak	Peak
3.96	000	-2.581	2.492	-13.958	+1.077	1.744	+7.701	.061	.028	.243	14.824
3.96	015	-4.560	2.476	-13.236	+.111	1.814	+7.701	.018	.028	.20	13.613
3.96	030	-4.962	2.431	-12.273	+.894	2.181	+8.904	.036	.023	.21	12.362
3.96	045	-4.475	1.545	-8.904	+.667	2.093	+8.423	.028	.022	.158	11.399
3.96	060	-4.359	1.923	-11.070	+.963	2.523	+10.830	.031	.017	.143	11.896
3.96	075	-4.745	2.164	+12.273	+.767	2.342	+11.551	.054	.020	.189	12.418
3.96	090	-4.236	1.792	+10.107	+.587	1.929	+8.423	.055	.018	.151	10.934
3.96	105	-2.704	1.413	+7.942	+2.610	1.319	+8.664	.030	.016	.115	8.640
3.96	120	-1.228	1.398	+6.016	+3.368	1.413	+8.904	.051	.018	.143	9.305
3.96	135	+.740	2.518	+9.626	+3.609	1.881	+10.589	+.017	.023	.121	12.386
3.96	150	+1.407	2.926	+12.033	+4.064	2.015	+10.830	.009	.025	.138	13.019
3.96	165	+.929	4.694	+16.124	+3.449	3.352	-16.605	-.015	.021	-.145	19.052
3.96	180	+.933	2.612	+9.626	-2.608	1.830	-9.626	.007	.021	.124	10.404
3.96	195	+.772	3.205	+11.311	-2.023	2.524	-10.830	.008	.021	.165	13.212
3.96	210	+.716	2.334	+8.664	-.311	2.997	-12.273	.071	.019	.248	12.177
3.96	225	+2.022	1.909	+8.904	-.129	2.469	-10.108	.036	.018	.220	11.038
3.96	240	+2.808	1.339	+7.220	-1.539	1.619	-7.942	.054	.024	.178	8.383
3.96	255	-2.707	1.652	-10.348	-3.518	2.121	-13.958	.098	.022	.240	14.231
3.96	270	-3.081	2.372	-10.829	-4.516	2.650	-13.958	-.044	.019	-.186	14.070
3.96	285	-3.427	2.532	-13.236	-3.453	2.500	-13.717	.013	.020	.140	13.926
3.96	300	-1.310	1.864	-8.182	-4.065	1.754	-10.589	.043	.016	.158	10.990
3.96	315	-1.283	2.210	-8.664	-4.702	1.855	-12.033	.034	.018	.149	12.217
3.96	330	-2.194	2.933	-12.755	-4.092	2.151	-11.792	.048	.026	.188	16.244
3.96	345	-.585	2.769	-9.626	+2.340	1.955	+8.904	.030	.018	.141	10.420

TABLE 8. BENDING MOMENT AT THE BASE

Damping 0.70 Percent

Reduced Velocity	Wind Direction	M <sub>y</sub> (lb-ft)			M <sub>x</sub> (lb-ft)			M <sub>z</sub> (lb-ft)			M <sub>R</sub> (lb-ft)
		Mean	RMS	Peak	Mean	RMS	Peak	Mean	RMS	Peak	Peak
3.15	000 ↓	-.122E+09	.989E+08	-.5076E+09	-.817E+08	.747E+08	-.3905E+09	.237E+08	.470E+07	.4985E+08	.5459E+09
3.64		-.160E+09	.154E+09	-.6995E+09	-.826E+08	.114E+09	-.5267E+09	.415E+08	.558E+07	.4996E+08	.7284E+09
4.21		-.207E+09	.233E+09	-.1046E+10	-.106E+09	.172E+09	-.7228E+09	.594E+07	.756E+07	.4736E+08	.1145E+10
4.67		-.255E+09	.263E+09	-.1135E+10	-.140E+09	.187E+09	-.8532E+09	.917E+07	.948E+07	.5899E+08	.1207E+10
5.51		-.348E+09	.377E+09	-.1663E+10	-.183E+09	.267E+09	-.1097E+10	.173E+07	.144E+07	.1030E+09	.1798E+10
6.26		-.428E+09	.475E+09	-.1913E+10	-.226E+09	.318E+09	-.1415E+10	.480E+07	.203E+08	.1105E+09	.2028E+10
3.15	165 ↓	+.297E+08	.145E+09	+.5799E+09	+.152E+09	.131E+09	+.6073E+09	-.209E+08	.506E+07	-.4736E+08	.6445E+09
3.64		+.428E+08	.224E+09	+.6979E+09	+.205E+09	.177E+09	+.8649E+09	-.137E+08	.574E+07	-.4819E+08	.1010E+10
4.21		+.595E+08	.302E+09	+.1093E+10	+.257E+09	.221E+09	+.1077E+10	-.162E+08	.761E+07	-.6480E+08	.1241E+10
4.67		+.612E+08	.421E+09	+.1434E+10	+.342E+09	.300E+09	+.1495E+10	-.384E+08	.120E+07	-.7804E+08	.1786E+10
5.51		+.117E+09	.629E+09	+.2113E+10	+.443E+09	.379E+09	+.1839E+10	-.241E+08	.123E+07	-.9222E+08	.2343E+10
6.26		+.153E+09	.806E+09	+.2821E+10	+.559E+09	.443E+09	+.2093E+10	-.186E+08	.150E+08	-.1022E+09	.2997E+10
3.15	255 ↓	-.133E+09	.703E+08	-.3647E+09	.173E+09	.917E+08	.5483E+09	.943E+07	.453E+07	.3137E+08	.5562E+09
3.64		-.176E+09	.103E+09	-.5550E+09	.228E+09	.132E+09	.7726E+09	.528E+07	.533E+07	.3325E+08	.7730E+09
4.21		-.225E+09	.138E+09	-.7087E+09	.300E+09	.182E+09	.1065E+10	.333E+06	.704E+07	.4154E+08	.1069E+10
4.67		-.273E+09	.174E+09	-.8640E+09	.367E+09	.234E+09	.1530E+10	.179E+07	.739E+07	.4486E+08	.1543E+10
5.51		-.357E+09	.252E+09	-.1293E+10	.494E+09	.366E+09	.1819E+10	.430E+07	.865E+07	.6231E+08	.1826E+10
6.26		-.448E+09	.302E+09	-.1384E+10	.613E+09	.482E+09	.2563E+10	.850E+07	.142E+08	.8712E+08	.2566E+10
3.15	330 ↓	-.880E+08	.102E+09	-.4644E+09	.197E+09	.850E+08	.5209E+09	.213E+08	.587E+07	.5355E+08	.5435E+09
3.64		-.131E+09	.169E+09	-.7120E+09	.257E+09	.121E+09	.6829E+09	.314E+08	.875E+07	.65477E+08	.8523E+09
4.21		-.171E+09	.232E+09	-.1040E+10	.331E+09	.161E+09	.9130E+09	.217E+08	.101E+08	.7228E+08	.1170E+10
4.67		-.208E+09	.322E+09	-.1590E+10	.396E+09	.209E+09	.1201E+10	.164E+08	.127E+08	.8474E+08	.1706E+10
5.51		-.219E+09	.505E+09	-.2261E+10	.530E+09	.273E+09	.1572E+10	.361E+08	.149E+08	.1196E+09	.2435E+10
6.26		-.338E+09	.637E+09	-.2426E+10	.643E+09	.312E+09	.1898E+10	.403E+08	.204E+08	.1533E+09	.2521E+10

TABLE 8. (continued)

Damping 1.3 Percent

Reduced Velocity	Wind Direction	M <sub>y</sub> (lb-ft)			M <sub>x</sub> (lb-ft)			M <sub>z</sub> (lb-ft)			M <sub>R</sub> (lb-ft)
		Mean	RMS	Peak	Mean	RMS	Peak	Mean	RMS	Peak	Peak
3.15	000 ↓	-.116E+09	.825E+08	-.3772E+09	-.721E+08	.625E+08	-.2958E+09	.254E+08	.507E+07	.5151E+08	.3867E+09
3.64		-.153E+09	.134E+09	-.5990E+09	-.936E+08	.955E+08	-.4486E+09	.260E+08	.607E+07	.5400E+08	.6179E+09
4.21		-.197E+09	.199E+09	-.8175E+09	-.124E+09	.140E+09	-.5940E+09	.357E+08	.760E+07	.7228E+08	.8559E+09
4.67		-.231E+09	.243E+09	-.1093E+10	-.145E+09	.171E+09	-.7776E+09	.374E+08	.934E+07	.8806E+08	.1151E+10
5.51		-.327E+09	.352E+09	-.1403E+10	-.195E+09	.252E+09	-.1114E+10	.376E+08	.141E+08	.1035E+09	.1473E+10
6.26		-.399E+09	.448E+09	-.1666E+10	-.233E+09	.308E+09	-.1317E+10	.466E+08	.207E+08	.1186E+09	.1742E+10
3.15	165 ↓	+.325E+08	.129E+09	+.4968E+09	+.150E+09	.117E+09	+.5608E+09	-.277E+08	.528E+07	-.5421E+08	.6081E+09
3.64		+.414E+08	.182E+09	+.5616E+09	+.194E+09	.158E+09	+.7411E+09	-.366E+08	.689E+07	-.6400E+08	.8468E+09
4.21		+.516E+08	.257E+09	+.8458E+09	+.261E+09	.182E+09	+.9828E+09	-.170E+08	.953E+07	-.652 E+08	.1212E+10
4.67		+.689E+08	.343E+09	+.1220E+10	+.311E+09	.225E+09	+.1312E+10	-.108E+08	.111E+08	-.6896E+08	.1637E+10
5.51		+.112E+09	.520E+09	+.1631E+10	+.436E+09	.336E+09	+.1673E+10	-.315E+08	.143E+08	-.9637E+08	.1947E+10
6.26		+.143E+09	.664E+09	+.2099E+10	+.545E+09	.391E+09	+.1946E+10	-.309E+08	.176E+08	-.118 E+09	.2515E+10
3.15	255 ↓	-.121E+09	.589E+08	-.3282E+09	.185E+09	.797E+08	.4819E+09	.155E+08	.603E+07	.454E+08	.4983E+09
3.64		-.167E+09	.881E+08	-.4727E+09	.257E+09	.115E+09	.7153E+09	.535E+07	.645E+07	.4154E+09	.7472E+09
4.21		-.214E+09	.127E+09	-.6314E+09	.324E+09	.168E+09	.9953E+09	.158E+08	.803E+07	.5601E+08	.1004E+10
4.67		-.272E+09	.165E+09	-.7760E+09	.401E+09	.216E+09	.1322E+10	.129E+08	.101E+08	.6480E+08	.1325E+10
5.51		-.330E+09	.215E+09	-.1176E+10	.480E+09	.300E+09	.1584E+10	.998E+05	.125E+08	.7311E+08	.1587E+10
6.26		-.429E+09	.278E+09	-.1336E+10	.612E+09	.390E+09	.1986E+10	.101E+07	.155E+08	.8391E+08	.1999E+10
3.15	330 ↓	-.940E+08	.878E+08	-.4578E+09	.182E+09	.648E+08	.4652E+09	.338E+08	.663E+07	.6813E+08	.5151E+09
3.64		-.137E+09	.142E+09	-.6995E+09	.249E+09	.972E+08	.6289E+09	.366E+08	.105E+08	.7539E+08	.7995E+09
4.21		-.171E+09	.215E+09	-.9945E+09	.329E+09	.148E+09	.8150E+09	.169E+08	.106E+08	.7810E+08	.1093E+10
4.67		-.208E+09	.270E+09	-.1119E+10	.393E+09	.173E+09	.1062E+10	.263E+08	.135E+08	.9056E+08	.1354E+10
5.51		-.285E+09	.417E+09	-.1706E+10	.526E+09	.230E+09	.1297E+10	.263E+08	.157E+08	.1097E+09	.1906E+10
6.26		-.352E+09	.517E+09	-.2306E+10	.660E+09	.277E+09	.1641E+10	.353E+08	.201E+08	.1412E+09	.2463E+10

TABLE 8. (continued)

Damping 2.0 Percent

Reduced Velocity	Wind Direction	$M_y$ (lb-ft)			$M_x$ (lb-ft)			$M_z$ (lb-ft)			$M_R$ (lb-ft)
		Mean	RMS	Peak	Mean	RMS	Peak	Mean	RMS	Peak	Peak
3.15	000 ↓	-.123E+09	.684E+08	-.3489E+09	-.805E+08	.480E+08	-.3140E+09	.131E+08	.594E+07	.4071E+08	.3540E+09
3.64		-.160E+09	.937E+08	-.5392E+09	-.989E+08	.652E+08	-.3348E+09	.138E+08	.693E+07	.5400E+08	.5468E+09
4.21		-.206E+09	.147E+09	-.6572E+09	-.122E+09	.103E+09	-.5417E+09	.166E+07	.884E+07	.5733E+08	.6869E+09
4.67		-.271E+09	.172E+09	-.8424E+09	-.145E+09	.123E+09	-.5998E+09	.923E+07	.109E+08	.625E+08	.8755E+09
5.51		-.320E+09	.232E+09	-.1142E+10	-.184E+09	.163E+09	-.8931E+09	.669E+07	.149E+08	.7726E+08	.1204E+10
6.26		-.396E+09	.294E+09	-.1280E+10	-.229E+09	.204E+09	-.1046E+10	.106E+08	.225E+08	.1147E+09	.1334E+10
3.15	165 ↓	+.107E+08	.796E+08	+.3440E+09	+.147E+09	.643E+08	+.4578E+09	-.154E+08	.586E+07	-.4526E+08	.5489E+09
3.64		+.424E+08	.116E+09	+.4304E+09	+.195E+09	.957E+08	+.5392E+09	-.284E+08	.776E+07	-.674E+08	.5982E+09
4.21		+.630E+08	.163E+09	+.6414E+09	+.252E+09	.125E+09	+.6987E+09	-.183E+08	.102E+08	-.693E+08	.8426E+09
4.67		+.706E+08	.216E+09	+.8458E+09	+.309E+09	.159E+09	+.9089E+09	-.146E+08	.118E+08	-.7311E+08	.1114E+10
5.51		+.104E+09	.317E+09	+.1313E+10	+.426E+09	.209E+09	+.1234E+10	-.151E+08	.163E+08	-.9305E+08	.1564E+10
6.26		+.148E+09	.398E+09	+.1575E+10	+.539E+09	.237E+09	+.1584E+10	-.114E+08	.168E+08	-.9305E+08	.1875E+10
3.15	255 ↓	-.124E+09	.637E+08	-.2983E+09	.180E+09	.741E+08	.4694E+09	.967E+07	.559E+07	.375E+08	.4786E+9
3.64		-.150E+09	.698E+08	-.3722E+09	.239E+09	.938E+08	.5625E+09	.338E+07	.719E+07	.4695E+08	.6003E+9
4.21		-.191E+09	.740E+08	-.4694E+09	.302E+09	.108E+09	.8590E+09	.346E+08	.887E+07	.7726E+08	.8802E+9
4.67		-.253E+09	.890E+08	-.5683E+09	.373E+09	.139E+09	.1014E+10	.255E+08	.100E+08	.9139E+08	.1026E+10
5.51		-.352E+09	.123E+09	-.8549E+09	.499E+09	.202E+09	.1333E+10	.220E+08	.122E+08	.9305E+08	.1351E+10
6.26		-.443E+09	.151E+09	-.9297E+09	.623E+09	.256E+09	.1721E+10	.204E+08	.183E+08	.1147E+09	.1799E+10
3.15	330 ↓	-.856E+08	.766E+08	-.3722E+09	.203E+09	.504E+08	.4029E+09	.187E+08	.770E+07	.498E+08	.4743E+9
3.64		-.115E+09	.104E+09	-.5168E+09	.254E+09	.654E+08	.4868E+09	.233E+08	.950E+07	.6646E+08	.5943E+9
4.21		-.153E+09	.148E+09	-.7635E+09	.336E+09	.883E+08	.6746E+09	.327E+08	.113E+08	.8142E+08	.9333E+9
4.67		-.191E+09	.188E+09	-.8823E+09	.401E+09	.107E+09	.8350E+09	.247E+08	.136E+08	.936E+08	.1127E+10
5.51		-.273E+09	.273E+09	-.1406E+10	.549E+09	.148E+09	.1070E+10	.213E+08	.171E+08	.1030E+09	.1535E+10
6.26		-.335E+08	.346E+09	-.1733E+10	.673E+09	.182E+09	.1347E+10	.250E+08	.214E+08	.1429E+09	.2060E+10



TABLE 9. DEFLECTION AT THE BUILDING TOP

Damping 0.70 Percent

Reduced Velocity	Wind Direction	X (inches)			Y (inches)			Z (degrees)			R (inches)
		Mean	RMS	Peak	Mean	RMS	Peak	Mean	RMS	Peak	Peak
3.15	000 ↓	-1.785	1.454	-7.460	1.201	1.097	5.776	.076	.015	.161	8.022
3.64		-2.345	2.269	-10.348	1.213	1.680	7.701	.071	.018	.161	10.701
4.21		-3.023	3.424	-15.402	1.556	2.524	10.589	.019	.024	.152	16.822
4.67		-3.742	3.857	-16.605	2.062	2.740	12.514	.029	.030	.189	17.736
5.51		-5.109	5.537	-24.547	2.685	3.924	16.124	.006	.046	.331	26.416
6.26		-6.286	6.981	-28.157	3.327	4.676	20.696	.015	.065	.355	29.793
3.15	165 ↓	+ .436	2.126	+8.423	-2.240	1.919	-8.904	-.067	.016	-.151	9.466
3.64		+ .630	3.294	+10.348	-3.019	2.606	-12.755	-.044	.018	-.154	14.840
4.21		+ .874	4.435	+16.124	-3.771	3.254	-15.883	-.052	.024	-.207	18.234
4.67		+ .899	6.184	+21.178	-5.031	4.411	-21.900	-.060	.038	-.250	26.247
5.51		+1.717	9.238	+31.044	-6.514	5.562	-26.953	-.077	.039	-.296	34.422
6.26		+2.248	11.847	+41.393	-8.207	6.502	-30.804	-.060	.048	-.328	44.032
3.15	255 ↓	-1.948	1.302	-5.294	-2.539	1.348	-7.942	.030	.015	.100	8.174
3.64		-2.591	1.511	-8.182	-3.353	1.935	-11.311	.017	.017	.106	11.359
4.21		-3.311	2.030	-10.348	-4.405	2.678	-15.642	.001	.023	-.134	15.707
4.67		-4.005	2.551	-12.755	-5.397	3.442	-22.381	.006	.024	.145	22.662
5.51		-5.248	3.708	-19.012	-7.258	5.382	-26.713	-.014	.028	-.200	26.825
6.26		-6.577	4.438	-20.456	-9.004	7.086	-37.542	-.027	.046	.280	37.686
3.15	330 ↓	-1.292	1.502	-6.738	-2.891	1.249	-7.701	.068	.019	.173	7.982
3.64		-1.919	2.476	-10.348	-3.771	1.782	-10.107	.069	.028	.210	12.522
4.21		-2.516	3.407	-15.161	-4.856	2.366	-13.477	.070	.032	.233	17.199
4.67		-3.053	4.735	-23.343	-5.820	3.072	-17.568	.052	.041	.272	25.052
5.51		-4.275	7.423	-33.210	-7.788	4.016	-23.103	.116	.048	.383	35.769
6.26		-4.968	9.357	-35.617	-9.446	4.579	-27.916	.129	.066	.491	37.029

TABLE 9. (continued)

Damping 1.3 Percent

Reduced Velocity	Wind Direction	X (inches)			Y (inches)			Z (degrees)			R (inches)
		Mean	RMS	Peak	Mean	RMS	Peak	Mean	RMS	Peak	Peak
3.15	000 ↓	-1.711	1.212	-5.535	+1.060	.903	+4.332	.082	.016	.166	5.679
3.64		-2.243	1.963	-8.904	+1.375	1.403	+6.498	.083	.019	.174	9.081
4.21		-2.898	2.918	-12.033	+1.818	2.056	+8.664	.114	.024	.231	12.570
4.67		-3.400	3.571	-16.124	+2.127	2.505	+11.311	.120	.030	.283	16.910
5.51		-4.808	5.164	-20.696	+2.859	3.708	+16.364	.106	.045	.331	21.635
6.26		-5.854	6.579	-24.547	+3.424	4.520	+19.252	.038	.066	.380	25.590
3.15	165 ↓	+4.477	1.896	+7.220	-2.201	1.725	-8.182	-.089	.017	-.174	8.936
3.64		+6.07	2.674	+8.182	-2.856	2.322	-10.829	-.117	.022	-.205	12.442
4.21		+7.58	3.774	+12.514	-3.828	2.674	-14.439	-.054	.031	-.210	17.800
4.67		+1.012	5.046	+17.808	-4.576	3.302	-19.252	-.035	.036	-.222	24.041
5.51		+1.648	7.642	+24.065	-6.399	4.939	-24.547	-.101	.046	-.310	28.598
6.26		+2.100	9.753	+30.804	-8.007	5.746	-28.638	-.099	.056	-.379	36.956
3.15	255 ↓	-1.771	.866	-4.813	-2.711	1.170	-6.979	.050	.019	.145	7.324
3.64		-2.455	1.294	-6.979	-3.772	1.696	-10.589	.017	.021	.133	10.974
4.21		-3.151	1.864	-9.386	-4.758	2.472	-14.680	.051	.026	.180	14.760
4.67		-4.001	2.418	-11.311	-5.888	3.173	-19.413	.042	.033	.207	19.469
5.51		-4.855	3.158	-17.327	-7.049	4.406	-23.263	.000	.040	.236	23.319
6.26		-6.305	4.082	-19.734	-8.992	5.736	-29.119	.003	.050	.269	29.360
3.15	330 ↓	-1.381	1.291	-6.738	-2.674	.952	-6.738	.108	.021	.218	7.565
3.64		-2.018	2.089	-10.348	-3.659	1.429	-9.145	.117	.034	.242	11.744
4.21		-2.511	3.160	-14.680	-4.834	2.172	-12.033	.054	.034	.252	16.052
4.67		-3.061	3.967	-16.364	-5.768	2.538	-15.642	.084	.043	.292	19.894
5.51		-4.189	6.131	-25.028	-7.723	3.379	-19.012	.084	.050	.353	28.004
6.26		-5.176	7.589	-33.932	-9.698	4.062	-24.065	.113	.064	.454	36.178

TABLE 9. (continued)

Damping 2.0 Percent

Reduced Velocity	Wind Direction	X (inches)			Y (inches)			Z (degrees)			R (inches)
		Mean	RMS	Peak	Mean	RMS	Peak	Mean	RMS	Peak	Peak
3.15	000 ↓	-1.804	1.004	-5.054	1.182	.704	4.572	.042	.019	.131	5.198
3.64		-2.346	1.376	-7.942	1.452	.957	4.813	.044	.022	.173	8.030
4.21		-3.031	2.158	-9.626	1.798	1.515	7.942	.053	.028	.185	10.091
4.67		-3.976	2.532	-12.273	2.126	1.809	8.904	.030	.035	.201	12.859
5.51		-4.705	3.414	-16.846	2.706	2.396	13.236	.021	.048	.248	17.696
6.26		-5.819	4.316	-18.771	3.360	2.995	15.402	.034	.072	.367	19.597
3.15	165 ↓	+ .156	1.170	+5.054	-2.166	.989	-6.738	-.050	.019	-.145	8.062
3.64		+ .623	1.711	+6.257	-2.862	1.405	-7.942	-.091	.025	-.216	8.792
4.21		+ .926	2.400	+9.386	-3.708	1.842	-10.348	-.059	.033	-.224	12.378
4.67		+1.038	3.168	+12.514	-4.532	2.338	-13.236	-.047	.038	-.234	16.364
5.51		+1.522	4.660	+19.252	-6.254	3.020	-18.049	-.048	.052	-.298	22.966
6.26		+2.172	5.851	+23.103	-7.920	3.632	-23.343	-.036	.054	-.298	27.547
3.15	255 ↓	-1.827	.936	-4.332	-2.646	1.089	-6.979	.031	.018	.121	7.027
3.64		-2.207	1.024	-5.535	-3.505	1.379	-8.182	.011	.023	.150	8.816
4.21		-2.812	1.088	-6.979	-4.437	1.588	-12.514	.111	.028	.249	12.931
4.67		-3.723	1.308	-8.423	-5.476	2.035	-14.921	.082	.032	.292	15.073
5.51		-5.165	1.180	-12.514	-7.331	2.967	-19.493	.070	.039	.299	19.846
6.26		-6.503	2.214	-13.717	-9.148	3.768	-25.269	.065	.059	.369	26.424
3.15	330 ↓	-1.258	1.125	-5.535	-2.983	.740	-6.016	.060	.025	.160	6.971
3.64		-1.691	1.53	-7.701	-3.738	.960	-7.220	.075	.031	.214	8.728
4.21		-2.242	2.18	-11.311	-4.933	1.298	-9.867	.105	.036	.260	13.709
4.67		-2.800	2.75	-12.995	-5.896	1.566	-12.273	.079	.044	.299	16.557
5.51		-4.004	4.00	-20.696	-8.069	2.175	-15.642	.068	.055	.330	22.549
6.26		-4.925	5.08	-25.509	-9.890	2.675	-19.734	.080	.069	.459	30.258

TABLE 10. ACCELERATION AT THE BUILDING TOP

Damping 0.70 Percent

Reduced Velocity	Wind Direction	Acceleration/g		
		Mean	RMS	Peak
3.15	000	-.442E -04	.347E -02	.139E -01
3.64	↓	.856E -04	.452E -02	.188E -01
4.21		-.161E -03	.692E -02	.294E -01
4.67		-.126E -03	.866E -02	.332E -01
5.51		-.623E -04	.122E -01	.457E -01
6.26		-.532E -04	.152E -01	.638E -01
3.15		165	-.269E -03	.467E -02
3.64	↓	-.876E -03	.721E -02	.286E -01
4.21		-.966E -03	.112E -01	.452E -01
4.67		-.884E -03	.138E -01	.521E -01
5.51		-.891E -03	.207E -01	.818E -01
6.26		.946E -03	.295E -01	.102E 00
3.15		255	-.201E -03	.401E -02
3.64	↓	-.217E -03	.544E -02	.197E -01
4.21		-.345E -03	.750E -02	.305E -01
4.67		-.189E -03	.939E -02	.346E -01
5.51		-.274E -03	.132E -01	.594E -01
6.26		-.288E -03	.177E -01	.692E -01
3.15		330	-.194E -03	.457E -02
3.64	↓	.511E -04	.659E -02	.355E -01
4.21		-.106E -03	.923E -02	.360E -01
4.67		-.443E -03	.128E -01	.509E -01
5.51		-.573E -03	.193E -01	.842E -01
6.26		-.758E -03	.262E -01	.995E -01

TABLE 10. (continued)

Damping 1.3 Percent

Reduced Velocity	Wind Direction	Acceleration/g		
		Mean	RMS	Peak
3.15	000	.630E -03	.306E -02	.134E -01
3.64	↓	.729E -03	.382E -02	.188E -01
4.21	↓	.772E -04	.566E -02	.254E -01
4.67	↓	.376E -04	.685E -02	.274E -01
5.51	↓	.143E -03	.987E -02	.415E -01
6.26	↓	.166E -03	.120E -01	.452E -01
3.15	165	.881E -04	.371E -02	.156E -01
3.64	↓	.124E -03	.537E -02	.199E -01
4.21	↓	.457E -04	.818E -02	.330E -01
4.67	↓	.200E -04	.105E -01	.412E -01
5.51	↓	.155E -03	.158E -01	.608E -01
6.26	↓	-.285E -03	.211E -01	.756E -01
3.15	255	.563E -04	.350E -02	.143E -01
3.64	↓	-.314E -04	.467E -02	.190E -01
4.21	↓	-.184E -04	.599E -02	.236E -01
4.67	↓	.310E -04	.682E -02	.281E -01
5.51	↓	-.741E -03	.108E -01	.416E -01
6.26	↓	-.622E -03	.141E -01	.494E -01
3.15	330	.263E -02	.370E -02	.168E -01
3.64	↓	.132E -03	.532E -02	.253E -01
4.21	↓	-.109E -03	.810E -02	.302E -01
4.67	↓	-.788E -04	.100E -01	.462E -01
5.51	↓	.686E -04	.163E -01	-.647E -01
6.26	↓	-.871E -03	.197E -01	.798E -01

TABLE 10. (continued)

Damping 2.0 Percent

Reduced Velocity	Wind Direction	Acceleration/g		
		Mean	RMS	Peak
3.15	000	-.140E -03	.246E -02	.116E -01
3.64	↓	-.111E -03	.290E -02	.145E -01
4.21		-.117E -03	.376E -02	.156E -01
4.67		-.247E -03	.501E -02	.225E -01
5.51		-.158E -03	.660E -02	.277E -01
6.26		↓	-.138E -03	.818E -03
3.15	165	-.866E -04	.278E -02	.111E -01
3.64	↓	-.156E -03	.350E -02	.153E -01
4.21		-.212E -03	.487E -02	.200E -01
4.67		-.143E -03	.610E -02	.250E -01
5.51		-.381E -04	.947E -02	.375E -01
6.26		↓	-.305E -03	.123E -01
3.15	255	-.463E -04	.339E -02	.135E -01
3.64	↓	-.131E -04	.365E -02	.139E -01
4.21		-.584E -03	.403E -02	.178E -01
4.67		-.612E -03	.432E -02	.168E -01
5.51		-.442E -03	.627E -02	.290E -01
6.26		↓	-.194E -03	.748E -02
3.15	330	-.542E -04	.294E -02	.140E -01
3.64	↓	-.931E -05	.376E -02	.179E -01
4.21		-.158E -03	.545E -02	.240E -01
4.67		-.251E -04	.670E -02	.290E -01
5.51		-.234E -03	.955E -02	.433E -01
6.26		↓	-.327E -03	.126E -01

APPENDIX A  
PRESSURE DATA

Note: Pressure coefficients are defined in Section 4.3.  
Pressure tap designation is explained in Figure 3.

SEATTLE HOTEL -- SEATTLE, WASHINGTON

WD	TAP	CPHEAN	CPRMS	CPMAX	CPHIN	WD	TAP	CPHEAN	CPRMS	CPMAX	CPHIN	WD	TAP	CPHEAN	CPRMS	CPMAX	CPHIN
0	1	137	030	073	293	0	31	217	048	095	424	0	117	455	159	869	162
0	2	124	027	020	282	0	32	215	043	080	403	0	118	397	161	851	414
0	3	122	035	011	290	0	34	188	038	077	366	0	119	648	229	407	332
0	4	106	045	062	327	0	35	219	050	093	455	0	120	469	245	319	294
0	5	934	044	053	313	0	36	205	045	076	448	0	121	241	153	189	223
0	6	107	020	047	187	0	37	091	065	180	346	0	122	163	077	198	376
0	7	931	074	268	320	0	38	088	056	149	307	0	122	153	069	090	309
0	8	127	029	038	311	0	39	083	051	124	298	0	124	177	056	060	481
0	9	112	030	013	231	0	60	042	075	267	412	0	125	214	044	036	404
0	10	107	036	067	285	0	61	202	043	094	362	0	126	262	037	117	409
0	11	936	037	047	234	0	62	140	082	169	652	0	127	303	037	188	459
0	12	931	037	042	238	0	63	102	069	155	503	0	128	310	037	198	467
0	13	959	044	100	258	0	64	146	081	120	580	0	129	324	038	213	503
0	14	119	006	098	138	0	65	011	069	467	195	0	130	326	038	210	516
0	15	100	042	097	230	0	66	027	061	265	191	0	131	511	175	961	164
0	16	107	053	165	256	0	67	067	056	152	307	0	132	283	173	971	545
0	17	134	073	201	446	0	68	033	079	216	403	0	133	867	364	274	985
0	18	115	063	208	355	0	69	194	123	760	140	0	134	620	269	416	578
0	19	098	063	325	349	0	70	113	106	654	162	0	135	268	225	338	494
0	20	099	063	318	302	0	71	131	058	155	391	0	136	140	083	229	515
0	21	086	056	165	261	0	72	250	058	096	655	0	137	144	075	184	663
0	22	076	053	272	248	0	73	335	131	092	803	0	138	202	054	069	535
0	23	077	045	182	230	0	74	203	118	764	064	0	139	262	043	052	421
0	24	131	045	084	280	0	75	149	102	678	079	0	140	339	044	193	21
0	25	090	043	138	218	0	76	196	192	390	157	0	141	339	039	206	49
0	26	105	051	169	375	0	77	151	092	110	865	0	142	339	039	208	0
0	27	978	045	149	308	0	78	084	050	202	268	0	143	330	039	193	47
0	28	955	042	137	183	0	79	110	066	146	365	0	144	336	038	198	41
0	29	985	041	165	309	0	80	158	042	092	319	0	145	391	192	086	55
0	30	985	036	110	202	0	81	219	055	004	447	0	146	174	157	811	00
0	31	993	044	149	202	0	82	207	043	070	384	0	147	785	370	390	165
0	32	983	037	079	199	0	83	106	051	086	364	0	148	578	284	284	771
0	33	144	029	069	194	0	84	104	040	062	341	0	149	346	260	220	510
0	34	117	031	042	348	0	85	140	031	022	278	0	150	183	122	143	557
0	35	137	031	018	334	0	101	487	076	217	819	0	151	160	087	188	949
0	36	133	035	029	401	0	102	341	052	072	626	0	152	207	055	074	491
0	37	163	041	033	414	0	103	255	050	031	439	0	153	287	050	048	501
0	38	224	049	094	500	0	104	632	099	164	418	0	154	364	056	203	624
0	39	345	071	163	649	0	105	579	142	111	249	0	155	331	051	178	664
0	40	360	101	074	954	0	106	235	049	057	438	0	156	338	049	205	655
0	41	355	037	033	399	0	107	203	041	045	438	0	157	357	055	206	655
0	42	106	028	007	285	0	108	248	037	119	481	0	158	354	056	203	32
0	43	123	027	004	243	0	109	700	118	048	217	0	159	263	168	887	333
0	44	149	031	033	263	0	110	377	241	198	138	0	160	095	134	636	24
0	45	179	035	057	348	0	111	205	077	005	856	0	161	590	350	264	982
0	46	227	034	035	474	0	112	230	064	007	613	0	162	435	263	213	361
0	47	157	044	002	375	0	113	190	053	017	457	0	163	265	215	181	411
0	48	201	041	038	352	0	114	497	180	005	047	0	164	158	103	181	961
0	49	181	035	088	324	0	115	359	116	005	759	0	165	164	085	152	975
0	50	164	031	070	305	0	116	323	072	076	558	0	166	208	059	048	493



SEATTLE HOTEL -- SEATTLE , WASHINGTON

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
0	367	.155	.161	.768	.364	0	367	.155	.161	.768	.364
0	368	.234	.214	.884	.583	0	368	.234	.214	.884	.583
0	369	.293	.203	.923	.464	0	369	.293	.203	.923	.464
0	370	.297	.184	.912	.257	0	370	.297	.184	.912	.257
0	371	.318	.178	.932	.157	0	371	.318	.178	.932	.157
0	372	.325	.179	.932	.160	0	372	.325	.179	.932	.160
0	373	.270	.091	.953	1.057	0	373	.270	.091	.953	1.057
0	374	.263	.089	.950	.921	0	374	.263	.089	.950	.921
0	375	.272	.114	.919	1.205	0	375	.272	.114	.919	1.205
0	376	.192	.065	.919	.531	0	376	.192	.065	.919	.531
0	377	.080	.065	.919	.326	0	377	.080	.065	.919	.326
0	378	.010	.084	.281	.313	0	378	.010	.084	.281	.313
0	379	.043	.094	.368	.284	0	379	.043	.094	.368	.284
0	380	.000	.000	.000	.000	0	380	.000	.000	.000	.000
0	381	.097	.137	.615	.361	0	381	.097	.137	.615	.361
0	382	.141	.175	.693	.398	0	382	.141	.175	.693	.398
0	383	.179	.155	.760	.372	0	383	.179	.155	.760	.372
0	384	.172	.144	.725	.347	0	384	.172	.144	.725	.347
0	385	.207	.151	.869	.192	0	385	.207	.151	.869	.192
0	386	.212	.155	.884	.182	0	386	.212	.155	.884	.182
0	387	.188	.050	.907	.490	0	387	.188	.050	.907	.490
0	388	.207	.051	.951	.599	0	388	.207	.051	.951	.599
0	389	.214	.055	.950	.525	0	389	.214	.055	.950	.525
0	390	.164	.041	.900	.350	0	390	.164	.041	.900	.350
0	391	.080	.040	.999	.232	0	391	.080	.040	.999	.232
0	392	.037	.060	.993	.202	0	392	.037	.060	.993	.202
0	393	.006	.063	.321	.229	0	393	.006	.063	.321	.229
0	394	.035	.086	.440	.322	0	394	.035	.086	.440	.322
0	395	.052	.109	.555	.345	0	395	.052	.109	.555	.345
0	396	.097	.145	.647	.475	0	396	.097	.145	.647	.475
0	397	.163	.132	.610	.384	0	397	.163	.132	.610	.384
0	398	.168	.123	.626	.131	0	398	.168	.123	.626	.131
0	399	.200	.121	.677	.083	0	399	.200	.121	.677	.083
0	400	.194	.126	.714	.110	0	400	.194	.126	.714	.110
0	401	.359	.054	.216	.755	0	401	.359	.054	.216	.755
0	402	.426	.059	.211	.632	0	402	.426	.059	.211	.632
0	403	.306	.037	.198	.456	0	403	.306	.037	.198	.456
0	404	.399	.069	.173	.672	0	404	.399	.069	.173	.672
0	405	.409	.072	.186	.734	0	405	.409	.072	.186	.734
0	406	.333	.054	.162	.554	0	406	.333	.054	.162	.554
0	407	.331	.051	.143	.572	0	407	.331	.051	.143	.572
0	408	.330	.046	.166	.530	0	408	.330	.046	.166	.530
0	409	.381	.068	.157	.610	0	409	.381	.068	.157	.610
0	410	.368	.069	.127	.637	0	410	.368	.069	.127	.637
0	411	.318	.047	.162	.511	0	411	.318	.047	.162	.511
0	412	.317	.049	.138	.569	0	412	.317	.049	.138	.569
0	413	.329	.047	.153	.527	0	413	.329	.047	.153	.527
0	414	.309	.069	.167	.683	0	414	.309	.069	.167	.683
0	415	.309	.046	.155	.497	0	415	.309	.046	.155	.497
0	416	.326	.058	.149	.800	0	416	.326	.058	.149	.800



SEATTLE HOTEL -- SEATTLE, WASHINGTON

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
15	54	180	092	090	587	15	119	948	196	457	-1.753	15	169	429	128	061	-1.380
15	55	183	061	027	492	15	120	901	152	477	-1.454	15	170	425	123	089	-1.327
15	56	289	121	078	775	15	121	872	179	272	-1.499	15	171	409	114	081	-1.150
15	57	199	046	142	311	15	122	308	199	103	-1.512	15	172	417	113	055	-1.114
15	58	101	046	131	301	15	123	349	152	074	-1.134	15	173	170	125	685	-1.408
15	59	084	043	112	273	15	124	252	068	098	-1.879	15	174	027	122	494	-1.408
15	60	002	066	319	211	15	125	273	050	126	-1.576	15	175	887	260	022	-1.873
15	61	181	056	032	408	15	126	305	048	156	-1.629	15	176	714	212	014	-1.691
15	62	017	078	325	307	15	127	309	048	151	-1.507	15	177	536	234	038	-1.883
15	63	005	062	248	255	15	128	314	049	165	-1.561	15	178	356	164	014	-1.446
15	64	011	085	291	426	15	129	322	052	158	-1.593	15	179	323	134	019	-1.191
15	65	044	062	318	135	15	130	323	052	163	-1.614	15	180	309	092	033	-1.829
15	66	016	056	262	156	15	131	526	141	945	-1.017	15	181	362	107	022	-1.037
15	67	086	056	139	291	15	132	199	111	605	-1.278	15	182	416	155	064	-1.418
15	68	058	067	261	286	15	133	029	236	467	-2.053	15	183	394	144	057	-1.474
15	69	123	101	653	155	15	134	945	174	369	-1.883	15	184	415	149	045	-1.418
15	70	222	089	563	079	15	135	863	206	065	-1.697	15	185	410	157	082	-1.155
15	71	177	090	198	498	15	136	635	250	091	-1.337	15	186	394	153	059	-1.126
15	72	502	116	183	086	15	137	493	218	092	-1.288	15	187	083	114	533	-1.309
15	73	840	263	275	136	15	138	359	122	055	-1.135	15	188	046	106	488	-1.310
15	74	085	094	590	138	15	139	340	081	110	-1.036	15	189	639	236	044	-1.602
15	75	410	082	471	166	15	140	380	074	158	-1.100	15	190	490	170	047	-1.331
15	76	038	198	245	549	15	141	347	063	163	-1.634	15	191	364	163	014	-1.179
15	77	306	121	052	248	15	142	342	055	190	-1.588	15	192	259	115	024	-1.913
15	78	165	074	102	502	15	143	332	052	184	-1.555	15	193	228	092	014	-1.898
15	79	256	126	061	981	15	144	337	051	201	-1.568	15	194	186	058	021	-1.565
15	80	162	049	005	468	15	145	428	166	894	-1.104	15	195	206	071	088	-1.609
15	81	157	052	000	410	15	146	112	131	658	-1.408	15	196	258	119	088	-1.311
15	82	192	055	009	529	15	147	104	303	065	-2.255	15	197	248	107	067	-1.819
15	83	154	053	034	500	15	148	970	239	122	-2.022	15	198	219	095	042	-1.839
15	84	044	046	097	344	15	149	837	274	146	-1.793	15	199	201	072	024	-1.682
15	85	133	035	007	337	15	150	573	261	127	-1.510	15	200	192	068	012	-1.489
15	86	689	123	372	129	15	151	464	217	074	-1.469	15	301	401	065	183	-1.653
15	87	412	076	170	790	15	152	369	121	091	-1.078	15	302	630	098	316	-1.995
15	88	183	089	134	544	15	153	379	093	073	-1.996	15	303	761	144	398	-1.182
15	89	827	172	470	770	15	154	417	095	103	-1.898	15	304	370	056	180	-1.669
15	90	777	123	430	310	15	155	372	086	117	-1.897	15	305	402	086	145	-1.650
15	91	351	088	115	864	15	156	373	078	168	-1.767	15	306	268	062	108	-1.754
15	92	213	046	038	395	15	157	391	080	182	-1.763	15	307	363	053	153	-1.563
15	93	263	037	141	405	15	158	386	081	175	-1.730	15	308	445	191	130	-1.098
15	94	788	113	450	444	15	159	243	144	741	-1.179	15	309	436	067	169	-1.725
15	95	839	133	442	416	15	160	003	127	544	-1.407	15	310	521	078	135	-1.774
15	96	458	136	103	918	15	161	073	333	207	-2.365	15	311	624	116	129	-1.935
15	97	213	055	022	496	15	162	875	271	197	-2.086	15	312	152	097	230	-1.482
15	98	202	031	044	389	15	163	683	271	014	-1.736	15	313	021	125	469	-1.979
15	99	872	137	431	406	15	164	458	201	046	-1.435	15	314	531	073	318	-1.880
15	100	388	123	074	935	15	165	403	168	049	-1.244	15	315	119	110	327	-1.047
15	101	253	062	077	551	15	166	363	105	055	-1.917	15	316	061	230	222	-1.801
15	102	423	124	761	049	15	167	382	102	096	-1.031	15	317	354	039	232	-1.534
15	103	247	106	542	089	15	168	452	135	086	-1.167	15	318	366	040	248	-1.532



SEATTLE HOTEL -- SEATTLE , WASHINGTON

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
56	56	.456	.122	.000	-1.218	30	56	.227	.148	.208	-1.801	30	56	.227	.148	.208	-1.801
570	570	.416	.077	-.130	-1.753	30	57	.092	.033	.014	-1.203	30	57	.092	.033	.014	-1.203
572	572	.411	.093	-.174	-.854	30	58	.075	.037	.059	-1.214	30	58	.075	.037	.059	-1.214
577	577	.398	.087	-.180	-.810	30	59	.043	.051	.180	-1.282	30	59	.043	.051	.180	-1.282
577	577	.455	.188	-.110	-1.628	30	60	.114	.099	.629	-1.124	30	60	.114	.099	.629	-1.124
577	577	.427	.087	-.246	-1.753	30	61	.125	.060	.016	-1.381	30	61	.125	.060	.016	-1.381
577	577	.427	.127	.042	-.934	30	62	.115	.111	.606	-1.210	30	62	.115	.111	.606	-1.210
577	577	.443	.099	-.019	-.833	30	63	.143	.090	.462	-1.100	30	63	.143	.090	.462	-1.100
577	577	.436	.070	-.172	-.838	30	64	.140	.101	.563	-1.288	30	64	.140	.101	.563	-1.288
588	588	.433	.082	-.159	-.916	30	65	.146	.096	.525	-1.333	30	65	.146	.096	.525	-1.333
590	590	.469	.093	-.112	-.888	30	66	.093	.072	.378	-1.113	30	66	.093	.072	.378	-1.113
590	590	.469	.116	-.150	-1.164	30	67	.080	.046	.159	-1.336	30	67	.080	.046	.159	-1.336
590	590	.469	.126	.161	-1.538	30	68	.064	.058	.156	-1.388	30	68	.064	.058	.156	-1.388
590	590	.469	.129	.071	-1.093	30	69	.059	.113	.507	-1.437	30	69	.059	.113	.507	-1.437
590	590	.469	.122	.053	-1.289	30	70	.239	.112	.635	-1.437	30	70	.239	.112	.635	-1.437
590	590	.469	.112	.198	-1.109	30	71	.028	.098	.350	-1.437	30	71	.028	.098	.350	-1.437
590	590	.469	.103	-.237	-.974	30	72	.492	.163	.108	-1.108	30	72	.492	.163	.108	-1.108
590	590	.469	.097	.230	-.845	30	73	.888	.270	.196	-1.996	30	73	.888	.270	.196	-1.996
590	590	.469	.070	.070	-.845	30	74	.068	.107	.574	-1.214	30	74	.068	.107	.574	-1.214
590	590	.469	.068	.044	-.582	30	75	.023	.098	.468	-1.218	30	75	.023	.098	.468	-1.218
590	590	.469	.085	.000	-.807	30	76	.799	.263	.210	-1.210	30	76	.799	.263	.210	-1.210
590	590	.469	.081	.018	-.629	30	77	.684	.249	.167	-2.030	30	77	.684	.249	.167	-2.030
590	590	.469	.084	.035	-.700	30	78	.375	.107	.014	-1.802	30	78	.375	.107	.014	-1.802
590	590	.469	.097	.022	-.951	30	79	.664	.191	.134	-1.399	30	79	.664	.191	.134	-1.399
590	590	.469	.101	.013	-.933	30	80	.279	.069	.018	-1.707	30	80	.279	.069	.018	-1.707
590	590	.469	.115	.086	-.222	30	81	.276	.081	.032	-1.741	30	81	.276	.081	.032	-1.741
590	590	.469	.133	.095	-.233	30	82	.247	.057	.023	-1.520	30	82	.247	.057	.023	-1.520
590	590	.469	.147	.015	-.387	30	83	.180	.085	.164	-1.539	30	83	.180	.085	.164	-1.539
590	590	.469	.156	.105	-.202	30	84	.185	.054	.009	-1.517	30	84	.185	.054	.009	-1.517
590	590	.469	.143	.000	-1.565	30	85	.197	.032	.093	-1.325	30	85	.197	.032	.093	-1.325
590	590	.469	.134	.227	-1.275	30	101	.746	.110	.437	-1.134	30	101	.746	.110	.437	-1.134
600	600	.536	.110	-.260	-1.041	30	102	.572	.090	.298	-1.945	30	102	.572	.090	.298	-1.945
601	601	.188	.057	.007	-.525	30	103	.420	.076	.172	-1.756	30	103	.420	.076	.172	-1.756
602	602	.209	.072	-.009	-.671	30	104	.693	.188	.320	-1.880	30	104	.693	.188	.320	-1.880
603	603	.123	.057	.139	-.368	30	105	.703	.146	.368	-1.392	30	105	.703	.146	.368	-1.392
604	604	.129	.053	.135	-.408	30	106	.616	.102	.298	-1.104	30	106	.616	.102	.298	-1.104
605	605	.160	.068	.040	-.621	30	107	.473	.093	.188	-1.835	30	107	.473	.093	.188	-1.835
606	606	.165	.070	.042	-.635	30	108	.445	.082	.191	-1.772	30	108	.445	.082	.191	-1.772
607	607	.163	.070	.044	-.553	30	109	.693	.158	.409	-1.643	30	109	.693	.158	.409	-1.643
608	608	.173	.066	.062	-.406	30	110	.704	.150	.399	-1.378	30	110	.704	.150	.399	-1.378
609	609	.233	.091	.047	-.628	30	111	.660	.111	.181	-1.065	30	111	.660	.111	.181	-1.065
610	610	.213	.092	.000	-.600	30	112	.494	.056	.141	-1.816	30	112	.494	.056	.141	-1.816
611	611	.223	.094	.073	-.333	30	113	.420	.032	.067	-1.765	30	113	.420	.032	.067	-1.765
612	612	.310	.116	.015	-.743	30	114	.738	.134	.339	-1.366	30	114	.738	.134	.339	-1.366
613	613	.282	.102	.034	-.633	30	115	.653	.106	.277	-1.041	30	115	.653	.106	.277	-1.041
614	614	.249	.089	.071	-.567	30	116	.479	.095	.188	-1.826	30	116	.479	.095	.188	-1.826
614	614	.082	.042	.034	-.239	30	117	.411	.148	.806	-1.232	30	117	.411	.148	.806	-1.232
614	614	.077	.044	.037	-.298	30	118	.223	.111	.534	-1.175	30	118	.223	.111	.534	-1.175
614	614	.062	.044	.058	-.430	30	119	.657	.144	.331	-1.274	30	119	.657	.144	.331	-1.274
614	614	.010	.050	.275	-.194	30	120	.666	.143	.343	-1.273	30	120	.666	.143	.343	-1.273











SEATTLE HOTEL -- SEATTLE , WASHINGTON

CP	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
0.09	0.09	0.09	45	573	0.09	0.118	0.09	0.09	60	9	0.067	0.027	0.052	0.175
0.11	0.11	0.11	45	574	0.11	0.121	0.11	0.11	60	10	0.074	0.030	0.030	0.174
0.15	0.15	0.15	45	575	0.15	0.167	0.15	0.15	60	11	0.042	0.044	0.168	0.172
0.22	0.22	0.22	45	576	0.22	0.171	0.22	0.22	60	12	0.035	0.033	0.242	0.165
0.33	0.33	0.33	45	577	0.33	0.180	0.33	0.33	60	13	0.151	0.033	0.032	0.314
0.44	0.44	0.44	45	578	0.44	0.188	0.44	0.44	60	14	0.147	0.026	0.039	0.236
0.55	0.55	0.55	45	579	0.55	0.193	0.55	0.55	60	15	0.153	0.029	0.039	0.292
0.66	0.66	0.66	45	580	0.66	0.199	0.66	0.66	60	16	0.143	0.024	0.063	0.246
0.77	0.77	0.77	45	581	0.77	0.205	0.77	0.77	60	17	0.217	0.029	0.106	0.330
0.88	0.88	0.88	45	582	0.88	0.211	0.88	0.88	60	18	0.189	0.029	0.079	0.382
0.99	0.99	0.99	45	583	0.99	0.217	0.99	0.99	60	19	0.190	0.030	0.076	0.336
1.10	1.10	1.10	45	584	1.10	0.222	1.10	1.10	60	20	0.204	0.028	0.108	0.352
1.21	1.21	1.21	45	585	1.21	0.228	1.21	1.21	60	21	0.201	0.032	0.095	0.367
1.32	1.32	1.32	45	586	1.32	0.233	1.32	1.32	60	22	0.203	0.031	0.111	0.321
1.43	1.43	1.43	45	587	1.43	0.238	1.43	1.43	60	23	0.203	0.029	0.114	0.312
1.54	1.54	1.54	45	588	1.54	0.243	1.54	1.54	60	24	0.199	0.031	0.088	0.290
1.65	1.65	1.65	45	589	1.65	0.248	1.65	1.65	60	25	0.216	0.026	0.124	0.310
1.76	1.76	1.76	45	590	1.76	0.253	1.76	1.76	60	26	0.187	0.022	0.107	0.273
1.87	1.87	1.87	45	591	1.87	0.258	1.87	1.87	60	27	0.183	0.025	0.092	0.301
1.98	1.98	1.98	45	592	1.98	0.263	1.98	1.98	60	28	0.196	0.024	0.114	0.336
2.09	2.09	2.09	45	593	2.09	0.268	2.09	2.09	60	29	0.192	0.027	0.095	0.341
2.20	2.20	2.20	45	594	2.20	0.273	2.20	2.20	60	30	0.193	0.025	0.087	0.323
2.31	2.31	2.31	45	595	2.31	0.278	2.31	2.31	60	31	0.169	0.024	0.087	0.277
2.42	2.42	2.42	45	596	2.42	0.283	2.42	2.42	60	32	0.189	0.023	0.114	0.286
2.53	2.53	2.53	45	597	2.53	0.288	2.53	2.53	60	33	0.188	0.024	0.100	0.281
2.64	2.64	2.64	45	598	2.64	0.293	2.64	2.64	60	34	0.223	0.028	0.129	0.360
2.75	2.75	2.75	45	599	2.75	0.298	2.75	2.75	60	35	0.233	0.028	0.140	0.389
2.86	2.86	2.86	45	600	2.86	0.303	2.86	2.86	60	36	0.239	0.026	0.146	0.370
2.97	2.97	2.97	45	601	2.97	0.308	2.97	2.97	60	37	0.258	0.031	0.155	0.426
3.08	3.08	3.08	45	602	3.08	0.313	3.08	3.08	60	38	0.274	0.034	0.083	0.370
3.19	3.19	3.19	45	603	3.19	0.318	3.19	3.19	60	39	0.278	0.033	0.029	0.468
3.30	3.30	3.30	45	604	3.30	0.323	3.30	3.30	60	40	0.350	0.070	0.075	0.739
3.41	3.41	3.41	45	605	3.41	0.328	3.41	3.41	60	41	0.224	0.029	0.131	0.354
3.52	3.52	3.52	45	606	3.52	0.333	3.52	3.52	60	42	0.230	0.025	0.151	0.319
3.63	3.63	3.63	45	607	3.63	0.338	3.63	3.63	60	43	0.241	0.023	0.156	0.316
3.74	3.74	3.74	45	608	3.74	0.343	3.74	3.74	60	44	0.253	0.031	0.144	0.441
3.85	3.85	3.85	45	609	3.85	0.348	3.85	3.85	60	45	0.265	0.038	0.131	0.443
3.96	3.96	3.96	45	610	3.96	0.353	3.96	3.96	60	46	0.247	0.049	0.004	0.432
4.07	4.07	4.07	45	611	4.07	0.358	4.07	4.07	60	47	0.326	0.055	0.127	0.611
4.18	4.18	4.18	45	612	4.18	0.363	4.18	4.18	60	48	0.161	0.079	0.049	0.697
4.29	4.29	4.29	45	613	4.29	0.368	4.29	4.29	60	49	0.123	0.070	0.059	0.590
4.40	4.40	4.40	45	614	4.40	0.373	4.40	4.40	60	50	0.096	0.059	0.061	0.487
4.51	4.51	4.51	45	615	4.51	0.378	4.51	4.51	60	51	0.088	0.043	0.073	0.288
4.62	4.62	4.62	45	616	4.62	0.383	4.62	4.62	60	52	0.117	0.070	0.117	0.454
4.73	4.73	4.73	45	617	4.73	0.388	4.73	4.73	60	54	0.064	0.043	0.092	0.306
4.84	4.84	4.84	45	618	4.84	0.393	4.84	4.84	60	55	0.071	0.034	0.075	0.220
4.95	4.95	4.95	45	619	4.95	0.398	4.95	4.95	60	56	0.101	0.072	0.120	0.374
5.06	5.06	5.06	45	620	5.06	0.403	5.06	5.06	60	57	0.144	0.028	0.057	0.282
5.17	5.17	5.17	45	621	5.17	0.408	5.17	5.17	60	58	0.125	0.046	0.055	0.282
5.28	5.28	5.28	45	622	5.28	0.413	5.28	5.28	60	59	0.120	0.048	0.077	0.319

SEATTLE HOTEL -- SEATTLE, WASHINGTON

WD	TAP	CPHEAN	CPRHS	CPMAX	CPHIN	WD	TAP	CPHEAN	CPRHS	CPMAX	CPHIN	WD	TAP	CPHEAN	CPRHS	CPMAX	CPHIN
60	60	-.086	.043	.077	-.303	60	125	-.532	.085	-.263	-1.053	60	175	-.649	.179	-.204	-1.591
60	61	-.097	.038	.076	-.277	60	126	-.519	.080	-.260	-1.038	60	176	-.649	.150	-.167	-1.372
60	62	-.097	.041	.290	-.260	60	127	-.463	.066	-.267	-1.810	60	177	-.556	.134	-.226	-1.232
60	63	-.093	.059	.262	-.431	60	128	-.463	.065	-.258	-1.815	60	178	-.558	.133	-.246	-1.343
60	64	-.070	.087	.263	-.505	60	129	-.474	.067	-.290	-1.792	60	179	-.610	.157	-.224	-1.486
60	65	-.059	.061	.192	-.240	60	130	-.467	.066	-.276	-1.768	60	180	-.618	.145	-.235	-1.495
60	66	-.017	.066	.428	-.172	60	131	-.893	.214	-.056	-1.619	60	181	-.559	.138	-.114	-1.187
60	67	-.173	.046	.018	-.360	60	132	-.527	.277	-.319	-1.278	60	182	-.591	.146	-.211	-1.252
60	68	-.201	.067	.022	-.498	60	133	-.625	.108	-.059	-1.059	60	183	-.622	.162	-.198	-1.519
60	69	-.363	.153	.142	-1.179	60	134	-.537	.084	-.059	-1.876	60	184	-.637	.153	-.272	-1.284
60	70	-.029	.095	.443	-.266	60	135	-.503	.078	-.053	-1.852	60	185	-.638	.153	-.264	-1.306
60	71	-.131	.101	.583	-.134	60	136	-.515	.076	-.053	-1.972	60	186	-.634	.141	-.255	-1.357
60	72	-.085	.078	.166	-.423	60	137	-.539	.079	-.053	-1.883	60	187	-.638	.137	-.215	-1.330
60	73	-.160	.132	.159	-.967	60	138	-.543	.079	-.053	-1.918	60	188	-.638	.140	-.140	-1.922
60	74	-.212	.160	.231	-1.327	60	139	-.542	.094	-.053	-1.233	60	189	-.631	.133	-.332	-1.793
60	75	-.138	.104	.237	-1.075	60	140	-.548	.110	-.053	-1.475	60	190	-.701	.189	-.274	-1.472
60	76	-.748	.223	-.233	-1.822	60	141	-.494	.059	-.053	-1.737	60	191	-.603	.176	-.267	-1.484
60	77	-.632	.188	-.262	-1.481	60	142	-.477	.054	-.053	-1.654	60	192	-.706	.183	-.315	-1.545
60	78	-.398	.079	-.039	-.831	60	143	-.453	.052	-.053	-1.629	60	193	-.630	.159	-.280	-1.484
60	79	-.601	.158	-.156	-2.031	60	144	-.457	.053	-.053	-1.627	60	194	-.433	.106	-.091	-1.922
60	80	-.334	.068	-.080	-.688	60	145	-.870	.219	-.031	-1.616	60	195	-.386	.090	-.078	-1.828
60	81	-.353	.074	-.111	-.688	60	146	-.494	.267	-.361	-1.297	60	196	-.403	.098	-.118	-1.926
60	82	-.291	.071	-.024	-.613	60	147	-.608	.115	-.251	-1.140	60	197	-.447	.134	-.097	-1.130
60	83	-.258	.078	-.024	-.560	60	148	-.524	.092	-.242	-1.368	60	198	-.431	.119	-.138	-1.964
60	84	-.244	.051	-.023	-.445	60	149	-.337	.091	-.237	-1.360	60	199	-.413	.108	-.168	-1.840
60	85	-.244	.027	-.112	-.347	60	150	-.537	.090	-.222	-1.999	60	200	-.406	.102	-.178	-1.772
60	101	-.633	.083	-.380	-1.000	60	151	-.525	.091	-.223	-1.054	60	301	-.393	.078	-.361	-1.886
60	102	-.667	.117	-.357	-1.066	60	152	-.542	.094	-.256	-1.214	60	302	-.644	.068	-.449	-1.941
60	103	-.483	.099	-.283	-.697	60	153	-.571	.106	-.299	-1.190	60	303	-.629	.091	-.365	-1.979
60	104	-.697	.106	-.371	-1.160	60	154	-.567	.116	-.274	-1.304	60	304	-.390	.067	-.155	-1.637
60	105	-.880	.112	-.381	-1.197	60	155	-.524	.083	-.238	-1.004	60	305	-.365	.059	-.145	-1.911
60	106	-.378	.090	-.347	-.976	60	156	-.512	.073	-.287	-1.911	60	306	-.562	.148	-.208	-1.103
60	107	-.521	.077	-.275	-.887	60	157	-.517	.071	-.275	-1.883	60	307	-.459	.116	-.212	-1.996
60	108	-.506	.073	-.263	-.827	60	158	-.506	.069	-.250	-1.846	60	308	-.448	.081	-.211	-1.920
60	109	-.532	.123	-.257	-1.197	60	159	-.854	.230	-.113	-1.556	60	309	-.298	.138	-.212	-1.962
60	110	-.504	.103	-.255	-.883	60	160	-.517	.269	-.247	-1.348	60	310	-.866	.215	-.042	-1.486
60	111	-.551	.084	-.265	-.934	60	161	-.670	.157	-.239	-1.398	60	311	-.920	.167	-.009	-1.400
60	112	-.529	.072	-.308	-.820	60	162	-.574	.135	-.208	-1.257	60	312	-.859	.204	-.051	-1.390
60	113	-.510	.073	-.280	-.826	60	163	-.551	.132	-.199	-1.253	60	313	-.812	.250	-.051	-1.295
60	114	-.611	.112	-.324	-1.113	60	164	-.573	.140	-.199	-1.419	60	314	-.989	.191	-.383	-2.009
60	115	-.563	.091	-.230	-.933	60	165	-.606	.144	-.221	-1.377	60	315	-.940	.125	-.422	-1.377
60	116	-.527	.076	-.272	-.902	60	166	-.611	.134	-.221	-1.269	60	316	-.909	.143	-.415	-1.568
60	117	-.406	.313	-.939	-1.164	60	167	-.603	.132	-.251	-1.336	60	317	-.455	.134	-.283	-1.093
60	118	-.062	.214	-.607	-.732	60	168	-.619	.141	-.242	-1.339	60	318	-.353	.138	-.061	-1.238
60	119	-.503	.126	-.258	-.342	60	169	-.621	.115	-.333	-1.115	60	319	-.101	.122	-.514	-1.272
60	120	-.595	.120	-.256	-.156	60	170	-.598	.108	-.317	-1.174	60	320	-.121	.120	-.519	-1.225
60	121	-.565	.104	-.314	-.077	60	171	-.568	.102	-.267	-1.115	60	321	-.106	.119	-.538	-1.295
60	122	-.543	.092	-.298	-.021	60	172	-.563	.097	-.258	-1.029	60	322	-.079	.113	-.488	-1.311
60	123	-.527	.091	-.284	-.932	60	173	-.711	.264	-.218	-1.726	60	323	-.089	.110	-.500	-1.295
60	124	-.524	.086	-.294	-.979	60	174	-.391	.251	-.335	-.361	60	324	-.078	.113	-.419	-1.285



SEATTLE HOTEL -- SEATTLE , WASHINGTON

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
60	573	.626	.159	.246	-1.421	75	11	.127	.031	-.011	-.242	75	62	-.167	.050	.107	-.320
60	576	-.584	.148	-.223	-1.175	75	12	-.120	.033	-.027	-.225	75	63	-.167	.066	.186	-.417
60	577	-.591	.163	-.044	-1.297	75	13	-.167	.024	-.041	-.262	75	64	-.189	.092	.170	-.591
60	578	-.641	.176	-.208	-1.463	75	14	-.179	.022	-.095	-.262	75	65	-.145	.064	.235	-.385
60	579	-.664	.175	-.184	-1.611	75	15	-.171	.025	-.007	-.256	75	66	-.054	.066	.272	-.265
60	580	-.702	.162	-.261	-1.504	75	16	-.178	.021	-.115	-.254	75	67	-.244	.038	-.127	-.406
60	581	-.729	.152	-.342	-1.618	75	17	-.259	.028	-.173	-.407	75	68	-.251	.052	-.038	-.445
60	582	-.847	.177	-.393	-1.824	75	18	-.243	.033	-.150	-.379	75	69	-.577	.149	-.139	-1.306
60	583	-.139	.153	.341	-.773	75	19	-.248	.032	-.148	-.398	75	70	-.192	.108	.233	-.594
60	584	-.169	.197	.460	-.783	75	20	-.237	.027	-.175	-.379	75	71	-.007	.081	.399	-.311
60	585	-.342	.189	.314	-1.081	75	21	-.250	.028	-.131	-.379	75	72	-.018	.058	.339	-.226
60	586	-.301	.160	.240	-.902	75	22	-.243	.023	-.141	-.340	75	73	-.006	.071	.422	-.303
60	587	-.438	.151	-.102	-1.082	75	23	-.231	.022	-.135	-.320	75	74	-.397	.135	.115	-1.112
60	588	-.428	.141	-.052	-1.229	75	24	-.242	.026	-.105	-.357	75	75	-.302	.121	.138	-.787
60	589	-.473	.163	.003	-1.373	75	25	-.243	.024	-.173	-.348	75	76	-.648	.234	-.133	-1.948
60	590	-.371	.107	-.009	-.864	75	26	-.230	.022	-.139	-.316	75	77	-.614	.208	-.183	-1.728
60	591	-.306	.090	-.036	-.800	75	27	-.219	.023	-.144	-.322	75	78	-.455	.122	-.170	-1.273
60	592	-.286	.118	-.005	-.860	75	28	-.231	.022	-.153	-.346	75	79	-.570	.176	-.263	-2.390
60	593	-.298	.131	.032	-1.111	75	29	-.227	.023	-.148	-.341	75	80	-.368	.101	-.042	-1.056
60	594	-.415	.186	.011	-1.323	75	30	-.224	.022	-.148	-.344	75	81	-.410	.102	-.155	-1.193
60	595	-.534	.203	.009	-1.557	75	31	-.212	.023	-.102	-.296	75	82	-.361	.133	-.013	-1.221
60	596	-.696	.241	-.064	-1.649	75	32	-.231	.021	-.151	-.307	75	83	-.254	.086	.221	-.583
60	597	-.148	.107	.292	-.661	75	33	-.232	.022	-.142	-.303	75	84	-.265	.054	.024	-.471
60	598	-.108	.135	.463	-.784	75	34	-.234	.042	-.152	-.366	75	85	-.265	.027	-.173	-.392
60	599	-.171	.138	.234	-.820	75	35	-.250	.028	-.155	-.372	75	101	-.639	.092	-.373	-1.115
60	600	-.163	.120	.184	-.730	75	36	-.253	.029	-.139	-.363	75	102	-.657	.122	-.355	-1.304
60	601	-.466	.132	-.204	-1.223	75	37	-.268	.040	-.111	-.490	75	103	-.522	.088	-.248	-.948
60	602	-.270	.153	-.197	-1.406	75	38	-.277	.051	-.107	-.503	75	104	-.588	.109	-.285	-1.262
60	603	-.270	.059	.098	-.514	75	39	-.308	.074	-.037	-.555	75	105	-.566	.108	-.300	-1.305
60	604	-.214	.045	.027	-.363	75	40	-.451	.097	-.066	-.801	75	106	-.562	.120	-.257	-1.155
60	605	-.168	.046	.094	-.314	75	41	-.258	.033	-.159	-.446	75	107	-.531	.110	-.199	-.936
60	606	-.132	.043	.093	-.307	75	42	-.238	.025	-.157	-.320	75	108	-.556	.105	-.225	-.935
60	607	-.148	.046	.073	-.323	75	43	-.254	.027	-.162	-.351	75	109	-.574	.116	-.251	-1.088
60	608	-.153	.045	.048	-.320	75	44	-.267	.036	-.146	-.412	75	110	-.560	.108	-.273	-1.059
60	609	-.182	.061	.055	-.406	75	45	-.280	.041	-.131	-.440	75	111	-.577	.127	-.290	-1.202
60	610	-.193	.073	.093	-.538	75	46	-.260	.038	-.039	-.453	75	112	-.567	.116	-.264	-1.064
60	611	-.100	.054	.095	-.295	75	47	-.372	.074	-.116	-.662	75	113	-.550	.108	-.210	-1.007
60	612	-.115	.067	.093	-.347	75	48	-.050	.068	-.261	-.343	75	114	-.580	.106	-.268	-1.062
60	613	-.119	.067	.085	-.388	75	49	-.035	.059	-.252	-.281	75	115	-.607	.137	-.283	-1.293
60	614	-.109	.062	.093	-.347	75	50	-.031	.051	-.233	-.313	75	116	-.562	.113	-.267	-1.178
60	615	-.099	.047	.033	-.242	75	51	-.048	.045	-.153	-.228	75	117	-.657	.145	-.201	-1.284
60	616	-.123	.037	.005	-.307	75	52	-.046	.049	-.239	-.239	75	118	-.579	.133	-.147	-1.108
60	617	-.143	.032	.007	-.256	75	53	-.026	.042	-.172	-.146	75	119	-.526	.107	-.213	-1.346
60	618	-.141	.009	.009	-.247	75	54	-.047	.038	-.171	-.145	75	120	-.528	.105	-.234	-1.498
60	619	-.141	.035	.029	-.255	75	55	-.046	.045	-.124	-.184	75	121	-.540	.097	-.227	-1.109
60	620	-.178	.027	.043	-.273	75	56	-.198	.028	-.102	-.403	75	122	-.562	.108	-.264	-1.327
60	621	-.191	.026	.082	-.340	75	57	-.204	.033	-.059	-.324	75	123	-.553	.113	-.276	-1.061
60	622	-.111	.045	.011	-.318	75	58	-.217	.036	-.061	-.362	75	124	-.547	.114	-.227	-1.159
60	623	-.104	.030	.023	-.212	75	59	-.187	.047	-.157	-.376	75	125	-.546	.110	-.291	-1.206
60	624	-.141	.028	.007	-.262	75	60	-.109	.054	-.198	-.340	75	126	-.542	.108	-.271	-1.101

SEATTLE HOTEL -- SEATTLE , WASHINGTON

WD	TAP	CPMEAN	CPRMS	CPMAX	CPHIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPHIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPHIN
75	127	.547	.105	.252	-1.1117	75	177	.576	.175	.194	-1.500	75	327	.746	.195	.369	-1.599
75	128	.545	.098	.276	-1.044	75	178	.581	.162	.211	-1.461	75	328	.788	.243	.362	-1.999
75	129	.542	.092	.277	-1.374	75	179	.570	.148	.185	-1.478	75	329	.777	.213	.374	-1.730
75	130	.529	.091	.268	-1.954	75	180	.560	.120	.150	-1.162	75	330	.751	.167	.350	-1.421
75	131	.648	.163	.334	-1.350	75	181	.551	.131	.180	-1.350	75	331	.739	.131	.547	.503
75	132	.674	.149	.320	-1.367	75	182	.585	.150	.185	-1.296	75	332	.739	.139	.481	.425
75	133	.607	.123	.216	-1.213	75	183	.621	.174	.166	-1.604	75	333	.739	.139	.481	.425
75	134	.567	.104	.246	-1.093	75	184	.627	.164	.166	-1.604	75	334	.739	.139	.481	.425
75	135	.529	.098	.243	-1.063	75	185	.586	.138	.166	-1.372	75	335	.739	.139	.481	.425
75	136	.535	.099	.243	-1.033	75	186	.586	.138	.166	-1.372	75	336	.739	.139	.481	.425
75	137	.547	.090	.243	-1.033	75	187	.586	.138	.166	-1.372	75	337	.739	.139	.481	.425
75	138	.527	.080	.243	-1.033	75	188	.586	.138	.166	-1.372	75	338	.739	.139	.481	.425
75	139	.511	.085	.243	-1.033	75	189	.586	.138	.166	-1.372	75	339	.739	.139	.481	.425
75	140	.524	.100	.260	-1.176	75	190	.595	.167	.171	-1.443	75	340	.739	.139	.481	.425
75	141	.575	.104	.296	-1.041	75	191	.595	.167	.171	-1.443	75	341	.739	.139	.481	.425
75	142	.531	.090	.266	-1.966	75	192	.595	.167	.171	-1.443	75	342	.739	.139	.481	.425
75	143	.520	.083	.276	-1.877	75	193	.595	.167	.171	-1.443	75	343	.739	.139	.481	.425
75	144	.517	.081	.290	-1.837	75	194	.595	.167	.171	-1.443	75	344	.739	.139	.481	.425
75	145	.733	.198	.236	-1.726	75	195	.595	.167	.171	-1.443	75	345	.739	.139	.481	.425
75	146	.709	.190	.131	-1.901	75	196	.595	.167	.171	-1.443	75	346	.739	.139	.481	.425
75	147	.605	.147	.190	-1.338	75	197	.595	.167	.171	-1.443	75	347	.739	.139	.481	.425
75	148	.605	.130	.190	-1.338	75	198	.595	.167	.171	-1.443	75	348	.739	.139	.481	.425
75	149	.605	.119	.190	-1.338	75	199	.595	.167	.171	-1.443	75	349	.739	.139	.481	.425
75	150	.605	.107	.190	-1.338	75	200	.595	.167	.171	-1.443	75	350	.739	.139	.481	.425
75	151	.605	.100	.190	-1.338	75	201	.595	.167	.171	-1.443	75	351	.739	.139	.481	.425
75	152	.605	.087	.190	-1.338	75	202	.595	.167	.171	-1.443	75	352	.739	.139	.481	.425
75	153	.605	.098	.190	-1.338	75	203	.595	.167	.171	-1.443	75	353	.739	.139	.481	.425
75	154	.605	.121	.190	-1.338	75	204	.595	.167	.171	-1.443	75	354	.739	.139	.481	.425
75	155	.605	.126	.190	-1.338	75	205	.595	.167	.171	-1.443	75	355	.739	.139	.481	.425
75	156	.605	.117	.190	-1.338	75	206	.595	.167	.171	-1.443	75	356	.739	.139	.481	.425
75	157	.605	.114	.190	-1.338	75	207	.595	.167	.171	-1.443	75	357	.739	.139	.481	.425
75	158	.605	.110	.190	-1.338	75	208	.595	.167	.171	-1.443	75	358	.739	.139	.481	.425
75	159	.605	.215	.280	-1.751	75	209	.595	.167	.171	-1.443	75	359	.739	.139	.481	.425
75	160	.693	.198	.065	-1.658	75	210	.595	.167	.171	-1.443	75	360	.739	.139	.481	.425
75	161	.663	.178	.102	-1.549	75	211	.595	.167	.171	-1.443	75	361	.739	.139	.481	.425
75	162	.607	.167	.037	-1.460	75	212	.595	.167	.171	-1.443	75	362	.739	.139	.481	.425
75	163	.607	.156	.067	-1.460	75	213	.595	.167	.171	-1.443	75	363	.739	.139	.481	.425
75	164	.607	.140	.223	-1.377	75	214	.595	.167	.171	-1.443	75	364	.739	.139	.481	.425
75	165	.607	.131	.223	-1.377	75	215	.595	.167	.171	-1.443	75	365	.739	.139	.481	.425
75	166	.607	.105	.223	-1.377	75	216	.595	.167	.171	-1.443	75	366	.739	.139	.481	.425
75	167	.607	.108	.223	-1.377	75	217	.595	.167	.171	-1.443	75	367	.739	.139	.481	.425
75	168	.607	.123	.223	-1.377	75	218	.595	.167	.171	-1.443	75	368	.739	.139	.481	.425
75	169	.607	.153	.223	-1.377	75	219	.595	.167	.171	-1.443	75	369	.739	.139	.481	.425
75	170	.607	.141	.411	-1.119	75	220	.595	.167	.171	-1.443	75	370	.739	.139	.481	.425
75	171	.607	.133	.411	-1.119	75	221	.595	.167	.171	-1.443	75	371	.739	.139	.481	.425
75	172	.607	.130	.446	-1.119	75	222	.595	.167	.171	-1.443	75	372	.739	.139	.481	.425
75	173	.607	.191	.446	-1.119	75	223	.595	.167	.171	-1.443	75	373	.739	.139	.481	.425
75	174	.607	.206	.446	-1.119	75	224	.595	.167	.171	-1.443	75	374	.739	.139	.481	.425
75	175	.607	.197	.446	-1.119	75	225	.595	.167	.171	-1.443	75	375	.739	.139	.481	.425
75	176	.607	.189	.446	-1.119	75	226	.595	.167	.171	-1.443	75	376	.739	.139	.481	.425



SEATTLE HOTEL -- SEATTLE , WASHINGTON

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
90	13	.194	.026	.076	.303	90	64	.322	.124	.037	.823	90	129	.071	.328	.885	.885
90	14	.212	.023	.134	.291	90	65	.190	.063	.035	.382	90	130	.069	.333	.888	.888
90	15	.194	.023	.036	.276	90	66	.110	.074	.133	.443	90	131	.059	.333	.982	.982
90	16	.208	.022	.123	.293	90	67	.274	.033	.143	.410	90	132	.071	.337	1.127	1.127
90	17	.238	.028	.216	.478	90	68	.283	.046	.100	.343	90	133	.064	.336	.973	.973
90	18	.288	.039	.192	.468	90	69	.635	.143	.288	1.661	90	134	.063	.336	.906	.906
90	19	.308	.037	.190	.480	90	70	.371	.112	.130	.731	90	135	.057	.323	.817	.817
90	20	.313	.029	.214	.470	90	71	.112	.103	.350	.514	90	136	.052	.328	.721	.721
90	21	.293	.027	.188	.436	90	72	.034	.077	.336	.190	90	137	.053	.341	.737	.737
90	22	.281	.024	.210	.370	90	73	.075	.086	.342	.183	90	138	.058	.341	.829	.829
90	23	.287	.023	.183	.356	90	74	.466	.100	.002	1.133	90	139	.064	.333	.882	.882
90	24	.287	.026	.196	.431	90	75	.420	.104	.071	.882	90	140	.075	.363	.968	.968
90	25	.283	.031	.183	.399	90	76	.625	.157	.262	1.709	90	141	.081	.333	1.112	1.112
90	26	.273	.024	.192	.363	90	77	.652	.164	.263	1.488	90	142	.073	.356	.990	.990
90	27	.263	.025	.144	.370	90	78	.632	.159	.292	1.505	90	143	.071	.333	.934	.934
90	28	.274	.024	.189	.371	90	79	.614	.123	.116	1.663	90	144	.070	.333	.909	.909
90	29	.264	.027	.174	.362	90	80	.609	.167	.094	1.317	90	145	.078	.333	.690	.690
90	30	.262	.026	.171	.354	90	81	.617	.114	.309	1.113	90	146	.087	.333	.480	.480
90	31	.255	.026	.160	.345	90	82	.724	.225	.194	.622	90	147	.078	.333	.403	.403
90	32	.274	.024	.189	.371	90	83	.379	.107	.007	.919	90	148	.068	.333	.099	.099
90	33	.270	.027	.169	.369	90	84	.301	.073	.062	.628	90	149	.069	.333	.976	.976
90	34	.293	.048	.169	.376	90	85	.313	.037	.189	.472	90	150	.060	.333	.793	.793
90	35	.334	.038	.043	.498	90	101	.657	.073	.392	.937	90	151	.058	.333	.742	.742
90	36	.320	.046	.188	.487	90	102	.336	.103	.428	1.111	90	152	.063	.333	.762	.762
90	37	.373	.064	.187	.622	90	103	.564	.075	.222	.818	90	153	.066	.333	.832	.832
90	38	.360	.063	.146	.637	90	104	.562	.056	.390	.730	90	154	.080	.333	.963	.963
90	39	.389	.129	.000	.742	90	105	.574	.061	.398	.872	90	155	.094	.333	1.425	1.425
90	40	.674	.120	.172	.083	90	106	.573	.077	.335	.943	90	156	.082	.333	1.032	1.032
90	41	.302	.049	.167	.552	90	107	.580	.072	.337	.864	90	157	.079	.333	.047	.047
90	42	.284	.036	.194	.461	90	108	.591	.072	.376	.916	90	158	.077	.333	.986	.986
90	43	.319	.039	.204	.500	90	109	.556	.056	.331	.809	90	159	.079	.333	1.160	1.160
90	44	.349	.048	.204	.517	90	110	.535	.054	.339	.788	90	160	.090	.333	1.194	1.194
90	45	.344	.048	.187	.578	90	111	.549	.065	.333	.875	90	161	.089	.333	1.133	1.133
90	46	.320	.049	.037	.639	90	112	.344	.061	.333	.799	90	162	.079	.333	1.081	1.081
90	47	.300	.049	.060	.669	90	113	.343	.063	.333	.447	90	163	.071	.333	.093	.093
90	48	.300	.077	.338	.246	90	114	.378	.059	.333	.836	90	164	.061	.333	.981	.981
90	49	.300	.064	.333	.155	90	115	.532	.074	.333	.662	90	165	.065	.333	.010	.010
90	50	.316	.056	.333	.132	90	116	.574	.059	.333	.244	90	166	.065	.333	.888	.888
90	51	.222	.053	.194	.173	90	117	.567	.059	.333	.800	90	167	.070	.333	.932	.932
90	52	.228	.061	.394	.167	90	118	.566	.063	.333	.222	90	168	.079	.333	.970	.970
90	53	.228	.057	.295	.121	90	119	.540	.057	.333	.955	90	169	.083	.333	1.047	1.047
90	54	.216	.048	.203	.147	90	120	.550	.053	.333	.340	90	170	.083	.333	.936	.936
90	55	.213	.054	.333	.155	90	121	.563	.053	.333	.400	90	171	.073	.333	.873	.873
90	56	.220	.023	.105	.318	90	122	.564	.057	.333	.405	90	172	.073	.333	.857	.857
90	57	.241	.027	.130	.336	90	123	.546	.061	.333	.378	90	173	.115	.333	1.366	1.366
90	58	.241	.030	.129	.333	90	124	.533	.062	.333	.677	90	174	.124	.333	1.405	1.405
90	59	.244	.042	.021	.380	90	125	.348	.069	.333	.119	90	175	.121	.333	1.475	1.475
90	60	.217	.066	.014	.303	90	126	.347	.069	.333	.216	90	176	.107	.333	1.344	1.344
90	61	.238	.041	.009	.379	90	127	.336	.071	.333	.226	90	177	.117	.333	1.565	1.565
90	62	.288	.074	.018	.611	90	128	.541	.069	.333	.331	90	178	.090	.333	1.244	1.244





SEATTLE HOTEL -- SEATTLE , WASHINGTON

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
90	323	.383	.147	.743	-.132	90	379	-.268	.083	-.027	-1.246	105	15	-.238	.024	-.139	-.339
90	330	.348	.143	.702	-.138	90	380	-.408	.208	-.054	-1.768	105	16	-.246	.021	-.179	-.333
90	331	-.333	.089	-.327	-.308	90	381	-.712	.283	-.102	-1.808	105	17	-.381	.039	-.285	-.587
90	332	-.370	.090	-.272	-1.029	90	382	-1.033	.351	-.007	-2.189	105	18	-.342	.040	-.243	-.519
90	333	-.323	.132	-.248	-1.396	90	383	-.020	.124	-.574	-.316	105	19	-.328	.035	-.230	-.478
90	334	-.632	.144	-.204	-1.284	90	384	-.186	.132	-.685	-.213	105	20	-.325	.025	-.244	-.445
90	335	-.536	.134	-.307	-1.222	90	385	-.218	.138	-.743	-.186	105	21	-.323	.030	-.226	-.438
90	336	-.896	.194	-.312	-1.433	90	386	-.214	.136	-.730	-.192	105	22	-.322	.029	-.223	-.438
90	337	-.988	.195	-.246	-1.633	90	387	-.643	.115	-.395	-1.154	105	23	-.317	.032	-.197	-.441
90	338	-.011	.167	-.448	-1.111	90	388	-.643	.117	-.396	-1.247	105	24	-.319	.037	-.251	-.532
90	339	-.041	.132	-.493	-1.111	90	389	-.450	.077	-.237	-.800	105	25	-.330	.032	-.224	-.474
90	340	-.041	.132	-.493	-1.111	90	390	-.450	.077	-.237	-.800	105	26	-.311	.027	-.237	-.443
90	341	-.183	.110	-.223	-1.253	90	391	-.283	.064	-.054	-.569	105	27	-.307	.025	-.221	-.397
90	342	-.481	.136	-.889	-1.041	90	392	-.156	.062	-.083	-.430	105	28	-.336	.027	-.258	-.431
90	343	-.517	.138	-.849	-1.044	90	393	-.126	.067	-.161	-.478	105	29	-.332	.033	-.231	-.464
90	344	-.500	.136	-.878	-1.039	90	394	-.090	.093	-.243	-.840	105	30	-.322	.032	-.206	-.457
90	345	-.562	.086	-.302	-.959	90	395	-.134	.149	-.287	-1.040	105	31	-.317	.028	-.230	-.415
90	346	-.541	.093	-.274	-.972	90	396	-.199	.237	-.327	-1.323	105	32	-.339	.031	-.253	-.483
90	347	-.567	.101	-.332	-1.022	90	397	-.021	.081	-.358	-.338	105	33	-.320	.031	-.219	-.457
90	348	-.567	.134	-.209	-1.174	90	398	-.058	.069	-.351	-.199	105	34	-.315	.046	-.148	-.550
90	349	-.607	.189	-.182	-1.287	90	399	-.072	.069	-.377	-.177	105	35	-.331	.051	-.156	-.610
90	350	-.765	.256	-.133	-1.548	90	600	-.070	.069	-.394	-.166	105	36	-.420	.064	-.158	-.747
90	351	-.893	.081	-.646	-1.091	90	601	-.729	.128	-.410	-1.330	105	37	-.496	.077	-.237	-.784
90	352	-.082	.223	-.346	-1.301	90	602	-.721	.136	-.402	-1.572	105	38	-.463	.100	-.158	-.803
90	353	-.143	.253	-.494	-1.255	90	603	-.328	.073	-.406	-.599	105	39	-.637	.080	-.143	-.931
90	354	-.166	.253	-.622	-1.545	90	604	-.184	.076	-.166	-.423	105	40	-.688	.082	-.448	-1.086
90	355	-.119	.033	-.224	-1.032	90	605	-.068	.074	-.222	-.294	105	41	-.305	.039	-.197	-.529
90	356	-.407	.153	-.919	-1.193	90	606	-.043	.074	-.248	-.257	105	42	-.315	.055	-.183	-.515
90	357	-.446	.173	-.971	-1.300	90	607	-.036	.073	-.256	-.244	105	43	-.374	.049	-.199	-.546
90	358	-.414	.163	-.904	-1.033	90	608	-.037	.071	-.233	-.244	105	44	-.435	.055	-.224	-.608
90	359	-.555	.076	-.333	-1.181	90	609	-.026	.075	-.410	-.224	105	45	-.412	.064	-.195	-.649
90	360	-.534	.076	-.333	-1.181	90	610	-.053	.084	-.364	-.438	105	46	-.531	.093	-.146	-.833
90	361	-.534	.076	-.333	-1.181	90	611	-.051	.056	-.372	-.099	105	47	-.673	.070	-.232	-.966
90	362	-.482	.062	-.311	-1.111	90	612	-.068	.062	-.428	-.103	105	48	-.200	.111	-.737	-1.123
90	363	-.433	.081	-.184	-1.121	90	613	-.069	.061	-.340	-.122	105	49	-.168	.097	-.640	-.088
90	364	-.433	.162	-.094	-1.369	90	614	-.071	.060	-.342	-.098	105	50	-.134	.088	-.506	-.060
90	365	-.334	.248	-.108	-1.264	105	1	-.071	.319	-.018	-.637	105	51	-.092	.087	-.473	-.124
90	366	-.830	.039	-.684	-1.345	105	2	-.174	.028	-.063	-.303	105	52	-.136	.083	-.485	-.061
90	367	-.145	.305	-.309	-1.22	105	3	-.220	.026	-.127	-.321	105	53	-.148	.089	-.527	-.060
90	368	-.352	.326	-.344	-1.659	105	4	-.193	.023	-.114	-.277	105	54	-.093	.078	-.396	-.103
90	369	-.017	.127	-.508	-1.407	105	5	-.193	.024	-.105	-.280	105	55	-.108	.071	-.429	-.094
90	370	-.270	.087	-.530	-1.039	105	6	-.251	.023	-.173	-.359	105	56	-.273	.027	-.188	-.373
90	371	-.326	.173	-.876	-1.286	105	7	-.272	.027	-.175	-.485	105	57	-.283	.028	-.193	-.395
90	372	-.319	.169	-.855	-1.248	105	8	-.381	.102	-.071	-.864	105	58	-.280	.027	-.176	-.377
90	373	-.630	.114	-.328	-1.254	105	9	-.164	.028	-.031	-.334	105	59	-.337	.042	-.156	-.617
90	374	-.115	.053	-.018	-1.201	105	10	-.196	.023	-.110	-.281	105	60	-.351	.090	-.077	-.770
90	375	-.645	.130	-.335	-1.119	105	11	-.172	.025	-.082	-.255	105	61	-.327	.048	-.079	-.573
90	376	-.499	.083	-.254	-1.398	105	12	-.173	.026	-.056	-.288	105	62	-.462	.103	-.141	-.917
90	377	-.382	.053	-.193	-1.358	105	13	-.234	.024	-.146	-.354	105	63	-.606	.190	-.097	-1.221
90	378	-.284	.063	-.067	-1.223	105	14	-.262	.024	-.179	-.338	105	64	-.231	.071	-.151	-.510

SEATTLE HOTEL -- SEATTLE , WASHINGTON

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
105	66	.140	.129	.209	.703	105	131	.535	.041	.409	.693	105	181	.623	.068	.427	.927
105	67	.329	.030	.216	.448	105	132	.547	.040	.427	.712	105	182	.625	.069	.446	.963
105	68	.341	.043	.170	.504	105	133	.536	.042	.411	.703	105	183	.630	.067	.473	.954
105	69	.636	.077	.439	.972	105	134	.530	.042	.427	.717	105	184	.644	.066	.473	.953
105	70	.498	.057	.230	.727	105	135	.530	.043	.366	.693	105	185	.630	.062	.478	1.034
105	71	.188	.166	.359	.647	105	136	.527	.043	.381	.692	105	186	.618	.060	.453	.970
105	72	.138	.091	.655	.111	105	137	.534	.047	.383	.699	105	187	.619	.053	.459	.914
105	73	.191	.109	.853	.086	105	138	.522	.047	.356	.683	105	188	.617	.057	.471	1.051
105	74	.576	.066	.402	.915	105	139	.518	.046	.364	.691	105	189	.615	.061	.399	.931
105	75	.569	.058	.382	.792	105	140	.524	.043	.388	.694	105	190	.605	.060	.420	.866
105	76	.622	.074	.410	.060	105	141	.538	.045	.404	.696	105	191	.613	.062	.420	.907
105	77	.627	.077	.424	.153	105	142	.526	.044	.395	.681	105	192	.637	.066	.431	.927
105	78	.628	.077	.448	.149	105	143	.517	.043	.389	.664	105	193	.630	.068	.415	.927
105	79	.627	.061	.401	.940	105	144	.514	.043	.379	.656	105	194	.632	.070	.455	.955
105	80	.664	.098	.469	.159	105	145	.551	.040	.410	.666	105	195	.643	.071	.448	.949
105	81	.630	.070	.434	.895	105	146	.539	.041	.402	.656	105	196	.662	.070	.473	.918
105	82	.749	.162	.218	.467	105	147	.535	.043	.389	.666	105	197	.658	.069	.476	1.060
105	83	.444	.085	.966	.666	105	148	.519	.042	.372	.651	105	198	.639	.064	.462	.926
105	84	.400	.093	.106	.761	105	149	.532	.048	.355	.703	105	199	.642	.062	.469	.918
105	85	.38	.072	.164	.860	105	150	.509	.046	.340	.658	105	200	.654	.061	.432	.918
105	86	.66	.066	.406	.801	105	151	.500	.046	.325	.668	105	301	.691	.080	.428	.928
105	87	.66	.066	.353	.533	105	152	.499	.047	.333	.676	105	302	.713	.071	.518	1.015
105	88	.66	.066	.353	.533	105	153	.448	.047	.347	.678	105	303	.631	.057	.470	.811
105	89	.66	.044	.406	.777	105	154	.520	.044	.347	.678	105	304	.942	.239	.096	1.222
105	90	.66	.055	.353	.777	105	155	.520	.041	.382	.689	105	305	.414	.052	.227	.602
105	91	.66	.055	.353	.777	105	156	.521	.040	.372	.658	105	306	.349	.057	.181	.756
105	92	.66	.055	.353	.777	105	157	.533	.041	.383	.690	105	307	.395	.090	.156	.759
105	93	.66	.060	.386	.823	105	158	.517	.041	.374	.667	105	308	.490	.068	.298	.769
105	94	.66	.045	.374	.717	105	159	.544	.045	.407	.704	105	309	.053	.216	.597	1.388
105	95	.66	.049	.374	.794	105	160	.546	.046	.406	.751	105	310	.314	.097	.117	.655
105	96	.66	.057	.375	.850	105	161	.555	.047	.383	.747	105	311	.586	.217	.068	1.224
105	97	.66	.052	.388	.717	105	162	.533	.046	.377	.706	105	312	.633	.096	.209	.894
105	98	.66	.056	.383	.779	105	163	.523	.046	.361	.707	105	313	.546	.084	.161	.763
105	99	.66	.050	.352	.794	105	164	.522	.048	.349	.715	105	314	.999	.253	.105	2.023
105	100	.66	.051	.351	.763	105	165	.543	.050	.353	.713	105	315	.756	.130	.312	1.175
105	101	.66	.051	.352	.733	105	166	.533	.052	.363	.726	105	316	.659	.067	.405	.883
105	102	.66	.046	.404	.696	105	167	.533	.053	.368	.723	105	317	.406	.128	.832	.018
105	103	.66	.043	.390	.710	105	168	.530	.054	.388	.783	105	318	.460	.139	.875	.005
105	104	.66	.041	.375	.698	105	169	.569	.050	.417	.786	105	319	.004	.142	.413	.479
105	105	.66	.041	.383	.681	105	170	.534	.048	.411	.737	105	320	.011	.115	.314	.432
105	106	.66	.042	.392	.740	105	171	.546	.048	.393	.729	105	321	.062	.104	.255	.420
105	107	.66	.043	.377	.737	105	172	.542	.048	.395	.719	105	322	.145	.087	.140	.408
105	108	.66	.046	.348	.725	105	173	.581	.050	.436	.798	105	323	.150	.078	.104	.373
105	109	.66	.045	.352	.724	105	174	.574	.053	.415	.923	105	324	.223	.061	.016	.394
105	110	.66	.051	.360	.724	105	175	.566	.052	.411	.777	105	325	.293	.052	.115	.478
105	111	.66	.050	.349	.713	105	176	.556	.050	.408	.737	105	326	.410	.043	.270	.566
105	112	.66	.047	.337	.693	105	177	.573	.060	.369	.838	105	327	.549	.040	.422	.680
105	113	.66	.046	.365	.681	105	178	.587	.063	.384	.820	105	328	.564	.040	.426	.703
105	114	.66	.043	.348	.633	105	179	.603	.066	.369	.921	105	329	.568	.039	.462	.705
105	115	.66	.042	.349	.638	105	180	.633	.067	.432	.979	105	330	.581	.039	.477	.724

SEATTLE HOTEL -- SEATTLE , WASHINGTON

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
105	331	137	0.10	134	105	331	0.43	0.48	105	331	0.39	105	331	503	0.39	379	641
105	332	149	0.11	144	105	332	0.61	0.73	105	332	0.48	105	332	487	0.44	379	676
105	333	167	0.12	153	105	333	0.57	0.70	105	333	0.43	105	333	487	0.43	348	701
105	334	170	0.13	156	105	334	0.58	0.73	105	334	0.39	105	334	457	0.39	303	615
105	335	113	0.14	108	105	335	0.52	0.65	105	335	0.30	105	335	352	0.30	248	501
105	336	161	0.15	152	105	336	0.51	0.64	105	336	0.28	105	336	324	0.28	103	795
105	337	089	0.16	084	105	337	0.49	0.61	105	337	0.16	105	337	324	0.16	054	1284
105	338	131	0.17	126	105	338	0.49	0.61	105	338	0.28	105	338	498	0.28	032	1424
105	339	131	0.18	126	105	339	0.43	0.53	105	339	0.28	105	339	856	0.28	025	1056
105	340	131	0.19	126	105	340	0.46	0.58	105	340	0.28	105	340	188	0.28	032	1020
105	341	089	0.20	084	105	341	0.41	0.51	105	341	0.13	105	341	320	0.13	708	170
105	342	131	0.21	126	105	342	0.40	0.50	105	342	0.13	105	342	344	0.13	956	114
105	343	131	0.22	126	105	343	0.39	0.49	105	343	0.05	105	343	590	0.05	677	489
105	344	131	0.23	126	105	344	0.39	0.49	105	344	0.13	105	344	605	0.13	017	174
105	345	131	0.24	126	105	345	0.39	0.49	105	345	0.04	105	345	522	0.04	377	678
105	346	131	0.25	126	105	346	0.39	0.49	105	346	0.04	105	346	522	0.04	319	644
105	347	131	0.26	126	105	347	0.39	0.49	105	347	0.04	105	347	522	0.04	311	601
105	348	131	0.27	126	105	348	0.39	0.49	105	348	0.04	105	348	522	0.04	311	601
105	349	131	0.28	126	105	349	0.39	0.49	105	349	0.04	105	349	522	0.04	311	601
105	350	131	0.29	126	105	350	0.39	0.49	105	350	0.04	105	350	522	0.04	311	601
105	351	131	0.30	126	105	351	0.39	0.49	105	351	0.04	105	351	522	0.04	311	601
105	352	131	0.31	126	105	352	0.39	0.49	105	352	0.04	105	352	522	0.04	311	601
105	353	131	0.32	126	105	353	0.39	0.49	105	353	0.04	105	353	522	0.04	311	601
105	354	131	0.33	126	105	354	0.39	0.49	105	354	0.04	105	354	522	0.04	311	601
105	355	131	0.34	126	105	355	0.39	0.49	105	355	0.04	105	355	522	0.04	311	601
105	356	131	0.35	126	105	356	0.39	0.49	105	356	0.04	105	356	522	0.04	311	601
105	357	131	0.36	126	105	357	0.39	0.49	105	357	0.04	105	357	522	0.04	311	601
105	358	131	0.37	126	105	358	0.39	0.49	105	358	0.04	105	358	522	0.04	311	601
105	359	131	0.38	126	105	359	0.39	0.49	105	359	0.04	105	359	522	0.04	311	601
105	360	131	0.39	126	105	360	0.39	0.49	105	360	0.04	105	360	522	0.04	311	601
105	361	131	0.40	126	105	361	0.39	0.49	105	361	0.04	105	361	522	0.04	311	601
105	362	131	0.41	126	105	362	0.39	0.49	105	362	0.04	105	362	522	0.04	311	601
105	363	131	0.42	126	105	363	0.39	0.49	105	363	0.04	105	363	522	0.04	311	601
105	364	131	0.43	126	105	364	0.39	0.49	105	364	0.04	105	364	522	0.04	311	601
105	365	131	0.44	126	105	365	0.39	0.49	105	365	0.04	105	365	522	0.04	311	601
105	366	131	0.45	126	105	366	0.39	0.49	105	366	0.04	105	366	522	0.04	311	601
105	367	131	0.46	126	105	367	0.39	0.49	105	367	0.04	105	367	522	0.04	311	601
105	368	131	0.47	126	105	368	0.39	0.49	105	368	0.04	105	368	522	0.04	311	601
105	369	131	0.48	126	105	369	0.39	0.49	105	369	0.04	105	369	522	0.04	311	601
105	370	131	0.49	126	105	370	0.39	0.49	105	370	0.04	105	370	522	0.04	311	601
105	371	131	0.50	126	105	371	0.39	0.49	105	371	0.04	105	371	522	0.04	311	601
105	372	131	0.51	126	105	372	0.39	0.49	105	372	0.04	105	372	522	0.04	311	601
105	373	131	0.52	126	105	373	0.39	0.49	105	373	0.04	105	373	522	0.04	311	601
105	374	131	0.53	126	105	374	0.39	0.49	105	374	0.04	105	374	522	0.04	311	601
105	375	131	0.54	126	105	375	0.39	0.49	105	375	0.04	105	375	522	0.04	311	601
105	376	131	0.55	126	105	376	0.39	0.49	105	376	0.04	105	376	522	0.04	311	601
105	377	131	0.56	126	105	377	0.39	0.49	105	377	0.04	105	377	522	0.04	311	601
105	378	131	0.57	126	105	378	0.39	0.49	105	378	0.04	105	378	522	0.04	311	601
105	379	131	0.58	126	105	379	0.39	0.49	105	379	0.04	105	379	522	0.04	311	601
105	380	131	0.59	126	105	380	0.39	0.49	105	380	0.04	105	380	522	0.04	311	601

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WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
1005	581	.316	.222	.196	-1.445	120	17	.416	.048	.222	.285	120	68	.444	.047	.221	.617
1005	582	.486	.360	.346	-2.017	120	18	.368	.034	.222	.272	120	69	.552	.052	.418	.790
1005	583	.157	.119	.574	.161	120	19	.354	.033	.222	.244	120	70	.552	.052	.376	.713
1005	584	.243	.127	.670	.076	120	20	.370	.034	.222	.263	120	71	.111	.204	.419	.771
1005	585	.286	.136	.842	.039	120	21	.364	.036	.222	.259	120	72	.227	.118	.726	.026
1005	586	.290	.136	.837	.027	120	22	.356	.039	.222	.226	120	73	.333	.153	.986	.012
1005	587	.642	.064	.475	.897	120	23	.334	.044	.222	.207	120	74	.552	.053	.399	.787
1005	588	.645	.065	.484	.883	120	24	.420	.048	.222	.293	120	75	.552	.051	.417	.771
1005	589	.669	.073	.412	.1024	120	25	.335	.044	.222	.184	120	76	.552	.054	.429	.803
1005	590	.433	.060	.246	.674	120	26	.348	.031	.222	.263	120	77	.552	.053	.421	.772
1005	591	.239	.064	.043	.462	120	27	.345	.033	.222	.228	120	78	.552	.051	.439	.785
1005	592	.083	.074	.244	.307	120	28	.357	.041	.222	.337	120	79	.552	.050	.452	.780
1005	593	.048	.077	.246	.2553	120	29	.3224	.039	.222	.177	120	80	.552	.051	.426	.785
1005	594	.015	.093	.346	.333	120	30	.316	.038	.222	.177	120	81	.552	.054	.339	.770
1005	595	.015	.093	.346	.333	120	31	.316	.038	.222	.177	120	82	.552	.052	.446	.845
1005	596	.000	.142	.487	.648	120	32	.333	.035	.222	.202	120	83	.552	.066	.424	.050
1005	597	.157	.091	.619	.193	120	33	.323	.035	.222	.112	120	84	.552	.100	.200	.520
1005	598	.183	.085	.643	.326	120	34	.391	.060	.222	.222	120	85	.552	.111	.330	.113
1005	599	.197	.087	.670	.034	120	35	.467	.076	.222	.662	120	101	.552	.055	.468	.814
1005	600	.203	.089	.710	.029	120	36	.531	.056	.222	.330	120	102	.552	.058	.493	.885
1005	601	.722	.091	.489	.217	120	37	.571	.054	.222	.407	120	103	.552	.053	.415	.823
1005	602	.702	.094	.462	.213	120	38	.605	.054	.222	.423	120	104	.552	.055	.421	.834
1005	603	.275	.067	.009	.520	120	39	.624	.060	.222	.464	120	105	.552	.057	.400	.803
1005	604	.118	.078	.235	.347	120	40	.606	.057	.222	.441	120	106	.552	.057	.409	.883
1005	605	.015	.089	.460	.232	120	41	.346	.047	.222	.116	120	107	.552	.053	.406	.796
1005	606	.041	.090	.498	.201	120	42	.361	.069	.222	.116	120	108	.552	.049	.446	.811
1005	607	.042	.091	.484	.193	120	43	.416	.049	.222	.258	120	109	.552	.046	.429	.732
1005	608	.041	.085	.435	.193	120	44	.499	.056	.222	.295	120	110	.552	.055	.413	.822
1005	609	.080	.099	.485	.189	120	45	.552	.058	.222	.49	120	111	.552	.043	.418	.675
1005	610	.041	.071	.427	.346	120	46	.558	.060	.222	.467	120	112	.552	.051	.430	.759
1005	611	.168	.071	.453	.018	120	47	.646	.063	.222	.432	120	113	.552	.044	.419	.744
1005	612	.192	.074	.567	.002	120	48	.189	.113	.222	.671	120	114	.552	.052	.397	.778
1005	613	.193	.076	.573	.007	120	49	.179	.107	.222	.628	120	115	.552	.044	.390	.735
1005	614	.199	.075	.567	.004	120	50	.162	.107	.222	.685	120	116	.552	.050	.432	.781
120	1	.314	.123	.029	.832	120	51	.146	.116	.222	.600	120	117	.552	.040	.426	.703
120	2	.200	.034	.047	.350	120	52	.132	.085	.222	.577	120	118	.552	.041	.420	.700
120	3	.282	.027	.172	.401	120	53	.172	.101	.222	.632	120	119	.552	.042	.416	.696
120	4	.236	.023	.138	.314	120	55	.137	.104	.222	.539	120	120	.552	.043	.418	.717
120	5	.241	.022	.154	.314	120	56	.142	.086	.222	.641	120	121	.552	.045	.422	.801
120	6	.288	.024	.190	.368	120	57	.313	.032	.222	.219	120	122	.552	.047	.383	.745
120	7	.306	.026	.211	.405	120	58	.303	.030	.222	.202	120	123	.552	.047	.385	.710
120	8	.365	.140	.016	.806	120	59	.306	.029	.222	.183	120	124	.552	.045	.439	.757
120	9	.197	.032	.034	.314	120	60	.421	.039	.222	.184	120	125	.552	.042	.432	.715
120	10	.228	.026	.129	.308	120	61	.384	.100	.222	.084	120	126	.552	.041	.441	.700
120	11	.208	.028	.080	.291	120	62	.399	.051	.222	.197	120	127	.552	.039	.446	.682
120	12	.226	.026	.099	.325	120	63	.640	.120	.222	.293	120	128	.552	.039	.444	.692
120	13	.279	.027	.170	.364	120	64	.823	.186	.222	.236	120	129	.552	.039	.433	.687
120	14	.392	.027	.219	.404	120	65	.271	.084	.222	.014	120	130	.552	.039	.432	.679
120	15	.288	.028	.188	.373	120	66	.052	.108	.222	.309	120	131	.552	.042	.446	.738
120	16	.290	.024	.219	.384	120	67	.387	.032	.222	.265	120	132	.552	.045	.465	.736

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WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
1220	133	-.590	.042	-.460	-.729	120	183	-.584	.047	-.421	-.772	120	333	-.494	.372	.505	-1.726
1220	134	-.601	.045	-.474	-.737	120	184	-.602	.047	-.454	-.795	120	334	-.427	.223	.383	-1.113
1220	135	-.587	.045	-.448	-.719	120	185	-.587	.050	-.438	-.770	120	335	-.079	.120	.384	-.904
1220	136	-.593	.046	-.446	-.738	120	186	-.568	.049	-.419	-.742	120	336	-.124	.070	.189	-.407
1220	137	-.606	.041	-.471	-.753	120	187	-.583	.053	-.433	-.770	120	337	-.159	.061	.060	-.337
1220	138	-.599	.040	-.455	-.745	120	188	-.608	.056	-.461	-.819	120	338	-.316	.045	.151	-.458
1220	139	-.591	.039	-.448	-.735	120	189	-.593	.056	-.391	-.814	120	339	-.449	.038	.310	-.579
1220	140	-.598	.039	-.446	-.731	120	190	-.576	.055	-.359	-.746	120	340	-.613	.052	.448	-.807
1220	141	-.595	.043	-.469	-.753	120	191	-.581	.054	-.356	-.744	120	341	-.574	.043	.434	-.737
1220	142	-.599	.041	-.474	-.754	120	192	-.605	.054	-.449	-.826	120	342	-.592	.042	.456	-.758
1220	143	-.599	.044	-.469	-.747	120	193	-.603	.051	-.475	-.768	120	343	-.573	.041	.441	-.744
1220	144	-.599	.044	-.465	-.729	120	194	-.585	.049	-.461	-.779	120	344	-.586	.041	.450	-.748
1220	145	-.599	.043	-.452	-.726	120	195	-.590	.050	-.463	-.763	120	345	-.555	.143	.399	-.735
1220	146	-.599	.041	-.445	-.761	120	196	-.607	.051	-.460	-.807	120	346	-.420	.138	.898	-.914
1220	147	-.566	.044	-.397	-.766	120	197	-.587	.052	-.440	-.798	120	347	-.505	.367	.579	-.723
1220	148	-.563	.045	-.397	-.736	120	198	-.574	.050	-.438	-.769	120	348	-.431	.216	.282	-.269
1220	149	-.548	.045	-.379	-.682	120	199	-.579	.049	-.442	-.765	120	349	-.091	.116	.248	-.723
1220	150	-.533	.044	-.390	-.686	120	200	-.592	.049	-.456	-.779	120	350	-.138	.068	.108	-.360
1220	151	-.534	.043	-.369	-.677	120	301	-.603	.082	-.395	-.975	120	351	-.161	.058	.054	-.353
1220	152	-.543	.042	-.388	-.685	120	302	-.555	.058	-.350	-.751	120	352	-.307	.043	.157	-.428
1220	153	-.564	.042	-.415	-.718	120	303	-.687	.068	-.469	-.913	120	353	-.453	.039	.307	-.585
1220	154	-.571	.043	-.425	-.733	120	304	-.856	.089	-.562	-1.169	120	354	-.591	.050	.435	-.884
1220	155	-.564	.040	-.439	-.728	120	305	-.727	.151	-.216	-1.099	120	355	-.531	.041	.375	-.692
1220	156	-.573	.040	-.439	-.715	120	306	-.391	.038	-.257	-.538	120	356	-.554	.040	.400	-.703
1220	157	-.586	.044	-.429	-.739	120	307	-.351	.036	-.233	-.522	120	357	-.562	.045	.436	-.711
1220	158	-.569	.043	-.399	-.715	120	308	-.429	.033	-.332	-.626	120	358	-.570	.045	.442	-.726
1220	159	-.548	.043	-.406	-.738	120	309	-.950	.130	-.181	-1.342	120	359	-.502	.136	.952	-.145
1220	160	-.547	.042	-.407	-.757	120	310	-.368	.238	-.215	-1.125	120	360	-.390	.125	.789	-.007
1220	161	-.554	.047	-.398	-.737	120	311	-.332	.086	-.095	-.995	120	361	-.435	.345	.436	-.732
1220	162	-.523	.047	-.350	-.715	120	312	-.473	.093	-.252	-.796	120	362	-.384	.199	.158	-.138
1220	163	-.508	.049	-.299	-.696	120	313	-.407	.078	-.220	-.665	120	363	-.095	.102	.231	-.622
1220	164	-.507	.051	-.304	-.687	120	314	-.708	.190	-.179	-1.367	120	364	-.147	.061	.091	-.355
1220	165	-.511	.045	-.334	-.635	120	315	-.635	.112	-.235	-1.067	120	365	-.201	.053	.037	-.356
1220	166	-.510	.045	-.341	-.633	120	316	-.589	.057	-.328	-.803	120	366	-.338	.042	.149	-.476
1220	167	-.518	.044	-.357	-.649	120	317	-.442	.138	-.805	-.018	120	367	-.430	.042	-.273	-.570
1220	168	-.547	.046	-.379	-.755	120	318	-.416	.136	-.774	-.009	120	368	-.557	.056	.380	-.778
1220	169	-.562	.043	-.436	-.744	120	319	-.678	.225	.011	-1.212	120	369	-.531	.047	.356	-.675
1220	170	-.557	.044	-.423	-.738	120	320	-.457	.224	.064	-1.185	120	370	-.551	.045	.394	-.687
1220	171	-.549	.043	-.416	-.738	120	321	-.279	.104	.016	-.966	120	371	-.545	.042	-.405	-.674
1220	172	-.542	.044	-.397	-.715	120	322	-.277	.067	-.064	-.520	120	372	-.555	.042	-.412	-.680
1220	173	-.624	.047	-.469	-.767	120	323	-.268	.060	-.063	-.500	120	373	-.462	.147	.938	-.089
1220	174	-.616	.047	-.441	-.775	120	324	-.325	.047	-.164	-.487	120	374	-.329	.134	.786	-.073
1220	175	-.608	.049	-.434	-.801	120	325	-.385	.039	-.257	-.512	120	375	-.575	.346	.434	-1.731
1220	176	-.596	.051	-.418	-.762	120	326	-.471	.036	-.350	-.586	120	376	-.481	.199	.141	-1.128
1220	177	-.527	.054	-.344	-.694	120	327	-.539	.039	-.391	-.674	120	377	-.178	.099	.162	-.550
1220	178	-.536	.055	-.331	-.714	120	328	-.553	.039	-.405	-.685	120	378	-.200	.055	.020	-.382
1220	179	-.550	.056	-.337	-.740	120	329	-.549	.047	-.406	-.727	120	379	-.236	.049	.030	-.409
1220	180	-.579	.056	-.365	-.760	120	330	-.560	.048	-.419	-.747	120	380	-.000	.000	.000	-.000
1220	181	-.573	.051	-.391	-.751	120	331	-.602	.139	-.015	-.217	120	381	-.489	.048	.323	-.654
1220	182	-.580	.048	-.422	-.772	120	332	-.457	.138	-.896	-.048	120	382	-.617	.069	.398	-.867



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	TAP	CP	HEAN	CPRHS	CPMAX	CPMIN	WD	TAP	CP	HEAN	CPRHS	CPMAX	CPMIN	WD	TAP	CP	HEAN	CPRHS	CPMAX	CPMIN	WD	
135	19	-	2335	.023	135	-	135	70	-	523	.081	318	-1	055	135	-	535	.051	382	-	748	
135	20	-	2350	.024	135	-	135	71	-	079	.136	414	-	698	135	136	-	536	.049	374	-	723
135	21	-	2356	.031	135	-	135	72	-	061	.141	822	-	560	135	137	-	545	.051	343	-	739
135	22	-	271	.040	135	-	135	73	-	221	.147	717	-	176	135	138	-	538	.051	362	-	737
135	23	-	280	.052	135	-	135	74	-	565	.101	339	-1	041	135	139	-	537	.052	380	-	731
135	24	-	2354	.025	135	-	135	75	-	380	.101	356	-1	740	135	140	-	551	.053	381	-	754
135	25	-	293	.058	135	-	135	76	-	549	.085	330	-1	194	135	141	-	554	.049	409	-	837
135	26	-	336	.024	135	-	135	77	-	544	.101	283	-1	184	135	142	-	546	.047	416	-	746
135	27	-	340	.028	135	-	135	78	-	545	.086	256	-1	071	135	143	-	540	.046	408	-	706
135	28	-	370	.033	135	-	135	79	-	555	.075	239	-1	974	135	144	-	538	.046	405	-	695
135	29	-	381	.040	135	-	135	80	-	637	.147	346	-1	439	135	145	-	553	.053	369	-	778
135	30	-	384	.044	135	-	135	81	-	577	.096	255	-1	239	135	146	-	545	.057	351	-	964
135	31	-	349	.029	135	-	135	82	-	700	.194	023	-1	506	135	147	-	537	.057	312	-	745
135	32	-	385	.043	135	-	135	83	-	477	.097	122	-1	089	135	148	-	520	.053	329	-	707
135	33	-	333	.039	135	-	135	84	-	390	.122	024	-1	928	135	149	-	515	.055	317	-	681
135	34	-	344	.044	135	-	135	85	-	422	.138	098	-1	019	135	150	-	504	.053	325	-	674
135	35	-	355	.087	135	-	135	86	-	583	.068	337	-	844	135	151	-	503	.053	305	-	708
135	36	-	349	.075	135	-	135	102	-	635	.079	421	-	918	135	152	-	514	.054	342	-	751
135	37	-	384	.080	135	-	135	103	-	637	.062	415	-	842	135	153	-	537	.055	350	-	822
135	38	-	388	.082	135	-	135	104	-	611	.075	349	-1	079	135	154	-	549	.057	379	-	860
135	39	-	457	.119	135	-	135	105	-	608	.074	371	-	884	135	155	-	545	.055	377	-	843
135	40	-	565	.127	135	-	135	106	-	572	.066	353	-	776	135	156	-	550	.053	388	-	816
135	41	-	240	.043	135	-	135	107	-	524	.055	359	-	696	135	157	-	554	.053	371	-	839
135	42	-	278	.053	135	-	135	108	-	533	.053	363	-	733	135	158	-	536	.053	353	-	820
135	43	-	300	.050	135	-	135	109	-	561	.062	310	-	763	135	159	-	551	.061	370	-	1048
135	44	-	323	.057	135	-	135	110	-	545	.057	290	-	762	135	160	-	560	.065	363	-	1133
135	45	-	345	.064	135	-	135	111	-	547	.059	307	-	794	135	161	-	561	.060	328	-	874
135	46	-	293	.108	135	-	135	112	-	533	.049	342	-	719	135	162	-	537	.059	311	-	850
135	47	-	447	.131	135	-	135	113	-	537	.051	364	-	749	135	163	-	528	.058	298	-	813
135	48	-	015	.116	135	-	135	114	-	522	.057	318	-	739	135	164	-	528	.056	307	-	772
135	49	-	038	.119	135	-	135	115	-	549	.061	310	-	780	135	165	-	532	.061	331	-	806
135	50	-	041	.129	135	-	135	116	-	538	.051	365	-	716	135	166	-	530	.063	307	-	920
135	51	-	047	.141	135	-	135	117	-	528	.051	359	-	754	135	167	-	538	.068	298	-	978
135	52	-	026	.089	135	-	135	118	-	526	.056	351	-	769	135	168	-	562	.075	358	-	1065
135	53	-	033	.126	135	-	135	119	-	512	.053	349	-	745	135	169	-	585	.080	277	-	1494
135	54	-	031	.122	135	-	135	120	-	506	.053	337	-	758	135	170	-	573	.073	369	-	1468
135	55	-	028	.089	135	-	135	121	-	517	.055	336	-	782	135	171	-	566	.071	370	-	1391
135	56	-	241	.025	135	-	135	122	-	523	.052	337	-	706	135	172	-	561	.068	379	-	1407
135	57	-	270	.035	135	-	135	123	-	527	.052	361	-	706	135	173	-	570	.075	395	-	1533
135	58	-	303	.036	135	-	135	124	-	525	.049	377	-	716	135	174	-	571	.082	383	-	162
135	59	-	458	.079	135	-	135	125	-	538	.050	395	-	704	135	175	-	563	.078	324	-	1078
135	60	-	472	.130	135	-	135	126	-	528	.050	374	-	704	135	176	-	563	.071	319	-	091
135	61	-	432	.060	135	-	135	127	-	529	.049	389	-	696	135	177	-	538	.067	356	-	976
135	62	-	380	.115	135	-	135	128	-	528	.048	393	-	684	135	178	-	545	.066	366	-	800
135	63	-	383	.135	135	-	135	129	-	539	.044	409	-	695	135	179	-	555	.069	353	-	826
135	64	-	345	.092	135	-	135	130	-	527	.044	390	-	674	135	180	-	578	.075	348	-	915
135	65	-	170	.108	135	-	135	131	-	549	.053	396	-	771	135	181	-	568	.085	297	-	1089
135	66	-	328	.055	135	-	135	132	-	564	.059	397	-	792	135	182	-	577	.092	339	-	1132
135	67	-	394	.065	135	-	135	133	-	549	.055	347	-	749	135	183	-	591	.098	166	-	1203
135	68	-	591	.119	135	-	135	134	-	555	.054	378	-	775	135	184	-	604	.093	379	-	1259



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UD	TAP	CPHEAH	CPRMS	CPHAX	CPMHN	UD	TAP	CPHEAH	CPRMS	CPHAX	CPMHN	UD	TAP	CPHEAH	CPRMS	CPHAX	CPMHN
135	185	083	083	372	126	135	335	922	272	201	750	135	385	356	081	364	141
135	186	080	080	378	060	135	336	631	267	228	359	135	386	553	081	368	101
135	187	088	088	344	055	135	337	495	191	200	256	135	387	162	163	358	375
135	188	098	098	344	275	135	338	454	084	259	996	135	388	108	166	700	368
135	189	108	108	273	247	135	339	483	055	309	820	135	389	320	232	334	514
135	190	082	082	271	176	135	340	573	061	391	787	135	390	359	144	039	201
135	191	084	084	236	095	135	341	536	059	356	841	135	391	243	069	041	602
135	192	101	101	313	082	135	342	551	055	371	870	135	392	326	052	169	601
135	193	096	096	358	136	135	343	533	052	368	820	135	393	352	050	189	562
135	194	086	086	364	981	135	344	547	053	382	849	135	394	424	054	241	632
135	195	098	098	344	214	135	345	492	146	937	039	135	395	489	071	291	796
135	196	116	116	369	393	135	346	455	114	689	235	135	396	567	098	329	038
135	197	084	084	264	961	135	347	325	312	226	672	135	397	548	094	320	161
135	198	083	083	209	030	135	348	347	129	220	053	135	398	549	091	337	140
135	199	089	089	290	123	135	349	855	324	108	090	135	399	562	089	352	093
135	200	084	084	306	066	135	350	528	228	169	594	135	400	565	089	370	040
135	301	188	320	000	065	135	351	430	150	172	245	135	501	515	062	286	787
135	302	085	300	0872	0666	135	352	435	066	223	942	135	502	737	096	430	113
135	303	131	221	000	685	135	353	486	053	342	882	135	503	751	109	467	140
135	304	957	161	626	793	135	354	566	063	382	824	135	504	464	069	259	769
135	305	927	117	388	403	135	355	506	054	328	763	135	505	417	106	151	813
135	306	418	077	202	760	135	356	525	052	339	796	135	506	322	047	139	533
135	307	329	049	160	535	135	357	540	054	333	714	135	507	423	055	234	628
135	308	433	042	298	592	135	358	549	054	339	719	135	508	370	238	117	269
135	309	925	103	659	780	135	359	253	177	754	427	135	509	327	070	161	775
135	310	969	140	218	637	135	360	040	170	592	539	135	510	617	087	173	919
135	311	430	123	102	001	135	361	147	403	269	864	135	511	695	143	021	147
135	312	337	054	168	614	135	362	865	292	105	848	135	512	239	081	185	326
135	313	339	049	161	512	135	363	503	233	061	676	135	513	003	133	470	082
135	314	030	144	504	518	135	364	371	096	150	217	135	514	628	068	397	962
135	315	423	111	113	933	135	365	367	064	161	836	135	515	774	126	345	185
135	316	409	073	223	678	135	366	436	046	275	666	135	516	074	244	231	839
135	317	441	134	866	039	135	367	481	051	337	709	135	517	481	047	333	728
135	318	263	117	682	071	135	368	569	069	375	917	135	518	497	048	338	737
135	319	063	204	832	343	135	369	541	060	370	820	135	519	310	046	172	491
135	320	050	164	614	643	135	370	555	059	387	815	135	520	200	054	012	411
135	321	375	211	310	672	135	371	536	057	377	786	135	521	125	063	083	345
135	322	479	177	188	360	135	372	548	057	396	806	135	522	074	078	182	340
135	323	341	101	117	951	135	373	120	181	907	409	135	523	042	085	229	330
135	324	353	046	196	619	135	374	016	192	714	545	135	524	030	100	381	285
135	325	402	040	250	776	135	375	658	317	278	216	135	525	149	120	541	260
135	326	477	044	302	753	135	376	540	195	032	409	135	526	184	155	669	352
135	327	502	049	316	727	135	377	358	134	037	230	135	527	483	145	916	045
135	328	517	043	348	730	135	378	328	072	086	730	135	528	020	024	056	115
135	329	524	059	377	795	135	379	343	063	165	682	135	529	459	112	803	033
135	330	540	050	396	742	135	380	000	000	000	000	135	530	471	115	822	031
135	331	365	139	960	142	135	381	485	069	309	859	135	531	503	044	366	694
135	332	210	110	536	174	135	382	565	105	350	376	135	532	500	047	350	674
135	333	235	249	633	401	135	383	540	098	316	142	135	533	490	048	355	818
135	334	091	183	494	833	135	384	547	095	331	118	135	534	228	052	054	395

SEATTLE HOTEL -- SEATTLE, WASHINGTON

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
133	535	.014	.073	.260	-.193	135	585	.118	.176	.733	-.420	150	21	-.221	.032	-.101	-.356
133	536	.241	.095	.512	-.019	135	586	.131	.176	.745	-.421	150	22	-.238	.037	-.136	-.432
133	537	.281	.108	.635	-.024	135	587	.582	.097	.237	-1.290	150	23	-.249	.044	-.139	-.450
133	538	.421	.131	.799	-.059	135	588	.587	.097	.216	-1.215	150	24	-.196	.021	-.118	-.273
133	539	.495	.160	.967	-.040	135	589	.613	.107	.279	-1.767	150	25	-.275	.059	-.129	-.618
133	540	.511	.154	1.095	-.014	135	590	.423	.061	.227	-.653	150	26	-.200	.026	-.104	-.298
133	541	.551	.143	.973	-.005	135	591	.286	.045	.120	-.467	150	27	-.210	.031	-.111	-.339
133	542	.597	.135	.952	-.116	135	592	.197	.052	.038	-.410	150	28	-.233	.040	-.125	-.430
133	543	.611	.133	.972	-.163	135	593	.178	.055	.055	-.358	150	29	-.255	.046	-.119	-.440
133	544	.621	.134	.991	-.166	135	594	.156	.075	.139	-.477	150	30	-.260	.049	-.146	-.469
133	545	.506	.052	.309	-.780	135	595	.258	.132	.169	-.803	150	31	-.210	.035	-.078	-.386
133	546	.502	.055	.298	-.775	135	596	.270	.204	.367	-1.125	150	32	-.246	.046	-.118	-.437
133	547	.514	.059	.328	-.809	135	597	.098	.158	.717	-.292	150	33	-.254	.057	-.087	-.628
133	548	.257	.058	.019	-.428	135	598	.153	.151	.727	-.243	150	34	-.246	.058	-.035	-.531
133	549	.059	.079	.236	-.283	135	599	.176	.147	.776	-.205	150	35	-.239	.054	-.072	-.483
133	550	.130	.105	.492	-.184	135	600	.182	.147	.834	-.201	150	36	-.203	.070	-.042	-.534
133	551	.202	.115	.595	-.177	135	601	.627	.125	.098	-1.272	150	37	-.179	.074	-.120	-.598
133	552	.339	.138	.797	-.161	135	602	.640	.131	.085	-1.402	150	38	-.181	.084	-.134	-.540
133	553	.406	.153	.912	-.319	135	603	.323	.058	.043	-.534	150	39	-.147	.096	-.275	-.481
133	554	.527	1.009	.369	-.369	135	604	.235	.049	.041	-.397	150	40	-.190	.097	-.295	-.609
133	555	.317	.140	.897	-.267	135	605	.178	.055	.091	-.338	150	41	-.216	.038	-.074	-.374
133	556	.524	.131	.879	-.002	135	606	.168	.055	.099	-.331	150	42	-.215	.054	-.035	-.693
133	557	.519	.143	.931	-.014	135	607	.171	.053	.086	-.338	150	43	-.174	.052	-.012	-.340
133	558	.524	.147	.962	-.019	135	608	.179	.056	.083	-.381	150	44	-.172	.058	-.087	-.375
133	559	.522	.068	.314	-.972	135	609	.211	.078	.167	-.534	150	45	-.165	.082	-.171	-.511
133	560	.509	.068	.285	-.965	135	610	.273	.097	.049	-.628	150	46	-.032	.104	-.381	-.300
133	561	.370	.088	.339	-.148	135	611	.004	.074	.338	-.187	150	47	-.077	.097	-.372	-.444
133	562	.369	.064	.026	-.659	135	612	.055	.095	.458	-.169	150	48	-.181	.081	-.108	-.392
133	563	.150	.077	.179	-.446	135	613	.070	.110	.461	-.196	150	49	-.143	.068	-.185	-.501
133	564	.042	.093	.425	-.301	135	614	.080	.107	.479	-.184	150	50	-.123	.072	-.268	-.413
133	565	.068	.097	.378	-.328	150	1	.207	.076	.122	-.599	150	51	-.090	.084	-.301	-.303
133	566	.052	.124	.499	-.577	150	2	.256	.053	.090	-.583	150	52	-.172	.053	-.054	-.431
133	567	.066	.171	.642	-.865	150	3	.240	.033	.112	-.373	150	54	-.131	.061	-.201	-.323
133	568	.137	.225	.774	-.879	150	4	.219	.028	.104	-.327	150	55	-.108	.072	-.206	-.301
133	569	.213	.204	.900	-.449	150	5	.205	.028	.075	-.332	150	56	-.166	.051	-.028	-.410
133	570	.238	.192	.889	-.430	150	6	.198	.028	.090	-.330	150	57	-.199	.027	-.104	-.328
133	571	.261	.189	.901	-.380	150	7	.203	.027	.112	-.419	150	58	-.186	.035	-.005	-.349
133	572	.276	.186	.902	-.283	150	8	.224	.078	.085	-.633	150	59	-.203	.038	-.025	-.388
133	573	.533	.093	.371	-1.178	150	9	.242	.049	.077	-.488	150	60	-.270	.050	-.124	-.562
133	574	.606	.093	.383	-1.078	150	10	.227	.035	.037	-.393	150	61	-.326	.101	-.012	-.760
133	575	.654	.110	.394	-1.163	150	11	.214	.029	.108	-.332	150	62	-.263	.046	-.097	-.506
133	576	.431	.070	.124	-.713	150	12	.204	.028	.108	-.322	150	63	-.267	.066	-.055	-.765
133	577	.290	.055	.025	-.470	150	13	.192	.028	.079	-.328	150	64	-.318	.099	-.005	-.962
133	578	.177	.060	.101	-.439	150	14	.192	.023	.095	-.332	150	65	-.212	.065	-.164	-.460
133	579	.142	.065	.144	-.422	150	15	.200	.026	.069	-.286	150	66	-.197	.078	-.090	-.326
133	580	.110	.082	.221	-.417	150	16	.189	.021	.090	-.268	150	67	-.185	.051	-.014	-.509
133	581	.141	.132	.310	-.763	150	17	.204	.027	.129	-.342	150	68	-.182	.058	-.108	-.508
133	582	.129	.193	.641	-1.001	150	18	.200	.025	.134	-.310	150	69	-.293	.146	-.085	-.694
133	583	.079	.179	.773	-.392	150	19	.193	.025	.113	-.316	150	70	-.249	.088	-.005	-.801
133	584	.116	.178	.764	-.345	150	20	.204	.026	.116	-.333	150	71	-.092	.098	-.381	-.462



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WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
150	537	.911	.197	.119	-1.697	150	537	.099	.083	.222	-.386	150	537	.507	.130	.893	.133
150	538	.765	.172	.131	-1.316	150	538	.129	.091	.185	-.524	150	538	.614	.144	1.032	.246
150	539	.688	.155	.111	-1.054	150	539	.277	.159	.212	-1.338	150	539	.633	.146	1.040	.146
150	540	.914	.195	.144	-1.344	150	540	.256	.093	.020	-.843	150	540	.536	.156	.990	.135
150	541	.831	.177	.131	-1.054	150	541	.221	.049	.034	-.571	150	541	.281	.134	.682	.192
150	542	.933	.198	.144	-1.344	150	542	.243	.049	.023	-.482	150	542	.282	.140	.742	.291
150	543	.833	.177	.131	-1.054	150	543	.256	.054	.048	-.567	150	543	.278	.150	.763	.233
150	544	.833	.177	.131	-1.054	150	544	.256	.061	.100	-.553	150	544	.326	.142	.806	.138
150	545	.833	.177	.131	-1.054	150	545	.299	.084	.080	-.656	150	545	.555	.138	.261	-1.329
150	546	.833	.177	.131	-1.054	150	546	.343	.123	.080	-.939	150	546	.560	.143	.246	-1.363
150	547	.944	.203	.144	-1.344	150	547	.336	.131	.051	-1.047	150	547	.598	.171	.275	-1.573
150	548	.833	.177	.131	-1.054	150	548	.343	.141	-.073	-1.159	150	548	.165	.091	.236	-.572
150	549	.833	.177	.131	-1.054	150	549	.334	.130	.096	-1.154	150	549	.092	.097	.433	.239
150	550	.833	.177	.131	-1.054	150	550	.336	.129	.098	-1.100	150	550	.299	.118	.713	.142
150	551	.833	.177	.131	-1.054	150	551	.336	.079	.355	-.935	150	551	.371	.126	.796	-.099
150	552	.833	.177	.131	-1.054	150	552	.336	.098	.432	-1.072	150	552	.492	.140	.897	.040
150	553	.833	.177	.131	-1.054	150	553	.336	.097	.431	-1.088	150	553	.371	.126	.796	-.099
150	554	.833	.177	.131	-1.054	150	554	.336	.075	.224	-.754	150	554	.514	.154	.943	.002
150	555	.833	.177	.131	-1.054	150	555	.336	.102	.224	-.754	150	555	.455	.158	.900	.250
150	556	.833	.177	.131	-1.054	150	556	.336	.102	.185	-.829	150	556	.220	.137	.671	.334
150	557	.833	.177	.131	-1.054	150	557	.336	.091	.149	-.772	150	557	.239	.140	.715	.285
150	558	.833	.177	.131	-1.054	150	558	.336	.086	.169	-.731	150	558	.221	.137	.817	.253
150	559	.833	.177	.131	-1.054	150	559	.336	.109	.138	-.731	150	559	.253	.151	.834	.231
150	560	.833	.177	.131	-1.054	150	560	.336	.117	.194	-.966	150	560	.683	.216	.151	-1.608
150	561	.833	.177	.131	-1.054	150	561	.336	.117	.173	-1.129	150	561	.659	.199	.149	-1.490
150	562	.833	.177	.131	-1.054	150	562	.336	.145	.073	-1.179	150	562	.762	.230	.194	-1.781
150	563	.833	.177	.131	-1.054	150	563	.336	.157	.441	-.831	150	563	.397	.121	.059	-.890
150	564	.833	.177	.131	-1.054	150	564	.336	.103	.303	-.386	150	564	.171	.102	.219	-.532
150	565	.833	.177	.131	-1.054	150	565	.336	.107	.371	-1.146	150	565	.024	.113	.437	-.376
150	566	.833	.177	.131	-1.054	150	566	.336	.122	.271	-1.231	150	566	.020	.117	.497	-.405
150	567	.833	.177	.131	-1.054	150	567	.336	.140	.308	-1.896	150	567	.125	.136	.642	-.340
150	568	.833	.177	.131	-1.054	150	568	.336	.497	.261	-.848	150	568	.196	.148	.690	.346
150	569	.833	.177	.131	-1.054	150	569	.336	.074	.272	-.805	150	569	.222	.144	.719	.353
150	570	.833	.177	.131	-1.054	150	570	.336	.081	.062	-.476	150	570	.086	.137	.602	.381
150	571	.833	.177	.131	-1.054	150	571	.336	.099	.126	-.334	150	571	.110	.138	.638	.373
150	572	.833	.177	.131	-1.054	150	572	.336	.093	.255	-.393	150	572	.126	.142	.673	.367
150	573	.833	.177	.131	-1.054	150	573	.336	.100	.326	-.321	150	573	.153	.132	.661	.271
150	574	.833	.177	.131	-1.054	150	574	.336	.116	.381	-.282	150	574	.663	.205	.107	-1.764
150	575	.833	.177	.131	-1.054	150	575	.336	.131	.516	-.250	150	575	.636	.174	.163	-1.450
150	576	.833	.177	.131	-1.054	150	576	.336	.140	.798	-.213	150	576	.682	.201	.106	-1.417
150	577	.833	.177	.131	-1.054	150	577	.336	.127	.686	-.123	150	577	.449	.112	.077	-.341
150	578	.833	.177	.131	-1.054	150	578	.336	.144	.652	-.210	150	578	.343	.082	.073	-.641
150	579	.833	.177	.131	-1.054	150	579	.336	.189	.016	-.126	150	579	.274	.080	.063	-.611
150	580	.833	.177	.131	-1.054	150	580	.336	.144	.706	-.419	150	580	.250	.084	.066	-.624
150	581	.833	.177	.131	-1.054	150	581	.336	.144	.683	-.300	150	581	.215	.096	.210	-.650
150	582	.833	.177	.131	-1.054	150	582	.336	.086	.261	-1.088	150	582	.192	.127	.318	-.735
150	583	.833	.177	.131	-1.054	150	583	.336	.089	.279	-.978	150	583	.137	.152	.370	-.895
150	584	.833	.177	.131	-1.054	150	584	.336	.100	.264	-1.116	150	584	.093	.110	.486	-.558
150	585	.833	.177	.131	-1.054	150	585	.336	.102	.191	-.353	150	585	.068	.106	.531	-.449
150	586	.833	.177	.131	-1.054	150	586	.336	.102	.191	-.113	150	586	.075	.107	.300	-.733
150	587	.833	.177	.131	-1.054	150	587	.336	.102	.077	-.077	150	587	.061	.104	.325	-.510



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WD	TAP	CPNEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPNEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPNEAN	CPRMS	CPMAX	CPMIN
165	139	.570	.133	-.168	-1.055	165	189	-.240	.047	-.082	-.473	165	339	-.606	.132	-.266	-1.299
165	140	-.638	.145	-.223	-1.192	165	190	-.227	.043	-.074	-.445	165	340	-.637	.163	-.259	-1.539
165	141	-.811	.216	-.108	-1.488	165	191	-.233	.049	-.058	-.573	165	341	-.492	.087	-.238	-.937
165	142	-.890	.224	-.267	-1.538	165	192	-.263	.039	-.087	-.610	165	342	-.476	.079	-.227	-.970
165	143	-.870	.222	-.303	-1.386	165	193	-.261	.066	-.073	-.616	165	343	-.456	.077	-.221	-.933
165	144	-.833	.199	-.303	-1.480	165	194	-.292	.081	-.081	-.834	165	344	-.461	.075	-.246	-.951
165	143	.346	.096	-.236	-1.043	165	193	-.333	.091	-.119	-.968	165	345	-.461	.226	-.734	-1.057
165	146	.570	.116	-.219	-1.263	165	196	-.394	.115	-.113	-1.029	165	346	-.049	.153	-.605	-.557
165	147	.611	.181	-.121	-1.798	165	197	-.248	.073	.019	-.661	165	347	-.676	.134	-.266	-1.356
165	148	.613	.139	-.279	-1.576	165	198	-.243	.088	.086	-.642	165	348	-.598	.121	-.266	-1.213
165	149	.624	.130	-.193	-1.413	165	199	-.269	.090	.007	-.692	165	349	-.592	.111	-.311	-1.273
165	150	.622	.172	-.209	-1.714	165	200	-.271	.080	-.035	-.666	165	350	-.620	.117	-.300	-1.352
165	151	.622	.175	-.182	-1.637	165	301	-.593	.098	-.287	-1.031	165	351	-.619	.119	-.291	-1.212
165	152	.592	.156	-.193	-1.345	165	302	-.588	.096	-.320	-.975	165	352	-.654	.132	-.306	-1.168
165	153	.603	.155	-.184	-1.191	165	303	-.484	.097	-.182	-.889	165	353	-.662	.168	-.283	-1.616
165	154	.653	.161	-.095	-1.246	165	304	-.553	.110	-.269	-1.153	165	354	-.698	.202	-.272	-2.177
165	155	.703	.265	.426	-1.544	165	305	-.542	.102	-.298	-.997	165	355	-.538	.103	-.254	-.960
165	156	.917	.242	.319	-1.792	165	306	-.570	.109	-.233	-.993	165	356	-.507	.095	-.224	-.956
165	157	.937	.237	-.083	-1.918	165	307	-.523	.103	-.187	-.931	165	357	-.477	.096	-.153	-1.063
165	158	.873	.211	-.084	-1.788	165	308	-.486	.094	-.187	-.874	165	358	-.484	.097	-.160	-1.032
165	159	.602	.155	-.205	-1.355	165	309	-.540	.103	-.293	-1.135	165	359	-.250	.240	-.520	-1.304
165	160	.632	.157	-.151	-1.432	165	310	-.555	.108	-.290	-1.112	165	360	-.122	.160	-.386	-1.168
165	161	.694	.187	-.134	-1.828	165	311	-.566	.118	-.236	-1.102	165	361	-.854	.200	-.401	-2.165
165	162	.689	.172	-.114	-1.633	165	312	-.538	.108	-.227	-.941	165	362	-.745	.171	-.300	-1.892
165	163	.59	.182	-.170	-1.630	165	313	-.492	.103	-.128	-.930	165	363	-.715	.166	-.149	-1.841
165	164	.713	.216	-.147	-2.144	165	314	-.576	.116	-.290	-1.240	165	364	-.712	.162	-.249	-1.658
165	165	.722	.219	-.22	-2.526	165	315	-.582	.122	-.199	-1.182	165	365	-.705	.172	-.150	-1.616
165	166	.688	.190	-.11	-1.688	165	316	-.557	.109	-.147	-.973	165	366	-.684	.162	-.205	-1.320
165	167	.784	.189	-.22	-2.000	165	317	-.537	.111	-.194	-.956	165	367	-.662	.159	-.144	-1.364
165	168	.681	.211	-.11	-1.899	165	318	-.498	.119	-.645	-.157	165	368	-.679	.169	-.179	-1.466
165	169	.462	.276	-.370	-1.361	165	319	-.528	.104	-.261	-1.097	165	369	-.570	.146	-.145	-1.300
165	170	.719	.265	-.209	-1.798	165	320	-.531	.104	-.269	-1.105	165	370	-.565	.141	-.182	-1.135
165	171	.882	.217	-.133	-1.875	165	321	-.530	.096	-.273	-.955	165	371	-.532	.133	-.139	-1.082
165	172	.802	.189	-.165	-1.641	165	322	-.559	.106	-.280	-1.042	165	372	-.526	.130	-.164	-1.133
165	173	.459	.172	-.071	-1.335	165	323	-.552	.111	-.254	-1.085	165	373	-.230	.161	-.268	-.829
165	174	.445	.174	.021	-1.570	165	324	-.549	.113	-.249	-1.053	165	374	-.245	.119	-.145	-.710
165	175	.454	.153	-.037	-1.255	165	325	-.528	.109	-.168	-1.077	165	375	-.742	.238	-.017	-1.829
165	176	.452	.148	-.177	-1.136	165	326	-.535	.109	-.182	-1.162	165	376	-.585	.177	-.052	-1.359
165	177	.422	.151	-.148	-1.087	165	327	-.457	.094	-.184	-.955	165	377	-.478	.176	-.068	-1.339
165	178	.333	.191	-.021	-1.628	165	328	-.446	.091	-.199	-.854	165	378	-.384	.153	-.041	-1.101
165	179	.600	.205	-.101	-1.640	165	329	-.430	.097	-.200	-.985	165	379	-.356	.140	-.018	-1.081
165	180	.712	.206	-.179	-1.605	165	330	-.439	.097	-.205	-.977	165	380	-.000	.000	-.000	-.000
165	181	.734	.207	-.231	-1.609	165	331	-.460	.208	-.667	-.769	165	381	-.333	.103	-.078	-.874
165	182	.873	.262	-.243	-1.860	165	332	-.179	.130	-.557	-.380	165	382	-.387	.147	-.095	-1.193
165	183	.737	.179	-.157	-1.057	165	333	-.109	.109	-.319	-1.098	165	383	-.357	.128	-.057	-1.088
165	184	.384	.226	-.207	-1.125	165	334	-.509	.085	-.238	-1.095	165	384	-.367	.135	-.122	-1.220
165	185	.531	.209	-.209	-1.346	165	335	-.510	.084	-.204	-1.209	165	385	-.335	.122	-.082	-1.540
165	186	.478	.184	-.169	-1.195	165	336	-.532	.089	-.241	-1.193	165	386	-.318	.112	-.072	-1.371
165	187	.227	.043	-.039	-1.455	165	337	-.532	.091	-.258	-.987	165	387	-.202	.061	-.027	-.561
165	188	.246	.048	-.039	-1.525	165	338	-.577	.103	-.277	-1.050	165	388	-.217	.059	-.038	-.550



SEATTLE HOTEL -- SEATTLE , WASHINGTON

WD	TAP	CP	PHEARH	CPRMS	CPMAX	CPHIN	WD	TAP	CP	PHEARH	CPRMS	CPMAX	CPHIN
1800	141	532	287	347	347	391	1800	141	532	287	347	347	391
1800	142	741	272	288	288	766	1800	142	741	272	288	288	766
1800	143	828	233	107	107	715	1800	143	828	233	107	107	715
1800	144	764	204	026	026	512	1800	144	764	204	026	026	512
1800	145	429	071	116	116	718	1800	145	429	071	116	116	718
1800	146	452	082	216	216	806	1800	146	452	082	216	216	806
1800	147	535	142	184	184	390	1800	147	535	142	184	184	390
1800	148	529	123	191	191	219	1800	148	529	123	191	191	219
1800	149	536	122	162	162	261	1800	149	536	122	162	162	261
1800	150	561	145	140	140	341	1800	150	561	145	140	140	341
1800	151	577	154	184	184	474	1800	151	577	154	184	184	474
1800	152	591	149	184	184	212	1800	152	591	149	184	184	212
1800	153	596	139	204	204	230	1800	153	596	139	204	204	230
1800	154	664	160	233	233	403	1800	154	664	160	233	233	403
1800	155	500	275	346	346	369	1800	155	500	275	346	346	369
1800	156	707	266	255	255	637	1800	156	707	266	255	255	637
1800	157	826	242	092	092	870	1800	157	826	242	092	092	870
1800	158	751	215	048	048	398	1800	158	751	215	048	048	398
1800	159	466	099	189	189	188	1800	159	466	099	189	189	188
1800	160	476	102	160	160	188	1800	160	476	102	160	160	188
1800	161	500	113	204	204	077	1800	161	500	113	204	204	077
1800	162	466	102	166	166	960	1800	162	466	102	166	166	960
1800	163	485	118	170	170	996	1800	163	485	118	170	170	996
1800	164	564	150	205	205	462	1800	164	564	150	205	205	462
1800	165	597	154	223	223	302	1800	165	597	154	223	223	302
1800	166	637	149	285	285	267	1800	166	637	149	285	285	267
1800	167	680	158	275	275	292	1800	167	680	158	275	275	292
1800	168	819	198	227	227	699	1800	168	819	198	227	227	699
1800	169	253	216	483	483	999	1800	169	253	216	483	483	999
1800	170	389	272	594	594	469	1800	170	389	272	594	594	469
1800	171	619	233	607	607	514	1800	171	619	233	607	607	514
1800	172	546	188	064	064	300	1800	172	546	188	064	064	300
1800	173	362	108	090	090	859	1800	173	362	108	090	090	859
1800	174	349	104	119	119	820	1800	174	349	104	119	119	820
1800	175	374	119	131	131	963	1800	175	374	119	131	131	963
1800	176	314	070	131	131	639	1800	176	314	070	131	131	639
1800	177	279	054	110	110	713	1800	177	279	054	110	110	713
1800	178	284	068	088	088	692	1800	178	284	068	088	088	692
1800	179	308	082	127	127	751	1800	179	308	082	127	127	751
1800	180	405	119	141	141	165	1800	180	405	119	141	141	165
1800	181	490	133	192	192	197	1800	181	490	133	192	192	197
1800	182	596	186	159	159	414	1800	182	596	186	159	159	414
1800	183	237	102	145	145	754	1800	183	237	102	145	145	754
1800	184	262	148	232	232	099	1800	184	262	148	232	232	099
1800	185	341	155	096	096	003	1800	185	341	155	096	096	003
1800	186	308	126	070	070	815	1800	186	308	126	070	070	815
1800	187	243	038	138	138	469	1800	187	243	038	138	138	469
1800	188	260	046	150	150	614	1800	188	260	046	150	150	614
1800	189	251	043	119	119	633	1800	189	251	043	119	119	633
1800	190	232	031	128	128	442	1800	190	232	031	128	128	442



## SEATTLE HOTEL -- SEATTLE , WASHINGTON

WD	TAP	CP	MEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CP	MEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CP	MEAN	CPRMS	CPMAX	CPMIN	
1800	191			.0228	143		1800	341			.059	201		1800	391			.058	104		695
1800	192			.028	157		1800	342			.053	199		1800	392			.295	102		572
1800	193			.031	135		1800	343			.051	188		1800	393			.279	056		549
1800	194			.038	123		1800	344			.050	198		1800	394			.272	053		525
1800	195			.044	140		1800	345			.178	240	-1	1800	395			.256	045		442
1800	196			.055	134		1800	346			.182	440	-1	1800	396			.248	041		435
1800	197			.042	139		1800	347			.083	188		1800	397			.247	037		491
1800	198			.045	144		1800	348			.073	198		1800	398			.244	034		394
1800	199			.047	152		1800	349			.078	440		1800	399			.244	034		384
1800	200			.041	180		1800	350			.092	222		1800	400			.244	034		386
1800	201			.071	271		1800	351			.410	88		1800	501			.523	078		852
1800	202			.074	271		1800	352			.084	222		1800	502			.533	078		890
1800	203			.073	186		1800	353			.090	440	-1	1800	503			.513	073		775
1800	204			.101	222		1800	354			.098	222		1800	504			.340	086		810
1800	205			.081	223		1800	355			.063	255		1800	505			.308	086		908
1800	206			.074	190		1800	356			.067	222		1800	506			.358	104		829
1800	207			.069	142		1800	357			.067	188		1800	507			.298	069		768
1800	208			.079	174		1800	358			.066	440	-1	1800	508			.285	059		724
1800	209			.075	168		1800	359			.198	188		1800	509			.370	231	-1	204
1800	210			.074	184		1800	360			.174	440	-1	1800	510			.499	284		270
1800	211			.074	150		1800	361			.133	188		1800	511			.649	244		382
1800	212			.077	153		1800	362			.131	440	-1	1800	512			.646	196		205
1800	213			.090	117		1800	363			.147	440	-1	1800	513			.546	130		661
1800	214			.090	120		1800	364			.144	440	-1	1800	514			.814	227		573
1800	215			.093	117		1800	365			.145	440	-1	1800	515			.802	180		856
1800	216			.093	120		1800	366			.117	440	-1	1800	516			.822	185		855
1800	217			.173	74		1800	367			.116	440	-1	1800	517			.822	433	-2	693
1800	218			.173	44		1800	368			.122	440	-1	1800	518			.968	354	-3	146
1800	219			.090	117		1800	369			.101	440	-1	1800	519			.062	171		738
1800	220			.090	119		1800	370			.100	440	-1	1800	520			.107	155		543
1800	221			.090	166		1800	371			.102	440	-1	1800	521			.169	145		449
1800	222			.090	166		1800	372			.090	440	-1	1800	522			.187	136		507
1800	223			.090	157		1800	373			.166	440	-1	1800	523			.197	132		473
1800	224			.090	119		1800	374			.119	440	-1	1800	524			.218	124		420
1800	225			.090	149		1800	375			.149	440	-1	1800	525			.200	119		219
1800	226			.090	133		1800	376			.111	440	-1	1800	526			.151	112		270
1800	227			.090	133		1800	377			.111	440	-1	1800	527			.151	147	-1	307
1800	228			.090	133		1800	378			.111	440	-1	1800	528			.006	019		058
1800	229			.090	133		1800	379			.111	440	-1	1800	529			.006	063		955
1800	230			.090	133		1800	380			.111	440	-1	1800	530			.449	132		838
1800	231			.090	133		1800	381			.111	440	-1	1800	531			.339	143		607
1800	232			.090	133		1800	382			.111	440	-1	1800	532			.845	224		678
1800	233			.090	133		1800	383			.111	440	-1	1800	533			.845	198		678
1800	234			.090	133		1800	384			.111	440	-1	1800	534			.845	213	-1	676
1800	235			.090	133		1800	385			.111	440	-1	1800	535			.845	148		597
1800	236			.090	133		1800	386			.111	440	-1	1800	536			.845	171		361
1800	237			.090	133		1800	387			.111	440	-1	1800	537			.845	179		262
1800	238			.090	133		1800	388			.111	440	-1	1800	538			.845	175	1	141
1800	239			.090	133		1800	389			.111	440	-1	1800	539			.845	175		197
1800	240			.090	133		1800	390			.111	440	-1	1800	540			.845	125	1	283
1800	241			.090	133		1800	391			.111	440	-1	1800	541			.845	206	-1	082



SEATTLE HOTEL -- SEATTLE, WASHINGTON

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
1955	78	195	.033	.044	-.289	195	143	-.176	.268	.591	-1.174	195	193	-.220	.027	-.129	-.374
1955	79	210	.026	-.049	-.304	195	144	-.169	.236	.532	-1.040	195	194	-.223	.030	-.100	-.425
1955	80	198	.039	-.033	-.317	195	145	-.377	.086	-.164	-.988	195	195	-.223	.034	-.126	-.491
1955	81	211	.033	-.076	-.337	195	146	-.376	.091	-.117	-.973	195	196	-.223	.036	-.144	-.514
1955	82	211	.042	-.016	-.337	195	147	-.403	.107	-.073	-.979	195	197	-.223	.032	-.109	-.362
1955	83	218	.025	-.102	-.315	195	148	-.372	.096	-.089	-.848	195	198	-.223	.031	-.098	-.341
1955	84	222	.021	-.139	-.296	195	149	-.365	.100	-.048	-.907	195	199	-.223	.030	-.090	-.321
1955	85	230	.021	-.134	-.320	195	150	-.404	.136	-.061	-1.126	195	200	-.223	.028	-.119	-.322
1955	101	306	.084	-.061	-.659	195	151	-.446	.156	-.052	-1.264	195	301	-.223	.108	-.263	-1.019
1955	102	634	.107	-.313	-.939	195	152	-.581	.195	-.047	-1.420	195	302	-.223	.090	-.300	-.915
1955	103	804	.126	-.394	-.235	195	153	-.745	.218	-.136	-1.636	195	303	-.223	.082	-.014	-.653
1955	104	405	.061	-.225	-.686	195	154	-.929	.281	-.058	-2.093	195	304	-.223	.121	-.239	-1.155
1955	105	447	.075	-.229	-.714	195	155	-.239	.164	-.261	-.920	195	305	-.223	.100	-.231	-1.014
1955	106	714	.131	-.278	-.116	195	156	-.193	.216	-.410	-1.132	195	306	-.223	.087	-.199	-.890
1955	107	828	.135	-.381	-.290	195	157	-.248	.243	-.548	-1.102	195	307	-.223	.078	-.134	-.720
1955	108	034	-.471	-.377	-.686	195	158	-.229	.216	-.570	-1.023	195	308	-.223	.072	-.175	-.723
1955	109	374	.053	-.107	-.591	195	159	-.342	.085	-.127	-.798	195	309	-.223	.097	-.208	-1.007
1955	110	410	.069	-.145	-.649	195	160	-.347	.089	-.101	-.982	195	310	-.223	.096	-.172	-.956
1955	111	330	.036	-.132	-.669	195	161	-.370	.100	-.098	-.938	195	311	-.223	.088	-.150	-.899
1955	112	352	.057	-.132	-.669	195	162	-.294	.071	-.086	-.698	195	312	-.223	.089	-.150	-.899
1955	113	440	.075	-.129	-.633	195	163	-.294	.069	-.078	-.634	195	313	-.223	.074	-.153	-.739
1955	114	572	.114	-.129	-.618	195	164	-.330	.083	-.068	-.757	195	314	-.223	.090	-.188	-.844
1955	115	772	.154	-.129	-.996	195	165	-.330	.094	-.112	-.933	195	315	-.223	.085	-.143	-.872
1955	116	885	.229	-.415	-.225	195	166	-.402	.117	-.117	-.967	195	316	-.223	.084	-.209	-.748
1955	117	388	.064	-.210	-.631	195	167	-.492	.131	-.134	-.111	195	317	-.223	.196	-.650	-.993
1955	118	426	.064	-.196	-.626	195	168	-.609	.186	-.073	-1.438	195	318	-.223	.178	-.499	-.720
1955	119	430	.081	-.148	-.796	195	169	-.256	.100	-.143	-.874	195	319	-.223	.083	-.204	-.893
1955	120	430	.094	-.178	-.883	195	170	-.227	.124	-.224	-.955	195	320	-.223	.086	-.196	-.932
1955	121	512	.116	-.188	-.919	195	171	-.257	.142	-.181	-1.005	195	321	-.223	.079	-.185	-.966
1955	122	662	.178	-.206	-.208	195	172	-.352	.125	-.169	-.822	195	322	-.223	.067	-.222	-.807
1955	123	841	.233	-.193	-.393	195	173	-.300	.065	-.131	-.641	195	323	-.223	.067	-.177	-.697
1955	124	003	.231	-.283	-.167	195	174	-.394	.071	-.124	-.710	195	324	-.223	.075	-.173	-.905
1955	125	771	.155	-.455	-.145	195	175	-.308	.077	-.092	-.791	195	325	-.223	.071	-.178	-.789
1955	126	662	.124	-.476	-.339	195	176	-.270	.047	-.127	-.520	195	326	-.223	.069	-.190	-.713
1955	127	147	.155	-.588	-.598	195	177	-.254	.037	-.129	-.442	195	327	-.223	.068	-.204	-.736
1955	128	402	.218	-.942	-.626	195	178	-.249	.038	-.134	-.436	195	328	-.223	.065	-.211	-.741
1955	129	333	.301	-.138	-.805	195	179	-.259	.041	-.105	-.455	195	329	-.223	.069	-.146	-.737
1955	130	248	.266	-.065	-.703	195	180	-.302	.053	-.135	-.556	195	330	-.223	.069	-.167	-.748
1955	131	383	.076	-.179	-.803	195	181	-.323	.066	-.116	-.707	195	331	-.223	.200	-.218	-1.247
1955	132	392	.079	-.135	-.768	195	182	-.350	.089	-.042	-.799	195	332	-.223	.211	-.336	-1.178
1955	133	425	.101	-.157	-.958	195	183	-.244	.050	-.045	-.507	195	333	-.223	.107	-.121	-.998
1955	134	423	.101	-.081	-.902	195	184	-.240	.053	-.032	-.500	195	334	-.223	.104	-.034	-1.014
1955	135	441	.121	-.080	-.010	195	185	-.231	.056	-.039	-.492	195	335	-.223	.101	-.007	-1.020
1955	136	555	.167	-.061	-.214	195	186	-.223	.052	-.022	-.461	195	336	-.223	.096	-.111	-.962
1955	137	626	.199	-.074	-.391	195	187	-.225	.028	-.141	-.429	195	337	-.223	.085	-.160	-.966
1955	138	779	.229	-.166	-.691	195	188	-.238	.030	-.142	-.487	195	338	-.223	.062	-.217	-.741
1955	139	861	.241	-.285	-.039	195	189	-.234	.036	-.143	-.323	195	339	-.223	.059	-.200	-.734
1955	140	926	.276	-.328	-.277	195	190	-.219	.025	-.138	-.338	195	340	-.223	.068	-.180	-.823
1955	141	133	.189	-.398	-.864	195	191	-.217	.023	-.141	-.341	195	341	-.223	.073	-.183	-.876
1955	142	044	.253	-.708	-.021	195	192	-.227	.025	-.135	-.318	195	342	-.223	.067	-.172	-.746

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1955	WD	543	575	151	100	164
1955	TAP	544	499	145	021	050
1955	CPHEAN	545	215	205	369	107
1955	CPHMS	546	234	183	335	944
1955	CPMAX	547	217	222	335	206
1955	CPMIN	548	107	102	290	479
1955	WD	549	081	090	360	384
1955	TAP	550	069	119	519	371
1955	CPHEAN	551	054	138	634	376
1955	CPHMS	552	059	179	654	536
1955	CPMAX	553	151	203	490	588
1955	CPMIN	554	414	223	342	139
1955	WD	555	447	124	335	932
1955	TAP	556	469	137	069	022
1955	CPHEAN	557	499	150	037	235
1955	CPHMS	558	438	143	063	974
1955	CPMAX	559	227	113	135	857
1955	CPMIN	560	234	098	117	806
1955	WD	561	249	117	068	929
1955	TAP	562	210	070	058	453
1955	CPHEAN	563	179	069	225	428
1955	CPHMS	564	167	083	269	442
1955	CPMAX	565	181	088	301	481
1955	CPMIN	566	198	111	335	577
1955	WD	567	238	116	270	606
1955	TAP	568	365	137	219	932
1955	CPHEAN	569	392	092	110	555
1955	CPHMS	570	412	101	112	858
1955	CPMAX	571	401	107	067	322
1955	CPMIN	572	356	099	028	721
1955	WD	573	236	058	028	612
1955	TAP	574	257	056	067	567
1955	CPHEAN	575	246	063	028	644
1955	CPHMS	576	230	050	041	566
1955	CPMAX	577	236	042	033	380
1955	CPMIN	578	239	046	019	387
1955	WD	579	229	050	118	390
1955	TAP	580	231	056	103	387
1955	CPHEAN	581	256	060	124	478
1955	CPHMS	582	316	074	080	687
1955	CPMAX	583	308	062	153	659
1955	CPMIN	584	313	063	153	588
1955	WD	585	310	065	118	655
1955	TAP	586	296	059	089	590
1955	CPHEAN	587	208	029	114	336
1955	CPHMS	588	217	030	108	329
1955	CPMAX	589	234	034	103	360
1955	CPMIN	590	229	031	117	357
1955	WD	591	212	028	118	321
1955	TAP	592	208	028	103	310



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WD	TAP	CPHEAN	CPRMS	CPMAX	CPHIN	WD	TAP	CPHEAN	CPRMS	CPMAX	CPHIN	WD	TAP	CPHEAN	CPRMS	CPMAX	CPHIN
14	144	133	133	133	133	22	195	227	034	119	404	210	345	493	183	005	640
14	144	133	133	133	133	22	196	244	044	108	487	210	346	463	199	327	336
14	144	133	133	133	133	22	197	197	036	025	356	210	347	448	171	005	329
14	144	133	133	133	133	22	198	183	033	027	332	210	348	415	148	034	133
14	144	133	133	133	133	22	199	188	033	049	341	210	349	403	139	023	093
14	144	133	133	133	133	22	200	196	032	034	356	210	350	385	098	078	979
14	144	133	133	133	133	22	201	200	111	064	922	210	351	360	082	127	808
14	144	133	133	133	133	22	202	200	121	167	929	210	352	357	078	133	969
14	144	133	133	133	133	22	203	200	079	099	495	210	353	358	085	107	847
14	144	133	133	133	133	22	204	200	180	101	921	210	354	393	107	185	084
14	144	133	133	133	133	22	205	200	418	101	921	210	355	391	125	175	084
14	144	133	133	133	133	22	206	200	403	111	002	210	356	391	116	171	205
14	144	133	133	133	133	22	207	200	393	113	021	210	357	369	103	172	155
14	144	133	133	133	133	22	208	200	381	089	075	210	358	376	100	181	555
14	144	133	133	133	133	22	209	200	379	090	107	210	359	462	183	036	555
14	144	133	133	133	133	22	210	200	401	100	144	210	360	462	183	036	555
14	144	133	133	133	133	22	211	200	404	106	075	210	361	416	163	030	668
14	144	133	133	133	133	22	212	200	397	125	043	210	362	416	163	030	668
14	144	133	133	133	133	22	213	200	346	080	087	210	363	396	146	043	331
14	144	133	133	133	133	22	214	200	319	078	046	210	364	362	124	046	334
14	144	133	133	133	133	22	215	200	416	103	142	210	365	444	088	123	419
14	144	133	133	133	133	22	216	200	399	112	064	210	366	444	077	103	555
14	144	133	133	133	133	22	217	200	351	072	087	210	367	339	093	105	668
14	144	133	133	133	133	22	218	200	453	141	156	210	368	339	113	107	668
14	144	133	133	133	133	22	219	200	417	133	085	210	369	383	144	149	668
14	144	133	133	133	133	22	220	200	361	092	114	210	370	393	131	162	333
14	144	133	133	133	133	22	221	200	361	088	073	210	371	375	124	143	311
14	144	133	133	133	133	22	222	200	374	088	133	210	372	373	116	153	226
14	144	133	133	133	133	22	223	200	387	091	144	210	373	339	107	034	258
14	144	133	133	133	133	22	224	200	362	086	102	210	374	293	100	245	865
14	144	133	133	133	133	22	225	200	331	074	109	210	375	342	125	030	352
14	144	133	133	133	133	22	226	200	332	080	105	210	376	321	107	076	083
14	144	133	133	133	133	22	227	200	351	082	142	210	377	282	076	074	738
14	144	133	133	133	133	22	228	200	344	085	130	210	378	268	058	143	633
14	144	133	133	133	133	22	229	200	342	082	150	210	379	257	051	097	633
14	144	133	133	133	133	22	230	200	323	079	124	210	380	000	000	000	000
14	144	133	133	133	133	22	231	200	338	079	121	210	381	000	000	000	000
14	144	133	133	133	133	22	232	200	496	161	032	210	382	275	061	125	917
14	144	133	133	133	133	22	233	200	499	181	119	210	383	283	077	138	917
14	144	133	133	133	133	22	234	200	463	153	077	210	384	286	094	015	416
14	144	133	133	133	133	22	235	200	411	129	005	210	385	299	086	139	876
14	144	133	133	133	133	22	236	200	388	105	052	210	386	298	085	103	920
14	144	133	133	133	133	22	237	200	368	072	169	210	387	290	078	116	888
14	144	133	133	133	133	22	238	200	361	070	146	210	388	229	043	083	503
14	144	133	133	133	133	22	239	200	359	063	172	210	389	231	040	100	577
14	144	133	133	133	133	22	240	200	349	073	141	210	390	251	053	123	617
14	144	133	133	133	133	22	241	200	366	086	148	210	391	242	047	112	553
14	144	133	133	133	133	22	242	200	370	088	183	210	392	231	041	114	678
14	144	133	133	133	133	22	243	200	378	084	178	210	393	229	034	119	685
14	144	133	133	133	133	22	244	200	357	079	157	210	394	229	035	135	885
14	144	133	133	133	133	22	245	200	359	077	171	210	395	221	031	133	925







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	WD	TAP	CPHEAN	CPRMS	CPMAX	CPHIN	WD	TAP	CPHEAN	CPRMS	CPMAX	CPMIN
1977	2225	47	405	080	206	-1	225	397	428	138	137	-1
1978	2225	48	405	068	219	-1	225	398	422	132	177	-1
1979	2225	49	399	074	159	-1	225	399	411	128	192	-1
1980	2225	50	331	057	152	-1	225	400	413	138	192	-1
1981	2225	51	333	052	149	-1	225	401	401	111	206	-1
1982	2225	52	333	047	193	-1	225	402	481	084	194	-1
1983	2225	53	333	052	190	-1	225	403	349	071	113	-1
1984	2225	54	333	055	232	-1	225	404	744	210	030	-1
1985	2225	55	333	055	230	-1	225	405	282	084	044	-1
1986	2225	56	333	053	244	-1	225	406	240	075	088	-1
1987	2225	57	333	048	180	-1	225	407	243	078	100	-1
1988	2225	58	333	048	187	-1	225	408	280	059	041	-1
1989	2225	59	333	076	233	-1	225	409	131	380	560	-1
1990	2225	60	333	090	193	-1	225	410	245	096	118	-1
1991	2225	61	333	100	161	-1	225	411	260	153	213	-1
1992	2225	62	333	083	185	-1	225	412	260	128	125	-1
1993	2225	63	333	075	174	-1	225	413	351	043	053	-1
1994	2225	64	333	064	193	-1	225	414	325	045	045	-1
1995	2225	65	333	060	173	-1	225	415	452	173	197	-1
1996	2225	66	333	059	201	-1	225	416	379	118	179	-1
1997	2225	67	333	064	205	-1	225	417	411	170	823	-1
1998	2225	68	333	072	214	-1	225	418	447	185	914	-1
1999	2225	69	333	069	231	-1	225	419	092	183	595	-1
2000	2225	70	333	064	204	-1	225	420	030	139	495	-1
2001	2225	71	333	060	219	-1	225	421	050	124	443	-1
2002	2225	72	333	060	224	-1	225	422	101	113	361	-1
2003	2225	73	333	099	222	-1	225	423	114	109	363	-1
2004	2225	74	333	109	040	-1	225	424	148	094	477	-1
2005	2225	75	333	163	193	-1	225	425	200	084	170	-1
2006	2225	76	333	091	221	-1	225	426	270	071	042	-1
2007	2225	77	333	106	164	-1	225	427	338	065	181	-1
2008	2225	78	333	083	184	-1	225	428	022	019	052	-1
2009	2225	79	333	083	107	-1	225	429	363	076	127	-1
2010	2225	80	333	000	000	-1	225	430	367	074	163	-1
2011	2225	81	333	113	081	-1	225	431	485	188	986	-1
2012	2225	82	333	123	140	-1	225	432	460	217	030	-1
2013	2225	83	333	143	048	-1	225	433	084	327	855	-1
2014	2225	84	333	137	211	-1	225	434	077	263	679	-1
2015	2225	85	333	117	182	-1	225	435	033	148	417	-1
2016	2225	86	333	112	169	-1	225	436	045	106	261	-1
2017	2225	87	333	132	032	-1	225	437	098	102	284	-1
2018	2225	88	333	122	097	-1	225	438	198	075	132	-1
2019	2225	89	333	124	164	-1	225	439	285	053	053	-1
2020	2225	90	333	111	153	-1	225	440	369	064	167	-1
2021	2225	91	333	115	150	-1	225	441	368	062	184	-1
2022	2225	92	333	091	083	-1	225	442	379	064	199	-1
2023	2225	93	333	100	049	-1	225	443	376	052	233	-1
2024	2225	94	333	147	077	-1	225	444	407	061	193	-1
2025	2225	95	333	144	150	-1	225	445	407	207	010	-1
2026	2225	96	333	141	151	-1	225	446	364	220	005	-1

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CP	PHEAH	H	CP	PRMS	CP	MAX	CP	PHIN	WD	TAP	CP	PHEAH	CP	PRMS	CP	MAX	CP	PHIN	WD	TAP	CP	PHEAH	CP	PRMS	CP	MAX	CP	PHIN	WD	TAP	CP	PHEAH	CP	PRMS	CP	MAX	CP	PHIN	WD			
N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83

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WD	TAP	CP	PHEAN	CPRMS	CPHAX	CPHIN	WD	TAP	CP	PHEAN	CPRMS	CPHAX	CPHIN	WD	TAP	CP	PHEAN	CPRMS	CPHAX	CPHIN
240	894	177	201	100	144	149	240	149	172	049	044	364	240	199	015	099	525	255	279	
240	895	177	201	100	144	149	240	150	013	074	287	287	240	200	015	101	513	260	271	
240	101	3338	052	179	339	151	240	151	040	085	361	238	240	301	498	078	260	764	764	
240	102	481	063	287	677	152	240	152	131	115	537	288	240	302	604	063	401	839	839	
240	103	555	058	346	773	153	240	153	043	177	601	912	240	303	432	067	195	683	683	
240	104	351	052	215	561	154	240	154	165	278	825	280	240	304	492	059	297	755	755	
240	105	306	064	169	672	155	240	155	510	164	928	029	240	305	487	065	301	845	845	
240	106	326	040	193	465	156	240	156	524	137	926	041	240	306	473	058	308	744	744	
240	107	425	128	116	848	157	240	157	508	153	922	037	240	307	466	066	236	755	755	
240	108	774	112	454	165	158	240	158	516	153	940	012	240	308	464	066	283	758	758	
240	109	388	072	147	611	159	240	159	465	051	334	705	240	309	462	059	257	663	663	
240	110	461	097	174	755	160	240	160	464	052	278	706	240	310	500	065	298	734	734	
240	111	425	137	078	948	161	240	161	486	060	296	641	240	311	436	044	274	600	600	
240	112	262	133	152	819	162	240	162	320	043	152	629	240	312	467	062	249	772	772	
240	113	831	212	230	323	163	240	163	171	052	061	349	240	313	448	048	289	658	658	
240	114	493	057	244	687	164	240	164	021	073	230	244	240	314	516	073	301	873	873	
240	115	607	108	194	011	165	240	165	030	083	296	232	240	315	428	048	243	595	595	
240	116	714	238	135	624	166	240	166	130	113	482	244	240	316	476	039	309	755	755	
240	117	403	042	244	362	167	240	167	112	132	372	499	240	317	446	045	311	597	597	
240	118	393	040	253	338	168	240	168	228	218	807	907	240	318	465	046	323	658	658	
240	119	312	038	194	461	169	240	169	368	179	887	103	240	319	448	050	253	636	636	
240	120	258	042	131	413	170	240	170	373	173	902	060	240	320	461	053	283	714	714	
240	121	227	043	078	369	171	240	171	378	170	916	036	240	321	453	055	253	685	685	
240	122	189	037	012	371	172	240	172	382	170	936	041	240	322	446	055	250	631	631	
240	123	176	062	036	376	173	240	173	316	089	332	123	240	323	431	055	240	678	678	
240	124	154	080	109	418	174	240	174	493	094	277	996	240	324	439	057	302	704	704	
240	125	192	113	152	773	175	240	175	517	110	296	059	240	325	448	049	311	658	658	
240	126	363	137	094	008	176	240	176	353	067	176	633	240	326	461	048	294	646	646	
240	127	463	136	387	044	177	240	177	194	063	056	468	240	327	457	048	311	692	692	
240	128	434	135	863	056	178	240	178	054	080	218	294	240	328	460	045	312	619	619	
240	129	440	135	795	000	179	240	179	012	090	308	272	240	329	447	047	299	610	610	
240	130	447	133	817	010	180	240	180	052	116	467	254	240	330	453	047	311	619	619	
240	131	422	040	234	604	181	240	181	061	141	638	433	240	331	461	040	316	597	597	
240	132	423	040	297	362	182	240	182	133	184	732	312	240	332	472	038	345	624	624	
240	133	437	044	280	636	183	240	183	137	163	749	258	240	333	470	042	319	624	624	
240	134	301	034	171	008	184	240	184	136	154	721	251	240	334	452	039	340	610	610	
240	135	145	048	017	293	185	240	185	197	168	790	236	240	335	446	040	333	600	600	
240	136	004	071	012	008	186	240	186	209	169	816	230	240	336	438	040	317	599	599	
240	137	043	075	036	003	187	240	187	360	109	327	246	240	337	430	040	277	602	602	
240	138	138	103	076	053	188	240	188	377	112	311	339	240	338	468	042	323	614	614	
240	139	011	170	079	071	189	240	189	621	132	306	445	240	339	457	041	313	610	610	
240	140	098	263	916	129	190	240	190	382	077	183	695	240	340	477	041	353	643	643	
240	141	560	149	164	000	191	240	191	213	064	029	418	240	341	480	041	362	627	627	
240	142	384	143	160	036	192	240	192	091	078	223	371	240	342	489	040	360	646	646	
240	143	390	143	183	065	193	240	193	074	080	237	301	240	343	470	040	347	605	605	
240	144	391	143	189	063	194	240	194	035	087	351	301	240	344	477	040	361	612	612	
240	145	442	038	337	116	195	240	195	045	097	470	458	240	345	493	043	335	644	644	
240	146	433	039	333	098	196	240	196	048	115	553	442	240	346	506	045	347	719	719	
240	147	447	044	337	091	197	240	197	054	112	497	477	240	347	489	046	296	673	673	
240	148	304	036	184	445	198	240	198	027	101	522	500	240	348	491	046	314	643	643	

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WD	TAP	CPHEAN	CPRMS	CPHAX	CPHIN	WD	TAP	CPHEAN	CPRMS	CPHAX	CPHIN	WD	TAP	CPHEAN	CPRMS	CPHAX	CPHIN
240	349	.475	.046	.223	.619	240	399	.574	.113	.305	-1.341	240	349	.161	.334	-1.290	
240	350	.485	.046	.311	.638	240	400	.576	.110	.335	-1.180	240	350	.188	.072	.185	-1.576
240	351	.468	.043	.313	.634	240	501	.560	.060	.341	-1.851	240	351	.220	.037	.740	-1.905
240	352	.481	.044	.351	.675	240	502	.453	.056	.222	-1.649	240	352	.289	.049	.029	-1.482
240	353	.468	.042	.301	.624	240	503	.334	.049	.139	-1.511	240	353	.395	.046	.157	-1.549
240	354	.486	.042	.355	.658	240	504	.747	.089	.438	-1.053	240	354	.501	.056	.356	-1.727
240	355	.471	.039	.342	.619	240	505	.612	.147	.150	-1.040	240	355	.222	.023	.243	-1.375
240	356	.479	.040	.346	.651	240	506	.306	.038	.134	-1.463	240	356	.444	.043	.316	-1.636
240	357	.478	.045	.340	.661	240	507	.272	.038	.151	-1.689	240	357	.456	.043	.284	-1.603
240	358	.489	.044	.342	.641	240	508	.309	.033	.197	-1.583	240	358	.464	.038	.302	-1.603
240	359	.521	.039	.340	.794	240	509	.833	.139	.476	-1.302	240	359	.366	.192	.037	-1.182
240	360	.535	.061	.346	.838	240	510	.312	.217	.229	-1.956	240	360	.371	1.033	.740	-1.182
240	361	.536	.060	.343	.850	240	511	.274	.082	.073	-1.951	240	361	.371	.333	.223	-1.316
240	362	.539	.057	.330	.790	240	512	.347	.082	.159	-1.665	240	362	.661	.333	.249	-1.173
240	363	.514	.035	.330	.746	240	513	.297	.069	.123	-1.203	240	363	.661	.180	.144	-1.389
240	364	.514	.033	.319	.709	240	514	.389	.182	.137	-1.225	240	364	.661	.161	.249	-1.603
240	365	.516	.031	.340	.712	240	515	.329	.118	.180	-1.905	240	365	.661	.066	.108	-1.571
240	366	.516	.032	.347	.797	240	516	.451	.064	.236	-1.622	240	366	.661	.009	.249	-1.324
240	367	.516	.034	.092	.838	240	517	.453	.146	.912	-1.076	240	367	.442	.038	.200	-1.701
240	368	.516	.039	.363	.821	240	518	.432	.145	.812	-1.085	240	368	.442	.076	.308	-1.867
240	369	.510	.033	.338	.874	240	519	.385	.224	.012	-1.151	240	369	.491	.054	.275	-1.721
240	370	.491	.050	.340	.893	240	520	.359	.204	.067	-1.038	240	370	.485	.030	.402	-1.581
240	371	.491	.049	.313	.770	240	521	.223	.092	.069	-1.733	240	371	.492	.054	.260	-1.737
240	372	.498	.048	.322	.721	240	522	.214	.061	.017	-1.456	240	372	.484	.053	.258	-1.723
240	373	.578	.089	.397	.889	240	523	.211	.055	.000	-1.409	240	373	.573	.166	.706	-1.204
240	374	.603	.085	.411	.052	240	524	.233	.042	.075	-1.369	240	374	.002	.023	.056	-1.080
240	375	.589	.088	.367	.876	240	525	.275	.038	.135	-1.451	240	375	.800	.335	.180	-1.947
240	376	.589	.086	.380	.921	240	526	.340	.035	.200	-1.524	240	376	.800	.166	.014	-1.393
240	377	.565	.087	.353	.863	240	527	.397	.038	.277	-1.394	240	377	.800	.166	.019	-1.265
240	378	.546	.077	.264	.945	240	528	.005	.015	.035	-1.067	240	378	.800	.053	.065	-1.553
240	379	.533	.073	.310	.856	240	529	.406	.043	.030	-1.377	240	379	.800	.049	.044	-1.533
240	380	.533	.000	.000	.000	240	530	.416	.043	.030	-1.377	240	380	.800	.049	.044	-1.533
240	381	.536	.104	.316	.249	240	531	.609	.154	.010	-1.051	240	381	.800	.066	.298	-1.696
240	382	.539	.117	.317	.349	240	532	.465	.147	.900	-1.122	240	382	.800	.093	.346	-1.945
240	383	.558	.119	.310	.348	240	533	.508	.383	.033	-1.616	240	383	.800	.093	.284	-1.829
240	384	.556	.109	.333	.302	240	534	.454	.220	.324	-1.236	240	384	.800	.075	.329	-1.877
240	385	.556	.095	.306	.244	240	535	.090	.108	.285	-1.555	240	385	.800	.082	.335	-1.893
240	386	.523	.090	.317	.103	240	536	.098	.065	.241	-1.301	240	386	.800	.081	.330	-1.905
240	387	.564	.113	.342	.178	240	537	.139	.069	.216	-1.319	240	387	.800	.091	.420	-1.256
240	388	.561	.099	.046	.006	240	538	.249	.049	.032	-1.388	240	388	.800	.076	.282	-1.375
240	389	.574	.109	.306	.266	240	539	.349	.028	.231	-1.445	240	389	.800	.252	.265	-1.666
240	390	.568	.104	.259	.016	240	540	.443	.047	.306	-1.619	240	390	.800	.165	.081	-1.337
240	391	.570	.120	.145	.134	240	541	.423	.039	.311	-1.579	240	391	.800	.109	.095	-1.868
240	392	.491	.109	.085	.036	240	542	.435	.038	.324	-1.487	240	392	.800	.053	.125	-1.579
240	393	.484	.110	.095	.304	240	543	.429	.018	.375	-1.487	240	393	.800	.044	.159	-1.586
240	394	.570	.155	.131	.670	240	544	.423	.036	.316	-1.371	240	394	.800	.043	.211	-1.531
240	395	.570	.141	.154	.227	240	545	.518	.177	.010	-1.093	240	395	.800	.062	.270	-1.709
240	396	.570	.132	.248	.430	240	546	.339	.171	.937	-1.190	240	396	.800	.114	.310	-1.303
240	397	.570	.124	.091	.362	240	547	.745	.271	.010	-1.492	240	397	.800	.129	.295	-1.345
240	398	.582	.114	.323	.234	240	548	.557	.247	.306	-1.544	240	398	.800	.129	.302	-1.390

SEATTLE HOTEL -- SEATTLE, WASHINGTON

WD	TAP	CP	HEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CP	HEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CP	HEAN	CPRMS	CPMAX	CPMIN		
2240	599	---	545	.114	---	---	2555	35	---	054	.099	---	---	2555	101	---	516	.062	---	304	---	779
2240	600	---	547	.106	---	---	2555	36	---	068	.094	---	---	2555	102	---	735	.098	---	435	---	1102
2240	601	---	084	.058	---	---	2555	37	---	048	.082	---	---	2555	103	---	761	.111	---	452	---	1141
2240	602	---	136	.049	---	---	2555	38	---	026	.070	---	---	2555	104	---	515	.064	---	275	---	761
2240	603	---	293	.074	---	---	2555	39	---	001	.088	---	---	2555	105	---	523	.101	---	219	---	953
2240	604	---	301	.073	---	---	2555	40	---	014	.069	---	---	2555	106	---	356	.060	---	184	---	734
2240	605	---	278	.057	---	---	2555	41	---	071	.051	---	---	2555	107	---	460	.058	---	268	---	669
2240	606	---	256	.042	---	---	2555	42	---	001	.057	---	---	2555	108	---	735	.251	---	151	---	1462
2240	607	---	228	.036	---	---	2555	43	---	002	.051	---	---	2555	109	---	560	.068	---	260	---	846
2240	608	---	247	.032	---	---	2555	44	---	002	.050	---	---	2555	110	---	625	.081	---	263	---	903
2240	609	---	280	.034	---	---	2555	45	---	009	.049	---	---	2555	111	---	754	.131	---	204	---	1184
2240	610	---	320	.032	---	---	2555	46	---	009	.044	---	---	2555	112	---	308	.092	---	103	---	660
2240	611	---	322	.031	---	---	2555	47	---	004	.037	---	---	2555	113	---	088	.160	---	418	---	1206
2240	612	---	342	.034	---	---	2555	48	---	007	.057	---	---	2555	114	---	642	.072	---	404	---	1059
2240	613	---	322	.033	---	---	2555	49	---	048	.036	---	---	2555	115	---	837	.124	---	393	---	1244
2240	614	---	390	.033	---	---	2555	50	---	031	.031	---	---	2555	116	---	269	.256	---	275	---	1125
2240	615	---	405	.059	---	---	2555	51	---	060	.060	---	---	2555	117	---	503	.045	---	348	---	654
2240	616	---	402	.093	---	---	2555	52	---	094	.049	---	---	2555	118	---	493	.046	---	335	---	662
2240	617	---	408	.075	---	---	2555	53	---	110	.049	---	---	2555	119	---	340	.046	---	170	---	518
2240	618	---	288	.045	---	---	2555	54	---	117	.049	---	---	2555	120	---	251	.054	---	057	---	440
2240	619	---	400	.033	---	---	2555	55	---	097	.045	---	---	2555	121	---	197	.065	---	005	---	399
2240	620	---	367	.066	---	---	2555	56	---	059	.046	---	---	2555	122	---	149	.078	---	105	---	399
2240	621	---	189	.039	---	---	2555	57	---	058	.058	---	---	2555	123	---	133	.085	---	125	---	376
2240	622	---	421	.049	---	---	2555	58	---	028	.046	---	---	2555	124	---	065	.103	---	232	---	385
2240	623	---	421	.052	---	---	2555	59	---	192	.063	---	---	2555	125	---	041	.111	---	367	---	382
2240	624	---	421	.112	---	---	2555	60	---	299	.086	---	---	2555	126	---	088	.150	---	490	---	586
2240	625	---	421	.111	---	---	2555	61	---	143	.143	---	---	2555	127	---	410	.132	---	769	---	079
2240	626	---	421	.111	---	---	2555	62	---	143	.143	---	---	2555	128	---	333	.121	---	689	---	053
2240	627	---	421	.111	---	---	2555	63	---	143	.143	---	---	2555	129	---	333	.126	---	790	---	095
2240	628	---	421	.111	---	---	2555	64	---	143	.143	---	---	2555	130	---	400	.127	---	798	---	084
2240	629	---	421	.111	---	---	2555	65	---	143	.143	---	---	2555	131	---	511	.045	---	381	---	695
2240	630	---	421	.111	---	---	2555	66	---	143	.143	---	---	2555	132	---	487	.047	---	339	---	655
2240	631	---	421	.111	---	---	2555	67	---	143	.143	---	---	2555	133	---	568	.047	---	345	---	687
2240	632	---	421	.111	---	---	2555	68	---	143	.143	---	---	2555	134	---	234	.053	---	044	---	462
2240	633	---	421	.111	---	---	2555	69	---	143	.143	---	---	2555	135	---	008	.079	---	290	---	285
2240	634	---	421	.111	---	---	2555	70	---	143	.143	---	---	2555	136	---	221	.107	---	589	---	141
2240	635	---	421	.111	---	---	2555	71	---	143	.143	---	---	2555	137	---	279	.110	---	661	---	007
2240	636	---	421	.111	---	---	2555	72	---	143	.143	---	---	2555	138	---	426	.130	---	865	---	048
2240	637	---	421	.111	---	---	2555	73	---	143	.143	---	---	2555	139	---	495	.156	1	004	---	012
2240	638	---	421	.111	---	---	2555	74	---	143	.143	---	---	2555	140	---	586	.152	1	024	---	055
2240	639	---	421	.111	---	---	2555	75	---	143	.143	---	---	2555	141	---	532	.145	1	051	---	049
2240	640	---	421	.111	---	---	2555	76	---	143	.143	---	---	2555	142	---	540	.153	1	018	---	108
2240	641	---	421	.111	---	---	2555	77	---	143	.143	---	---	2555	143	---	554	.134	1	045	---	084
2240	642	---	421	.111	---	---	2555	78	---	143	.143	---	---	2555	144	---	539	.134	1	034	---	091
2240	643	---	421	.111	---	---	2555	79	---	143	.143	---	---	2555	145	---	513	.042	---	387	---	674
2240	644	---	421	.111	---	---	2555	80	---	143	.143	---	---	2555	146	---	491	.043	---	368	---	629
2240	645	---	421	.111	---	---	2555	81	---	143	.143	---	---	2555	147	---	497	.046	---	360	---	700
2240	646	---	421	.111	---	---	2555	82	---	143	.143	---	---	2555	148	---	247	.051	---	065	---	419
2240	647	---	421	.111	---	---	2555	83	---	143	.143	---	---	2555	149	---	036	.073	---	185	---	236
2240	648	---	421	.111	---	---	2555	84	---	143	.143	---	---	2555	150	---	178	.099	---	473	---	112

SEATTLE HOTEL -- SEATTLE , WASHINGTON

	TAP	CPNEAH	CPRMS	CPHAX	CPHIN	WD	TAP	CPNEAH	CPRMS	CPHAX	CPHIN	WD	TAP	CPNEAH	CPRMS	CPHAX	CPHIN
151	.249		.109	.583	-.060	255	301	-.499	.080	-.021	-.743	255	351	-.497	.046	-.324	-.647
152	.376		.132	.782	-.017	255	302	-.665	.074	-.458	-.937	255	352	-.519	.046	-.342	-.679
153	.438		.138	.993	-.033	255	303	-.383	.066	-.334	-.808	255	353	-.531	.048	-.373	-.729
154	.541		.156	1.068	-.091	255	304	-.619	.066	-.395	-.858	255	354	-.566	.049	-.414	-.784
155	.480		.136	.983	-.002	255	305	-.396	.068	-.395	-.924	255	355	-.545	.046	-.403	-.908
156	.490		.145	.964	-.124	255	306	-.590	.064	-.353	-.797	255	356	-.558	.046	-.412	-.892
157	.304		.139	.917	.080	255	307	-.329	.052	-.336	-.768	255	357	-.547	.044	-.417	-.726
158	.517		.140	.923	-.100	255	308	-.544	.051	-.356	-.713	255	358	-.533	.044	-.424	-.726
159	.323		.048	.350	-.700	255	309	-.358	.060	-.366	-.829	255	359	-.564	.039	-.391	-.963
160	.337		.049	.337	-.682	255	310	-.367	.054	-.407	-.784	255	360	-.581	.067	-.410	-1.077
161	.334		.049	.387	-.739	255	311	-.361	.060	-.391	-.864	255	361	-.536	.060	-.363	-.907
162	.269		.051	.005	-.421	255	312	-.555	.049	-.390	-.776	255	362	-.557	.056	-.361	-.804
163	.058		.075	.314	-.233	255	313	-.519	.053	-.344	-.712	255	363	-.532	.054	-.311	-.707
164	.132		.101	.572	-.103	255	314	-.527	.057	-.356	-.745	255	364	-.542	.051	-.289	-.713
165	.222		.116	.886	-.092	255	315	-.540	.063	-.338	-.809	255	365	-.532	.054	-.324	-.724
166	.354		.140	.736	-.033	255	316	-.541	.056	-.376	-.829	255	366	-.532	.052	-.387	-.758
167	.413		.163	.849	-.091	255	317	-.531	.056	-.363	-.846	255	367	-.539	.051	-.367	-.770
168	.472		.162	.952	-.045	255	318	-.531	.060	-.380	-.862	255	368	-.564	.052	-.390	-.798
169	.388		.132	.785	-.032	255	319	-.526	.059	-.326	-.811	255	369	-.556	.045	-.400	-.712
170	.409		.122	.791	-.000	255	320	-.530	.058	-.354	-.854	255	370	-.571	.044	-.412	-.714
171	.455		.122	.856	-.043	255	321	-.509	.058	-.288	-.748	255	371	-.550	.044	-.384	-.705
172	.431		.123	.878	-.007	255	322	-.538	.054	-.365	-.738	255	372	-.556	.043	-.395	-.701
173	.355		.095	.733	-.033	255	323	-.527	.052	-.362	-.712	255	373	-.607	.036	-.431	-.826
174	.355		.095	.733	-.033	255	324	-.537	.050	-.352	-.725	255	374	-.628	.038	-.463	-.853
175	.355		.095	.733	-.033	255	325	-.532	.050	-.363	-.724	255	375	-.606	.058	-.435	-.843
176	.355		.095	.733	-.033	255	326	-.544	.050	-.362	-.743	255	376	-.607	.054	-.456	-.822
177	.355		.095	.733	-.033	255	327	-.532	.048	-.365	-.739	255	377	-.570	.054	-.380	-.785
178	.355		.095	.733	-.033	255	328	-.540	.048	-.381	-.711	255	378	-.535	.049	-.407	-.727
179	.355		.095	.733	-.033	255	329	-.529	.048	-.392	-.773	255	379	-.546	.049	-.404	-.761
180	.355		.095	.733	-.033	255	330	-.540	.049	-.402	-.787	255	380	-.000	.000	-.000	-.000
181	.355		.095	.733	-.033	255	331	-.541	.060	-.326	-.792	255	381	-.552	.055	-.392	-.792
182	.355		.095	.733	-.033	255	332	-.571	.065	-.400	-.909	255	382	-.562	.056	-.410	-.891
183	.355		.095	.733	-.033	255	333	-.548	.063	-.298	-.832	255	383	-.560	.055	-.411	-.872
184	.355		.095	.733	-.033	255	334	-.538	.057	-.363	-.738	255	384	-.561	.052	-.422	-.816
185	.355		.095	.733	-.033	255	335	-.526	.055	-.331	-.693	255	385	-.572	.058	-.398	-.893
186	.355		.095	.733	-.033	255	336	-.535	.053	-.361	-.703	255	386	-.567	.055	-.394	-.893
187	.355		.095	.733	-.033	255	337	-.525	.048	-.370	-.697	255	387	-.601	.078	-.418	-.957
188	.355		.095	.733	-.033	255	338	-.543	.047	-.387	-.711	255	388	-.609	.077	-.442	-.972
189	.355		.095	.733	-.033	255	339	-.529	.046	-.362	-.710	255	389	-.602	.070	-.426	-.972
190	.355		.095	.733	-.033	255	340	-.544	.048	-.400	-.747	255	390	-.600	.070	-.377	-.928
191	.355		.095	.733	-.033	255	341	-.555	.047	-.397	-.729	255	391	-.592	.071	-.371	-.904
192	.355		.095	.733	-.033	255	342	-.562	.047	-.424	-.721	255	392	-.562	.063	-.320	-.889
193	.355		.095	.733	-.033	255	343	-.548	.046	-.410	-.703	255	393	-.588	.077	-.343	-1.039
194	.355		.095	.733	-.033	255	344	-.540	.046	-.410	-.703	255	394	-.623	.088	-.382	-1.245
195	.355		.095	.733	-.033	255	345	-.550	.060	-.305	-.970	255	395	-.611	.078	-.358	-1.093
196	.355		.095	.733	-.033	255	346	-.559	.074	-.266	-.147	255	396	-.617	.077	-.433	-1.136
197	.355		.095	.733	-.033	255	347	-.523	.065	-.295	-.857	255	397	-.599	.068	-.424	-.981
198	.355		.095	.733	-.033	255	348	-.509	.054	-.310	-.737	255	398	-.589	.064	-.430	-.898
199	.355		.095	.733	-.033	255	349	-.497	.050	-.329	-.697	255	399	-.582	.063	-.429	-.893
200	.355		.095	.733	-.033	255	350	-.512	.047	-.331	-.697	255	400	-.587	.062	-.455	-.903

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TAP	CP	CPH	CPHNS	CPHAX	CPHIN	WD	TAP	CPH	CPHNS	CPHAX	CPHIN	WD	TAP	CPH	CPHNS	CPHAX	CPHIN
601	1	1	1	1	1	2355	601	1	1	1	1	2355	601	1	1	1	1
602	1	1	1	1	1	2355	602	1	1	1	1	2355	602	1	1	1	1
603	1	1	1	1	1	2355	603	1	1	1	1	2355	603	1	1	1	1
604	1	1	1	1	1	2355	604	1	1	1	1	2355	604	1	1	1	1
605	1	1	1	1	1	2355	605	1	1	1	1	2355	605	1	1	1	1
606	1	1	1	1	1	2355	606	1	1	1	1	2355	606	1	1	1	1
607	1	1	1	1	1	2355	607	1	1	1	1	2355	607	1	1	1	1
608	1	1	1	1	1	2355	608	1	1	1	1	2355	608	1	1	1	1
609	1	1	1	1	1	2355	609	1	1	1	1	2355	609	1	1	1	1
610	1	1	1	1	1	2355	610	1	1	1	1	2355	610	1	1	1	1
611	1	1	1	1	1	2355	611	1	1	1	1	2355	611	1	1	1	1
612	1	1	1	1	1	2355	612	1	1	1	1	2355	612	1	1	1	1
613	1	1	1	1	1	2355	613	1	1	1	1	2355	613	1	1	1	1
614	1	1	1	1	1	2355	614	1	1	1	1	2355	614	1	1	1	1
1	1	1	1	1	1	2355	1	1	1	1	1	2355	1	1	1	1	1
2	1	1	1	1	1	2355	2	1	1	1	1	2355	2	1	1	1	1
3	1	1	1	1	1	2355	3	1	1	1	1	2355	3	1	1	1	1
4	1	1	1	1	1	2355	4	1	1	1	1	2355	4	1	1	1	1
5	1	1	1	1	1	2355	5	1	1	1	1	2355	5	1	1	1	1
6	1	1	1	1	1	2355	6	1	1	1	1	2355	6	1	1	1	1
7	1	1	1	1	1	2355	7	1	1	1	1	2355	7	1	1	1	1
8	1	1	1	1	1	2355	8	1	1	1	1	2355	8	1	1	1	1
9	1	1	1	1	1	2355	9	1	1	1	1	2355	9	1	1	1	1
10	1	1	1	1	1	2355	10	1	1	1	1	2355	10	1	1	1	1
11	1	1	1	1	1	2355	11	1	1	1	1	2355	11	1	1	1	1
12	1	1	1	1	1	2355	12	1	1	1	1	2355	12	1	1	1	1
13	1	1	1	1	1	2355	13	1	1	1	1	2355	13	1	1	1	1
14	1	1	1	1	1	2355	14	1	1	1	1	2355	14	1	1	1	1
15	1	1	1	1	1	2355	15	1	1	1	1	2355	15	1	1	1	1
16	1	1	1	1	1	2355	16	1	1	1	1	2355	16	1	1	1	1
17	1	1	1	1	1	2355	17	1	1	1	1	2355	17	1	1	1	1
18	1	1	1	1	1	2355	18	1	1	1	1	2355	18	1	1	1	1
19	1	1	1	1	1	2355	19	1	1	1	1	2355	19	1	1	1	1
20	1	1	1	1	1	2355	20	1	1	1	1	2355	20	1	1	1	1
21	1	1	1	1	1	2355	21	1	1	1	1	2355	21	1	1	1	1
22	1	1	1	1	1	2355	22	1	1	1	1	2355	22	1	1	1	1
23	1	1	1	1	1	2355	23	1	1	1	1	2355	23	1	1	1	1
24	1	1	1	1	1	2355	24	1	1	1	1	2355	24	1	1	1	1
25	1	1	1	1	1	2355	25	1	1	1	1	2355	25	1	1	1	1
26	1	1	1	1	1	2355	26	1	1	1	1	2355	26	1	1	1	1
27	1	1	1	1	1	2355	27	1	1	1	1	2355	27	1	1	1	1
28	1	1	1	1	1	2355	28	1	1	1	1	2355	28	1	1	1	1
29	1	1	1	1	1	2355	29	1	1	1	1	2355	29	1	1	1	1
30	1	1	1	1	1	2355	30	1	1	1	1	2355	30	1	1	1	1
31	1	1	1	1	1	2355	31	1	1	1	1	2355	31	1	1	1	1
32	1	1	1	1	1	2355	32	1	1	1	1	2355	32	1	1	1	1
33	1	1	1	1	1	2355	33	1	1	1	1	2355	33	1	1	1	1
34	1	1	1	1	1	2355	34	1	1	1	1	2355	34	1	1	1	1
35	1	1	1	1	1	2355	35	1	1	1	1	2355	35	1	1	1	1
36	1	1	1	1	1	2355	36	1	1	1	1	2355	36	1	1	1	1

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WD	TAP	CPMEAH	CPRHS	CPMAX	CPMIN	WD	TAP	CPMEAH	CPRHS	CPMAX	CPMIN	WD	TAP	CPMEAH	CPRHS	CPMAX	CPMIN
270	37	.082	.090	.676	-.104	270	103	-.886	.112	-.516	-1.327	270	153	.507	.149	.955	.104
270	38	.075	.078	.559	-.137	270	104	-.611	.083	-.367	-1.976	270	154	.456	.153	.903	-.109
270	39	.032	.083	.341	-.323	270	105	-.691	.104	-.361	-1.064	270	155	.237	.140	.724	-.303
270	40	.047	.071	.416	-.158	270	106	-.546	.130	-.250	-1.114	270	156	.238	.148	.729	-.337
270	41	.028	.031	.323	-.228	270	107	-.340	.061	-.310	-1.779	270	157	.278	.133	.733	-.261
270	42	.044	.039	.311	-.144	270	108	-.526	.103	-.191	-1.197	270	158	.314	.131	.785	-.238
270	43	.031	.063	.363	-.104	270	109	-.758	.111	-.391	-1.184	270	159	.611	.086	.401	-1.138
270	44	.033	.053	.292	-.127	270	110	-.814	.107	-.422	-1.225	270	160	.610	.085	.408	-1.156
270	45	.013	.046	.242	-.116	270	111	-.933	.123	-.449	-1.350	270	161	.638	.102	.354	-1.249
270	46	.031	.047	.262	-.104	270	112	-.135	.185	-.308	-1.358	270	162	.230	.071	.018	-.511
270	47	.013	.030	.273	-.102	270	113	-.176	.097	-.141	-1.474	270	163	.034	.096	.357	-.237
270	48	.490	.067	.261	-.888	270	114	-.843	.110	-.406	-1.459	270	164	.243	.122	.618	-.075
270	49	.418	.067	.195	-.805	270	115	-1.001	.125	-.505	-1.348	270	165	.316	.121	.682	-.012
270	50	.331	.039	.123	-.580	270	116	-1.536	.254	-.602	-2.313	270	166	.429	.135	.824	.091
270	51	.338	.056	.093	-.596	270	117	-.617	.074	-.354	-1.939	270	167	.462	.140	.877	.107
270	52	.365	.060	.177	-.696	270	118	-.612	.074	-.359	-1.912	270	168	.419	.148	.827	.000
270	53	.353	.052	.157	-.540	270	119	-.384	.064	-.118	-1.667	270	169	.196	.144	.643	-.264
270	54	.336	.048	.176	-.546	270	120	-.252	.069	-.075	-1.524	270	170	.228	.150	.692	-.286
270	55	.277	.042	.112	-.481	270	121	-.176	.079	-.116	-1.433	270	171	.249	.158	.717	-.321
270	56	.232	.066	.074	-.352	270	122	-.118	.089	-.220	-1.377	270	172	.274	.154	.738	-.326
270	57	.144	.041	.071	-.227	270	123	-.195	.096	-.260	-1.387	270	173	.670	.095	.670	-.111
270	58	.168	.043	.039	-.325	270	124	.039	.115	-.321	-1.422	270	174	.657	.095	.415	-1.230
270	59	.193	.072	.124	-.400	270	125	.082	.125	-.506	-1.400	270	175	.692	.118	.417	-1.366
270	60	.316	.079	-.093	-.679	270	126	.191	.132	-.629	-1.324	270	176	.312	.075	.025	-.638
270	61	.791	.167	-.264	-1.802	270	127	.130	.124	-.729	-2.550	270	177	.037	.090	.293	-.327
270	62	.687	.176	-.195	-1.485	270	128	.140	.133	-.677	-1.280	270	178	.165	.112	.559	-.142
270	63	.643	.127	-.278	-1.218	270	129	.148	.164	-.638	-1.481	270	179	.223	.122	.639	-.106
270	64	.384	.105	-.039	-.861	270	130	.221	.137	-.644	-1.265	270	180	.310	.141	.760	.019
270	65	.617	.147	-.149	-1.418	270	131	.622	.076	-.424	-1.975	270	181	.340	.147	.907	-.059
270	66	.137	.039	-.057	-.320	270	132	.597	.075	-.397	-1.917	270	182	.325	.151	.830	-.206
270	67	.206	.048	-.019	-.371	270	133	.631	.080	-.397	-1.067	270	183	.156	.139	.681	-.299
270	68	.555	.089	-.285	-.933	270	134	.197	.073	-.074	-1.439	270	184	.183	.143	.643	-.347
270	69	.800	.166	-.389	-1.630	270	135	.104	.098	-.451	-2.14	270	185	.187	.153	.719	-.262
270	70	.611	.120	-.273	-.879	270	136	.331	.123	-.718	-1.084	270	186	.215	.146	.746	-.185
270	71	.800	.131	-.383	-1.311	270	137	.427	.135	-.906	-1.049	270	187	.689	.115	.415	-1.342
270	72	.731	.171	-.389	-.633	270	138	.544	.150	-.039	-1.104	270	188	.718	.114	.454	-1.352
270	73	.747	.133	-.406	-.408	270	139	.577	.155	-.036	-1.137	270	189	.794	.159	.455	-1.642
270	74	.732	.138	-.256	-.428	270	140	.515	.158	-.948	-1.103	270	190	.379	.084	.048	-.787
270	75	.399	.079	-.136	-.866	270	141	.292	.134	-.666	-1.139	270	191	.115	.078	.217	-.326
270	76	.339	.055	-.021	-.420	270	142	.312	.144	-.772	-1.161	270	192	.074	.100	.485	-.155
270	77	.012	.078	-.396	-.163	270	143	.327	.155	-.806	-1.171	270	193	.117	.112	.574	-.120
270	78	.067	.105	-.536	-.183	270	144	.361	.150	-.827	-1.160	270	194	.167	.118	.722	-.067
270	79	.116	.100	-.522	-.151	270	145	.609	.080	-.384	-1.131	270	195	.149	.112	.719	-.123
270	80	.235	.144	-.788	-.069	270	146	.584	.079	-.372	-1.112	270	196	.091	.109	.609	-.269
270	81	.064	.057	.441	-.149	270	147	.595	.084	-.383	-1.191	270	197	.038	.093	.357	-.347
270	82	.044	.075	.216	-.225	270	148	.200	.075	-.555	-1.488	270	198	.004	.102	.394	-.341
270	83	.084	.047	.190	-.263	270	149	.080	.097	-.456	-1.203	270	199	.026	.112	.458	-.343
270	84	.132	.083	.164	-.503	270	150	.313	.121	-.703	-.054	270	200	.043	.104	.456	-.272
270	85	.652	.082	-.379	-1.110	270	151	.381	.128	-.774	.005	270	301	.645	.094	.286	-1.017
270	102	.832	.111	-.467	-1.323	270	152	.488	.139	.903	.087	270	302	.744	.099	.483	-1.299





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WD	TAP	CP	PHEAN	CPRMS	CPHNS	CPHIN	WD	TAP	CP	PHEAN	CPRMS	CPHNS	CPHIN
270	333	724	237	218	142	913	270	303	39	.021	.110	.487	.418
270	334	813	124	124	144	913	270	604	.028	.086	.311	.455	
270	335	396	.121	.121	.236	913	270	605	.006	.066	.337	.152	
270	336	532	.111	.111	.246	913	270	606	.064	.066	.344	.082	
270	337	573	.111	.111	.265	913	270	607	.062	.063	.351	.088	
270	338	320	.110	.110	.233	913	270	608	.063	.063	.304	.084	
270	339	445	.160	.160	.251	913	270	609	.044	.059	.292	.111	
270	340	000	.131	.131	.477	913	270	610	.046	.059	.316	.127	
270	341	223	.222	.222	.434	913	270	611	.034	.062	.285	.090	
270	342	999	.101	.101	.335	913	270	612	.508	.085	.270	.890	
270	343	000	.920	.920	.000	913	270	613	.399	.075	.164	.702	
270	344	000	.920	.920	.000	913	270	614	.313	.057	.019	.534	
270	345	000	.677	.677	.333	913	270	615	.338	.054	.159	.722	
270	346	000	.648	.648	.184	913	270	616	.374	.076	.122	.669	
270	347	000	.648	.648	.184	913	270	617	.348	.056	.134	.566	
270	348	000	.648	.648	.184	913	270	618	.331	.050	.147	.777	
270	349	000	.614	.614	.002	913	270	619	.290	.049	.124	.491	
270	350	000	.588	.588	.224	913	270	620	.270	.061	.111	.000	
270	351	000	.588	.588	.224	913	270	621	.148	.047	.071	.288	
270	352	000	.588	.588	.224	913	270	622	.148	.051	.059	.388	
270	353	000	.588	.588	.224	913	270	623	.174	.067	.108	.344	
270	354	000	.588	.588	.224	913	270	624	.331	.063	.095	.813	
270	355	000	.481	.481	.777	913	270	625	.713	.141	.320	.669	
270	356	000	.481	.481	.777	913	270	626	.585	.144	.214	.539	
270	357	000	.481	.481	.777	913	270	627	.660	.126	.211	.790	
270	358	000	.481	.481	.777	913	270	628	.236	.088	.043	.788	
270	359	000	.481	.481	.777	913	270	629	.535	.118	.196	.688	
270	360	000	.481	.481	.777	913	270	630	.121	.040	.045	.922	
270	361	000	.481	.481	.777	913	270	631	.171	.057	.005	.666	
270	362	000	.481	.481	.777	913	270	632	.449	.114	.147	.337	
270	363	000	.481	.481	.777	913	270	633	.829	.203	.375	.901	
270	364	000	.481	.481	.777	913	270	634	.546	.110	.218	.204	
270	365	000	.481	.481	.777	913	270	635	.667	.146	.349	.307	
270	366	000	.481	.481	.777	913	270	636	.727	.196	.358	.561	
270	367	000	.481	.481	.777	913	270	637	.755	.208	.158	.630	
270	368	000	.481	.481	.777	913	270	638	.658	.208	.081	.434	
270	369	000	.481	.481	.777	913	270	639	.403	.127	.077	.898	
270	370	000	.481	.481	.777	913	270	640	.195	.079	.083	.527	
270	371	000	.481	.481	.777	913	270	641	.109	.110	.502	.167	
270	372	000	.481	.481	.777	913	270	642	.197	.145	.641	.145	
270	373	000	.481	.481	.777	913	270	643	.186	.107	.598	.108	
270	374	000	.481	.481	.777	913	270	644	.299	.147	.892	.028	
270	375	000	.481	.481	.777	913	270	645	.097	.080	.412	.132	
270	376	000	.481	.481	.777	913	270	646	.006	.068	.306	.209	
270	377	000	.481	.481	.777	913	270	647	.033	.063	.268	.206	
270	378	000	.481	.481	.777	913	270	648	.048	.095	.335	.401	
270	379	000	.481	.481	.777	913	270	649	.644	.085	.371	.142	
270	380	000	.481	.481	.777	913	270	650	.760	.094	.505	.295	
270	381	000	.481	.481	.777	913	270	651	.742	.106	.431	.220	
270	382	000	.481	.481	.777	913	270	652	.690	.118	.383	.170	

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WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
285	105	722	130	337	225	285	155	937	128	406	455	285	305	681	112	321	369
285	106	643	145	285	209	285	156	055	131	404	476	285	306	714	133	377	355
285	107	463	066	232	682	285	157	075	151	395	548	285	307	702	119	405	429
285	108	511	074	223	771	285	158	027	151	388	505	285	308	757	120	440	369
285	109	917	155	300	497	285	159	838	207	383	817	285	309	671	098	286	093
285	110	984	146	259	480	285	160	836	191	390	655	285	310	715	103	399	144
285	111	928	142	207	520	285	161	922	231	396	937	285	311	724	118	381	278
285	112	373	361	306	421	285	162	193	115	204	623	285	312	715	115	429	283
285	113	164	086	115	564	285	163	165	125	592	211	285	313	725	129	376	381
285	114	010	133	591	531	285	164	385	142	810	012	285	314	716	114	368	166
285	115	049	123	552	478	285	165	432	160	960	000	285	315	738	126	391	455
285	116	453	233	548	294	285	166	470	162	957	009	285	316	731	112	440	200
285	117	860	232	433	017	285	167	400	153	868	074	285	317	658	093	362	100
285	118	828	195	419	693	285	168	105	211	785	576	285	318	683	101	323	204
285	119	342	094	026	675	285	169	063	133	368	583	285	319	671	112	275	222
285	120	180	093	132	495	285	170	071	139	452	595	285	320	688	114	229	222
285	121	097	090	281	372	285	171	093	148	541	634	285	321	688	114	275	222
285	122	044	095	327	338	285	172	049	148	539	562	285	322	699	123	338	240
285	123	330	099	346	338	285	173	881	172	480	625	285	323	716	118	338	240
285	124	022	114	420	346	285	174	864	154	496	480	285	324	673	105	381	177
285	125	111	123	541	314	285	175	954	200	520	970	285	325	673	108	352	388
285	126	175	125	538	250	285	176	268	112	197	699	285	326	694	114	356	388
285	127	067	105	274	508	285	177	118	130	533	341	285	327	676	157	344	137
285	128	127	116	265	594	285	178	325	151	734	096	285	328	771	139	064	324
285	129	242	130	314	660	285	179	368	157	821	077	285	329	828	181	381	514
285	130	055	129	403	489	285	180	386	163	880	046	285	330	829	180	392	514
285	131	055	185	376	645	285	181	280	156	889	142	285	331	829	099	363	116
285	132	786	172	289	866	285	182	023	203	633	693	285	332	686	104	373	244
285	133	822	203	420	713	285	183	099	126	407	516	285	333	675	130	346	475
285	134	114	105	206	709	285	184	114	135	441	548	285	334	686	115	407	333
285	135	255	122	645	149	285	185	101	149	437	663	285	335	670	099	386	246
285	136	477	140	885	095	285	186	045	143	486	566	285	336	683	103	346	151
285	137	544	140	963	122	285	187	919	191	407	883	285	337	691	107	346	151
285	138	590	139	031	164	285	188	938	185	487	869	285	338	690	114	325	358
285	139	510	132	912	114	285	189	073	240	344	913	285	339	676	118	294	196
285	140	167	194	692	457	285	190	363	123	106	789	285	340	739	130	294	248
285	141	020	121	372	883	285	191	022	120	438	327	285	341	817	160	200	431
285	142	032	123	403	567	285	192	181	132	704	117	285	342	832	175	420	643
285	143	063	129	524	580	285	193	214	144	742	113	285	343	793	167	412	722
285	144	019	131	555	548	285	194	227	138	780	055	285	344	791	154	426	551
285	145	804	200	349	724	285	195	152	124	617	140	285	345	629	103	340	190
285	146	789	187	350	563	285	196	047	178	570	624	285	346	666	117	325	332
285	147	834	223	336	678	285	197	144	103	273	533	285	347	653	148	266	683
285	148	133	108	167	573	285	198	127	119	327	599	285	348	670	130	336	451
285	149	206	118	557	213	285	199	147	141	390	908	285	349	646	107	369	204
285	150	439	134	841	035	285	200	099	132	417	531	285	350	663	117	382	446
285	151	494	138	903	016	285	301	656	104	211	078	285	351	642	120	356	610
285	152	535	144	910	067	285	302	768	122	444	398	285	352	647	127	294	428
285	153	458	133	913	042	285	303	668	092	423	122	285	353	660	136	150	464
285	154	110	201	702	600	285	304	693	103	369	103	285	354	722	147	209	574

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WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
2855	505	.706	.124	-.380	-1.259	2855	555	-.610	.101	-.297	-1.084	2855	555	-.610	.101	-.297	-1.084
2855	506	.701	.110	-.339	-1.098	2855	556	-.568	.092	-.286	-.984	2855	556	-.568	.092	-.286	-.984
2855	507	.652	.096	-.255	-1.015	2855	557	-.580	.097	-.306	-1.038	2855	557	-.580	.097	-.306	-1.038
2855	508	.609	.092	-.242	-.901	2855	558	-.563	.094	-.300	-1.018	2855	558	-.563	.094	-.300	-1.018
2855	509	.706	.130	-.332	-1.453	2855	559	-.044	.186	-.653	-.563	2855	559	-.044	.186	-.653	-.563
2855	510	.697	.130	-.330	-1.453	2855	560	-.057	.143	-.553	-.417	2855	560	-.057	.143	-.553	-.417
2855	511	.722	.123	-.411	-1.267	2855	561	-.867	.169	-.478	-1.181	2855	561	-.867	.169	-.478	-1.181
2855	512	.653	.099	-.322	-1.109	2855	562	-.767	.151	-.421	-1.956	2855	562	-.767	.151	-.421	-1.956
2855	513	.622	.093	-.244	-1.096	2855	563	-.778	.151	-.440	-1.872	2855	563	-.778	.151	-.440	-1.872
2855	514	.731	.133	-.327	-1.462	2855	564	-.777	.146	-.431	-1.653	2855	564	-.777	.146	-.431	-1.653
2855	515	.750	.121	-.320	-1.217	2855	565	-.766	.146	-.408	-1.759	2855	565	-.766	.146	-.408	-1.759
2855	516	.667	.097	-.300	-1.173	2855	566	-.733	.133	-.408	-1.380	2855	566	-.733	.133	-.408	-1.380
2855	517	.750	.190	-.651	-.739	2855	567	-.770	.170	-.218	-1.696	2855	567	-.770	.170	-.218	-1.696
2855	518	.667	.114	-.613	-1.199	2855	568	-.788	.199	-.242	-1.996	2855	568	-.788	.199	-.242	-1.996
2855	519	.689	.107	-.429	-1.307	2855	569	-.667	.129	-.261	-1.318	2855	569	-.667	.129	-.261	-1.318
2855	520	.683	.107	-.424	-1.303	2855	570	-.616	.108	-.297	-1.114	2855	570	-.616	.108	-.297	-1.114
2855	521	.700	.109	-.427	-1.724	2855	571	-.622	.113	-.284	-1.152	2855	571	-.622	.113	-.284	-1.152
2855	522	.698	.116	-.421	-2.034	2855	572	-.618	.112	-.284	-1.137	2855	572	-.618	.112	-.284	-1.137
2855	523	.710	.114	-.419	-1.812	2855	573	-.000	.178	-.842	-.597	2855	573	-.000	.178	-.842	-.597
2855	524	.688	.109	-.364	-1.316	2855	574	-.015	.118	-.302	-.380	2855	574	-.015	.118	-.302	-.380
2855	525	.680	.114	-.341	-1.322	2855	575	-.027	.224	-.505	-.373	2855	575	-.027	.224	-.505	-.373
2855	526	.666	.104	-.318	-1.139	2855	576	-.900	.181	-.454	-.091	2855	576	-.900	.181	-.454	-.091
2855	527	.666	.094	-.334	-1.222	2855	577	-.892	.153	-.357	-1.600	2855	577	-.892	.153	-.357	-1.600
2855	528	.588	.030	-.018	-.228	2855	578	-.846	.153	-.280	-1.594	2855	578	-.846	.153	-.280	-1.594
2855	529	.588	.093	-.303	-1.078	2855	579	-.806	.156	-.200	-1.638	2855	579	-.806	.156	-.200	-1.638
2855	530	.569	.093	-.293	-1.068	2855	580	-.764	.154	-.245	-1.331	2855	580	-.764	.154	-.245	-1.331
2855	531	.641	.173	-.399	-.505	2855	581	-.717	.158	-.266	-1.330	2855	581	-.717	.158	-.266	-1.330
2855	532	.611	.124	-.599	-.352	2855	582	-.731	.161	-.315	-1.436	2855	582	-.731	.161	-.315	-1.436
2855	533	.712	.110	-.420	-1.210	2855	583	-.670	.137	-.312	-1.211	2855	583	-.670	.137	-.312	-1.211
2855	534	.653	.096	-.394	-1.075	2855	584	-.667	.131	-.293	-1.188	2855	584	-.667	.131	-.293	-1.188
2855	535	.644	.095	-.415	-1.061	2855	585	-.668	.123	-.295	-1.234	2855	585	-.668	.123	-.295	-1.234
2855	536	.653	.102	-.376	-1.171	2855	586	-.667	.124	-.309	-1.239	2855	586	-.667	.124	-.309	-1.239
2855	537	.681	.111	-.382	-1.196	2855	587	-.623	.146	-.451	-.521	2855	587	-.623	.146	-.451	-.521
2855	538	.691	.121	-.348	-1.213	2855	588	-.132	.099	-.216	-.536	2855	588	-.132	.099	-.216	-.536
2855	539	.741	.159	-.334	-1.580	2855	589	-.168	.236	-.319	-.236	2855	589	-.168	.236	-.319	-.236
2855	540	.764	.192	-.337	-1.683	2855	590	-.948	.190	-.443	-1.755	2855	590	-.948	.190	-.443	-1.755
2855	541	.609	.098	-.337	-1.031	2855	591	-.810	.166	-.312	-1.469	2855	591	-.810	.166	-.312	-1.469
2855	542	.562	.083	-.329	-.931	2855	592	-.662	.150	-.324	-1.261	2855	592	-.662	.150	-.324	-1.261
2855	543	.562	.084	-.352	-.908	2855	593	-.660	.149	-.328	-1.169	2855	593	-.660	.149	-.328	-1.169
2855	544	.559	.083	-.341	-.913	2855	594	-.619	.122	-.320	-1.142	2855	594	-.619	.122	-.320	-1.142
2855	545	.660	.174	-.716	-.606	2855	595	-.639	.122	-.356	-1.174	2855	595	-.639	.122	-.356	-1.174
2855	546	.117	.123	-.593	-.329	2855	596	-.715	.156	-.346	-1.569	2855	596	-.715	.156	-.346	-1.569
2855	547	.732	.136	-.438	-1.432	2855	597	-.707	.144	-.301	-1.372	2855	597	-.707	.144	-.301	-1.372
2855	548	.677	.128	-.383	-1.374	2855	598	-.704	.142	-.313	-1.325	2855	598	-.704	.142	-.313	-1.325
2855	549	.689	.123	-.332	-1.336	2855	599	-.682	.137	-.303	-1.304	2855	599	-.682	.137	-.303	-1.304
2855	550	.687	.130	-.361	-1.531	2855	600	-.686	.134	-.350	-1.325	2855	600	-.686	.134	-.350	-1.325
2855	551	.706	.134	-.373	-1.492	2855	601	-.120	.069	-.259	-.355	2855	601	-.120	.069	-.259	-.355
2855	552	.729	.148	-.369	-1.531	2855	602	-.254	.063	-.128	-.527	2855	602	-.254	.063	-.128	-.527
2855	553	.767	.191	-.245	-1.759	2855	603	-.716	.128	-.380	-1.299	2855	603	-.716	.128	-.380	-1.299
2855	554	.780	.228	-.208	-2.071	2855	604	-.741	.134	-.397	-1.342	2855	604	-.741	.134	-.397	-1.342







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	TAP	CPNEAH	CPRMS	CPMAX	CPMIN	WD	TAP	CPNEAH	CPRMS	CPMAX	CPMIN	WD	TAP	CPNEAH	CPRMS	CPMAX	CPMIN
43	082	062	334	071	315	109	199	073	057	694	315	159	215	170	355	858	
44	053	308	072	315	110	418	353	400	347	315	160	185	161	311	758		
45	017	047	2335	097	315	111	940	159	164	393	315	161	084	257	644	954	
46	008	050	2338	206	315	112	878	137	283	268	315	162	341	176	912	274	
47	014	051	2655	117	315	113	828	151	291	291	315	163	465	166	061	070	
48	330	076	0337	639	315	114	320	254	615	346	315	164	461	152	981	033	
49	370	058	0223	556	315	115	951	122	568	320	315	165	411	132	812	066	
50	47	048	0998	514	315	116	945	127	569	392	315	166	219	107	589	112	
51	47	055	0651	483	315	117	058	120	246	583	315	167	120	099	245	599	
52	47	047	0651	483	315	118	177	113	311	484	315	168	930	204	068	888	
53	44	099	0778	448	315	119	210	136	640	334	315	169	826	155	377	414	
54	22	053	0999	527	315	120	147	133	563	386	315	170	842	165	381	579	
55	22	058	107	534	315	121	060	120	549	336	315	171	842	175	344	748	
56	22	038	108	371	315	122	010	102	414	302	315	172	830	166	316	481	
57	092	034	066	203	315	123	003	096	344	313	315	173	379	167	381	640	
58	100	039	104	209	315	124	050	090	206	337	315	174	332	157	239	966	
59	126	060	142	322	315	125	126	092	166	422	315	175	297	275	736	180	
60	280	055	141	533	315	126	311	091	035	657	315	176	146	168	765	304	
61	540	091	292	988	315	127	822	190	397	666	315	177	319	157	836	047	
62	412	100	191	098	315	128	885	228	410	797	315	178	345	140	796	005	
63	493	089	226	902	315	129	887	214	417	561	315	179	327	132	785	000	
64	151	063	088	337	315	130	812	164	391	361	315	180	181	114	673	143	
65	377	099	032	795	315	131	078	149	390	643	315	181	107	099	270	475	
66	062	040	097	205	315	132	027	130	351	529	315	182	829	216	120	592	
67	062	055	177	287	315	133	078	246	793	632	315	183	674	165	125	374	
68	236	088	334	533	315	134	493	150	881	036	315	184	733	175	151	486	
69	630	173	039	342	315	135	600	147	054	180	315	185	738	183	171	623	
70	373	071	175	792	315	136	567	141	004	122	315	186	674	182	007	499	
71	483	133	203	203	315	137	523	143	971	102	315	187	331	150	113	037	
72	484	131	217	381	315	138	307	121	669	047	315	188	336	147	089	041	
73	230	134	398	823	315	139	068	100	222	409	315	189	374	220	416	321	
74	176	131	486	769	315	140	860	193	360	523	315	190	003	123	303	339	
75	023	141	662	417	315	141	790	138	315	336	315	191	166	123	648	105	
76	036	096	443	261	315	142	799	163	309	375	315	192	222	122	680	054	
77	212	106	660	023	315	143	790	166	297	407	315	193	246	123	723	067	
78	315	140	851	007	315	144	796	162	276	378	315	194	140	112	711	132	
79	181	093	553	042	315	145	123	151	396	701	315	195	072	117	454	464	
80	197	114	722	083	315	146	090	149	304	643	315	196	619	239	232	726	
81	034	079	324	251	315	147	034	245	874	844	315	197	522	190	126	512	
82	063	072	322	152	315	148	424	163	903	040	315	198	533	214	056	673	
83	034	061	275	214	315	149	515	137	108	102	315	199	569	225	015	776	
84	004	076	244	324	315	150	493	128	013	115	315	200	511	194	017	432	
85	619	090	413	002	315	151	453	122	937	119	315	301	554	101	174	981	
101	636	087	398	097	315	152	241	103	606	138	315	302	639	088	403	018	
102	563	082	349	936	315	153	123	096	223	431	315	303	638	092	398	082	
103	399	069	164	633	315	154	903	191	419	567	315	304	366	089	281	891	
104	365	063	173	633	315	155	797	159	339	437	315	305	597	093	309	976	
105	510	144	182	043	315	156	828	168	346	486	315	306	619	093	326	047	
106	591	129	271	663	315	157	828	170	386	476	315	307	582	085	332	954	
107	587	101	344	932	315	158	813	163	403	462	315	308	616	083	390	981	







SEATTLE HOTEL -- SEATTLE, WASHINGTON

WD	TAP	CP	PH	RMS	H	CP	RMS	PH	MAX	WD	TAP	CP	PH	RMS	H	CP	RMS	PH	MAX	WD	TAP	CP	PH	RMS	H	CP	RMS	PH	MAX	WD	TAP	CP	PH	RMS	H	CP	RMS	PH	MAX	WD	TAP	CP	PH	RMS	H	CP	RMS	PH	MAX	WD	TAP	CP	PH	RMS	H	CP	RMS	PH	MAX
3330	111			150						3330	311			640						3330	311			640					3330	311			640					3330	311			640					3330	311			640								
3330	112			104						3330	312			887						3330	312			887					3330	312			887					3330	312			887					3330	312			887								
3330	113			999						3330	313			878						3330	313			878					3330	313			878					3330	313			878					3330	313			878								
3330	114			246						3330	314			508						3330	314			508					3330	314			508					3330	314			508					3330	314			508								
3330	115			110						3330	315			732						3330	315			732					3330	315			732					3330	315			732					3330	315			732								
3330	116			999						3330	316			999						3330	316			999					3330	316			999					3330	316			999					3330	316			999								
3330	117			171						3330	317			460						3330	317			460					3330	317			460					3330	317			460					3330	317			460								
3330	118			137						3330	318			487						3330	318			487					3330	318			487					3330	318			487					3330	318			487								
3330	119			129						3330	319			532						3330	319			532					3330	319			532					3330	319			532					3330	319			532								
3330	120			122						3330	320			575						3330	320			575					3330	320			575					3330	320			575					3330	320			575								
3330	121			112						3330	321			631						3330	321			631					3330	321			631					3330	321			631					3330	321			631								
3330	122			999						3330	322			794						3330	322			794					3330	322			794					3330	322			794					3330	322			794								
3330	123			987						3330	323			820						3330	323			820					3330	323			820					3330	323			820					3330	323			820								
3330	124			977						3330	324			820						3330	324			820					3330	324			820					3330	324			820					3330	324			820								
3330	125			968						3330	325			833						3330	325			833					3330	325			833					3330	325			833					3330	325			833								
3330	126			962						3330	326			833						3330	326			833					3330	326			833					3330	326			833					3330	326			833								
3330	127			959						3330	327			840						3330	327			840					3330	327			840					3330	327			840					3330	327			840								
3330	128			959						3330	328			670						3330	328			670					3330	328			670					3330	328			670					3330	328			670								
3330	129			959						3330	329			612						3330	329			612					3330	329			612					3330	329			612					3330	329			612								
3330	130			959						3330	330			363						3330	330			363					3330	330			363					3330	330			363					3330	330			363								
3330	131			160						3330	331			149						3330	331			149					3330	331			149					3330	331			149					3330	331			149								
3330	132			149						3330	332			346						3330	332			346					3330	332			346					3330	332			346					3330	332			346								
3330	133			163						3330	333			304						3330	333			304					3330	333			304					3330	333			304					3330	333			304								
3330	134			151						3330	334			336						3330	334			336					3330	334			336					3330	334			336					3330	334			336								
3330	135			133						3330	335			346						3330	335			346					3330	335			346					3330	335			346					3330	335			346								
3330	136			121						3330	336			717						3330	336			717					3330	336			717					3330	336			717					3330	336			717								
3330	137			112						3330	337			731						3330	337			731					3330	337			731					3330	337			731					3330	337			731								
3330	138			169						3330	338			725						3330	338			725					3330	338			725					3330	338			725					3330	338			725								
3330	139			962						3330	339			692						3330	339			692					3330	339			692					3330	339			692					3330	339			692								
3330	140			973						3330	340			733						3330	340			733					3330	340			733					3330	340			733					3330	340			733								
3330	141			973						3330	341			240						3330	341			240					3330	341			240					3330	341			240					3330	341			240								
3330	142			972						3330	342			435						3330	342			435					3330	342			435					3330	342			435					3330	342			435								
3330	143			971						3330	343			368						3330	343			368					3330	343			368					3330	343			368					3330	343			368								
3330	144			971						3330	344			345						3330	344			345					3330	344			345					3330	344			345					3330	344			345								
3330	145			133						3330	345			600						3330	345			600					3330	345			600					3330	345			600					3330	345			600								
3330	146			173						3330	346			730						3330	346			730					3330	346			730					3330	346			730					3330	346			730								
3330	147			148						3330	347			723						3330	347			723					3330	347			723					3330	347			723					3330	347			723								
3330	148			133						3330	348			709						3330	348			709					3330	348			709					3330	348			709					3330	348			709								
3330	149			114						3330	349			709						3330	349			709					3330	349			709																										

SEATTLE HOTEL -- SEATTLE , WASHINGTON

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
3330	361	-.769	.202	-.171	-1.659	3330	511	-.482	.089	-.239	-1.201	3330	561	-.590	.132	-.216	-1.317
3330	362	-.766	.175	-.171	-1.455	3330	512	-.477	.091	-.208	-.942	3330	562	-.539	.122	-.231	-1.436
3330	363	-.743	.162	-.139	-1.325	3330	513	-.460	.086	-.206	-.794	3330	563	-.547	.134	-.246	-1.781
3330	364	-.807	.166	-.144	-1.501	3330	514	-.469	.077	-.201	-.818	3330	564	-.534	.122	-.154	-1.381
3330	365	-.812	.164	-.337	-1.645	3330	515	-.505	.103	-.232	-1.084	3330	565	-.572	.116	-.258	-1.246
3330	366	-.821	.156	-.466	-1.583	3330	516	-.466	.088	-.236	-.902	3330	566	-.545	.079	-.319	-.890
3330	367	-.793	.153	-.383	-1.784	3330	517	-.494	.076	-.299	-.981	3330	567	-.567	.106	-.246	-1.042
3330	368	-.841	.158	-.433	-1.835	3330	518	-.487	.080	-.277	-.793	3330	568	-.580	.127	-.278	-1.210
3330	369	-.100	.122	-.484	-.337	3330	519	-.462	.070	-.241	-.971	3330	569	-.621	.139	-.242	-1.282
3330	370	-.289	.162	-.633	-.306	3330	520	-.457	.069	-.240	-.991	3330	570	-.378	.111	-.233	-1.144
3330	371	-.227	.178	-.816	-.404	3330	521	-.465	.068	-.282	-.787	3330	571	-.574	.125	-.145	-1.252
3330	372	-.204	.163	-.748	-.368	3330	522	-.454	.071	-.243	-.768	3330	572	-.559	.120	-.142	-1.143
3330	373	-.677	.175	-.236	-1.276	3330	523	-.467	.076	-.253	-.805	3330	573	-.662	.142	-.209	-1.412
3330	374	-.723	.170	-.227	-1.438	3330	524	-.450	.079	-.240	-.828	3330	574	-.605	.082	-.266	-.872
3330	375	-.739	.176	-.244	-1.265	3330	525	-.455	.082	-.178	-.926	3330	575	-.643	.157	-.201	-1.463
3330	376	-.740	.171	-.238	-1.335	3330	526	-.444	.087	-.150	-.943	3330	576	-.625	.150	-.210	-1.581
3330	377	-.703	.182	-.116	-1.413	3330	527	-.495	.100	-.145	-.892	3330	577	-.662	.139	-.174	-1.368
3330	378	-.800	.182	-.124	-1.510	3330	528	-.097	.028	-.007	-.210	3330	578	-.673	.161	-.145	-1.391
3330	379	-.836	.183	-.215	-1.587	3330	529	-.484	.095	-.220	-1.009	3330	579	-.648	.133	-.180	-1.320
3330	380	-.000	.000	-.000	.000	3330	530	-.456	.091	-.217	-.943	3330	580	-.606	.129	-.051	-1.393
3330	381	-.938	.209	-.429	-1.992	3330	531	-.499	.070	-.316	-1.025	3330	581	-.386	.144	-.129	-1.362
3330	382	-.935	.225	-.443	-2.258	3330	532	-.483	.073	-.257	-.883	3330	582	-.371	.163	-.060	-1.362
3330	383	-.000	.118	-.418	-.396	3330	533	-.498	.073	-.310	-.900	3330	583	-.357	.183	-.156	-1.509
3330	384	-.239	.162	-.760	-.263	3330	534	-.479	.065	-.237	-.846	3330	584	-.577	.190	-.122	-1.388
3330	385	-.171	.190	-.779	-.429	3330	535	-.461	.060	-.215	-.728	3330	585	-.367	.190	-.147	-1.265
3330	386	-.152	.174	-.698	-.398	3330	536	-.457	.054	-.236	-.686	3330	586	-.540	.178	-.129	-1.224
3330	387	-.341	.103	-.115	-.993	3330	537	-.468	.052	-.280	-.656	3330	587	-.514	.228	-.202	-1.443
3330	388	-.391	.127	-.081	-1.166	3330	538	-.449	.053	-.240	-.663	3330	588	-.270	.206	-.323	-1.006
3330	389	-.406	.154	-.070	-1.059	3330	539	-.471	.062	-.276	-.705	3330	589	-.875	.224	-.346	-1.913
3330	390	-.335	.100	-.043	-.758	3330	540	-.490	.081	-.231	-.849	3330	590	-.712	.161	-.319	-1.433
3330	391	-.306	.077	-.002	-.651	3330	541	-.535	.103	-.275	-1.142	3330	591	-.626	.122	-.327	-1.069
3330	392	-.388	.104	-.010	-.905	3330	542	-.501	.093	-.217	-.925	3330	592	-.603	.131	-.245	-1.108
3330	393	-.473	.143	-.123	-1.044	3330	543	-.501	.087	-.204	-.925	3330	593	-.600	.135	-.183	-1.088
3330	394	-.474	.143	-.123	-1.044	3330	544	-.493	.086	-.205	-.863	3330	594	-.478	.109	-.169	-.970
3330	395	-.474	.143	-.123	-1.044	3330	545	-.534	.083	-.308	-1.104	3330	595	-.404	.105	-.111	-.889
3330	396	-.922	.309	-.322	-3.244	3330	546	-.522	.090	-.282	-1.098	3330	596	-.410	.128	-.136	-1.052
3330	397	-.076	.307	-.404	-5.543	3330	547	-.521	.082	-.279	-1.039	3330	597	-.328	.082	-.145	-.784
3330	398	-.093	.093	-.536	-.486	3330	548	-.499	.077	-.257	-.963	3330	598	-.305	.077	-.071	-.729
3330	399	-.020	.159	-.694	-.456	3330	549	-.502	.078	-.277	-.886	3330	599	-.277	.074	-.044	-.709
3330	400	-.002	.143	-.533	-.435	3330	550	-.480	.072	-.284	-.832	3330	600	-.277	.069	-.078	-.654
3330	501	-.573	.085	-.334	-.981	3330	551	-.491	.066	-.302	-.777	3330	601	-.072	.111	-.422	-.375
3330	502	-.562	.098	-.261	-1.036	3330	552	-.496	.073	-.282	-.835	3330	602	-.150	.071	-.350	-.426
3330	503	-.527	.087	-.220	-.854	3330	553	-.523	.084	-.263	-.941	3330	603	-.588	.144	-.282	-1.500
3330	504	-.471	.073	-.173	-.784	3330	554	-.525	.106	-.231	-1.105	3330	604	-.613	.154	-.282	-1.426
3330	505	-.472	.074	-.239	-.789	3330	555	-.558	.096	-.316	-.946	3330	605	-.471	.113	-.088	-.969
3330	506	-.465	.091	-.210	-.976	3330	556	-.543	.113	-.224	-1.047	3330	606	-.333	.102	-.040	-.771
3330	507	-.485	.097	-.105	-.904	3330	557	-.544	.104	-.254	-1.064	3330	607	-.222	.069	-.002	-.556
3330	508	-.512	.095	-.131	-.830	3330	558	-.512	.096	-.238	-.966	3330	608	-.253	.055	-.102	-.550
3330	509	-.451	.072	-.242	-.910	3330	559	-.599	.125	-.297	-1.325	3330	609	-.243	.046	-.052	-.434
3330	510	-.454	.071	-.240	-.918	3330	560	-.608	.125	-.103	-1.145	3330	610	-.238	.046	-.004	-.441



SEATTLE HOTEL -- SEATTLE, WASHINGTON

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
343	163	.177	.125	.706	-.148	343	313	-.743	.098	-.255	-1.146	343	363	-.360	.084	-.119	-.808
343	164	.134	.110	.583	-.206	343	314	-.333	.071	-.161	-.641	343	364	-.373	.129	-.069	-1.167
343	165	.098	.106	.504	-.328	343	315	-.312	.094	-.043	-.735	343	365	-.406	.159	.010	-1.307
343	166	-.046	.095	.311	-.431	343	316	-.735	.153	-.122	-1.203	343	366	-.391	.231	.019	-1.497
343	167	-.238	.091	-.042	-.384	343	317	-.387	.031	-.214	-.735	343	367	-.681	.234	.021	-1.724
343	168	.394	.147	-.263	-1.237	343	318	-.396	.031	-.238	-.746	343	368	-.823	.271	.279	-2.022
343	169	-.332	.127	-.169	-1.113	343	319	-.330	.040	-.128	-.580	343	369	-.092	.103	.360	-.476
343	170	-.543	.136	-.174	-1.216	343	320	-.292	.034	-.150	-.492	343	370	-.048	.114	.554	-.276
343	171	-.326	.136	-.159	-1.154	343	321	-.237	.037	-.082	-.471	343	371	-.076	.123	.609	-.397
343	172	-.530	.131	-.173	-1.102	343	322	-.220	.051	-.058	-.893	343	372	-.061	.114	.511	-.327
343	173	-.049	.093	.333	-.494	343	323	-.223	.077	-.019	-1.087	343	373	-.394	.137	.070	-1.245
343	174	-.083	.083	.318	-.380	343	324	-.531	.222	-.067	-1.315	343	374	-.409	.142	.079	-1.303
343	175	-.038	.110	.626	-.439	343	325	-.750	.210	-.050	-1.370	343	375	-.414	.156	.078	-1.484
343	176	.092	.103	.679	-.222	343	326	-.969	.244	-.194	-1.876	343	376	-.350	.087	.086	-.797
343	177	.105	.101	.543	-.157	343	327	-.395	.152	.870	-.181	343	377	-.292	.073	.060	-.650
343	178	.084	.089	.519	-.156	343	328	-.498	.156	.895	-.115	343	378	-.312	.099	.038	-.842
343	179	.059	.085	.428	-.193	343	329	-.523	.153	1.009	-.185	343	379	-.336	.119	.028	-.893
343	180	-.053	.077	.280	-.349	343	330	-.500	.152	.984	-.187	343	380	-.000	.000	.000	.000
343	181	-.225	.088	.048	-.574	343	331	-.408	.054	-.240	-.663	343	381	-.506	.155	.010	-1.570
343	182	-.571	.156	-.194	-1.450	343	332	-.426	.061	-.266	-.791	343	382	-.602	.182	.066	-1.931
343	183	.489	.130	.184	-1.199	343	333	-.435	.064	-.267	-.799	343	383	-.098	.082	.238	-.365
343	184	.513	.140	-.196	-1.211	343	334	-.361	.053	-.139	-.762	343	384	-.010	.099	.478	-.266
343	185	.503	.149	.169	-1.446	343	335	-.287	.064	-.074	-.822	343	385	.012	.102	.512	-.348
343	186	.473	.132	-.180	-1.102	343	336	-.272	.130	.050	-1.179	343	386	-.000	.091	.414	-.263
343	187	.072	.066	.246	-.315	343	337	-.322	.206	.014	-1.455	343	387	-.213	.050	.082	-.598
343	188	.092	.056	.148	-.273	343	338	-.610	.238	.115	-1.838	343	388	-.233	.058	.082	-.587
343	189	.038	.090	.345	-.355	343	339	-.849	.364	.059	-2.088	343	389	-.244	.064	.079	-.669
343	190	.051	.084	.642	-.140	343	340	-.091	.364	.466	-.837	343	390	-.217	.043	.059	-.414
343	191	.056	.083	.678	-.155	343	341	-.182	.170	.735	-.222	343	391	-.207	.038	.073	-.358
343	192	.048	.075	.586	-.112	343	342	-.391	.190	.926	-.233	343	392	-.231	.053	.087	-.530
343	193	.038	.070	.384	-.133	343	343	-.466	.200	1.039	-.252	343	393	-.253	.072	.060	-.588
343	194	.030	.063	.244	-.261	343	344	-.457	.199	1.010	-.294	343	394	-.305	.102	.040	-.816
343	195	.166	.072	.110	-.485	343	345	-.479	.093	.221	-1.364	343	395	-.353	.113	.033	-.914
343	196	.471	.148	-.060	-1.182	343	346	-.491	.099	.240	-1.582	343	396	-.430	.131	.038	-1.025
343	197	.407	.130	-.109	-1.224	343	347	-.500	.105	.219	-1.583	343	397	-.099	.057	.136	-.272
343	198	.418	.143	.005	-1.331	343	348	-.416	.075	.189	-1.898	343	398	-.033	.073	.296	-.226
343	199	.418	.150	-.005	-1.424	343	349	-.337	.075	.070	-1.860	343	399	-.040	.075	.302	-.252
343	200	.358	.112	-.022	-.926	343	350	-.337	.138	.050	-1.713	343	400	-.050	.068	.233	-.238
343	301	.375	.088	-.071	-.660	343	351	-.661	.180	.064	-1.830	343	401	-.044	.071	.274	-.796
343	302	.400	.063	-.142	-.643	343	352	-.604	.306	.122	-1.834	343	402	-.021	.070	.233	-.786
343	303	.526	.078	-.238	-.589	343	353	-.804	.399	.120	-1.997	343	403	-.026	.083	.257	-.843
343	304	.324	.038	-.191	-.489	343	354	-.006	.315	.202	-1.987	343	404	-.389	.052	.194	-.695
343	305	.333	.038	-.077	-.401	343	355	-.006	.136	.681	-.478	343	405	-.399	.059	.181	-.712
343	306	.338	.074	-.170	-.660	343	356	.190	.153	.740	-.479	343	406	-.388	.062	.195	-.667
343	307	.338	.109	-.264	-.980	343	357	.250	.178	.797	-.429	343	407	-.443	.070	.202	-.817
343	308	.310	.148	-.380	-.773	343	358	.233	.177	.918	-.341	343	408	-.479	.077	.255	-.876
343	309	.233	.042	-.113	-.519	343	359	.118	.158	.833	-.405	343	409	-.392	.048	.245	-.598
343	310	.226	.046	-.122	-.512	343	360	.330	.170	.827	-.405	343	410	-.377	.051	.207	-.658
343	311	.218	.055	-.050	-.564	343	361	.439	.185	.855	-.400	343	411	-.399	.066	.200	-.713
343	312	.154	.055	-.055	-.519	343	362	.400	.098	.855	-.406	343	412	-.366	.056	.234	-.653

SEATTLE HOTEL -- SEATTLE , WASHINGTON

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
343	347	.471	.112	-.193	-1.149	343	581	-.349	.092	-.020	-.858	343	581	-.349	.092	-.020	-.858
343	348	-.441	.099	-.208	-.963	343	582	-.342	.104	-.011	-.899	343	582	-.342	.104	-.011	-.899
343	349	-.442	.093	-.229	-1.227	343	583	-.332	.119	-.011	-.992	343	583	-.332	.119	-.011	-.992
343	350	-.411	.069	-.249	-.863	343	584	-.353	.124	-.093	-1.063	343	584	-.353	.124	-.093	-1.063
343	351	-.421	.053	-.280	-.632	343	585	-.334	.115	-.061	-.944	343	585	-.334	.115	-.061	-.944
343	352	-.433	.076	-.253	-.873	343	586	-.322	.107	-.058	-.854	343	586	-.322	.107	-.058	-.854
343	353	-.468	.091	-.257	-.929	343	587	-.299	.136	-.189	-.839	343	587	-.299	.136	-.189	-.839
343	354	-.466	.101	-.233	-.942	343	588	-.166	.110	-.227	-.783	343	588	-.166	.110	-.227	-.783
343	355	-.477	.055	-.306	-.730	343	589	-.490	.144	-.190	-1.220	343	589	-.490	.144	-.190	-1.220
343	356	-.466	.093	-.213	-.920	343	590	-.403	.107	-.138	-1.021	343	590	-.403	.107	-.138	-1.021
343	357	-.468	.094	-.219	-.982	343	591	-.351	.077	-.155	-.728	343	591	-.351	.077	-.155	-.728
343	358	-.437	.087	-.216	-.888	343	592	-.346	.083	-.147	-.834	343	592	-.346	.083	-.147	-.834
343	359	-.531	.157	-.033	-1.450	343	593	-.336	.083	-.124	-.759	343	593	-.336	.083	-.124	-.759
343	360	-.530	.164	-.169	-1.737	343	594	-.272	.064	-.105	-.629	343	594	-.272	.064	-.105	-.629
343	361	-.508	.167	-.079	-1.921	343	595	-.233	.060	-.071	-.593	343	595	-.233	.060	-.071	-.593
343	362	-.446	.128	-.100	-1.507	343	596	-.233	.067	-.069	-.727	343	596	-.233	.067	-.069	-.727
343	363	-.442	.131	-.111	-1.240	343	597	-.198	.039	-.043	-.343	343	597	-.198	.039	-.043	-.343
343	364	-.433	.098	-.183	-.894	343	598	-.192	.037	-.080	-.332	343	598	-.192	.037	-.080	-.332
343	365	-.431	.100	-.193	-1.079	343	599	-.179	.036	-.075	-.355	343	599	-.179	.036	-.075	-.355
343	366	-.434	.058	-.293	-.665	343	600	-.183	.035	-.089	-.334	343	600	-.183	.035	-.089	-.334
343	367	-.475	.133	-.127	-1.332	343	601	-.075	.065	-.318	-.267	343	601	-.075	.065	-.318	-.267
343	368	-.496	.153	-.171	-1.346	343	602	-.099	.052	-.216	-.247	343	602	-.099	.052	-.216	-.247
343	369	-.493	.166	-.214	-1.516	343	603	-.333	.082	-.169	-.819	343	603	-.333	.082	-.169	-.819
343	370	-.500	.118	-.242	-1.056	343	604	-.345	.084	-.180	-.803	343	604	-.345	.084	-.180	-.803
343	371	-.486	.157	-.186	-1.412	343	605	-.284	.063	-.045	-.528	343	605	-.284	.063	-.045	-.528
343	372	-.486	.146	-.183	-1.203	343	606	-.226	.056	-.033	-.468	343	606	-.226	.056	-.033	-.468
343	373	-.533	.172	-.145	-1.535	343	607	-.159	.042	-.013	-.333	343	607	-.159	.042	-.013	-.333
343	374	-.420	.032	-.337	-.512	343	608	-.169	.034	-.042	-.320	343	608	-.169	.034	-.042	-.320
343	375	-.446	.173	-.045	-1.495	343	609	-.170	.030	-.070	-.314	343	609	-.170	.030	-.070	-.314
343	376	-.413	.159	-.037	-1.325	343	610	-.164	.031	-.033	-.346	343	610	-.164	.031	-.033	-.346
343	377	-.407	.144	-.108	-1.109	343	611	-.158	.030	-.058	-.286	343	611	-.158	.030	-.058	-.286
343	378	-.405	.135	-.118	-1.153	343	612	-.165	.030	-.064	-.289	343	612	-.165	.030	-.064	-.289
343	379	-.378	.121	-.095	-1.179	343	613	-.170	.028	-.061	-.280	343	613	-.170	.028	-.061	-.280
343	380	-.342	.087	-.089	-.843	343	614	-.163	.028	-.056	-.265	343	614	-.163	.028	-.056	-.265