

WIND-TUNNEL STUDY OF  
OXFORD CENTRE, PITTSBURGH

by

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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, n	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, $\frac{(p-p_{\infty})_{min}}{0.5 \rho U_{\infty}^2}$
$( )_{min}$	Minimum value during data record
$( )_{max}$	Maximum value during data record

<u>Symbol</u>	<u>Definition</u>
$p$	Fluctuating pressure at a pressure tap on the structure
$p_{\infty}$	Static pressure in the wind tunnel above the model
$F_x, F_y$	Forces in X, Y direction
$A_R$	Reference Area
$CF_X$	Force coefficient, X direction, $\frac{F_x}{A_R 0.5\rho U_{\infty}^2}$
$CF_Y$	Force coefficient, Y direction, $\frac{F_y}{A_R 0.5\rho U_{\infty}^2}$

## 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 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 cladding 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  $UD/\nu$  be similar for model and prototype. Since  $\nu$ , 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 10 or 15 degrees and another set of data recorded for each pressure tap. Normally, 24 or 36 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. diameter) 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 removable 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 or 36 wind directions, rotating the entire model assembly in a complete circle. Seventy-six pieces of 1/16 in. I.D. plastic tubing 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 stepping 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 setra differential transducers (Model 237) with a 0.10 psid range. Reference pressures are obtained by connecting the reference sides of the four transducers, using plastic tubing, to the static side of a pitot-static 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.

Output from the pressure transducers 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 converter. 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 ft (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. diameter platinum film sensing element 0.020 in. long. Output is directed to the on-line data acquisition system for analysis.

Calibration of the hot-wire anemometer is performed by comparing output with the pitot-static tube in the wind tunnel. 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  $U_{\text{rms}}$  (root-mean-square velocity) was obtained from

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

where  $E_{\text{rms}}$  is the root-mean-square voltage output from the anemometer. For interpretation all turbulence measurements for pedestrian winds were divided by the mean velocity outside the boundary-layer  $U_{\infty}$ . Turbulence intensity in velocity profile measurements used the local mean velocity.

## 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 Figure 7. Profiles were taken upstream from the model which are characteristic of the boundary layer approaching the model and sometimes at the building site with building removed. The boundary-layer thickness,  $\delta$ , is shown in Figure 7. The corresponding prototype value of  $\delta$  for this study is also shown in the figure. This value was established as a reasonable height for this study. The mean velocity profile approaching the modeled area 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 7.

Profiles of longitudinal turbulence intensity in the flow approaching the modeled area are shown in Figure 7. The turbulence intensities are appropriate for the approach mean velocity profile selected. For the velocity profiles, turbulence intensity is defined

as the root-mean-square about the mean of the longitudinal velocity fluctuations divided by the local mean velocity  $U$ ,

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

Velocity data obtained at each of the pedestrian measurement locations shown in Figure 4 are listed in Table 2 as mean velocity  $U/U_{\infty}$ , turbulence intensity  $U_{rms}/U_{\infty}$ , and largest effective gust

$$U_{pk} = \frac{U + 3U_{rms}}{U_{\infty}} .$$

These data are plotted in polar form in Figure 8. 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 30-40 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 9.

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) and Melbourne (5). The Beaufort scale (from ref. 4), 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. Quantitative criteria for acceptance from reference 5 are superimposed as dashed lines on Figure 9. 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 about one of these gusts per hour). Implications of the data plotted in Figure 9 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 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, in general, 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 (6). 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 (7).

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. 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 and are listed as peak pressures in that table. 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 cladding load shown in Table 6 have been plotted on developed elevation

views of the structure, Figure 10. For control of water infiltration from outside to inside, the largest positive (inward-acting) pressure at each tap location is tabulated in Table 6.

For glass design pressures, a glass load factor is used to account for the different duration between measured peak pressures and the one minute loading commonly used in glass design charts. The design pressure used for glass is normally less than the peak pressures used for cladding design because of the static fatigue property of glass which can withstand higher pressures for short duration loads than for long duration loads. Recent research (8) 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-pressure values, then a glass strength associated with this duration load should be used. Because glass design charts are normally based on some alternate load duration--usually 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. Current glass selection charts showing glass strength as a function of load duration (9) and older references (10) indicate the following load reduction factors:

	ref 9	ref 10
annealed float	0.80	0.81
heat strengthened	0.94	
tempered	0.97	0.98

Loadings appropriate for glass design can be computed by multiplying the peak-pressure loads of Table 6 by these load factors.



#### 4.4 Forces and Moments

Force coefficients in the horizontal X and Y directions and moment coefficients about the X, Y, and Z axes with the origin at ground level at the base of the building with Z axis vertical may be computed for all wind directions tested by integration of mean pressures on the building. Overall forces and moments acting on the full-scale building due to wind loading which are useful in designing the structural framing of the proposed building may be obtained from use of these coefficients.

Force coefficients were computed for each floor for each wind direction using the equations shown below.

$$CF_X = \frac{F_X}{A_R 0.5 \rho U_\infty^2} \quad CF_Y = \frac{F_Y}{A_R 0.5 \rho U_\infty^2}$$

Terms and symbols used in the equations are defined in the List of Symbols and the axes are defined for the building in Figure 3. Force coefficients  $CF_X$  and  $CF_Y$  were computed for the horizontal forces acting along the X and Y axes using the mean pressure coefficient at each pressure tap.  $A_R$  represents a constant reference area for nondimensionalization of the forces and moments.

The total forces acting on the full-scale building for each floor and wind direction were computed by multiplying the above coefficients by the appropriate full-scale reference area, by the reference pressure of Table 5, and by a gust load factor selected for an appropriate wind gust duration. The gust load factor, shown in Table 5, was selected to increase the loads from an hourly mean load to that of a gust whose duration would be sufficient for its effect to be fully felt by the structure. A table of gust load factors for various gust durations is

incorporated in Table 5 so that force and moment data of Table 7 may be adjusted to a different load duration if desired.

The forces obtained at each floor were used to obtain load, shear, and moment diagrams for the building for each wind direction. The shear diagram, in kips, was obtained by algebraic sum of all forces in each coordinate direction acting above the floor of interest. The load diagram, in psf, was obtained by dividing the shear values by their contributing areas (listed in Table 7). The moment diagram, in 1000 ft-kips, was obtained by integration of the shear values so that the moment due to forces acting above the floor level of interest was calculated. The sign of the moment was established by the right-hand rule about an X', Y' axis through the floor of interest. Moments about the Z axis were calculated by considering the displacement of forces in the X and Y directions from the Z axis shown in Figure 3. Load, shear, and moment diagrams are shown in Figure 11 for several wind directions.

## 5. DISCUSSION

### 5.1 Flow Visualization

Flow patterns identified with smoke showed that the largest pressures would probably act on or adjacent to the diagonal corners of the building. The setbacks near the top of the tower did not appear to generate vortex flow pattern characteristics which are often associated with setbacks and which can lead to large local pressure loads. Wind speeds near the skylight areas indicated that wind loads there would be moderate. Wind speeds in pedestrian areas appeared to be generally moderate except for isolated approach wind directions at locations near the building corners. The wind speeds in the below-grade plaza on Grant Street appeared to be quite low.

### 5.2 Pedestrian Winds

Figure 4 shows the 18 pedestrian locations selected for study. Location 1 was selected as a reference location which should be reasonably undisturbed by the presence of the tower. Location 11 was placed in the below-grade plaza. Locations 15-18 were located on roof setbacks to determine how windy those areas would be. Table 2 and Figure 8 provide data on the wind speeds measured for each wind direction. The largest mean wind speeds were measured on the roof at locations 15, 16 and 17 where maximum values ranged from 70 to 90 percent of the mean velocity,  $U_{\infty}$ , at gradient height. The largest mean velocity at ground level was measured at location 6 at 68 percent of  $U_{\infty}$  for an approach wind azimuth of 315 degrees. These measurements compare to a maximum mean velocity of 35 percent measured

at reference location 1 and a value of about 45 percent that might be expected in an open-country environment.

The largest values of fluctuating velocity,  $U_{rms}$ , were measured at the roof locations 15, 16 and 17 with values ranging from 17 to 28 percent of  $U_{\infty}$ . The largest value at ground level was 17 percent at location 4 for an approach wind azimuth of 135 degrees. These values compare to 10-12 percent which might be expected in an open-country environment and a 15 percent at reference location 1. The largest values of peak gust represented by the mean plus three rms, as discussed in Section 4.2, were measured at locations 15, 16 and 17 with largest values ranging from 132 to 154 percent of  $U_{\infty}$ . Each of these locations had several wind directions where the peak gust was above 100 percent of  $U_{\infty}$ . The largest values at ground level were 100 and 99 percent of  $U_{\infty}$  measured at locations 6 and 14 respectively for wind azimuths of 315 and 292 degrees. These values compare with a largest peak gust at reference location 1 of 79 percent and in an open-country environment, 80-90 percent of  $U_{\infty}$ .

The wind data of Table 2 integrated with the wind data of Table 3 is shown plotted in Figure 9. Based on the data of Figure 9, the windiest locations measured will be locations 15 and 16 on the roof. The pedestrian environment at location 15 will be unacceptable 30 to 40 percent of the time and location 16 will be uncomfortable for walking 10 to 20 percent of the time. The windiest locations at ground level will be locations 5, 6, 12, and 14 where the winds will exceed the comfort criteria for walking 10 to 30 percent of the time for mean winds. The peak gust plots in Figure 9 indicate that gusts

will be less of a comfort problem than mean wind speeds. The below-grade plaza (location 11) indicated a low-wind environment.

The results of the pedestrian wind analysis indicated that the tower roof areas will have an unacceptable wind environment without the addition of wind screens to protect areas of use. Some areas about the base of the building (locations 5, 6, 12, and 14 will be considered as windy and will be uncomfortably windy on many windier days. Most of the plaza area along Grant Street will be an acceptable wind environment although long exposure will be uncomfortable on many windier days. The below-grade plaza should not be uncomfortable due to high winds.

### 5.3 Pressures

Table 6 shows the largest pressure coefficients and corresponding loads measured on the building for each pressure tap location. The largest peak pressure coefficients measured on the Oxford Centre building were -2.60, -2.59 and -2.53 measured at taps 1044, 1036 and 4025 respectively for wind azimuths 140, 150 and 270 degrees. These pressure coefficients correspond to peak pressure loads of 71 to 73 psf based on a 100-year recurrence wind. Contour plots of peak pressures in Figure 10 show that, in general, the highest pressures are on or near the corner diagonals. Most of the surface area of the building has peak pressures at or below 45 psf based on a 100-yr recurrence wind. To obtain 50-yr wind peak pressure contours, the values on Figure 10 can be divided by 1.13.

Figure 11 shows 50 and 100-yr load, shear, and moment diagrams for wind directions where the x and y base shears were near their maxima.

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FIGURES

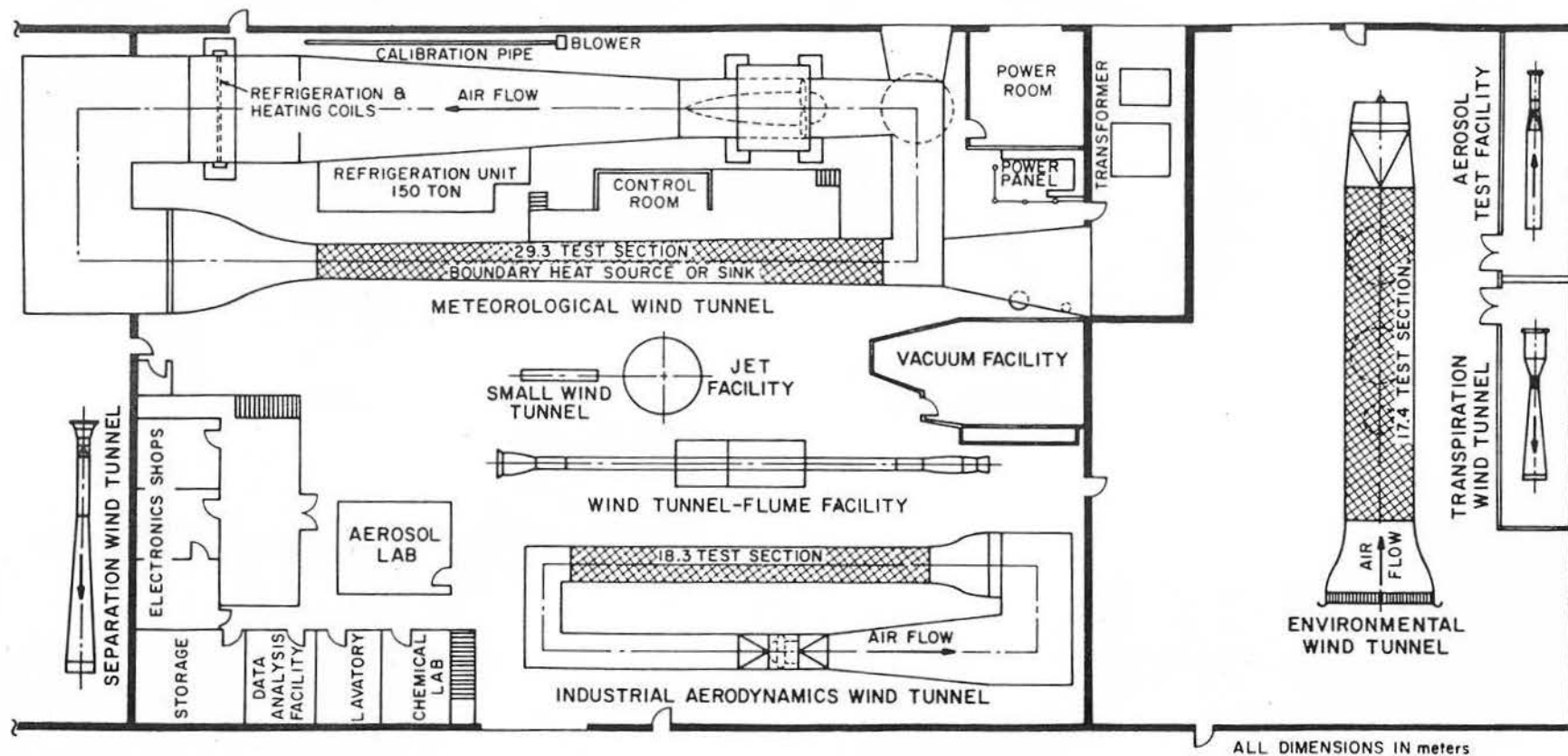
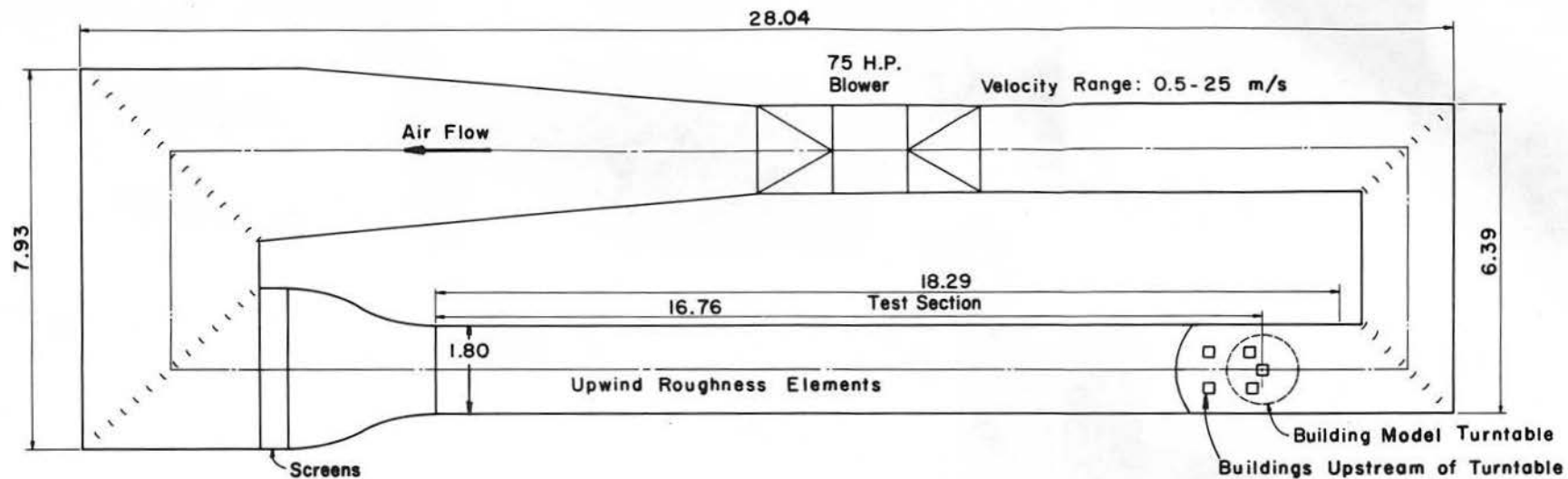


FIGURE I - FLUID DYNAMICS AND DIFFUSION LABORATORY  
 COLORADO STATE UNIVERSITY

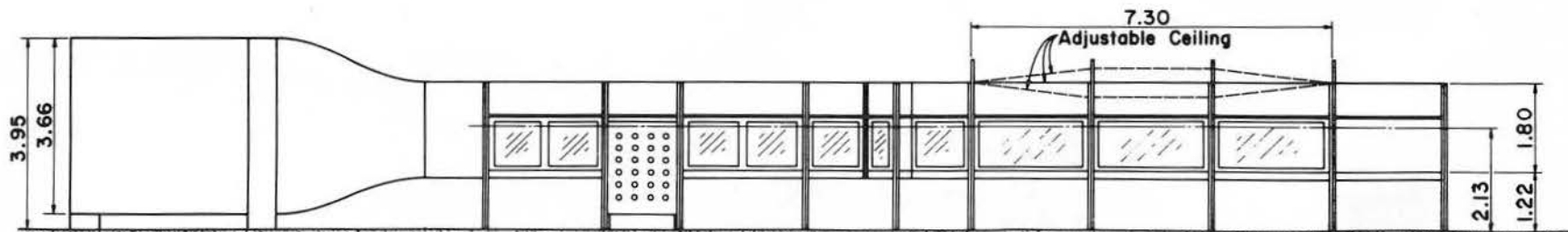




PLAN



27



All Dimensions in m

ELEVATION

## INDUSTRIAL AERODYNAMICS WIND TUNNEL

Figure 2 - Wind Tunnel Configuration

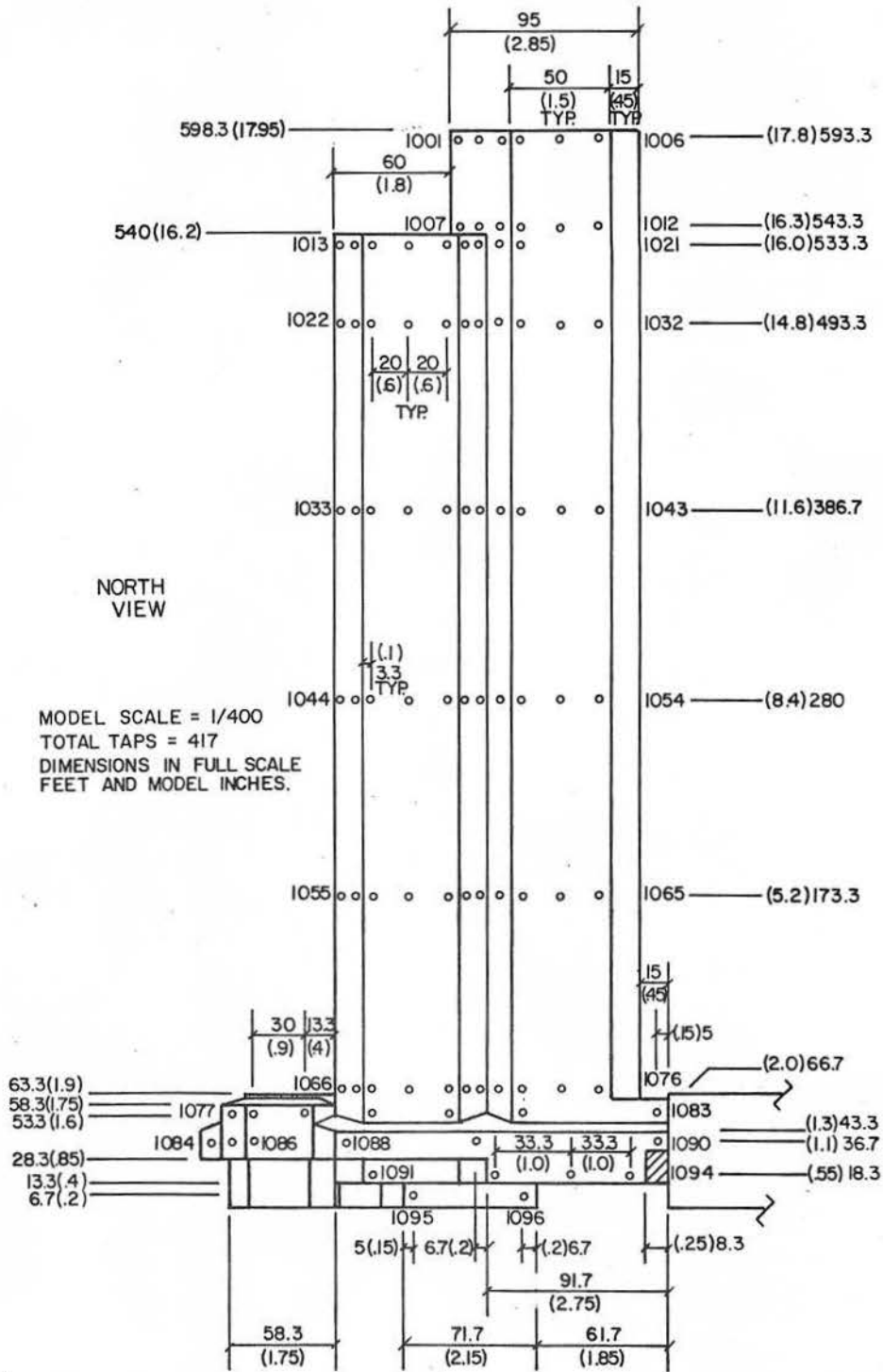


Figure 3a. Pressure Tap Locations

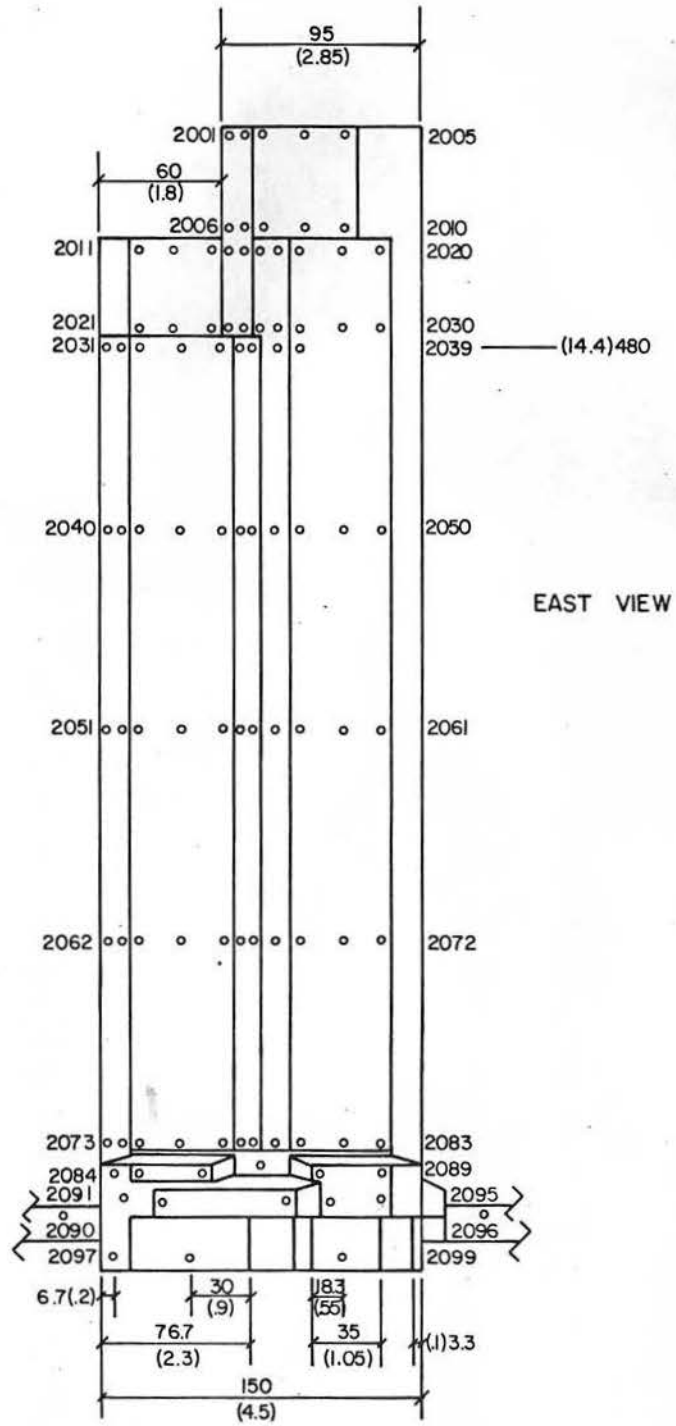


Figure 3b. Pressure Tap Locations

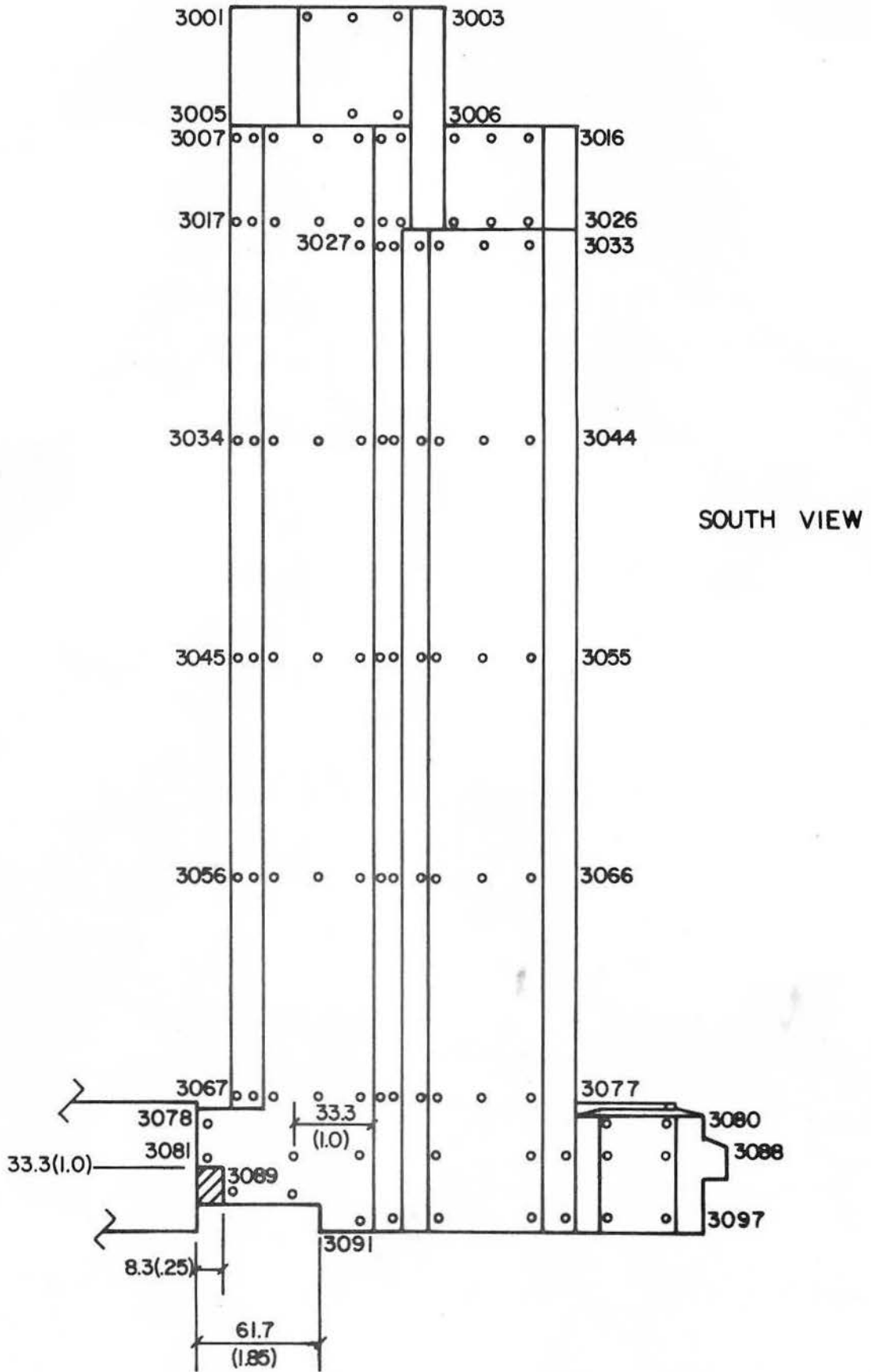


Figure 3c. Pressure Tap Locations

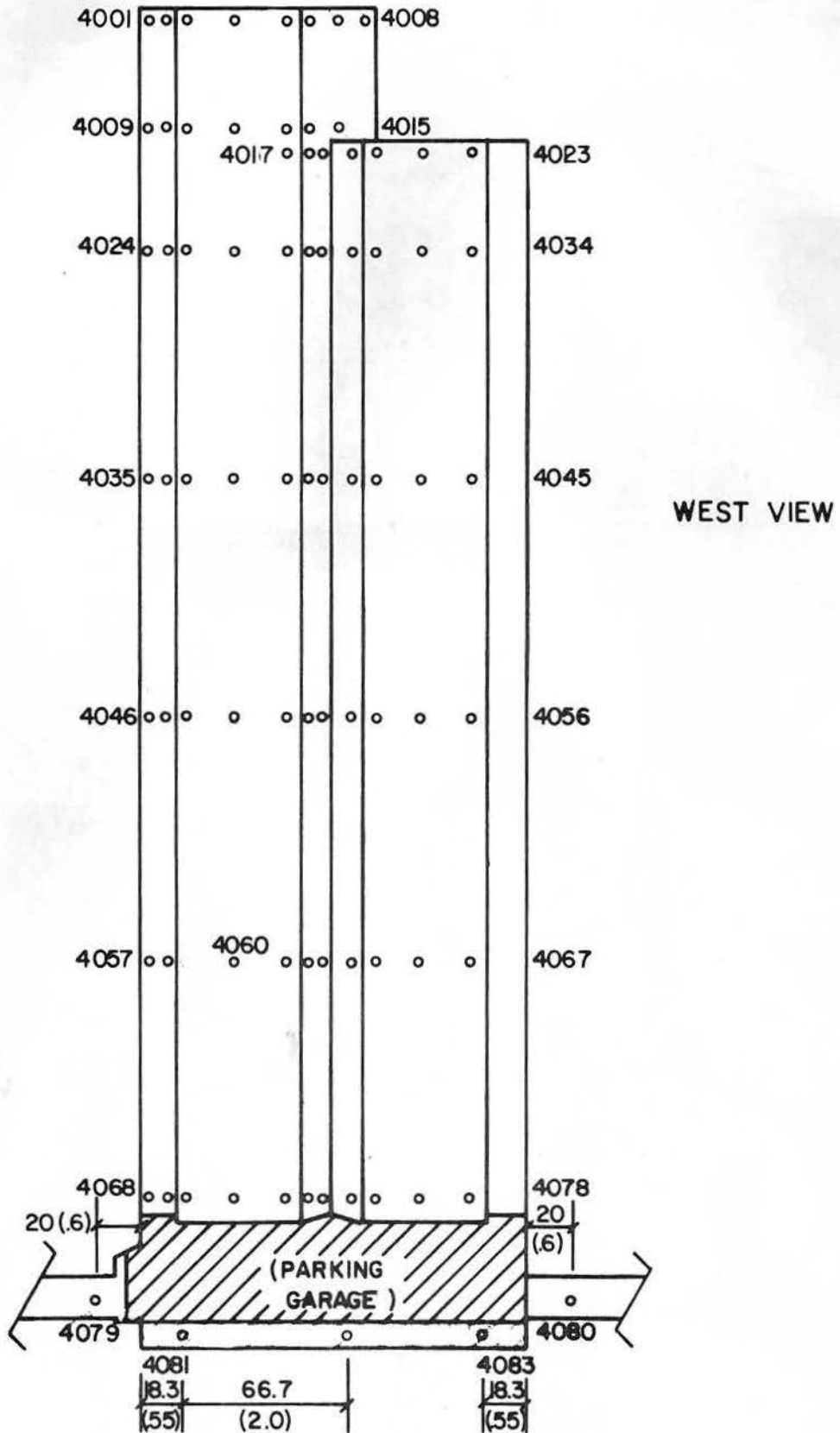


Figure 3d. Pressure Tap Locations

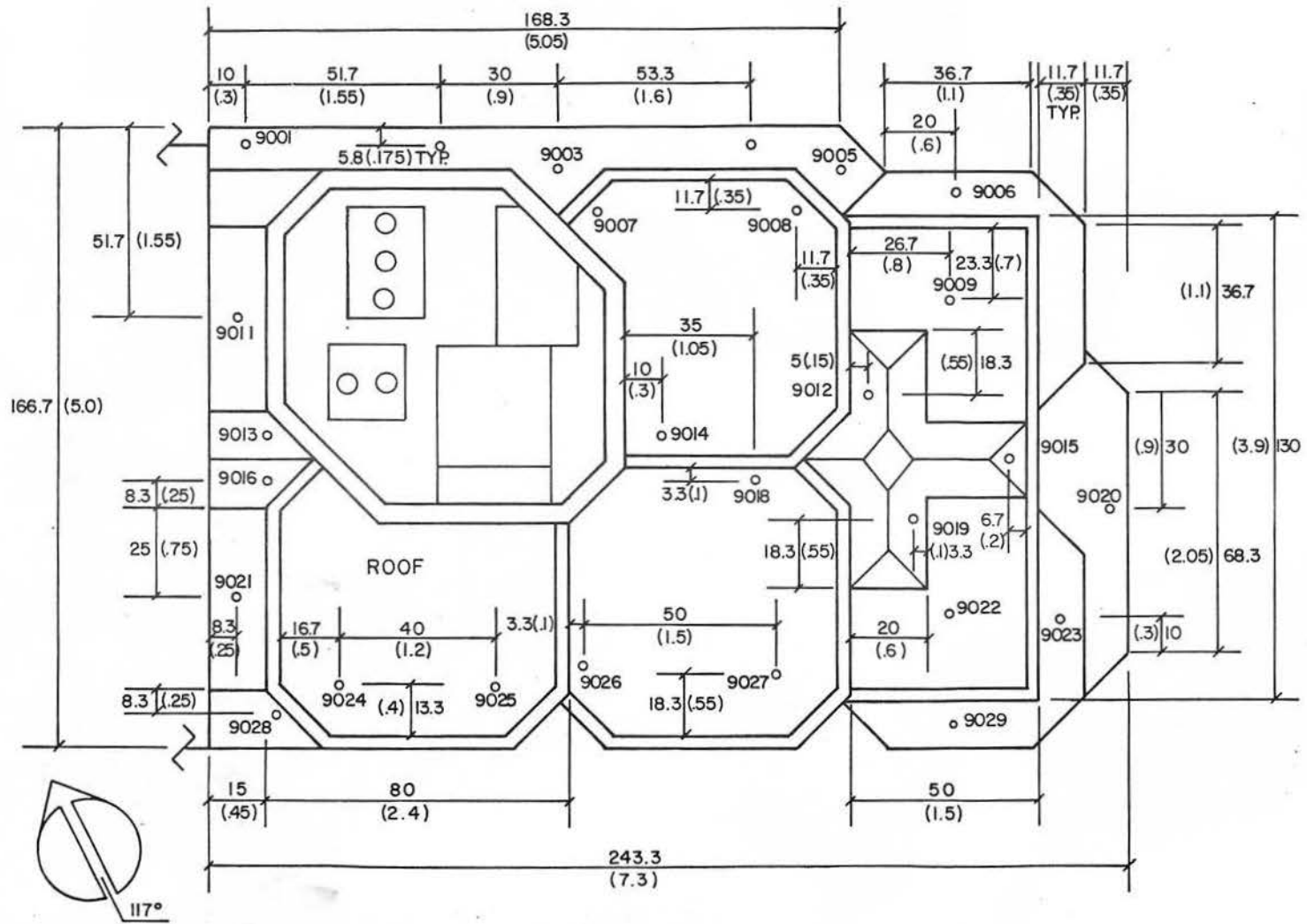


Figure 3e. Pressure Tap Locations

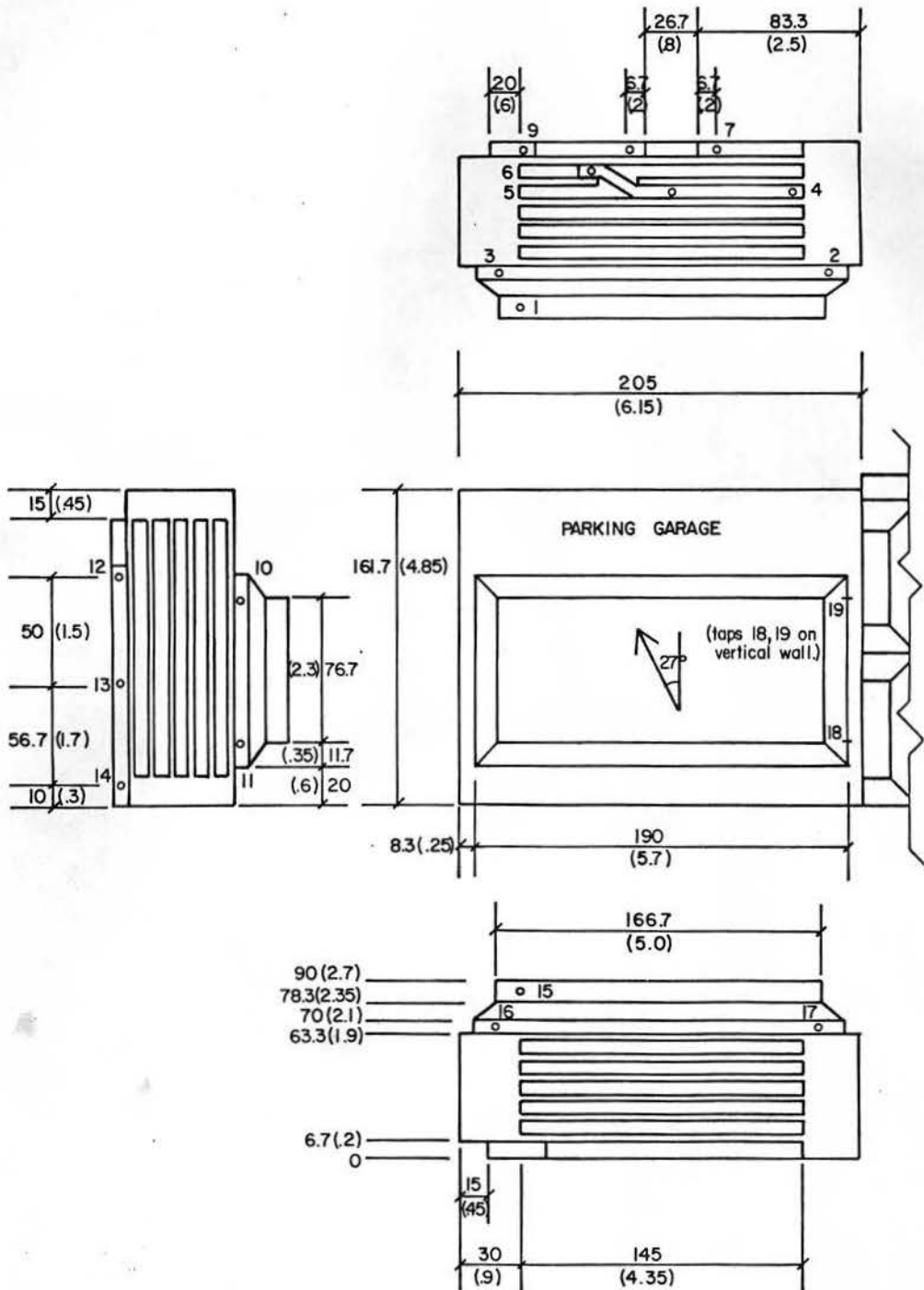


Figure 3f. Pressure Tap Locations

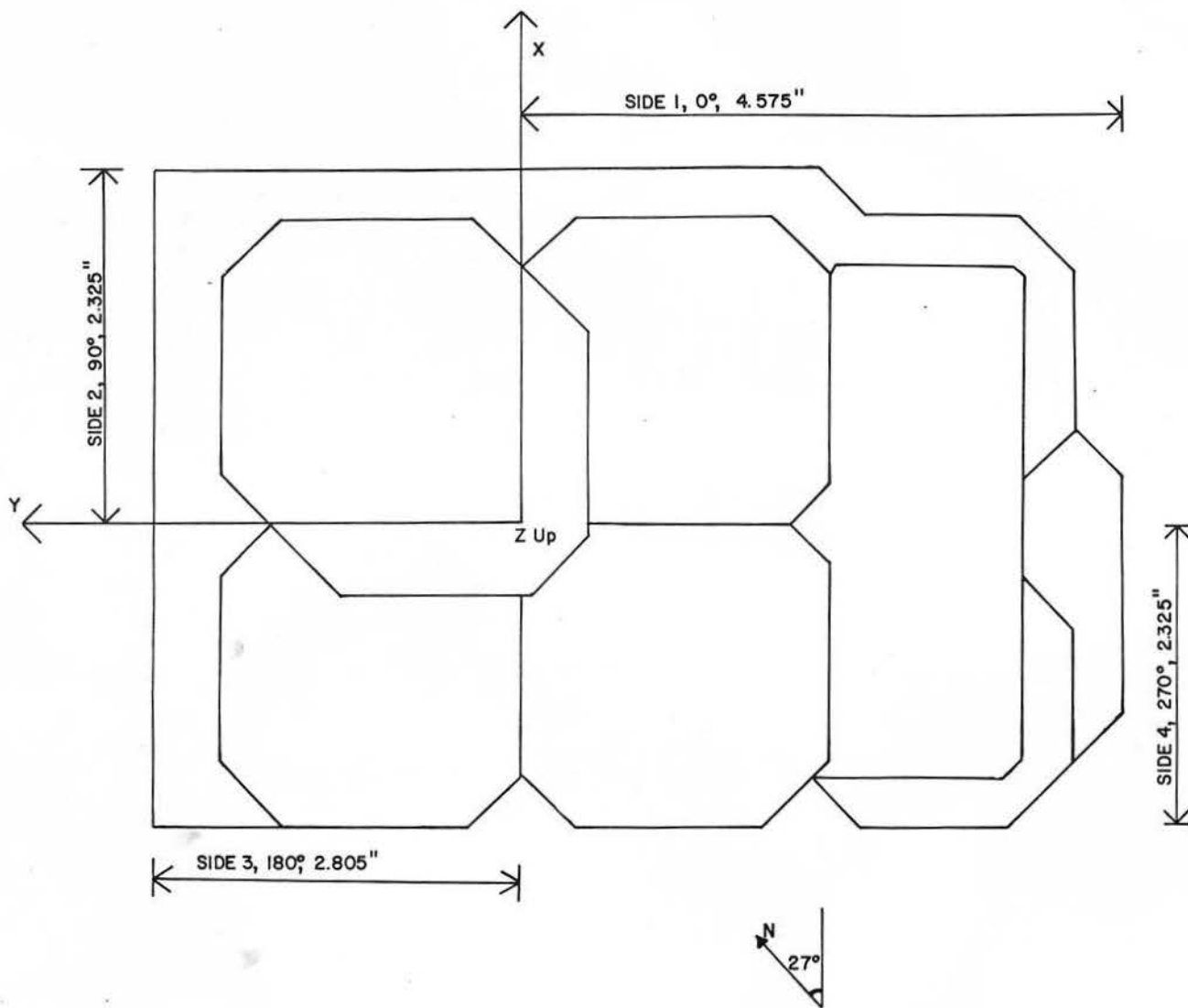


Figure 3g. Force and Moment Coordinate System



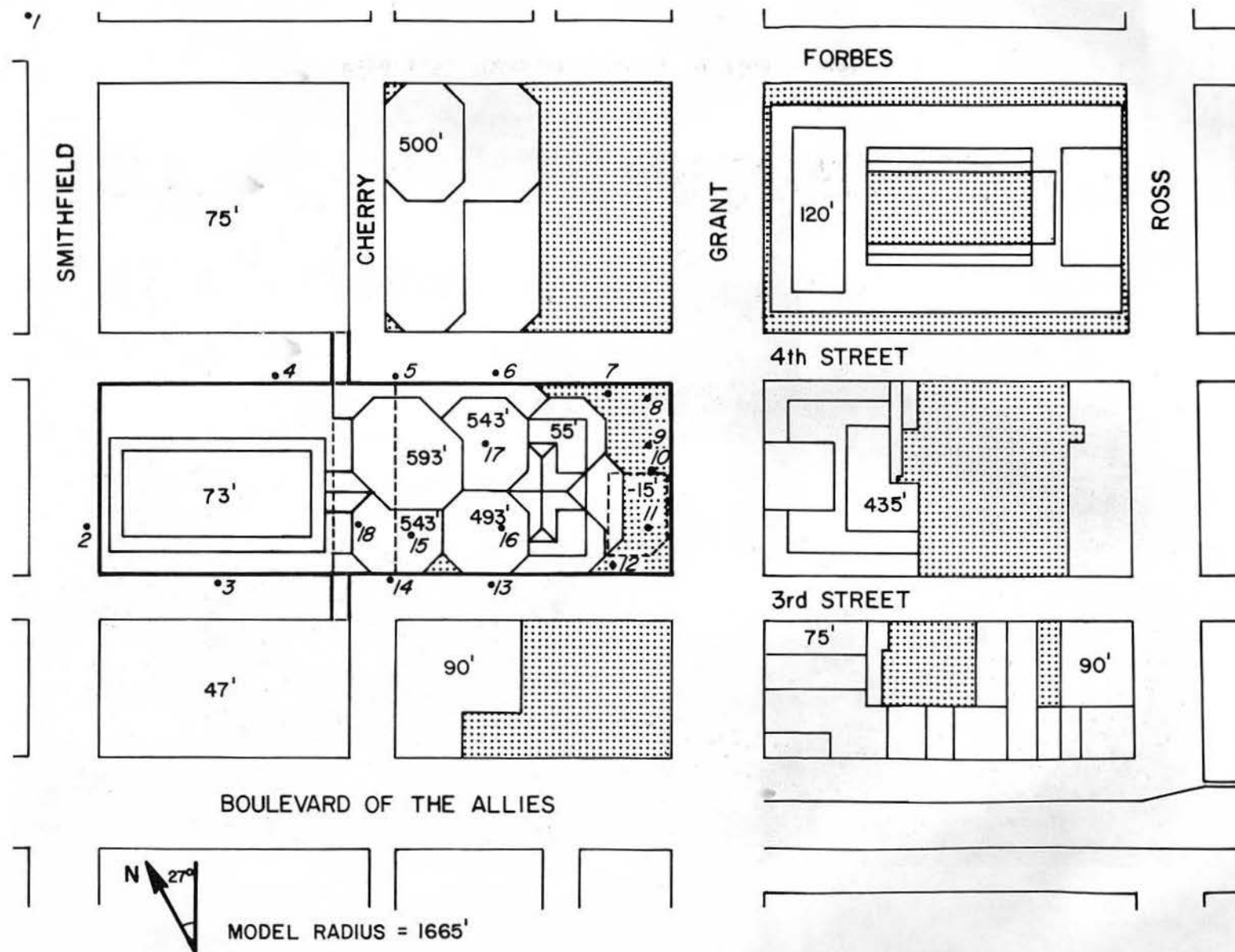


Figure 4. Building Location and Pedestrian Wind Velocity Measuring Positions

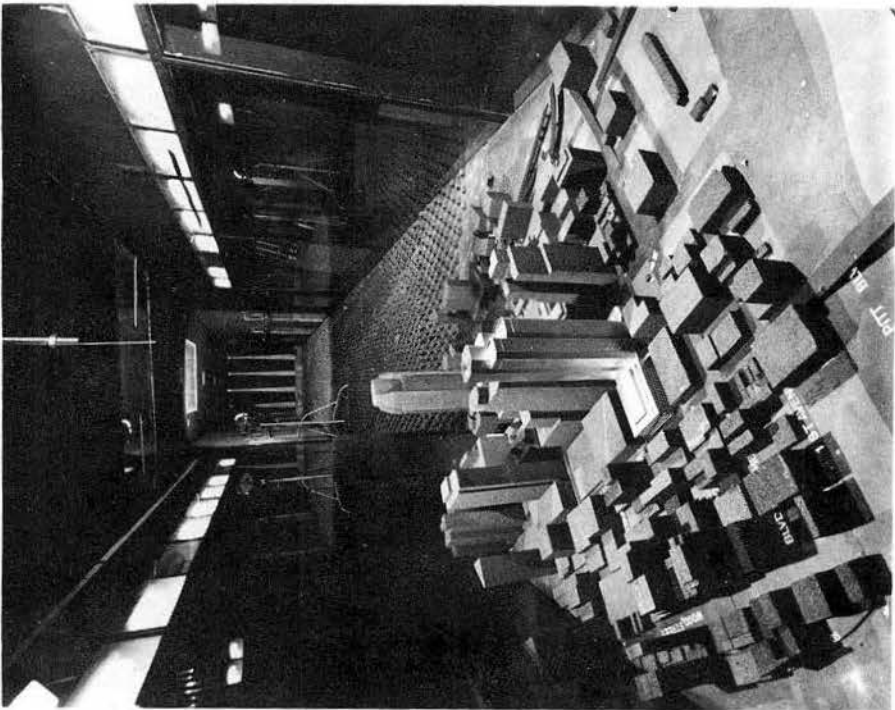
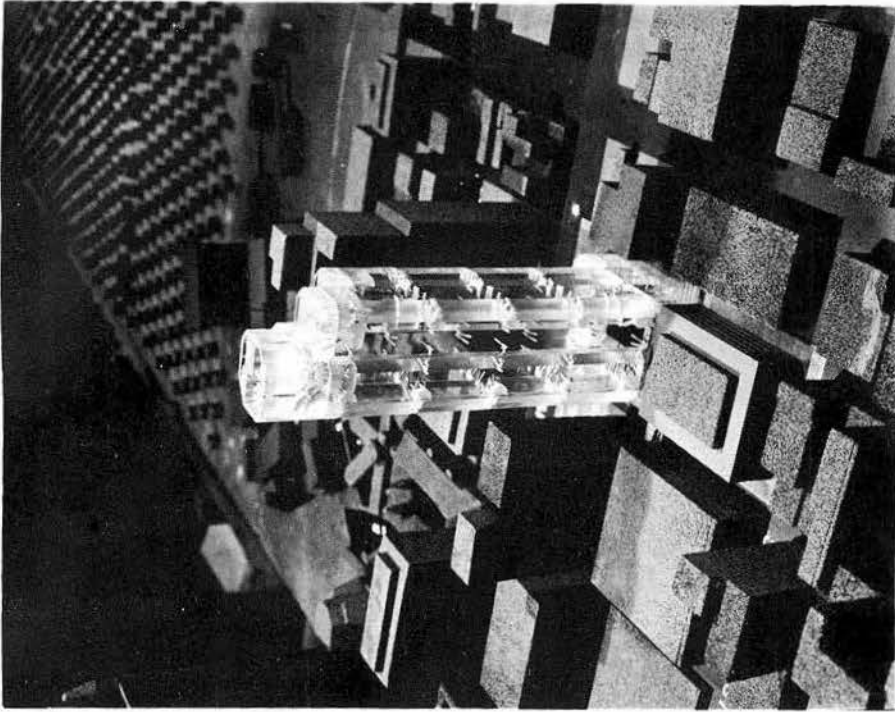


Figure 5. Completed Model in Wind Tunnel

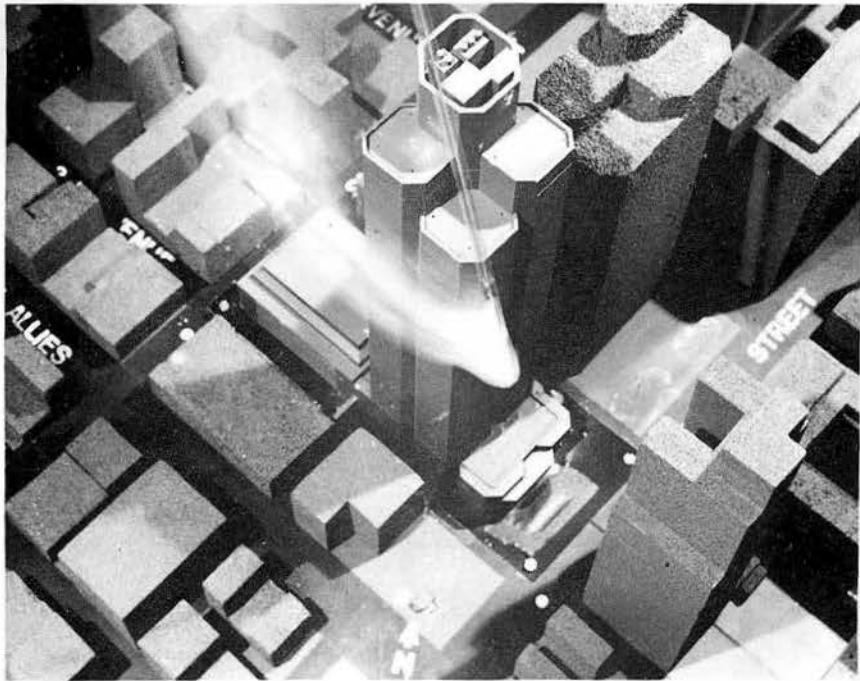
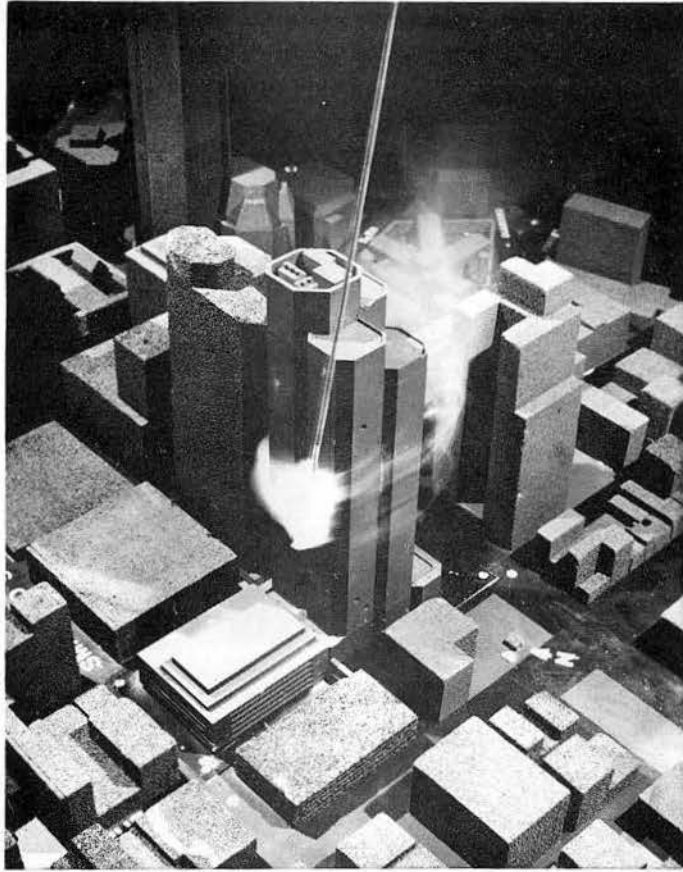


Figure 5. Completed Model in Wind Tunnel

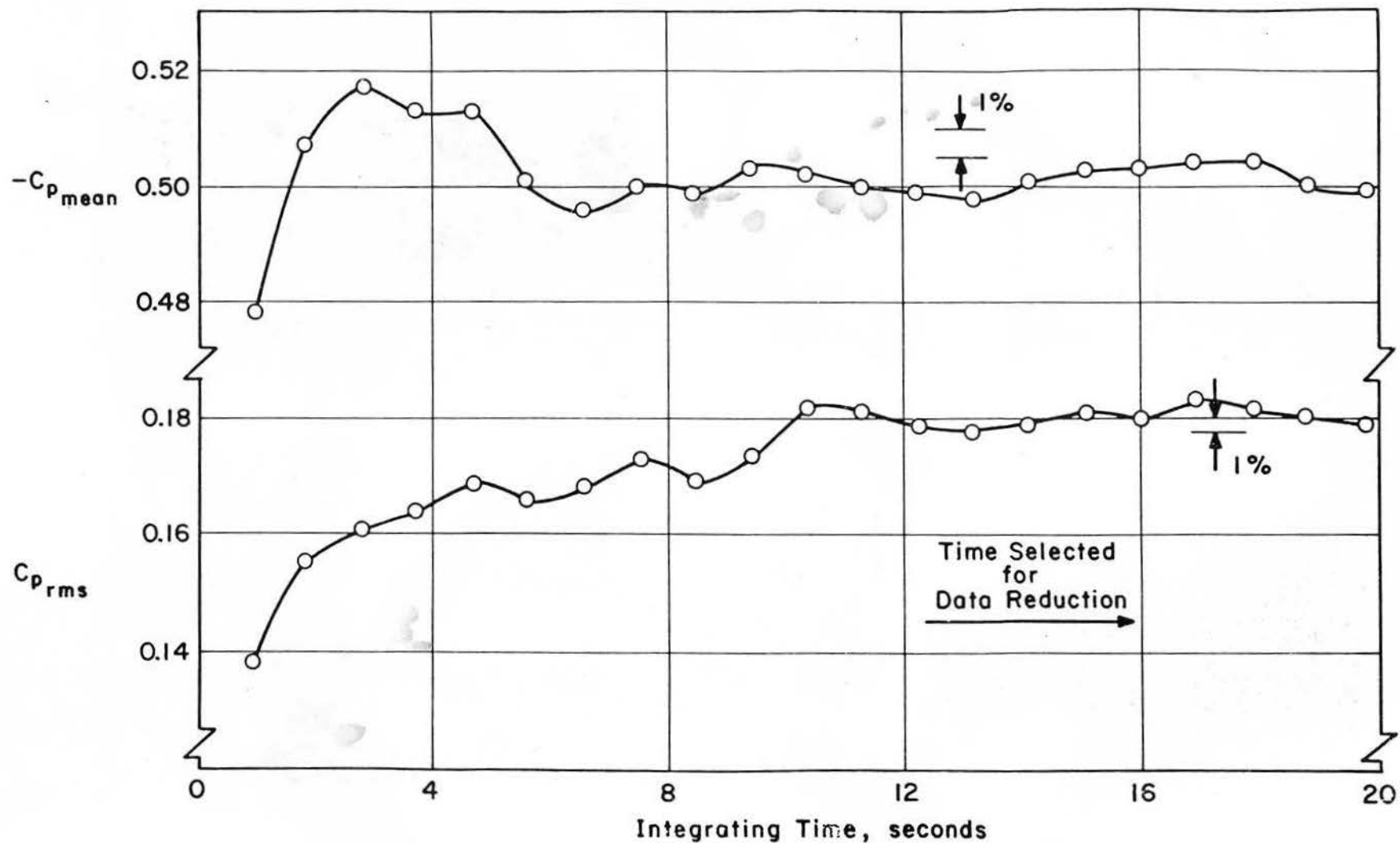


Figure 6 - Data Sampling Time Verification

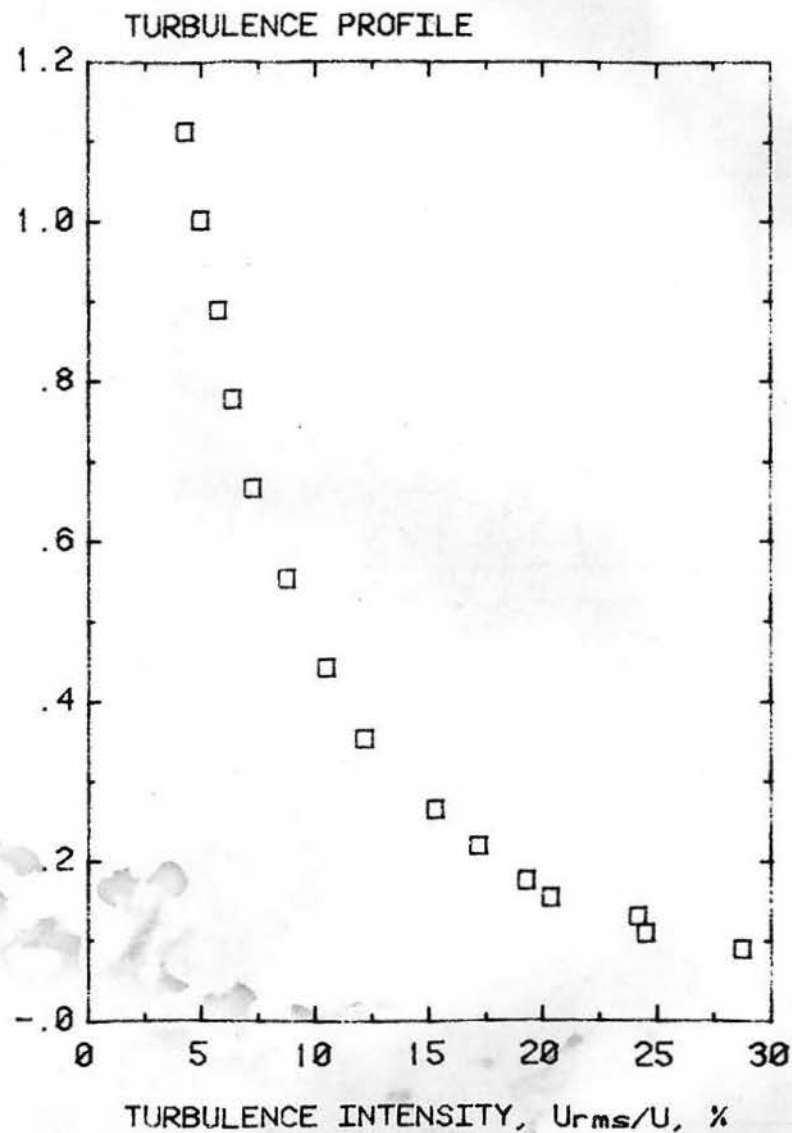
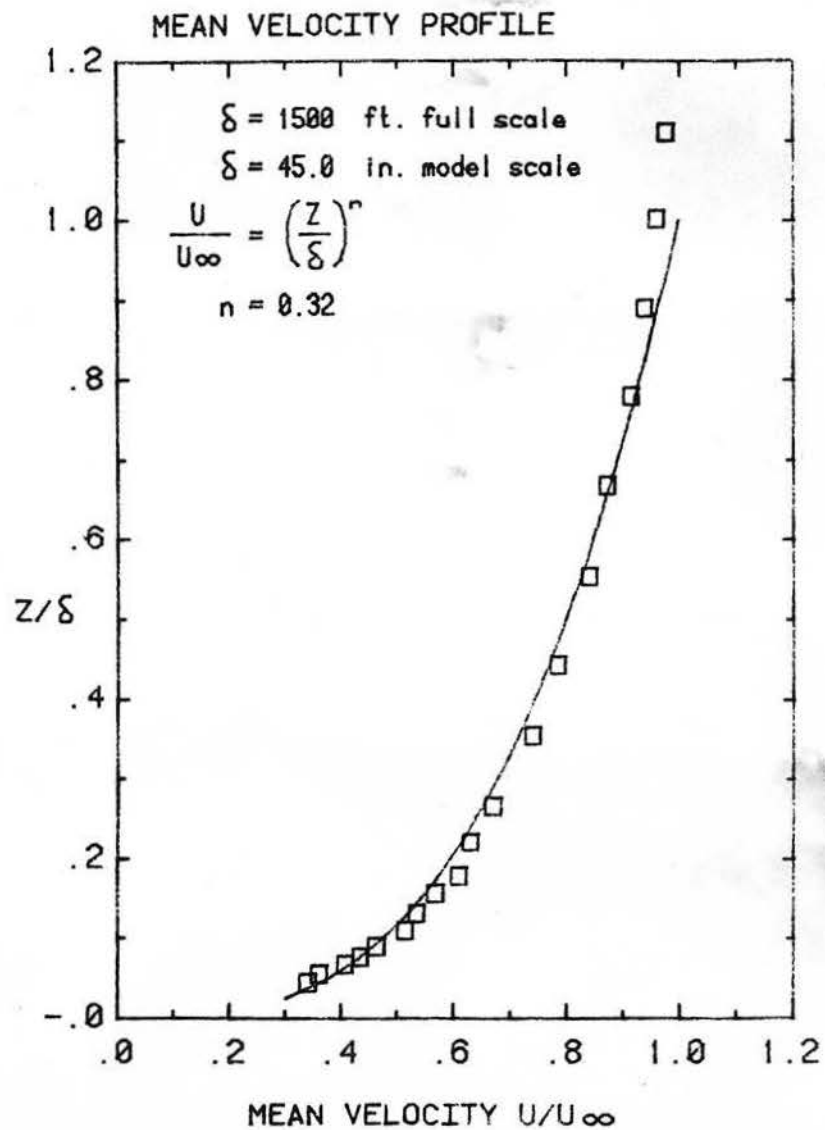


Figure 7. Mean Velocity and Turbulence Profiles Approaching the Model.

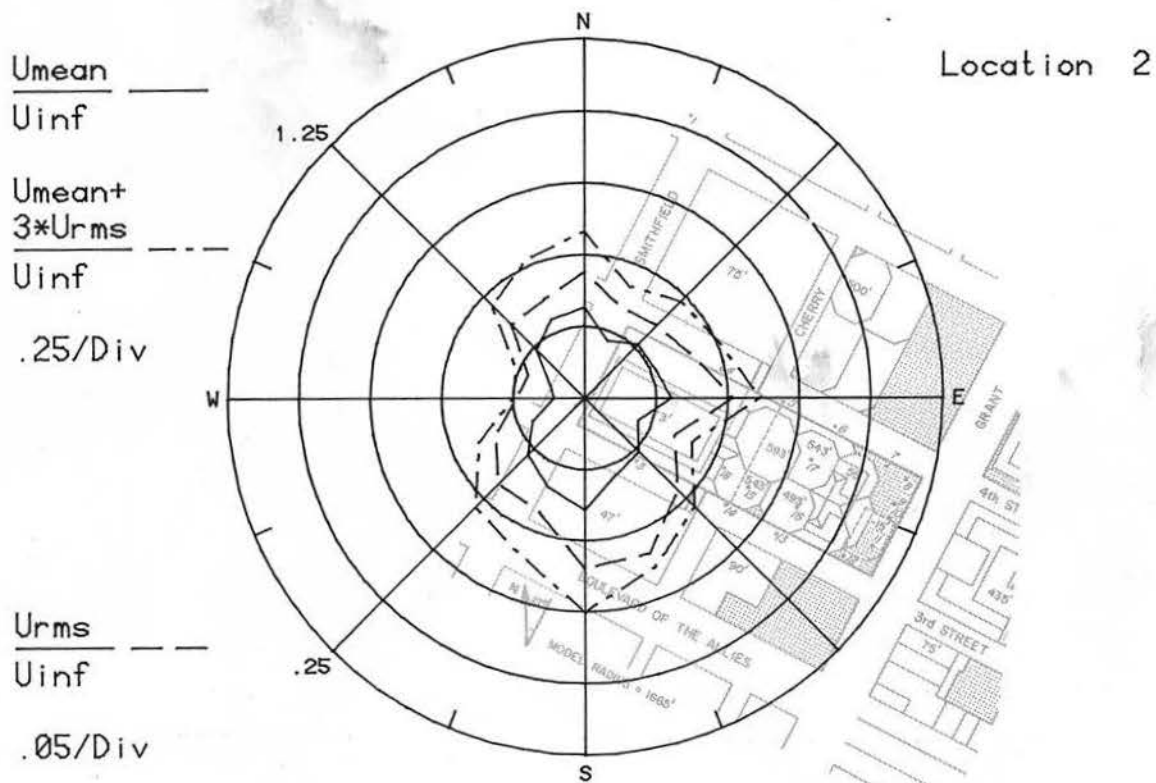
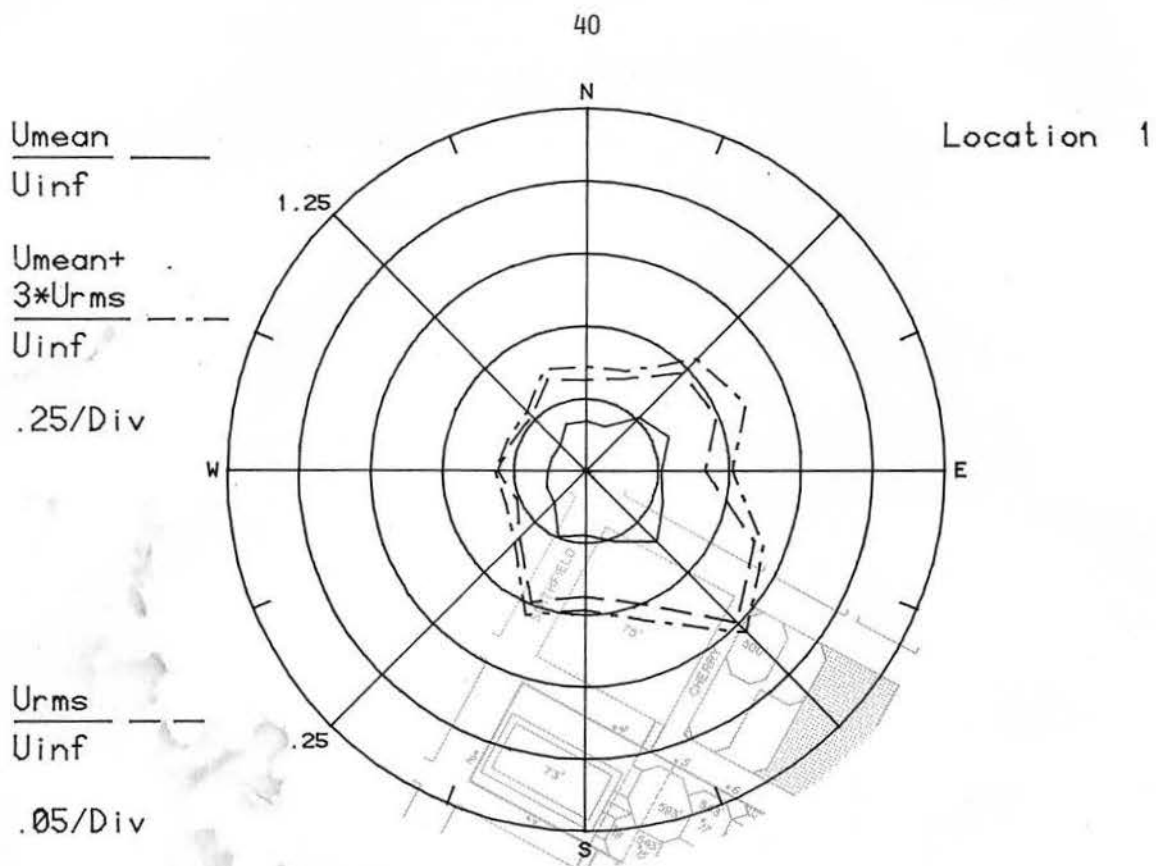


Figure 8a. Mean Velocities and Turbulence Intensities at Pedestrian Locations 1 and 2

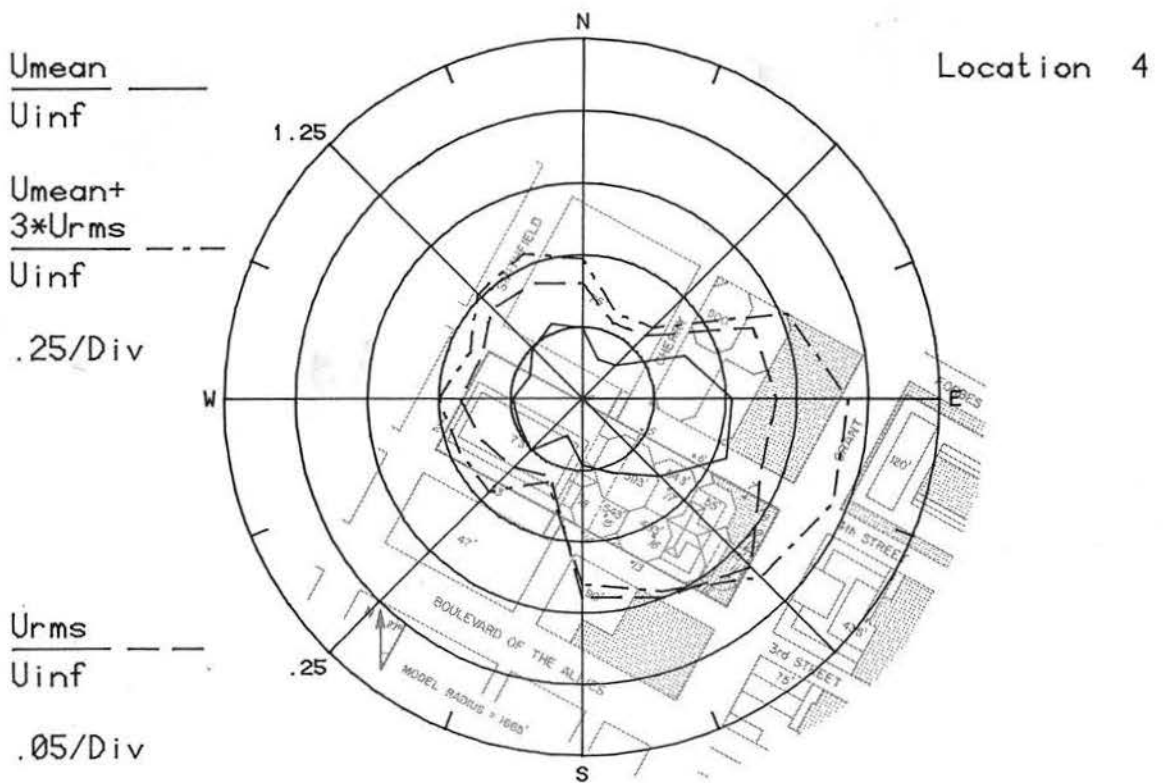
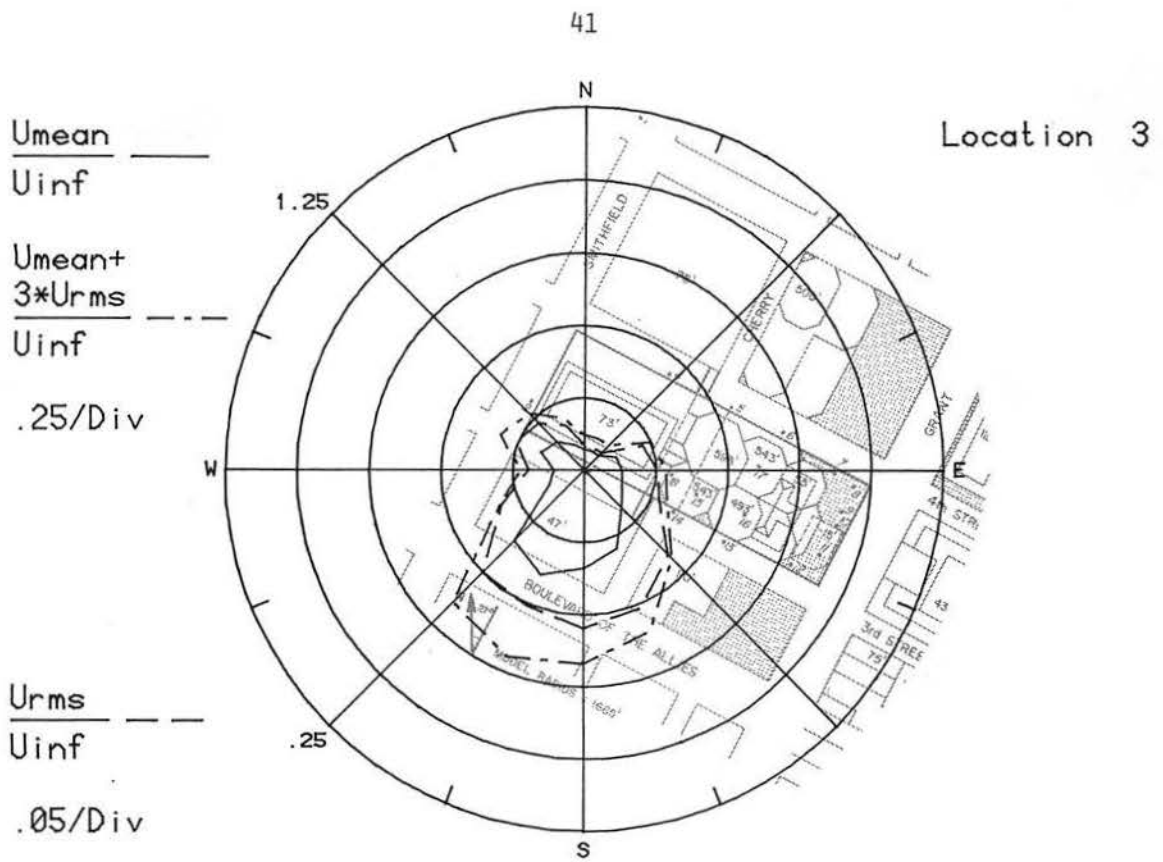


Figure 8b. Mean Velocities and Turbulence Intensities at Pedestrian Locations 3 and 4

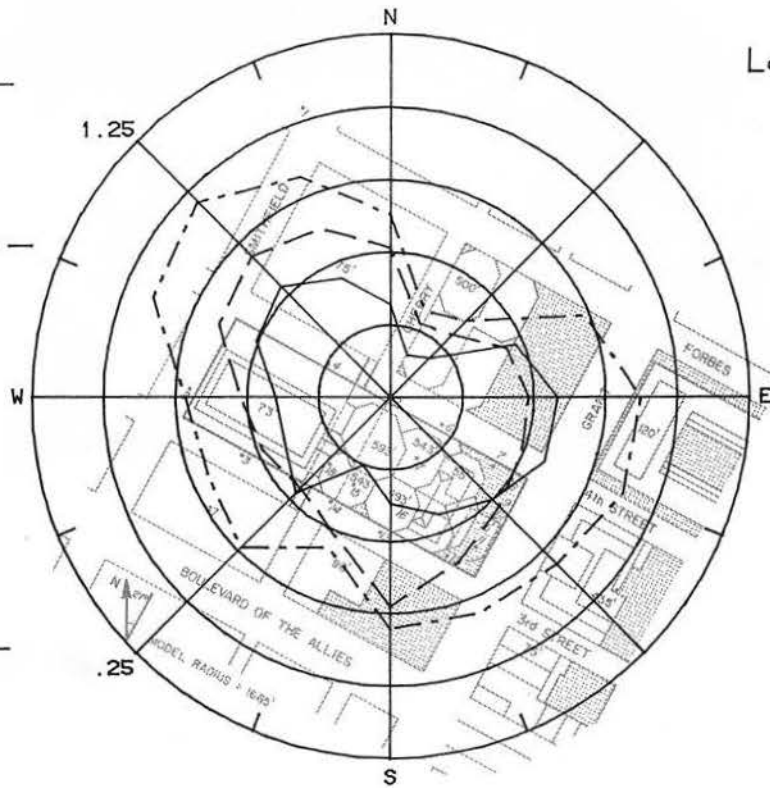
$$\frac{U_{mean}}{U_{inf}} \text{ ———}$$

$$\frac{U_{mean} + 3 \cdot U_{rms}}{U_{inf}} \text{ - - - -}$$

$$.25/Div$$

$$\frac{U_{rms}}{U_{inf}} \text{ - - - -}$$

$$.05/Div$$



$$\frac{U_{mean}}{U_{inf}} \text{ ———}$$

$$\frac{U_{mean} + 3 \cdot U_{rms}}{U_{inf}} \text{ - - - -}$$

$$.25/Div$$

$$\frac{U_{rms}}{U_{inf}} \text{ - - - -}$$

$$.05/Div$$

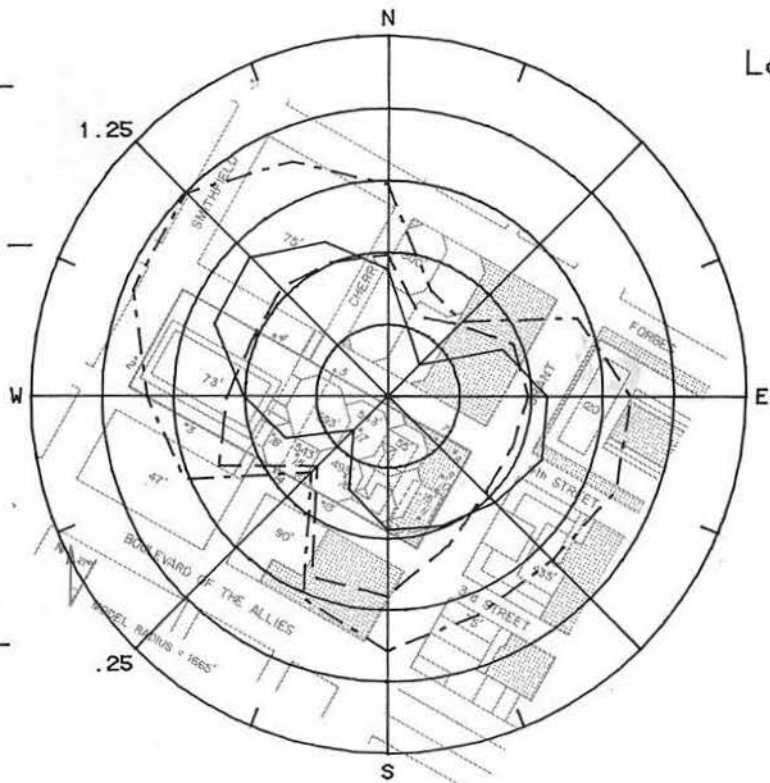


Figure 8c. Mean Velocities and Turbulence Intensities at Pedestrian Locations 5 and 6



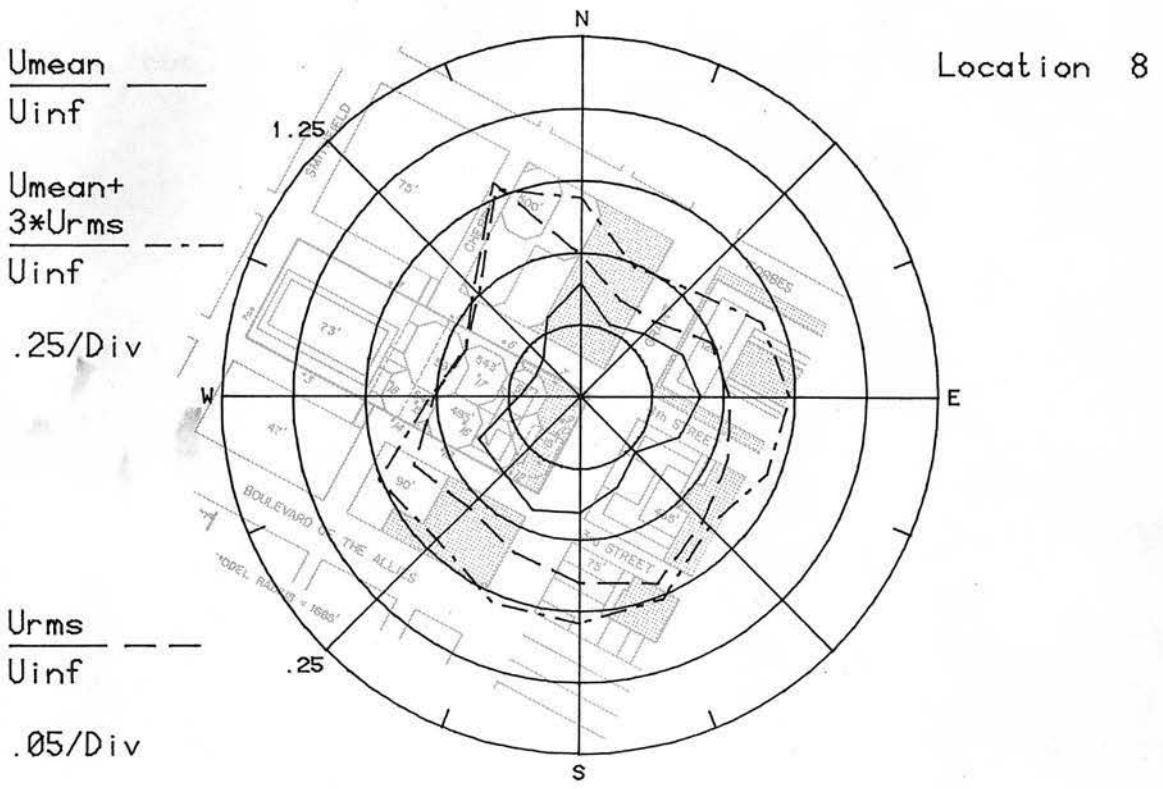
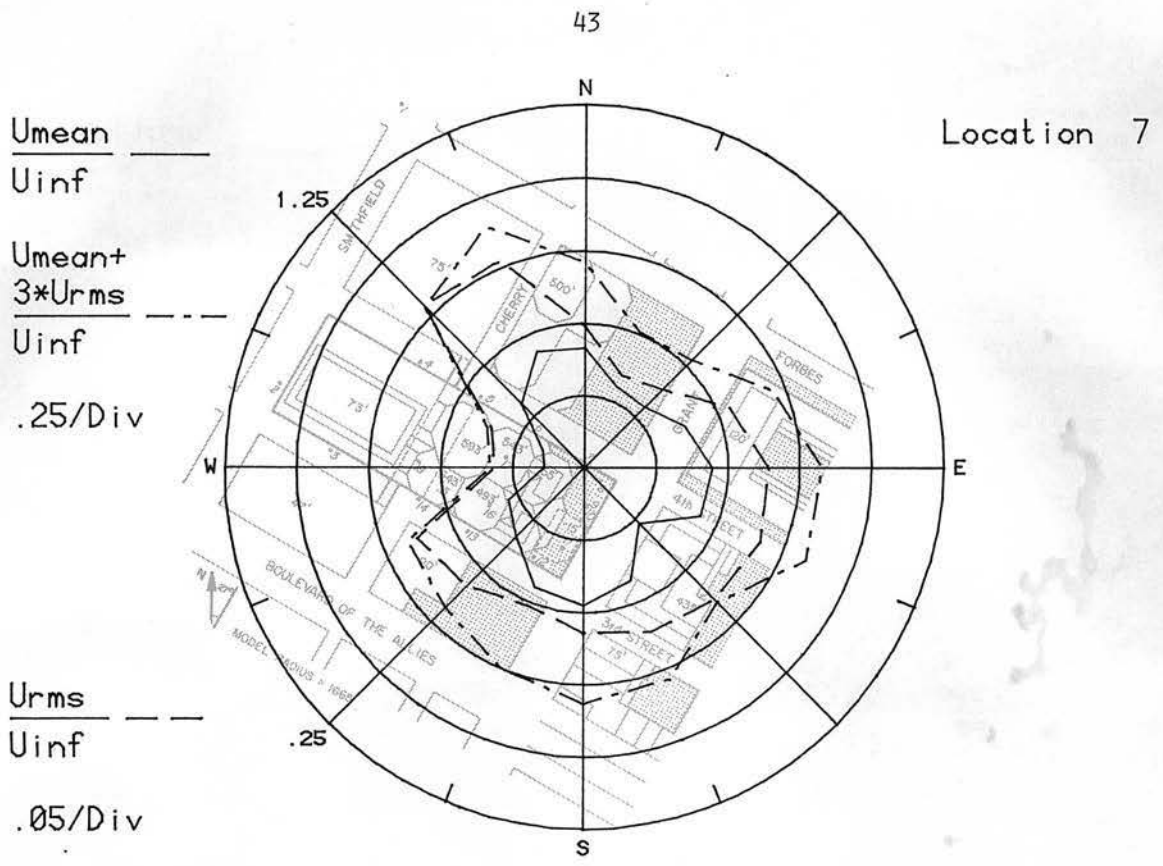


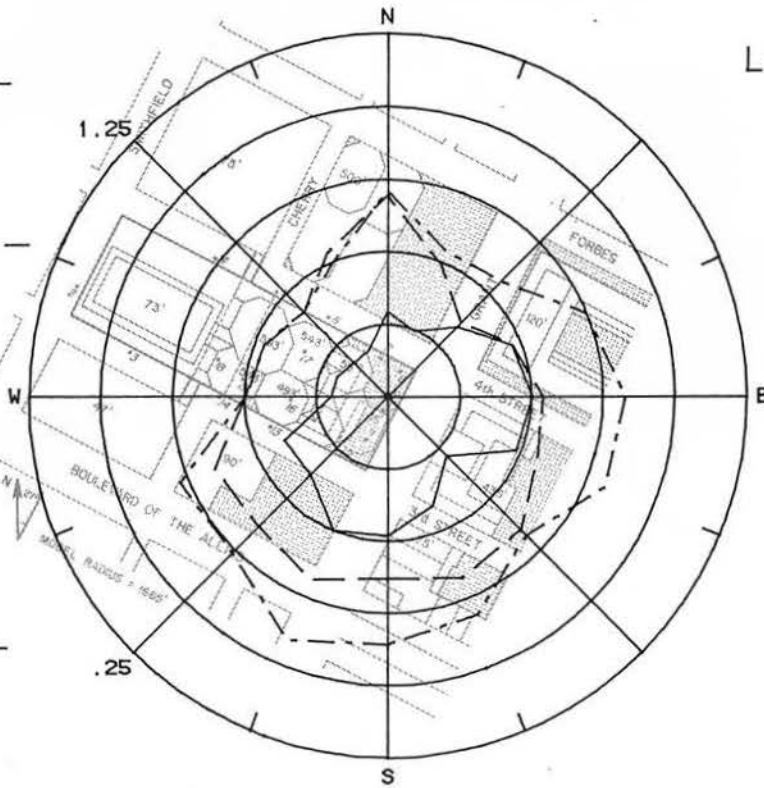
Figure 8d. Mean Velocities and Turbulence Intensities at Pedestrian Locations 7 and 8

$\frac{U_{mean}}{U_{inf}}$  ——— $U_{inf}$ 

Location 9

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.25/Div

 $\frac{U_{rms}}{U_{inf}}$  - - - - $U_{inf}$ 

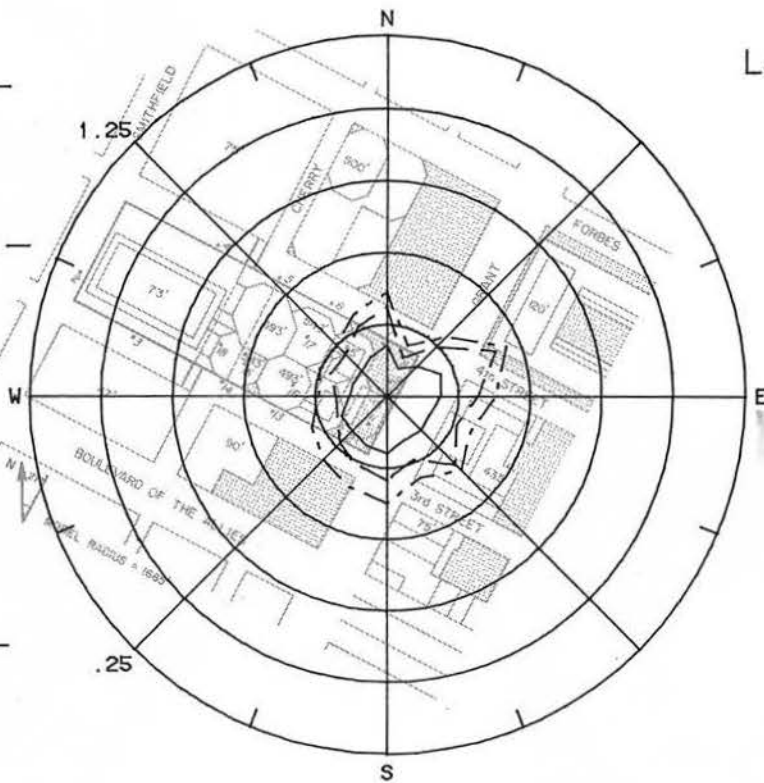
.05/Div

 $\frac{U_{mean}}{U_{inf}}$  ——— $U_{inf}$ 

Location 10

 $\frac{U_{mean} + 3*U_{rms}}{U_{inf}}$  - - - - $U_{inf}$ 

.25/Div

 $\frac{U_{rms}}{U_{inf}}$  - - - - $U_{inf}$ 

.05/Div

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

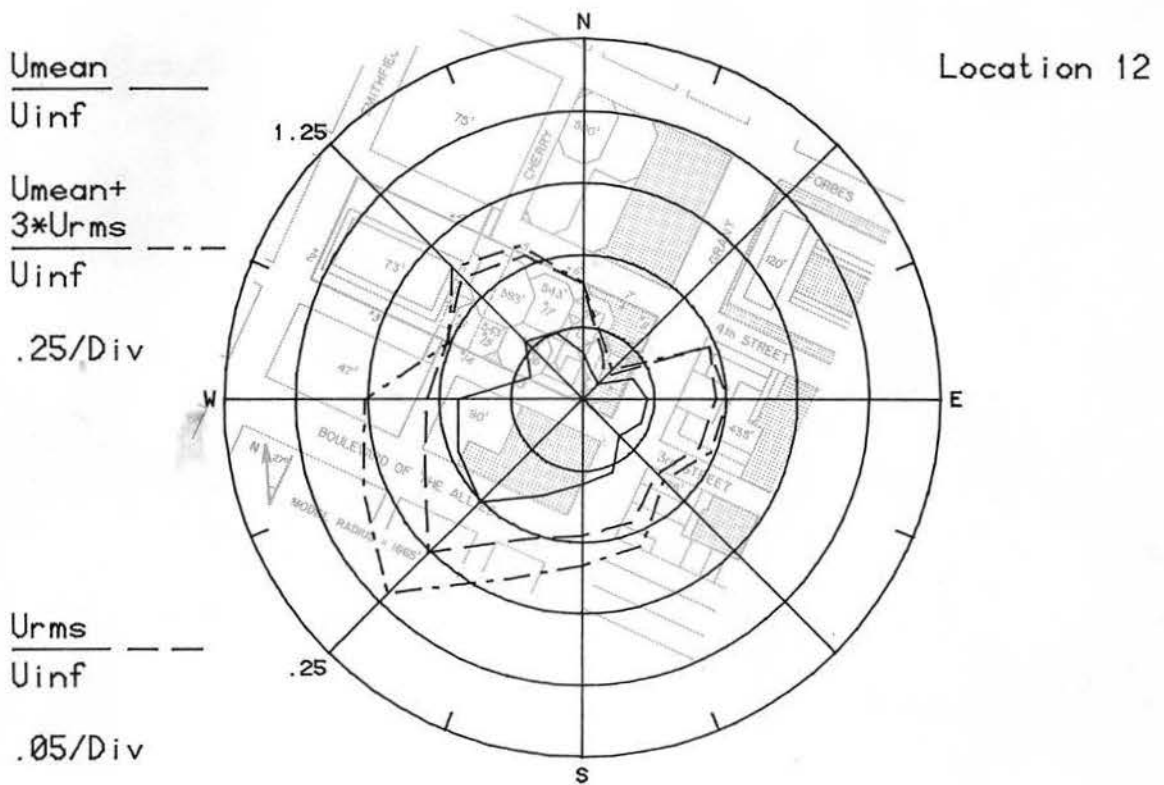
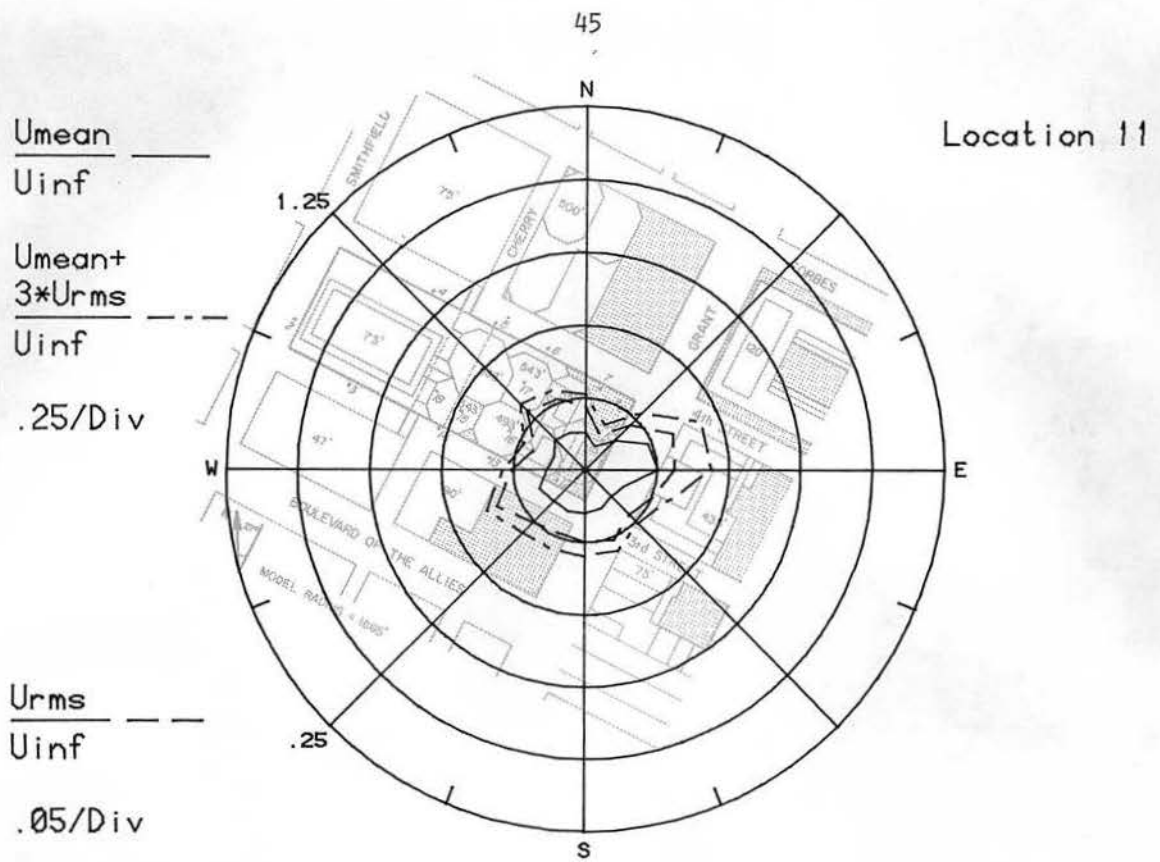
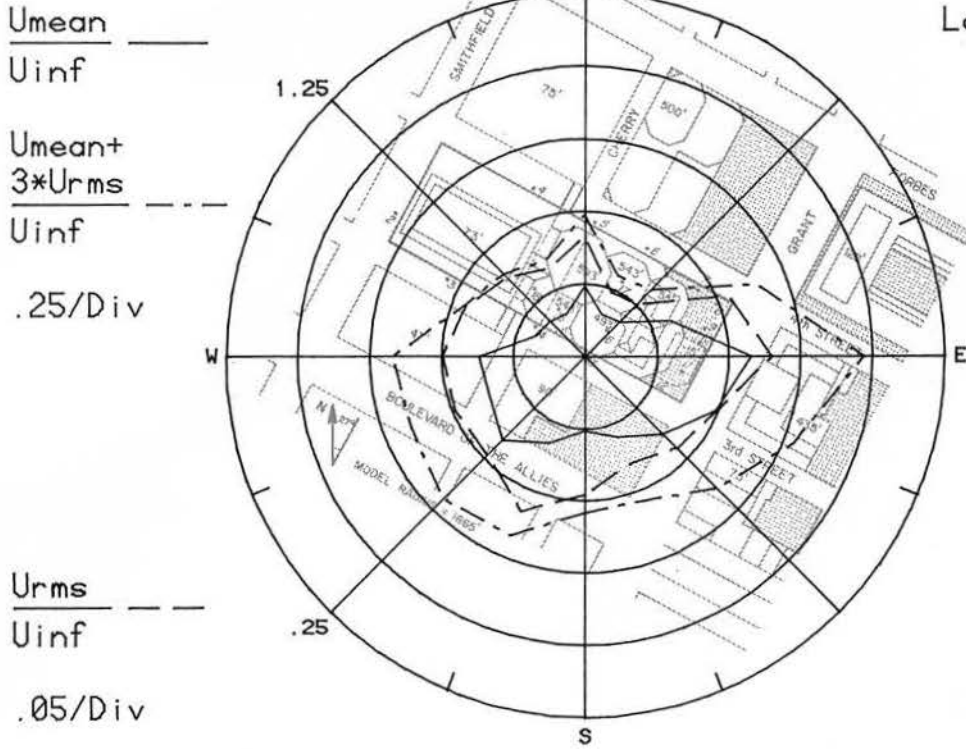


Figure 8f. Mean Velocities and Turbulence Intensities at Pedestrian Locations 11 and 12

Location 13



Location 14

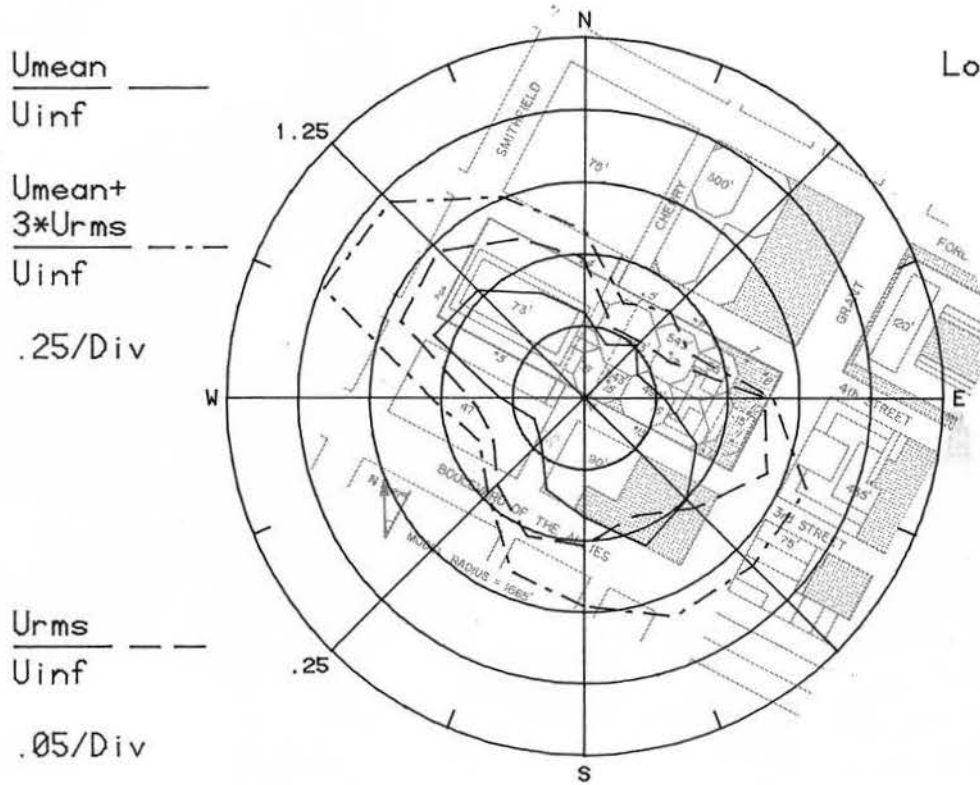


Figure 8g. Mean Velocities and Turbulence Intensities at Pedestrian Locations 13 and 14

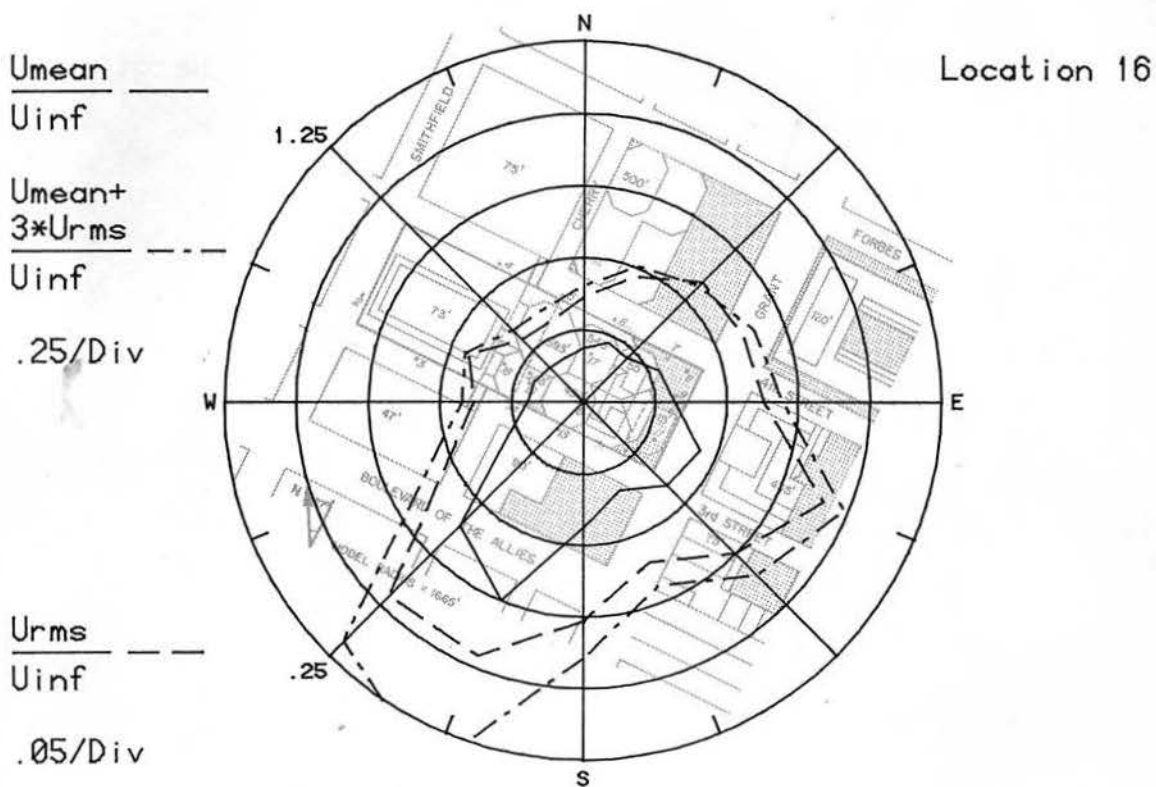
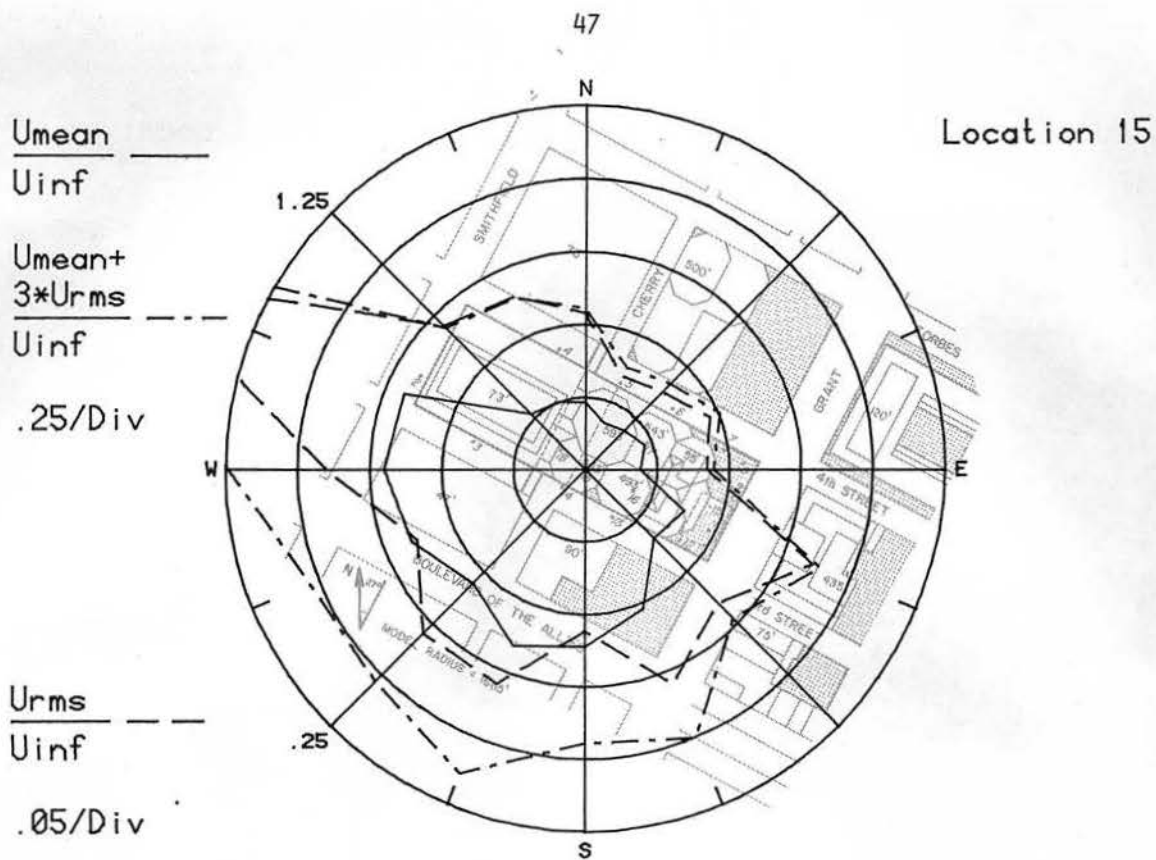


Figure 8h. Mean Velocities and Turbulence Intensities at Pedestrian Locations 15 and 16

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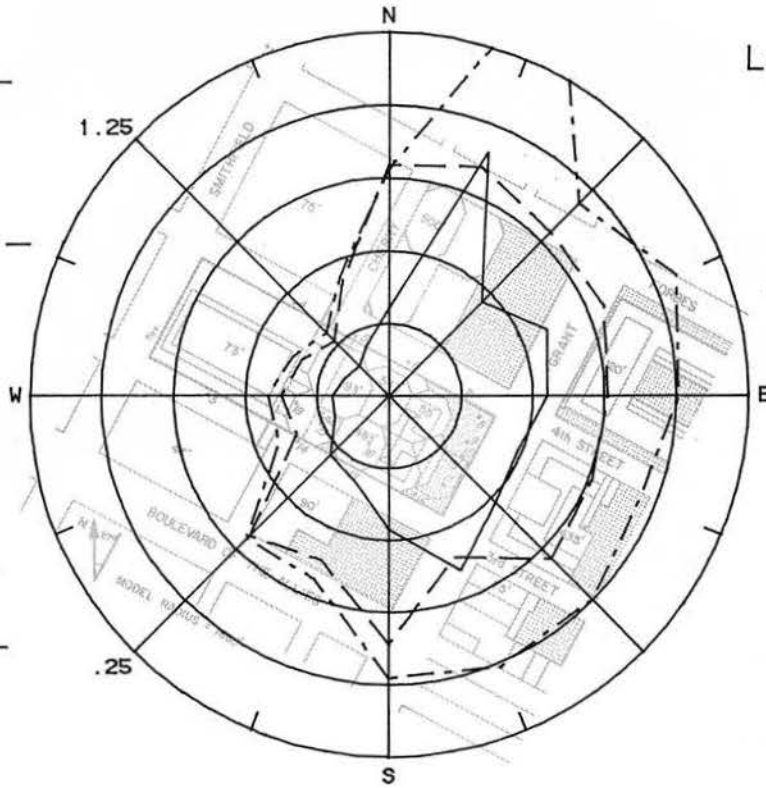
Location 17

$\frac{U_{mean} + 3 \cdot U_{rms}}{U_{inf}}$  - - - -

.25/Div

$\frac{U_{rms}}{U_{inf}}$  - - - -

.05/Div



$\frac{U_{mean}}{U_{inf}}$  ———

Location 18

$\frac{U_{mean} + 3 \cdot U_{rms}}{U_{inf}}$  - - - -

.25/Div

$\frac{U_{rms}}{U_{inf}}$  - - - -

.05/Div

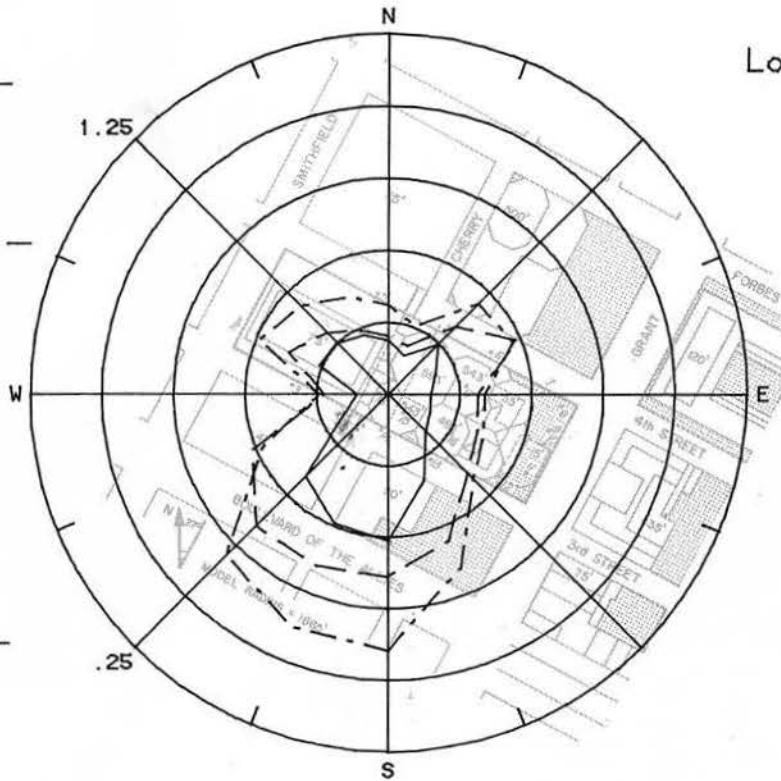


Figure 8i. Mean Velocities and Turbulence Intensities at Pedestrian Locations 17 and 18

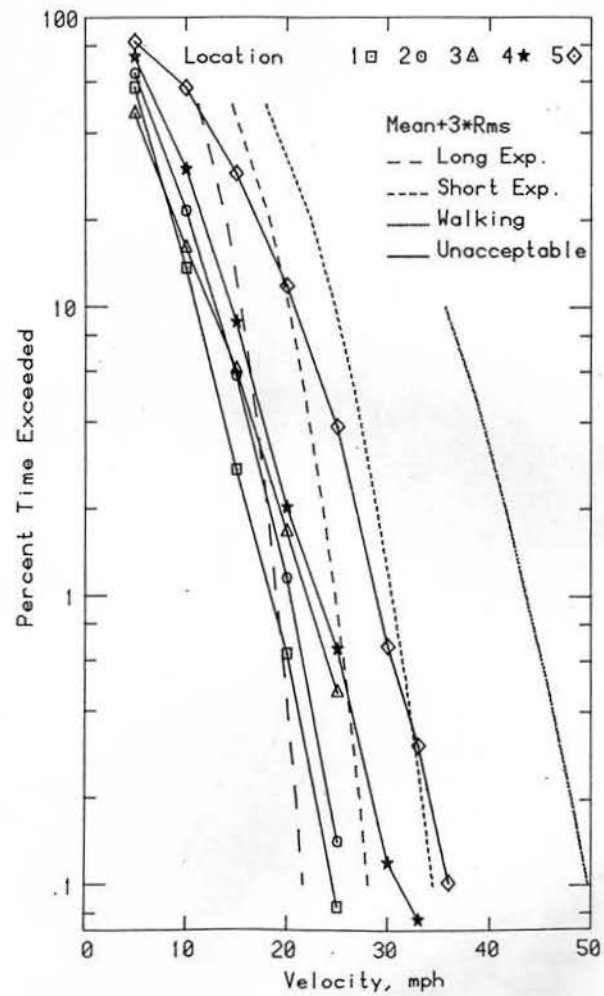
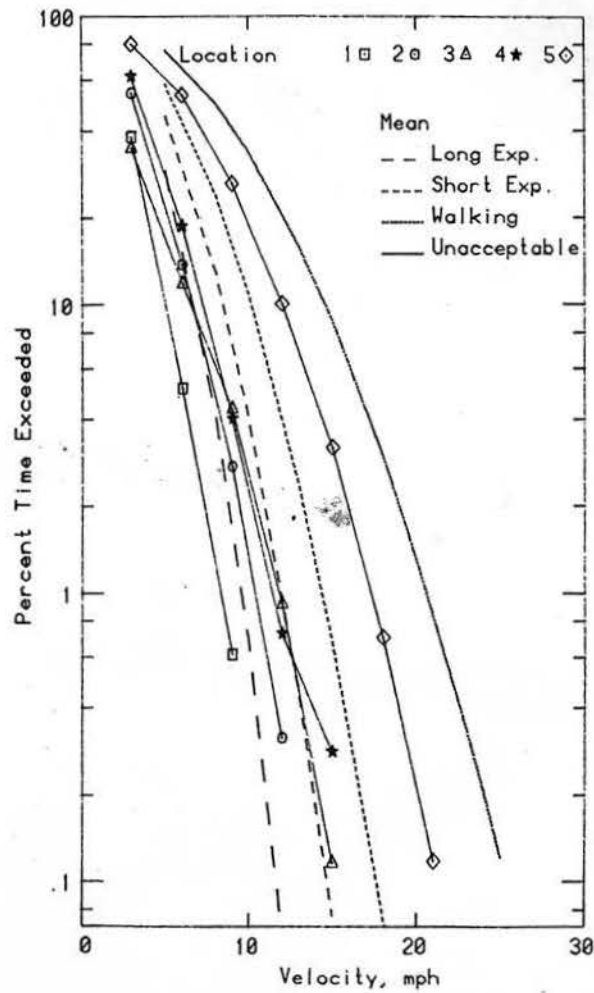


Figure 9a. Wind Velocity Probabilities for Pedestrian Locations

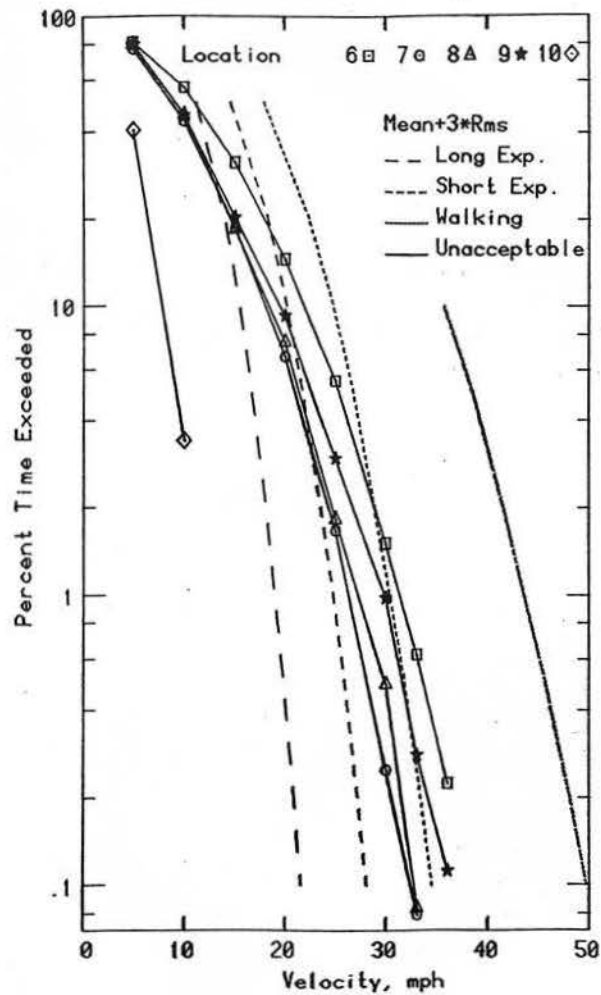
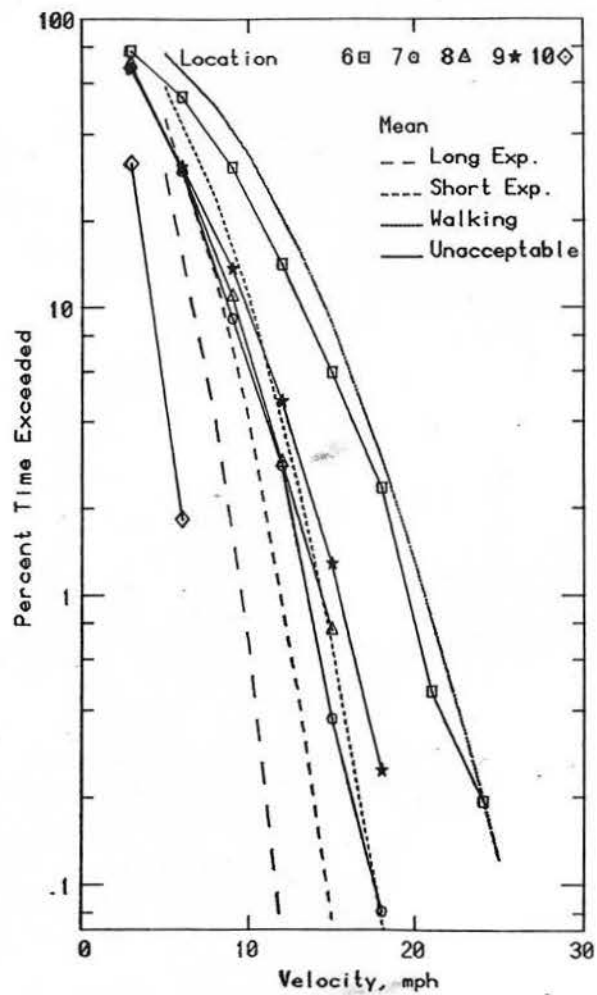


Figure 9b. Wind Velocity Probabilities for Pedestrian Locations



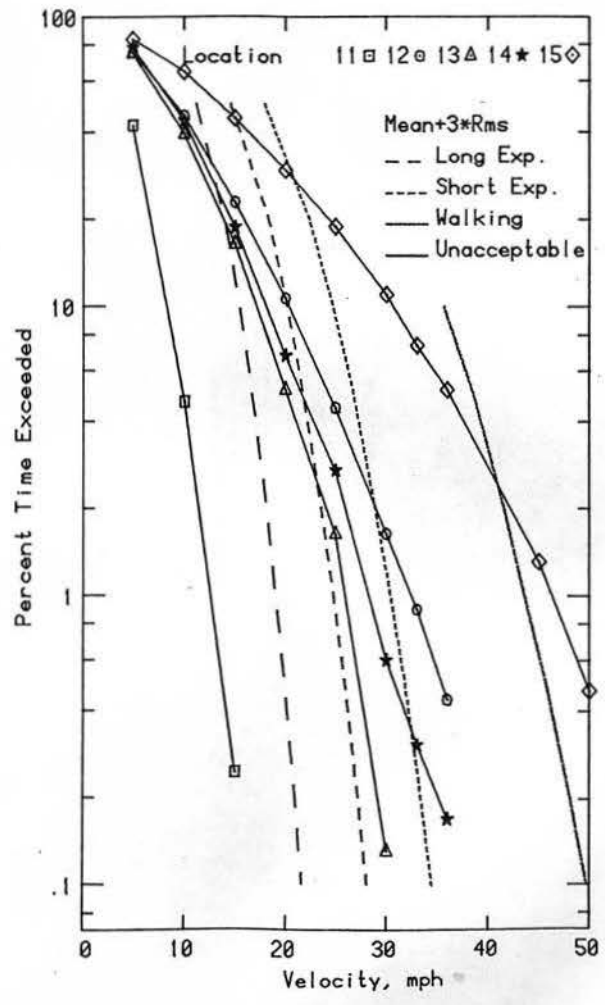
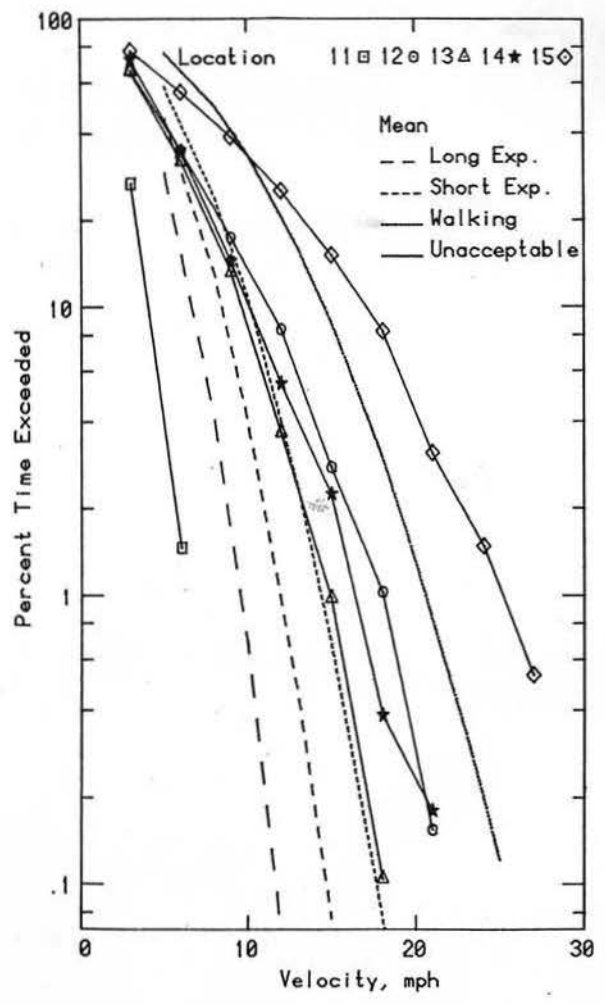


Figure 9c. Wind Velocity Probabilities for Pedestrian Locations

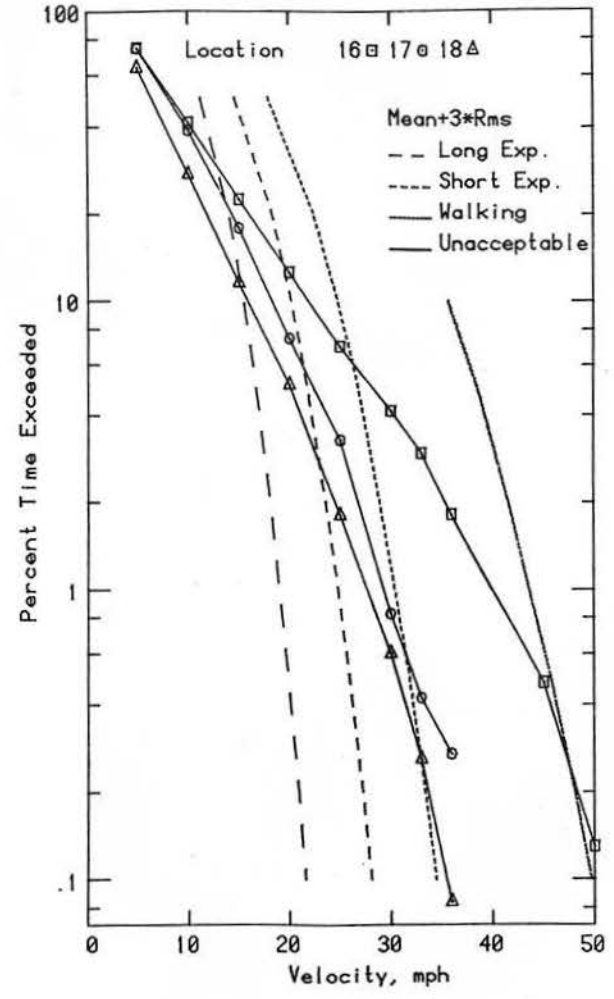
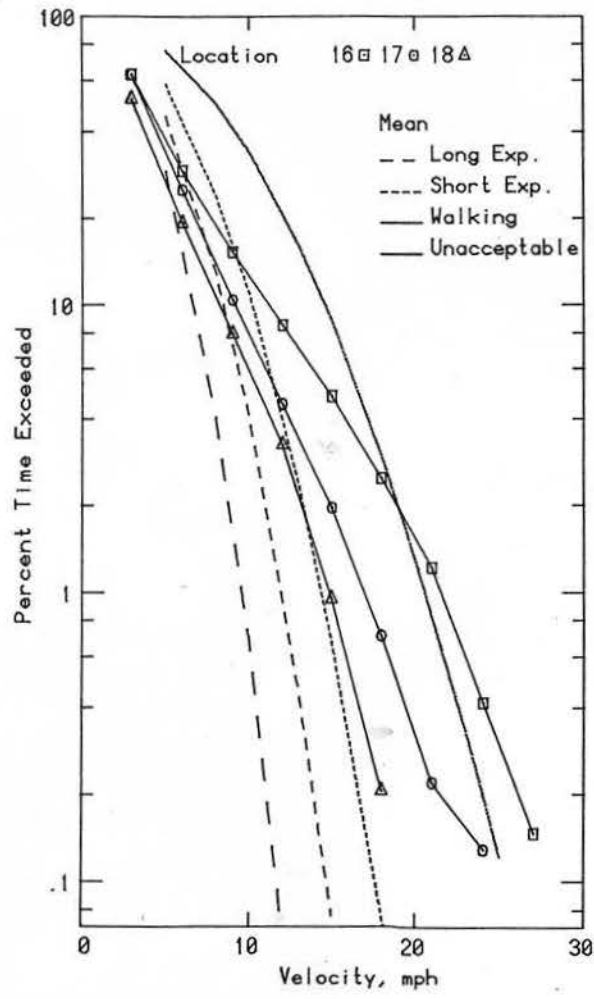


Figure 9d. Wind Velocity Probabilities for Pedestrian Locations

NORTH ELEVATION  
 CLADDING LOADS  
 REFERENCE PRESSURE = 28 PSF  
 100 YR. RECURRENCE

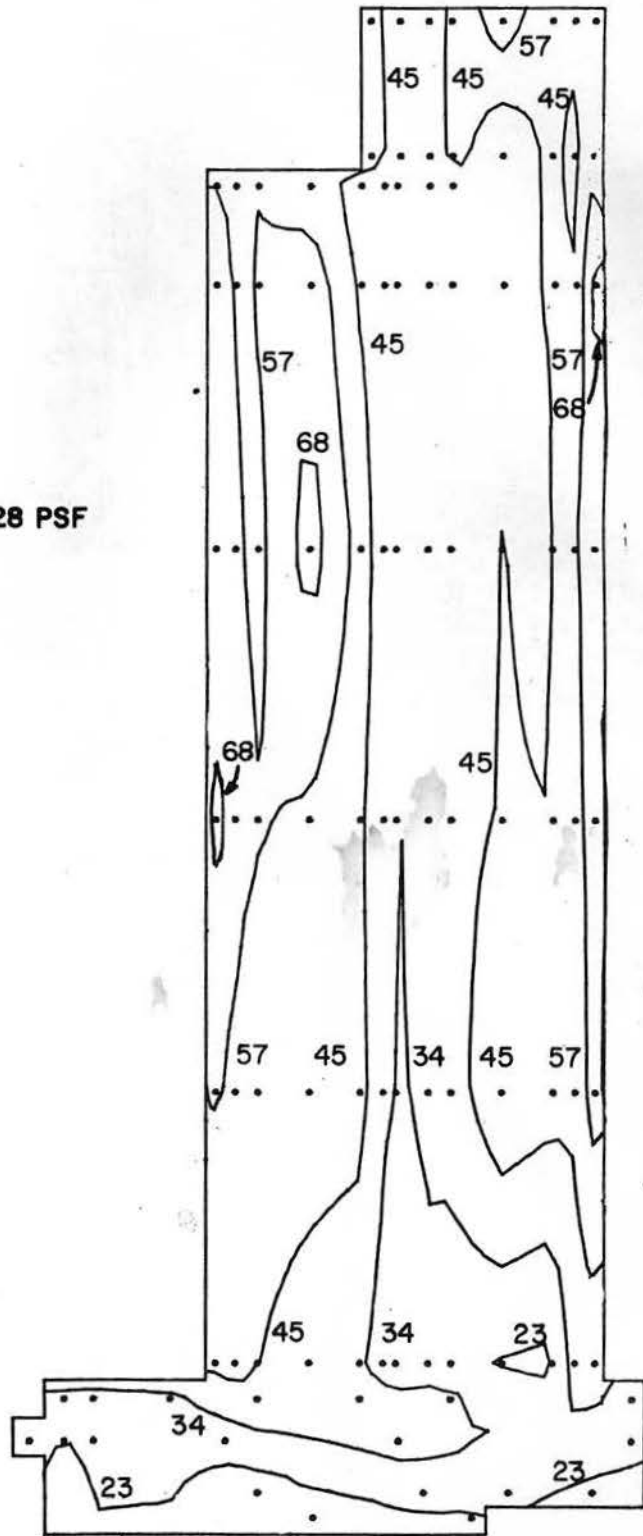


Figure 10a. Peak Pressure Loads on the Building

EAST ELEVATION  
 CLADDING LOADS  
 REFERENCE PRESSURE= 28 PSF  
 100 YR RECURRENCE

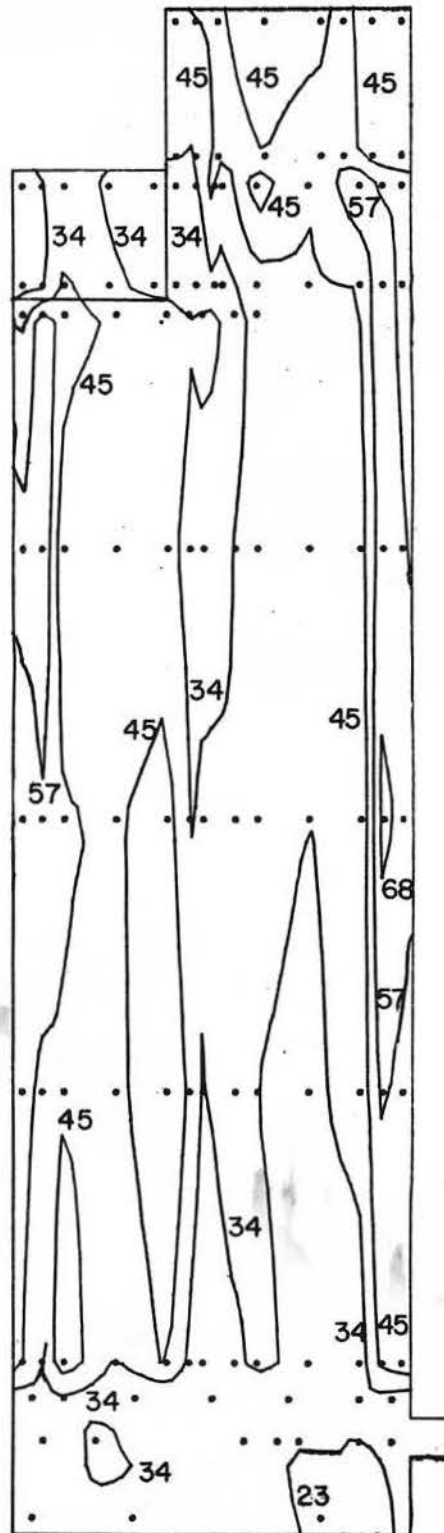


Figure 10b. Peak Pressure Loads on the Building

SOUTH ELEVATION  
CLADDING LOADS  
REFERENCE PRESSURE = 28 PSF  
100 YR. RECURRENCE

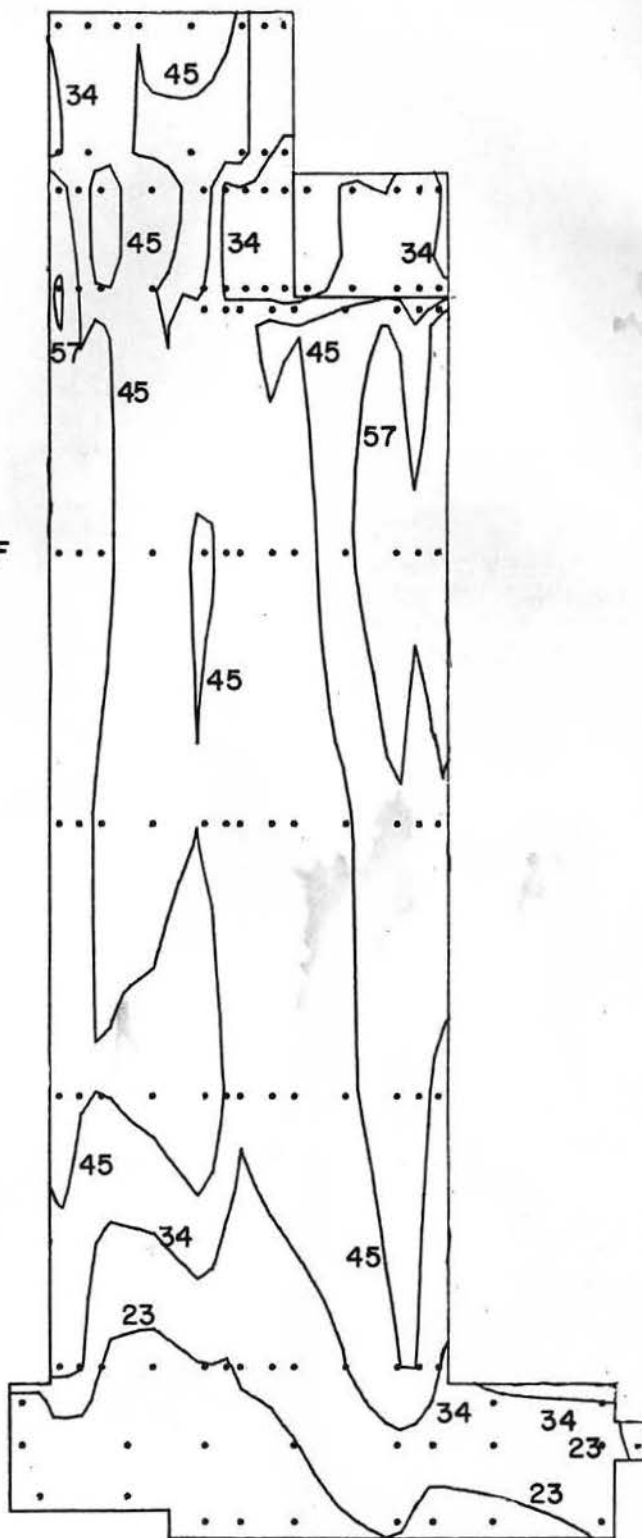


Figure 10c. Peak Pressure Loads on the Building

WEST ELEVATION  
CLADDING LOADS  
REFERENCE PRESSURE=28 PSF  
100 YR. RECURRENCE

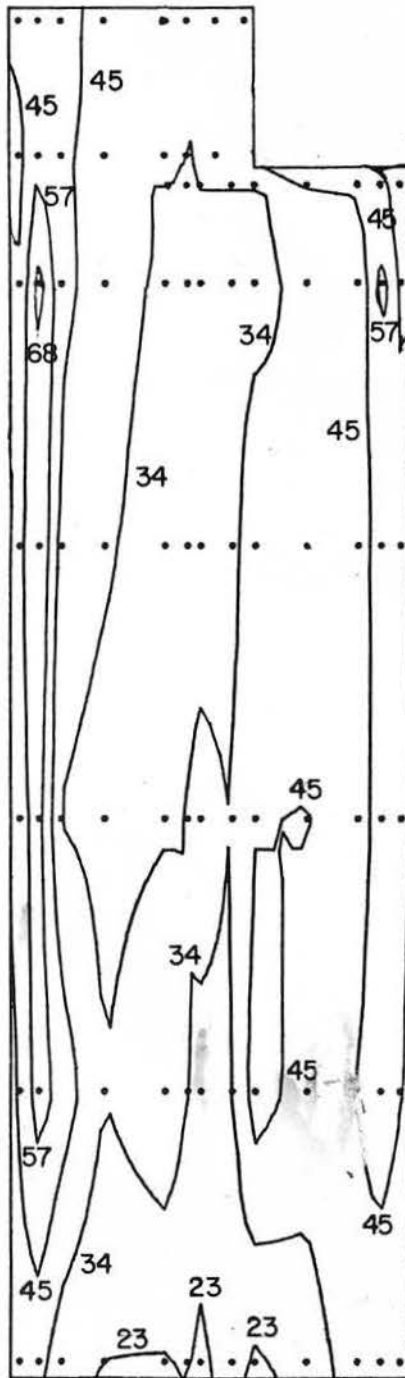


Figure 10d. Peak Pressure Loads on the Building

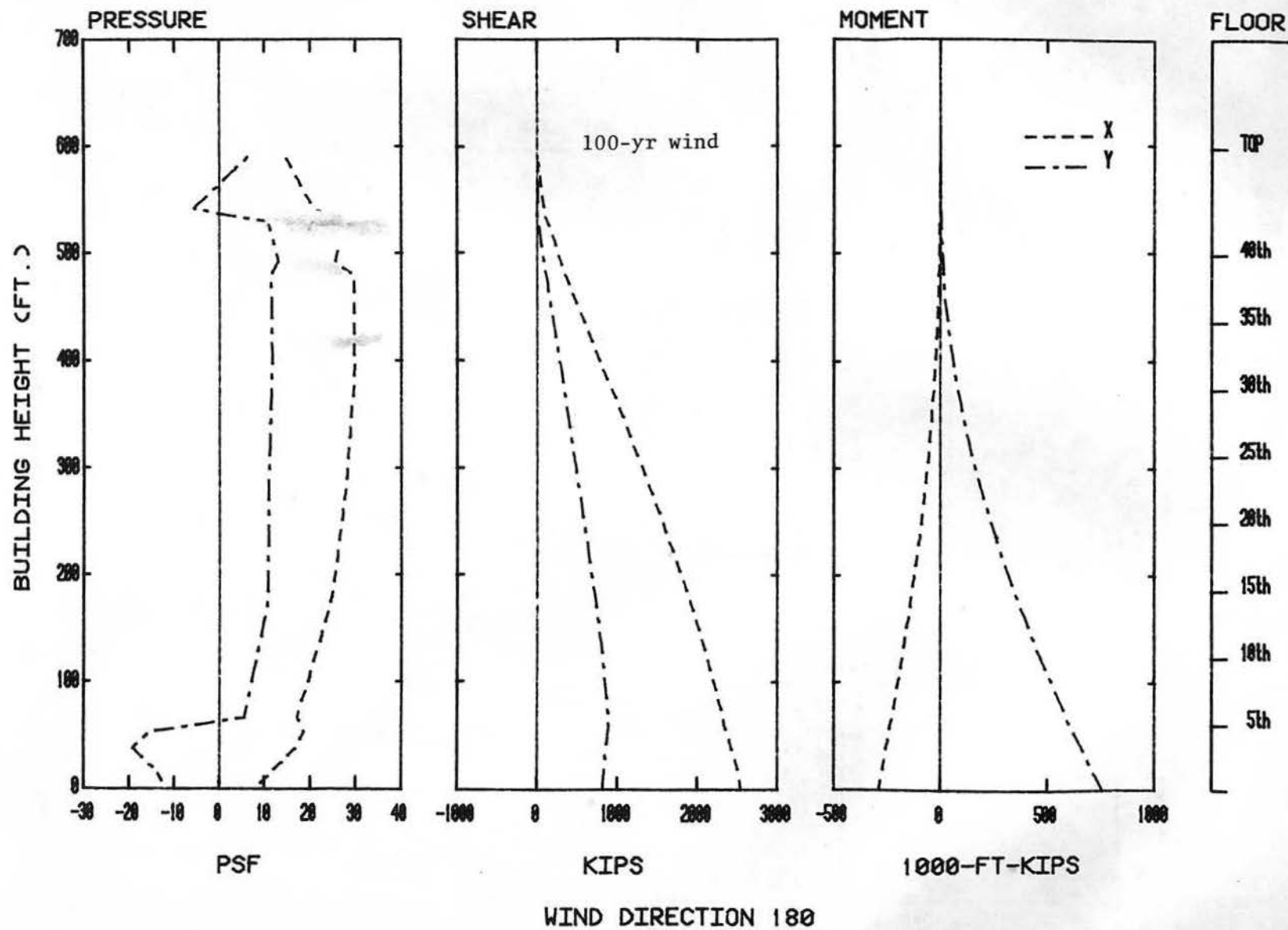
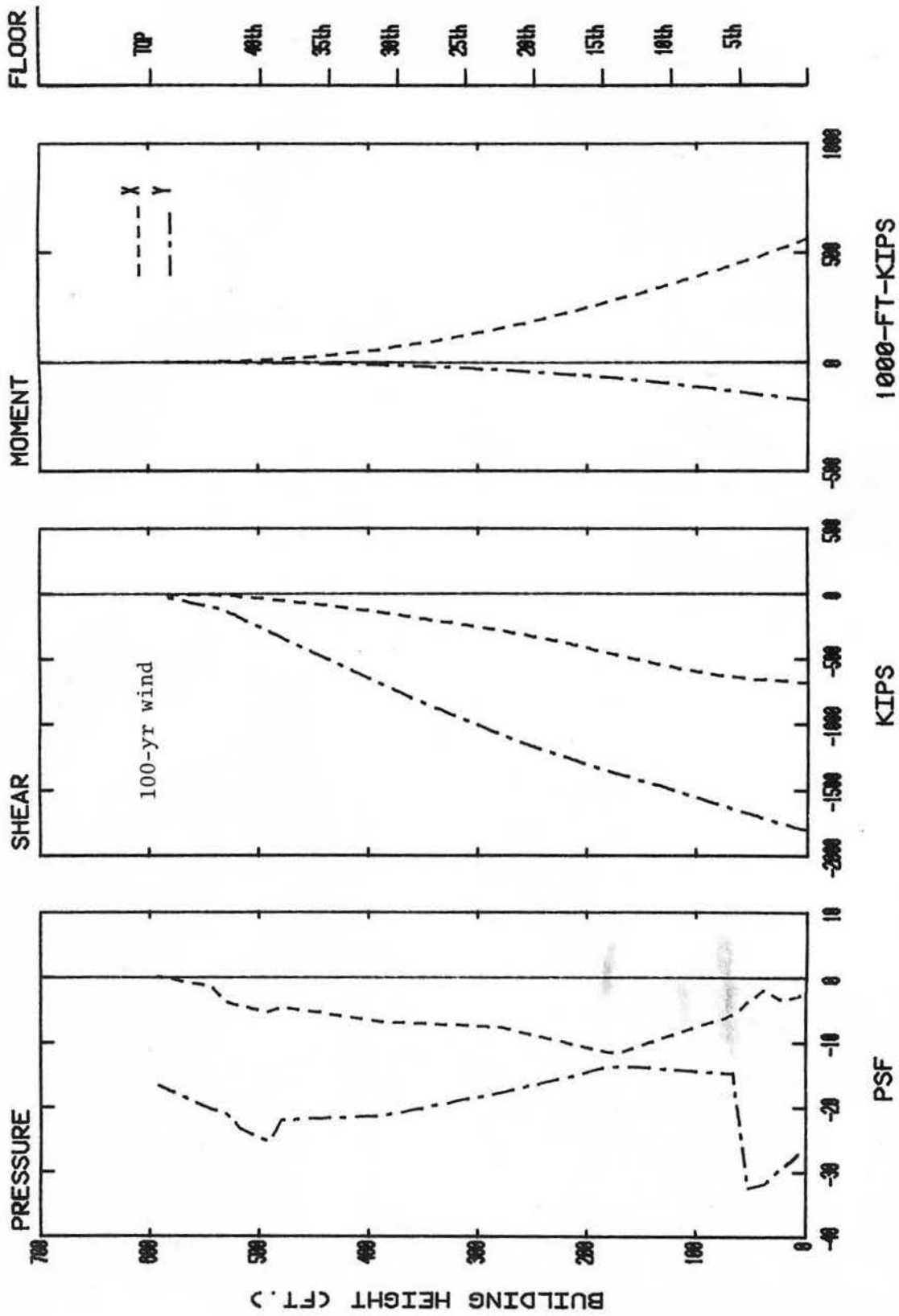


Figure 11. Load, Shear, and Moment Diagrams for Selected Wind Directions



WIND DIRECTION 310

Figure 11. Load, Shear, and Moment Diagrams for Selected Wind Directions



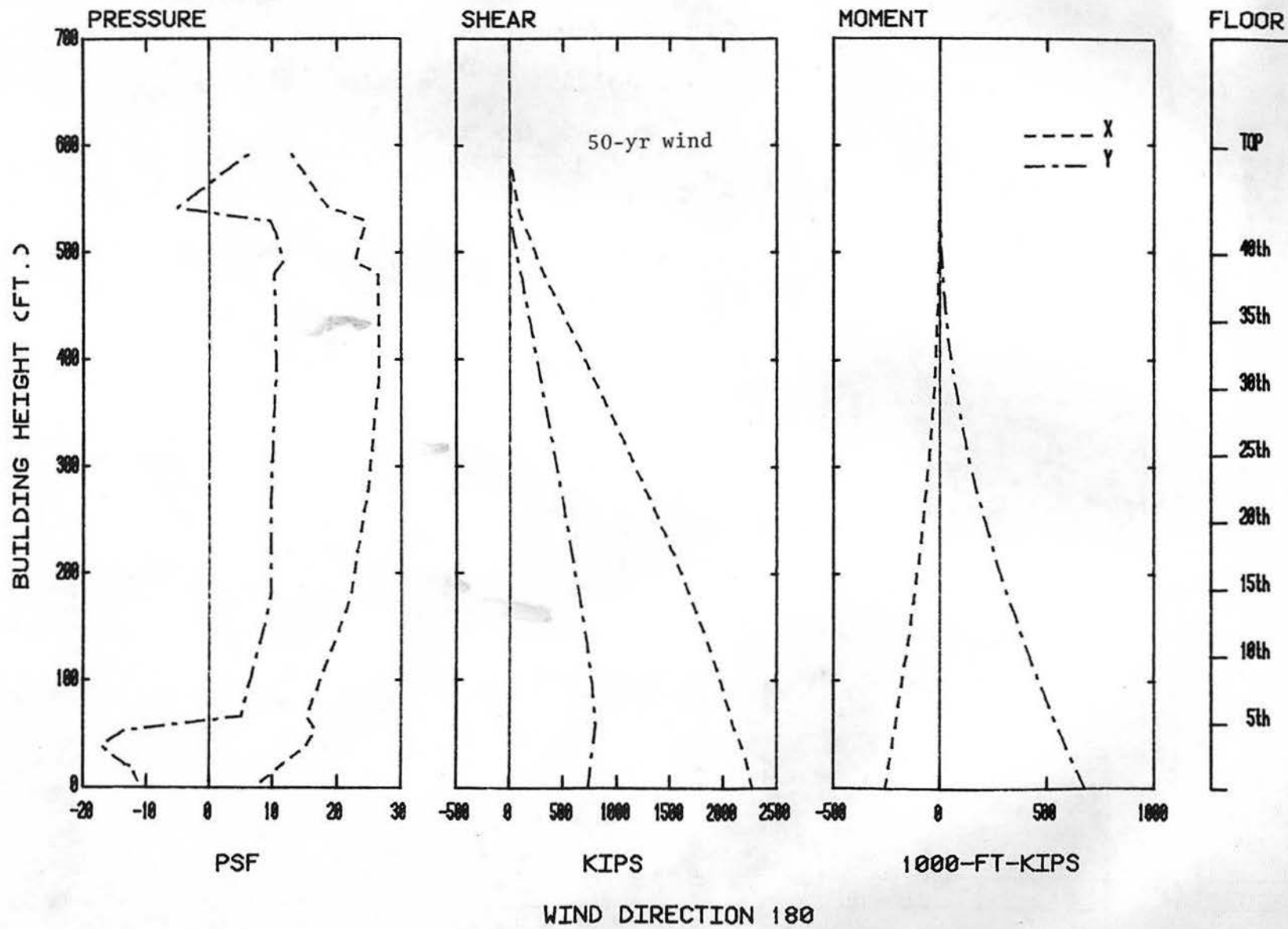


Figure 11. Load, Shear, and Moment Diagrams for Selected Wind Directions

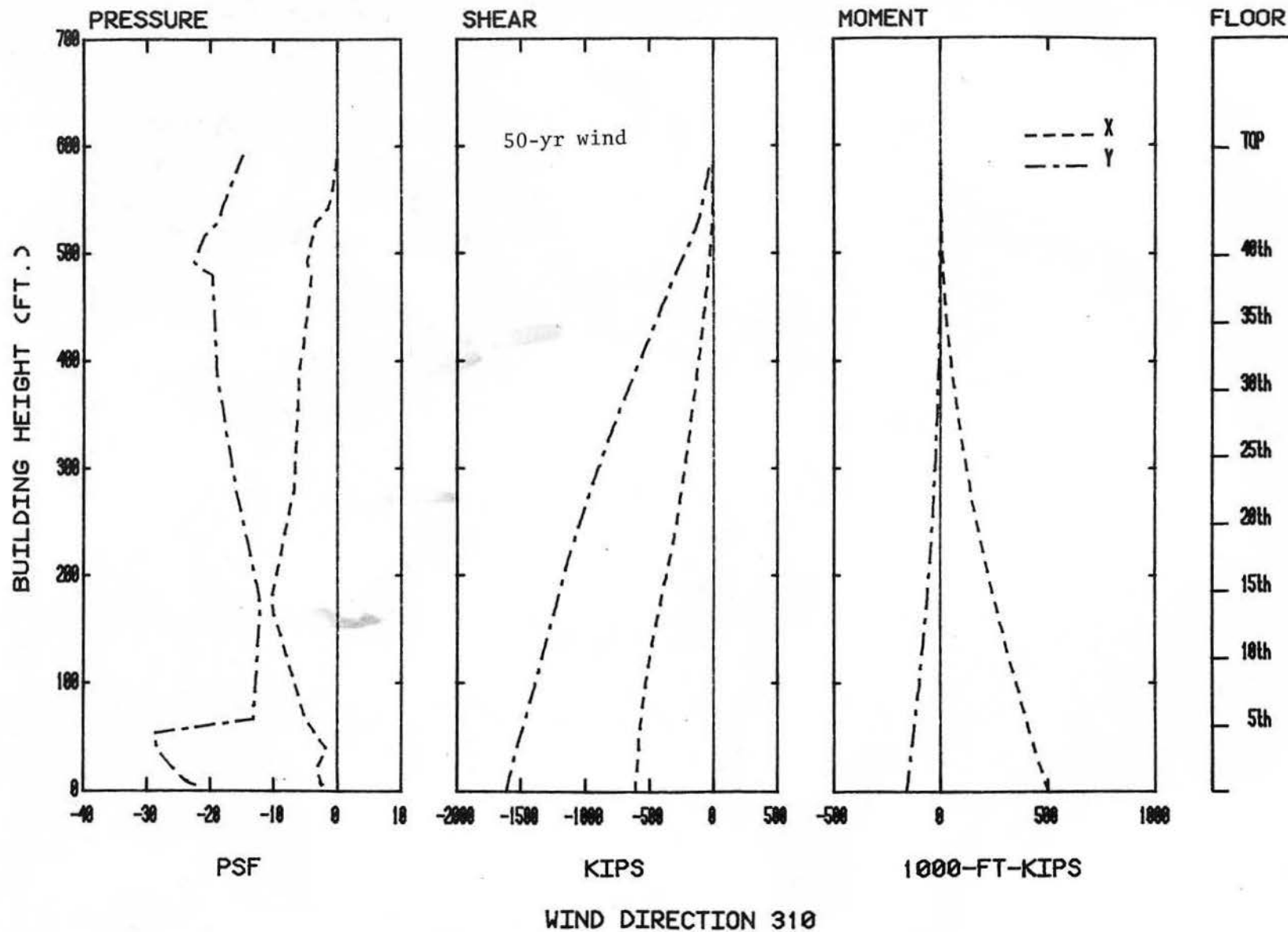


Figure 11. Load, Shear, and Moment Diagrams for Selected Wind Directions

TABLES

TABLE 1

## MOTION PICTURE SCENE GUIDE

<u>Run #</u>	<u>Approach Wind Azimuth, degrees</u>
1	0
2	45
3	90
4	135
5	180
6	225
7	270
8	315

TABLE 2--PEDESTRIAN WIND VELOCITIES AND TURBULENCE INTENSITIES  
 OXFORD CENTRE -- PITTSBURGH

LOCATION 1

WIND AZIMUTH	UMEAN/UINF (PERCENT)	URMS/UINF (PERCENT)	UMEAN+3*URMS/UINF (PERCENT)
0.00	17.2	6.3	36.0
22.50	16.7	6.9	37.4
45.00	26.0	9.5	54.5
67.50	31.0	8.8	60.5
90.00	26.1	8.3	51.0
112.50	28.9	12.0	67.1
135.00	34.5	14.8	79.0
157.50	26.5	10.0	56.3
180.00	22.2	8.7	48.4
202.50	24.8	9.9	54.1
225.00	15.5	6.5	35.1
247.50	14.7	5.3	30.3
270.00	13.0	5.5	31.5
292.50	12.7	5.3	29.2
315.00	12.7	5.3	28.7
337.50	17.6	6.8	38.1

LOCATION 2

WIND AZIMUTH	UMEAN/UINF (PERCENT)	URMS/UINF (PERCENT)	UMEAN+3*URMS/UINF (PERCENT)
0.00	31.6	8.8	58.0
22.50	21.4	6.8	41.9
45.00	26.2	7.1	47.6
67.50	26.8	8.0	50.8
90.00	30.4	10.4	61.5
112.50	20.1	6.8	40.5
135.00	26.7	9.9	54.3
157.50	28.9	11.8	64.3
180.00	39.0	12.0	75.0
202.50	33.8	8.6	59.4
225.00	28.3	8.5	54.0
247.50	19.6	6.8	39.9
270.00	10.8	4.7	25.0
292.50	13.0	4.3	25.9
315.00	24.0	7.2	45.6
337.50	29.9	7.4	52.3

LOCATION 3

WIND AZIMUTH	UMEAN/UINF (PERCENT)	URMS/UINF (PERCENT)	UMEAN+3*URMS/UINF (PERCENT)
0.00	7.0	1.7	12.2
22.50	6.9	1.6	11.8
45.00	7.1	1.7	12.2
67.50	12.0	4.4	25.2
90.00	13.2	5.1	28.6
112.50	14.3	5.7	31.3
135.00	18.5	8.3	43.3
157.50	29.5	10.3	60.4
180.00	34.1	11.0	66.9
202.50	39.2	10.2	69.7
225.00	34.7	10.0	64.6
247.50	13.3	6.2	32.0
270.00	10.6	3.3	22.3
292.50	16.4	5.9	31.9
315.00	13.8	5.5	27.4
337.50	9.6	3.3	19.5

LOCATION 4

WIND AZIMUTH	UMEAN/UINF (PERCENT)	URMS/UINF (PERCENT)	UMEAN+3*URMS/UINF (PERCENT)
0.00	24.6	8.0	48.6
22.50	14.8	5.7	31.9
45.00	16.4	6.2	34.9
67.50	38.7	12.9	77.3
90.00	52.3	13.6	93.1
112.50	54.3	13.5	94.8
135.00	38.2	16.7	88.4
157.50	27.8	13.0	72.9
180.00	23.1	11.0	64.9
202.50	13.9	5.8	31.4
225.00	25.5	6.8	45.9
247.50	23.9	7.7	46.7
270.00	24.5	8.5	50.1
292.50	19.7	7.7	42.4
315.00	24.7	8.3	51.4
337.50	28.3	8.7	54.4

TABLE 2--PEDESTRIAN WIND VELOCITIES AND TURBULENCE INTENSITIES  
 OXFORD CENTRE -- PITTSBURGH

LOCATION 5

WIND AZIMUTH	UMEAN/UINF (PERCENT)	URMS/UINF (PERCENT)	UMEAN+3*URMS/UINF (PERCENT)
0.00	32.0	10.3	62.9
22.50	15.6	5.5	32.0
45.00	19.0	6.1	37.2
67.50	47.2	8.8	73.5
90.00	58.3	9.7	87.3
112.50	58.1	9.9	87.7
135.00	49.9	10.7	81.9
157.50	43.9	12.4	81.1
180.00	36.9	14.5	80.4
202.50	25.4	10.2	56.1
225.00	46.9	8.9	73.5
247.50	40.1	9.6	69.0
270.00	40.2	10.4	71.5
292.50	50.6	10.7	89.5
315.00	54.0	13.3	95.1
337.50	44.3	12.6	82.0

LOCATION 6

WIND AZIMUTH	UMEAN/UINF (PERCENT)	URMS/UINF (PERCENT)	UMEAN+3*URMS/UINF (PERCENT)
0.00	44.1	9.8	73.5
22.50	21.7	5.9	33.5
45.00	15.7	7.0	36.7
67.50	43.0	9.5	71.4
90.00	55.5	9.8	84.9
112.50	58.2	9.9	86.3
135.00	52.5	9.9	81.1
157.50	49.3	11.2	83.3
180.00	47.1	14.0	80.2
202.50	35.6	13.7	66.8
225.00	16.8	7.0	37.7
247.50	38.6	12.7	76.8
270.00	50.6	11.2	84.3
292.50	65.8	10.2	96.5
315.00	68.1	10.6	99.7
337.50	57.8	10.1	88.1

LOCATION 7

WIND AZIMUTH	UMEAN/UINF (PERCENT)	URMS/UINF (PERCENT)	UMEAN+3*URMS/UINF (PERCENT)
0.00	41.4	9.8	70.9
22.50	30.0	6.9	50.6
45.00	29.7	7.7	52.6
67.50	37.9	10.9	70.6
90.00	44.5	10.8	82.9
112.50	43.7	10.6	83.5
135.00	27.0	9.9	65.6
157.50	42.2	12.3	79.0
180.00	47.3	11.4	81.5
202.50	44.3	10.2	75.0
225.00	33.7	11.5	68.3
247.50	28.7	12.6	66.5
270.00	14.0	6.3	32.8
292.50	15.9	7.0	36.9
315.00	31.2	15.9	78.8
337.50	43.6	15.5	90.0

LOCATION 8

WIND AZIMUTH	UMEAN/UINF (PERCENT)	URMS/UINF (PERCENT)	UMEAN+3*URMS/UINF (PERCENT)
0.00	39.5	9.9	69.0
22.50	27.0	7.3	48.9
45.00	31.1	7.4	53.2
67.50	38.5	9.9	68.2
90.00	41.9	10.5	73.3
112.50	37.0	11.2	70.6
135.00	27.3	12.2	63.8
157.50	34.0	14.1	76.4
180.00	40.3	13.0	79.3
202.50	42.7	11.8	78.2
225.00	37.6	10.9	70.4
247.50	38.4	12.5	75.9
270.00	21.4	10.2	52.0
292.50	17.4	8.6	43.2
315.00	18.4	10.5	50.0
337.50	29.9	16.0	77.9

TABLE 2--PEDESTRIAN WIND VELOCITIES AND TURBULENCE INTENSITIES  
 OXFORD CENTRE -- PITTSBURGH

LOCATION 9

WIND AZIMUTH	UMEAN/UINF (PERCENT)	URMS/UINF (PERCENT)	UMEAN+3*URMS/UINF (PERCENT)
0.00	29.3	13.8	70.8
22.50	24.5	9.8	53.9
45.00	34.2	7.2	55.8
67.50	46.7	9.4	74.9
90.00	50.3	10.8	82.8
112.50	48.1	11.3	81.9
135.00	29.8	13.0	68.0
157.50	41.1	13.6	81.7
180.00	48.0	12.6	85.8
202.50	49.9	13.7	91.1
225.00	38.2	12.7	76.4
247.50	39.1	13.0	78.1
270.00	19.8	9.9	49.6
292.50	18.8	9.3	46.6
315.00	16.6	8.2	41.3
337.50	17.4	10.7	49.6

LOCATION 10

WIND AZIMUTH	UMEAN/UINF (PERCENT)	URMS/UINF (PERCENT)	UMEAN+3*URMS/UINF (PERCENT)
0.00	17.8	6.2	36.3
22.50	10.4	2.9	19.9
45.00	14.7	4.8	29.9
67.50	20.4	8.3	45.2
90.00	18.9	6.4	38.0
112.50	15.9	5.2	31.7
135.00	16.7	6.7	36.8
157.50	16.4	4.8	30.8
180.00	19.8	5.9	37.3
202.50	18.6	5.3	34.4
225.00	17.4	4.7	31.4
247.50	17.4	3.7	28.6
270.00	13.1	3.6	23.8
292.50	12.6	4.3	25.5
315.00	12.6	4.1	24.8
337.50	15.0	5.3	30.7

LOCATION 11

WIND AZIMUTH	UMEAN/UINF (PERCENT)	URMS/UINF (PERCENT)	UMEAN+3*URMS/UINF (PERCENT)
0.00	12.9	4.4	26.3
22.50	9.1	2.7	17.7
45.00	14.5	4.4	27.7
67.50	23.7	6.6	43.5
90.00	25.3	6.2	44.0
112.50	19.0	5.1	30.2
135.00	13.0	4.4	26.1
157.50	14.5	5.3	30.3
180.00	14.4	4.9	29.7
202.50	15.0	4.7	29.9
225.00	15.0	5.1	30.6
247.50	17.2	6.6	37.0
270.00	13.3	5.1	28.7
292.50	11.9	3.8	22.2
315.00	14.9	5.8	33.3
337.50	14.0	5.3	29.9

LOCATION 12

WIND AZIMUTH	UMEAN/UINF (PERCENT)	URMS/UINF (PERCENT)	UMEAN+3*URMS/UINF (PERCENT)
0.00	16.3	8.0	40.3
22.50	9.4	3.6	20.2
45.00	7.7	2.2	14.4
67.50	18.9	9.6	47.6
90.00	22.6	9.3	50.5
112.50	21.9	8.8	48.4
135.00	17.9	7.4	40.0
157.50	27.6	9.2	55.3
180.00	29.7	9.5	58.3
202.50	38.3	10.6	68.0
225.00	50.5	15.2	96.1
247.50	47.1	11.9	82.8
270.00	43.4	10.9	76.0
292.50	19.9	10.3	50.7
315.00	28.5	11.9	64.1
337.50	25.3	10.8	57.5

TABLE 2--PEDESTRIAN WIND VELOCITIES AND TURBULENCE INTENSITIES  
OXFORD CENTRE -- PITTSBURGH

LOCATION 13

WIND AZIMUTH	U <sub>MEAN</sub> /U <sub>INF</sub> (PERCENT)	U <sub>RMS</sub> /U <sub>INF</sub> (PERCENT)	U <sub>MEAN</sub> +3*U <sub>RMS</sub> /U <sub>INF</sub> (PERCENT)
0.00	23.9	8.2	48.6
2.50	15.7	4.8	29.9
4.00	17.0	5.1	32.2
6.50	31.9	10.8	64.5
9.00	57.8	13.0	96.9
11.50	49.0	9.9	78.6
13.00	37.8	9.0	64.7
15.50	29.9	8.0	54.0
18.00	25.5	9.6	54.2
20.50	32.3	11.6	67.2
23.00	40.9	9.6	69.8
25.50	36.0	9.8	65.4
28.00	37.1	10.0	67.0
30.50	18.5	9.0	45.5
33.00	17.1	7.6	40.0
35.50	16.1	6.5	35.7

LOCATION 14

WIND AZIMUTH	U <sub>MEAN</sub> /U <sub>INF</sub> (PERCENT)	U <sub>RMS</sub> /U <sub>INF</sub> (PERCENT)	U <sub>MEAN</sub> +3*U <sub>RMS</sub> /U <sub>INF</sub> (PERCENT)
0.00	29.5	9.7	58.5
2.50	20.0	5.2	35.7
4.00	25.8	5.5	42.4
6.50	20.2	6.5	39.8
9.00	27.9	12.6	65.7
11.50	42.4	13.8	83.8
13.00	44.4	10.9	83.1
15.50	50.9	9.0	82.8
18.00	41.9	10.3	72.9
20.50	34.7	10.5	66.1
22.50	21.9	8.6	47.6
24.75	19.1	6.9	39.8
27.00	25.5	7.9	53.5
29.25	26.9	13.9	68.5
31.50	31.7	14.4	75.9
33.75	31.5	12.0	75.3

LOCATION 15

WIND AZIMUTH	U <sub>MEAN</sub> /U <sub>INF</sub> (PERCENT)	U <sub>RMS</sub> /U <sub>INF</sub> (PERCENT)	U <sub>MEAN</sub> +3*U <sub>RMS</sub> /U <sub>INF</sub> (PERCENT)
0.00	23.1	10.7	55.3
2.50	17.4	6.9	38.0
4.00	19.0	7.6	41.7
6.50	22.6	9.3	50.6
9.00	19.2	8.4	44.3
11.50	37.1	17.1	88.5
13.00	33.6	13.1	72.8
15.50	52.2	16.0	100.3
18.00	61.1	11.1	94.5
20.50	65.7	16.0	113.7
22.50	55.4	15.9	103.2
24.75	65.3	12.7	103.2
27.00	69.9	18.0	124.1
29.25	68.2	22.6	154.2
31.50	27.1	14.0	69.0
33.75	25.2	12.9	63.8

LOCATION 16

WIND AZIMUTH	U <sub>MEAN</sub> /U <sub>INF</sub> (PERCENT)	U <sub>RMS</sub> /U <sub>INF</sub> (PERCENT)	U <sub>MEAN</sub> +3*U <sub>RMS</sub> /U <sub>INF</sub> (PERCENT)
0.00	18.7	7.2	40.4
2.50	22.5	9.4	50.5
4.00	21.5	11.7	56.7
6.50	28.4	12.0	64.6
9.00	31.7	12.6	69.5
11.50	44.0	18.1	98.4
13.00	40.9	15.0	85.8
15.50	33.1	12.1	69.4
18.00	43.6	15.3	89.4
20.25	74.8	19.1	132.3
22.50	60.7	19.1	118.0
24.75	27.7	10.1	58.0
27.00	19.5	7.6	42.3
29.25	18.7	8.7	44.7
31.50	16.9	6.1	35.1
33.75	16.8	6.1	35.0



TABLE 2--PEDESTRIAN WIND VELOCITIES AND TURBULENCE INTENSITIES  
 OXFORD CENTRE -- PITTSBURGH

LOCATION 17

WIND AZIMUTH	UMEAN/UINF (PERCENT)	URMS/UINF (PERCENT)	UMEAN+3*URMS/UINF (PERCENT)
0.00	30.3	15.9	77.8
2.50	90.5	17.0	141.4
45.00	45.6	15.9	93.4
67.50	59.6	16.2	108.1
90.00	55.1	15.3	101.0
112.50	48.4	15.2	94.2
135.00	52.1	16.0	99.9
157.50	65.2	12.1	101.4
180.00	46.1	12.2	97.6
202.50	31.5	12.3	68.5
225.00	28.7	13.7	69.8
247.50	20.4	7.0	41.4
270.00	19.9	7.5	42.4
292.50	16.4	6.5	35.9
315.00	14.5	6.5	30.5
337.50	19.3	8.4	44.5

LOCATION 18

WIND AZIMUTH	UMEAN/UINF (PERCENT)	URMS/UINF (PERCENT)	UMEAN+3*URMS/UINF (PERCENT)
0.00	18.7	4.1	30.9
22.50	14.7	3.6	25.5
45.00	24.5	6.6	44.4
67.50	18.0	9.7	47.2
90.00	14.8	6.3	33.7
112.50	15.8	6.7	36.0
135.00	18.5	7.9	42.1
157.50	32.7	11.1	66.0
180.00	51.1	12.8	89.5
202.50	49.1	13.0	88.1
225.00	40.6	13.1	79.8
247.50	16.3	10.3	47.1
270.00	10.7	4.5	24.2
292.50	26.3	7.5	48.9
315.00	25.1	6.1	43.3
337.50	22.3	4.8	36.6

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED

PITTSBURGH, PENN. PITTSBURGH GREATER INTNL. AIRPORT (60-64)

SEASON : ANNUAL NO. OF OBS. = 3542 HT. OF MEAS. = 984. FT.

VELOCITY LEVELS IN MPH

DIRECTION	0-10	11-22	23-33	34-45	46-56	57 +	TOTAL
N	1.63	2.59	.22	0.00	0.00	0.00	4.46
NNE	1.35	1.75	.19	.02	0.00	0.00	3.33
NE	1.15	1.29	0.00	0.00	0.00	0.00	2.46
ENE	1.35	1.38	.22	0.00	0.00	0.00	2.97
E	1.10	1.43	.33	0.00	0.00	0.00	2.88
ESE	.95	1.83	.33	.08	0.00	0.00	3.21
SE	1.10	2.28	.59	.05	0.00	0.00	4.03
SSE	1.18	1.94	.59	.05	0.00	0.00	3.78
S	1.35	1.75	.93	.11	0.00	0.00	4.15
SSW	1.43	3.58	1.55	.19	0.00	0.00	7.77
SW	1.27	6.60	3.04	.76	.05	0.00	11.74
WSW	1.66	6.80	3.92	1.04	.05	0.00	13.49
W	1.80	6.80	3.67	.73	.02	0.00	13.04
WNW	1.86	5.39	2.42	.31	0.00	0.00	9.99
NW	1.80	4.96	1.10	.02	0.00	0.00	7.90
NNW	1.55	3.86	.64	0.00	0.00	0.00	6.07
CALM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOT	22.47	54.32	19.73	3.41	.14	0.00	100.00

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

1. Basic wind speed from analysis of Pittsburgh extreme value winds:

50-yr fastest mile at 30 ft = 62 mph

Mean hourly wind speed =  $62/1.24 = 50.0$

Mean hourly gradient wind speed =  $50 \left(\frac{1100}{30}\right)^{.19} = 99.0$  mph

Wind tunnel reference velocity height = 1500 ft

Mean hourly gradient wind speed at 1500 ft =  $U_{\infty}$

Reference pressure =  $0.5\rho U_{\infty}^2 = 0.98 (0.00256) (99.0^2) =$   
 24.6 psf

Use 25 psf

2. Loads for 100-yr recurrence wind:

100-yr fastest mile at 30 ft = 66 mph

Multiply 50-yr loads by  $(66/62)^2 = 1.13$

3. Gust load factors to convert hourly mean integrated loads to various gust durations (see Sect. 4.4):

<u>Gust Duration, sec</u>	<u>Gust Load Factor</u>
10-15	$(1.4)^2 = 1.96$
30	$(1.32)^2 = 1.74$
45	$(1.26)^2 = 1.59$

The 30 second load factor was used in Table 7.

TABLE 6A. PEAK LOADS FOR CONFIGURATION A : OXFORD CENTRE, PITTSBURGH  
LARGEST VALUES OF CLADDING LOAD REFERENCE PRESSURE = 25.0 PSF

TAP	AZI-MUTH	PRESS COEFF	ABSOLUTE PEAK	POSITIVE PEAK	TAP	AZI-MUTH	PRESS COEFF	ABSOLUTE PEAK	POSITIVE PEAK	TAP	AZI-MUTH	PRESS COEFF	ABSOLUTE PEAK	POSITIVE PEAK
			PSF	PSF				PSF	PSF				PSF	PSF
1	130	.84	20.9	14.0	1030	270	1.38	34.5	21.1	1078	180	1.03	25.7	15.3
2	150	.71	17.7	15.4	1031	270	1.51	37.8	31.1	1079	150	1.09	27.3	12.3
3	110	.52	13.0	7.9	1032	300	1.63	40.8	26.2	1080	170	1.52	37.9	10.3
4	150	.54	13.6	6.2	1033	140	2.24	56.1	29.5	1081	170	1.38	34.4	4.9
5	120	.42	10.6	3.3	1034	140	2.06	51.6	32.9	1082	170	1.27	31.7	10.8
6	110	.44	11.1	3.9	1035	140	1.90	47.4	14.4	1083	170	.98	24.4	9.8
7	120	.51	12.7	8.1	1036	150	2.59	64.8	4.8	1084	260	.99	24.4	11.4
8	110	.39	9.8	7.1	1037	140	1.84	46.1	9.3	1085	170	.78	19.5	8.7
9	100	.49	12.2	4.4	1038	140	1.35	33.7	15.8	1086	180	.94	23.5	12.4
10	100	.78	19.6	8.3	1039	150	1.19	29.7	11.8	1088	180	1.00	24.9	12.4
11	100	.81	20.2	8.9	1040	150	1.46	36.4	13.0	1089	180	1.41	35.4	1.9
12	100	.46	11.5	3.4	1041	150	1.45	36.2	10.2	1090	120	1.01	25.5	7.2
13	100	.40	10.1	4.3	1042	270	1.61	40.2	17.0	1091	180	.58	14.5	10.6
14	140	.40	10.0	3.3	1043	270	1.54	38.5	21.5	1092	60	.93	23.3	4.3
15	180	.73	18.3	18.3	1044	140	2.60	65.1	22.3	1093	240	.95	23.8	3.8
16	90	.66	16.4	13.0	1045	150	2.15	53.8	22.8	1094	310	.68	17.1	17.1
17	80	.65	16.3	15.5	1046	150	2.03	50.7	9.4	1095	150	.73	18.2	10.7
18	190	.80	20.0	15.3	1047	150	1.94	48.6	2.9	1096	270	.77	19.2	16.1
19	10	.75	18.7	18.7	1048	160	1.66	41.6	2.8	2001	240	1.50	33.7	17.7
20	150	1.79	44.7	22.2	1049	160	1.32	33.0	14.1	2002	60	1.59	33.7	17.7
21	200	1.29	32.2	22.1	1050	150	1.16	28.9	4.6	2003	220	1.65	41.3	5.5
22	100	1.43	35.6	25.5	1051	170	1.43	35.8	19.1	2004	300	1.37	34.4	19.7
23	100	1.63	41.1	21.6	1052	270	1.50	37.6	5.8	2005	30	1.47	33.6	19.9
24	280	2.23	55.8	19.1	1053	260	1.62	40.4	17.2	2006	190	1.25	31.3	31.3
25	300	1.62	40.4	21.5	1054	250	1.60	40.1	22.6	2007	80	1.14	28.6	26.3
26	140	1.94	48.6	22.2	1055	150	2.10	52.5	21.6	2008	210	1.75	43.7	23.4
27	100	1.25	31.4	29.9	1056	130	1.82	45.5	20.0	2009	180	1.60	40.0	33.3
28	160	1.10	27.4	25.5	1057	140	1.80	45.0	7.0	2010	30	1.83	46.3	33.3
29	130	1.81	45.2	26.6	1058	140	1.79	44.8	2.0	2011	210	1.45	36.4	22.2
30	290	1.20	30.0	28.8	1059	180	1.75	43.8	5.6	2012	220	1.12	28.1	24.0
31	320	1.73	43.2	26.6	1060	160	1.32	32.9	14.2	2013	110	1.00	24.9	24.9
32	100	1.99	49.7	22.2	1061	250	1.13	28.2	4.1	2014	130	1.04	26.0	26.0
33	10	1.92	48.0	23.3	1062	190	1.31	32.7	10.2	2015	190	1.04	26.1	26.1
34	150	1.99	49.6	24.4	1063	270	1.39	34.7	3.7	2016	210	1.84	46.0	21.6
35	140	1.78	44.4	23.3	1064	240	1.96	49.0	9.4	2017	10	1.28	31.9	1.0
36	140	1.41	35.1	25.5	1065	240	1.77	44.3	16.1	2018	210	2.29	57.1	24.5
37	150	1.29	32.2	29.9	1066	160	1.70	42.5	17.6	2019	210	1.17	33.9	24.9
38	140	1.30	32.5	27.7	1067	140	1.83	45.6	13.8	2020	20	2.34	58.8	22.2
39	170	1.57	39.1	29.2	1068	140	1.61	40.1	7.1	2021	20	1.66	41.1	23.4
40	270	1.49	37.3	27.7	1069	170	1.42	35.5	4.2	2022	20	1.29	32.5	25.5
41	140	2.39	59.7	27.7	1070	180	1.28	32.0	3.5	2023	210	1.00	24.9	22.0
42	20	1.84	46.1	23.3	1071	170	1.01	25.1	5.9	2024	150	.88	22.2	20.0
43	140	2.05	51.1	22.0	1072	160	.83	20.9	3.5	2025	180	.83	20.0	20.0
44	140	2.28	56.9	21.1	1073	160	1.05	26.1	7.3	2026	210	1.16	33.3	26.6
45	150	1.52	37.9	24.4	1074	180	.92	23.0	4.0	2027	130	1.07	26.8	26.8
46	140	1.43	35.8	24.4	1075	240	.77	19.3	9.0	2028	210	1.40	34.9	26.6
47	140	1.36	33.9	23.3	1076	260	.71	17.7	13.6	2029	20	1.57	39.2	24.7
48	140	1.55	38.8	23.3	1077	300	1.04	26.1	11.7	2030	20	1.60	40.1	24.2

TABLE 6A. PEAK LOADS FOR CONFIGURATION A : OXFORD CENTRE, PITTSBURGH  
 LARGEST VALUES OF CLADDING LOAD REFERENCE PRESSURE = 25.0 PSF

TAP	AZI-NUTH	PRESS COEFF	ABSOLUTE PEAK	POSITIVE PEAK	TAP	AZI-NUTH	PRESS COEFF	ABSOLUTE PEAK	POSITIVE PEAK	TAP	AZI-NUTH	PRESS COEFF	ABSOLUTE PEAK	POSITIVE PEAK
			PSF	PSF				PSF	PSF				PSF	PSF
20331	220	1.48	37.1	22.8	2079	240	.89	22.2	16.3	3029	100	1.44	36.0	23.0
20332	110	2.29	57.3	23.0	2080	260	1.12	28.1	18.1	3030	130	1.78	44.4	26.5
20333	200	1.82	45.4	24.4	2081	0	1.27	31.8	11.5	3031	130	1.60	40.0	22.0
20334	210	1.52	38.1	26.2	2082	300	1.11	27.7	16.9	3032	120	1.91	47.6	21.7
20335	210	1.62	40.5	30.3	2083	0	1.00	24.9	20.3	3033	130	2.01	50.2	23.7
20336	220	1.24	31.0	30.6	2084	250	1.06	26.5	14.9	3034	300	1.87	46.7	22.9
20337	220	1.31	32.6	31.4	2085	310	1.16	28.9	13.9	3035	190	1.71	42.8	24.4
20338	210	1.12	27.9	27.7	2086	260	.83	20.8	7.9	3036	280	1.69	42.2	22.5
20339	10	1.27	31.6	24.1	2087	320	.85	21.2	10.9	3037	290	1.34	33.4	4.4
2040	120	2.09	52.2	23.0	2088	310	1.09	27.3	6.3	3038	310	1.70	42.2	24.1
20401	110	2.38	59.6	24.0	2089	310	1.18	29.5	6.6	3039	300	1.51	37.7	22.4
20402	210	1.24	30.9	23.8	2090	170	.60	15.1	15.1	3040	310	1.49	37.7	22.4
20403	220	1.18	29.6	23.6	2091	260	.78	19.6	15.4	3041	310	1.33	33.3	22.2
20404	220	1.34	33.6	21.4	2092	310	1.36	34.0	13.9	3042	120	1.33	33.3	22.2
20405	220	1.03	25.8	23.1	2093	320	.81	20.3	5.8	3043	120	1.94	48.4	22.8
20406	220	1.05	26.2	18.8	2094	300	.83	20.8	9.7	3044	120	2.42	60.5	25.0
20407	220	1.21	30.4	26.7	2095	330	.75	18.8	9.9	3045	300	1.82	45.5	24.4
20408	10	1.26	31.4	14.5	2096	280	1.11	27.6	19.9	3046	210	1.67	41.1	22.2
20409	10	1.40	34.9	19.8	2097	270	.99	24.6	13.6	3047	300	1.55	38.8	21.1
2050	20	1.46	36.4	24.6	2098	310	1.14	28.6	7.9	3048	300	1.40	34.8	22.9
20501	220	1.66	41.5	21.4	2099	320	.75	18.8	9.3	3049	300	1.60	40.0	22.5
20502	120	1.95	48.7	21.1	2100	280	1.60	40.0	23.9	3050	300	1.19	29.9	22.3
20503	210	1.63	40.9	23.0	2101	300	1.27	31.7	26.3	3051	300	1.32	33.3	22.3
20504	210	1.56	39.9	22.4	2102	120	1.66	41.5	19.6	3052	300	1.40	35.5	24.0
20505	230	1.78	44.5	18.1	2103	140	1.83	45.9	24.5	3053	110	1.45	35.5	22.2
20506	200	1.16	29.1	23.7	2104	120	1.79	44.9	28.1	3054	100	1.53	38.8	22.1
20507	230	1.27	31.8	15.0	2105	300	1.87	46.8	24.3	3055	110	1.99	49.9	22.4
20508	240	1.21	30.2	21.1	2106	190	1.28	32.1	21.6	3056	300	1.85	46.2	22.9
20509	10	1.29	32.3	13.9	2107	300	1.90	47.5	22.0	3057	300	1.63	40.0	17.8
2060	10	1.20	29.9	20.2	2108	300	1.17	29.3	23.5	3058	300	1.60	39.9	18.8
20601	240	1.31	32.2	22.2	2109	140	1.88	46.9	21.4	3059	320	1.77	44.4	22.0
20602	230	1.73	43.2	18.8	2110	300	1.06	26.6	19.3	3060	310	2.12	53.3	24.4
20603	230	1.51	37.6	20.0	2111	300	1.18	29.0	21.7	3061	300	1.56	39.0	24.5
20604	210	1.56	39.0	23.7	2112	190	1.16	29.0	29.0	3062	320	1.38	35.2	18.8
20605	210	1.45	36.3	17.9	2113	110	1.22	30.6	29.8	3063	320	1.47	36.6	18.8
20606	240	2.07	51.8	11.1	2114	90	1.18	29.5	24.2	3064	320	1.50	37.7	19.6
20607	230	1.53	38.2	24.5	2115	300	2.11	52.6	24.1	3065	110	1.53	38.8	22.4
20608	230	1.15	28.8	12.0	2116	200	1.56	39.1	24.0	3066	110	1.11	28.8	14.4
20609	230	1.46	36.5	20.4	2117	290	1.59	39.9	23.0	3067	310	1.31	32.2	14.4
2070	230	1.20	29.9	10.9	2118	300	1.59	39.7	24.5	3068	200	1.29	32.3	15.5
20701	240	1.13	28.2	15.8	2119	130	1.77	44.3	24.2	3069	300	.72	18.0	15.8
20702	260	1.33	33.3	20.2	2120	300	1.10	27.4	24.9	3070	100	.63	15.7	11.3
20703	100	1.61	40.3	15.8	2121	120	1.03	25.7	22.6	3071	110	.79	19.9	11.3
20704	100	1.23	30.7	16.4	2122	170	.94	23.6	23.6	3072	110	.78	19.4	11.6
20705	230	1.87	46.9	16.4	2123	140	1.27	31.8	16.6	3073	110	.84	21.0	9.1
20706	230	1.15	28.8	16.3	2124	310	1.45	36.3	19.1	3074	110	.87	21.0	12.9
20707	260	1.66	41.5	12.6	2125	120	1.33	33.2	24.0	3075	90	.97	24.4	8.8
20708	230	1.12	27.9	20.4	2126	110	1.37	34.2	27.7	3076	110	1.19	29.7	9.4

TABLE 6A. PEAK LOADS FOR CONFIGURATION A : OXFORD CENTRE, PITTSBURGH  
LARGEST VALUES OF CLADDING LOAD REFERENCE PRESSURE = 25.0 PSF

TAP	AZI-MUTH	PRESS COEFF	ABSOLUTE PEAK PSF	POSITIVE PEAK PSF	TAP	AZI-MUTH	PRESS COEFF	ABSOLUTE PEAK PSF	POSITIVE PEAK PSF	TAP	AZI-MUTH	PRESS COEFF	ABSOLUTE PEAK PSF	POSITIVE PEAK PSF
30777	110	1.60	40.0	12.8	4024	30	1.65	41.2	27.3	4068	80	1.38	34.4	13.6
30778	200	.59	14.6	14.6	4025	270	2.53	63.3	24.1	4069	260	1.35	33.7	14.1
30779	120	1.10	27.5	19.5	4026	20	1.73	43.4	27.2	4070	70	.96	23.9	14.7
3080	90	1.00	25.0	14.9	4027	30	1.35	33.3	24.3	4071	70	.80	19.9	15.2
3081	220	.50	12.4	12.4	4028	30	1.13	28.9	25.4	4072	70	.77	19.4	18.4
3082	310	.58	14.4	11.9	4029	290	1.10	27.2	27.5	4073	210	.84	21.1	21.1
3083	100	.63	15.7	10.7	4030	290	1.09	27.2	27.2	4074	80	.71	17.8	17.7
3084	100	.77	19.3	8.3	4031	320	1.09	27.3	27.3	4075	190	.99	24.7	16.7
3085	100	1.11	27.7	11.0	4032	190	1.06	26.6	24.4	4076	170	.74	18.4	16.7
3086	100	.98	24.6	17.0	4033	220	1.32	32.2	24.1	4077	190	.99	24.9	14.1
3087	100	1.06	26.4	15.8	4034	220	1.25	31.1	24.4	4078	200	1.40	35.0	14.9
3088	110	1.10	27.5	14.6	4035	270	1.90	47.5	20.0	4079	160	.80	20.0	5.4
30889	310	.69	17.2	9.3	4036	270	2.38	59.6	26.2	4080	140	.52	12.9	9.5
3090	300	.74	18.4	9.4	4037	20	1.40	35.5	26.6	4081	260	.28	6.9	6.9
3091	300	.62	15.5	14.4	4038	60	1.25	31.1	26.1	4082	190	.28	7.0	4.1
3092	210	.66	16.6	16.6	4039	210	1.03	25.8	24.4	4083	220	.54	13.5	5.2
3093	220	.70	17.5	17.5	4040	220	1.08	27.1	25.6	9001	150	1.04	26.1	14.0
3094	100	.86	21.6	21.6	4041	210	1.02	25.4	24.4	9002	160	.93	23.2	10.4
3095	150	.62	15.6	15.6	4042	220	1.09	27.7	24.4	9003	150	1.40	34.9	5.8
3096	150	.67	16.7	16.6	4043	190	1.45	36.6	26.9	9004	160	1.53	38.1	10.7
3097	90	.87	21.7	14.0	4044	210	1.18	29.9	24.4	9005	150	1.82	45.5	15.9
4001	40	1.75	43.9	21.7	4045	210	1.31	32.2	23.3	9006	160	1.36	34.0	15.8
4002	270	1.71	42.8	23.1	4046	270	1.85	46.3	20.0	9007	10	1.84	46.0	26.5
4003	20	1.94	48.5	22.2	4047	270	2.19	54.2	21.3	9008	20	1.30	32.4	10.2
4004	210	1.28	31.9	21.9	4048	200	1.18	29.9	26.5	9009	280	1.55	38.9	12.6
4005	200	1.63	40.6	18.0	4049	180	1.07	26.6	17.2	9011	300	.99	24.6	24.6
4006	130	1.25	31.2	16.8	4050	210	1.16	28.9	18.2	9012	240	1.28	32.1	17.0
4007	170	1.34	33.5	16.9	4051	210	1.20	30.0	21.1	9013	280	.85	21.2	21.2
4008	180	1.44	36.6	19.2	4052	190	1.32	33.3	22.2	9014	170	1.93	48.2	22.3
4009	70	1.45	36.6	26.1	4053	210	1.19	29.9	22.2	9015	260	1.15	28.8	7.6
4010	290	1.92	47.9	27.3	4054	180	1.57	39.3	23.3	9016	290	.86	21.6	21.6
4011	30	1.65	41.2	24.8	4055	220	1.62	40.6	21.1	9018	120	1.04	25.9	25.9
4012	30	1.47	36.7	26.5	4056	220	1.34	33.3	22.1	9019	260	2.02	50.5	12.6
4013	210	1.62	40.4	27.7	4057	260	1.68	42.0	15.5	9020	310	.99	24.7	8.6
4014	330	1.16	28.8	28.8	4058	260	2.21	55.5	17.5	9021	240	.92	23.1	20.6
4015	290	1.42	35.4	24.2	4060	190	1.21	30.0	17.6	9022	300	1.53	38.2	14.2
4017	210	1.10	27.7	24.8	4061	180	1.53	38.3	17.3	9023	310	1.09	27.1	11.5
4018	260	1.09	27.3	27.3	4062	180	1.19	29.9	17.0	9024	280	1.35	33.6	5.0
4019	220	1.20	30.0	25.0	4063	180	1.12	28.8	16.7	9025	140	1.99	49.7	6.1
4020	210	1.16	28.8	28.4	4064	180	1.15	28.8	17.2	9026	110	.97	24.2	24.2
4021	210	1.13	28.8	21.6	4065	180	1.81	45.5	17.4	9027	300	1.00	25.0	11.6
4022	220	1.50	37.7	20.9	4066	210	1.41	35.5	18.3	9028	300	1.61	40.2	16.4
4023	210	1.67	41.7	22.1	4067	220	1.61	40.2	20.0	9029	100	1.14	28.6	15.3

TABLE 6A. PEAK LOADS FOR CONFIGURATION A : OXFORD CENTRE, PITTSBURGH  
 LARGEST VALUES OF CLADDING LOAD REFERENCE PRESSURE = 28.0 PSF

TAP	AZI-MUTH	PRESS COEFF	ABSOLUTE PEAK	POSITIVE PEAK	TAP	AZI-MUTH	PRESS COEFF	ABSOLUTE PEAK	POSITIVE PEAK	TAP	AZI-MUTH	PRESS COEFF	ABSOLUTE PEAK	POSITIVE PEAK
			PSF	PSF				PSF	PSF				PSF	PSF
1	130	.84	23.4	15.7	1030	270	1.38	38.6	23.6	1078	180	1.03	28.7	17.1
2	150	.71	19.8	17.2	1031	270	1.51	42.3	34.8	1079	150	1.09	30.6	13.9
3	110	.52	14.6	8.8	1032	300	1.63	45.7	29.3	1080	170	1.52	42.4	11.6
4	150	.54	15.2	6.9	1033	140	2.24	62.8	33.1	1081	170	1.38	38.6	5.5
5	120	.42	11.9	3.5	1034	140	2.06	57.7	36.8	1082	170	1.27	35.5	12.1
6	110	.44	12.4	4.4	1035	140	1.99	53.1	16.1	1083	170	.98	27.3	11.0
7	120	.51	14.3	9.0	1036	150	2.59	72.6	5.4	1084	260	.99	27.9	12.2
8	110	.39	11.0	7.9	1037	140	1.84	51.6	10.4	1085	170	.78	21.9	9.7
9	100	.49	13.6	4.8	1038	140	1.35	37.7	17.7	1086	180	.94	26.3	13.9
10	100	.78	21.9	9.3	1039	150	1.19	33.3	13.2	1088	180	1.00	27.9	13.8
11	100	.81	22.6	10.0	1040	150	1.46	40.8	14.5	1089	180	1.41	39.6	2.1
12	100	.46	12.9	3.8	1041	150	1.45	40.5	11.4	1090	120	1.01	28.3	8.1
13	100	.40	11.3	4.8	1042	270	1.61	45.0	19.0	1091	180	.58	16.3	11.8
14	140	.40	11.2	3.3	1043	270	1.54	43.1	24.1	1092	60	.93	26.0	4.8
15	180	.73	20.5	5.5	1044	140	2.60	72.9	25.0	1093	240	.95	26.6	11.0
16	90	.66	18.4	6.6	1045	150	2.15	60.2	25.6	1094	310	.68	19.1	19.1
17	80	.65	18.2	7.5	1046	150	2.03	56.8	10.5	1095	150	.73	20.4	12.0
18	190	.80	22.4	17.1	1047	150	1.94	54.4	3.2	1096	270	.77	21.5	18.1
19	10	.75	20.9	5.7	1048	160	1.66	46.6	3.1	2001	240	1.50	42.1	19.6
1001	150	1.79	30.0	5.5	1049	160	1.32	36.9	15.7	2002	60	1.59	44.5	19.6
1002	200	1.29	36.0	8.8	1050	150	1.18	32.4	5.1	2003	220	1.65	46.3	22.0
1003	10	1.43	39.9	8.8	1051	170	1.43	40.1	21.3	2004	30	1.37	38.5	22.5
1004	110	1.66	46.4	7.4	1052	270	1.50	42.1	6.5	2005	30	1.47	41.3	22.2
1005	280	2.23	62.5	2.0	1053	260	1.62	45.3	19.2	2006	190	1.25	35.0	35.0
1006	300	1.62	45.5	4.1	1054	250	1.60	44.9	25.3	2007	80	1.14	32.0	29.5
1007	140	1.94	54.4	5.4	1055	150	2.10	58.8	24.2	2008	210	1.75	48.9	26.2
1008	10	1.25	33.5	3.3	1056	130	1.82	51.0	22.7	2009	180	1.60	44.8	26.1
1009	160	1.10	30.0	8.9	1057	140	1.80	50.4	7.8	2010	30	1.85	51.8	26.6
1010	130	1.81	50.6	9.8	1058	140	1.79	50.2	2.2	2011	210	1.45	40.7	25.5
1011	290	1.20	33.3	2.4	1059	180	1.75	49.0	6.3	2012	220	1.12	31.5	26.9
1012	320	1.73	48.9	7.7	1060	160	1.32	36.9	15.9	2013	110	1.00	27.9	27.9
1013	140	1.99	55.5	5.4	1061	250	1.13	31.6	4.6	2014	130	1.04	29.2	29.2
1014	10	1.92	53.7	7.7	1062	190	1.31	36.7	11.4	2015	190	1.04	29.2	29.2
1015	150	1.99	55.6	7.3	1063	270	1.39	38.8	4.1	2016	210	1.84	51.6	24.2
1016	140	1.78	49.9	5.5	1064	240	1.96	54.8	10.5	2017	10	1.28	35.8	23.3
1017	140	1.41	39.9	7.7	1065	240	1.77	49.6	18.0	2018	210	2.29	64.0	27.5
1018	150	1.29	36.6	0.0	1066	160	1.70	47.6	19.8	2019	210	1.59	44.5	27.7
1019	140	1.30	36.6	4.4	1067	140	1.83	51.1	15.5	2020	20	2.34	65.6	25.3
1020	170	1.57	43.8	2.7	1068	140	1.61	45.0	8.0	2021	260	1.66	46.5	25.0
1021	270	1.49	41.1	0.0	1069	170	1.42	39.7	4.8	2022	220	1.29	36.2	28.4
1022	140	2.39	66.9	3.3	1070	180	1.28	35.9	3.9	2023	210	1.00	27.9	26.0
1023	20	1.84	51.7	5.9	1071	170	1.01	28.1	6.6	2024	150	.88	24.6	24.6
1024	140	2.05	57.3	2.9	1072	160	.83	23.4	4.0	2025	180	.83	23.1	23.1
1025	140	2.28	63.7	4.3	1073	160	1.05	29.3	8.2	2026	210	1.16	32.5	26.5
1026	150	1.52	42.4	2.7	1074	180	.92	25.7	4.4	2027	130	1.07	30.0	30.0
1027	140	1.43	40.1	2.0	1075	240	.77	21.6	10.1	2028	210	1.40	39.1	29.9
1028	140	1.36	38.5	2.6	1076	260	.71	19.8	15.2	2029	20	1.57	43.9	27.6
1029	140	1.55	43.5	2.6	1077	300	1.04	29.2	13.1	2030	20	1.60	44.9	27.2



TABLE 6A. PEAK LOADS FOR CONFIGURATION A : OXFORD CENTRE, PITTSBURGH  
LARGEST VALUES OF CLADDING LOAD REFERENCE PRESSURE = 28.0 PSF

TAP	AZI-MUTH	PRESS COEFF	ABSOLUTE PEAK	POSITIVE PEAK	TAP	AZI-MUTH	PRESS COEFF	ABSOLUTE PEAK	POSITIVE PEAK	TAP	AZI-MUTH	PRESS COEFF	ABSOLUTE PEAK	POSITIVE PEAK
			PSF	PSF				PSF	PSF				PSF	PSF
2031	220	1.48	41.6	25.6	2079	240	.89	24.9	18.3	3029	100	1.44	40.3	25.7
2032	110	2.29	64.2	25.7	2080	260	1.12	31.5	20.3	3030	130	1.78	49.7	29.7
2033	200	1.82	50.8	27.3	2081	0	1.27	35.6	12.9	3031	130	1.60	44.7	25.4
2034	210	1.52	42.7	29.3	2082	300	1.11	31.1	18.9	3032	120	1.91	53.3	24.3
2035	210	1.62	45.5	29.9	2083	0	1.00	27.9	22.8	3033	130	2.01	56.2	26.6
2036	220	1.24	34.4	33.3	2084	250	1.06	29.7	16.7	3034	300	1.87	52.3	26.7
2037	220	1.31	36.6	35.5	2085	310	1.16	32.4	15.6	3035	190	1.71	48.0	27.6
2038	210	1.12	31.2	31.1	2086	260	.83	23.3	8.8	3036	280	1.69	47.4	25.2
2039	10	1.27	35.5	27.0	2087	320	.85	23.7	12.2	3037	290	1.34	37.4	26.2
2040	120	2.09	58.8	25.9	2088	310	1.09	30.6	7.1	3038	310	1.70	47.6	27.0
2041	110	2.38	66.8	26.6	2089	310	1.18	33.1	7.3	3039	300	1.51	42.3	27.0
2042	210	1.24	34.4	26.6	2090	170	.60	16.9	16.9	3040	310	1.49	41.7	27.2
2043	200	1.18	33.3	26.6	2091	260	.78	21.9	17.2	3041	310	1.33	37.2	29.8
2044	220	1.34	37.7	23.3	2092	310	1.36	38.0	15.6	3042	120	1.33	37.2	27.8
2045	220	1.03	29.8	20.0	2093	320	.81	22.7	6.4	3043	120	1.94	54.2	30.0
2046	220	1.05	29.8	20.0	2094	300	.83	23.3	10.9	3044	120	2.42	67.7	28.0
2047	220	1.21	34.4	29.9	2095	330	.75	21.0	11.1	3045	300	1.82	51.0	25.1
2048	10	1.26	35.9	16.2	2096	280	1.11	31.0	22.3	3046	210	1.67	46.9	25.2
2049	10	1.40	39.9	22.2	2097	270	.99	27.6	15.3	3047	300	1.55	43.4	24.5
2050	20	1.46	40.8	22.6	2098	310	1.14	32.0	8.9	3048	310	1.40	39.1	28.2
2051	220	1.66	44.4	24.4	2099	320	.75	21.1	10.5	3049	300	1.60	44.9	28.3
2052	120	1.95	55.5	23.3	3001	280	1.60	44.4	26.6	3050	300	1.19	33.4	26.6
2053	210	1.63	44.5	25.5	3002	300	1.27	35.5	29.5	3051	300	1.32	36.9	26.8
2054	210	1.56	43.3	25.5	3003	120	1.66	46.5	22.7	3052	300	1.40	39.3	26.9
2055	230	1.78	49.9	20.0	3005	140	1.83	51.4	4.0	3053	110	1.45	40.6	25.8
2056	200	1.16	33.3	26.6	3006	120	1.79	50.2	31.2	3054	100	1.53	42.7	25.1
2057	230	1.27	35.5	16.8	3007	300	1.87	53.5	27.7	3055	110	1.99	55.8	27.4
2058	240	1.21	33.3	16.8	3008	190	1.28	35.5	24.4	3056	300	1.85	51.7	21.2
2059	10	1.29	36.6	15.6	3009	300	1.90	53.2	24.7	3057	300	1.63	45.7	19.9
2060	10	1.20	33.3	22.2	3010	300	1.11	32.0	26.3	3058	300	1.60	44.7	20.4
2061	240	1.31	36.6	24.4	3011	140	1.81	52.5	23.3	3059	320	1.77	49.5	22.9
2062	230	1.73	48.8	21.1	3012	300	1.00	29.9	21.1	3060	310	2.12	59.4	21.8
2063	230	1.51	42.2	22.2	3013	300	1.11	33.3	24.4	3061	300	1.56	43.7	27.7
2064	210	1.56	43.3	26.6	3014	190	1.11	32.2	32.4	3062	320	1.28	35.8	21.1
2065	210	1.45	40.0	20.0	3015	110	1.2	34.4	33.3	3063	320	1.47	41.2	21.9
2066	240	2.07	58.8	13.3	3016	90	1.11	33.3	27.1	3064	320	1.50	42.1	21.9
2067	230	1.53	44.4	27.7	3017	300	2.11	58.8	27.0	3065	110	1.53	42.9	21.5
2068	230	1.15	32.2	13.4	3018	200	1.55	43.3	26.8	3066	110	1.81	50.8	24.2
2069	230	1.46	40.0	22.2	3019	290	1.55	44.4	25.7	3067	310	1.31	36.6	16.1
2070	230	1.20	33.3	12.2	3020	300	1.55	44.4	27.4	3068	200	1.29	36.2	17.5
2071	240	1.13	33.3	17.7	3021	130	1.7	49.6	27.0	3069	300	.72	20.2	17.6
2072	260	1.33	37.7	22.2	3022	300	1.11	30.0	27.9	3070	100	.63	17.6	12.7
2073	100	1.61	45.5	17.7	3023	120	1.00	28.8	25.5	3071	110	.79	22.2	10.4
2074	100	1.23	35.5	18.4	3024	170	.9	26.6	26.6	3072	110	.78	21.7	13.0
2075	230	1.87	53.3	18.3	3025	140	1.25	35.5	18.5	3073	110	.84	23.5	10.2
2076	230	1.15	32.2	18.2	3026	310	1.45	40.0	21.4	3074	110	.87	24.4	14.4
2077	260	1.66	46.6	14.1	3027	120	1.11	37.7	26.8	3075	90	.97	27.2	9.6
2078	230	1.12	31.3	22.9	3028	110	1.3	38.8	31.0	3076	110	1.19	33.3	10.5

TABLE 6A. PEAK LOADS FOR CONFIGURATION A : OXFORD CENTRE, PITTSBURGH  
 LARGEST VALUES OF CLADDING LOAD REFERENCE PRESSURE = 28.0 PSF

TAP	AZI-MUTH	PRESS COEFF	ABSOLUTE PEAK	POSITIVE PEAK	TAP	AZI-MUTH	PRESS COEFF	ABSOLUTE PEAK	POSITIVE PEAK	TAP	AZI-MUTH	PRESS COEFF	ABSOLUTE PEAK	POSITIVE PEAK
			PSF	PSF				PSF	PSF				PSF	PSF
30777	110	1.60	44.8	14.4	4024	30	1.6	46.1	30.6	4068	80	1.38	38.5	15.3
30778	200	.59	16.4	16.4	4025	270	2.55	70.9	27.0	4069	260	1.35	37.7	15.8
30779	120	1.10	30.8	21.8	4026	20	1.7	48.6	30.4	4070	70	.96	26.8	16.5
30800	90	1.00	28.1	16.7	4027	30	1.3	37.9	27.2	4071	70	.80	22.3	17.1
30801	220	.50	13.9	13.9	4028	30	1.1	31.6	28.4	4072	70	.77	21.7	20.6
30802	310	.58	16.1	13.4	4029	290	1.1	30.8	30.8	4073	210	.84	23.6	23.6
30803	100	.63	17.6	11.9	4030	290	1.0	30.5	30.5	4074	80	.71	19.9	19.8
30804	100	.77	21.7	9.3	4031	320	1.0	30.6	30.6	4075	190	.99	27.6	18.8
30805	100	1.11	31.0	12.4	4032	190	1.0	29.9	27.3	4076	170	.74	20.6	18.7
30806	100	.98	27.5	19.0	4033	220	1.3	36.8	27.0	4077	190	.99	27.8	15.8
30807	100	1.06	29.6	17.7	4034	220	1.2	35.0	27.7	4078	200	1.40	39.1	16.7
30808	110	1.10	30.8	16.4	4035	270	1.9	53.2	29.9	4079	160	.80	22.4	6.0
30809	310	.69	19.3	10.4	4036	270	2.3	66.7	29.4	4080	140	.52	14.5	10.6
30900	300	.74	20.6	10.5	4037	20	1.4	39.3	28.6	4081	260	.28	7.7	7.7
30901	300	.62	17.4	16.2	4038	60	1.25	34.9	29.2	4082	190	.28	7.9	4.6
30902	210	.66	18.5	18.5	4039	210	1.0	28.8	27.7	4083	220	.54	15.2	5.8
30903	220	.70	19.6	19.6	4040	220	1.0	30.0	28.6	9001	150	1.04	29.2	15.7
30904	100	.86	24.2	24.2	4041	210	1.0	28.4	27.7	9002	160	.93	26.0	11.7
30905	150	.62	17.4	17.4	4042	220	1.0	30.5	30.2	9003	150	1.40	39.1	6.5
30906	150	.67	18.6	17.4	4043	190	1.4	40.7	30.1	9004	160	1.53	42.7	12.0
30907	90	.87	24.3	15.7	4044	210	1.1	33.0	28.8	9005	150	1.82	51.0	17.8
40001	40	1.75	49.1	24.3	4045	210	1.3	36.7	25.8	9006	160	1.36	38.0	17.7
40002	270	1.71	47.9	25.9	4046	270	1.8	51.8	22.7	9007	10	1.84	51.6	29.7
40003	20	1.94	54.3	24.8	4047	270	2.1	61.3	23.8	9008	20	1.30	36.3	11.5
40004	210	1.28	35.5	24.6	4048	200	1.1	33.1	29.7	9009	280	1.55	43.5	14.1
40005	200	1.63	45.5	20.1	4049	180	1.0	29.9	19.3	9010	300	.99	27.6	27.6
40006	130	1.25	35.5	18.8	4050	210	1.1	32.4	20.7	9011	240	1.28	35.9	19.1
40007	170	1.34	37.5	18.9	4051	210	1.2	33.6	24.4	9012	280	.85	23.7	23.7
40008	180	1.44	40.4	21.8	4052	190	1.3	37.1	25.2	9013	280	1.93	54.0	24.9
40009	70	1.45	40.6	29.2	4053	210	1.1	33.2	25.3	9014	170	1.15	32.2	8.5
40100	290	1.92	53.6	30.6	4054	180	1.5	44.1	26.1	9015	260	1.86	44.1	24.1
40101	30	1.65	46.2	27.8	4055	220	1.6	45.4	24.1	9016	290	1.04	29.0	29.0
40102	30	1.47	41.1	29.7	4056	220	1.3	37.4	24.7	9017	120	2.02	56.5	14.2
40103	210	1.62	45.3	31.0	4057	260	1.6	47.0	17.3	9018	260	.99	27.6	9.6
40104	330	1.16	32.4	32.3	4058	260	2.2	61.1	19.6	9019	240	.92	25.8	23.1
40105	290	1.42	39.7	31.6	4059	260	1.2	33.8	19.8	9020	310	1.53	42.7	15.9
40107	210	1.10	30.7	27.8	4060	190	1.2	33.7	19.4	9021	280	1.09	30.4	12.8
40108	260	1.09	30.6	30.6	4061	180	1.5	42.9	19.4	9022	310	1.35	37.7	5.6
40109	220	1.20	33.6	28.0	4062	180	1.1	33.4	19.0	9023	280	1.99	55.6	6.9
40200	210	1.16	32.2	31.9	4063	180	1.1	31.3	18.8	9024	110	.97	27.1	27.1
40201	210	1.13	31.5	24.2	4064	180	1.1	32.1	19.2	9025	140	1.00	28.0	13.0
40202	220	1.50	42.1	23.4	4065	180	1.8	50.6	19.5	9026	300	1.61	45.1	18.4
40203	210	1.67	46.7	24.7	4066	210	1.4	39.6	20.5	9027	300	1.14	32.0	17.1
					4067	220	1.6	45.0	22.4	9028	100			
										9029	100			

TABLE 7. BASE SHEAR AND MOMENT SUMMARY : OXFORD CENTRE, PITTSBURGH  
 CONFIGURATION A REFERENCE PRESSURE 28.0 GUST FACTOR 1.32

AZIMUTH DEGREES	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
0	-956.7	-997.4	291.8	-350.9	12.1
10	-880.9	-896.4	278.6	-338.3	8.5
20	-826.3	-540.0	163.8	-324.9	7.9
30	-755.0	-147.1	10.3	-289.3	9.7
40	-482.8	95.5	-70.8	-163.1	7.7
50	-361.1	564.3	-194.2	-111.6	8.4
60	-552.5	987.5	-342.6	-181.3	10.2
70	-768.4	1224.0	-434.2	-275.3	9.1
80	-717.0	1142.0	-413.4	-239.4	9.4
90	-675.0	1182.7	-429.9	-200.7	12.5
100	-706.6	1264.2	-459.0	-188.2	13.6
110	-783.7	1184.1	-448.3	-219.8	9.2
120	-459.6	1267.2	-472.2	-122.9	6.3
130	316.2	1447.8	-509.0	120.5	4.4
140	1177.6	1591.7	-537.3	376.4	4.8
150	1891.1	1550.6	-516.5	588.0	8.4
160	2367.2	1390.1	-464.6	708.9	8.7
170	2520.7	1161.3	-388.6	751.7	9.5
180	2544.5	829.0	-283.4	763.2	11.6
190	2362.8	499.6	-183.4	705.0	13.0
200	2118.6	62.1	-48.7	636.4	12.5
210	1777.1	-185.9	14.8	539.7	11.2
220	1769.9	-601.2	155.9	541.1	-17.2
230	1995.5	-1111.4	335.1	624.5	-19.6
240	2151.4	-1412.5	448.1	670.6	-17.7
250	2074.8	-1591.3	524.4	652.1	-12.5
260	1779.5	-1698.0	556.5	559.1	-5.7
270	1267.1	-1569.4	504.5	418.1	-5.2
280	296.0	-1613.2	517.2	137.0	0.0
290	-439.0	-1373.7	431.1	-88.4	0.9
300	-755.7	-1646.6	518.9	-192.8	-9.4
310	-678.4	-1805.4	565.0	-174.3	-10.8
320	-446.3	-1477.4	463.5	-121.9	-10.0
330	-501.9	-1241.2	380.1	-157.3	0.0
340	-655.8	-1243.3	375.0	-228.2	5.2
350	-641.0	-1138.3	346.6	-240.9	6.5

TABLE 7. BASE SHEAR AND MOMENT SUMMARY : OXFORD CENTRE, PITTSBURGH  
 CONFIGURATION A REFERENCE PRESSURE 25.0 GUST FACTOR 1.32

AZIMUTH DEGREES	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
0	-854.2	-890.5	260.5	-313.3	10.8
10	-786.5	-800.4	248.8	-302.0	7.6
20	-737.8	-482.2	146.2	-290.1	7.1
30	-674.1	-131.4	9.2	-258.3	8.6
40	-431.1	85.3	-63.2	-145.6	6.9
50	-322.4	503.9	-173.4	-99.7	7.5
60	-493.3	881.7	-305.9	-161.8	9.1
70	-686.1	1092.8	-387.7	-245.8	8.1
80	-640.2	1019.7	-369.1	-213.7	8.4
90	-602.7	1056.0	-383.8	-179.2	11.2
100	-630.9	1128.8	-409.8	-168.0	12.2
110	-699.7	1057.2	-400.3	-196.2	8.2
120	-410.3	1131.5	-421.6	-109.8	5.7
130	282.4	1292.7	-454.5	107.6	3.8
140	1051.4	1421.2	-479.7	336.0	4.3
150	1688.5	1384.5	-461.2	523.0	7.5
160	2113.6	1241.1	-414.9	633.0	7.7
170	2250.6	1036.9	-347.0	671.1	8.9
180	2271.8	740.2	-253.0	681.5	10.4
190	2109.6	446.1	-163.8	629.4	11.6
200	1891.6	55.4	-43.5	568.2	11.2
210	1586.7	-166.0	13.2	481.9	-
220	1580.3	-536.8	139.2	483.1	-15.3
230	1781.7	-992.3	299.2	557.6	-17.5
240	1920.9	-1261.2	400.1	598.7	-15.8
250	1852.5	-1420.8	468.2	582.2	-11.1
260	1588.8	-1516.1	496.8	499.2	-5.1
270	1131.3	-1401.3	450.4	373.3	-4.7
280	264.3	-1440.4	461.8	122.3	-
290	-392.0	-1226.5	384.9	-78.9	-
300	-674.8	-1470.2	463.3	-172.1	-8.4
310	-605.7	-1611.9	504.5	-155.6	-9.6
320	-398.5	-1319.1	413.8	-108.8	-8.9
330	-448.1	-1108.2	339.4	-140.5	-
340	-585.6	-1110.0	334.8	-203.8	4.6
350	-572.3	-1016.3	309.5	-215.1	5.8

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 0 CONFIGURATION A OXFORD CENTRE, PITTSBURGH  
REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SR FT	Y-AREA SR FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0	-7.0	-17.3	196	853	-3.7	-20.3	-956.7	-997.4	291.8	-335.9	12.1
1	11	-14.9	-33.7	469	1550	-3.2	-21.7	-949.7	-980.1	280.9	-340.4	12.2
2	23	-3.6	-30.2	337	1275	-1.0	-23.7	-934.8	-946.4	261.6	-321.1	11.9
3	34	-9.2	-30.2	337	1275	-1.1	-22.2	-931.2	-916.6	247.7	-307.7	11.7
4	44	-10.7	-16.2	337	1275	-1.1	-7.5	-922.1	-886.0	234.1	-293.3	11.5
5	55	-11.2	-17.3	337	1275	-1.1	-7.7	-911.1	-869.1	223.3	-282.2	11.4
6	65	-11.5	-17.3	337	1275	-1.1	-7.9	-900.3	-851.8	212.4	-270.9	11.2
7	76	-11.8	-18.2	337	1275	-1.1	-8.1	-888.8	-834.0	201.9	-259.9	11.1
8	86	-11.9	-18.2	337	1275	-1.1	-8.4	-876.9	-815.5	191.6	-248.7	11.0
9	96	-12.0	-19.0	337	1275	-1.1	-8.5	-864.1	-797.7	181.1	-237.6	10.9
10	106	-12.2	-19.0	337	1275	-1.1	-8.6	-852.2	-778.8	171.1	-226.5	10.8
11	116	-12.4	-19.0	337	1275	-1.1	-8.8	-839.9	-758.8	162.2	-215.6	10.7
12	126	-12.6	-19.0	337	1275	-1.1	-9.0	-825.5	-738.8	152.2	-204.7	10.6
13	136	-13.3	-19.0	337	1275	-1.1	-9.2	-812.2	-718.8	143.3	-193.8	10.5
14	146	-14.4	-20.6	337	1275	-1.1	-9.3	-798.8	-697.7	134.4	-182.9	10.4
15	156	-14.4	-21.1	337	1275	-1.1	-9.4	-784.4	-677.7	126.1	-172.0	10.3
16	166	-14.4	-21.1	337	1275	-1.1	-9.5	-769.9	-656.6	117.8	-161.1	10.2
17	176	-14.4	-21.1	337	1275	-1.1	-9.5	-754.4	-635.5	109.9	-150.2	10.1
18	186	-15.5	-21.1	337	1275	-1.1	-9.6	-739.9	-613.3	101.1	-139.3	10.0
19	196	-16.6	-21.1	337	1275	-1.1	-9.7	-723.7	-592.2	94.4	-128.4	9.9
20	206	-16.6	-22.2	337	1275	-1.1	-9.7	-707.7	-570.7	87.7	-117.5	9.8
21	216	-17.7	-22.2	337	1275	-1.1	-9.9	-691.1	-548.8	80.0	-106.6	9.7
22	226	-18.8	-22.2	337	1275	-1.1	-10.0	-675.5	-526.6	73.3	-95.7	9.6
23	236	-18.8	-22.2	337	1275	-1.1	-10.0	-658.8	-504.4	66.6	-84.8	9.5
24	246	-19.9	-22.2	337	1275	-1.1	-10.0	-640.0	-482.2	59.9	-73.9	9.4
25	256	-19.9	-22.2	337	1275	-1.1	-10.0	-621.1	-459.9	54.4	-63.0	9.3
26	266	-20.4	-22.2	337	1275	-1.1	-10.0	-601.1	-436.6	48.8	-52.1	9.2
27	276	-20.4	-22.2	337	1275	-1.1	-10.0	-581.1	-412.2	44.4	-41.2	9.1
28	286	-22.2	-22.2	337	1275	-1.1	-10.0	-560.0	-388.8	39.9	-30.3	9.0
29	296	-22.2	-22.2	337	1275	-1.1	-10.0	-538.8	-364.4	34.3	-19.4	8.9
30	306	-22.2	-22.2	337	1275	-1.1	-11.0	-515.5	-339.9	29.9	-8.5	8.8
31	316	-22.2	-22.2	337	1275	-1.1	-11.0	-491.1	-315.5	25.5	2.4	8.7
32	326	-22.2	-22.2	337	1275	-1.1	-11.0	-466.6	-290.0	22.2	11.5	8.6
33	336	-22.2	-22.2	337	1275	-1.1	-11.1	-443.3	-265.5	18.8	20.6	8.5
34	346	-22.2	-22.2	337	1275	-1.1	-11.1	-405.5	-240.0	15.5	29.7	8.4
35	356	-22.2	-22.2	337	1275	-1.1	-11.1	-373.3	-215.5	12.2	38.8	8.3
36	366	-22.2	-22.2	337	1275	-1.1	-11.1	-338.8	-190.0	9.9	47.9	8.2
37	376	-22.2	-22.2	337	1275	-1.1	-11.1	-301.1	-165.5	7.7	57.0	8.1
38	386	-22.2	-22.2	337	1275	-1.1	-11.1	-261.1	-139.9	5.5	66.1	8.0
39	396	-22.2	-22.2	337	1275	-1.1	-11.1	-220.0	-115.5	3.3	75.2	7.9
40	406	-20.0	-22.2	337	1275	-1.1	-10.0	-179.9	-90.0	1.1	84.3	7.8
41	416	-19.9	-22.2	337	1275	-1.1	-10.0	-139.9	-67.7	1.1	93.4	7.7
42	426	-19.9	-22.2	337	1275	-1.1	-10.0	-100.0	-45.5	1.1	102.5	7.6
43	436	-21.1	-22.2	337	1275	-1.1	-10.0	-79.9	-34.4	1.1	111.6	7.5
44	446	-21.1	-22.2	337	1275	-1.1	-10.0	-57.7	-24.4	1.1	120.7	7.4
45	456	-21.1	-22.2	337	1275	-1.1	-10.0	-37.7	-15.5	1.1	129.8	7.3
46	466	-18.8	-22.2	337	1275	-1.1	-10.0	-18.8	-7.7	1.1	138.9	7.2

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 10

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-4.0	-13.6	190.0	85.3	-2.1	-15.9	-880.9	-896.4	278.6	-338.3	8.5
3	11.00	-9.2	-25.6	469.5	155.0	-2.0	-16.5	-876.9	-882.8	268.8	-328.6	8.6
3	31.00	-1.7	-22.6	370.9	127.5	-1.5	-17.7	-867.7	-857.2	251.4	-311.1	8.5
4	46.00	-6.5	-20.0	352.1	116.3	-1.8	-17.4	-866.0	-834.6	238.7	-298.1	8.7
5	61.00	-9.9	-19.9	325.0	222.5	-3.3	-4.3	-859.7	-814.3	226.4	-285.2	8.3
6	73.50	-8.1	-10.3	222.5	222.5	-5.0	-4.7	-852.2	-804.6	216.3	-274.5	8.4
7	86.00	-8.5	-11.3	222.5	222.5	-4.3	-5.0	-844.1	-794.1	206.3	-263.9	8.4
8	98.50	-9.0	-12.0	222.5	222.5	-4.0	-5.3	-835.6	-782.8	196.4	-253.4	8.5
9	111.00	-9.5	-12.7	222.5	222.5	-4.2	-5.6	-826.6	-770.8	186.4	-243.0	8.5
10	123.50	-10.0	-13.4	222.5	222.5	-4.4	-6.0	-817.1	-758.1	177.1	-232.7	8.6
11	136.00	-10.5	-14.2	222.5	222.5	-4.7	-6.3	-807.1	-744.4	167.7	-222.6	8.6
12	148.50	-10.9	-14.9	222.5	222.5	-4.9	-6.6	-796.6	-730.5	158.8	-212.2	8.6
13	161.00	-11.4	-15.6	222.5	222.5	-5.1	-6.9	-785.7	-715.6	149.5	-202.7	8.6
14	173.50	-11.9	-16.3	222.5	222.5	-5.3	-7.2	-774.3	-700.0	140.6	-192.9	8.6
15	186.00	-12.4	-17.0	222.5	222.5	-5.5	-7.5	-762.4	-683.8	132.0	-183.3	8.6
16	198.50	-12.9	-17.7	222.5	222.5	-5.7	-7.8	-750.0	-666.9	123.6	-173.9	8.6
17	211.00	-13.3	-18.1	222.5	222.5	-5.9	-8.1	-737.7	-649.4	115.3	-164.4	8.6
18	223.50	-13.8	-18.8	222.5	222.5	-6.1	-8.4	-723.8	-631.3	107.3	-155.4	8.6
19	236.00	-14.3	-19.3	222.5	222.5	-6.3	-8.7	-710.0	-612.6	99.5	-146.5	8.5
20	248.50	-14.7	-19.9	222.5	222.5	-6.5	-9.0	-695.8	-593.3	92.0	-137.7	8.4
21	261.00	-15.2	-20.0	222.5	222.5	-6.8	-9.3	-681.1	-573.6	84.7	-129.1	8.3
22	273.50	-15.7	-20.1	222.5	222.5	-7.0	-9.6	-665.8	-552.8	77.7	-120.7	8.3
23	286.00	-16.2	-20.2	222.5	222.5	-7.2	-9.9	-650.1	-531.6	70.9	-112.4	8.2
24	298.50	-16.7	-20.3	222.5	222.5	-7.4	-10.0	-633.9	-509.8	64.4	-104.4	8.1
25	311.00	-17.2	-20.3	222.5	222.5	-7.7	-10.3	-617.2	-487.3	58.2	-96.6	8.1
26	323.50	-17.7	-20.3	222.5	222.5	-7.9	-10.6	-599.9	-464.1	52.2	-89.0	8.0
27	336.00	-18.2	-20.4	222.5	222.5	-8.2	-10.9	-582.2	-440.3	46.6	-81.6	7.9
28	348.50	-18.7	-20.5	222.5	222.5	-8.4	-11.0	-563.3	-415.7	41.2	-74.4	7.8
29	361.00	-19.2	-20.5	222.5	222.5	-8.6	-11.1	-544.9	-390.5	36.2	-67.5	7.7
30	373.50	-19.7	-20.6	222.5	222.5	-8.8	-11.2	-525.5	-364.6	31.5	-60.8	7.6
31	386.00	-20.2	-20.7	222.5	222.5	-9.0	-11.3	-505.6	-338.1	27.1	-54.4	7.5
32	398.50	-20.7	-20.7	222.5	222.5	-9.2	-11.4	-484.6	-311.1	23.0	-48.2	7.4
33	411.00	-21.2	-20.7	222.5	222.5	-9.4	-11.5	-461.7	-283.9	19.3	-42.3	7.3
34	423.50	-21.7	-20.7	222.5	222.5	-9.6	-11.6	-436.8	-256.7	15.9	-36.7	7.2
35	436.00	-22.2	-20.7	222.5	222.5	-9.8	-11.7	-410.0	-229.4	12.9	-31.4	7.1
36	448.50	-22.7	-20.7	222.5	222.5	-10.0	-11.8	-381.3	-202.0	10.2	-26.4	7.0
37	461.00	-23.2	-20.7	222.5	222.5	-10.2	-11.9	-350.6	-174.4	7.8	-21.8	6.9
38	473.50	-23.7	-20.7	222.5	222.5	-10.4	-12.0	-318.0	-146.8	5.8	-17.7	6.8
39	486.00	-24.2	-20.8	209.4	209.4	-10.6	-12.1	-283.3	-119.3	4.1	-13.9	6.7
40	498.50	-24.7	-20.8	209.4	209.4	-10.8	-12.2	-245.3	-94.6	2.8	-10.6	6.6
41	511.00	-25.2	-20.8	209.4	209.4	-11.0	-12.3	-205.3	-69.9	1.8	-7.8	6.5
42	523.50	-25.7	-20.8	209.4	209.4	-11.2	-12.4	-163.3	-45.4	1.1	-5.5	6.4
43	536.00	-26.2	-20.8	118.8	118.8	-11.4	-12.5	-120.3	-22.3	.6	-3.7	6.3
44	548.50	-26.7	-20.8	118.8	118.8	-11.6	-12.6	-95.8	-16.9	.4	-2.4	6.2
45	561.00	-27.2	-20.8	118.8	118.8	-11.8	-12.7	-71.2	-12.0	.2	-1.3	6.1
46	573.50	-27.7	-20.8	118.8	118.8	-12.0	-12.8	-47.0	-7.5	.1	-.6	6.0
47	586.00	-28.2	-20.8	118.8	118.8	-12.2	-12.9	-23.3	-3.5	.0	-.1	5.9

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 20 CONFIGURATION A

OXFORD CENTRE, PITTSBURGH  
REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00		-12.6	190.0	85.3					163.8	-324.9	7.9
2	11.00		-23.8	469.5	155.3					157.9	-315.8	7.9
3	31.00		-20.7	370.9	127.3					147.6	-299.9	7.9
4	46.00		-18.1	352.1	116.3					140.2	-287.4	7.9
5	61.00		-2.9	225.0	225.0					133.3	-275.5	7.9
6	73.50		-3.5	225.0	225.0					127.3	-265.6	7.9
7	86.00		-4.1	225.0	225.0					121.6	-255.7	7.9
8	98.50		-4.7	225.0	225.0					115.9	-246.0	7.9
9	111.00		-4.2	225.0	225.0					110.2	-236.4	7.9
10	123.50		-5.8	225.0	225.0					104.6	-226.8	7.9
11	136.00		-6.4	225.0	225.0					99.1	-217.4	7.9
12	148.50		-7.0	225.0	225.0					93.6	-208.1	7.9
13	161.00		-7.6	225.0	225.0					88.0	-198.9	7.9
14	173.50		-8.1	225.0	225.0					82.5	-189.9	7.9
15	186.00		-8.6	225.0	225.0					77.0	-180.0	7.9
16	198.50		-9.1	225.0	225.0					71.5	-172.2	7.9
17	211.00		-9.5	225.0	225.0					66.0	-163.3	7.9
18	223.50		-10.0	225.0	225.0					60.5	-154.4	7.9
19	236.00		-10.5	225.0	225.0					55.0	-146.4	7.9
20	248.50		-10.9	225.0	225.0					49.5	-138.8	7.9
21	261.00		-11.4	225.0	225.0					44.0	-130.0	7.9
22	273.50		-11.9	225.0	225.0					38.5	-122.2	7.9
23	286.00		-12.4	225.0	225.0					33.0	-114.4	7.9
24	298.50		-12.9	225.0	225.0					27.5	-106.6	7.9
25	311.00		-13.4	225.0	225.0					22.0	-99.1	7.9
26	323.50		-13.9	225.0	225.0					16.5	-91.1	7.9
27	336.00		-14.4	225.0	225.0					11.0	-84.4	7.9
28	348.50		-14.9	225.0	225.0					5.5	-77.7	7.9
29	361.00		-15.4	225.0	225.0					0.0	-70.0	7.9
30	373.50		-15.9	225.0	225.0						-64.4	7.9
31	386.00		-16.4	225.0	225.0						-57.7	7.9
32	398.50		-16.9	225.0	225.0						-51.1	7.9
33	411.00		-17.4	225.0	225.0						-45.5	7.9
34	423.50		-17.9	225.0	225.0						-39.9	7.9
35	436.00		-18.4	225.0	225.0						-33.3	7.9
36	448.50		-18.9	225.0	225.0						-27.7	7.9
37	461.00		-19.4	225.0	225.0						-22.2	7.9
38	473.50		-19.9	225.0	225.0						-16.6	7.9
39	486.00		-20.4	225.0	225.0						-11.1	7.9
40	498.50		-20.9	225.0	225.0						-5.5	7.9
41	511.00		-21.4	225.0	225.0						0.0	7.9
42	523.50		-21.9	225.0	225.0						5.5	7.9
43	536.00		-22.4	225.0	225.0						11.1	7.9
44	548.50		-22.9	225.0	225.0						16.6	7.9
45	561.00		-23.4	225.0	225.0						22.2	7.9
46	573.50		-23.9	225.0	225.0						27.7	7.9
47	586.00		-24.4	225.0	225.0						33.3	7.9

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 30

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-7.4	-11.5	190	853	-3.9	-13.5	-75.5	-147.1	10.0	10.0	9.9
1	11.00	-17.5	-22.5	190	853	-7.9	-14.6	-74.7	-135.5	10.0	10.0	9.9
2	22.00	-11.0	-20.0	190	853	-7.9	-15.0	-73.0	-112.2	10.0	10.0	9.9
3	33.00	-6.6	-18.0	190	853	-7.9	-16.1	-71.9	-92.2	10.0	10.0	9.9
4	44.00	-7.7	-11.1	190	853	-7.9	-11.1	-70.8	-74.4	10.0	10.0	9.9
5	55.00	-7.7	-11.1	190	853	-7.9	-11.1	-70.2	-73.0	10.0	10.0	9.9
6	66.00	-7.7	-11.1	190	853	-7.9	-11.1	-69.5	-72.2	10.0	10.0	9.9
7	77.00	-7.7	-11.1	190	853	-7.9	-11.1	-68.1	-70.9	10.0	10.0	9.9
8	88.00	-7.7	-11.1	190	853	-7.9	-11.1	-66.5	-70.2	10.0	10.0	9.9
9	99.00	-7.7	-11.1	190	853	-7.9	-11.1	-65.7	-70.2	10.0	10.0	9.9
10	110.00	-7.7	-11.1	190	853	-7.9	-11.1	-64.9	-70.2	10.0	10.0	9.9
11	121.00	-7.7	-11.1	190	853	-7.9	-11.1	-64.0	-70.2	10.0	10.0	9.9
12	132.00	-7.7	-11.1	190	853	-7.9	-11.1	-63.3	-70.2	10.0	10.0	9.9
13	143.00	-7.7	-11.1	190	853	-7.9	-11.1	-62.3	-70.2	10.0	10.0	9.9
14	154.00	-7.7	-11.1	190	853	-7.9	-11.1	-61.4	-70.2	10.0	10.0	9.9
15	165.00	-7.7	-11.1	190	853	-7.9	-11.1	-60.4	-70.2	10.0	10.0	9.9
16	176.00	-7.7	-11.1	190	853	-7.9	-11.1	-59.5	-70.2	10.0	10.0	9.9
17	187.00	-7.7	-11.1	190	853	-7.9	-11.1	-58.5	-70.2	10.0	10.0	9.9
18	198.00	-7.7	-11.1	190	853	-7.9	-11.1	-57.5	-70.2	10.0	10.0	9.9
19	209.00	-7.7	-11.1	190	853	-7.9	-11.1	-56.6	-70.2	10.0	10.0	9.9
20	220.00	-7.7	-11.1	190	853	-7.9	-11.1	-55.6	-70.2	10.0	10.0	9.9
21	231.00	-7.7	-11.1	190	853	-7.9	-11.1	-54.4	-70.2	10.0	10.0	9.9
22	242.00	-7.7	-11.1	190	853	-7.9	-11.1	-53.4	-70.2	10.0	10.0	9.9
23	253.00	-7.7	-11.1	190	853	-7.9	-11.1	-52.2	-70.2	10.0	10.0	9.9
24	264.00	-7.7	-11.1	190	853	-7.9	-11.1	-51.1	-70.2	10.0	10.0	9.9
25	275.00	-7.7	-11.1	190	853	-7.9	-11.1	-49.8	-70.2	10.0	10.0	9.9
26	286.00	-7.7	-11.1	190	853	-7.9	-11.1	-48.4	-70.2	10.0	10.0	9.9
27	297.00	-7.7	-11.1	190	853	-7.9	-11.1	-47.1	-70.2	10.0	10.0	9.9
28	308.00	-7.7	-11.1	190	853	-7.9	-11.1	-45.7	-70.2	10.0	10.0	9.9
29	319.00	-7.7	-11.1	190	853	-7.9	-11.1	-44.1	-70.2	10.0	10.0	9.9
30	330.00	-7.7	-11.1	190	853	-7.9	-11.1	-42.3	-70.2	10.0	10.0	9.9
31	341.00	-7.7	-11.1	190	853	-7.9	-11.1	-40.3	-70.2	10.0	10.0	9.9
32	352.00	-7.7	-11.1	190	853	-7.9	-11.1	-38.1	-70.2	10.0	10.0	9.9
33	363.00	-7.7	-11.1	190	853	-7.9	-11.1	-35.6	-70.2	10.0	10.0	9.9
34	374.00	-7.7	-11.1	190	853	-7.9	-11.1	-32.8	-70.2	10.0	10.0	9.9
35	385.00	-7.7	-11.1	190	853	-7.9	-11.1	-29.8	-70.2	10.0	10.0	9.9
36	396.00	-7.7	-11.1	190	853	-7.9	-11.1	-26.6	-70.2	10.0	10.0	9.9
37	407.00	-7.7	-11.1	190	853	-7.9	-11.1	-23.0	-70.2	10.0	10.0	9.9
38	418.00	-7.7	-11.1	190	853	-7.9	-11.1	-19.1	-70.2	10.0	10.0	9.9
39	429.00	-7.7	-11.1	190	853	-7.9	-11.1	-14.9	-70.2	10.0	10.0	9.9
40	440.00	-7.7	-11.1	190	853	-7.9	-11.1	-10.6	-70.2	10.0	10.0	9.9
41	451.00	-7.7	-11.1	190	853	-7.9	-11.1	-6.4	-70.2	10.0	10.0	9.9
42	462.00	-7.7	-11.1	190	853	-7.9	-11.1	-2.0	-70.2	10.0	10.0	9.9







TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 60

CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH  
REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-11.2	-10.1	1900	853	-5.9	-11.9	-552.5	987.5	-342.6	-181.3	10.2
2	11.00	-28.3	-24.3	4695	1355	-6.0	-15.7	-541.3	997.6	-331.7	-175.2	10.6
3	31.00	-21.3	-20.8	3709	1055	-6.5	-16.3	-513.0	997.6	-311.5	-164.7	11.1
4	46.00	-23.1	-21.9	3352	967	-6.5	-18.9	-491.6	1042.8	-296.0	-157.2	12.2
5	55.00	-23.1	-23.4	2255	666	-6.6	-10.4	-468.6	1064.7	-280.2	-150.0	13.5
6	73.50	-8.0	-23.7	2255	666	-6.6	10.5	-460.4	1041.3	-267.0	-144.2	13.4
8	86.50	-7.8	-23.4	2255	666	-6.6	10.4	-452.2	1017.6	-254.1	-138.8	13.3
9	98.50	-7.7	-23.3	2255	666	-6.6	10.3	-444.4	994.2	-241.6	-132.2	13.2
11	111.50	-7.3	-22.9	2255	666	-6.6	10.2	-437.7	971.1	-229.9	-127.9	13.1
11	123.50	-7.1	-22.6	2255	666	-6.6	10.0	-429.9	948.2	-217.3	-121.9	12.9
11	136.50	-6.9	-22.3	2255	666	-6.6	9.9	-422.2	925.6	-205.6	-116.6	12.8
11	148.50	-6.7	-22.0	2255	666	-6.6	9.8	-415.6	903.3	-194.2	-111.4	12.7
11	161.50	-6.5	-21.7	2255	666	-6.6	9.9	-408.8	881.3	-183.3	-106.6	12.6
11	173.50	-6.6	-21.4	2255	666	-6.6	9.9	-402.2	859.6	-172.2	-101.1	12.5
11	186.50	-6.6	-21.1	2255	666	-6.6	10.0	-395.6	837.7	-161.1	-96.1	11.9
11	198.50	-6.6	-20.8	2255	666	-6.6	10.0	-388.8	815.5	-151.2	-91.2	11.7
11	211.50	-6.6	-20.5	2255	666	-6.6	10.0	-382.2	792.3	-141.1	-86.4	11.4
11	223.50	-6.6	-20.2	2255	666	-6.6	10.0	-375.6	768.8	-131.4	-81.7	11.2
11	236.50	-6.6	-19.9	2255	666	-6.6	11.1	-368.9	744.4	-121.9	-77.2	11.0
22	248.50	-7.1	-19.6	2255	666	-6.6	11.1	-362.2	719.9	-112.2	-72.4	10.9
22	261.50	-7.2	-19.3	2255	666	-6.6	11.1	-355.5	694.2	-103.3	-67.9	10.7
22	273.50	-7.3	-19.0	2255	666	-6.6	11.1	-348.8	668.8	-95.4	-63.3	10.5
22	286.50	-7.7	-18.7	2255	666	-6.6	12.2	-342.1	641.6	-87.2	-59.9	10.4
22	298.50	-8.1	-18.4	2255	666	-6.6	12.2	-335.4	614.1	-79.4	-55.5	10.2
33	311.50	-8.6	-18.1	2255	666	-6.6	13.3	-328.7	585.8	-71.9	-50.9	9.9
33	333.50	-9.0	-17.7	2255	666	-6.6	13.3	-322.0	556.6	-64.7	-46.6	9.9
33	344.50	-9.5	-17.4	2255	666	-6.6	13.3	-315.3	526.6	-58.0	-43.3	9.8
33	356.50	-9.9	-17.1	2255	666	-6.6	14.4	-308.6	495.8	-51.6	-39.9	9.8
33	368.50	-10.4	-16.8	2255	666	-6.6	14.4	-301.9	464.4	-45.6	-35.5	9.8
33	380.50	-10.8	-16.5	2255	666	-6.6	14.4	-295.2	431.1	-40.0	-32.2	9.7
33	392.50	-11.3	-16.2	2255	666	-6.6	14.4	-288.5	398.8	-34.4	-28.8	9.6
33	411.50	-11.8	-15.9	2255	666	-6.6	14.4	-281.8	364.4	-30.0	-25.5	9.6
33	423.50	-12.3	-15.6	2255	666	-6.6	14.4	-275.1	331.1	-25.7	-22.2	9.5
33	436.50	-12.8	-15.3	2255	666	-6.6	14.4	-268.4	299.9	-21.9	-19.9	9.4
33	448.50	-13.3	-15.0	2255	666	-6.6	14.4	-261.7	267.6	-18.2	-17.6	9.3
33	461.50	-13.8	-14.7	2255	666	-6.6	14.4	-255.0	236.8	-15.5	-15.3	9.2
33	473.50	-14.3	-14.4	2255	666	-6.6	14.4	-248.3	206.6	-12.8	-13.0	9.1
33	486.50	-14.8	-14.1	2255	666	-6.6	14.4	-241.6	177.4	-10.1	-10.7	9.0
33	498.50	-15.3	-13.8	2255	666	-6.6	14.4	-234.9	149.0	-7.4	-8.4	8.9
33	511.50	-15.8	-13.5	2255	666	-6.6	14.4	-228.2	129.8	-4.7	-6.1	8.8
33	523.50	-16.3	-13.2	2255	666	-6.6	14.4	-221.5	111.1	-2.0	-3.8	8.7
33	536.50	-16.8	-12.9	2255	666	-6.6	14.4	-214.8	93.3	0.7	-1.5	8.6
33	548.50	-17.3	-12.6	2255	666	-6.6	14.4	-208.1	75.6	3.4	1.1	8.5
33	561.50	-17.8	-12.3	2255	666	-6.6	14.4	-201.4	58.8	6.1	3.8	8.4
33	573.50	-18.3	-12.0	2255	666	-6.6	14.4	-194.7	42.2	8.8	6.5	8.3
33	586.50	-18.8	-11.7	2255	666	-6.6	14.4	-188.0	27.7	11.5	9.2	8.2

TABLE 7. SHEAR AND MOMENT DIAGRAMS  
WIND DIRECTION 70

MOMENT DIAGRAMS  
CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH  
REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-1.33	9.13	1900	853	-7.7	-16.0	-7.7	15.0	-4.4	-27.5	3.9
2	11.00	-1.33	9.13	4695	1550	-7.7	-19.9	-7.7	12.2	-4.4	-26.6	3.9
3	31.00	-1.33	9.13	3709	1275	-7.7	-20.0	-7.7	12.2	-4.4	-25.2	3.9
4	46.00	-1.33	9.13	2521	1163	-7.7	-24.5	-7.7	12.2	-4.4	-24.1	3.9
5	61.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	13.3	-7.7	-23.1	3.3
6	73.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-22.3	3.3
7	86.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-21.5	3.3
8	98.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-20.7	3.3
9	111.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-19.9	3.3
10	123.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-19.1	3.3
11	136.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-18.3	3.3
12	148.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-17.5	3.3
13	161.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-16.7	3.3
14	173.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-15.9	3.3
15	186.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-15.1	3.3
16	198.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-14.3	3.3
17	211.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-13.5	3.3
18	223.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-12.7	3.3
19	236.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-11.9	3.3
20	248.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-11.1	3.3
21	261.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-10.3	3.3
22	273.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-9.5	3.3
23	286.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-8.7	3.3
24	298.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-7.9	3.3
25	311.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-7.1	3.3
26	323.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-6.3	3.3
27	336.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-5.5	3.3
28	348.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-4.7	3.3
29	361.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-3.9	3.3
30	373.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-3.1	3.3
31	386.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-2.3	3.3
32	398.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-1.5	3.3
33	411.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	-0.7	3.3
34	423.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	0.1	3.3
35	436.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	0.9	3.3
36	448.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	1.7	3.3
37	461.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	2.5	3.3
38	473.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	3.3	3.3
39	486.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	4.1	3.3
40	498.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	4.9	3.3
41	511.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	5.7	3.3
42	523.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	6.5	3.3
43	536.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	7.3	3.3
44	548.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	8.1	3.3
45	561.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	8.9	3.3
46	573.50	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	9.7	3.3
47	586.00	-1.00	9.99	2250	2250	-4.4	11.1	-4.4	12.2	-7.7	10.5	3.3

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 80

CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH  
REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-14.0	-15.2	1900	853	-7.4	-17.8	-717.0	1142.0	-413.4	-233.4	9.4
2	11.00	-14.0	-15.2	4695	1555	-7.4	-21.0	-703.0	1157.2	-400.0	-233.1	10.0
3	31.00	-14.0	-15.2	3709	1255	-7.4	-21.2	-665.7	1189.8	-377.3	-217.7	11.1
4	46.00	-14.0	-15.2	3521	1166	-7.4	-24.5	-635.6	1216.8	-359.9	-208.8	13.0
5	61.00	-14.0	-15.2	2250	2250	-7.4	-10.4	-604.4	1245.3	-340.0	-198.8	14.8
6	73.50	-14.0	-15.2	2250	2250	-7.4	-10.6	-591.1	1222.0	-325.5	-191.1	14.4
7	86.00	-14.0	-15.2	2250	2250	-7.4	-10.8	-578.4	1198.0	-310.0	-184.1	14.4
8	98.50	-14.0	-15.2	2250	2250	-7.4	-10.9	-566.6	1173.8	-295.5	-177.7	14.4
9	111.00	-14.0	-15.2	2250	2250	-7.4	-11.0	-554.4	1149.3	-280.0	-171.1	14.4
10	123.50	-14.0	-15.2	2250	2250	-7.4	-11.1	-543.3	1124.5	-266.6	-165.0	14.4
11	136.00	-14.0	-15.2	2250	2250	-7.4	-11.3	-532.2	1099.4	-252.2	-158.4	14.4
12	148.50	-14.0	-15.2	2250	2250	-7.4	-11.4	-522.2	1074.4	-238.9	-152.2	14.4
13	161.00	-14.0	-15.2	2250	2250	-7.4	-11.5	-512.2	1048.4	-225.5	-146.4	14.4
14	173.50	-14.0	-15.2	2250	2250	-7.4	-11.7	-502.2	1022.4	-212.3	-140.0	14.4
15	186.00	-14.0	-15.2	2250	2250	-7.4	-11.8	-492.2	996.6	-200.0	-133.3	14.4
16	198.50	-14.0	-15.2	2250	2250	-7.4	-11.9	-482.2	970.9	-188.8	-126.6	14.4
17	211.00	-14.0	-15.2	2250	2250	-7.4	-12.0	-472.2	945.2	-177.7	-120.0	14.4
18	223.50	-14.0	-15.2	2250	2250	-7.4	-12.1	-463.3	919.4	-166.6	-113.3	14.4
19	236.00	-14.0	-15.2	2250	2250	-7.4	-12.2	-453.3	893.7	-155.5	-106.6	14.4
20	248.50	-14.0	-15.2	2250	2250	-7.4	-12.3	-443.3	867.9	-144.4	-100.0	14.4
21	261.00	-14.0	-15.2	2250	2250	-7.4	-12.4	-433.3	842.2	-133.3	-93.3	14.4
22	273.50	-14.0	-15.2	2250	2250	-7.4	-12.5	-423.3	816.4	-122.2	-86.6	14.4
23	286.00	-14.0	-15.2	2250	2250	-7.4	-12.6	-413.3	790.6	-111.1	-80.0	14.4
24	298.50	-14.0	-15.2	2250	2250	-7.4	-12.7	-403.3	764.8	-100.0	-73.3	14.4
25	311.00	-14.0	-15.2	2250	2250	-7.4	-12.8	-393.3	739.0	-88.8	-66.6	14.4
26	323.50	-14.0	-15.2	2250	2250	-7.4	-12.9	-383.3	713.2	-77.7	-60.0	14.4
27	336.00	-14.0	-15.2	2250	2250	-7.4	-13.0	-373.3	687.4	-66.6	-53.3	14.4
28	348.50	-14.0	-15.2	2250	2250	-7.4	-13.1	-363.3	661.6	-55.5	-46.6	14.4
29	361.00	-14.0	-15.2	2250	2250	-7.4	-13.2	-353.3	635.8	-44.4	-40.0	14.4
30	373.50	-14.0	-15.2	2250	2250	-7.4	-13.3	-343.3	610.0	-33.3	-33.3	14.4
31	386.00	-14.0	-15.2	2250	2250	-7.4	-13.4	-333.3	584.2	-22.2	-26.6	14.4
32	398.50	-14.0	-15.2	2250	2250	-7.4	-13.5	-323.3	558.4	-11.1	-20.0	14.4
33	411.00	-14.0	-15.2	2250	2250	-7.4	-13.6	-313.3	532.6	0.0	-13.3	14.4
34	423.50	-14.0	-15.2	2250	2250	-7.4	-13.7	-303.3	506.8	0.0	-6.6	14.4
35	436.00	-14.0	-15.2	2250	2250	-7.4	-13.8	-293.3	481.0	0.0	0.0	14.4
36	448.50	-14.0	-15.2	2250	2250	-7.4	-13.9	-283.3	455.2	0.0	0.0	14.4
37	461.00	-14.0	-15.2	2250	2250	-7.4	-14.0	-273.3	429.4	0.0	0.0	14.4
38	473.50	-14.0	-15.2	2250	2250	-7.4	-14.1	-263.3	403.6	0.0	0.0	14.4
39	486.00	-14.0	-15.2	2250	2250	-7.4	-14.2	-253.3	377.8	0.0	0.0	14.4
40	498.50	-14.0	-15.2	2250	2250	-7.4	-14.3	-243.3	352.0	0.0	0.0	14.4
41	511.00	-14.0	-15.2	2250	2250	-7.4	-14.4	-233.3	326.2	0.0	0.0	14.4
42	523.50	-14.0	-15.2	2250	2250	-7.4	-14.5	-223.3	300.4	0.0	0.0	14.4
43	536.00	-14.0	-15.2	1188	1188	-7.4	-14.6	-213.3	274.6	0.0	0.0	14.4
44	548.50	-14.0	-15.2	1188	1188	-7.4	-14.7	-203.3	248.8	0.0	0.0	14.4
45	561.00	-14.0	-15.2	1188	1188	-7.4	-14.8	-193.3	223.0	0.0	0.0	14.4
46	573.50	-14.0	-15.2	1188	1188	-7.4	-14.9	-183.3	197.2	0.0	0.0	14.4
47	586.00	-14.0	-15.2	1188	1188	-7.4	-15.0	-173.3	171.4	0.0	0.0	14.4



TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 100

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-10.1	-1.12	1900	853	-5.3	-14.2	-706.6	1264.2	-4.5	-1.88	14.6
	11.00	-31.4	-2.22	476.95	1550	-8.7	-16.9	-696.6	1276.6	-11.1	-4.45	14.3
	31.00	-29.9	-2.1	370.95	1275	-8.1	-16.7	-665.5	1302.5	-14.4	-4.45	15.5
	46.00	-39.4	-1.1	521	1163	-11.2	-21.4	-575.5	1322.6	-15.6	-4.45	16.6
	61.00	-22.5	-2.2	250	2250	-9.9	-19.7	-595.5	1303.3	-14.4	-4.45	15.5
	73.50	-21.7	-2.2	250	2250	-9.9	-19.7	-573.3	1303.3	-14.4	-4.45	15.5
	86.00	-21.0	-2.2	250	2250	-9.9	-19.7	-551.1	1277.9	-14.4	-4.45	15.5
	98.50	-20.2	-2.2	250	2250	-9.9	-19.7	-530.0	1255.5	-14.4	-4.45	15.5
	111.00	-19.0	-2.2	250	2250	-8.6	-18.8	-510.0	1233.1	-14.4	-4.45	15.5
1	132.50	-18.6	-2.2	250	2250	-7.7	-17.7	-491.1	1206.6	-14.4	-4.45	15.5
11	148.00	-17.7	-2.2	250	2250	-6.6	-16.6	-472.2	1181.1	-14.4	-4.45	15.5
11	161.00	-17.0	-2.2	250	2250	-6.6	-16.6	-454.4	1155.5	-14.4	-4.45	15.5
11	174.00	-16.6	-2.2	250	2250	-6.6	-16.6	-437.7	1130.0	-14.4	-4.45	15.5
14	186.00	-15.5	-2.2	250	2250	-5.5	-15.5	-421.1	1104.4	-14.4	-4.45	15.5
15	198.00	-14.4	-2.2	250	2250	-4.4	-14.4	-406.6	1077.7	-14.4	-4.45	15.5
16	211.00	-13.3	-2.2	250	2250	-3.3	-13.3	-391.1	1051.1	-14.4	-4.45	15.5
17	223.50	-12.2	-2.2	250	2250	-2.2	-12.2	-375.5	1024.4	-14.4	-4.45	15.5
18	236.00	-11.1	-2.2	250	2250	-1.1	-11.1	-360.0	997.7	-14.4	-4.45	15.5
19	248.50	-10.0	-2.2	250	2250	-0.0	-10.0	-344.4	971.1	-14.4	-4.45	15.5
20	261.00	-9.9	-2.2	250	2250	-0.0	-9.9	-330.0	944.4	-14.4	-4.45	15.5
21	273.50	-8.8	-2.2	250	2250	-0.0	-8.8	-316.6	917.7	-14.4	-4.45	15.5
22	286.00	-7.7	-2.2	250	2250	-0.0	-7.7	-303.3	891.1	-14.4	-4.45	15.5
23	298.50	-6.6	-2.2	250	2250	-0.0	-6.6	-288.8	864.4	-14.4	-4.45	15.5
24	311.00	-5.5	-2.2	250	2250	-0.0	-5.5	-275.5	837.7	-14.4	-4.45	15.5
25	323.50	-4.4	-2.2	250	2250	-0.0	-4.4	-262.2	811.1	-14.4	-4.45	15.5
26	336.00	-3.3	-2.2	250	2250	-0.0	-3.3	-248.8	784.4	-14.4	-4.45	15.5
27	348.50	-2.2	-2.2	250	2250	-0.0	-2.2	-235.5	757.7	-14.4	-4.45	15.5
28	361.00	-1.1	-2.2	250	2250	-0.0	-1.1	-222.2	731.1	-14.4	-4.45	15.5
29	373.50	-0.0	-2.2	250	2250	-0.0	-0.0	-208.8	704.4	-14.4	-4.45	15.5
30	386.00	-0.0	-2.2	250	2250	-0.0	-0.0	-195.5	677.7	-14.4	-4.45	15.5
31	398.50	-0.0	-2.2	250	2250	-0.0	-0.0	-182.2	651.1	-14.4	-4.45	15.5
32	411.00	-0.0	-2.2	250	2250	-0.0	-0.0	-168.8	624.4	-14.4	-4.45	15.5
33	423.50	-0.0	-2.2	250	2250	-0.0	-0.0	-155.5	597.7	-14.4	-4.45	15.5
34	436.00	-0.0	-2.2	250	2250	-0.0	-0.0	-142.2	571.1	-14.4	-4.45	15.5
35	448.50	-0.0	-2.2	250	2250	-0.0	-0.0	-128.8	544.4	-14.4	-4.45	15.5
36	461.00	-0.0	-2.2	250	2250	-0.0	-0.0	-115.5	517.7	-14.4	-4.45	15.5
37	473.50	-0.0	-2.2	250	2250	-0.0	-0.0	-102.2	491.1	-14.4	-4.45	15.5
38	486.00	-0.0	-2.2	250	2250	-0.0	-0.0	-88.8	464.4	-14.4	-4.45	15.5
39	498.50	-0.0	-2.2	250	2250	-0.0	-0.0	-75.5	437.7	-14.4	-4.45	15.5
40	511.00	-0.0	-2.2	250	2250	-0.0	-0.0	-62.2	411.1	-14.4	-4.45	15.5
41	523.50	-0.0	-2.2	250	2250	-0.0	-0.0	-48.8	384.4	-14.4	-4.45	15.5
42	536.00	-0.0	-2.2	250	2250	-0.0	-0.0	-35.5	357.7	-14.4	-4.45	15.5
43	548.50	-0.0	-2.2	250	2250	-0.0	-0.0	-22.2	331.1	-14.4	-4.45	15.5
44	561.00	-0.0	-2.2	250	2250	-0.0	-0.0	-9.9	304.4	-14.4	-4.45	15.5
45	573.50	-0.0	-2.2	250	2250	-0.0	-0.0	0.0	277.7	-14.4	-4.45	15.5
46	586.00	-0.0	-2.2	250	2250	-0.0	-0.0	0.0	251.1	-14.4	-4.45	15.5
47	598.50	-0.0	-2.2	250	2250	-0.0	-0.0	0.0	224.4	-14.4	-4.45	15.5
48	611.00	-0.0	-2.2	250	2250	-0.0	-0.0	0.0	197.7	-14.4	-4.45	15.5
49	623.50	-0.0	-2.2	250	2250	-0.0	-0.0	0.0	171.1	-14.4	-4.45	15.5
50	636.00	-0.0	-2.2	250	2250	-0.0	-0.0	0.0	144.4	-14.4	-4.45	15.5
51	648.50	-0.0	-2.2	250	2250	-0.0	-0.0	0.0	117.7	-14.4	-4.45	15.5
52	661.00	-0.0	-2.2	250	2250	-0.0	-0.0	0.0	91.1	-14.4	-4.45	15.5
53	673.50	-0.0	-2.2	250	2250	-0.0	-0.0	0.0	64.4	-14.4	-4.45	15.5
54	686.00	-0.0	-2.2	250	2250	-0.0	-0.0	0.0	37.7	-14.4	-4.45	15.5
55	698.50	-0.0	-2.2	250	2250	-0.0	-0.0	0.0	11.1	-14.4	-4.45	15.5
56	711.00	-0.0	-2.2	250	2250	-0.0	-0.0	0.0	-14.4	-14.4	-4.45	15.5

TABLE 7. SHEAR AND MOMENT DIAGRAMS  
WIND DIRECTION 110

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-11.1	-10.6	1900	853	-5.8	-12.4	-783.7	1184.1	-448.3	-219.8	9.2
2	11.00	-24.3	-22.7	4695	1550	-5.2	-14.7	-772.2	1194.6	-435.2	-211.2	9.8
3	31.00	-16.6	-18.5	3709	1275	-4.5	-14.5	-748.8	1231.7	-411.1	-196.0	10.9
4	46.00	-26.1	-21.3	3521	1163	-7.4	-18.3	-731.7	1233.9	-392.7	-184.9	12.5
5	61.00	-17.3	-18.8	2250	2250	-7.7	-18.3	-705.5	1237.2	-374.0	-174.1	14.2
6	73.50	-17.7	-19.2	2250	2250	-7.8	-18.3	-688.8	1235.8	-358.4	-165.4	14.4
7	86.00	-17.7	-19.4	2250	2250	-7.8	-18.3	-670.0	1231.9	-343.1	-156.9	14.6
8	98.50	-17.7	-19.4	2250	2250	-7.8	-18.3	-653.3	1227.9	-327.9	-148.7	14.6
9	111.00	-17.7	-19.7	2250	2250	-7.9	-18.3	-635.5	1221.1	-313.1	-140.6	14.7
10	123.50	-17.7	-19.9	2250	2250	-7.9	-18.3	-617.7	1213.4	-298.4	-132.8	14.7
11	136.00	-17.8	-20.1	2250	2250	-7.9	-18.3	-600.0	1204.8	-284.1	-125.1	14.6
12	148.50	-17.8	-20.3	2250	2250	-7.9	-18.3	-582.2	1196.9	-269.9	-117.8	14.5
13	161.00	-17.9	-20.4	2250	2250	-7.9	-18.3	-564.4	1189.0	-256.0	-110.6	14.4
14	173.50	-17.7	-20.9	2250	2250	-7.9	-18.3	-546.6	1181.1	-242.4	-103.6	14.2
15	186.00	-17.5	-21.6	2250	2250	-7.7	-18.3	-528.8	1173.2	-229.2	-96.9	13.9
16	198.50	-17.2	-22.3	2250	2250	-7.6	-18.3	-511.1	1165.3	-216.5	-90.4	13.7
17	211.00	-16.9	-23.3	2250	2250	-7.5	-18.3	-493.4	1157.4	-204.3	-84.1	13.4
18	223.50	-16.6	-23.8	2250	2250	-7.4	-18.3	-475.7	1149.5	-192.6	-78.0	13.1
19	236.00	-16.3	-24.4	2250	2250	-7.2	-18.3	-458.0	1141.6	-181.3	-72.2	12.7
20	248.50	-16.0	-25.3	2250	2250	-7.1	-18.3	-440.3	1133.7	-170.3	-66.6	12.4
21	261.00	-15.7	-25.6	2250	2250	-7.0	-18.3	-422.6	1125.8	-159.6	-61.1	12.0
22	273.50	-15.5	-25.8	2250	2250	-6.8	-18.3	-404.9	1117.9	-149.2	-55.8	11.5
23	286.00	-15.2	-25.7	2250	2250	-6.7	-18.3	-387.2	1110.0	-139.2	-50.7	11.1
24	298.50	-14.9	-25.8	2250	2250	-6.5	-18.3	-369.5	1102.1	-129.7	-45.9	10.7
25	311.00	-14.7	-25.8	2250	2250	-6.4	-18.3	-351.8	1094.2	-120.5	-41.2	10.2
26	323.50	-14.4	-25.9	2250	2250	-6.2	-18.3	-334.1	1086.3	-111.5	-36.8	9.8
27	336.00	-14.1	-26.0	2250	2250	-6.0	-18.3	-316.4	1078.4	-102.8	-32.5	9.5
28	348.50	-13.8	-26.1	2250	2250	-5.8	-18.3	-298.7	1070.5	-94.4	-28.6	9.1
29	361.00	-13.5	-26.2	2250	2250	-5.6	-18.3	-281.0	1062.6	-86.2	-24.9	8.8
30	373.50	-13.2	-26.3	2250	2250	-5.4	-18.3	-263.3	1054.7	-78.3	-21.4	8.4
31	386.00	-12.9	-26.4	2250	2250	-5.2	-18.3	-245.6	1046.8	-70.6	-18.2	8.1
32	398.50	-12.6	-26.5	2250	2250	-5.0	-18.3	-227.9	1038.9	-63.1	-15.3	7.7
33	411.00	-12.3	-26.6	2250	2250	-4.8	-18.3	-210.2	1031.0	-55.7	-12.7	7.4
34	423.50	-12.0	-26.7	2250	2250	-4.6	-18.3	-192.5	1023.1	-48.4	-10.4	7.2
35	436.00	-11.7	-26.8	2250	2250	-4.4	-18.3	-174.8	1015.2	-41.2	-8.4	7.0
36	448.50	-11.4	-26.9	2250	2250	-4.2	-18.3	-157.1	1007.3	-34.1	-6.7	6.8
37	461.00	-11.1	-27.0	2250	2250	-4.0	-18.3	-139.4	1000.0	-27.1	-5.2	6.6
38	473.50	-10.8	-27.1	2250	2250	-3.8	-18.3	-121.7	992.7	-20.2	-4.1	6.4
39	486.00	-10.5	-27.2	2094	2094	-3.6	-18.3	-104.0	985.4	-13.4	-3.2	6.2
40	498.50	-10.2	-27.3	2094	2094	-3.4	-18.3	-86.3	978.1	-6.7	-2.5	6.0
41	511.00	-9.9	-27.4	2094	2094	-3.2	-18.3	-68.6	970.8	-0.1	-1.9	5.8
42	523.50	-9.6	-27.5	2094	2094	-3.0	-18.3	-50.9	963.5	0.0	-1.4	5.6
43	536.00	-9.3	-27.6	1188	1188	-2.8	-18.3	-33.2	956.2	0.0	-1.0	5.4
44	548.50	-9.0	-27.7	1188	1188	-2.6	-18.3	-15.5	948.9	0.0	-0.7	5.2
45	561.00	-8.7	-27.8	1188	1188	-2.4	-18.3	2.2	941.6	0.0	-0.5	5.0
46	573.50	-8.4	-27.9	1188	1188	-2.2	-18.3	19.9	934.3	0.0	-0.3	4.8
47	586.00	-8.1	-28.0	1188	1188	-2.0	-18.3	27.6	927.0	0.0	-0.1	4.6



TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 120

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-9.6	-7.8	190.0	85.3	-5.0	-9.2	-45.6	12.2	-4.4	-11.7	6.6
2	11.00	-11.7	-7.5	46.9	155.0	-3.4	-11.3	-45.0	12.7	-4.4	-11.7	6.6
3	31.00	-11.7	-7.5	70.9	127.5	-1.9	-11.3	-43.4	12.9	-4.4	-11.7	6.6
4	46.00	-13.3	-7.1	52.1	116.3	-3.8	-13.3	-42.7	13.0	-4.4	-10.2	6.6
5	61.00	-8.4	-7.0	55.0	225.0	-3.3	-9.9	-40.0	13.3	-4.4	-9.6	6.6
6	73.50	-8.4	-7.0	55.0	225.0	-3.3	-9.9	-39.9	13.3	-4.4	-9.1	6.6
7	86.00	-8.8	-7.7	55.0	225.0	-3.3	-9.9	-37.7	13.3	-4.4	-8.6	6.6
8	98.50	-8.8	-7.7	55.0	225.0	-3.3	-9.9	-37.7	13.3	-4.4	-8.1	6.6
9	111.00	-9.9	-7.5	55.0	225.0	-4.4	-10.0	-37.7	12.1	-4.4	-7.6	6.6
10	123.50	-9.9	-7.5	55.0	225.0	-4.4	-10.0	-37.7	12.1	-4.4	-7.1	6.6
11	136.00	-9.9	-7.5	55.0	225.0	-4.4	-10.0	-37.7	12.1	-4.4	-6.6	6.6
12	148.50	-9.9	-7.5	55.0	225.0	-4.4	-10.0	-37.7	12.1	-4.4	-6.1	6.6
13	161.00	-10.0	-7.5	55.0	225.0	-4.4	-10.0	-37.7	12.1	-4.4	-5.6	6.6
14	173.50	-10.0	-7.5	55.0	225.0	-4.4	-10.0	-37.7	12.1	-4.4	-5.1	6.6
15	186.00	-11.1	-7.5	55.0	225.0	-4.4	-10.0	-37.7	12.1	-4.4	-4.6	6.6
16	198.50	-11.1	-7.5	55.0	225.0	-4.4	-10.0	-37.7	12.1	-4.4	-4.1	6.6
17	211.00	-11.1	-7.5	55.0	225.0	-4.4	-10.0	-37.7	12.1	-4.4	-3.6	6.6
18	223.50	-11.1	-7.5	55.0	225.0	-4.4	-10.0	-37.7	12.1	-4.4	-3.1	6.6
19	236.00	-11.1	-7.5	55.0	225.0	-4.4	-10.0	-37.7	12.1	-4.4	-2.6	6.6
20	248.50	-12.2	-6.6	55.0	225.0	-5.5	-11.1	-37.7	11.1	-4.4	-2.1	6.6
21	261.00	-12.2	-6.6	55.0	225.0	-5.5	-11.1	-37.7	11.1	-4.4	-1.6	6.6
22	273.50	-13.3	-6.6	55.0	225.0	-6.6	-12.2	-37.7	11.1	-4.4	-1.1	6.6
23	286.00	-13.3	-6.6	55.0	225.0	-6.6	-12.2	-37.7	11.1	-4.4	-0.6	6.6
24	298.50	-13.3	-6.6	55.0	225.0	-6.6	-12.2	-37.7	11.1	-4.4	-0.1	6.6
25	311.00	-14.4	-6.6	55.0	225.0	-7.7	-13.3	-37.7	11.1	-4.4	0.4	6.6
26	323.50	-14.4	-6.6	55.0	225.0	-7.7	-13.3	-37.7	11.1	-4.4	0.9	6.6
27	336.00	-14.4	-6.6	55.0	225.0	-7.7	-13.3	-37.7	11.1	-4.4	1.4	6.6
28	348.50	-14.4	-6.6	55.0	225.0	-7.7	-13.3	-37.7	11.1	-4.4	1.9	6.6
29	361.00	-15.5	-6.6	55.0	225.0	-8.8	-14.4	-37.7	11.1	-4.4	2.4	6.6
30	373.50	-16.6	-6.6	55.0	225.0	-9.9	-15.5	-37.7	11.1	-4.4	2.9	6.6
31	386.00	-17.7	-6.6	55.0	225.0	-11.1	-16.6	-37.7	11.1	-4.4	3.4	6.6
32	398.50	-18.8	-6.6	55.0	225.0	-12.2	-17.7	-37.7	11.1	-4.4	3.9	6.6
33	411.00	-19.9	-6.6	55.0	225.0	-13.3	-18.8	-37.7	11.1	-4.4	4.4	6.6
34	423.50	-20.0	-6.6	55.0	225.0	-14.4	-19.9	-37.7	11.1	-4.4	4.9	6.6
35	436.00	-21.1	-6.6	55.0	225.0	-15.5	-21.1	-37.7	11.1	-4.4	5.4	6.6
36	448.50	-22.2	-6.6	55.0	225.0	-16.6	-22.2	-37.7	11.1	-4.4	5.9	6.6
37	461.00	-23.3	-6.6	55.0	225.0	-17.7	-23.3	-37.7	11.1	-4.4	6.4	6.6
38	473.50	-24.4	-6.6	55.0	225.0	-18.8	-24.4	-37.7	11.1	-4.4	6.9	6.6
39	486.00	-25.5	-6.6	55.0	225.0	-19.9	-25.5	-37.7	11.1	-4.4	7.4	6.6
40	498.50	-26.6	-6.6	55.0	225.0	-21.1	-26.6	-37.7	11.1	-4.4	7.9	6.6
41	511.00	-27.7	-6.6	55.0	225.0	-22.2	-27.7	-37.7	11.1	-4.4	8.4	6.6
42	523.50	-28.8	-6.6	55.0	225.0	-23.3	-28.8	-37.7	11.1	-4.4	8.9	6.6
43	536.00	-29.9	-6.6	55.0	225.0	-24.4	-29.9	-37.7	11.1	-4.4	9.4	6.6
44	548.50	-31.0	-6.6	55.0	225.0	-25.5	-31.0	-37.7	11.1	-4.4	9.9	6.6
45	561.00	-32.1	-6.6	55.0	225.0	-26.6	-32.1	-37.7	11.1	-4.4	10.4	6.6
46	573.50	-33.2	-6.6	55.0	225.0	-27.7	-33.2	-37.7	11.1	-4.4	10.9	6.6
47	586.00	-34.3	-6.6	55.0	225.0	-28.8	-34.3	-37.7	11.1	-4.4	11.4	6.6

TABLE 7. SHEAR AND MOMENT DIAGRAMS  
WIND DIRECTION 130

OXFORD CENTRE,  
CONFIGURATION A

PITTSBURGH  
REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-4.4	-1.6	1900	853	-2.3	-4.3	316.2	144.7	-1.5	120.5	4.4
	11.00			4693	1550			320.0	145.1	-1.5	117.0	4.4
	31.00	7.4	1.9	3709	1275	2.0	-7.0	320.0	146.0	-1.4	110.0	4.4
	46.00	4.4	1.1	3521	1163	1.3	-8.0	312.0	146.9	-1.4	105.8	4.4
	61.00	3.4	0.8	3350	1050	0.8	-11.0	308.1	147.8	-1.4	101.2	4.4
	73.50	3.4	0.8	3250	950	0.8	-12.0	304.0	145.2	-1.4	97.7	4.4
	86.00	3.4	0.8	3150	850	0.8	-12.0	301.0	142.5	-1.4	93.3	4.4
	98.50	3.4	0.8	3050	750	0.8	-12.0	297.0	139.7	-1.4	89.0	4.4
	111.00	3.4	0.8	2950	650	0.8	-12.0	294.0	134.1	-1.4	86.6	4.4
10	123.50	3.4	0.8	2850	550	0.8	-12.0	290.0	131.1	-1.4	82.2	4.4
11	136.00	3.4	0.8	2750	450	0.8	-12.0	286.0	128.1	-1.4	77.7	4.4
12	148.50	3.4	0.8	2650	350	0.8	-12.0	283.0	125.1	-1.4	73.3	4.4
13	161.00	4.4	1.1	2550	250	1.1	-13.0	279.0	122.0	-1.4	68.9	4.4
14	173.50	4.4	1.1	2450	150	1.1	-13.0	275.0	118.9	-1.4	64.4	4.4
15	186.00	4.4	1.1	2350	50	1.1	-13.0	271.0	115.8	-1.4	60.0	4.4
16	198.50	4.4	1.1	2250	0	1.1	-13.0	266.0	112.7	-1.4	55.5	4.4
17	211.00	4.4	1.1	2150	0	1.1	-13.0	262.0	109.6	-1.4	51.0	4.4
18	223.50	4.4	1.1	2050	0	1.1	-13.0	257.0	106.5	-1.4	46.6	4.4
19	236.00	4.4	1.1	1950	0	1.1	-13.0	252.0	103.4	-1.4	42.2	4.4
20	248.50	4.4	1.1	1850	0	1.1	-13.0	247.0	100.3	-1.4	37.7	4.4
21	261.00	4.4	1.1	1750	0	1.1	-13.0	242.0	97.2	-1.4	33.3	4.4
22	273.50	4.4	1.1	1650	0	1.1	-13.0	237.0	94.1	-1.4	28.9	4.4
23	286.00	4.4	1.1	1550	0	1.1	-13.0	232.0	91.0	-1.4	24.4	4.4
24	298.50	4.4	1.1	1450	0	1.1	-13.0	227.0	87.9	-1.4	20.0	4.4
25	311.00	4.4	1.1	1350	0	1.1	-13.0	222.0	84.8	-1.4	15.5	4.4
26	323.50	4.4	1.1	1250	0	1.1	-13.0	217.0	81.7	-1.4	11.1	4.4
27	336.00	4.4	1.1	1150	0	1.1	-13.0	212.0	78.6	-1.4	6.6	4.4
28	348.50	4.4	1.1	1050	0	1.1	-13.0	207.0	75.5	-1.4	2.2	4.4
29	361.00	4.4	1.1	950	0	1.1	-13.0	202.0	72.4	-1.4	0.0	4.4
30	373.50	4.4	1.1	850	0	1.1	-13.0	197.0	69.3	-1.4	0.0	4.4
31	386.00	4.4	1.1	750	0	1.1	-13.0	192.0	66.2	-1.4	0.0	4.4
32	398.50	4.4	1.1	650	0	1.1	-13.0	187.0	63.1	-1.4	0.0	4.4
33	411.00	4.4	1.1	550	0	1.1	-13.0	182.0	60.0	-1.4	0.0	4.4
34	423.50	4.4	1.1	450	0	1.1	-13.0	177.0	56.9	-1.4	0.0	4.4
35	436.00	4.4	1.1	350	0	1.1	-13.0	172.0	53.8	-1.4	0.0	4.4
36	448.50	4.4	1.1	250	0	1.1	-13.0	167.0	50.7	-1.4	0.0	4.4
37	461.00	4.4	1.1	150	0	1.1	-13.0	162.0	47.6	-1.4	0.0	4.4
38	473.50	4.4	1.1	50	0	1.1	-13.0	157.0	44.5	-1.4	0.0	4.4
39	486.00	4.4	1.1	0	0	1.1	-13.0	152.0	41.4	-1.4	0.0	4.4
40	498.50	4.4	1.1	0	0	1.1	-13.0	147.0	38.3	-1.4	0.0	4.4
41	511.00	4.4	1.1	0	0	1.1	-13.0	142.0	35.2	-1.4	0.0	4.4
42	523.50	4.4	1.1	0	0	1.1	-13.0	137.0	32.1	-1.4	0.0	4.4
43	536.00	4.4	1.1	0	0	1.1	-13.0	132.0	29.0	-1.4	0.0	4.4
44	548.50	4.4	1.1	0	0	1.1	-13.0	127.0	25.9	-1.4	0.0	4.4
45	561.00	4.4	1.1	0	0	1.1	-13.0	122.0	22.8	-1.4	0.0	4.4
46	573.50	4.4	1.1	0	0	1.1	-13.0	117.0	19.7	-1.4	0.0	4.4
47	586.00	4.4	1.1	0	0	1.1	-13.0	112.0	16.6	-1.4	0.0	4.4

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 140

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	9.3	1.5	1900	853	4.9	1.5	1177.6	1591.7	-537.3	376.4	4.4
2	11.00	322.0	1.1	4695	1550	6.8	1.1	1168.8	1592.2	-519.9	363.5	4.4
3	31.00	226.4	1.0	3709	1275	7.1	1.0	1136.6	1594.3	-487.9	340.4	4.4
4	46.00	233.3	1.2	3521	1163	6.6	1.2	1109.7	1598.6	-464.0	323.6	4.4
5	61.00	163.3	1.2	2250	2250	7.4	1.4	1086.4	1601.1	-440.0	307.1	4.4
6	76.00	177.7	1.2	2250	2250	7.7	1.4	1069.7	1567.8	-420.2	293.6	4.4
7	91.00	177.7	1.2	2250	2250	7.9	1.4	1052.5	1534.6	-400.8	280.4	4.4
8	106.00	181.1	1.1	2250	2250	8.1	1.4	1034.8	1501.3	-381.8	267.3	4.4
9	121.00	181.1	1.1	2250	2250	8.3	1.4	1016.6	1468.1	-363.3	254.5	4.4
10	136.00	191.9	1.1	2250	2250	8.6	1.4	998.0	1434.8	-345.1	241.1	4.4
11	151.00	191.9	1.1	2250	2250	8.8	1.4	979.9	1401.1	-327.4	229.9	4.4
12	166.00	200.0	1.1	2250	2250	9.1	1.4	959.9	1366.8	-310.1	217.1	4.4
13	181.00	200.0	1.1	2250	2250	9.3	1.4	939.9	1334.4	-293.3	205.5	4.4
14	196.00	200.0	1.1	2250	2250	9.5	1.4	919.9	1301.1	-276.7	193.3	4.4
15	211.00	186.0	1.1	2250	2250	9.8	1.4	898.8	1268.8	-260.6	182.2	4.4
16	226.00	198.5	1.1	2250	2250	10.1	1.4	876.7	1234.4	-245.0	171.1	4.4
17	241.00	211.1	1.1	2250	2250	10.4	1.4	854.4	1201.1	-229.8	160.0	4.4
18	256.00	226.4	1.1	2250	2250	10.7	1.4	832.2	1167.7	-215.0	150.0	4.4
19	271.00	244.4	1.1	2250	2250	11.0	1.4	809.9	1133.3	-200.6	139.9	4.4
20	286.00	261.1	1.1	2250	2250	11.3	1.4	785.6	1099.9	-186.6	129.9	4.4
21	301.00	286.6	1.1	2250	2250	11.6	1.4	761.1	1066.4	-173.1	120.0	4.4
22	316.00	323.3	1.1	2250	2250	11.9	1.4	736.6	1033.0	-160.0	110.9	4.4
23	331.00	366.6	1.1	2250	2250	12.2	1.4	711.1	999.5	-147.4	101.1	4.4
24	346.00	409.9	1.1	2250	2250	12.5	1.4	685.5	966.0	-135.4	93.3	4.4
25	361.00	448.8	1.1	2250	2250	12.8	1.4	660.0	923.3	-123.4	84.4	4.4
26	376.00	486.6	1.1	2250	2250	13.1	1.4	633.1	886.6	-112.1	76.6	4.4
27	391.00	523.3	1.1	2250	2250	13.4	1.4	603.3	848.8	-101.2	68.8	4.4
28	406.00	559.9	1.1	2250	2250	13.7	1.4	575.5	808.8	-90.9	61.1	4.4
29	421.00	598.8	1.1	2250	2250	14.0	1.4	545.8	768.8	-81.0	54.4	4.4
30	436.00	636.6	1.1	2250	2250	14.3	1.4	515.7	727.7	-71.7	47.7	4.4
31	451.00	673.3	1.1	2250	2250	14.6	1.4	484.4	685.5	-62.2	41.1	4.4
32	466.00	709.9	1.1	2250	2250	14.9	1.4	453.3	641.1	-54.5	35.5	4.4
33	481.00	746.6	1.1	2250	2250	15.2	1.4	421.1	596.6	-46.6	30.0	4.4
34	496.00	783.3	1.1	2250	2250	15.5	1.4	388.8	550.0	-39.3	25.5	4.4
35	511.00	820.0	1.1	2250	2250	15.8	1.4	356.6	501.1	-33.3	20.0	4.4
36	526.00	856.6	1.1	2250	2250	16.1	1.4	324.4	451.1	-27.7	15.5	4.4
37	541.00	893.3	1.1	2250	2250	16.4	1.4	292.2	400.0	-21.8	11.1	4.4
38	556.00	929.9	1.1	2250	2250	16.7	1.4	259.9	346.6	-17.1	6.6	4.4
39	571.00	966.6	1.1	2250	2250	17.0	1.4	227.7	292.2	-13.3	2.2	4.4
40	586.00	1003.3	1.1	2250	2250	17.3	1.4	195.5	248.8	-9.9	0.0	4.4
41	601.00	1040.0	1.1	2250	2250	17.6	1.4	163.3	205.0	-6.6	0.0	4.4
42	616.00	1076.6	1.1	2250	2250	17.9	1.4	131.1	150.0	-4.4	0.0	4.4
43	631.00	1113.3	1.1	2250	2250	18.2	1.4	98.8	98.8	-3.3	0.0	4.4
44	646.00	1150.0	1.1	2250	2250	18.5	1.4	66.6	46.6	-2.2	0.0	4.4
45	661.00	1186.6	1.1	2250	2250	18.8	1.4	34.4	0.0	-1.1	0.0	4.4
46	676.00	1223.3	1.1	2250	2250	19.1	1.4	2.2	0.0	-0.0	0.0	4.4
47	691.00	1260.0	1.1	2250	2250	19.4	1.4	0.0	0.0	0.0	0.0	4.4



TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 160

MOMENT DIAGRAMS :  
CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH  
REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	17.4	-7.9	1900	853	9.2	-9.3	2367.2	1399.1	-464.6	708.9	708.9
2	11.00	55.2	-18.1	4695	1550	11.8	-11.7	2344.9	1397.9	-449.3	683.0	683.0
3	31.00	55.4	-20.2	3709	1275	15.5	-15.9	2294.4	1416.1	-421.2	636.5	636.5
4	46.00	55.9	-9.8	3521	1163	16.8	-8.4	2237.3	1436.3	-399.8	602.5	602.5
5	61.00	27.4	22.5	2250	2250	16.2	12.2	2178.0	1446.0	-378.2	569.4	569.4
6	73.50	27.4	22.5	2250	2250	17.1	12.4	2141.1	1418.6	-360.3	542.4	542.4
7	86.00	27.4	22.5	2250	2250	17.9	12.7	2103.2	1399.6	-342.7	515.9	515.9
8	98.50	27.4	22.5	2250	2250	18.8	13.0	2062.2	1366.0	-325.5	489.9	489.9
9	111.00	27.4	22.5	2250	2250	19.7	13.3	2020.6	1333.3	-308.2	464.4	464.4
10	123.50	27.4	22.5	2250	2250	20.5	13.5	1979.6	1300.8	-292.2	439.4	439.4
11	136.00	27.4	22.5	2250	2250	21.4	13.8	1938.6	1269.2	-276.6	414.9	414.9
12	148.50	27.4	22.5	2250	2250	22.3	14.1	1898.2	1237.2	-260.4	391.1	391.1
13	161.00	27.4	22.5	2250	2250	23.1	14.3	1858.2	1205.9	-245.0	367.9	367.9
14	173.50	27.4	22.5	2250	2250	23.7	14.6	1817.9	1174.4	-230.1	345.3	345.3
15	186.00	27.4	22.5	2250	2250	23.9	14.8	1772.6	1144.4	-215.6	323.4	323.4
16	198.50	27.4	22.5	2250	2250	24.1	15.0	1722.9	1111.1	-201.5	302.2	302.2
17	211.00	27.4	22.5	2250	2250	24.3	15.2	1677.7	1077.7	-187.7	281.1	281.1
18	223.50	27.4	22.5	2250	2250	24.5	15.5	1634.2	1044.3	-174.6	261.1	261.1
19	236.00	27.4	22.5	2250	2250	24.6	15.7	1590.9	1011.1	-161.7	242.5	242.5
20	248.50	27.4	22.5	2250	2250	24.8	16.0	1550.0	977.7	-149.4	224.0	224.0
21	261.00	27.4	22.5	2250	2250	24.8	16.2	1513.3	944.4	-137.4	206.6	206.6
22	273.50	27.4	22.5	2250	2250	25.0	16.4	1479.7	911.1	-125.9	189.9	189.9
23	286.00	27.4	22.5	2250	2250	25.0	16.6	1448.2	877.7	-114.4	172.6	172.6
24	298.50	27.4	22.5	2250	2250	25.0	16.7	1418.0	844.4	-104.4	156.6	156.6
25	311.00	27.4	22.5	2250	2250	26.0	17.0	1388.0	811.1	-94.4	141.1	141.1
26	323.50	27.4	22.5	2250	2250	26.3	17.3	1358.0	777.7	-84.4	127.7	127.7
27	336.00	27.4	22.5	2250	2250	26.6	17.7	1328.0	744.4	-75.5	114.4	114.4
28	348.50	27.4	22.5	2250	2250	26.9	18.0	1298.0	711.1	-66.6	101.4	101.4
29	361.00	27.4	22.5	2250	2250	27.1	18.2	1268.0	677.7	-58.8	89.4	89.4
30	373.50	27.4	22.5	2250	2250	27.4	18.5	1238.0	644.4	-51.1	78.1	78.1
31	386.00	27.4	22.5	2250	2250	27.7	18.8	1208.0	611.1	-44.4	67.6	67.6
32	398.50	27.4	22.5	2250	2250	27.7	19.1	1178.0	577.7	-37.7	57.9	57.9
33	411.00	27.4	22.5	2250	2250	27.7	19.4	1148.0	544.4	-31.1	48.9	48.9
34	423.50	27.4	22.5	2250	2250	27.7	19.7	1118.0	511.1	-26.6	40.8	40.8
35	436.00	27.4	22.5	2250	2250	27.7	20.0	1088.0	477.7	-21.1	33.4	33.4
36	448.50	27.4	22.5	2250	2250	27.7	20.3	1058.0	444.4	-17.7	26.6	26.6
37	461.00	27.4	22.5	2250	2250	27.7	20.6	1028.0	411.1	-13.2	20.0	20.0
38	473.50	27.4	22.5	2250	2250	27.7	20.9	998.0	377.7	-10.0	15.9	15.9
39	486.00	27.4	22.5	2094	2094	29.4	19.0	933.4	344.4	-7.4	11.6	11.6
40	498.50	27.4	22.5	2094	2094	28.9	18.1	877.7	311.1	-5.2	8.8	8.8
41	511.00	27.4	22.5	2094	2094	28.4	17.1	822.0	277.7	-3.6	5.4	5.4
42	523.50	27.4	22.5	2094	2094	28.0	16.0	766.6	244.4	-2.4	3.4	3.4
43	536.00	27.4	22.5	1188	1188	28.0	2.0	711.1	211.1	-1.7	2.1	2.1
44	548.50	27.4	22.5	1188	1188	28.0	4.5	655.5	177.7	-1.2	1.3	1.3
45	561.00	27.4	22.5	1188	1188	28.0	7.1	600.0	144.4	-0.7	0.6	0.6
46	573.50	27.4	22.5	1188	1188	28.0	9.9	544.4	111.1	-0.3	0.3	0.3
47	586.00	27.4	22.5	1188	1188	28.0	12.7	488.8	77.7	-0.1	0.1	0.1

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 170

MOMENT DIAGRAMS :  
CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH  
REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	14.5	-18.5	19000	853	7.6	-10.0	2520.7	1161.3	-388.6	751.7	9.5
3	11.00	33.5	-19.8	4699.5	1171.5	11.7	-12.8	2506.2	1169.8	-375.8	724.0	8.7
4	22.00	31.0	-22.2	3379.5	1171.5	16.8	-17.4	2451.2	1189.7	-352.2	674.4	6.6
5	33.00	46.0	-22.2	3379.5	1171.5	19.9	-11.4	2388.7	1211.1	-333.4	638.2	4.4
6	44.00	61.0	-13.3	3379.5	1171.5	17.7	9.4	2321.2	1225.1	-315.5	602.8	1.6
7	55.00	73.5	21.2	2250.0	1171.5	18.8	9.8	2281.4	1203.9	-300.0	574.1	1.4
8	66.00	86.0	23.1	2250.0	1171.5	19.6	10.3	2239.4	1181.7	-285.5	545.8	1.3
9	77.00	98.5	24.1	2250.0	1171.5	20.1	10.7	2195.6	1158.8	-271.1	518.8	1.1
10	88.00	111.0	25.1	2250.0	1171.5	20.4	11.2	2149.8	1134.4	-256.6	494.9	0.9
11	99.00	123.5	26.1	2250.0	1171.5	20.6	11.6	2102.1	1109.4	-242.2	471.1	0.8
12	110.00	136.0	27.7	2250.0	1171.5	20.7	12.0	2052.4	1083.3	-228.9	447.4	0.7
13	121.00	148.5	28.8	2250.0	1171.5	20.8	12.5	2000.8	1056.6	-215.5	423.3	0.6
14	132.00	161.0	29.9	2250.0	1171.5	20.9	12.9	1947.7	1028.8	-202.2	399.0	0.5
15	143.00	173.5	30.7	2250.0	1171.5	21.0	13.2	1891.1	999.9	-189.0	374.4	0.4
16	154.00	186.0	30.0	2250.0	1171.5	21.1	13.4	1834.9	969.9	-177.7	349.4	0.3
17	165.00	198.5	29.2	2250.0	1171.5	21.2	13.6	1777.4	939.9	-165.5	324.4	0.2
18	176.00	211.0	28.0	2250.0	1171.5	21.3	13.8	1719.1	908.8	-154.4	299.4	0.1
19	187.00	223.5	26.6	2250.0	1171.5	21.4	14.0	1660.0	877.7	-143.3	274.4	0.1
20	198.00	236.0	25.1	2250.0	1171.5	21.5	14.2	1600.0	846.6	-132.2	249.4	0.0
21	209.00	248.5	23.4	2250.0	1171.5	21.6	14.4	1540.0	814.4	-121.1	224.4	0.0
22	220.00	261.0	22.2	2250.0	1171.5	21.7	14.6	1479.9	781.1	-110.0	199.4	0.0
23	231.00	273.5	20.8	2250.0	1171.5	21.8	14.8	1418.8	749.9	-100.0	174.4	0.0
24	242.00	286.0	19.9	2250.0	1171.5	21.9	14.9	1356.6	715.5	-90.0	149.4	0.0
25	253.00	298.5	19.0	2250.0	1171.5	22.0	15.0	1293.4	682.2	-80.0	124.4	0.0
26	264.00	311.0	18.2	2250.0	1171.5	22.1	15.1	1230.0	648.8	-70.0	99.4	0.0
27	275.00	323.5	17.7	2250.0	1171.5	22.2	15.2	1167.7	614.4	-60.0	74.4	0.0
28	286.00	336.0	17.4	2250.0	1171.5	22.3	15.3	1103.3	580.0	-50.0	49.4	0.0
29	297.00	348.5	17.2	2250.0	1171.5	22.4	15.5	1039.9	545.5	-40.0	24.4	0.0
30	308.00	361.0	17.1	2250.0	1171.5	22.5	15.6	975.6	511.1	-30.0	0.0	0.0
31	319.00	373.5	17.1	2250.0	1171.5	22.6	15.7	911.1	476.6	-20.0	0.0	0.0
32	330.00	386.0	17.1	2250.0	1171.5	22.7	15.8	846.6	440.0	-10.0	0.0	0.0
33	341.00	398.5	17.1	2250.0	1171.5	22.8	15.9	780.0	405.5	0.0	0.0	0.0
34	352.00	411.0	17.1	2250.0	1171.5	22.9	16.0	715.5	369.9	0.0	0.0	0.0
35	363.00	423.5	17.1	2250.0	1171.5	23.0	16.0	649.9	333.3	0.0	0.0	0.0
36	374.00	436.0	17.1	2250.0	1171.5	23.1	16.1	584.4	297.7	0.0	0.0	0.0
37	385.00	448.5	17.1	2250.0	1171.5	23.2	16.2	518.8	261.1	0.0	0.0	0.0
38	396.00	461.0	17.1	2250.0	1171.5	23.3	16.3	452.2	224.4	0.0	0.0	0.0
39	407.00	473.5	17.1	2250.0	1171.5	23.4	16.4	385.5	188.8	0.0	0.0	0.0
40	418.00	486.0	17.1	2250.0	1171.5	23.5	16.5	319.9	151.1	0.0	0.0	0.0
41	429.00	498.5	17.1	2250.0	1171.5	23.6	16.6	260.0	118.8	0.0	0.0	0.0
42	440.00	511.0	17.1	2250.0	1171.5	23.7	16.7	201.1	85.5	0.0	0.0	0.0
43	451.00	523.5	17.1	2250.0	1171.5	23.8	16.8	143.3	53.3	0.0	0.0	0.0
44	462.00	536.0	17.1	2250.0	1171.5	23.9	16.9	85.5	23.3	0.0	0.0	0.0
45	473.00	548.5	17.1	2250.0	1171.5	24.0	17.0	27.7	2.7	0.0	0.0	0.0
46	484.00	561.0	17.1	2250.0	1171.5	24.1	17.1	0.0	0.0	0.0	0.0	0.0
47	495.00	573.5	17.1	2250.0	1171.5	24.2	17.2	0.0	0.0	0.0	0.0	0.0
48	506.00	586.0	17.1	2250.0	1171.5	24.3	17.3	0.0	0.0	0.0	0.0	0.0



TABLE 7. SHEAR AND MOMENT DIAGRAMS  
WIND DIRECTION 190

CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH  
REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-F1-KIPS	Y-MOMENT 1000-F1-KIPS	Z-MOMENT
GRND	0.00	18.5	-12.6	190.0	85.3	9.8	-14.7	2362.8	499.6	-183.4	705.0	1000.0
2	11.00	62.4	-28.5	469.5	155.0	13.3	-18.4	2344.2	512.2	-177.9	679.1	1000.0
3	31.00	63.7	-29.7	370.9	127.5	17.2	-23.3	2281.8	540.7	-167.7	532.8	1000.0
4	46.00	67.3	-24.2	352.1	116.3	19.1	-20.8	2218.2	570.4	-159.0	539.9	1000.0
5	61.00	66.4	5.2	225.0	225.0	17.1	-2.3	2150.9	594.6	-150.3	566.6	1000.0
6	76.00	41.1	8.3	225.0	225.0	17.7	3.0	2112.4	589.4	-142.7	539.9	1000.0
7	86.00	41.1	8.3	225.0	225.0	18.3	3.7	2072.7	582.7	-135.5	513.3	1000.0
8	98.00	43.3	9.9	225.0	225.0	18.9	4.4	2031.6	574.4	-128.3	487.7	1000.0
9	111.00	45.3	11.5	225.0	225.0	19.5	5.1	1989.1	564.5	-121.2	462.2	1000.0
10	123.00	45.3	13.0	225.0	225.0	20.0	5.8	1945.2	553.0	-114.2	438.1	1000.0
11	136.00	46.6	14.6	225.0	225.0	20.6	6.5	1899.9	540.0	-107.4	414.1	1000.0
12	148.00	48.6	16.2	225.0	225.0	21.1	7.2	1853.3	525.3	-100.7	390.0	1000.0
13	161.00	49.5	17.8	225.0	225.0	21.7	7.9	1805.5	509.1	-94.2	367.7	1000.0
14	173.00	50.6	18.6	225.0	225.0	22.2	8.6	1755.5	491.3	-88.8	344.5	1000.0
15	186.00	51.3	18.4	225.0	225.0	22.8	8.8	1705.5	472.7	-82.2	322.3	1000.0
16	198.00	52.2	18.2	225.0	225.0	23.3	8.8	1653.3	454.4	-76.6	300.2	1000.0
17	211.00	52.2	18.0	225.0	225.0	23.9	8.0	1601.8	436.6	-70.0	282.2	1000.0
18	223.00	53.5	17.7	225.0	225.0	24.4	7.9	1549.1	418.8	-65.3	262.2	1000.0
19	236.00	53.5	17.5	225.0	225.0	24.8	7.8	1495.6	400.0	-60.0	243.3	1000.0
20	248.00	53.5	17.3	225.0	225.0	25.3	7.7	1441.4	383.3	-55.5	225.5	1000.0
21	261.00	53.5	17.1	225.0	225.0	25.8	7.6	1386.4	365.7	-50.6	207.7	1000.0
22	273.00	53.5	16.9	225.0	225.0	26.3	7.5	1330.8	348.6	-46.1	190.0	1000.0
23	286.00	53.5	16.7	225.0	225.0	26.8	7.5	1274.4	331.7	-41.9	174.5	1000.0
24	298.00	53.5	16.6	225.0	225.0	27.3	7.4	1217.4	314.9	-37.8	159.0	1000.0
25	311.00	53.5	16.5	225.0	225.0	27.8	7.4	1159.8	298.2	-34.0	144.1	1000.0
26	323.00	53.5	16.5	225.0	225.0	28.3	7.3	1101.7	281.7	-30.4	130.0	1000.0
27	336.00	53.5	16.4	225.0	225.0	28.8	7.3	1043.0	265.2	-26.9	116.6	1000.0
28	348.00	53.5	16.2	225.0	225.0	29.3	7.2	983.3	248.9	-23.7	103.3	1000.0
29	361.00	60.4	16.1	225.0	225.0	29.8	7.2	923.3	232.6	-20.9	92.0	1000.0
30	373.00	61.0	16.0	225.0	225.0	30.3	7.1	863.3	216.5	-17.9	80.8	1000.0
31	386.00	61.3	16.0	225.0	225.0	30.8	7.1	802.5	200.5	-15.3	70.4	1000.0
32	398.00	61.1	16.0	225.0	225.0	31.3	7.1	741.1	184.5	-12.9	60.7	1000.0
33	411.00	61.0	16.1	225.0	225.0	31.8	7.2	680.1	168.4	-10.7	51.9	1000.0
34	423.00	60.9	16.1	225.0	225.0	32.3	7.2	619.1	152.3	-8.7	43.7	1000.0
35	436.00	60.7	16.2	225.0	225.0	32.8	7.2	558.3	136.2	-6.9	36.4	1000.0
36	448.00	60.6	16.2	225.0	225.0	33.3	7.2	497.7	120.0	-5.5	29.9	1000.0
37	461.00	60.5	16.3	225.0	225.0	33.8	7.2	436.6	103.8	-4.3	23.3	1000.0
38	473.00	60.4	16.3	225.0	225.0	34.3	7.3	376.5	87.5	-2.9	18.8	1000.0
39	486.00	45.0	21.7	2094	2094	34.8	5.5	316.6	71.1	-1.7	14.4	1000.0
40	498.00	48.0	19.8	2094	2094	35.3	5.5	257.1	49.4	-1.1	10.0	1000.0
41	511.00	51.1	17.9	2094	2094	35.8	5.5	197.3	29.6	-0.9	7.7	1000.0
42	523.00	54.0	15.3	2094	2094	36.3	5.5	137.0	11.7	-0.8	5.3	1000.0
43	536.00	56.7	-4.9	1188	1188	36.8	5.5	77.0	-3.6	-0.7	3.3	1000.0
44	548.00	59.1	-2.8	1188	1188	37.3	5.5	17.0	-11.8	-0.6	2.2	1000.0
45	561.00	61.6	-1.7	1188	1188	37.8	5.5	9.1	-19.1	-0.5	1.1	1000.0
46	573.00	62.0	1.4	1188	1188	38.3	5.5	6.6	-26.6	-0.4	0.8	1000.0
47	586.00	62.5	3.4	1188	1188	38.8	5.5	4.1	-33.9	-0.3	0.5	1000.0



TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 200

CONFIGURATION A

OXFORD CENTRE, PITTSBURGH  
REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	20.00	-15.9	1900	853	10.9	-18.6	211.1	62.1	-4.8	636.4	12.5
2	11.00	56.6	-33.4	4695	1550	12.8	-22.0	209.9	77.9	-4.7	613.2	11.7
3	31.00	66.8	-33.0	3709	1275	15.0	-25.9	200.3	112.1	-4.6	571.8	10.0
4	46.00	66.5	-28.8	3521	1163	17.0	-25.9	197.7	145.1	-4.4	541.7	8.3
5	61.00	33.9	-1.1	2250	2250	15.6	-3.5	191.1	177.2	-4.1	512.5	5.8
6	73.50	33.9	-1.1	2250	2250	15.9	-0.0	188.8	177.4	-3.9	488.8	5.8
7	86.00	33.9	1.3	2250	2250	16.4	0.6	184.4	177.4	-3.7	465.5	5.5
8	98.50	33.9	2.5	2250	2250	16.8	1.1	180.0	177.0	-3.5	442.0	5.5
9	111.00	33.9	3.7	2250	2250	17.2	1.6	177.7	170.0	-3.3	420.0	5.6
10	123.50	40.9	4.4	2250	2250	18.0	2.2	173.3	166.8	-3.0	398.8	5.4
11	136.00	40.9	6.1	2250	2250	18.0	2.2	169.9	161.9	-2.8	377.7	5.5
12	148.50	40.9	7.3	2250	2250	18.4	2.2	165.5	155.5	-2.6	355.6	5.5
13	161.00	40.9	8.5	2250	2250	18.8	2.2	161.1	148.8	-2.5	333.5	5.6
14	173.50	40.9	9.8	2250	2250	19.1	2.2	156.6	140.0	-2.2	311.5	5.3
15	186.00	40.9	11.1	2250	2250	19.4	2.2	152.2	133.1	-2.1	299.6	4.8
16	198.50	40.9	12.4	2250	2250	19.7	2.2	147.8	126.6	-1.9	277.7	5.5
17	211.00	40.9	13.7	2250	2250	20.0	2.2	143.4	120.0	-1.8	255.9	5.5
18	223.50	40.9	15.0	2250	2250	20.3	2.2	139.0	113.1	-1.7	234.1	5.5
19	236.00	40.9	16.3	2250	2250	20.6	2.2	134.6	106.6	-1.6	212.4	5.5
20	248.50	40.9	17.6	2250	2250	20.9	2.2	130.2	100.0	-1.5	190.6	5.5
21	261.00	40.9	18.9	2250	2250	21.2	2.2	125.8	93.3	-1.4	168.8	5.5
22	273.50	40.9	20.2	2250	2250	21.5	2.2	121.4	86.6	-1.3	147.0	5.5
23	286.00	40.9	21.5	2250	2250	21.8	2.2	117.0	80.0	-1.2	125.2	5.5
24	298.50	40.9	22.8	2250	2250	22.1	2.2	112.6	73.3	-1.1	103.4	5.5
25	311.00	40.9	24.1	2250	2250	22.4	2.2	108.2	66.6	-1.0	81.6	5.5
26	323.50	40.9	25.4	2250	2250	22.7	2.2	103.8	60.0	-0.9	59.8	5.5
27	336.00	40.9	26.7	2250	2250	23.0	2.2	99.4	53.3	-0.8	38.0	5.5
28	348.50	40.9	28.0	2250	2250	23.3	2.2	95.0	46.6	-0.7	16.2	5.5
29	361.00	40.9	29.3	2250	2250	23.6	2.2	90.6	40.0	-0.6	-5.6	5.5
30	373.50	40.9	30.6	2250	2250	23.9	2.2	86.2	33.3	-0.5	-27.8	5.5
31	386.00	40.9	31.9	2250	2250	24.2	2.2	81.8	26.6	-0.4	-49.9	5.5
32	398.50	40.9	33.2	2250	2250	24.5	2.2	77.4	20.0	-0.3	-72.1	5.5
33	411.00	40.9	34.5	2250	2250	24.8	2.2	73.0	13.3	-0.2	-94.3	5.5
34	423.50	40.9	35.8	2250	2250	25.1	2.2	68.6	6.6	-0.1	-116.5	5.5
35	436.00	40.9	37.1	2250	2250	25.4	2.2	64.2	0.0	0.0	-138.7	5.5
36	448.50	40.9	38.4	2250	2250	25.7	2.2	59.8	-6.6	-0.1	-160.9	5.5
37	461.00	40.9	39.7	2250	2250	26.0	2.2	55.4	-13.3	-0.2	-183.1	5.5
38	473.50	40.9	41.0	2250	2250	26.3	2.2	51.0	-20.0	-0.3	-205.3	5.5
39	486.00	40.9	42.3	2250	2250	26.6	2.2	46.6	-26.6	-0.4	-227.5	5.5
40	498.50	40.9	43.6	2250	2250	26.9	2.2	42.2	-33.3	-0.5	-249.7	5.5
41	511.00	40.9	44.9	2250	2250	27.2	2.2	37.8	-40.0	-0.6	-271.9	5.5
42	523.50	40.9	46.2	2250	2250	27.5	2.2	33.4	-46.6	-0.7	-294.1	5.5
43	536.00	40.9	47.5	2250	2250	27.8	2.2	29.0	-53.3	-0.8	-316.3	5.5
44	548.50	40.9	48.8	2250	2250	28.1	2.2	24.6	-60.0	-0.9	-338.5	5.5
45	561.00	40.9	50.1	2250	2250	28.4	2.2	20.2	-66.6	-1.0	-360.7	5.5
46	573.50	40.9	51.4	2250	2250	28.7	2.2	15.8	-73.3	-1.1	-382.9	5.5
47	586.00	40.9	52.7	2250	2250	29.0	2.2	11.4	-80.0	-1.2	-405.1	5.5

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 210

MOMENT DIAGRAMS :  
CONFIGURATION A

OXFORD CENTRE, PITTSBURGH  
REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT 1000-FT-KIPS
GRND	0.00	20.4	-1.6	1900	853	10.7	-18.9	1777.7	-1.8	14.8	53.9	-1.2
2	11.00	53.3	-1.6	4695	1550	11.4	-22.6	1756.7	-1.8	12.9	52.0	-1.0
3	31.00	48.2	-1.6	3709	1275	13.0	-26.2	1703.0	-1.3	9.9	48.5	-2.4
4	46.00	50.3	-1.6	3521	1163	14.3	-24.5	1654.8	-1.0	8.1	46.0	-5.5
5	61.00	27.7	-1.6	2250	2250	12.3	-33.9	1604.4	-3.3	5.8	43.6	-5.8
6	73.50	28.3	-1.6	2250	2250	12.6	-33.5	1576.6	-3.3	5.5	41.6	-5.8
7	86.00	29.0	-1.6	2250	2250	12.9	-33.0	1548.8	-3.3	5.1	39.3	-5.9
8	98.50	29.8	-1.6	2250	2250	13.2	-32.6	1519.9	-3.3	4.4	36.6	-6.1
9	111.00	30.6	-1.6	2250	2250	13.6	-32.2	1489.9	-3.3	3.6	33.3	-6.2
10	123.50	31.4	-1.6	2250	2250	13.9	-31.8	1459.9	-3.3	2.8	29.9	-6.4
11	136.00	32.2	-1.6	2250	2250	14.3	-31.4	1427.7	-3.3	2.1	26.6	-6.4
12	148.50	32.9	-1.6	2250	2250	14.6	-31.0	1395.5	-3.3	1.4	23.3	-6.4
13	161.00	33.3	-1.6	2250	2250	15.0	-30.6	1362.2	-3.3	0.8	20.0	-6.4
14	173.50	33.4	-1.6	2250	2250	15.3	-30.2	1329.9	-3.3	0.1	16.7	-6.4
15	186.00	33.5	-1.6	2250	2250	15.7	-29.8	1294.4	-3.3	0.0	13.4	-6.4
16	198.50	33.6	-1.6	2250	2250	16.1	-29.4	1259.9	-3.3	0.0	10.1	-6.4
17	211.00	33.7	-1.6	2250	2250	16.5	-29.0	1223.3	-3.3	0.0	6.8	-6.4
18	223.50	33.7	-1.6	2250	2250	16.9	-28.6	1186.6	-3.3	0.0	3.5	-6.4
19	236.00	33.8	-1.6	2250	2250	17.2	-28.2	1148.8	-3.3	0.0	0.2	-6.4
20	248.50	33.9	-1.6	2250	2250	17.6	-27.8	1110.9	-3.3	0.0	0.0	-6.4
21	261.00	40.0	-1.6	2250	2250	18.0	-27.4	1069.9	-3.3	0.0	0.0	-6.4
22	273.50	41.4	-1.6	2250	2250	18.4	-27.0	1029.9	-3.3	0.0	0.0	-6.4
23	286.00	41.1	-1.6	2250	2250	18.6	-26.6	988.8	-3.3	0.0	0.0	-6.4
24	298.50	42.2	-1.6	2250	2250	18.9	-26.2	945.5	-3.3	0.0	0.0	-6.4
25	311.00	43.0	-1.6	2250	2250	19.1	-25.8	903.3	-3.3	0.0	0.0	-6.4
26	323.50	43.3	-1.6	2250	2250	19.3	-25.4	860.0	-3.3	0.0	0.0	-6.4
27	336.00	44.4	-1.6	2250	2250	19.6	-25.0	816.6	-3.3	0.0	0.0	-6.4
28	348.50	44.4	-1.6	2250	2250	19.8	-24.6	772.2	-3.3	0.0	0.0	-6.4
29	361.00	45.5	-1.6	2250	2250	20.0	-24.2	728.8	-3.3	0.0	0.0	-6.4
30	373.50	45.5	-1.6	2250	2250	20.3	-23.8	683.3	-3.3	0.0	0.0	-6.4
31	386.00	46.6	-1.6	2250	2250	20.5	-23.4	637.7	-3.3	0.0	0.0	-6.4
32	398.50	46.6	-1.6	2250	2250	20.7	-23.0	591.1	-3.3	0.0	0.0	-6.4
33	411.00	46.6	-1.6	2250	2250	20.8	-22.6	545.5	-3.3	0.0	0.0	-6.4
34	423.50	47.7	-1.6	2250	2250	21.0	-22.2	498.8	-3.3	0.0	0.0	-6.4
35	436.00	47.7	-1.6	2250	2250	21.2	-21.8	450.0	-3.3	0.0	0.0	-6.4
36	448.50	48.8	-1.6	2250	2250	21.4	-21.4	403.3	-3.3	0.0	0.0	-6.4
37	461.00	48.8	-1.6	2250	2250	21.5	-21.0	355.5	-3.3	0.0	0.0	-6.4
38	473.50	48.8	-1.6	2250	2250	21.7	-20.6	306.6	-3.3	0.0	0.0	-6.4
39	486.00	31.1	1.0	2094	2094	25.2	4.4	257.7	1.1	3.3	3.3	-1.1
40	498.50	35.5	0.8	2094	2094	18.9	4.1	226.6	0.6	5.5	5.5	-2.2
41	511.00	39.9	0.9	2094	2094	16.7	4.3	190.0	0.6	6.6	6.6	-4.4
42	523.50	42.2	0.9	2094	2094	20.3	2.1	151.4	0.6	5.5	5.5	-4.4
43	536.00	22.0	1.1	1188	1188	16.9	1.1	108.8	0.6	4.4	4.4	-3.3
44	548.50	22.0	1.1	1188	1188	17.0	1.1	88.8	0.6	3.3	3.3	-3.3
45	561.00	22.1	1.1	1188	1188	18.2	1.1	68.8	0.6	2.2	2.2	-3.3
46	573.50	22.2	1.1	1188	1188	19.3	1.1	47.7	0.6	1.1	1.1	-3.3
47	586.00	24.2	1.1	1188	1188	20.4	1.1	24.2	0.6	0.0	0.0	-3.3

TABLE 7. SHEAR AND MOMENT DIAGRAMS : OXFORD CENTRE, PITTSBURGH  
 WIND DIRECTION 220 CONFIGURATION A REFERENCE PRESSURE 28.0 PSF GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	22.7	-15.4	1900	853	12.0	-18.1	1769.9	-601.2	155.9	541.1	-17.2
2	11.00	22.7	-15.4	4695	1550	11.8	-18.1	1747.2	-585.7	149.4	521.8	-17.9
3	31.00	44.0	-28.9	3709	1275	11.0	-22.2	1691.5	-553.8	138.0	487.4	-18.2
4	46.00	44.0	-25.8	3521	1163	11.5	-22.2	1650.6	-524.9	129.9	462.3	-18.5
5	61.00	44.0	-22.0	2250	2250	11.7	-11.1	1610.0	-499.1	122.2	437.9	-18.9
6	73.50	22.2	-12.4	2250	2250	12.2	-11.1	1558.6	-474.7	116.0	417.9	-19.1
7	86.00	22.2	-12.8	2250	2250	12.2	-11.1	1507.2	-448.8	110.0	398.3	-19.2
8	98.50	22.2	-13.1	2250	2250	12.2	-11.1	1455.8	-421.9	104.0	379.9	-19.3
9	111.00	11.1	-13.5	2250	2250	13.4	-6.6	1404.4	-395.5	98.0	360.0	-19.4
10	123.50	11.1	-13.9	2250	2250	13.8	-6.6	1353.0	-369.1	93.0	341.1	-19.4
11	136.00	22.2	-14.3	2250	2250	14.2	-6.6	1301.6	-342.7	87.0	323.4	-19.3
12	148.50	22.2	-14.6	2250	2250	14.6	-6.6	1250.2	-316.3	82.0	305.6	-19.2
13	161.00	22.2	-15.0	2250	2250	15.0	-6.6	1198.8	-289.9	77.0	288.2	-19.1
14	173.50	22.2	-15.2	2250	2250	15.4	-6.6	1147.4	-263.5	72.0	271.1	-18.9
15	186.00	22.2	-15.5	2250	2250	15.8	-6.6	1096.0	-237.1	67.0	254.7	-18.7
16	198.50	22.2	-14.9	2250	2250	16.2	-6.6	1044.6	-210.7	63.0	238.6	-18.4
17	211.00	22.2	-14.8	2250	2250	16.6	-6.6	993.2	-184.3	59.0	223.3	-18.1
18	223.50	22.2	-14.7	2250	2250	17.0	-6.6	941.8	-157.9	55.0	207.8	-17.8
19	236.00	22.2	-14.6	2250	2250	17.4	-6.6	890.4	-131.5	51.0	193.3	-17.5
20	248.50	22.2	-14.5	2250	2250	17.8	-6.6	839.0	-105.1	47.0	178.8	-17.1
21	261.00	44.0	-14.4	2250	2250	18.2	-6.6	787.6	-78.7	44.0	165.5	-16.6
22	273.50	44.0	-13.6	2250	2250	18.6	-6.6	736.2	-52.3	40.0	152.2	-16.1
23	286.00	44.0	-12.7	2250	2250	19.0	-6.6	684.8	-25.9	37.0	139.9	-15.5
24	298.50	44.0	-11.9	2250	2250	19.4	-6.6	633.4	0.0	34.0	127.7	-14.9
25	311.00	44.0	-11.0	2250	2250	19.8	-6.6	582.0	26.6	31.0	115.4	-14.3
26	323.50	44.0	-9.2	2250	2250	20.2	-6.6	530.6	53.2	29.0	104.3	-13.7
27	336.00	44.0	-8.3	2250	2250	20.6	-6.6	479.2	80.0	26.0	93.3	-13.1
28	348.50	44.0	-7.4	2250	2250	21.0	-6.6	427.8	106.6	24.0	83.3	-12.5
29	361.00	44.0	-7.1	2250	2250	21.4	-6.6	376.4	133.2	22.0	74.4	-11.9
30	373.50	44.0	-7.4	2250	2250	21.8	-6.6	325.0	159.8	20.0	65.5	-11.3
31	386.00	44.0	-7.8	2250	2250	22.2	-6.6	273.6	186.4	18.0	57.7	-10.7
32	398.50	44.0	-8.4	2250	2250	22.6	-6.6	222.2	213.0	16.0	49.9	-10.1
33	411.00	44.0	-9.1	2250	2250	23.0	-6.6	170.8	239.6	14.0	42.1	-9.5
34	423.50	44.0	-9.8	2250	2250	23.4	-6.6	119.4	266.2	12.0	36.3	-8.9
35	436.00	44.0	-10.4	2250	2250	23.8	-6.6	68.0	292.8	10.0	30.5	-8.3
36	448.50	44.0	-11.1	2250	2250	24.2	-6.6	16.6	319.4	9.0	25.7	-7.7
37	461.00	44.0	-11.7	2250	2250	24.6	-6.6	0.0	346.0	7.0	20.9	-7.1
38	473.50	44.0	-12.4	2250	2250	25.0	-6.6	-11.4	372.6	6.0	16.1	-6.5
39	486.00	22.2	-4.9	2094	2094	15.4	-5.5	2251.1	-84.7	6.5	12.5	-6.0
40	498.50	22.2	-6.2	2094	2094	16.2	-5.5	2189.9	-79.8	4.4	9.9	-5.5
41	511.00	22.2	-7.4	2094	2094	17.0	-5.5	2128.7	-73.3	3.4	7.4	-5.0
42	523.50	22.2	-10.3	2094	2094	17.7	-5.5	2067.5	-66.5	2.2	5.5	-4.5
43	536.00	22.2	-11.0	1188	1188	16.8	-4.4	1122.1	-55.5	1.1	3.3	-4.0
44	548.50	22.2	-11.1	1188	1188	17.4	-4.4	1060.9	-44.4	1.1	2.2	-3.5
45	561.00	22.2	-11.2	1188	1188	18.0	-4.4	999.7	-33.3	1.1	1.1	-3.0
46	573.50	22.2	-11.3	1188	1188	22.0	-5.5	499.5	-22.2	0.6	0.6	-2.5
47	586.00	22.2	-11.3	1188	1188	21.6	-5.5	259.3	-11.1	0.3	0.3	-2.0

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 230

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	19.5	-15.3	1900	853	10.0	-17.9	199.5	-111.4	335.1	624.5	-19.6
2	11.00	49.4	-30.7	4695	1550	10.0	-19.9	199.5	-109.6	323.0	602.7	-20.2
3	31.00	35.5	-27.4	3709	1275	9.9	-22.1	199.5	-103.6	301.4	563.7	-20.0
4	46.00	36.1	-26.1	3521	1163	10.3	-22.5	189.9	-103.8	285.6	535.5	-19.9
5	61.00	25.4	-20.4	2250	2250	11.4	-19.9	189.9	-101.2	270.0	507.0	-19.9
6	73.50	22.2	-18.0	2250	2250	12.1	-19.9	189.9	-99.1	257.7	483.3	-19.9
7	86.00	22.2	-18.0	2250	2250	12.2	-19.9	189.9	-97.0	245.5	461.1	-19.9
8	98.50	22.2	-18.0	2250	2250	13.0	-19.9	177.7	-94.9	233.3	438.8	-19.9
9	111.00	22.2	-18.0	2250	2250	14.2	-19.9	174.2	-92.7	221.1	416.6	-19.9
10	123.50	22.2	-18.0	2250	2250	15.0	-10.0	171.0	-90.4	210.3	395.3	-19.9
11	136.00	22.2	-18.0	2250	2250	15.7	-10.0	167.7	-88.2	199.1	374.1	-19.9
12	148.50	22.2	-18.0	2250	2250	16.4	-10.0	164.4	-85.8	188.2	353.4	-19.9
13	161.00	22.2	-18.0	2250	2250	17.1	-10.0	161.1	-83.5	177.7	333.3	-19.9
14	173.50	22.2	-18.0	2250	2250	17.7	-10.0	157.7	-81.1	167.4	313.3	-19.9
15	186.00	22.2	-18.0	2250	2250	18.2	-10.0	154.2	-78.8	157.7	294.4	-19.9
16	198.50	22.2	-18.0	2250	2250	19.0	-11.1	150.0	-76.6	147.7	275.5	-19.9
17	211.00	22.2	-18.0	2250	2250	19.9	-11.1	144.4	-74.4	138.8	256.6	-19.9
18	223.50	22.2	-18.0	2250	2250	20.0	-11.1	139.9	-72.2	129.9	237.7	-19.9
19	236.00	22.2	-18.0	2250	2250	21.1	-11.1	133.3	-69.9	120.0	218.8	-19.9
20	248.50	22.2	-18.0	2250	2250	22.1	-11.1	127.7	-67.7	112.2	205.4	-19.9
21	261.00	22.2	-18.0	2250	2250	23.2	-11.1	121.1	-65.5	103.3	189.9	-19.9
22	273.50	22.2	-18.0	2250	2250	24.4	-11.1	114.4	-63.3	96.6	174.4	-19.9
23	286.00	22.2	-18.0	2250	2250	25.5	-11.1	107.7	-61.1	88.8	159.9	-19.9
24	298.50	22.2	-18.0	2250	2250	26.6	-11.1	101.1	-58.9	81.1	145.5	-19.9
25	311.00	22.2	-18.0	2250	2250	27.7	-11.1	94.4	-56.7	74.4	131.1	-19.9
26	323.50	22.2	-18.0	2250	2250	28.8	-10.0	87.8	-54.5	68.8	119.9	-19.9
27	336.00	22.2	-18.0	2250	2250	29.9	-10.0	81.1	-52.3	61.1	107.7	-19.9
28	348.50	22.2	-18.0	2250	2250	31.0	-10.0	74.4	-50.1	55.5	95.5	-19.9
29	361.00	22.2	-18.0	2250	2250	32.1	-10.0	67.7	-47.9	49.9	83.3	-19.9
30	373.50	22.2	-18.0	2250	2250	33.2	-10.0	61.1	-45.7	44.4	71.1	-19.9
31	386.00	22.2	-18.0	2250	2250	34.3	-10.0	54.4	-43.5	38.8	58.9	-19.9
32	398.50	22.2	-18.0	2250	2250	35.4	-10.0	47.7	-41.3	33.3	46.7	-19.9
33	411.00	22.2	-18.0	2250	2250	36.5	-10.0	41.1	-39.1	27.7	34.5	-19.9
34	423.50	22.2	-18.0	2250	2250	37.6	-11.1	34.4	-36.9	22.2	22.2	-19.9
35	436.00	22.2	-18.0	2250	2250	38.7	-11.1	27.7	-34.7	16.7	10.0	-19.9
36	448.50	22.2	-18.0	2250	2250	39.8	-11.1	21.1	-32.5	11.1	8.8	-19.9
37	461.00	22.2	-18.0	2250	2250	40.9	-11.1	14.4	-30.3	5.5	7.7	-19.9
38	473.50	22.2	-18.0	2250	2250	42.0	-11.1	7.7	-28.1	4.4	6.6	-19.9
39	486.00	22.2	-18.0	2094	2094	43.1	-11.1	1.1	-25.9	3.3	5.5	-19.9
40	498.50	22.2	-18.0	2094	2094	44.2	-11.1	0.0	-23.7	2.2	4.4	-19.9
41	511.00	22.2	-18.0	2094	2094	45.3	-11.1	0.0	-21.5	1.1	3.3	-19.9
42	523.50	22.2	-18.0	2094	2094	46.4	-11.1	0.0	-19.3	0.0	2.2	-19.9
43	536.00	22.2	-18.0	1188	1188	47.5	-16.6	0.0	-17.1	0.0	1.1	-19.9
44	548.50	22.2	-18.0	1188	1188	48.6	-16.6	0.0	-14.9	0.0	0.0	-19.9
45	561.00	22.2	-18.0	1188	1188	49.7	-16.6	0.0	-12.7	0.0	0.0	-19.9
46	573.50	22.2	-18.0	1188	1188	50.8	-16.6	0.0	-10.5	0.0	0.0	-19.9
47	586.00	22.2	-18.0	1188	1188	51.9	-16.6	0.0	-8.3	0.0	0.0	-19.9

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 240

CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH  
REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SR FT	Y-AREA SR FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	16.5	-14.5	1900	853	8.7	-17.0	2151.4	-1412.5	448.1	670.6	-17.7
2	11.00	44.4	-11.9	4695	1550	9.8	-18.9	2133.4	-1398.0	432.6	647.0	-18.3
3	31.00	31.0	-11.9	3709	1275	9.4	-20.9	2089.0	-1368.6	404.9	604.8	-18.2
4	46.00	33.3	-12.7	3521	1163	9.6	-24.0	2054.2	-1342.0	384.6	573.7	-18.8
5	61.00	22.5	-12.6	2250	2250	11.0	-11.8	2020.5	-1314.1	364.7	543.2	-17.2
6	73.50	22.5	-12.6	2250	2250	11.0	-11.8	1996.7	-1287.6	348.4	518.0	-17.3
7	86.00	22.5	-12.6	2250	2250	11.0	-11.8	1977.0	-1260.8	332.5	493.3	-17.4
8	98.50	22.5	-12.6	2250	2250	11.0	-11.8	1944.0	-1233.4	316.6	468.8	-17.4
9	111.00	22.5	-12.6	2250	2250	11.0	-12.0	1900.8	-1207.7	301.7	444.4	-17.7
10	123.50	22.5	-12.6	2250	2250	11.0	-12.0	1873.3	-1180.0	286.6	421.1	-17.7
11	136.00	22.5	-12.6	2250	2250	11.0	-12.0	1833.5	-1153.3	272.2	397.9	-17.1
12	148.50	22.5	-12.6	2250	2250	11.0	-12.0	1794.4	-1126.6	257.7	375.5	-16.9
13	161.00	22.5	-12.6	2250	2250	11.0	-12.0	1755.0	-1099.9	244.4	353.3	-16.6
14	173.50	22.5	-12.6	2250	2250	11.0	-12.0	1703.3	-1072.2	230.0	331.1	-16.6
15	186.00	22.5	-12.6	2250	2250	11.0	-12.0	1654.4	-1045.5	217.7	310.0	-15.5
16	198.50	22.5	-12.6	2250	2250	11.0	-12.0	1604.4	-1017.7	204.4	290.0	-15.5
17	211.00	22.5	-12.6	2250	2250	11.0	-12.0	1555.3	-989.9	191.1	270.0	-15.5
18	223.50	22.5	-12.6	2250	2250	11.0	-12.0	1501.1	-960.0	179.9	251.1	-14.4
19	236.00	22.5	-12.6	2250	2250	11.0	-12.0	1444.8	-931.1	167.7	232.2	-14.5
20	248.50	22.5	-12.6	2250	2250	11.0	-12.0	1393.9	-901.1	156.6	215.5	-14.4
21	261.00	22.5	-12.6	2250	2250	11.0	-12.0	1344.8	-872.2	145.5	198.8	-14.4
22	273.50	22.5	-12.6	2250	2250	11.0	-12.0	1298.1	-841.1	134.4	181.1	-14.4
23	286.00	22.5	-12.6	2250	2250	11.0	-12.0	1253.3	-810.0	124.4	166.6	-14.4
24	298.50	22.5	-12.6	2250	2250	11.0	-12.0	1210.0	-779.9	114.4	151.1	-14.4
25	311.00	22.5	-12.6	2250	2250	11.0	-12.0	1168.8	-748.8	104.4	136.6	-14.4
26	323.50	22.5	-12.6	2250	2250	11.0	-12.0	1128.8	-716.6	95.5	123.3	-14.4
27	336.00	22.5	-12.6	2250	2250	11.0	-12.0	1089.9	-684.4	86.6	110.0	-14.4
28	348.50	22.5	-12.6	2250	2250	11.0	-12.0	1044.4	-652.2	78.4	98.8	-14.4
29	361.00	22.5	-12.6	2250	2250	11.0	-12.0	1000.0	-620.0	70.0	87.7	-14.4
30	373.50	22.5	-12.6	2250	2250	11.0	-12.0	955.5	-587.7	62.2	76.9	-14.4
31	386.00	22.5	-12.6	2250	2250	11.0	-12.0	911.1	-555.4	55.0	67.0	-14.4
32	398.50	22.5	-12.6	2250	2250	11.0	-12.0	866.6	-522.1	49.9	58.8	-14.4
33	411.00	22.5	-12.6	2250	2250	11.0	-12.0	823.3	-487.7	42.2	49.8	-14.4
34	423.50	22.5	-12.6	2250	2250	11.0	-12.0	780.0	-455.3	35.6	42.2	-14.4
35	436.00	22.5	-12.6	2250	2250	11.0	-12.0	737.7	-423.3	31.1	35.5	-14.4
36	448.50	22.5	-12.6	2250	2250	11.0	-12.0	695.5	-391.1	26.6	29.9	-14.4
37	461.00	22.5	-12.6	2250	2250	11.0	-12.0	653.3	-358.8	21.1	24.4	-14.4
38	473.50	22.5	-12.6	2250	2250	11.0	-12.0	611.1	-326.6	17.7	19.9	-14.4
39	486.00	22.5	-12.6	2094	2094	11.0	-12.0	569.9	-294.4	14.4	15.5	-14.4
40	498.50	22.5	-12.6	2094	2094	11.0	-12.0	527.7	-262.2	11.1	11.1	-14.4
41	511.00	22.5	-12.6	2094	2094	11.0	-12.0	485.5	-230.0	8.8	8.8	-14.4
42	523.50	22.5	-12.6	2094	2094	11.0	-12.0	443.3	-197.7	6.6	6.6	-14.4
43	536.00	22.5	-12.6	1188	1188	11.0	-12.0	401.1	-165.5	4.4	4.4	-14.4
44	548.50	22.5	-12.6	1188	1188	11.0	-12.0	358.8	-133.3	3.3	3.3	-14.4
45	561.00	22.5	-12.6	1188	1188	11.0	-12.0	316.6	-101.1	2.2	2.2	-14.4
46	573.50	22.5	-12.6	1188	1188	11.0	-12.0	274.4	-68.8	1.1	1.1	-14.4
47	586.00	22.5	-12.6	1188	1188	11.0	-12.0	232.2	-36.6	0.6	0.6	-14.4

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 250

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	13.2	-1.2	1900	853	7.0	-15.2	207.4	-15.9	52.4	652.1	-12.5
2	11.00	35.7	-1.1	4695	1550	7.6	-17.3	206.6	-15.7	50.6	629.3	-12.9
3	31.00	30.1	-1.1	3709	1275	8.1	-19.9	202.2	-15.5	47.5	588.4	-13.1
4	46.00	31.1	-1.1	3521	1163	8.9	-22.6	199.9	-15.2	45.2	558.3	-12.8
5	61.00	24.1	-1.1	2250	2250	9.7	-25.0	196.4	-15.0	42.9	528.6	-12.5
6	73.50	22.1	-1.1	2250	2250	9.9	-27.7	194.4	-14.7	41.1	504.1	-12.2
7	86.00	27.7	-1.1	2250	2250	10.0	-30.0	193.1	-14.4	40.0	480.0	-12.0
8	98.50	30.4	-1.1	2250	2250	12.0	-35.6	189.9	-14.1	37.5	456.2	-11.8
9	111.00	33.3	-1.1	2250	2250	14.8	-44.4	186.6	-13.8	35.7	432.8	-11.6
10	123.50	36.2	-1.1	2250	2250	16.1	-50.0	182.6	-13.5	34.0	409.9	-11.4
11	136.00	39.1	-1.1	2250	2250	17.4	-56.6	179.9	-13.2	32.3	387.7	-11.2
12	148.50	42.0	-1.1	2250	2250	18.7	-64.4	175.1	-12.9	30.7	365.5	-11.0
13	161.00	44.9	-1.1	2250	2250	20.0	-72.6	170.0	-12.6	29.1	343.3	-10.8
14	173.50	47.7	-1.1	2250	2250	20.9	-80.0	166.4	-12.3	27.5	322.2	-10.6
15	186.00	48.8	-1.1	2250	2250	21.5	-88.6	161.7	-12.0	26.0	301.1	-10.4
16	198.50	49.9	-1.1	2250	2250	22.2	-97.7	156.9	-11.7	24.4	281.8	-10.2
17	211.00	50.0	-1.1	2250	2250	22.5	-106.6	151.9	-11.4	23.0	262.2	-10.0
18	223.50	51.1	-1.1	2250	2250	23.3	-115.5	146.6	-11.1	21.5	243.3	-9.8
19	236.00	53.3	-1.1	2250	2250	24.6	-124.4	141.1	-10.8	20.1	225.5	-9.6
20	248.50	54.4	-1.1	2250	2250	24.4	-133.3	136.6	-10.5	18.8	208.8	-9.4
21	261.00	55.5	-1.1	2250	2250	24.4	-142.2	132.0	-10.2	17.5	191.7	-9.2
22	273.50	56.6	-1.1	2250	2250	25.2	-150.0	127.5	-9.9	16.2	175.4	-9.0
23	286.00	57.7	-1.1	2250	2250	25.4	-158.6	123.0	-9.6	15.0	160.4	-8.8
24	298.50	57.7	-1.1	2250	2250	25.5	-166.6	119.9	-9.3	13.8	145.7	-8.6
25	311.00	57.7	-1.1	2250	2250	25.8	-175.5	116.6	-9.0	12.6	131.9	-8.4
26	323.50	57.7	-1.1	2250	2250	26.0	-184.4	113.3	-8.7	11.5	118.7	-8.2
27	336.00	57.7	-1.1	2250	2250	26.6	-193.3	109.8	-8.4	10.5	106.2	-8.0
28	348.50	57.7	-1.1	2250	2250	26.6	-202.2	106.4	-8.1	9.4	94.5	-7.8
29	361.00	57.7	-1.1	2250	2250	26.6	-211.1	103.0	-7.8	8.5	83.3	-7.6
30	373.50	60.0	-1.1	2250	2250	26.6	-220.0	99.7	-7.5	7.6	73.3	-7.4
31	386.00	60.0	-1.1	2250	2250	26.6	-228.6	96.4	-7.2	6.7	65.5	-7.2
32	398.50	60.0	-1.1	2250	2250	26.6	-237.7	93.1	-6.9	5.9	58.3	-7.0
33	411.00	60.0	-1.1	2250	2250	26.6	-246.6	89.8	-6.6	5.1	51.9	-6.8
34	423.50	60.0	-1.1	2250	2250	25.4	-255.5	86.6	-6.3	4.4	47.7	-6.6
35	436.00	57.7	-1.1	2250	2250	25.4	-264.4	83.3	-6.0	3.7	44.4	-6.4
36	448.50	57.7	-1.1	2250	2250	25.0	-273.3	80.0	-5.7	3.1	39.9	-6.2
37	461.00	57.7	-1.1	2250	2250	25.0	-282.2	76.7	-5.4	2.6	33.3	-6.0
38	473.50	57.7	-1.1	2250	2250	24.4	-291.1	73.3	-5.1	2.1	27.7	-5.8
39	486.00	57.7	-1.1	2094	2094	23.3	-300.0	70.0	-4.8	1.6	22.2	-5.6
40	498.50	57.7	-1.1	2094	2094	17.7	-308.6	66.6	-4.5	1.2	16.6	-5.4
41	511.00	57.7	-1.1	2094	2094	16.6	-317.7	63.3	-4.2	0.9	11.1	-5.2
42	523.50	57.7	-1.1	2094	2094	15.5	-326.6	60.0	-3.9	0.6	6.6	-5.0
43	536.00	57.7	-1.1	1188	1188	22.7	-335.5	56.6	-3.6	0.4	4.4	-4.8
44	548.50	57.7	-1.1	1188	1188	22.5	-344.4	53.3	-3.3	0.3	3.3	-4.6
45	561.00	57.7	-1.1	1188	1188	23.3	-353.3	50.0	-3.0	0.2	2.2	-4.4
46	573.50	57.7	-1.1	1188	1188	23.3	-362.2	46.6	-2.7	0.1	1.1	-4.2
47	586.00	57.7	-1.1	1188	1188	19.5	-371.1	43.3	-2.4	0.0	0.0	-4.0

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 260

OXFORD CENTRE,  
CONFIGURATION A

PITTSBURGH  
REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	8.9	-15.1	1900	853	4.7	-17.7	177.9	-169.8	556.5	559.1	-5.7
2	11.00	27.7	-30.0	4695	1550	5.9	-19.4	177.0	-168.0	537.9	539.5	-6.1
3	31.00	28.9	-30.0	3709	1275	7.8	-21.7	174.2	-165.2	504.4	504.4	-6.4
4	46.00	30.0	-30.0	3521	1163	8.6	-25.4	171.4	-162.5	479.9	478.5	-6.3
5	61.00	21.1	-11.1	2250	2250	9.5	-13.9	168.8	-159.5	455.8	453.0	-6.1
6	73.50	23.3	-11.1	2250	2250	10.3	-13.9	166.8	-156.4	436.0	432.1	-6.2
7	86.00	25.5	-11.1	2250	2250	11.0	-13.9	166.8	-156.4	416.4	411.4	-6.6
8	98.50	27.7	-11.1	2250	2250	12.0	-13.9	166.8	-156.4	397.7	391.1	-6.6
9	111.00	29.9	-11.1	2250	2250	12.9	-13.9	155.6	-144.4	379.7	371.1	-6.6
10	123.50	31.1	-11.1	2250	2250	13.8	-13.9	155.6	-144.4	360.0	351.4	-6.6
11	136.00	33.3	-11.1	2250	2250	14.6	-13.9	155.6	-144.4	343.3	332.2	-6.6
12	148.50	34.4	-11.1	2250	2250	15.5	-12.2	144.4	-133.3	325.5	313.3	-6.6
13	161.00	36.6	-11.1	2250	2250	16.4	-12.2	144.4	-133.3	308.8	294.4	-6.6
14	173.50	38.8	-11.1	2250	2250	17.1	-12.2	144.4	-133.3	291.1	276.6	-6.6
15	186.00	40.0	-11.1	2250	2250	17.6	-13.3	133.3	-122.2	275.5	259.9	-6.6
16	198.50	41.1	-11.1	2250	2250	18.1	-13.3	133.3	-122.2	259.9	242.2	-6.6
17	211.00	42.2	-11.1	2250	2250	18.6	-13.3	133.3	-122.2	243.3	225.5	-6.6
18	223.50	44.4	-11.1	2250	2250	19.1	-14.4	122.2	-111.1	228.8	209.9	-6.6
19	236.00	45.5	-11.1	2250	2250	19.6	-14.4	111.1	-100.0	213.3	194.4	-6.6
20	248.50	46.6	-11.1	2250	2250	20.0	-15.5	100.0	-90.0	198.8	179.9	-6.6
21	261.00	47.7	-11.1	2250	2250	20.5	-15.5	90.0	-80.0	184.4	164.4	-6.6
22	273.50	48.8	-11.1	2250	2250	21.0	-16.6	80.0	-70.0	171.1	151.1	-6.6
23	286.00	48.8	-11.1	2250	2250	21.4	-16.6	70.0	-60.0	158.8	137.7	-6.6
24	298.50	48.8	-11.1	2250	2250	21.8	-17.7	60.0	-50.0	145.5	125.5	-6.6
25	311.00	49.9	-11.1	2250	2250	22.2	-17.7	50.0	-40.0	133.3	113.3	-6.6
26	323.50	50.0	-11.1	2250	2250	22.4	-18.8	40.0	-30.0	121.1	101.1	-6.6
27	336.00	51.1	-11.1	2250	2250	22.8	-18.8	30.0	-20.0	109.9	90.0	-6.6
28	348.50	52.2	-11.1	2250	2250	23.1	-18.8	20.0	-10.0	99.1	80.0	-6.6
29	361.00	53.3	-11.1	2250	2250	23.3	-19.9	10.0	-0.0	88.8	71.1	-6.6
30	373.50	53.3	-11.1	2250	2250	23.5	-19.9	0.0	0.0	79.9	62.2	-6.6
31	386.00	52.2	-11.1	2250	2250	23.8	-19.9	0.0	0.0	69.9	54.4	-6.6
32	398.50	51.1	-11.1	2250	2250	24.1	-19.9	0.0	0.0	61.1	46.6	-6.6
33	411.00	51.1	-11.1	2250	2250	24.4	-20.0	0.0	0.0	52.2	39.9	-6.6
34	423.50	50.0	-11.1	2250	2250	24.7	-20.0	0.0	0.0	45.5	33.3	-6.6
35	436.00	49.9	-11.1	2250	2250	25.0	-21.1	0.0	0.0	38.8	27.7	-6.6
36	448.50	48.8	-11.1	2250	2250	25.5	-21.1	0.0	0.0	31.1	20.0	-6.6
37	461.00	47.7	-11.1	2250	2250	26.0	-22.2	0.0	0.0	25.5	14.4	-6.6
38	473.50	46.6	-11.1	2250	2250	26.6	-22.2	0.0	0.0	20.0	11.1	-6.6
39	486.00	45.5	-11.1	2094	2094	27.7	-22.2	0.0	0.0	16.1	8.8	-6.6
40	498.50	44.4	-11.1	2094	2094	28.8	-22.2	0.0	0.0	12.2	6.6	-6.6
41	511.00	43.3	-11.1	2094	2094	29.9	-22.2	0.0	0.0	8.8	4.4	-6.6
42	523.50	42.2	-11.1	1188	1188	30.0	-22.2	0.0	0.0	6.1	3.3	-6.6
43	536.00	41.1	-11.1	1188	1188	30.5	-22.2	0.0	0.0	4.4	2.2	-6.6
44	548.50	40.0	-11.1	1188	1188	31.1	-22.2	0.0	0.0	3.3	1.1	-6.6
45	561.00	38.8	-11.1	1188	1188	31.6	-22.2	0.0	0.0	2.2	0.0	-6.6
46	573.50	37.7	-11.1	1188	1188	32.2	-22.2	0.0	0.0	1.1	0.0	-6.6
47	586.00	36.6	-11.1	1188	1188	32.7	-22.2	0.0	0.0	0.0	0.0	-6.6

TABLE 7. SHEAR AND MOMENT DIAGRAMS 1  
 WIND DIRECTION 270

OXFORD CENTRE, PITTSBURGH  
 CONFIGURATION A REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	3.5	-14.7	1900	853	1.8	-17.2	1267.1	-1569.4	504.5	418.1	-1.2
2	11.00	12.2	-29.0	4695	1553	2.6	-18.7	1263.6	-1554.8	487.7	404.1	-1.5
3	31.00	17.9	-26.4	3709	1255	4.8	-20.7	1251.3	-1525.7	438.6	379.0	-1.1
4	46.00	18.9	-26.8	3521	1163	5.4	-23.0	1233.4	-1499.4	433.3	360.4	-1.1
5	61.00	14.1	-32.6	2250	223	6.3	-14.5	1214.5	-1472.6	411.1	342.0	-1.1
6	73.50	15.1	-32.0	2250	250	6.7	-14.2	1200.4	-1440.0	393.3	332.0	-1.1
7	86.00	16.2	-31.4	2250	250	7.2	-13.9	1185.2	-1408.0	375.5	322.0	-1.1
8	98.00	17.7	-30.7	2250	250	7.7	-13.6	1169.0	-1376.6	358.8	311.1	-1.1
9	111.00	18.3	-30.0	2250	250	8.1	-13.3	1151.8	-1345.9	341.1	300.3	-1.1
10	123.50	19.4	-29.3	2250	250	8.6	-13.0	1133.4	-1316.0	324.4	288.5	-1.1
11	136.00	20.4	-28.6	2250	250	9.1	-12.7	1114.4	-1286.6	308.8	276.6	-1.1
12	148.50	21.5	-28.0	2250	250	9.6	-12.4	1093.3	-1258.6	293.3	264.4	-1.1
13	161.00	22.6	-27.3	2250	250	10.0	-12.1	1072.2	-1230.0	277.7	252.0	-1.1
14	173.50	23.7	-27.2	2250	250	10.5	-12.1	1049.9	-1202.2	261.1	240.0	-1.1
15	186.00	24.8	-27.0	2250	250	11.0	-12.4	1025.6	-1175.5	246.6	227.7	-1.1
16	198.00	26.0	-26.6	2250	250	11.6	-12.7	1001.0	-1147.7	232.2	215.1	-1.1
17	211.00	27.2	-26.3	2250	250	12.1	-13.0	975.0	-1119.1	218.8	202.9	-1.1
18	223.50	28.4	-26.0	2250	250	12.6	-13.3	947.8	-1089.9	204.4	190.8	-1.1
19	236.00	29.9	-25.6	2250	250	13.1	-13.6	919.4	-1059.9	190.0	178.5	-1.1
20	248.50	31.1	-25.3	2250	250	13.7	-13.9	889.9	-1029.9	177.7	166.0	-1.1
21	261.00	32.4	-25.0	2250	250	14.3	-14.2	859.9	-999.9	165.3	153.3	-1.1
22	273.50	33.3	-24.7	2250	250	14.9	-14.5	827.7	-968.8	153.3	140.4	-1.1
23	286.00	34.4	-24.4	2250	250	15.5	-14.8	794.4	-936.6	140.8	127.7	-1.1
24	298.50	35.5	-24.1	2250	250	16.1	-15.1	760.0	-903.3	128.8	115.1	-1.1
25	311.00	36.6	-23.8	2250	250	16.7	-15.4	725.5	-869.0	116.8	102.4	-1.1
26	323.50	37.7	-23.5	2250	250	17.3	-15.7	690.0	-833.3	104.4	89.0	-1.1
27	336.00	38.8	-23.2	2250	250	17.9	-16.0	654.4	-797.7	92.0	75.5	-1.1
28	348.50	39.9	-22.9	2250	250	18.5	-16.3	617.7	-761.1	80.0	62.0	-1.1
29	361.00	41.1	-22.6	2250	250	19.1	-16.6	581.1	-724.4	68.8	48.8	-1.1
30	373.50	42.4	-22.3	2250	250	19.7	-16.9	544.4	-687.7	58.0	35.5	-1.1
31	386.00	43.7	-22.0	2250	250	20.3	-17.2	507.7	-650.0	47.7	22.0	-1.1
32	398.50	44.8	-21.7	2250	250	20.9	-17.5	471.1	-612.2	37.7	9.0	-1.1
33	411.00	46.0	-21.4	2250	250	21.5	-17.8	434.4	-574.4	28.0	-1.1	-1.1
34	423.50	47.2	-21.1	2250	250	22.1	-18.1	397.7	-536.6	18.8	-1.1	-1.1
35	436.00	48.4	-20.8	2250	250	22.7	-18.4	361.1	-498.8	9.9	-1.1	-1.1
36	448.50	49.9	-20.5	2250	250	23.3	-18.7	324.4	-461.1	1.1	-1.1	-1.1
37	461.00	51.1	-20.2	2250	250	23.9	-19.0	287.7	-423.3	-6.6	-1.1	-1.1
38	473.50	52.4	-19.9	2250	250	24.5	-19.3	251.1	-385.5	-15.5	-1.1	-1.1
39	486.00	53.7	-19.6	2250	250	25.1	-19.6	214.4	-347.7	-24.4	-1.1	-1.1
40	498.50	55.0	-19.3	2250	250	25.7	-19.9	177.7	-309.9	-33.3	-1.1	-1.1
41	511.00	56.6	-19.0	2250	250	26.3	-20.2	141.1	-272.2	-42.2	-1.1	-1.1
42	523.50	58.0	-18.7	2250	250	26.9	-20.5	104.4	-234.4	-51.1	-1.1	-1.1
43	536.00	59.9	-18.4	2250	250	27.5	-20.8	67.7	-196.6	-60.0	-1.1	-1.1
44	548.50	61.1	-18.1	2250	250	28.1	-21.1	31.1	-158.8	-68.8	-1.1	-1.1
45	561.00	62.4	-17.8	2250	250	28.7	-21.4	-5.5	-121.1	-77.7	-1.1	-1.1
46	573.50	63.7	-17.5	2250	250	29.3	-21.7	-14.4	-83.3	-86.6	-1.1	-1.1
47	586.00	65.0	-17.2	2250	250	29.9	-22.0	-23.3	-45.5	-95.5	-1.1	-1.1



TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 280

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-5.8	-1.3	1900	853	-3.0	-15.5	296.0	-161.3	517.2	137.0	0
2	11.00	-12.8	-2.7	4695	1550	-2.7	-17.6	301.8	-160.0	499.5	133.7	1.1
3	31.00	-22.1	-2.7	1275	1275	-1.6	-19.9	314.6	-157.2	467.8	127.5	-1.5
4	46.00	-1.6	-2.5	321	1163	-1.4	-21.8	316.7	-154.7	444.4	122.8	-1.3
5	61.00	-1.7	-3.3	2250	2250	-1.3	-21.4	318.3	-153.2	421.4	118.0	-1.6
6	73.50	-1.1	-3.6	2250	2250	-1.3	-21.4	319.9	-148.8	402.6	114.0	-1.6
7	86.00	-1.1	-3.4	2250	2250	-1.4	-15.3	320.0	-144.4	384.4	110.0	-1.1
8	98.50	-1.1	-3.3	2250	2250	-1.4	-14.7	321.1	-138.2	366.4	106.0	-1.1
9	111.00	-1.1	-3.1	2250	2250	-1.4	-14.1	322.1	-133.8	348.9	102.0	-1.1
10	123.50	-1.1	-3.0	2250	2250	-1.4	-13.5	322.2	-129.0	331.1	98.0	-1.1
11	136.00	-1.1	-2.9	2250	2250	-1.4	-13.0	323.1	-124.6	315.5	94.0	-1.1
12	148.50	-1.1	-2.7	2250	2250	-1.4	-12.4	324.0	-120.0	299.8	89.9	-1.1
13	161.00	-1.1	-2.6	2250	2250	-1.4	-11.8	324.9	-116.2	284.2	85.5	-1.1
14	173.50	-1.1	-2.5	2250	2250	-2.2	-11.7	325.8	-112.6	268.7	81.1	-1.1
15	186.00	-1.1	-2.4	2250	2250	-2.2	-12.1	326.6	-109.1	253.1	77.7	-1.1
16	198.50	-1.1	-2.2	2250	2250	-2.2	-12.5	327.5	-105.8	237.7	73.3	-1.1
17	211.00	-1.1	-2.1	2250	2250	-1.6	-12.8	328.4	-102.6	222.4	68.8	-1.1
18	223.50	-1.1	-2.0	2250	2250	-1.5	-13.4	329.3	-99.5	207.1	64.5	-1.1
19	236.00	-1.1	-1.9	2250	2250	-1.1	-13.8	330.2	-96.5	191.8	60.1	-1.1
20	248.50	-1.1	-1.8	2250	2250	-1.1	-14.2	331.1	-93.5	176.5	55.7	-1.1
21	261.00	-1.1	-1.7	2250	2250	-2.8	-14.7	332.0	-90.5	161.2	51.3	-1.1
22	273.50	-1.1	-1.6	2250	2250	-2.2	-15.1	332.9	-87.5	145.9	46.9	-1.1
23	286.00	-1.1	-1.5	2250	2250	-3.5	-15.6	333.8	-84.5	130.6	42.5	-1.1
24	298.50	-1.1	-1.4	2250	2250	-3.8	-16.0	334.7	-81.5	115.3	38.1	-1.1
25	311.00	-1.1	-1.3	2250	2250	-4.1	-16.5	335.6	-78.5	100.0	33.7	-1.1
26	323.50	-1.1	-1.2	2250	2250	-4.3	-16.9	336.5	-75.5	84.7	29.3	-1.1
27	336.00	-1.1	-1.1	2250	2250	-4.6	-17.4	337.4	-72.5	69.4	24.9	-1.1
28	348.50	-1.1	-1.0	2250	2250	-4.9	-17.8	338.3	-69.5	54.1	20.5	-1.1
29	361.00	-1.1	-0.9	2250	2250	-5.2	-18.3	339.2	-66.5	38.8	16.1	-1.1
30	373.50	-1.1	-0.8	2250	2250	-5.4	-18.7	340.1	-63.5	23.5	11.7	-1.1
31	386.00	-1.1	-0.7	2250	2250	-5.7	-19.2	341.0	-60.5	8.2	7.3	-1.1
32	398.50	-1.1	-0.6	2250	2250	-6.1	-19.6	341.9	-57.5	-7.1	2.9	-1.1
33	411.00	-1.1	-0.5	2250	2250	-6.4	-19.9	342.8	-54.5	-17.0	-1.4	-1.1
34	423.50	-1.1	-0.4	2250	2250	-6.8	-20.0	343.7	-51.5	-26.9	-3.0	-1.1
35	436.00	-1.1	-0.4	2250	2250	-7.1	-20.2	344.6	-48.5	-36.8	-4.6	-1.1
36	448.50	-1.1	-0.3	2250	2250	-7.5	-20.4	345.5	-45.5	-46.7	-6.2	-1.1
37	461.00	-1.1	-0.3	2250	2250	-7.8	-20.4	346.4	-42.5	-56.6	-7.8	-1.1
38	473.50	-1.1	-0.2	2250	2250	-8.1	-20.2	347.3	-39.5	-66.5	-9.4	-1.1
39	486.00	-1.1	-0.2	2250	2250	-8.5	-20.0	348.2	-36.5	-76.4	-11.0	-1.1
40	498.50	-1.1	-0.1	2250	2250	-8.9	-19.8	349.1	-33.5	-86.3	-12.6	-1.1
41	511.00	-1.1	-0.1	2250	2250	-9.3	-19.5	350.0	-30.5	-96.2	-14.2	-1.1
42	523.50	-1.1	-0.1	2250	2250	-9.7	-19.2	350.9	-27.5	-106.1	-15.8	-1.1
43	536.00	-1.1	-0.1	2250	2250	-10.1	-18.9	351.8	-24.5	-116.0	-17.4	-1.1
44	548.50	-1.1	-0.1	2250	2250	-10.5	-18.7	352.7	-21.5	-125.9	-19.0	-1.1
45	561.00	-1.1	-0.1	2250	2250	-10.9	-18.4	353.6	-18.5	-135.8	-20.6	-1.1
46	573.50	-1.1	-0.1	2250	2250	-11.3	-18.1	354.5	-15.5	-145.7	-22.2	-1.1
47	586.00	-1.1	-0.1	2250	2250	-11.7	-17.8	355.4	-12.5	-155.6	-23.8	-1.1

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 290

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT 1000-FT-KIPS
GRND	0.00	-11.10	-1.16	190.00	85.53	-1.58	-1.19	-4.40	-1.11	43.11	-8.84	-
1	11.00	-25.77	-3.33	46.95	155.00	-1.58	-2.19	-1.11	33.73	38.99	-8.84	-
2	31.00	-12.66	-3.00	22.99	127.50	-1.58	-2.21	-1.11	44.44	36.99	-7.53	-
3	46.00	-13.24	-2.99	35.77	116.33	-1.58	-2.20	-1.11	44.44	35.50	-6.99	-
4	61.00	-9.77	-3.00	22.50	22.50	-1.58	-1.59	-1.11	44.44	34.44	-5.50	-
5	76.00	-10.55	-2.99	22.50	22.50	-1.58	-1.22	-1.11	44.44	34.44	-5.50	-
6	91.00	-11.33	-2.99	22.50	22.50	-1.58	-1.22	-1.11	44.44	34.44	-5.50	-
7	106.00	-12.11	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
8	121.00	-13.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
9	136.00	-14.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
10	151.00	-15.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
11	166.00	-16.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
12	181.00	-17.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
13	196.00	-18.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
14	211.00	-19.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
15	226.00	-20.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
16	241.00	-21.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
17	256.00	-22.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
18	271.00	-23.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
19	286.00	-24.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
20	301.00	-25.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
21	316.00	-26.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
22	331.00	-27.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
23	346.00	-28.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
24	361.00	-29.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
25	376.00	-30.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
26	391.00	-31.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
27	406.00	-32.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
28	421.00	-33.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
29	436.00	-34.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
30	451.00	-35.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-
31	466.00	-36.00	-2.99	22.50	22.50	-1.58	-1.11	-1.11	44.44	34.44	-5.50	-

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 300

CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH  
REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-11.0	-20.0	1900	853	-5.8	-23.5	-755.7	-164.6	51.8	-1.9	-9.4
2	11.00	-27.2	-33.8	444	1853	-15.8	-24.9	-744.7	-162.6	50.0	-1.8	-9.3
3	31.00	-11.1	-33.8	999	1853	-5.8	-26.8	-717.7	-158.8	46.8	-1.6	-8.4
4	46.00	-15.5	-33.3	1444	1163	-8.4	-28.3	-706.6	-155.3	44.5	-1.5	-8.3
5	61.00	-12.2	-33.3	1889	2253	-6.4	-15.0	-699.0	-152.0	42.2	-1.4	-8.2
6	76.00	-13.3	-33.3	2334	2253	-6.4	-14.7	-678.8	-148.7	40.0	-1.3	-8.1
7	91.00	-15.5	-33.3	2779	2253	-6.4	-14.4	-664.4	-145.4	37.7	-1.2	-8.0
8	106.00	-17.7	-33.3	3224	2253	-6.4	-13.3	-649.9	-142.2	35.5	-1.1	-7.9
9	121.00	-18.8	-33.3	3669	2253	-6.4	-13.3	-632.2	-139.0	33.3	-1.0	-7.8
10	136.00	-20.0	-33.3	4114	2253	-6.4	-12.2	-613.3	-136.0	31.1	-0.9	-7.7
11	151.00	-21.1	-33.3	4559	2253	-6.4	-11.1	-599.3	-133.0	28.9	-0.8	-7.6
12	166.00	-22.2	-33.3	5004	2253	-6.4	-11.1	-577.1	-130.2	26.7	-0.7	-7.5
13	181.00	-24.4	-33.3	5449	2253	-6.4	-11.1	-547.7	-127.4	24.5	-0.6	-7.4
14	196.00	-25.5	-33.3	5894	2253	-6.4	-11.1	-522.2	-124.7	22.3	-0.5	-7.3
15	211.00	-24.4	-33.3	6339	2253	-6.4	-12.2	-497.7	-122.1	20.1	-0.4	-7.2
16	226.00	-22.2	-33.3	6784	2253	-6.4	-11.1	-472.2	-119.3	17.9	-0.3	-7.1
17	241.00	-22.2	-33.3	7229	2253	-6.4	-11.1	-447.7	-116.4	15.7	-0.2	-7.0
18	256.00	-22.2	-33.3	7674	2253	-6.4	-14.4	-423.3	-113.3	13.5	-0.1	-6.9
19	271.00	-19.9	-33.3	8119	2253	-6.4	-15.5	-400.0	-110.7	11.3	0.0	-6.8
20	286.00	-19.9	-33.3	8564	2253	-6.4	-16.6	-377.7	-107.1	9.1	0.0	-6.7
21	301.00	-22.2	-33.3	9009	2253	-6.4	-17.7	-355.5	-103.9	6.9	0.0	-6.6
22	316.00	-20.0	-33.3	9454	2253	-6.4	-19.9	-333.3	-100.5	4.7	0.0	-6.5
23	331.00	-20.0	-33.3	9899	2253	-6.4	-19.9	-311.1	-96.9	2.5	0.0	-6.4
24	346.00	-20.0	-33.3	10344	2253	-6.4	-17.7	-288.8	-93.3	0.3	0.0	-6.3
25	361.00	-19.9	-33.3	10789	2253	-6.4	-17.7	-266.6	-89.6	-1.9	0.0	-6.2
26	376.00	-19.9	-33.3	11234	2253	-6.4	-17.7	-244.4	-85.8	-3.7	0.0	-6.1
27	391.00	-19.9	-33.3	11679	2253	-6.4	-19.9	-222.2	-81.8	-5.5	0.0	-6.0
28	406.00	-19.9	-33.3	12124	2253	-6.4	-19.9	-200.0	-77.8	-7.3	0.0	-5.9
29	421.00	-19.9	-33.3	12569	2253	-6.4	-19.9	-177.7	-73.7	-9.1	0.0	-5.8
30	436.00	-19.9	-33.3	13014	2253	-6.4	-19.9	-155.5	-69.6	-10.9	0.0	-5.7
31	451.00	-19.9	-33.3	13459	2253	-6.4	-19.9	-133.3	-65.5	-12.7	0.0	-5.6
32	466.00	-19.9	-33.3	13904	2253	-6.4	-19.9	-111.1	-61.4	-14.5	0.0	-5.5
33	481.00	-19.9	-33.3	14349	2253	-6.4	-19.9	-88.9	-57.3	-16.3	0.0	-5.4
34	496.00	-19.9	-33.3	14794	2253	-6.4	-19.9	-66.7	-53.2	-18.1	0.0	-5.3
35	511.00	-19.9	-33.3	15239	2253	-6.4	-19.9	-44.4	-49.1	-20.0	0.0	-5.2
36	526.00	-19.9	-33.3	15684	2253	-6.4	-19.9	-22.2	-45.0	-21.8	0.0	-5.1
37	541.00	-19.9	-33.3	16129	2253	-6.4	-19.9	0.0	-40.9	-23.7	0.0	-5.0
38	556.00	-19.9	-33.3	16574	2253	-6.4	-19.9	0.0	-36.8	-25.5	0.0	-4.9
39	571.00	-19.9	-33.3	17019	2253	-6.4	-19.9	0.0	-32.7	-27.4	0.0	-4.8
40	586.00	-19.9	-33.3	17464	2253	-6.4	-19.9	0.0	-28.6	-29.2	0.0	-4.7
41	601.00	-19.9	-33.3	17909	2253	-6.4	-19.9	0.0	-24.5	-31.1	0.0	-4.6
42	616.00	-19.9	-33.3	18354	2253	-6.4	-19.9	0.0	-20.4	-33.0	0.0	-4.5
43	631.00	-19.9	-33.3	18799	2253	-6.4	-19.9	0.0	-16.3	-34.9	0.0	-4.4
44	646.00	-19.9	-33.3	19244	2253	-6.4	-19.9	0.0	-12.2	-36.8	0.0	-4.3
45	661.00	-19.9	-33.3	19689	2253	-6.4	-19.9	0.0	-8.1	-38.7	0.0	-4.2
46	676.00	-19.9	-33.3	20134	2253	-6.4	-19.9	0.0	-4.0	-40.6	0.0	-4.1
47	691.00	-19.9	-33.3	20579	2253	-6.4	-19.9	0.0	0.0	-42.5	0.0	-4.0

TABLE 7. SHEAR AND MOMENT DIAGRAMS:  
WIND DIRECTION 310

MOMENT DIAGRAMS:  
CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH  
REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-5.1	-22.6	190.0	88.3	-1.2	-2.6	-6.7	-18.0	5.6	-17.4	1.0
2	11.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
3	31.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
4	46.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
5	61.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
6	73.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
7	86.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
8	98.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
9	111.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
10	123.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
11	136.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
12	148.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
13	161.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
14	173.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
15	186.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
16	198.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
17	211.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
18	223.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
19	236.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
20	248.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
21	261.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
22	273.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
23	286.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
24	298.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
25	311.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
26	323.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
27	336.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
28	348.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
29	361.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
30	373.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
31	386.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
32	398.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
33	411.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
34	423.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
35	436.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
36	448.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
37	461.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
38	473.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
39	486.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
40	498.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
41	511.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
42	523.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
43	536.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
44	548.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
45	561.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
46	573.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0
47	586.00	-16.8	-45.1	46.9	158.3	-1.2	-2.9	-6.7	-17.8	5.4	-16.6	1.0



TABLE 7. SHEAR AND MOMENT DIAGRAMS  
WIND DIRECTION 330

MOMENT DIAGRAMS  
CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH  
REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-5.1	-24.3	196.0	853	-2.7	-28.5	-501.9	-1241.9	157.3	111.1	0.0
1	11.00	-15.4	-47.6	196.0	1550	-3.3	-30.7	-496.9	-1216.0	151.8	111.1	0.0
2	31.00	-33.7	-41.9	333.9	1275	-1.0	-32.9	-481.1	-1169.0	142.1	111.1	0.0
3	46.00	-9.9	-39.1	333.9	1163	-2.8	-33.6	-477.0	-1127.0	134.4	111.1	0.0
4	61.00	-9.9	-24.4	500.0	2250	-4.0	-10.8	-467.0	-1088.0	127.0	111.1	0.0
5	76.00	-9.9	-23.7	500.0	2250	-4.2	-10.5	-458.8	-1063.0	122.0	111.1	0.0
6	91.00	-9.9	-23.1	500.0	2250	-4.4	-10.3	-449.4	-1040.0	116.0	111.1	0.0
7	106.00	-9.9	-22.4	500.0	2250	-4.6	-9.7	-439.4	-1017.0	110.0	111.1	0.0
8	121.00	-10.4	-22.1	500.0	2250	-4.9	-9.4	-429.4	-994.0	105.0	111.1	0.0
9	136.00	-11.1	-21.5	500.0	2250	-5.1	-9.1	-418.8	-972.0	100.0	111.1	0.0
10	151.00	-11.1	-21.1	500.0	2250	-5.3	-8.8	-406.6	-951.0	94.9	111.1	0.0
11	166.00	-12.0	-19.9	500.0	2250	-5.5	-8.8	-394.4	-931.0	89.9	111.1	0.0
12	181.00	-13.0	-19.9	500.0	2250	-5.5	-8.8	-382.2	-911.0	84.9	111.1	0.0
13	196.00	-13.0	-19.9	500.0	2250	-5.5	-8.8	-369.9	-891.0	79.9	111.1	0.0
14	211.00	-12.5	-19.1	500.0	2250	-5.6	-9.1	-356.6	-871.0	74.9	111.1	0.0
15	226.00	-12.2	-20.0	500.0	2250	-5.3	-9.9	-343.3	-851.0	69.9	111.1	0.0
16	241.00	-11.1	-20.0	500.0	2250	-5.1	-9.1	-333.1	-831.0	64.9	111.1	0.0
17	256.00	-10.9	-21.1	500.0	2250	-4.9	-9.9	-322.0	-811.0	59.9	111.1	0.0
18	271.00	-9.9	-22.2	500.0	2250	-4.6	-9.9	-309.9	-791.0	54.9	111.1	0.0
19	286.00	-9.9	-22.2	500.0	2250	-4.4	-9.9	-298.8	-771.0	49.9	111.1	0.0
20	301.00	-8.8	-22.2	500.0	2250	-4.2	-10.0	-288.9	-748.0	44.9	111.1	0.0
21	316.00	-8.8	-22.2	500.0	2250	-4.0	-10.8	-279.9	-725.0	39.9	111.1	0.0
22	331.00	-8.8	-22.2	500.0	2250	-3.9	-10.8	-270.0	-702.0	34.9	111.1	0.0
23	346.00	-8.8	-22.2	500.0	2250	-4.0	-11.1	-261.1	-679.0	29.9	111.1	0.0
24	361.00	-8.8	-22.5	500.0	2250	-4.0	-11.1	-252.2	-656.0	24.9	111.1	0.0
25	376.00	-8.8	-22.5	500.0	2250	-4.0	-11.1	-244.4	-633.0	19.9	111.1	0.0
26	391.00	-8.8	-22.6	500.0	2250	-4.0	-11.1	-235.5	-610.0	14.9	111.1	0.0
27	406.00	-8.8	-22.7	500.0	2250	-4.0	-12.0	-226.6	-587.0	9.9	111.1	0.0
28	421.00	-8.8	-22.8	500.0	2250	-4.0	-12.0	-217.7	-564.0	4.9	111.1	0.0
29	436.00	-8.8	-22.8	500.0	2250	-4.0	-13.0	-208.8	-541.0	-0.1	111.1	0.0
30	451.00	-9.9	-22.9	500.0	2250	-4.1	-13.0	-199.9	-518.0	-5.1	111.1	0.0
31	466.00	-10.0	-23.0	500.0	2250	-4.1	-13.0	-190.0	-495.0	-10.1	111.1	0.0
32	481.00	-10.0	-23.1	500.0	2250	-4.1	-14.0	-180.0	-472.0	-15.1	111.1	0.0
33	496.00	-11.1	-23.1	500.0	2250	-4.1	-14.0	-170.0	-449.0	-20.1	111.1	0.0
34	511.00	-11.1	-23.2	500.0	2250	-4.1	-14.0	-159.0	-426.0	-25.1	111.1	0.0
35	526.00	-11.1	-23.3	500.0	2250	-4.1	-14.0	-148.0	-403.0	-30.1	111.1	0.0
36	541.00	-12.0	-23.3	500.0	2250	-4.1	-15.0	-136.0	-380.0	-35.1	111.1	0.0
37	556.00	-12.0	-23.5	500.0	2250	-4.1	-15.0	-124.4	-357.0	-40.1	111.1	0.0
38	571.00	-16.3	-38.8	994	994	-7.7	-18.4	-111.2	-270.0	-55.0	111.1	0.0
39	586.00	-16.4	-37.7	994	994	-7.7	-18.4	-95.5	-247.0	-50.0	111.1	0.0
40	601.00	-16.5	-37.7	994	994	-7.7	-17.7	-79.9	-224.0	-45.0	111.1	0.0
41	616.00	-16.3	-35.6	994	994	-7.7	-17.7	-63.3	-201.0	-40.0	111.1	0.0
42	631.00	-10.9	-21.7	1188	1188	-8.8	-18.3	-46.6	-178.0	-35.0	111.1	0.0
43	646.00	-9.9	-19.7	1188	1188	-8.8	-16.6	-36.6	-155.0	-30.0	111.1	0.0
44	661.00	-9.9	-17.7	1188	1188	-8.8	-15.5	-26.6	-132.0	-25.0	111.1	0.0
45	676.00	-8.8	-15.5	1188	1188	-8.8	-14.3	-17.7	-109.0	-20.0	111.1	0.0
46	691.00	-8.8	-13.3	1188	1188	-8.8	-13.3	-8.8	-86.0	-15.0	111.1	0.0
47	706.00	-8.8	-13.3	1188	1188	-8.8	-11.6	-8.8	-63.0	-10.0	111.1	0.0

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 340

CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH  
REFERENCE PRESSURE 28.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-8.1	-22.2	190.0	85.5	-4.3	1.1	-655.8	-1243.3	375.0	-228.2	5.2
2	11.00	-19.9	-43.3	469.5	155.5	-4.3	1.1	-664.7	-1221.0	361.5	-221.0	5.2
3	31.00	-6.9	-38.8	370.9	127.3	-1.1	1.1	-662.8	-1177.5	337.5	-208.3	4.4
4	46.00	-11.4	-38.7	352.1	116.3	-3.3	2.2	-662.1	-1139.0	320.1	-198.9	4.4
5	61.00	-8.2	-24.8	225.0	22.5	-11.0	0.9	-660.9	-1100.3	303.3	-189.7	4.4
6	73.50	-8.6	-24.4	225.0	22.5	-10.8	0.9	-659.1	-1075.5	289.7	-182.1	4.4
7	86.00	-9.0	-24.0	225.0	22.5	-10.7	1.1	-659.3	-1051.1	276.4	-174.4	4.4
8	98.50	-9.4	-24.4	225.0	22.5	-10.5	0.8	-658.4	-1027.2	263.4	-167.3	4.4
9	111.00	-9.8	-24.1	225.0	22.5	-10.3	0.6	-657.4	-1003.6	250.0	-160.0	4.4
10	123.50	-10.0	-23.3	225.0	22.5	-10.1	0.5	-656.9	-980.5	238.3	-152.9	4.4
11	136.00	-10.6	-23.3	225.0	22.5	-9.9	0.4	-655.4	-957.8	226.2	-145.5	4.4
12	148.50	-11.1	-21.4	225.0	22.5	-9.9	0.3	-654.4	-935.5	214.4	-139.1	4.4
13	161.00	-11.4	-21.1	225.0	22.5	-9.9	0.2	-653.3	-913.6	202.8	-132.3	4.4
14	173.50	-11.5	-21.4	225.0	22.5	-9.9	0.1	-652.2	-892.2	191.7	-125.7	4.4
15	186.00	-11.5	-21.4	225.0	22.5	-9.9	0.0	-651.0	-870.8	180.5	-119.3	4.4
16	198.50	-11.1	-22.2	225.0	22.5	-9.9	0.0	-649.9	-849.9	169.8	-113.3	4.4
17	211.00	-11.0	-22.2	225.0	22.5	-9.9	0.0	-648.7	-828.6	159.3	-106.6	4.4
18	223.50	-11.0	-23.3	225.0	22.5	-9.9	0.0	-647.4	-807.7	149.2	-100.0	4.4
19	236.00	-11.0	-23.3	225.0	22.5	-9.9	0.0	-646.1	-786.6	139.2	-94.1	4.4
20	248.50	-11.0	-24.4	225.0	22.5	-9.9	0.0	-644.8	-765.6	129.2	-88.1	4.4
21	261.00	-11.1	-24.4	225.0	22.5	-9.9	0.0	-643.5	-744.4	120.0	-82.2	4.4
22	273.50	-11.1	-24.4	225.0	22.5	-9.9	0.0	-642.2	-723.4	111.1	-76.3	4.4
23	286.00	-11.1	-24.4	225.0	22.5	-9.9	0.0	-640.9	-702.2	102.2	-70.4	4.4
24	298.50	-11.1	-24.4	225.0	22.5	-9.9	0.0	-639.6	-681.1	94.4	-64.5	4.4
25	311.00	-11.1	-24.4	225.0	22.5	-9.9	0.0	-638.3	-660.0	86.6	-58.6	4.4
26	323.50	-11.1	-24.4	225.0	22.5	-9.9	0.0	-637.0	-638.9	78.8	-52.7	4.4
27	336.00	-11.1	-24.4	225.0	22.5	-9.9	0.0	-635.7	-617.8	70.9	-46.8	4.4
28	348.50	-11.1	-24.4	225.0	22.5	-9.9	0.0	-634.4	-596.7	63.1	-40.9	4.4
29	361.00	-11.1	-24.4	225.0	22.5	-9.9	0.0	-633.1	-575.6	55.2	-35.0	4.4
30	373.50	-11.1	-24.4	225.0	22.5	-9.9	0.0	-631.8	-554.5	47.4	-29.1	4.4
31	386.00	-11.1	-24.4	225.0	22.5	-9.9	0.0	-630.5	-533.4	39.6	-23.2	4.4
32	398.50	-11.1	-24.4	225.0	22.5	-9.9	0.0	-629.2	-512.3	31.8	-17.3	4.4
33	411.00	-11.1	-24.4	225.0	22.5	-9.9	0.0	-627.9	-491.2	24.0	-11.4	4.4
34	423.50	-11.1	-24.4	225.0	22.5	-9.9	0.0	-626.6	-470.1	16.2	-5.5	4.4
35	436.00	-11.1	-24.4	225.0	22.5	-9.9	0.0	-625.3	-449.0	8.4	0.4	4.4
36	448.50	-11.1	-24.4	225.0	22.5	-9.9	0.0	-624.0	-427.9	0.6	6.3	4.4
37	461.00	-11.1	-24.4	225.0	22.5	-9.9	0.0	-622.7	-406.8	1.1	12.2	4.4
38	473.50	-11.1	-24.4	225.0	22.5	-9.9	0.0	-621.4	-385.7	1.1	18.1	4.4
39	486.00	-11.1	-24.4	225.0	22.5	-9.9	0.0	-620.1	-364.6	1.1	24.0	4.4
40	498.50	-11.1	-24.4	225.0	22.5	-9.9	0.0	-618.8	-343.5	1.1	30.0	4.4
41	511.00	-11.1	-24.4	225.0	22.5	-9.9	0.0	-617.5	-322.4	1.1	36.0	4.4
42	523.50	-11.1	-24.4	225.0	22.5	-9.9	0.0	-616.2	-301.3	1.1	42.0	4.4
43	536.00	-11.1	-24.4	225.0	22.5	-9.9	0.0	-614.9	-280.2	1.1	48.0	4.4
44	548.50	-11.1	-24.4	225.0	22.5	-9.9	0.0	-613.6	-259.1	1.1	54.0	4.4
45	561.00	-11.1	-24.4	225.0	22.5	-9.9	0.0	-612.3	-238.0	1.1	60.0	4.4
46	573.50	-11.1	-24.4	225.0	22.5	-9.9	0.0	-611.0	-216.9	1.1	66.0	4.4
47	586.00	-11.1	-24.4	225.0	22.5	-9.9	0.0	-609.7	-195.8	1.1	72.0	4.4





TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 350

CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH  
REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-4.7	-18.2	190.0	185.3	-	-221.4	-572.2	-101.6			
	11.00	-12.1	-35.0	469.5	185.3	-	-221.4	-556.7	-99.9			
	31.00	-2.5	-30.8	370.9	1127.5	-	-221.4	-553.5	-93.2			
	46.00	-6.6	-30.3	352.1	1163.3	-	-221.4	-546.6	-90.2			
	61.00	-5.0	-16.9	225.0	225.0	-	-221.4	-541.1	-88.8			
	86.00	-5.5	-17.0	225.0	225.0	-	-221.4	-535.5	-86.8			
	98.00	-7.6	-17.1	225.0	225.0	-	-221.4	-529.9	-85.4			
	111.00	-7.5	-17.1	225.0	225.0	-	-221.4	-523.4	-83.4			
	123.00	-8.8	-17.7	225.0	225.0	-	-221.4	-516.4	-81.6			
	136.00	-8.8	-17.7	225.0	225.0	-	-221.4	-508.9	-79.9			
	148.00	-5.5	-17.3	225.0	225.0	-	-221.4	-499.2	-78.2			
	161.00	-9.0	-17.4	225.0	225.0	-	-221.4	-483.2	-76.5			
	173.00	-2.2	-17.6	225.0	225.0	-	-221.4	-474.4	-74.4			
	186.00	-9.0	-18.1	225.0	225.0	-	-221.4	-465.5	-73.0			
	198.00	-8.8	-18.6	225.0	225.0	-	-221.4	-456.6	-71.1			
	211.00	-8.6	-19.1	225.0	225.0	-	-221.4	-447.7	-69.3			
	223.00	-8.4	-19.6	225.0	225.0	-	-221.4	-438.8	-67.4			
	244.00	-8.8	-20.0	225.0	225.0	-	-221.4	-433.1	-65.4			
	261.00	-7.6	-21.1	225.0	225.0	-	-221.4	-423.3	-63.4			
	273.00	-8.1	-21.9	225.0	225.0	-	-221.4	-415.3	-61.4			
	286.00	-8.6	-22.1	225.0	225.0	-	-221.4	-407.7	-59.3			
	298.00	-8.6	-22.2	225.0	225.0	-	-221.4	-400.7	-57.1			
	311.00	-9.8	-22.2	225.0	225.0	-	-221.4	-393.9	-54.9			
	323.00	-9.6	-22.2	225.0	225.0	-	-221.4	-388.2	-52.7			
	336.00	-10.1	-22.3	225.0	225.0	-	-221.4	-382.2	-50.4			
	348.00	-10.6	-22.4	225.0	225.0	-	-221.4	-377.2	-48.1			
	361.00	-11.1	-22.4	225.0	225.0	-	-221.4	-372.2	-45.7			
	373.00	-11.6	-22.5	225.0	225.0	-	-221.4	-367.2	-43.3			
	386.00	-12.5	-22.5	225.0	225.0	-	-221.4	-362.9	-40.8			
	398.00	-13.9	-22.5	225.0	225.0	-	-221.4	-358.6	-38.3			
	411.00	-14.4	-22.6	225.0	225.0	-	-221.4	-354.2	-35.8			
	423.00	-14.8	-22.6	225.0	225.0	-	-221.4	-350.0	-33.2			
	436.00	-14.9	-22.7	225.0	225.0	-	-221.4	-345.7	-30.6			
	448.00	-14.8	-22.7	225.0	225.0	-	-221.4	-341.5	-27.9			
	461.00	-14.8	-22.7	225.0	225.0	-	-221.4	-337.2	-25.2			
	473.00	-14.8	-22.7	225.0	225.0	-	-221.4	-332.9	-22.6			
	486.00	-14.8	-22.7	225.0	225.0	-	-221.4	-328.6	-20.0			
	498.00	-14.8	-22.7	225.0	225.0	-	-221.4	-324.3	-17.4			
	511.00	-14.8	-22.7	225.0	225.0	-	-221.4	-320.0	-14.8			
	523.00	-14.8	-22.7	225.0	225.0	-	-221.4	-315.7	-12.2			
	536.00	-14.8	-22.7	225.0	225.0	-	-221.4	-311.4	-9.6			
	548.00	-14.8	-22.7	225.0	225.0	-	-221.4	-307.1	-7.0			
	561.00	-14.8	-22.7	225.0	225.0	-	-221.4	-302.8	-4.4			
	573.00	-14.8	-22.7	225.0	225.0	-	-221.4	-298.5	-1.8			
	586.00	-14.8	-22.7	225.0	225.0	-	-221.4	-294.2	0.8			

TABLE 7. SHEAR AND MOMENT DIAGRAMS:  
WIND DIRECTION 0

MOMENT DIAGRAMS:  
CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH  
REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-6.3	-15.4	1900	853	-3.3	-18.1	-8.5	-8.9	260	-313	10.8
	11.00	-13.3	-30.1	4695	1550	-2.0	-19.4	-8.5	-8.9	250	-304	10.9
	31.00	-33.3	-23.7	3709	1275	-1.1	-22.2	-8.3	-8.4	233	-287	10.6
	46.00	-8.1	-15.7	3521	1163	-2.3	-22.2	-8.3	-8.4	221	-274	10.6
	61.00	-9.5	-15.7	2250	2250	-4.2	-22.2	-8.3	-8.4	209	-262	10.1
	76.50	-10.0	-15.7	2250	2250	-4.4	-22.2	-8.3	-8.4	199	-252	10.0
	92.00	-10.0	-15.7	2250	2250	-4.4	-22.2	-8.3	-8.4	189	-241	9.9
	107.50	-10.0	-15.7	2250	2250	-4.4	-22.2	-8.3	-8.4	180	-231	9.9
	123.00	-11.1	-17.7	2250	2250	-5.0	-22.2	-8.3	-8.4	171	-222	9.8
	138.50	-11.1	-17.7	2250	2250	-5.0	-22.2	-8.3	-8.4	162	-212	9.7
	154.00	-11.1	-17.7	2250	2250	-5.0	-22.2	-8.3	-8.4	153	-202	9.6
	169.50	-12.2	-18.8	2250	2250	-5.5	-22.2	-8.3	-8.4	144	-193	9.5
	185.00	-12.2	-18.8	2250	2250	-5.5	-22.2	-8.3	-8.4	136	-184	9.4
	200.50	-13.3	-18.8	2250	2250	-5.5	-22.2	-8.3	-8.4	128	-174	9.3
	216.00	-13.3	-18.8	2250	2250	-5.5	-22.2	-8.3	-8.4	120	-165	9.2
	231.50	-14.4	-19.9	2250	2250	-6.6	-22.2	-8.3	-8.4	112	-155	9.1
	247.00	-14.4	-19.9	2250	2250	-6.6	-22.2	-8.3	-8.4	105	-148	9.0
	262.50	-14.4	-19.9	2250	2250	-6.6	-22.2	-8.3	-8.4	98	-139	8.9
	278.00	-15.5	-20.0	2250	2250	-7.7	-22.2	-8.3	-8.4	91	-131	8.8
	293.50	-15.5	-20.0	2250	2250	-7.7	-22.2	-8.3	-8.4	84	-123	8.7
	309.00	-16.6	-20.0	2250	2250	-8.8	-22.2	-8.3	-8.4	77	-115	8.6
	324.50	-16.6	-20.0	2250	2250	-8.8	-22.2	-8.3	-8.4	71	-107	8.5
	340.00	-17.7	-20.0	2250	2250	-10.0	-22.2	-8.3	-8.4	65	-100	8.4
	355.50	-17.7	-20.0	2250	2250	-10.0	-22.2	-8.3	-8.4	59	-93	8.3
	371.00	-18.8	-20.0	2250	2250	-11.1	-22.2	-8.3	-8.4	54	-85	8.2
	386.50	-18.8	-20.0	2250	2250	-11.1	-22.2	-8.3	-8.4	49	-78	8.1
	402.00	-19.9	-20.0	2250	2250	-12.2	-22.2	-8.3	-8.4	44	-71	8.0
	417.50	-19.9	-20.0	2250	2250	-12.2	-22.2	-8.3	-8.4	40	-64	7.9
	433.00	-20.0	-20.0	2250	2250	-13.3	-22.2	-8.3	-8.4	34	-58	7.8
	448.50	-20.0	-20.0	2250	2250	-13.3	-22.2	-8.3	-8.4	30	-52	7.7
	464.00	-20.0	-20.0	2250	2250	-13.3	-22.2	-8.3	-8.4	26	-46	7.6
	479.50	-20.0	-20.0	2250	2250	-14.4	-22.2	-8.3	-8.4	22	-40	7.5
	495.00	-20.0	-20.0	2250	2250	-14.4	-22.2	-8.3	-8.4	19	-35	7.4
	510.50	-20.0	-20.0	2250	2250	-15.5	-22.2	-8.3	-8.4	16	-30	7.3
	526.00	-20.0	-20.0	2250	2250	-15.5	-22.2	-8.3	-8.4	13	-25	7.2
	541.50	-20.0	-20.0	2250	2250	-16.6	-22.2	-8.3	-8.4	11	-20	7.1
	557.00	-20.0	-20.0	2250	2250	-16.6	-22.2	-8.3	-8.4	9	-15	7.0
	572.50	-20.0	-20.0	2250	2250	-17.7	-22.2	-8.3	-8.4	7	-10	6.9
	588.00	-20.0	-20.0	2250	2250	-17.7	-22.2	-8.3	-8.4	5	-5	6.8

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 10

CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH

REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00											
	1.11											
	3.33											
	5.56											
	7.78											
	10.00											
	12.22											
	14.44											
	16.67											
	18.89											
	21.11											
	23.33											
	25.56											
	27.78											
	30.00											
	32.22											
	34.44											
	36.67											
	38.89											
	41.11											
	43.33											
	45.56											
	47.78											
	50.00											
	52.22											
	54.44											
	56.67											
	58.89											
	61.11											
	63.33											
	65.56											
	67.78											
	70.00											
	72.22											
	74.44											
	76.67											
	78.89											
	81.11											
	83.33											
	85.56											
	87.78											
	90.00											
	92.22											
	94.44											
	96.67											
	98.89											
	101.11											
	103.33											
	105.56											
	107.78											
	110.00											

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 20

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-	-	190.00	46.00	-	-	-	-	146.2	-290.1	7.1
1	11.00	-	-	190.00	46.00	-	-	-	-	141.0	-282.0	7.1
2	22.00	-	-	190.00	46.00	-	-	-	-	131.0	-267.4	7.1
3	33.00	-	-	190.00	46.00	-	-	-	-	120.0	-255.6	7.1
4	44.00	-	-	190.00	46.00	-	-	-	-	110.0	-244.4	7.1
5	55.00	-	-	190.00	46.00	-	-	-	-	100.0	-233.7	7.1
6	66.00	-	-	190.00	46.00	-	-	-	-	90.0	-222.8	7.1
7	77.00	-	-	190.00	46.00	-	-	-	-	80.0	-211.9	7.1
8	88.00	-	-	190.00	46.00	-	-	-	-	70.0	-200.2	7.1
9	99.00	-	-	190.00	46.00	-	-	-	-	60.0	-188.5	7.1
10	110.00	-	-	190.00	46.00	-	-	-	-	50.0	-177.7	7.1
11	121.00	-	-	190.00	46.00	-	-	-	-	40.0	-166.9	7.1
12	132.00	-	-	190.00	46.00	-	-	-	-	30.0	-156.1	7.1
13	143.00	-	-	190.00	46.00	-	-	-	-	20.0	-145.3	7.1
14	154.00	-	-	190.00	46.00	-	-	-	-	10.0	-134.5	7.1
15	165.00	-	-	190.00	46.00	-	-	-	-	0.0	-123.7	7.1
16	176.00	-	-	190.00	46.00	-	-	-	-	-	-112.9	7.1
17	187.00	-	-	190.00	46.00	-	-	-	-	-	-122.0	7.1
18	198.00	-	-	190.00	46.00	-	-	-	-	-	-131.1	7.1
19	209.00	-	-	190.00	46.00	-	-	-	-	-	-140.2	7.1
20	220.00	-	-	190.00	46.00	-	-	-	-	-	-149.3	7.1
21	231.00	-	-	190.00	46.00	-	-	-	-	-	-158.4	7.1
22	242.00	-	-	190.00	46.00	-	-	-	-	-	-167.5	7.1
23	253.00	-	-	190.00	46.00	-	-	-	-	-	-176.6	7.1
24	264.00	-	-	190.00	46.00	-	-	-	-	-	-185.7	7.1
25	275.00	-	-	190.00	46.00	-	-	-	-	-	-194.8	7.1
26	286.00	-	-	190.00	46.00	-	-	-	-	-	-203.9	7.1
27	297.00	-	-	190.00	46.00	-	-	-	-	-	-213.0	7.1
28	308.00	-	-	190.00	46.00	-	-	-	-	-	-222.1	7.1
29	319.00	-	-	190.00	46.00	-	-	-	-	-	-231.2	7.1
30	330.00	-	-	190.00	46.00	-	-	-	-	-	-240.3	7.1
31	341.00	-	-	190.00	46.00	-	-	-	-	-	-249.4	7.1
32	352.00	-	-	190.00	46.00	-	-	-	-	-	-258.5	7.1
33	363.00	-	-	190.00	46.00	-	-	-	-	-	-267.6	7.1
34	374.00	-	-	190.00	46.00	-	-	-	-	-	-276.7	7.1
35	385.00	-	-	190.00	46.00	-	-	-	-	-	-285.8	7.1
36	396.00	-	-	190.00	46.00	-	-	-	-	-	-294.9	7.1
37	407.00	-	-	190.00	46.00	-	-	-	-	-	-304.0	7.1
38	418.00	-	-	190.00	46.00	-	-	-	-	-	-313.1	7.1
39	429.00	-	-	190.00	46.00	-	-	-	-	-	-322.2	7.1
40	440.00	-	-	190.00	46.00	-	-	-	-	-	-331.3	7.1
41	451.00	-	-	190.00	46.00	-	-	-	-	-	-340.4	7.1
42	462.00	-	-	190.00	46.00	-	-	-	-	-	-349.5	7.1
43	473.00	-	-	190.00	46.00	-	-	-	-	-	-358.6	7.1
44	484.00	-	-	190.00	46.00	-	-	-	-	-	-367.7	7.1
45	495.00	-	-	190.00	46.00	-	-	-	-	-	-376.8	7.1
46	506.00	-	-	190.00	46.00	-	-	-	-	-	-385.9	7.1
47	517.00	-	-	190.00	46.00	-	-	-	-	-	-395.0	7.1





TABLE 7. SHEAR AND MOMENT DIAGRAMS  
WIND DIRECTION 50

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A

REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-16.6	-19.1	19.9	18.3	-1.1	-1.0	-1.3	50.3	-11.7	11.7	5.7
1	11.00	-12.2	-17.1	33.6	28.9	-1.1	-1.0	-1.3	33.3	-11.6	11.6	5.7
2	22.00	-11.7	-17.1	33.6	28.9	-1.1	-1.0	-1.3	21.6	-11.6	11.6	5.7
3	33.00	-11.5	-17.1	33.6	28.9	-1.1	-1.0	-1.3	10.1	-11.6	11.6	5.7
4	44.00	-11.6	-17.1	33.6	28.9	-1.1	-1.0	-1.3	0.0	-11.6	11.6	5.7
5	55.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
6	66.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
7	77.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
8	88.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
9	99.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
10	110.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
11	121.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
12	132.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
13	143.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
14	154.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
15	165.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
16	176.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
17	187.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
18	198.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
19	209.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
20	220.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
21	231.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
22	242.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
23	253.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
24	264.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
25	275.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
26	286.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
27	297.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
28	308.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
29	319.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
30	330.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
31	341.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
32	352.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
33	363.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
34	374.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
35	385.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
36	396.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
37	407.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
38	418.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
39	429.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
40	440.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
41	451.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
42	462.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
43	473.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
44	484.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
45	495.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
46	506.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
47	517.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
48	528.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
49	539.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7
50	550.00	-14.4	-12.2	22.2	22.2	-1.1	-1.1	-1.1	0.0	-11.6	11.6	5.7





TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 70

MOMENT DIAGRAMS :  
CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH  
REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
1	11	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
2	22	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
3	33	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
4	44	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
5	55	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
6	66	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
7	77	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
8	88	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
9	99	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
10	110	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
11	121	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
12	132	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
13	143	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
14	154	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
15	165	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
16	176	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
17	187	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
18	198	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
19	209	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
20	220	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
21	231	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
22	242	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
23	253	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
24	264	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
25	275	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
26	286	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
27	297	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
28	308	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
29	319	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
30	330	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
31	341	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
32	352	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
33	363	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
34	374	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
35	385	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
36	396	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
37	407	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
38	418	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
39	429	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
40	440	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
41	451	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
42	462	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
43	473	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
44	484	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
45	495	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
46	506	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
47	517	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
48	528	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
49	539	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
50	550	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
51	561	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
52	572	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
53	583	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
54	594	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
55	605	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
56	616	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
57	627	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
58	638	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
59	649	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
60	660	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
61	671	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
62	682	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
63	693	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
64	704	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
65	715	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
66	726	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
67	737	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
68	748	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
69	759	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
70	770	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
71	781	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
72	792	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
73	803	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
74	814	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
75	825	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
76	836	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
77	847	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
78	858	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
79	869	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
80	880	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
81	891	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
82	902	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
83	913	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
84	924	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
85	935	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
86	946	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
87	957	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
88	968	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
89	979	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
90	990	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1	11.2	11.2
91	1001	12.5	11.2	1900	853	-6.6	-14.3	-6.8	10.9	-1.1</		

TABLE 7. SHEAR AND MOMENT DIAGRAMS;  
WIND DIRECTION 80

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-12.5	-13.5	190.0	185.3	-6.6	-15.9	-6.4	101.9	-36.9	-213.7	8.4
	1.1	-12.3	-12.9	189.5	185.0	-6.7	-15.8	-6.2	103.3	-35.7	-208.8	8.8
	2.2	-12.0	-12.4	189.0	184.7	-6.8	-15.7	-6.0	104.6	-34.4	-203.9	9.2
	3.3	-11.7	-12.0	188.5	184.4	-6.9	-15.6	-5.8	105.9	-33.1	-199.0	9.6
	4.4	-11.4	-11.6	188.0	184.1	-7.0	-15.5	-5.6	107.2	-31.8	-194.1	10.0
	5.5	-11.1	-11.2	187.5	183.8	-7.1	-15.4	-5.4	108.5	-30.5	-189.2	10.4
	6.6	-10.8	-10.8	187.0	183.5	-7.2	-15.3	-5.2	109.8	-29.2	-184.3	10.8
	7.7	-10.5	-10.4	186.5	183.2	-7.3	-15.2	-5.0	111.1	-27.9	-179.4	11.2
	8.8	-10.2	-10.0	186.0	182.9	-7.4	-15.1	-4.8	112.4	-26.6	-174.5	11.6
	9.9	-9.9	-9.7	185.5	182.6	-7.5	-15.0	-4.6	113.7	-25.3	-169.6	12.0
	11.0	-9.6	-9.4	185.0	182.3	-7.6	-14.9	-4.4	115.0	-24.0	-164.7	12.4
	12.1	-9.3	-9.1	184.5	182.0	-7.7	-14.8	-4.2	116.3	-22.7	-159.8	12.8
	13.2	-9.0	-8.8	184.0	181.7	-7.8	-14.7	-4.0	117.6	-21.4	-154.9	13.2
	14.3	-8.7	-8.5	183.5	181.4	-7.9	-14.6	-3.8	118.9	-20.1	-150.0	13.6
	15.4	-8.4	-8.2	183.0	181.1	-8.0	-14.5	-3.6	120.2	-18.8	-145.1	14.0
	16.5	-8.1	-7.9	182.5	180.8	-8.1	-14.4	-3.4	121.5	-17.5	-140.2	14.4
	17.6	-7.8	-7.6	182.0	180.5	-8.2	-14.3	-3.2	122.8	-16.2	-135.3	14.8
	18.7	-7.5	-7.3	181.5	180.2	-8.3	-14.2	-3.0	124.1	-14.9	-130.4	15.2
	19.8	-7.2	-7.0	181.0	179.9	-8.4	-14.1	-2.8	125.4	-13.6	-125.5	15.6
	20.9	-6.9	-6.7	180.5	179.6	-8.5	-14.0	-2.6	126.7	-12.3	-120.6	16.0
	22.0	-6.6	-6.4	180.0	179.3	-8.6	-13.9	-2.4	128.0	-11.0	-115.7	16.4
	23.1	-6.3	-6.1	179.5	179.0	-8.7	-13.8	-2.2	129.3	-9.7	-110.8	16.8
	24.2	-6.0	-5.8	179.0	178.7	-8.8	-13.7	-2.0	130.6	-8.4	-105.9	17.2
	25.3	-5.7	-5.5	178.5	178.4	-8.9	-13.6	-1.8	131.9	-7.1	-101.0	17.6
	26.4	-5.4	-5.2	178.0	178.1	-9.0	-13.5	-1.6	133.2	-5.8	-96.1	18.0
	27.5	-5.1	-4.9	177.5	177.8	-9.1	-13.4	-1.4	134.5	-4.5	-91.2	18.4
	28.6	-4.8	-4.6	177.0	177.5	-9.2	-13.3	-1.2	135.8	-3.2	-86.3	18.8
	29.7	-4.5	-4.3	176.5	177.2	-9.3	-13.2	-1.0	137.1	-1.9	-81.4	19.2
	30.8	-4.2	-4.0	176.0	176.9	-9.4	-13.1	-0.8	138.4	-0.6	-76.5	19.6
	31.9	-3.9	-3.7	175.5	176.6	-9.5	-13.0	-0.6	139.7	0.7	-71.6	20.0
	33.0	-3.6	-3.4	175.0	176.3	-9.6	-12.9	-0.4	141.0	2.0	-66.7	20.4
	34.1	-3.3	-3.1	174.5	176.0	-9.7	-12.8	-0.2	142.3	3.3	-61.8	20.8
	35.2	-3.0	-2.8	174.0	175.7	-9.8	-12.7	0.0	143.6	4.6	-56.9	21.2
	36.3	-2.7	-2.5	173.5	175.4	-9.9	-12.6	0.2	144.9	5.9	-52.0	21.6
	37.4	-2.4	-2.2	173.0	175.1	-10.0	-12.5	0.4	146.2	7.2	-47.1	22.0
	38.5	-2.1	-1.9	172.5	174.8	-10.1	-12.4	0.6	147.5	8.5	-42.2	22.4
	39.6	-1.8	-1.6	172.0	174.5	-10.2	-12.3	0.8	148.8	9.8	-37.3	22.8
	40.7	-1.5	-1.3	171.5	174.2	-10.3	-12.2	1.0	150.1	11.1	-32.4	23.2
	41.8	-1.2	-1.0	171.0	173.9	-10.4	-12.1	1.2	151.4	12.4	-27.5	23.6
	42.9	-0.9	-0.7	170.5	173.6	-10.5	-12.0	1.4	152.7	13.7	-22.6	24.0
	44.0	-0.6	-0.4	170.0	173.3	-10.6	-11.9	1.6	154.0	15.0	-17.7	24.4
	45.1	-0.3	-0.1	169.5	173.0	-10.7	-11.8	1.8	155.3	16.3	-12.8	24.8
	46.2	0.0	0.0	169.0	172.7	-10.8	-11.7	2.0	156.6	17.6	-7.9	25.2
	47.3	0.3	0.1	168.5	172.4	-10.9	-11.6	2.2	157.9	18.9	-3.0	25.6
	48.4	0.6	0.2	168.0	172.1	-11.0	-11.5	2.4	159.2	20.2	1.9	26.0
	49.5	0.9	0.3	167.5	171.8	-11.1	-11.4	2.6	160.5	21.5	7.0	26.4
	50.6	1.2	0.4	167.0	171.5	-11.2	-11.3	2.8	161.8	22.8	12.1	26.8
	51.7	1.5	0.5	166.5	171.2	-11.3	-11.2	3.0	163.1	24.1	17.2	27.2
	52.8	1.8	0.6	166.0	170.9	-11.4	-11.1	3.2	164.4	25.4	22.3	27.6
	53.9	2.1	0.7	165.5	170.6	-11.5	-11.0	3.4	165.7	26.7	27.4	28.0
	55.0	2.4	0.8	165.0	170.3	-11.6	-10.9	3.6	167.0	28.0	32.5	28.4
	56.1	2.7	0.9	164.5	170.0	-11.7	-10.8	3.8	168.3	29.3	37.6	28.8
	57.2	3.0	1.0	164.0	169.7	-11.8	-10.7	4.0	169.6	30.6	42.7	29.2
	58.3	3.3	1.1	163.5	169.4	-11.9	-10.6	4.2	170.9	31.9	47.8	29.6
	59.4	3.6	1.2	163.0	169.1	-12.0	-10.5	4.4	172.2	33.2	52.9	30.0
	60.5	3.9	1.3	162.5	168.8	-12.1	-10.4	4.6	173.5	34.5	58.0	30.4
	61.6	4.2	1.4	162.0	168.5	-12.2	-10.3	4.8	174.8	35.8	63.1	30.8
	62.7	4.5	1.5	161.5	168.2	-12.3	-10.2	5.0	176.1	37.1	68.2	31.2
	63.8	4.8	1.6	161.0	167.9	-12.4	-10.1	5.2	177.4	38.4	73.3	31.6
	64.9	5.1	1.7	160.5	167.6	-12.5	-10.0	5.4	178.7	39.7	78.4	32.0
	66.0	5.4	1.8	160.0	167.3	-12.6	-9.9	5.6	180.0	41.0	83.5	32.4
	67.1	5.7	1.9	159.5	167.0	-12.7	-9.8	5.8	181.3	42.3	88.6	32.8
	68.2	6.0	2.0	159.0	166.7	-12.8	-9.7	6.0	182.6	43.6	93.7	33.2
	69.3	6.3	2.1	158.5	166.4	-12.9	-9.6	6.2	183.9	44.9	98.8	33.6
	70.4	6.6	2.2	158.0	166.1	-13.0	-9.5	6.4	185.2	46.2	103.9	34.0
	71.5	6.9	2.3	157.5	165.8	-13.1	-9.4	6.6	186.5	47.5	109.0	34.4
	72.6	7.2	2.4	157.0	165.5	-13.2	-9.3	6.8	187.8	48.8	114.1	34.8
	73.7	7.5	2.5	156.5	165.2	-13.3	-9.2	7.0	189.1	50.1	119.2	35.2
	74.8	7.8	2.6	156.0	164.9	-13.4	-9.1	7.2	190.4	51.4	124.3	35.6
	75.9	8.1	2.7	155.5	164.6	-13.5	-9.0	7.4	191.7	52.7	129.4	36.0
	77.0	8.4	2.8	155.0	164.3	-13.6	-8.9	7.6	193.0	54.0	134.5	36.4
	78.1	8.7	2.9	154.5	164.0	-13.7	-8.8	7.8	194.3	55.3	139.6	36.8
	79.2	9.0	3.0	154.0	163.7	-13.8	-8.7	8.0	195.6	56.6	144.7	37.2
	80.3	9.3	3.1	153.5	163.4	-13.9	-8.6	8.2	196.9	57.9	149.8	37.6
	81.4	9.6	3.2	153.0	163.1	-14.0	-8.5	8.4	198.2	59.2	154.9	38.0
	82.5	9.9	3.3	152.5	162.8	-14.1	-8.4	8.6	199.5	60.5	160.0	38.4
	83.6	10.2	3.4	152.0	162.5	-14.2	-8.3	8.8	200.8	61.8	165.1	38.8
	84.7	10.5	3.5	151.5	162.2	-14.3	-8.2	9.0	202.1	63.1	170.2	39.2
	85.8	10.8	3.6	151.0	161.9	-14.4	-8.1	9.2	203.4	64.4	175.3	39.6
	86.9	11.1	3.7	150.5	161.6	-14.5	-8.0	9.4	204.7	65.7	180.4	40.0
	88.0	11.4	3.8	150.0	161.3	-14.6	-7.9	9.6	206.0	67.0	185.5	40.4
	89.1	11.7	3.9	149.5	161.0	-14.7	-7.8	9.8	207.3	68.3	190.6	40.8
	90.2	12.0	4.0	149.0	160.7	-14.8	-7.7	10.0	208.6	69.6	195.7	41.2
	91.3	12.3	4.1	148.5	160.4	-14.9	-7.6	10.2	209.9	70.9	200.8	41.6
	92.4	12.6	4.2	148.0	160.1	-15.0	-7.5	10.4	211.2	72.2	205.9	42.0
	93.5	12.9	4.3	147.5	159.8	-15.1	-7.4	10.6	212.5	73.5	211.0	42.4
	94.6	13.2	4.4	147.0	159.5	-15.2	-7.3	10.8	213.8	74.8	216.1	42.8
	95.7	13.5	4.5	146.5	159.2	-15.3	-7.2	11.0	215.1	76.1	221.2	43.2
	96.8	13.8	4.6	146.0	158.9	-15.4	-7.1	11.2	216.4	77.4	226.3	43.6
	97.9	14.1	4.7	145.5	158.6	-15.5	-7.0	11.4	217.7	78.7	231.4	44.0
	99.0	14.4	4.8	145.0	158.3	-15.6	-6.9	11.6	219.0	80.0	236.5	

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 90

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-12.0	1900	853	-4.9	-14.1	-106.6	10.9	10.9	11.1	-179.2	11.1
2	11.00	-26.0	4695	1550	-6.9	-16.8	109.4	10.6	10.6	11.1	-172.6	11.1
3	31.00	-31.5	3709	1275	-7.2	-17.7	113.3	10.3	10.3	11.1	-161.0	12.2
4	46.00	-35.5	3521	1163	-7.7	-18.5	115.5	9.9	9.9	11.1	-152.8	14.4
5	61.00	-39.0	2250	2250	-8.2	-19.2	113.3	9.5	9.5	11.1	-145.0	16.6
6	73.50	-41.5	2250	2250	-8.7	-19.9	111.8	9.1	9.1	11.1	-138.8	16.2
7	86.00	-44.0	2250	2250	-9.2	-20.6	109.6	8.7	8.7	11.1	-132.8	16.2
8	98.50	-46.5	2250	2250	-9.7	-21.3	107.4	8.3	8.3	11.1	-127.7	16.1
9	111.00	-49.0	2250	2250	-10.2	-22.0	105.2	7.9	7.9	11.1	-122.4	16.0
10	123.50	-51.5	2250	2250	-10.7	-22.7	103.0	7.5	7.5	11.1	-116.9	15.5
11	136.00	-54.0	2250	2250	-11.2	-23.4	100.8	7.1	7.1	11.1	-111.0	15.5
12	148.50	-56.5	2250	2250	-11.7	-24.1	98.6	6.7	6.7	11.1	-105.5	15.5
13	161.00	-59.0	2250	2250	-12.2	-24.8	96.4	6.3	6.3	11.1	-100.0	15.5
14	173.50	-61.5	2250	2250	-12.7	-25.5	94.2	5.9	5.9	11.1	-94.6	15.5
15	186.00	-64.0	2250	2250	-13.2	-26.2	92.0	5.5	5.5	11.1	-89.1	14.4
16	198.50	-66.5	2250	2250	-13.7	-26.9	89.8	5.1	5.1	11.1	-83.6	14.4
17	211.00	-69.0	2250	2250	-14.2	-27.6	87.6	4.7	4.7	11.1	-78.2	14.4
18	223.50	-71.5	2250	2250	-14.7	-28.3	85.4	4.3	4.3	11.1	-72.7	14.4
19	236.00	-74.0	2250	2250	-15.2	-29.0	83.2	3.9	3.9	11.1	-67.3	13.3
20	248.50	-76.5	2250	2250	-15.7	-29.7	81.0	3.5	3.5	11.1	-61.8	13.3
21	261.00	-79.0	2250	2250	-16.2	-30.4	78.8	3.1	3.1	11.1	-56.4	12.2
22	273.50	-81.5	2250	2250	-16.7	-31.1	76.6	2.7	2.7	11.1	-51.0	11.1
23	286.00	-84.0	2250	2250	-17.2	-31.8	74.4	2.3	2.3	11.1	-45.5	11.1
24	298.50	-86.5	2250	2250	-17.7	-32.5	72.2	1.9	1.9	11.1	-40.1	11.1
25	311.00	-89.0	2250	2250	-18.2	-33.2	70.0	1.5	1.5	11.1	-34.6	11.1
26	323.50	-91.5	2250	2250	-18.7	-33.9	67.8	1.1	1.1	11.1	-29.2	11.1
27	336.00	-94.0	2250	2250	-19.2	-34.6	65.6	0.7	0.7	11.1	-23.7	11.1
28	348.50	-96.5	2250	2250	-19.7	-35.3	63.4	0.3	0.3	11.1	-18.3	11.1
29	361.00	-99.0	2250	2250	-20.2	-36.0	61.2	0.0	0.0	11.1	-12.8	11.1
30	373.50	-101.5	2250	2250	-20.7	-36.7	59.0	0.0	0.0	11.1	-7.4	11.1
31	386.00	-104.0	2250	2250	-21.2	-37.4	56.8	0.0	0.0	11.1	-2.0	11.1
32	398.50	-106.5	2250	2250	-21.7	-38.1	54.6	0.0	0.0	11.1	3.4	11.1
33	411.00	-109.0	2250	2250	-22.2	-38.8	52.4	0.0	0.0	11.1	8.0	11.1
34	423.50	-111.5	2250	2250	-22.7	-39.5	50.2	0.0	0.0	11.1	12.6	11.1
35	436.00	-114.0	2250	2250	-23.2	-40.2	48.0	0.0	0.0	11.1	17.2	11.1
36	448.50	-116.5	2250	2250	-23.7	-40.9	45.8	0.0	0.0	11.1	21.8	11.1
37	461.00	-119.0	2250	2250	-24.2	-41.6	43.6	0.0	0.0	11.1	26.4	11.1
38	473.50	-121.5	2250	2250	-24.7	-42.3	41.4	0.0	0.0	11.1	31.0	11.1
39	486.00	-124.0	2250	2250	-25.2	-43.0	39.2	0.0	0.0	11.1	35.6	11.1
40	498.50	-126.5	2250	2250	-25.7	-43.7	37.0	0.0	0.0	11.1	40.2	11.1
41	511.00	-129.0	2250	2250	-26.2	-44.4	34.8	0.0	0.0	11.1	44.8	11.1
42	523.50	-131.5	2250	2250	-26.7	-45.1	32.6	0.0	0.0	11.1	49.4	11.1
43	536.00	-134.0	2250	2250	-27.2	-45.8	30.4	0.0	0.0	11.1	54.0	11.1
44	548.50	-136.5	2250	2250	-27.7	-46.5	28.2	0.0	0.0	11.1	58.6	11.1
45	561.00	-139.0	2250	2250	-28.2	-47.2	26.0	0.0	0.0	11.1	63.2	11.1
46	573.50	-141.5	2250	2250	-28.7	-47.9	23.8	0.0	0.0	11.1	67.8	11.1
47	586.00	-144.0	2250	2250	-29.2	-48.6	21.6	0.0	0.0	11.1	72.4	11.1

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 100

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-9.0	-10.8	1900	853	-4.7	-12.6	-6.9	1128.8	-409.8	-168.0	12.2
2	11.00	-28.0	-11.0	4695	1550	-6.0	-15.1	-6.0	1130.3	-397.3	-161.1	12.6
3	31.00	-26.7	-11.9	3709	1275	-7.2	-14.9	-6.0	1130.3	-148.9	-148.9	13.0
4	46.00	-35.2	-11.1	3521	1163	-7.2	-14.9	-6.0	1130.3	-148.9	-148.9	13.0
5	61.00	-19.9	-11.1	2250	2250	-8.9	-8.8	-6.0	1130.3	-132.2	-132.2	13.0
6	73.50	-19.4	-11.1	2250	2250	-8.9	-8.8	-6.0	1130.3	-125.5	-125.5	13.0
7	86.00	-18.7	-11.1	2250	2250	-8.3	-9.9	-6.0	1130.3	-119.1	-119.1	13.0
8	98.50	-18.7	-11.1	2250	2250	-8.3	-9.9	-6.0	1130.3	-113.3	-113.3	13.0
9	111.00	-17.7	-11.1	2250	2250	-7.7	-9.9	-6.0	1130.3	-107.7	-107.7	13.0
10	123.50	-16.7	-11.1	2250	2250	-7.7	-9.9	-6.0	1130.3	-101.7	-101.7	13.0
11	136.00	-15.9	-11.1	2250	2250	-7.7	-9.9	-6.0	1130.3	-96.4	-96.4	13.0
12	148.50	-15.2	-11.1	2250	2250	-6.6	-10.0	-6.0	1130.3	-91.1	-91.1	13.0
13	161.00	-14.4	-11.1	2250	2250	-6.6	-10.0	-6.0	1130.3	-86.6	-86.6	13.0
14	173.50	-13.8	-11.1	2250	2250	-5.5	-10.0	-6.0	1130.3	-81.4	-81.4	13.0
15	186.00	-13.3	-11.1	2250	2250	-5.5	-9.9	-6.0	1130.3	-76.6	-76.6	13.0
16	198.50	-12.2	-11.1	2250	2250	-5.5	-9.9	-6.0	1130.3	-71.9	-71.9	13.0
17	211.00	-11.1	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	-66.6	-66.6	13.0
18	223.50	-10.8	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	-61.9	-61.9	13.0
19	236.00	-10.1	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	-56.6	-56.6	13.0
20	248.50	-9.9	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	-51.9	-51.9	13.0
21	261.00	-8.8	-11.1	2250	2250	-3.3	-11.1	-6.0	1130.3	-46.6	-46.6	13.0
22	273.50	-7.7	-11.1	2250	2250	-3.3	-11.1	-6.0	1130.3	-41.1	-41.1	13.0
23	286.00	-6.6	-11.1	2250	2250	-3.3	-11.1	-6.0	1130.3	-35.3	-35.3	13.0
24	298.50	-4.4	-11.1	2250	2250	-3.3	-11.1	-6.0	1130.3	-29.9	-29.9	13.0
25	311.00	-4.4	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	-24.4	-24.4	13.0
26	323.50	-4.4	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	-18.8	-18.8	13.0
27	336.00	-4.4	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	-13.3	-13.3	13.0
28	348.50	-4.4	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	-7.7	-7.7	13.0
29	361.00	-4.4	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	-2.2	-2.2	13.0
30	373.50	-4.4	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	0.0	0.0	13.0
31	386.00	-4.4	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	0.0	0.0	13.0
32	398.50	-4.4	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	0.0	0.0	13.0
33	411.00	-4.4	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	0.0	0.0	13.0
34	423.50	-4.4	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	0.0	0.0	13.0
35	436.00	-4.4	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	0.0	0.0	13.0
36	448.50	-4.4	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	0.0	0.0	13.0
37	461.00	-4.4	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	0.0	0.0	13.0
38	473.50	-4.4	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	0.0	0.0	13.0
39	486.00	-4.4	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	0.0	0.0	13.0
40	498.50	-4.4	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	0.0	0.0	13.0
41	511.00	-4.4	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	0.0	0.0	13.0
42	523.50	-4.4	-11.1	2250	2250	-4.4	-11.1	-6.0	1130.3	0.0	0.0	13.0
43	536.00	-4.4	-11.1	1188	1188	-4.4	-11.1	-6.0	1130.3	0.0	0.0	13.0
44	548.50	-4.4	-11.1	1188	1188	-4.4	-11.1	-6.0	1130.3	0.0	0.0	13.0
45	561.00	-4.4	-11.1	1188	1188	-4.4	-11.1	-6.0	1130.3	0.0	0.0	13.0
46	573.50	-4.4	-11.1	1188	1188	-4.4	-11.1	-6.0	1130.3	0.0	0.0	13.0
47	586.00	-4.4	-11.1	1188	1188	-4.4	-11.1	-6.0	1130.3	0.0	0.0	13.0

TABLE 7. SHEAR AND MOMENT DIAGRAMS ;  
WIND DIRECTION 110

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-9.9	-9.4	1900	853	-5.2	-11.1	-6.7	10.2	1.4	-1.9	8.2
2	11.00	-21.7	-20.3	4695	1550	-4.6	-13.1	-6.8	10.0	1.4	-1.8	8.8
3	31.00	-14.4	-16.6	3709	1275	-4.0	-13.0	-6.9	9.9	1.4	-1.7	9.8
4	46.00	-22.3	-19.9	5221	1163	-3.6	-16.3	-6.9	11.1	1.1	-1.6	11.1
5	61.00	-15.0	-17.7	2250	2250	-3.0	-16.6	-6.6	11.2	1.1	-1.5	12.2
6	73.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	11.0	1.1	-1.4	13.3
7	86.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	10.7	1.1	-1.3	14.4
8	98.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	10.5	1.1	-1.2	15.5
9	111.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	10.3	1.1	-1.1	16.6
10	123.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	10.1	1.1	-1.0	17.7
11	136.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	9.9	1.1	-0.9	18.8
12	148.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	9.7	1.1	-0.8	19.9
13	161.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	9.5	1.1	-0.7	21.0
14	173.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	9.3	1.1	-0.6	22.1
15	186.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	9.1	1.1	-0.5	23.2
16	198.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	8.9	1.1	-0.4	24.3
17	211.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	8.7	1.1	-0.3	25.4
18	223.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	8.5	1.1	-0.2	26.5
19	236.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	8.3	1.1	-0.1	27.6
20	248.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	8.1	1.1	0.0	28.7
21	261.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	7.9	1.1	0.0	29.8
22	273.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	7.7	1.1	0.0	30.9
23	286.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	7.5	1.1	0.0	32.0
24	298.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	7.3	1.1	0.0	33.1
25	311.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	7.1	1.1	0.0	34.2
26	323.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	6.9	1.1	0.0	35.3
27	336.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	6.7	1.1	0.0	36.4
28	348.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	6.5	1.1	0.0	37.5
29	361.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	6.3	1.1	0.0	38.6
30	373.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	6.1	1.1	0.0	39.7
31	386.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	5.9	1.1	0.0	40.8
32	398.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	5.7	1.1	0.0	41.9
33	411.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	5.5	1.1	0.0	43.0
34	423.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	5.3	1.1	0.0	44.1
35	436.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	5.1	1.1	0.0	45.2
36	448.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	4.9	1.1	0.0	46.3
37	461.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	4.7	1.1	0.0	47.4
38	473.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	4.5	1.1	0.0	48.5
39	486.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	4.3	1.1	0.0	49.6
40	498.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	4.1	1.1	0.0	50.7
41	511.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	3.9	1.1	0.0	51.8
42	523.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	3.7	1.1	0.0	52.9
43	536.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	3.5	1.1	0.0	54.0
44	548.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	3.3	1.1	0.0	55.1
45	561.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	3.1	1.1	0.0	56.2
46	573.50	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	2.9	1.1	0.0	57.3
47	586.00	-15.0	-17.7	2250	2250	-3.0	-17.7	-6.6	2.7	1.1	0.0	58.4

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 120

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-8.6	-7.0	1900	1588	1.4	1.2	410.3	1131.5	-421.6	-109.8	5.7
2	11.00	-14.3	-15.7	4695	1588	1.4	1.2	410.3	1131.5	-409.4	-105.3	2.2
4	31.00	-11.1	-13.2	3709	1275	1.4	1.2	410.3	1131.5	-386.6	-97.4	6.6
6	46.00	-11.1	-14.3	3521	1163	1.4	1.2	410.3	1131.5	-366.8	-86.6	6.6
8	61.00	-11.1	-18.7	2250	2250	1.4	1.2	410.3	1131.5	-351.1	-81.1	4.4
10	73.50	-11.1	-19.1	2250	2250	1.4	1.2	410.3	1131.5	-336.6	-81.1	4.4
12	86.00	-11.1	-19.4	2250	2250	1.4	1.2	410.3	1131.5	-322.2	-77.7	6.6
14	98.50	-11.1	-19.7	2250	2250	1.4	1.2	410.3	1131.5	-307.7	-72.2	6.6
16	111.00	-11.1	-19.9	2250	2250	1.4	1.2	410.3	1131.5	-294.4	-68.8	6.6
18	123.50	-11.1	-20.0	2250	2250	1.4	1.2	410.3	1131.5	-280.0	-64.4	4.4
20	136.00	-11.1	-20.4	2250	2250	1.4	1.2	410.3	1131.5	-266.6	-60.0	6.6
22	148.50	-11.1	-20.7	2250	2250	1.4	1.2	410.3	1131.5	-253.3	-56.6	6.6
24	161.00	-11.1	-21.0	2250	2250	1.4	1.2	410.3	1131.5	-240.0	-52.2	6.6
26	173.50	-11.1	-21.3	2250	2250	1.4	1.2	410.3	1131.5	-228.8	-48.4	4.4
28	186.00	-11.1	-21.6	2250	2250	1.4	1.2	410.3	1131.5	-217.7	-44.4	6.6
30	198.50	-11.1	-21.8	2250	2250	1.4	1.2	410.3	1131.5	-207.9	-41.1	2.2
32	211.00	-11.1	-22.0	2250	2250	1.4	1.2	410.3	1131.5	-197.9	-37.7	6.6
34	223.50	-11.1	-22.2	2250	2250	1.4	1.2	410.3	1131.5	-188.0	-34.4	4.4
36	236.00	-11.1	-22.4	2250	2250	1.4	1.2	410.3	1131.5	-179.1	-31.1	6.6
38	248.50	-11.1	-22.6	2250	2250	1.4	1.2	410.3	1131.5	-170.3	-27.7	6.6
40	261.00	-11.1	-22.8	2250	2250	1.4	1.2	410.3	1131.5	-161.5	-24.4	6.6
42	273.50	-11.1	-22.9	2250	2250	1.4	1.2	410.3	1131.5	-152.8	-21.1	6.6
44	286.00	-11.1	-23.0	2250	2250	1.4	1.2	410.3	1131.5	-144.1	-17.7	6.6
46	298.50	-11.1	-23.1	2250	2250	1.4	1.2	410.3	1131.5	-135.4	-14.4	6.6
48	311.00	-11.1	-23.2	2250	2250	1.4	1.2	410.3	1131.5	-126.7	-11.1	6.6
50	323.50	-11.1	-23.3	2250	2250	1.4	1.2	410.3	1131.5	-118.0	-7.7	6.6
52	336.00	-11.1	-23.4	2250	2250	1.4	1.2	410.3	1131.5	-109.3	-4.4	6.6
54	348.50	-11.1	-23.5	2250	2250	1.4	1.2	410.3	1131.5	-100.6	-1.1	6.6
56	361.00	-11.1	-23.6	2250	2250	1.4	1.2	410.3	1131.5	-91.9	2.2	6.6
58	373.50	-11.1	-23.7	2250	2250	1.4	1.2	410.3	1131.5	-83.2	5.5	6.6
60	386.00	-11.1	-23.8	2250	2250	1.4	1.2	410.3	1131.5	-74.5	8.8	6.6
62	398.50	-11.1	-23.9	2250	2250	1.4	1.2	410.3	1131.5	-65.8	12.1	6.6
64	411.00	-11.1	-24.0	2250	2250	1.4	1.2	410.3	1131.5	-57.1	15.4	6.6
66	423.50	-11.1	-24.1	2250	2250	1.4	1.2	410.3	1131.5	-48.4	18.7	6.6
68	436.00	-11.1	-24.2	2250	2250	1.4	1.2	410.3	1131.5	-39.7	22.0	6.6
70	448.50	-11.1	-24.3	2250	2250	1.4	1.2	410.3	1131.5	-31.0	25.3	6.6
72	461.00	-11.1	-24.4	2250	2250	1.4	1.2	410.3	1131.5	-22.3	28.6	6.6
74	473.50	-11.1	-24.5	2250	2250	1.4	1.2	410.3	1131.5	-13.6	31.9	6.6
76	486.00	-11.1	-24.6	2250	2250	1.4	1.2	410.3	1131.5	-4.9	35.2	6.6
78	498.50	-11.1	-24.7	2250	2250	1.4	1.2	410.3	1131.5	3.8	38.5	6.6
80	511.00	-11.1	-24.8	2250	2250	1.4	1.2	410.3	1131.5	12.5	41.8	6.6
82	523.50	-11.1	-24.9	2250	2250	1.4	1.2	410.3	1131.5	21.2	45.1	6.6
84	536.00	-11.1	-25.0	1188	1188	1.4	1.2	410.3	1131.5	29.9	48.4	6.6
86	548.50	-11.1	-25.1	1188	1188	1.4	1.2	410.3	1131.5	38.6	51.7	6.6
88	561.00	-11.1	-25.2	1188	1188	1.4	1.2	410.3	1131.5	47.3	55.0	6.6
90	573.50	-11.1	-25.3	1188	1188	1.4	1.2	410.3	1131.5	56.0	58.3	6.6
92	586.00	-11.1	-25.4	1188	1188	1.4	1.2	410.3	1131.5	64.7	61.6	6.6
94				1188	1188	1.4	1.2	410.3	1131.5	73.4	64.9	6.6
96				1188	1188	1.4	1.2	410.3	1131.5	82.1	68.2	6.6
98				1188	1188	1.4	1.2	410.3	1131.5	90.8	71.5	6.6
100				1188	1188	1.4	1.2	410.3	1131.5	99.5	74.8	6.6

TABLE 7. SHEAR AND MOMENT DIAGRAMS ;  
WIND DIRECTION 130

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRHD	0.00	-3.9	-3.3	190.0	85.3	-2.1	-3.3	22.4	12.7	-45.4	107.6	3.8
32	11.00			46.9	1.5							
31	31.00			37.0	1.5							
4	46.00			35.2	1.1							
5	61.00			22.5	0.0							
6	73.00			22.5	0.0							
7	86.00			22.5	0.0							
8	98.00			22.5	0.0							
9	111.00			22.5	0.0							
10	123.00			22.5	0.0							
11	136.00			22.5	0.0							
12	148.00			22.5	0.0							
13	161.00			22.5	0.0							
14	173.00			22.5	0.0							
15	186.00			22.5	0.0							
16	198.00			22.5	0.0							
17	211.00			22.5	0.0							
18	223.00			22.5	0.0							
19	236.00			22.5	0.0							
20	248.00			22.5	0.0							
21	261.00			22.5	0.0							
22	273.00			22.5	0.0							
23	286.00			22.5	0.0							
24	298.00			22.5	0.0							
25	311.00			22.5	0.0							
26	323.00			22.5	0.0							
27	336.00			22.5	0.0							
28	348.00			22.5	0.0							
29	361.00			22.5	0.0							
30	373.00			22.5	0.0							
31	386.00			22.5	0.0							
32	398.00			22.5	0.0							
33	411.00			22.5	0.0							
34	423.00			22.5	0.0							
35	436.00			22.5	0.0							
36	448.00			22.5	0.0							
37	461.00			22.5	0.0							
38	473.00			22.5	0.0							
39	486.00			22.5	0.0							
40	498.00			22.5	0.0							
41	511.00			22.5	0.0							
42	523.00			22.5	0.0							
43	536.00			22.5	0.0							
44	548.00			22.5	0.0							
45	561.00			22.5	0.0							
46	573.00			22.5	0.0							
47	586.00			22.5	0.0							

TABLE 7. SHEAR AND MOMENT DIAGRAMS  
WIND DIRECTION 140

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0 00	0 00	0 00	1 853	1 853	4 4	4 5	1051 4	1421 0	-4 7	3 3	4 3
1	11 00	22 6	-1 1	1550	1550	6 6	-1 1	1043 1	1421 1	-4 6	3 3	4 3
2	22 00	22 6	-1 1	1275	1275	6 6	-1 1	1014 5	1423 3	-4 3	3 3	4 4
3	33 00	22 6	-1 1	1163	1163	6 6	-1 1	990 8	1427 7	-4 1	3 3	4 4
4	44 00	22 6	-1 1	1050	1050	6 6	-1 1	970 0	1429 9	-4 0	3 3	4 4
5	55 00	22 6	-1 1	937	937	6 6	-1 1	955 1	1370 0	-3 9	3 3	4 4
6	66 00	22 6	-1 1	824	824	6 6	-1 1	939 7	1399 9	-3 7	3 3	4 4
7	77 00	22 6	-1 1	711	711	6 6	-1 1	923 9	1340 0	-3 5	3 3	4 4
8	88 00	22 6	-1 1	598	598	6 6	-1 1	907 7	1310 0	-3 3	3 3	4 4
9	99 00	22 6	-1 1	485	485	6 6	-1 1	891 1	1281 1	-3 1	3 3	4 4
10	110 00	22 6	-1 1	372	372	6 6	-1 1	874 4	1251 1	-2 9	3 3	4 4
11	121 00	22 6	-1 1	259	259	6 6	-1 1	857 6	1221 1	-2 7	3 3	4 4
12	132 00	22 6	-1 1	146	146	6 6	-1 1	840 8	1191 1	-2 5	3 3	4 4
13	143 00	22 6	-1 1	33	33	6 6	-1 1	824 0	1161 1	-2 3	3 3	4 4
14	154 00	22 6	-1 1	0	0	6 6	-1 1	807 2	1131 1	-2 1	3 3	4 4
15	165 00	22 6	-1 1	0	0	6 6	-1 1	790 4	1101 1	-1 9	3 3	4 4
16	176 00	22 6	-1 1	0	0	6 6	-1 1	773 6	1071 1	-1 7	3 3	4 4
17	187 00	22 6	-1 1	0	0	6 6	-1 1	756 8	1041 1	-1 5	3 3	4 4
18	198 00	22 6	-1 1	0	0	6 6	-1 1	740 0	1011 1	-1 3	3 3	4 4
19	209 00	22 6	-1 1	0	0	6 6	-1 1	723 2	981 1	-1 1	3 3	4 4
20	220 00	22 6	-1 1	0	0	6 6	-1 1	706 4	961 1	-0 9	3 3	4 4
21	231 00	22 6	-1 1	0	0	6 6	-1 1	689 6	941 1	-0 7	3 3	4 4
22	242 00	22 6	-1 1	0	0	6 6	-1 1	672 8	921 1	-0 5	3 3	4 4
23	253 00	22 6	-1 1	0	0	6 6	-1 1	656 0	901 1	-0 3	3 3	4 4
24	264 00	22 6	-1 1	0	0	6 6	-1 1	639 2	881 1	-0 1	3 3	4 4
25	275 00	22 6	-1 1	0	0	6 6	-1 1	622 4	861 1	0 1	3 3	4 4
26	286 00	22 6	-1 1	0	0	6 6	-1 1	605 6	841 1	0 3	3 3	4 4
27	297 00	22 6	-1 1	0	0	6 6	-1 1	588 8	821 1	0 5	3 3	4 4
28	308 00	22 6	-1 1	0	0	6 6	-1 1	572 0	801 1	0 7	3 3	4 4
29	319 00	22 6	-1 1	0	0	6 6	-1 1	555 2	781 1	0 9	3 3	4 4
30	330 00	22 6	-1 1	0	0	6 6	-1 1	538 4	761 1	1 1	3 3	4 4
31	341 00	22 6	-1 1	0	0	6 6	-1 1	521 6	741 1	1 3	3 3	4 4
32	352 00	22 6	-1 1	0	0	6 6	-1 1	504 8	721 1	1 5	3 3	4 4
33	363 00	22 6	-1 1	0	0	6 6	-1 1	488 0	701 1	1 7	3 3	4 4
34	374 00	22 6	-1 1	0	0	6 6	-1 1	471 2	681 1	1 9	3 3	4 4
35	385 00	22 6	-1 1	0	0	6 6	-1 1	454 4	661 1	2 1	3 3	4 4
36	396 00	22 6	-1 1	0	0	6 6	-1 1	437 6	641 1	2 3	3 3	4 4
37	407 00	22 6	-1 1	0	0	6 6	-1 1	420 8	621 1	2 5	3 3	4 4
38	418 00	22 6	-1 1	0	0	6 6	-1 1	404 0	601 1	2 7	3 3	4 4
39	429 00	22 6	-1 1	0	0	6 6	-1 1	387 2	581 1	2 9	3 3	4 4
40	440 00	22 6	-1 1	0	0	6 6	-1 1	370 4	561 1	3 1	3 3	4 4
41	451 00	22 6	-1 1	0	0	6 6	-1 1	353 6	541 1	3 3	3 3	4 4
42	462 00	22 6	-1 1	0	0	6 6	-1 1	336 8	521 1	3 5	3 3	4 4
43	473 00	22 6	-1 1	0	0	6 6	-1 1	320 0	501 1	3 7	3 3	4 4
44	484 00	22 6	-1 1	0	0	6 6	-1 1	303 2	481 1	3 9	3 3	4 4
45	495 00	22 6	-1 1	0	0	6 6	-1 1	286 4	461 1	4 1	3 3	4 4
46	506 00	22 6	-1 1	0	0	6 6	-1 1	269 6	441 1	4 3	3 3	4 4
47	517 00	22 6	-1 1	0	0	6 6	-1 1	252 8	421 1	4 5	3 3	4 4
48	528 00	22 6	-1 1	0	0	6 6	-1 1	236 0	401 1	4 7	3 3	4 4
49	539 00	22 6	-1 1	0	0	6 6	-1 1	219 2	381 1	4 9	3 3	4 4
50	550 00	22 6	-1 1	0	0	6 6	-1 1	202 4	361 1	5 1	3 3	4 4
51	561 00	22 6	-1 1	0	0	6 6	-1 1	185 6	341 1	5 3	3 3	4 4
52	572 00	22 6	-1 1	0	0	6 6	-1 1	168 8	321 1	5 5	3 3	4 4
53	583 00	22 6	-1 1	0	0	6 6	-1 1	152 0	301 1	5 7	3 3	4 4
54	594 00	22 6	-1 1	0	0	6 6	-1 1	135 2	281 1	5 9	3 3	4 4
55	605 00	22 6	-1 1	0	0	6 6	-1 1	118 4	261 1	6 1	3 3	4 4
56	616 00	22 6	-1 1	0	0	6 6	-1 1	101 6	241 1	6 3	3 3	4 4
57	627 00	22 6	-1 1	0	0	6 6	-1 1	84 8	221 1	6 5	3 3	4 4
58	638 00	22 6	-1 1	0	0	6 6	-1 1	68 0	201 1	6 7	3 3	4 4
59	649 00	22 6	-1 1	0	0	6 6	-1 1	51 2	181 1	6 9	3 3	4 4
60	660 00	22 6	-1 1	0	0	6 6	-1 1	34 4	161 1	7 1	3 3	4 4
61	671 00	22 6	-1 1	0	0	6 6	-1 1	17 6	141 1	7 3	3 3	4 4
62	682 00	22 6	-1 1	0	0	6 6	-1 1	0 8	121 1	7 5	3 3	4 4
63	693 00	22 6	-1 1	0	0	6 6	-1 1	0 0	101 1	7 7	3 3	4 4
64	704 00	22 6	-1 1	0	0	6 6	-1 1	0 0	81 1	7 9	3 3	4 4
65	715 00	22 6	-1 1	0	0	6 6	-1 1	0 0	61 1	8 1	3 3	4 4
66	726 00	22 6	-1 1	0	0	6 6	-1 1	0 0	41 1	8 3	3 3	4 4
67	737 00	22 6	-1 1	0	0	6 6	-1 1	0 0	21 1	8 5	3 3	4 4
68	748 00	22 6	-1 1	0	0	6 6	-1 1	0 0	0 1	8 7	3 3	4 4
69	759 00	22 6	-1 1	0	0	6 6	-1 1	0 0	0 0	8 9	3 3	4 4
70	770 00	22 6	-1 1	0	0	6 6	-1 1	0 0	0 0	9 1	3 3	4 4
71	781 00	22 6	-1 1	0	0	6 6	-1 1	0 0	0 0	9 3	3 3	4 4
72	792 00	22 6	-1 1	0	0	6 6	-1 1	0 0	0 0	9 5	3 3	4 4
73	803 00	22 6	-1 1	0	0	6 6	-1 1	0 0	0 0	9 7	3 3	4 4
74	814 00	22 6	-1 1	0	0	6 6	-1 1	0 0	0 0	9 9	3 3	4 4
75	825 00	22 6	-1 1	0	0	6 6	-1 1	0 0	0 0	10 1	3 3	4 4
76	836 00	22 6	-1 1	0	0	6 6	-1 1	0 0	0 0	10 3	3 3	4 4
77	847 00	22 6	-1 1	0	0	6 6	-1 1	0 0	0 0	10 5	3 3	4 4
78	858 00	22 6	-1 1	0	0	6 6	-1 1	0 0	0 0	10 7	3 3	4 4
79	869 00	22 6	-1 1	0	0	6 6	-1 1	0 0	0 0	10 9	3 3	4 4
80	880 00	22 6	-1 1	0	0	6 6	-1 1	0 0	0 0	11 1	3 3	4 4



TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 150

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	11.4	-3.4	1900	853	6.0	-4.0	16.8	13.3	-4.6	5.0	7.5
2	11.00	38.1	-8.3	4695	1550	8.1	-5.3	16.7	13.3	-4.4	5.0	7.5
3	31.00	35.1	-10.3	3709	1275	9.5	-8.1	16.3	13.3	-4.1	5.0	7.5
4	46.00	34.6	-15.4	3521	1163	9.8	-4.6	16.0	13.3	-3.9	5.0	7.5
5	61.00	33.2	22.7	2250	2250	10.3	12.7	15.6	13.3	-3.7	5.0	7.5
6	73.50	33.4	22.5	2250	2250	11.0	12.8	15.4	13.3	-3.5	5.0	7.5
7	86.00	33.9	22.5	2250	2250	11.6	13.0	15.2	13.3	-3.4	5.0	7.5
8	98.50	33.1	22.5	2250	2250	12.2	13.1	14.9	13.3	-3.2	5.0	7.5
9	111.00	33.4	22.5	2250	2250	12.8	13.2	14.6	13.3	-3.0	5.0	7.5
10	123.50	33.0	22.5	2250	2250	13.4	13.3	14.3	13.3	-2.9	5.0	7.5
11	136.00	33.3	22.5	2250	2250	14.0	13.3	14.0	13.3	-2.7	5.0	7.5
12	148.50	33.4	22.5	2250	2250	14.6	13.3	13.7	13.3	-2.6	5.0	7.5
13	161.00	33.5	22.5	2250	2250	15.2	13.3	13.4	13.3	-2.4	5.0	7.5
14	173.50	33.5	22.5	2250	2250	15.7	13.3	13.1	13.3	-2.3	5.0	7.5
15	186.00	33.5	22.5	2250	2250	16.2	13.3	12.7	13.3	-2.2	5.0	7.5
16	198.50	33.6	22.5	2250	2250	16.7	14.0	12.3	13.3	-2.0	5.0	7.5
17	211.00	33.6	22.5	2250	2250	17.2	14.4	11.8	13.3	-1.9	5.0	7.5
18	223.50	33.7	22.5	2250	2250	17.7	14.5	11.2	13.3	-1.8	5.0	7.5
19	236.00	33.8	22.5	2250	2250	18.2	14.6	10.9	13.3	-1.7	5.0	7.5
20	248.50	33.8	22.5	2250	2250	18.7	14.6	10.5	13.3	-1.6	5.0	7.5
21	261.00	33.9	22.5	2250	2250	19.2	14.7	10.1	13.3	-1.5	5.0	7.5
22	273.50	33.9	22.5	2250	2250	19.7	14.8	9.7	13.3	-1.4	5.0	7.5
23	286.00	34.0	22.5	2250	2250	20.2	14.9	9.3	13.3	-1.3	5.0	7.5
24	298.50	34.0	22.5	2250	2250	20.7	15.0	8.9	13.3	-1.2	5.0	7.5
25	311.00	34.1	22.5	2250	2250	21.2	15.1	8.5	13.3	-1.1	5.0	7.5
26	323.50	34.2	22.5	2250	2250	21.7	15.2	8.1	13.3	-1.0	5.0	7.5
27	336.00	34.3	22.5	2250	2250	22.2	15.3	7.7	13.3	-0.9	5.0	7.5
28	348.50	34.4	22.5	2250	2250	22.7	15.4	7.3	13.3	-0.8	5.0	7.5
29	361.00	34.4	22.5	2250	2250	23.2	15.5	6.9	13.3	-0.7	5.0	7.5
30	373.50	34.5	22.5	2250	2250	23.7	15.6	6.5	13.3	-0.6	5.0	7.5
31	386.00	34.5	22.5	2250	2250	24.2	15.7	6.1	13.3	-0.5	5.0	7.5
32	398.50	34.6	22.5	2250	2250	24.7	15.8	5.7	13.3	-0.4	5.0	7.5
33	411.00	34.6	22.5	2250	2250	25.2	15.9	5.3	13.3	-0.3	5.0	7.5
34	423.50	34.7	22.5	2250	2250	25.7	16.0	4.9	13.3	-0.2	5.0	7.5
35	436.00	34.7	22.5	2250	2250	26.2	16.1	4.5	13.3	-0.1	5.0	7.5
36	448.50	34.8	22.5	2250	2250	26.7	16.2	4.1	13.3	0.0	5.0	7.5
37	461.00	34.8	22.5	2250	2250	27.2	16.3	3.7	13.3	0.0	5.0	7.5
38	473.50	34.9	22.5	2250	2250	27.7	16.4	3.3	13.3	0.0	5.0	7.5
39	486.00	34.9	22.5	2250	2250	28.2	16.5	2.9	13.3	0.0	5.0	7.5
40	498.50	35.0	22.5	2250	2250	28.7	16.6	2.5	13.3	0.0	5.0	7.5
41	511.00	35.0	22.5	2250	2250	29.2	16.7	2.1	13.3	0.0	5.0	7.5
42	523.50	35.0	22.5	2250	2250	29.7	16.8	1.7	13.3	0.0	5.0	7.5
43	536.00	35.1	22.5	2250	2250	30.2	16.9	1.3	13.3	0.0	5.0	7.5
44	548.50	35.1	22.5	2250	2250	30.7	17.0	0.9	13.3	0.0	5.0	7.5
45	561.00	35.2	22.5	2250	2250	31.2	17.1	0.5	13.3	0.0	5.0	7.5
46	573.50	35.2	22.5	2250	2250	31.7	17.2	0.1	13.3	0.0	5.0	7.5
47	586.00	35.2	22.5	2250	2250	32.2	17.3	0.0	13.3	0.0	5.0	7.5

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 160

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	14.56	-7.00	190.00	853	8.0	-8.0	2113.6	1244.1	-414.9	633.0	7.0
2	11.00	4.51	-1.62	46.95	111	10.0	-10.4	2098.8	1248.2	-401.2	609.9	6.6
3	33.00	5.19	-1.81	130.55	135	14.0	-14.2	2048.8	1264.3	-376.3	568.8	3.3
4	46.00	5.22	-1.81	155.55	155	15.0	-7.5	1997.6	1282.4	-356.6	538.8	1.1
5	61.00	5.55	-2.45	225.00	225	20.0	-10.9	1944.6	1291.1	-337.7	508.4	0.4
6	73.50	5.55	-2.45	225.00	225	20.0	-11.1	1912.2	1266.6	-321.1	484.4	0.8
7	86.00	5.55	-2.45	225.00	225	20.0	-11.3	1877.7	1241.6	-306.6	460.6	0.6
8	98.50	5.55	-2.45	225.00	225	20.0	-11.6	1841.1	1216.1	-290.0	437.7	0.4
10	111.00	5.55	-2.45	225.00	225	20.0	-11.8	1804.4	1190.0	-275.5	414.4	0.6
11	123.50	4.41	-2.26	225.00	225	20.0	-12.1	1766.4	1163.4	-260.0	390.0	0.4
13	140.00	4.43	-2.26	225.00	225	20.0	-12.3	1723.3	1136.6	-244.6	366.6	0.8
14	148.50	4.44	-2.27	225.00	225	20.0	-12.6	1680.0	1108.8	-228.8	343.3	0.6
16	161.00	4.46	-2.27	225.00	225	20.0	-12.8	1633.5	1080.0	-213.3	320.0	0.4
18	173.50	4.46	-2.27	225.00	225	20.0	-13.2	1588.9	1051.1	-200.0	296.6	0.6
19	181.00	4.44	-2.27	225.00	225	20.0	-13.4	1544.1	1022.2	-192.2	273.3	0.4
21	193.50	4.44	-2.27	225.00	225	20.0	-13.6	1499.3	992.2	-177.7	250.0	0.8
22	201.00	4.44	-2.27	225.00	225	20.0	-13.8	1445.3	962.2	-167.7	226.6	0.6
23	209.50	4.44	-2.27	225.00	225	20.0	-14.1	1399.6	933.1	-155.5	203.3	0.4
24	222.00	4.44	-2.27	225.00	225	20.0	-14.4	1347.7	900.0	-144.4	180.0	0.8
25	230.50	4.44	-2.27	225.00	225	20.0	-14.7	1297.7	866.6	-133.3	156.6	0.6
27	243.00	4.44	-2.27	225.00	225	20.0	-14.9	1244.8	833.3	-122.2	133.3	0.4
28	251.50	4.44	-2.27	225.00	225	20.0	-15.1	1197.7	800.4	-110.0	110.0	0.8
30	264.00	4.44	-2.27	225.00	225	20.0	-15.4	1147.7	771.1	-100.0	86.6	0.6
31	272.50	4.44	-2.27	225.00	225	20.0	-15.5	1096.6	737.7	-90.0	63.3	0.4
32	281.00	4.44	-2.27	225.00	225	20.0	-15.7	1044.4	703.3	-84.4	40.0	0.8
33	289.50	4.44	-2.27	225.00	225	20.0	-15.9	991.1	668.8	-75.5	16.6	0.6
34	298.00	4.44	-2.27	225.00	225	20.0	-16.0	939.9	633.3	-67.7	0.0	0.4
35	306.50	4.44	-2.27	225.00	225	20.0	-16.3	885.5	597.7	-59.7	0.0	0.8
36	315.00	4.44	-2.27	225.00	225	20.0	-16.6	833.1	560.0	-52.0	0.0	0.6
37	323.50	4.44	-2.27	225.00	225	20.0	-16.8	782.2	523.3	-45.5	0.0	0.4
38	332.00	4.44	-2.27	225.00	225	20.0	-17.1	732.2	485.5	-39.9	0.0	0.8
39	340.50	4.44	-2.27	225.00	225	20.0	-17.2	686.6	447.7	-33.3	0.0	0.6
40	349.00	4.44	-2.27	225.00	225	20.0	-17.7	644.4	408.8	-27.7	0.0	0.4
41	357.50	4.44	-2.27	225.00	225	20.0	-17.9	600.0	369.9	-22.2	0.0	0.8
42	366.00	4.44	-2.27	225.00	225	20.0	-18.0	555.5	329.9	-19.9	0.0	0.6
43	374.50	4.44	-2.27	225.00	225	20.0	-18.4	510.0	290.0	-15.0	0.0	0.4
44	383.00	4.44	-2.27	225.00	225	20.0	-18.7	464.4	249.9	-11.1	0.0	0.8
45	391.50	4.44	-2.27	225.00	225	20.0	-18.8	419.9	209.9	-8.8	0.0	0.6
46	400.00	4.44	-2.27	225.00	225	20.0	-19.1	377.7	168.8	-6.6	0.0	0.4
47	408.50	4.44	-2.27	225.00	225	20.0	-19.5	333.3	127.7	-4.4	0.0	0.8
48	417.00	4.44	-2.27	225.00	225	20.0	-19.9	288.8	86.6	-3.3	0.0	0.6
49	425.50	4.44	-2.27	225.00	225	20.0	-20.0	244.4	45.5	-2.2	0.0	0.4
50	434.00	4.44	-2.27	225.00	225	20.0	-20.2	200.0	0.0	-1.1	0.0	0.8
51	442.50	4.44	-2.27	225.00	225	20.0	-20.4	155.5	0.0	-0.9	0.0	0.6
52	451.00	4.44	-2.27	225.00	225	20.0	-20.6	111.1	0.0	-0.6	0.0	0.4
53	459.50	4.44	-2.27	225.00	225	20.0	-20.8	66.6	0.0	-0.4	0.0	0.8
54	468.00	4.44	-2.27	225.00	225	20.0	-21.0	22.2	0.0	-0.3	0.0	0.6
55	476.50	4.44	-2.27	225.00	225	20.0	-21.2	0.0	0.0	-0.1	0.0	0.4
56	485.00	4.44	-2.27	225.00	225	20.0	-21.4	0.0	0.0	0.0	0.0	0.8
57	493.50	4.44	-2.27	225.00	225	20.0	-21.6	0.0	0.0	0.0	0.0	0.6
58	502.00	4.44	-2.27	225.00	225	20.0	-21.8	0.0	0.0	0.0	0.0	0.4
59	510.50	4.44	-2.27	225.00	225	20.0	-22.0	0.0	0.0	0.0	0.0	0.8
60	519.00	4.44	-2.27	225.00	225	20.0	-22.2	0.0	0.0	0.0	0.0	0.6
61	527.50	4.44	-2.27	225.00	225	20.0	-22.4	0.0	0.0	0.0	0.0	0.4
62	536.00	4.44	-2.27	225.00	225	20.0	-22.6	0.0	0.0	0.0	0.0	0.8
63	544.50	4.44	-2.27	225.00	225	20.0	-22.8	0.0	0.0	0.0	0.0	0.6
64	553.00	4.44	-2.27	225.00	225	20.0	-23.0	0.0	0.0	0.0	0.0	0.4
65	561.50	4.44	-2.27	225.00	225	20.0	-23.2	0.0	0.0	0.0	0.0	0.8
66	570.00	4.44	-2.27	225.00	225	20.0	-23.4	0.0	0.0	0.0	0.0	0.6
67	578.50	4.44	-2.27	225.00	225	20.0	-23.6	0.0	0.0	0.0	0.0	0.4
68	587.00	4.44	-2.27	225.00	225	20.0	-23.8	0.0	0.0	0.0	0.0	0.8
69	595.50	4.44	-2.27	225.00	225	20.0	-24.0	0.0	0.0	0.0	0.0	0.6
70	604.00	4.44	-2.27	225.00	225	20.0	-24.2	0.0	0.0	0.0	0.0	0.4
71	612.50	4.44	-2.27	225.00	225	20.0	-24.4	0.0	0.0	0.0	0.0	0.8
72	621.00	4.44	-2.27	225.00	225	20.0	-24.6	0.0	0.0	0.0	0.0	0.6
73	629.50	4.44	-2.27	225.00	225	20.0	-24.8	0.0	0.0	0.0	0.0	0.4
74	638.00	4.44	-2.27	225.00	225	20.0	-25.0	0.0	0.0	0.0	0.0	0.8
75	646.50	4.44	-2.27	225.00	225	20.0	-25.2	0.0	0.0	0.0	0.0	0.6
76	655.00	4.44	-2.27	225.00	225	20.0	-25.4	0.0	0.0	0.0	0.0	0.4
77	663.50	4.44	-2.27	225.00	225	20.0	-25.6	0.0	0.0	0.0	0.0	0.8
78	672.00	4.44	-2.27	225.00	225	20.0	-25.8	0.0	0.0	0.0	0.0	0.6
79	680.50	4.44	-2.27	225.00	225	20.0	-26.0	0.0	0.0	0.0	0.0	0.4
80	689.00	4.44	-2.27	225.00	225	20.0	-26.2	0.0	0.0	0.0	0.0	0.8
81	697.50	4.44	-2.27	225.00	225	20.0	-26.4	0.0	0.0	0.0	0.0	0.6
82	706.00	4.44	-2.27	225.00	225	20.0	-26.6	0.0	0.0	0.0	0.0	0.4
83	714.50	4.44	-2.27	225.00	225	20.0	-26.8	0.0	0.0	0.0	0.0	0.8
84	723.00	4.44	-2.27	225.00	225	20.0	-27.0	0.0	0.0	0.0	0.0	0.6
85	731.50	4.44	-2.27	225.00	225	20.0	-27.2	0.0	0.0	0.0	0.0	0.4
86	740.00	4.44	-2.27	225.00	225	20.0	-27.4	0.0	0.0	0.0	0.0	0.8
87	748.50	4.44	-2.27	225.00	225	20.0	-27.6	0.0	0.0	0.0	0.0	0.6
88	757.00	4.44	-2.27	225.00	225	20.0	-27.8	0.0	0.0	0.0	0.0	0.4
89	765.50	4.44	-2.27	225.00	225	20.0	-28.0	0.0	0.0	0.0	0.0	0.8
90	774.00	4.44	-2.27	225.00	225	20.0	-28.2	0.0	0.0	0.0	0.0	0.6
91	782.50	4.44	-2.27	225.00	225	20.0	-28.4	0.0	0.0	0.0	0.0	0.4
92	791.00	4.44	-2.27	225.00	225	20.0	-28.6	0.0	0.0	0.0	0.0	0.8
93	799.50	4.44	-2.27	225.00	225	20.0	-28.8	0.0	0.0	0.0	0.0	0.6
94	808.00	4.44	-2.27	225.00	225	20.0	-29.0	0.0	0.0	0.0	0.0	0.4
95	816.50	4.44	-2.27	225.00	225	20.0	-29.2	0.0	0.0	0.0	0.0	0.8
96	825.00	4.44	-2.27	225.00	225	20.0	-29.4	0.0	0.0	0.0	0.0	0.6
97	833.50	4.44	-2.27	225.00	225	20.0	-29.6	0.0	0.0	0.0	0.0	0.4
98	842.00	4.44	-2.27	225.00	225	20.0	-29.8	0.0	0.0	0.0	0.0	0.8
99	850.50	4.44	-2.27	225.00	225	20.0	-30.0	0.0	0.0	0.0	0.0	0.6
100	859.00	4.44	-2.27	225.00	225	20.0	-30.2	0.0	0.0	0.0	0.0	0.4
101	867.50	4.44	-2.27	225.00	225	20.0	-30.4	0.0	0.0	0.0	0.0	0.8
102	876.00	4.44	-2.27	225.00	225	20.0	-30.6	0.0	0.0	0.0	0.0	0.6
103	884.50	4.44	-2.27	225.00	225	20.0	-30.8	0.0	0.0	0.0	0.0	0.4
104	893.00	4.44	-2.27	225.00	225	20.0	-31.0	0.0	0.0	0.0	0.0	0.8
105	901.50	4.44	-2.27	225.00	225	20.0	-31.2	0.0	0.0	0.0	0.0	0.6
106	910.00	4.44	-2.27	225.00	225	20.0	-31.4	0.0	0.0	0.0	0.0	0.4

TABLE 7. SHEAR AND MOMENT DIAGRAMS  
WIND DIRECTION 170

MOMENT DIAGRAMS  
CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH  
REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	12.9	-7.6	1900	853	6.8	-8.9	2250	1036.9	-347.0	671.1	8.5
2	11.00	49.1	-17.7	4695	1550	10.5	-11.4	2225	1044.4	-335.5	646.4	7.7
3	31.00	55.8	-19.8	3709	1275	15.0	-15.5	2183	1062.2	-314.4	602.2	5.9
4	46.00	60.0	-11.8	3521	1163	17.1	-10.2	2133	1082.0	-298.4	569.8	4.0
5	61.00	33.6	19.8	2250	2250	15.8	8.4	2073	1093.9	-282.5	538.2	4.0
6	73.00	37.4	19.8	2250	2250	16.6	8.8	2034	1074.9	-268.5	512.6	1.3
7	86.00	39.9	20.1	2250	2250	17.4	9.2	1999	1055.1	-255.2	487.3	1.2
8	98.00	44.4	20.9	2250	2250	18.2	9.6	1960	1034.5	-242.1	462.6	1.1
9	111.00	44.4	20.9	2250	2250	18.9	10.0	1911	1012.9	-229.3	438.3	0.8
10	123.50	44.4	20.9	2250	2250	19.7	10.3	1871	990.5	-216.8	414.6	0.6
11	136.00	44.4	20.9	2250	2250	20.5	10.7	1833	967.2	-204.6	391.4	0.5
12	148.50	44.4	20.9	2250	2250	21.1	11.1	1788	943.1	-192.6	368.8	0.4
13	161.00	44.4	20.9	2250	2250	22.0	11.5	1733	918.0	-181.0	346.8	0.3
14	173.50	44.4	20.9	2250	2250	22.8	12.0	1673	893.2	-169.9	325.3	0.2
15	186.00	44.4	20.9	2250	2250	23.6	12.5	1603	868.8	-158.8	304.4	0.1
16	198.50	44.4	20.9	2250	2250	24.4	13.0	1533	844.4	-148.0	284.4	0.1
17	211.00	44.4	20.9	2250	2250	25.2	13.5	1453	820.0	-137.7	264.4	0.0
18	223.50	44.4	20.9	2250	2250	26.0	14.0	1373	795.5	-127.7	244.6	0.0
19	236.00	44.4	20.9	2250	2250	26.8	14.5	1283	771.1	-118.1	224.7	0.0
20	248.50	44.4	20.9	2250	2250	27.6	15.0	1193	746.7	-108.8	204.8	0.0
21	261.00	44.4	20.9	2250	2250	28.4	15.5	1103	722.3	-100.0	184.9	0.0
22	273.50	44.4	20.9	2250	2250	29.2	16.0	1013	697.9	-91.1	165.0	0.0
23	286.00	44.4	20.9	2250	2250	30.0	16.5	923	673.5	-82.2	145.1	0.0
24	298.50	44.4	20.9	2250	2250	30.8	17.0	833	649.1	-73.3	125.2	0.0
25	311.00	44.4	20.9	2250	2250	31.6	17.5	743	624.7	-64.4	105.3	0.0
26	323.50	44.4	20.9	2250	2250	32.4	18.0	653	600.3	-55.5	85.4	0.0
27	336.00	44.4	20.9	2250	2250	33.2	18.5	563	575.9	-46.6	65.5	0.0
28	348.50	44.4	20.9	2250	2250	34.0	19.0	473	551.5	-37.7	45.6	0.0
29	361.00	44.4	20.9	2250	2250	34.8	19.5	383	527.1	-28.8	25.7	0.0
30	373.50	44.4	20.9	2250	2250	35.6	20.0	293	502.7	-19.9	5.8	0.0
31	386.00	44.4	20.9	2250	2250	36.4	20.5	203	478.3	-11.0	-14.1	0.0
32	398.50	44.4	20.9	2250	2250	37.2	21.0	113	453.9	-2.1	-33.2	0.0
33	411.00	44.4	20.9	2250	2250	38.0	21.5	23	429.5	8.8	-52.3	0.0
34	423.50	44.4	20.9	2250	2250	38.8	22.0	13	405.1	19.9	-71.4	0.0
35	436.00	44.4	20.9	2250	2250	39.6	22.5	3	380.7	31.0	-90.5	0.0
36	448.50	44.4	20.9	2250	2250	40.4	23.0	1	356.3	42.1	-109.6	0.0
37	461.00	44.4	20.9	2250	2250	41.2	23.5	1	331.9	53.2	-128.7	0.0
38	473.50	44.4	20.9	2250	2250	42.0	24.0	1	307.5	64.3	-147.8	0.0
39	486.00	44.4	20.9	2250	2250	42.8	24.5	1	283.1	75.4	-166.9	0.0
40	498.50	44.4	20.9	2250	2250	43.6	25.0	1	258.7	86.5	-186.0	0.0
41	511.00	44.4	20.9	2250	2250	44.4	25.5	1	234.3	97.6	-205.1	0.0
42	523.50	44.4	20.9	2250	2250	45.2	26.0	1	209.9	108.7	-224.2	0.0
43	536.00	44.4	20.9	2250	2250	46.0	26.5	1	185.5	119.8	-243.3	0.0
44	548.50	44.4	20.9	2250	2250	46.8	27.0	1	161.1	130.9	-262.4	0.0
45	561.00	44.4	20.9	2250	2250	47.6	27.5	1	136.7	142.0	-281.5	0.0
46	573.50	44.4	20.9	2250	2250	48.4	28.0	1	112.3	153.1	-300.6	0.0
47	586.00	44.4	20.9	2250	2250	49.2	28.5	1	87.9	164.2	-319.7	0.0

TABLE 7. SHEAR AND MOMENT DIAGRAMS : OXFORD CENTRE, PITTSBURGH  
WIND DIRECTION 180 CONFIGURATION A REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	15.7	-9.6	1906	853	8.3	-11.3	2271.8	740.2	-253.0	681.5	10.4
2	11.00	53.7	-20.8	469.5	1550	11.4	-13.4	2256.1	749.8	-244.8	656.6	9.6
3	31.00	56.3	-21.8	370.9	1275	15.2	-17.1	2202.4	770.7	-229.6	612.0	9.9
4	46.00	58.6	-15.8	331.1	1163	16.6	-13.6	2146.2	792.2	-201.7	579.4	1.1
5	61.00	34.7	11.3	2250	15.4	15.4	5.0	2087.6	808.8	-200.5	554.7	7.7
6	73.50	36.4	12.5	2250	16.2	16.2	5.6	2052.9	797.0	-195.5	535.5	6.6
7	86.00	38.1	13.7	2250	17.0	17.0	6.1	2016.5	784.4	-185.5	519.6	7.7
8	98.50	39.9	15.0	2250	17.7	17.7	6.7	1978.4	770.7	-176.6	506.8	4.4
9	111.00	41.6	16.2	2250	18.5	18.5	7.2	1938.5	755.5	-166.6	493.5	4.4
10	123.50	43.4	17.7	2250	19.3	19.3	7.8	1896.8	739.5	-156.6	479.9	4.4
11	136.00	45.1	18.8	2250	20.1	20.1	8.3	1853.4	722.1	-146.6	466.6	3.3
12	148.50	46.9	19.9	2250	20.8	20.8	8.9	1808.3	703.4	-136.6	453.3	2.2
13	161.00	48.8	21.1	2250	21.6	21.6	9.4	1761.4	683.4	-126.6	440.0	1.1
14	173.50	50.0	22.1	2250	22.2	22.2	9.7	1712.8	662.3	-116.6	426.6	0.0
15	186.00	51.1	22.1	2250	22.9	22.9	9.8	1662.8	640.4	-106.6	413.3	0.0
16	198.50	52.3	22.2	2250	23.6	23.6	9.8	1612.1	618.8	-96.6	399.9	0.0
17	211.00	53.3	22.2	2250	24.4	24.4	9.8	1560.0	596.6	-86.6	386.6	0.0
18	223.50	54.8	22.2	2250	25.0	25.0	9.8	1508.0	574.4	-76.6	373.3	0.0
19	236.00	56.8	22.2	2250	25.6	25.6	9.8	1455.5	552.2	-66.6	360.0	0.0
20	248.50	59.4	22.2	2250	26.2	26.2	9.8	1401.1	530.0	-56.6	346.6	0.0
21	261.00	63.3	22.2	2250	26.8	26.8	9.8	1347.0	508.8	-46.6	333.3	0.0
22	273.50	68.6	22.2	2250	27.4	27.4	9.8	1291.1	486.6	-36.6	320.0	0.0
23	286.00	75.6	22.2	2250	28.0	28.0	9.9	1235.5	464.4	-26.6	306.6	0.0
24	298.50	84.4	22.2	2250	28.6	28.6	10.0	1179.0	441.1	-16.6	293.3	0.0
25	311.00	95.5	22.2	2250	29.2	29.2	10.1	1121.9	419.9	-6.6	280.0	0.0
26	323.50	109.9	22.2	2250	29.8	29.8	10.1	1064.5	396.6	4.4	266.6	0.0
27	336.00	127.7	22.2	2250	30.4	30.4	10.2	1006.6	374.4	14.4	253.3	0.0
28	348.50	149.9	22.2	2250	31.0	31.0	10.3	948.8	350.0	24.4	240.0	0.0
29	361.00	177.7	22.2	2250	31.6	31.6	10.4	889.9	327.7	34.4	226.6	0.0
30	373.50	211.1	22.2	2250	32.2	32.2	10.5	830.0	304.4	44.4	213.3	0.0
31	386.00	250.0	22.2	2250	32.8	32.8	10.5	770.0	280.0	54.4	200.0	0.0
32	398.50	294.4	22.2	2250	33.4	33.4	10.5	710.0	257.7	64.4	186.6	0.0
33	411.00	344.4	22.2	2250	34.0	34.0	10.4	650.0	233.3	74.4	173.3	0.0
34	423.50	400.0	22.2	2250	34.6	34.6	10.4	590.0	209.9	84.4	160.0	0.0
35	436.00	462.2	22.2	2250	35.2	35.2	10.4	531.1	186.6	94.4	146.6	0.0
36	448.50	531.1	22.2	2250	35.8	35.8	10.4	471.1	162.2	104.4	133.3	0.0
37	461.00	607.7	22.2	2250	36.4	36.4	10.4	411.1	139.9	114.4	120.0	0.0
38	473.50	694.4	22.2	2250	37.0	37.0	10.3	352.2	116.6	124.4	106.6	0.0
39	486.00	794.4	22.2	2250	37.6	37.6	11.1	292.2	93.3	134.4	93.3	0.0
40	498.50	909.9	22.2	2250	38.2	38.2	11.1	244.4	68.8	144.4	80.0	0.0
41	511.00	1044.4	22.2	2250	38.8	38.8	10.5	195.5	45.5	154.4	66.6	0.0
42	523.50	1199.9	22.2	2250	39.4	39.4	9.9	145.5	23.3	164.4	53.3	0.0
43	536.00	1377.7	22.2	2250	40.0	40.0	9.3	95.5	2.2	174.4	40.0	0.0
44	548.50	1581.1	22.2	2250	40.6	40.6	8.7	45.5	0.0	184.4	26.6	0.0
45	561.00	1807.7	22.2	2250	41.2	41.2	8.1	15.5	0.0	194.4	13.3	0.0
46	573.50	2057.7	4.6	2250	41.8	41.8	7.5	0.0	0.0	204.4	0.0	0.0
47	586.00	2433.3	7.3	1888	42.4	42.4	6.9	0.0	0.0	214.4	0.0	0.0

TABLE 7. SHEAR AND MOMENT DIAGRAMS : OXFORD CENTRE, PITTSBURGH  
 WIND DIRECTION 190 CONFIGURATION A REFERENCE PRESSURE 25.0 PSF GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT 1000-FT-KIPS
GRND	0.00	16.5	-11.2	1900	853	8.7	-13.1	210.9	446.1	-163.8	629.4	11.6
2	11.00	55.3	-25.5	4695	1550	11.9	-16.4	457.7	437.3	-155.8	606.3	10.9
3	31.00	55.3	-26.6	3709	1275	15.3	-20.8	203.3	482.8	-149.4	555.0	9.4
4	46.00	66.6	-21.6	3521	1163	17.1	-18.6	198.0	509.3	-142.4	534.4	7.7
5	61.00	44.6	-4.6	2250	2250	15.2	-	192.0	530.0	-134.2	505.6	6.6
6	73.50	33.3	-6.0	2250	2250	15.8	2.7	188.6	526.3	-127.6	481.1	5.5
7	86.00	33.3	-7.4	2250	2250	16.3	3.3	185.0	520.0	-121.0	458.5	4.4
8	98.50	33.3	-8.8	2250	2250	16.9	3.9	181.3	512.8	-114.6	435.6	3.3
9	111.00	33.3	-10.2	2250	2250	17.4	4.6	177.6	504.0	-108.2	413.1	2.2
10	123.50	44.4	-11.7	2250	2250	18.0	5.2	173.6	493.8	-102.0	391.2	1.1
11	136.00	44.4	-13.1	2250	2250	18.5	5.8	169.6	482.1	-95.9	369.7	0.9
12	148.50	44.4	-14.5	2250	2250	19.1	6.4	165.4	469.1	-89.9	348.8	0.8
13	161.00	44.4	-15.9	2250	2250	19.6	7.0	161.1	454.6	-84.1	328.4	0.7
14	173.50	44.4	-16.6	2250	2250	20.0	7.7	156.6	439.8	-78.6	308.8	0.6
15	186.00	44.4	-16.4	2250	2250	20.0	8.4	152.0	425.5	-73.3	289.9	0.5
16	198.50	44.4	-16.2	2250	2250	20.0	9.1	147.3	411.1	-68.8	270.4	0.4
17	211.00	44.4	-16.0	2250	2250	20.0	9.8	142.6	400.0	-65.0	252.2	0.3
18	223.50	44.4	-15.8	2250	2250	20.0	10.5	138.0	388.9	-61.8	234.4	0.2
19	236.00	44.4	-15.6	2250	2250	20.0	11.2	133.3	377.7	-59.0	217.7	0.1
20	248.50	44.4	-15.5	2250	2250	21.0	11.9	128.6	366.6	-56.6	201.1	0.1
21	261.00	44.4	-15.3	2250	2250	21.1	12.6	123.9	355.5	-54.5	185.5	0.1
22	273.50	44.4	-15.1	2250	2250	21.4	13.3	118.8	344.1	-52.8	170.4	0.1
23	286.00	44.4	-15.0	2250	2250	22.0	14.0	113.7	332.6	-51.1	155.8	0.1
24	298.50	44.4	-14.9	2250	2250	22.6	14.7	108.6	321.1	-49.9	141.9	0.1
25	311.00	44.4	-14.8	2250	2250	23.3	15.4	103.5	309.6	-49.0	128.7	0.1
26	323.50	44.4	-14.6	2250	2250	23.3	16.1	98.3	298.1	-48.3	116.0	0.1
27	336.00	44.4	-14.5	2250	2250	23.3	16.8	93.1	286.6	-47.7	104.4	0.1
28	348.50	44.4	-14.4	2250	2250	23.3	17.5	88.0	275.1	-47.1	92.8	0.1
29	361.00	44.4	-14.4	2250	2250	24.0	18.2	82.9	263.6	-46.6	82.1	0.1
30	373.50	44.4	-14.3	2250	2250	24.0	18.9	77.7	252.1	-46.1	72.2	0.1
31	386.00	44.4	-14.3	2250	2250	24.0	19.6	72.6	240.6	-45.6	62.3	0.1
32	398.50	44.4	-14.3	2250	2250	24.0	20.3	67.5	229.1	-45.1	52.4	0.1
33	411.00	44.4	-14.4	2250	2250	24.0	21.0	62.4	217.6	-44.6	42.5	0.1
34	423.50	44.4	-14.4	2250	2250	24.0	21.7	57.3	206.1	-44.1	32.6	0.1
35	436.00	44.4	-14.5	2250	2250	24.0	22.4	52.2	194.6	-43.6	22.7	0.1
36	448.50	44.4	-14.5	2250	2250	24.0	23.1	47.1	183.1	-43.1	12.8	0.1
37	461.00	44.4	-14.5	2250	2250	24.0	23.8	42.0	171.6	-42.6	2.9	0.1
38	473.50	44.4	-14.6	2250	2250	24.0	24.5	36.9	160.1	-42.1	0.0	0.1
39	486.00	44.4	-14.7	2094	2094	19.0	25.2	31.8	148.6	-41.6	0.0	0.1
40	498.50	44.4	-14.7	2094	2094	19.0	25.9	26.7	137.1	-41.1	0.0	0.1
41	511.00	44.4	-14.7	2094	2094	20.0	26.6	21.6	125.6	-40.6	0.0	0.1
42	523.50	44.4	-14.8	2094	2094	20.0	27.3	16.5	114.1	-40.1	0.0	0.1
43	536.00	44.4	-14.8	1188	1188	20.0	28.0	11.4	102.6	-39.6	0.0	0.1
44	548.50	44.4	-2.5	1188	1188	18.0	28.7	6.3	91.1	-39.1	0.0	0.1
45	561.00	44.4	-1.6	1188	1188	17.0	29.4	1.2	79.6	-38.6	0.0	0.1
46	573.50	44.4	1.2	1188	1188	16.0	30.1	0.0	68.1	-38.1	0.0	0.1
47	586.00	44.4	3.1	1188	1188	15.0	30.8	0.0	56.6	-37.6	0.0	0.1

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 200

CONFIGURATION A

OXFORD CENTRE, PITTSBURGH  
REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT 1000-FT-KIPS
GRND	0.00	18.5	-14.2	1900	853	9.8	-16.6	1891.6	5.4			
10	11.00	53.8	-30.5	449.9	1550	11.5	-19.7	1873.1	6.6	-4.4	5.6	11.2
20	22.00	55.5	-29.5	332.9	1275	14.1	-23.1	1819.2	6.1	-4.4	4.1	10.4
30	33.00	55.5	-25.1	252.1	1163	15.9	-21.6	1766.8	6.6	-4.4	4.4	9.4
40	44.00	31.3	-1.0	199.0	1000	13.9	-4.4	1711.0	7.7	-4.4	4.4	8.4
50	55.00	32.2	-1.1	144.0	1000	14.2	-0.5	1679.7	7.7	-4.4	4.4	7.4
60	66.00	33.2	-1.1	100.0	1000	14.6	0.0	1647.7	6.6	-4.4	4.4	6.4
70	77.00	33.3	-1.1	72.0	1000	15.0	1.1	1614.4	5.5	-4.4	4.4	5.4
80	88.00	33.3	-1.1	50.0	1000	15.3	1.1	1581.1	5.5	-4.4	4.4	4.4
90	99.00	34.4	-3.3	32.0	1000	15.7	1.1	1546.6	6.6	-4.4	4.4	3.4
100	110.00	35.5	-4.4	20.0	1000	16.0	1.1	1511.1	6.6	-4.4	4.4	2.4
110	121.00	36.6	-5.5	14.0	1000	16.4	2.2	1475.5	6.6	-4.4	4.4	1.4
120	132.00	36.6	-6.6	10.0	1000	16.8	3.3	1438.8	6.6	-4.4	4.4	0.4
130	143.00	37.7	-7.7	7.0	1000	17.1	4.4	1400.0	6.6	-4.4	4.4	0.0
140	154.00	38.8	-8.8	5.0	1000	17.4	5.5	1362.2	6.6	-4.4	4.4	0.0
150	165.00	39.9	-9.9	4.0	1000	17.6	6.6	1323.3	6.6	-4.4	4.4	0.0
160	176.00	40.0	-10.0	3.0	1000	17.9	7.7	1283.3	6.6	-4.4	4.4	0.0
170	187.00	41.1	-11.1	2.0	1000	18.2	8.8	1243.3	6.6	-4.4	4.4	0.0
180	198.00	42.2	-12.2	1.0	1000	18.4	9.9	1202.2	6.6	-4.4	4.4	0.0
190	209.00	42.2	-13.3	0.0	1000	18.7	11.1	1160.0	6.6	-4.4	4.4	0.0
200	220.00	43.3	-14.4	0.0	1000	19.0	12.2	1118.8	6.6	-4.4	4.4	0.0
210	231.00	44.4	-15.5	0.0	1000	19.3	13.3	1077.6	6.6	-4.4	4.4	0.0
220	242.00	44.4	-16.6	0.0	1000	19.5	14.4	1033.2	6.6	-4.4	4.4	0.0
230	253.00	45.5	-17.7	0.0	1000	19.9	15.5	988.8	6.6	-4.4	4.4	0.0
240	264.00	46.6	-18.8	0.0	1000	20.2	16.6	944.4	6.6	-4.4	4.4	0.0
250	275.00	46.6	-19.9	0.0	1000	20.5	17.7	898.8	6.6	-4.4	4.4	0.0
260	286.00	47.7	-20.0	0.0	1000	20.8	18.8	852.2	6.6	-4.4	4.4	0.0
270	297.00	48.8	-21.1	0.0	1000	21.1	19.9	806.6	6.6	-4.4	4.4	0.0
280	308.00	49.9	-22.2	0.0	1000	21.4	21.1	758.8	6.6	-4.4	4.4	0.0
290	319.00	49.9	-23.3	0.0	1000	21.7	22.2	710.0	6.6	-4.4	4.4	0.0
300	330.00	49.9	-24.4	0.0	1000	22.0	23.3	661.1	6.6	-4.4	4.4	0.0
310	341.00	49.9	-25.5	0.0	1000	22.3	24.4	612.2	6.6	-4.4	4.4	0.0
320	352.00	49.9	-26.6	0.0	1000	22.6	25.5	563.3	6.6	-4.4	4.4	0.0
330	363.00	49.9	-27.7	0.0	1000	22.9	26.6	515.5	6.6	-4.4	4.4	0.0
340	374.00	49.9	-28.8	0.0	1000	23.2	27.7	466.6	6.6	-4.4	4.4	0.0
350	385.00	49.9	-29.9	0.0	1000	23.5	28.8	417.7	6.6	-4.4	4.4	0.0
360	396.00	49.9	-31.0	0.0	1000	23.8	29.9	368.8	6.6	-4.4	4.4	0.0
370	407.00	49.9	-32.1	0.0	1000	24.1	31.0	319.9	6.6	-4.4	4.4	0.0
380	418.00	49.9	-33.2	0.0	1000	24.4	32.1	271.1	6.6	-4.4	4.4	0.0
390	429.00	49.9	-34.3	0.0	1000	24.7	33.2	222.2	6.6	-4.4	4.4	0.0
400	440.00	49.9	-35.4	0.0	1000	25.0	34.3	173.3	6.6	-4.4	4.4	0.0
410	451.00	49.9	-36.5	0.0	1000	25.3	35.4	124.4	6.6	-4.4	4.4	0.0
420	462.00	49.9	-37.6	0.0	1000	25.6	36.5	75.5	6.6	-4.4	4.4	0.0
430	473.00	49.9	-38.7	0.0	1000	25.9	37.6	26.6	6.6	-4.4	4.4	0.0
440	484.00	49.9	-39.8	0.0	1000	26.2	38.7	17.7	6.6	-4.4	4.4	0.0
450	495.00	49.9	-40.9	0.0	1000	26.5	39.8	8.8	6.6	-4.4	4.4	0.0
460	506.00	49.9	-42.0	0.0	1000	26.8	40.9	0.0	6.6	-4.4	4.4	0.0
470	517.00	49.9	-43.1	0.0	1000	27.1	42.0	0.0	6.6	-4.4	4.4	0.0

TABLE 7. SHEAR AND MOMENT DIAGRAMS  
WIND DIRECTION 210

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FI-KIPS	Y-MOMENT 1000-FI-KIPS	Z-MOMENT
GRND	0.00	18.2	-14.4	1900	853	9.6	-16.9	1586.7	-166.0	13.2	481.9	1.2
1	11.00	47.9	-31.2	4695	1550	10.2	-20.1	1568.5	-150.6	11.1	464.5	1.9
2	22.00	43.0	-29.8	3709	1275	11.6	-23.4	1520.0	-120.4	10.0	433.3	2.2
3	33.00	44.9	-29.4	3521	1163	12.8	-21.9	1477.5	-90.0	8.8	411.1	1.1
4	44.00	24.6	-8.8	2250	2250	11.0	-3.5	1432.6	-50.2	7.6	388.9	3.3
5	55.00	25.5	-9.9	2250	2250	11.2	-3.1	1407.7	-50.0	6.4	366.6	4.4
6	66.00	25.5	-9.9	2250	2250	11.5	-2.7	1382.2	-50.0	5.4	344.4	1.1
7	77.00	27.7	-4.4	2250	2250	11.8	-2.3	1356.6	-44.0	4.4	322.2	2.2
8	88.00	27.7	-4.4	2250	2250	12.1	-2.0	1330.0	-33.3	3.3	300.0	3.3
9	99.00	28.8	-6.6	2250	2250	12.4	-1.6	1302.2	-33.3	2.2	277.7	4.4
10	110.00	28.8	-6.6	2250	2250	12.7	-1.1	1274.4	-22.2	1.1	255.5	5.5
11	121.00	28.8	-6.6	2250	2250	13.0	-0.7	1246.6	-11.1	0.0	233.3	6.6
12	132.00	29.4	-4.4	2250	2250	13.4	-0.3	1218.8	-0.0	0.0	211.1	7.7
13	143.00	30.0	-1.1	2250	2250	13.7	0.0	1188.9	0.0	0.0	188.9	8.8
14	154.00	31.1	-0.7	2250	2250	14.0	0.4	1155.5	0.0	0.0	166.6	9.9
15	165.00	32.3	-0.3	2250	2250	14.4	0.9	1124.4	0.0	0.0	144.4	11.1
16	176.00	33.3	0.3	2250	2250	14.7	1.6	1092.2	0.0	0.0	122.2	12.2
17	187.00	33.3	0.3	2250	2250	15.1	2.3	1059.9	0.0	0.0	100.0	13.3
18	198.00	34.4	0.8	2250	2250	15.4	3.1	1025.5	0.0	0.0	77.7	14.4
19	209.00	35.5	0.0	2250	2250	15.7	3.9	990.0	0.0	0.0	55.5	15.5
20	220.00	36.6	0.0	2250	2250	16.1	4.7	955.5	0.0	0.0	33.3	16.6
21	231.00	36.6	0.0	2250	2250	16.4	5.5	918.9	0.0	0.0	11.1	17.7
22	242.00	37.7	0.0	2250	2250	16.8	6.3	882.2	0.0	0.0	0.0	18.8
23	253.00	37.7	0.0	2250	2250	17.1	7.1	844.4	0.0	0.0	0.0	16.6
24	264.00	38.8	0.0	2250	2250	17.5	7.9	806.6	0.0	0.0	0.0	14.4
25	275.00	39.9	0.0	2250	2250	17.7	8.8	768.8	0.0	0.0	0.0	12.2
26	286.00	40.0	0.0	2250	2250	17.9	9.6	729.9	0.0	0.0	0.0	10.0
27	297.00	40.0	0.0	2250	2250	18.1	10.4	690.0	0.0	0.0	0.0	7.7
28	308.00	41.1	0.0	2250	2250	18.3	11.1	650.0	0.0	0.0	0.0	5.5
29	319.00	41.1	0.0	2250	2250	18.4	11.9	610.0	0.0	0.0	0.0	3.3
30	330.00	41.1	0.0	2250	2250	18.6	12.6	568.8	0.0	0.0	0.0	1.1
31	341.00	42.2	0.0	2250	2250	18.8	13.4	528.8	0.0	0.0	0.0	0.0
32	352.00	42.2	0.0	2250	2250	18.9	14.1	486.6	0.0	0.0	0.0	0.0
33	363.00	43.3	0.0	2250	2250	19.1	14.8	444.4	0.0	0.0	0.0	0.0
34	374.00	43.3	0.0	2250	2250	19.2	15.5	402.2	0.0	0.0	0.0	0.0
35	385.00	44.4	0.0	2250	2250	19.4	16.2	360.0	0.0	0.0	0.0	0.0
36	396.00	44.4	0.0	2250	2250	19.6	16.9	317.7	0.0	0.0	0.0	0.0
37	407.00	44.4	0.0	2250	2250	19.9	17.6	275.5	0.0	0.0	0.0	0.0
38	418.00	44.4	0.0	2250	2250	20.1	18.3	233.3	0.0	0.0	0.0	0.0
39	429.00	44.4	0.0	2250	2250	20.4	19.0	191.1	0.0	0.0	0.0	0.0
40	440.00	44.4	0.0	2250	2250	20.6	19.7	148.9	0.0	0.0	0.0	0.0
41	451.00	44.4	0.0	2250	2250	20.8	20.4	106.7	0.0	0.0	0.0	0.0
42	462.00	44.4	0.0	2250	2250	21.1	21.1	64.4	0.0	0.0	0.0	0.0
43	473.00	44.4	0.0	2250	2250	21.2	21.8	22.2	0.0	0.0	0.0	0.0
44	484.00	44.4	0.0	2250	2250	21.4	22.5	0.0	0.0	0.0	0.0	0.0
45	495.00	44.4	0.0	2250	2250	21.6	23.2	0.0	0.0	0.0	0.0	0.0
46	506.00	44.4	0.0	2250	2250	21.7	23.9	0.0	0.0	0.0	0.0	0.0
47	517.00	44.4	0.0	2250	2250	21.8	24.6	0.0	0.0	0.0	0.0	0.0
48	528.00	44.4	0.0	2250	2250	21.9	25.3	0.0	0.0	0.0	0.0	0.0
49	539.00	44.4	0.0	2250	2250	22.0	26.0	0.0	0.0	0.0	0.0	0.0
50	550.00	44.4	0.0	2250	2250	22.1	26.7	0.0	0.0	0.0	0.0	0.0

TABLE 7. SHEAR AND MOMENT DIAGRAMS ;  
WIND DIRECTION 220

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	20.73	-13.88	1900.0	855.3	10.7	-16.2	1580.3	-536.8	139.2	483.1	-115.3
2	11.00	11.1	-4.4	1336.5	533.3	10.6	-16.4	1560.0	-523.0	133.4	465.9	-116.3
3	31.00	6.6	-2.9	959.5	380.0	9.9	-19.0	1510.3	-494.5	123.2	435.5	-116.3
4	46.00	4.6	-1.9	670.9	266.7	10.3	-19.0	1473.7	-468.7	116.0	412.8	-116.3
5	61.00	3.3	-1.4	500.0	200.0	10.0	-19.0	1437.0	-445.5	109.9	390.9	-116.3
6	73.50	2.5	-1.1	375.0	150.0	10.0	-19.0	1414.4	-434.4	103.3	373.3	-117.7
8	98.50	1.7	-0.8	275.0	111.1	11.1	-19.0	1388.9	-423.3	98.3	355.5	-117.7
9	111.00	1.4	-0.6	225.0	90.0	11.1	-19.0	1366.4	-412.2	93.3	338.8	-117.7
10	123.50	1.1	-0.5	175.0	67.5	11.1	-19.0	1338.8	-400.0	87.9	321.1	-117.7
11	136.00	0.9	-0.4	133.3	50.0	12.2	-19.0	1311.1	-388.8	83.3	304.4	-117.7
12	148.50	0.7	-0.3	100.0	37.5	12.2	-19.0	1283.3	-376.6	78.9	287.8	-117.7
13	161.00	0.6	-0.2	77.5	28.1	13.3	-19.0	1255.5	-365.3	73.3	272.2	-117.7
14	173.50	0.5	-0.2	55.0	20.8	13.3	-19.0	1227.7	-354.0	69.1	257.7	-117.7
15	186.00	0.4	-0.1	37.5	15.0	14.4	-19.0	1199.9	-342.7	64.4	242.2	-117.7
16	198.50	0.3	-0.1	22.5	9.0	14.4	-19.0	1172.2	-331.4	60.7	227.7	-117.7
17	211.00	0.2	-0.1	13.3	5.0	15.5	-19.0	1144.4	-320.0	56.6	213.3	-117.7
18	223.50	0.2	-0.1	7.5	3.0	16.6	-19.0	1116.6	-308.7	53.3	199.9	-117.7
19	236.00	0.1	-0.0	5.0	2.0	17.7	-19.0	1088.8	-297.4	49.9	185.5	-117.7
20	248.50	0.1	-0.0	3.0	1.2	18.8	-19.0	1061.1	-286.1	45.5	171.1	-117.7
21	261.00	0.1	-0.0	2.0	0.8	19.9	-19.0	1033.3	-274.8	42.2	156.6	-117.7
22	273.50	0.1	-0.0	1.2	0.5	21.0	-19.0	1005.5	-263.5	38.8	142.2	-117.7
23	286.00	0.1	-0.0	0.8	0.3	22.1	-19.0	977.7	-252.2	35.5	127.7	-117.7
24	298.50	0.1	-0.0	0.5	0.2	23.2	-19.0	950.0	-240.9	32.2	113.3	-117.7
25	311.00	0.1	-0.0	0.3	0.1	24.3	-19.0	922.2	-229.6	28.9	98.9	-117.7
26	323.50	0.1	-0.0	0.2	0.0	25.4	-19.0	894.4	-218.3	25.5	84.5	-117.7
27	336.00	0.1	-0.0	0.1	0.0	26.5	-19.0	866.6	-207.0	22.2	70.0	-117.7
28	348.50	0.1	-0.0	0.0	0.0	27.6	-19.0	838.8	-195.7	18.8	55.5	-117.7
29	361.00	0.1	-0.0	0.0	0.0	28.7	-19.0	811.1	-184.4	15.5	41.1	-117.7
30	373.50	0.1	-0.0	0.0	0.0	29.8	-19.0	783.3	-173.1	12.2	26.6	-117.7
31	386.00	0.1	-0.0	0.0	0.0	30.9	-19.0	755.5	-161.8	9.9	12.2	-117.7
32	398.50	0.1	-0.0	0.0	0.0	32.0	-19.0	727.7	-150.5	6.6	0.0	-117.7
33	411.00	0.1	-0.0	0.0	0.0	33.1	-19.0	700.0	-139.2	3.3	0.0	-117.7
34	423.50	0.1	-0.0	0.0	0.0	34.2	-19.0	672.2	-127.9	0.0	0.0	-117.7
35	436.00	0.1	-0.0	0.0	0.0	35.3	-19.0	644.4	-116.6	0.0	0.0	-117.7
36	448.50	0.1	-0.0	0.0	0.0	36.4	-19.0	616.6	-105.3	0.0	0.0	-117.7
37	461.00	0.1	-0.0	0.0	0.0	37.5	-19.0	588.8	-94.0	0.0	0.0	-117.7
38	473.50	0.1	-0.0	0.0	0.0	38.6	-19.0	561.1	-82.7	0.0	0.0	-117.7
39	486.00	0.1	-0.0	0.0	0.0	39.7	-19.0	533.3	-71.4	0.0	0.0	-117.7
40	498.50	0.1	-0.0	0.0	0.0	40.8	-19.0	505.5	-60.1	0.0	0.0	-117.7
41	511.00	0.1	-0.0	0.0	0.0	41.9	-19.0	477.7	-48.8	0.0	0.0	-117.7
42	523.50	0.1	-0.0	0.0	0.0	43.0	-19.0	450.0	-37.5	0.0	0.0	-117.7
43	536.00	0.1	-0.0	0.0	0.0	44.1	-19.0	422.2	-26.2	0.0	0.0	-117.7
44	548.50	0.1	-0.0	0.0	0.0	45.2	-19.0	394.4	-14.9	0.0	0.0	-117.7
45	561.00	0.1	-0.0	0.0	0.0	46.3	-19.0	366.6	-3.6	0.0	0.0	-117.7
46	573.50	0.1	-0.0	0.0	0.0	47.4	-19.0	338.8	7.7	0.0	0.0	-117.7
47	586.00	0.1	-0.0	0.0	0.0	48.5	-19.0	311.1	18.8	0.0	0.0	-117.7



TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 230

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	17.4	-13.6	1900	853	9.1	-16.0	1781.7	-992.3	299.2	557.6	-17.5
2	11.00	44.1	-27.4	4695	1550	9.4	-17.7	1764.2	-978.7	288.4	538.1	-18.0
3	31.00	33.1	-24.4	3709	1275	8.6	-19.2	1688.8	-951.3	269.1	503.3	-17.9
4	46.00	33.3	-23.3	3521	1163	9.2	-20.1	1655.5	-926.9	255.0	477.7	-17.5
5	61.00	33.3	-18.2	2250	2250	10.2	-8.1	1633.3	-903.5	241.3	452.6	-17.2
6	73.50	33.3	-18.2	2250	2250	10.8	-8.3	1633.3	-885.3	230.1	432.1	-17.4
7	86.00	33.3	-19.2	2250	2250	11.4	-8.8	1609.9	-866.5	219.2	411.8	-17.5
8	98.50	33.3	-19.6	2250	2250	12.1	-8.8	1583.3	-847.4	208.4	391.9	-17.6
9	111.00	33.3	-20.0	2250	2250	12.7	-8.8	1556.6	-827.8	198.0	372.2	-17.6
10	123.50	33.3	-20.4	2250	2250	13.4	-9.9	1527.7	-807.8	187.7	353.0	-17.6
11	136.00	33.3	-20.8	2250	2250	14.0	-10.2	1497.7	-787.5	177.8	334.1	-17.5
12	148.50	33.3	-21.1	2250	2250	14.6	-10.4	1466.6	-766.6	168.1	315.5	-17.4
13	161.00	33.3	-21.5	2250	2250	15.2	-10.9	1433.3	-744.5	158.8	297.4	-17.4
14	173.50	33.3	-21.8	2250	2250	15.8	-11.1	1400.0	-722.4	149.4	279.5	-17.4
15	186.00	33.3	-21.9	2250	2250	16.5	-11.9	1366.6	-700.2	140.0	262.2	-16.4
16	198.50	33.3	-22.0	2250	2250	17.1	-12.2	1333.3	-688.0	131.1	245.5	-16.4
17	211.00	33.3	-22.1	2250	2250	17.7	-12.3	1300.0	-665.8	123.3	229.3	-16.1
18	223.50	33.3	-22.2	2250	2250	18.3	-12.7	1266.6	-633.6	115.4	213.3	-15.8
19	236.00	33.3	-22.3	2250	2250	18.9	-12.9	1233.3	-611.4	107.6	198.2	-15.4
20	248.50	33.3	-22.4	2250	2250	19.5	-13.1	1200.0	-599.9	100.1	183.4	-15.1
21	261.00	33.3	-22.4	2250	2250	20.2	-13.1	1166.6	-569.9	92.8	169.4	-14.7
22	273.50	33.3	-22.5	2250	2250	20.8	-13.1	1133.3	-547.7	85.8	155.4	-14.4
23	286.00	33.3	-22.5	2250	2250	21.4	-13.1	1100.0	-524.4	79.1	142.2	-14.0
24	298.50	33.3	-22.5	2250	2250	22.0	-13.1	1066.6	-502.2	72.7	129.7	-13.6
25	311.00	33.3	-22.5	2250	2250	22.6	-13.1	1033.3	-480.0	66.6	117.7	-13.2
26	323.50	33.3	-21.6	2250	2250	23.1	-13.1	1000.0	-457.7	60.6	106.4	-12.8
27	336.00	33.3	-21.8	2250	2250	23.6	-13.1	966.6	-436.6	55.1	95.6	-12.4
28	348.50	33.3	-21.1	2250	2250	24.1	-13.1	933.3	-415.5	49.8	85.4	-12.1
29	361.00	33.3	-20.8	2250	2250	24.6	-13.1	900.0	-394.4	44.4	75.9	-11.7
30	373.50	33.3	-20.6	2250	2250	25.1	-13.1	866.6	-373.3	39.9	66.6	-11.3
31	386.00	33.3	-20.5	2250	2250	25.6	-13.1	833.3	-352.2	35.4	58.8	-11.0
32	398.50	33.3	-21.1	2250	2250	26.1	-13.1	800.0	-332.2	31.1	50.0	-10.6
33	411.00	33.3	-21.1	2250	2250	26.6	-13.1	766.6	-310.9	27.7	43.6	-10.2
34	423.50	33.3	-21.1	2250	2250	27.1	-13.1	733.3	-289.9	23.4	37.7	-9.8
35	436.00	33.3	-21.1	2250	2250	27.6	-13.1	700.0	-266.6	19.9	31.1	-9.4
36	448.50	33.3	-21.6	2250	2250	28.1	-13.1	666.6	-243.7	16.7	25.5	-9.0
37	461.00	33.3	-21.4	2250	2250	28.6	-13.1	633.3	-220.0	13.8	21.0	-8.6
38	473.50	33.3	-21.1	2250	2250	29.1	-13.1	600.0	-196.6	11.1	16.3	-8.2
39	486.00	33.3	-20.6	2094	2094	15.2	-10.0	577.7	-171.1	8.9	13.3	-7.8
40	498.50	33.3	-21.4	2094	2094	16.7	-10.0	555.5	-150.0	6.9	10.9	-7.4
41	511.00	33.3	-22.1	2094	2094	17.7	-10.0	533.3	-129.9	5.1	8.9	-7.0
42	523.50	33.3	-24.7	2094	2094	19.0	-10.0	511.1	-107.7	3.7	5.9	-6.6
43	536.00	33.3	-18.0	1188	1188	22.1	-15.5	488.8	-82.4	2.2	3.7	-6.2
44	548.50	33.3	-17.7	1188	1188	22.0	-14.4	466.6	-64.3	1.5	2.4	-4.4
45	561.00	33.3	-16.5	1188	1188	20.4	-13.3	444.4	-47.1	1.1	1.3	-3.1
46	573.50	33.3	-15.7	1188	1188	20.1	-11.4	422.2	-30.6	.9	.6	-2.0
47	586.00	33.3	-14.9	1188	1188	19.8	-10.6	400.0	-14.9	.7	.1	-1.1

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 240

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	14.8	-13.0	1900	853	7.8	-15.2	1920.9	-1261.2	40.1	598.7	-15.8
	11.00	40.9	-26.2	4695	1550	8.7	-16.9	1906.1	-1248.2	40.6	557.7	-16.3
	31.00	31.0	-23.8	3709	1275	8.4	-18.7	1865.1	-1228.8	41.1	486.6	-16.8
	46.00	30.1	-24.9	3521	1163	8.5	-21.4	1834.1	-1198.8	41.6	454.1	-17.3
	61.00	21.3	-23.7	2250	2250	9.5	-10.5	1804.0	-1173.3	42.1	422.2	-17.8
	73.50	23.7	-23.3	2250	2250	10.5	-10.6	1782.2	-1149.3	42.6	390.3	-18.3
	88.00	26.3	-23.3	2250	2250	11.7	-10.6	1759.9	-1122.9	43.1	358.4	-18.8
	99.50	28.9	-23.4	2250	2250	12.8	-10.7	1732.2	-1101.1	43.6	326.5	-19.3
	111.00	31.1	-23.4	2250	2250	14.0	-10.7	1703.3	-1077.7	44.1	294.6	-19.8
10	123.50	33.4	-23.4	2250	2250	15.1	-10.7	1672.4	-1053.3	44.6	262.7	-20.3
11	136.00	36.6	-23.4	2250	2250	16.3	-10.7	1638.4	-1029.9	45.1	230.8	-20.8
12	148.50	39.9	-23.4	2250	2250	17.4	-10.7	1601.1	-1005.5	45.6	198.9	-21.3
13	161.00	41.1	-22.2	2250	2250	18.5	-10.7	1562.2	-981.1	46.1	167.0	-21.8
14	173.50	43.3	-22.4	2250	2250	19.8	-10.7	1521.1	-955.7	46.6	135.1	-22.3
15	186.00	44.6	-22.4	2250	2250	19.8	-11.1	1477.7	-933.3	47.1	103.2	-22.8
16	198.50	45.6	-22.5	2250	2250	20.0	-11.1	1433.2	-908.8	47.6	71.3	-23.3
17	211.00	46.6	-22.6	2250	2250	20.0	-11.1	1387.7	-883.3	48.1	39.4	-23.8
18	223.50	47.7	-22.6	2250	2250	21.1	-11.1	1340.0	-857.7	48.6	7.5	-24.3
19	236.00	48.8	-22.6	2250	2250	21.6	-11.1	1293.3	-832.2	49.1	-24.4	-24.8
20	248.50	49.9	-22.7	2250	2250	20.0	-11.1	1244.4	-806.6	49.6	-56.5	-25.3
21	261.00	50.0	-22.7	2250	2250	22.2	-12.2	1194.4	-777.7	50.1	-88.6	-25.8
22	273.50	51.1	-22.7	2250	2250	22.2	-12.2	1144.4	-748.8	50.6	-120.7	-26.3
23	286.00	51.1	-22.7	2250	2250	22.2	-12.2	1092.2	-719.9	51.1	-152.8	-26.8
24	298.50	51.1	-22.7	2250	2250	22.2	-12.2	1040.0	-691.1	51.6	-184.9	-27.3
25	311.00	51.1	-22.7	2250	2250	22.2	-12.2	987.7	-662.2	52.1	-217.0	-27.8
26	323.50	52.2	-22.7	2250	2250	22.2	-12.2	935.5	-633.3	52.6	-249.1	-28.3
27	336.00	52.2	-22.7	2250	2250	22.2	-12.2	883.3	-604.4	53.1	-281.2	-28.8
28	348.50	52.2	-22.7	2250	2250	22.2	-12.2	831.1	-575.5	53.6	-313.3	-29.3
29	361.00	53.3	-22.9	2250	2250	22.2	-12.2	777.7	-546.6	54.1	-345.4	-29.8
30	373.50	53.3	-22.9	2250	2250	22.2	-12.2	725.5	-517.7	54.6	-377.5	-30.3
31	386.00	53.3	-22.9	2250	2250	22.2	-12.2	673.3	-488.8	55.1	-409.6	-30.8
32	398.50	53.3	-22.9	2250	2250	22.2	-12.2	621.1	-460.0	55.6	-441.7	-31.3
33	411.00	53.3	-22.9	2250	2250	22.2	-12.2	568.8	-431.1	56.1	-473.8	-31.8
34	423.50	52.2	-22.2	2250	2250	22.2	-12.2	516.6	-402.2	56.6	-505.9	-32.3
35	436.00	51.1	-22.2	2250	2250	22.2	-12.2	464.4	-373.3	57.1	-538.0	-32.8
36	448.50	51.1	-22.2	2250	2250	22.2	-12.2	412.2	-344.4	57.6	-570.1	-33.3
37	461.00	51.1	-22.2	2250	2250	22.2	-12.2	360.0	-315.5	58.1	-602.2	-33.8
38	473.50	49.9	-22.2	2250	2250	22.2	-12.2	307.7	-286.6	58.6	-634.3	-34.3
39	486.00	49.9	-22.2	2250	2250	22.2	-12.2	255.5	-257.7	59.1	-666.4	-34.8
40	498.50	49.9	-22.2	2250	2250	22.2	-12.2	203.3	-228.8	59.6	-698.5	-35.3
41	511.00	49.9	-22.2	2250	2250	22.2	-12.2	151.1	-200.0	60.1	-730.6	-35.8
42	523.50	49.9	-22.2	2250	2250	22.2	-12.2	98.8	-171.1	60.6	-762.7	-36.3
43	536.00	49.9	-22.2	2250	2250	22.2	-12.2	46.6	-142.2	61.1	-794.8	-36.8
44	548.50	49.9	-22.2	2250	2250	22.2	-12.2	-5.5	-113.3	61.6	-826.9	-37.3
45	561.00	49.9	-22.2	2250	2250	22.2	-12.2	-57.7	-84.4	62.1	-859.0	-37.8
46	573.50	49.9	-22.2	2250	2250	22.2	-12.2	-110.0	-55.5	62.6	-891.1	-38.3
47	586.00	49.9	-22.2	2250	2250	22.2	-12.2	-162.2	-26.6	63.1	-923.2	-38.8

TABLE 7. SHEAR AND MOMENT DIAGRAMS ;  
WIND DIRECTION 250

OXFORD CENTRE,  
CONFIGURATION A

PITTSBURGH  
REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	11.8	-11.6	190.0	85.3	6.2	-13.6	1852.5	-1420.8	468.2	558.2	-11.1
2	11.00	31.9	-23.9	469.5	115.0	6.6	-15.4	1840.7	-1409.2	452.6	525.1	-11.5
3	31.00	26.8	-22.3	370.9	112.7	6.8	-17.7	1808.8	-1385.3	424.7	525.5	-11.7
4	46.00	27.9	-22.3	333.3	112.7	7.9	-20.2	1781.9	-1362.7	404.1	498.8	-11.4
5	61.00	19.5	-25.5	222.5	112.7	8.7	-11.5	1754.0	-1339.3	383.3	471.1	-11.1
6	73.50	21.9	-25.5	222.5	112.7	8.8	-11.4	1734.5	-1313.7	367.2	450.0	-11.2
7	86.00	24.5	-25.4	222.5	112.7	9.9	-11.3	1712.6	-1288.8	351.1	430.8	-11.1
8	98.50	27.1	-25.5	222.5	112.7	10.1	-11.2	1688.8	-1262.2	333.3	414.4	-11.1
9	111.00	29.7	-25.5	222.5	112.7	13.2	-11.1	1660.9	-1237.6	333.3	404.4	-11.1
10	123.50	32.3	-24.4	222.5	112.7	14.4	-11.0	1631.2	-1212.2	333.3	394.4	-11.1
11	136.00	34.9	-24.4	222.5	112.7	15.5	-11.0	1598.8	-1187.8	289.9	333.3	-11.2
12	148.50	37.5	-24.4	222.5	112.7	16.7	-10.9	1563.3	-1163.3	274.4	333.3	-11.1
13	161.00	40.1	-24.4	222.5	112.7	17.8	-10.8	1526.4	-1138.7	260.0	333.3	-11.1
14	173.50	42.7	-24.4	222.5	112.7	18.7	-10.9	1486.3	-1114.4	245.5	333.3	-11.0
15	186.00	44.3	-24.4	222.5	112.7	19.2	-11.1	1444.2	-1089.9	232.2	333.3	-10.7
16	198.50	44.3	-26.6	222.5	112.7	19.9	-11.1	1401.1	-1064.4	218.8	333.3	-10.6
17	211.00	45.3	-26.6	222.5	112.7	20.0	-11.1	1356.6	-1038.8	205.5	333.3	-10.4
18	223.50	46.3	-26.6	222.5	112.7	20.6	-12.2	1311.1	-1011.1	192.2	333.3	-10.2
19	236.00	47.4	-26.6	222.5	112.7	21.1	-12.2	1265.5	-984.4	178.8	333.3	-10.1
20	248.50	48.5	-29.9	222.5	112.7	21.5	-13.3	1217.7	-957.7	165.5	333.3	-9.9
21	261.00	49.6	-31.1	222.5	112.7	22.2	-13.3	1169.4	-926.6	152.2	333.3	-9.7
22	273.50	50.6	-31.1	222.5	112.7	22.5	-14.4	1119.9	-897.7	144.4	333.3	-9.5
23	286.00	51.1	-31.1	222.5	112.7	22.7	-14.4	1069.9	-866.6	133.3	333.3	-9.4
24	298.50	51.4	-31.1	222.5	112.7	22.9	-14.3	1018.8	-835.5	123.3	333.3	-9.3
25	311.00	51.8	-32.2	222.5	112.7	23.0	-14.3	966.6	-803.3	113.3	333.3	-9.2
26	323.50	52.2	-32.2	222.5	112.7	23.2	-14.6	914.4	-771.1	103.3	333.3	-9.1
27	336.00	52.9	-33.3	222.5	112.7	23.4	-14.8	862.2	-738.8	93.3	333.3	-9.0
28	348.50	53.3	-33.3	222.5	112.7	23.5	-15.1	810.1	-705.5	84.4	333.3	-8.9
29	361.00	53.7	-33.3	222.5	112.7	23.7	-15.3	757.7	-671.1	76.6	333.3	-8.8
30	373.50	53.7	-33.3	222.5	112.7	23.9	-15.5	703.3	-636.6	68.8	333.3	-8.7
31	386.00	53.6	-33.6	222.5	112.7	24.0	-15.5	650.0	-601.1	60.0	333.3	-8.6
32	398.50	52.8	-33.6	222.5	112.7	24.1	-16.1	596.6	-566.6	52.2	333.3	-8.5
33	411.00	51.9	-33.6	222.5	112.7	24.3	-16.3	543.3	-529.9	44.4	333.3	-8.4
34	423.50	51.1	-33.7	222.5	112.7	24.4	-16.6	491.1	-492.2	36.6	333.3	-8.3
35	436.00	50.3	-33.7	222.5	112.7	24.4	-16.8	440.0	-455.5	28.8	333.3	-8.2
36	448.50	49.5	-33.8	222.5	112.7	24.4	-17.1	390.0	-417.7	21.1	333.3	-8.1
37	461.00	48.6	-33.9	222.5	112.7	24.6	-17.7	341.1	-379.9	13.3	333.3	-8.0
38	473.50	47.7	-33.9	222.5	112.7	24.6	-17.7	292.2	-340.0	5.5	333.3	-7.9
39	486.00	46.8	-40.1	220.9	115.4	24.4	-19.1	244.4	-300.0	-1.1	333.3	-7.8
40	498.50	45.9	-41.1	220.9	115.4	24.4	-19.9	212.2	-260.0	-6.6	333.3	-7.7
41	511.00	44.4	-43.3	220.9	115.4	24.4	-20.6	181.1	-218.8	-11.1	333.3	-7.6
42	523.50	42.0	-44.4	220.9	115.4	24.4	-22.1	151.1	-175.5	-16.6	333.3	-7.5
43	536.00	39.9	-44.4	220.9	115.4	24.4	-22.2	122.2	-131.1	-21.1	333.3	-7.4
44	548.50	38.6	-28.8	118.8	118.8	20.0	-24.4	94.4	-102.2	-25.5	333.3	-7.3
45	561.00	38.6	-27.7	118.8	118.8	20.0	-24.4	68.8	-75.5	-30.0	333.3	-7.2
46	573.50	38.6	-25.5	118.8	118.8	20.0	-24.4	43.3	-48.8	-34.4	333.3	-7.1
47	586.00	38.6	-23.3	118.8	118.8	20.0	-24.4	20.0	-23.3	-38.6	333.3	-7.0

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 260

OXFORD CENTRE,  
CONFIGURATION A

PITTSBURGH  
REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	8.0	-13.5	1900	853	4.2	-15.8	1588.8	-1516.1	4.9	499.2	-
1	11.00	11.0	-22.6	344	1550	5.3	-17.3	1580.0	-1502.7	4.4	481.7	-
2	22.00	13.1	-24.7	334	1275	7.7	-19.4	1536.2	-1475.8	4.4	450.0	-
3	33.00	14.6	-27.2	325	1163	9.9	-22.2	1500.4	-1451.1	4.4	427.7	-
4	44.00	16.1	-27.9	315	1050	12.2	-24.4	1463.3	-1424.4	4.4	404.4	-
5	55.00	17.3	-27.7	305	950	14.8	-27.0	1441.1	-1396.6	4.4	381.7	-
6	66.00	18.6	-27.7	295	850	17.3	-29.4	1416.9	-1369.9	4.4	359.0	-
7	77.00	20.0	-27.7	285	750	19.9	-32.2	1391.1	-1341.1	4.4	336.3	-
8	88.00	21.1	-27.7	275	650	22.2	-34.4	1363.3	-1314.4	4.4	313.6	-
9	99.00	22.6	-27.9	265	550	24.4	-37.0	1333.3	-1288.8	4.4	290.9	-
10	110.00	24.7	-27.7	255	450	27.0	-39.4	1300.0	-1266.1	4.4	268.2	-
11	121.00	26.6	-27.7	245	350	29.4	-42.2	1266.9	-1244.4	4.4	245.5	-
12	132.00	28.3	-27.7	235	250	32.2	-44.4	1233.5	-1224.4	4.4	222.8	-
13	143.00	30.0	-27.7	225	150	34.4	-47.0	1200.0	-1204.4	4.4	200.1	-
14	154.00	31.5	-27.7	215	50	37.0	-49.4	1166.3	-1184.4	4.4	177.4	-
15	165.00	32.6	-27.7	205	0	39.4	-52.2	1126.6	-1164.4	4.4	154.7	-
16	176.00	34.0	-27.7	195	0	42.2	-54.4	1088.8	-1144.4	4.4	132.0	-
17	187.00	35.3	-27.7	185	0	44.4	-57.0	1048.8	-1124.4	4.4	109.3	-
18	198.00	36.6	-27.7	175	0	47.0	-59.4	996.7	-1104.4	4.4	86.6	-
19	209.00	38.0	-27.7	165	0	49.4	-62.2	932.4	-1084.4	4.4	63.9	-
20	220.00	40.0	-27.7	155	0	52.2	-64.4	868.1	-1064.4	4.4	41.2	-
21	231.00	41.1	-27.7	145	0	54.4	-67.0	803.8	-1044.4	4.4	18.5	-
22	242.00	42.2	-27.7	135	0	57.0	-69.4	739.5	-1024.4	4.4	-4.2	-
23	253.00	43.3	-27.7	125	0	59.4	-72.2	675.2	-1004.4	4.4	-26.9	-
24	264.00	44.4	-27.7	115	0	62.2	-74.4	610.9	-984.4	4.4	-49.6	-
25	275.00	45.5	-27.7	105	0	64.4	-77.0	546.6	-964.4	4.4	-72.3	-
26	286.00	46.6	-27.7	95	0	67.0	-79.4	482.3	-944.4	4.4	-95.0	-
27	297.00	47.7	-27.7	85	0	69.4	-82.2	418.0	-924.4	4.4	-117.7	-
28	308.00	48.8	-27.7	75	0	72.2	-84.4	353.7	-904.4	4.4	-140.4	-
29	319.00	49.9	-27.7	65	0	74.4	-87.0	289.4	-884.4	4.4	-163.1	-
30	330.00	51.0	-27.7	55	0	77.0	-89.4	225.1	-864.4	4.4	-185.8	-
31	341.00	52.1	-27.7	45	0	79.4	-92.2	160.8	-844.4	4.4	-208.5	-
32	352.00	53.2	-27.7	35	0	82.2	-94.4	96.5	-824.4	4.4	-231.2	-
33	363.00	54.3	-27.7	25	0	84.4	-97.0	32.2	-804.4	4.4	-253.9	-
34	374.00	55.4	-27.7	15	0	87.0	-99.4	-32.1	-784.4	4.4	-276.6	-
35	385.00	56.5	-27.7	5	0	89.4	-102.2	-97.8	-764.4	4.4	-299.3	-
36	396.00	57.6	-27.7	0	0	92.2	-104.4	-163.5	-744.4	4.4	-322.0	-
37	407.00	58.7	-27.7	0	0	94.4	-107.0	-229.2	-724.4	4.4	-344.7	-

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 270

MOMENT DIAGRAMS :  
CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH  
REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	3.1	-1.1	1900	853	1.6	-15.4	1131	-14.6	4.4	373	-4.7
2	11.00	10.9	-2.3	4695	1550	2.3	-16.4	1128	-14.6	4.4	360	-4.9
3	22.00	16.0	-3.6	709	1275	4.3	-18.4	1117	-13.3	4.4	338	-5.2
4	33.00	16.0	-3.6	521	1163	4.8	-20.4	1101	-13.3	4.4	321	-5.4
5	44.00	12.9	-2.8	250	2250	5.6	-12.9	1084	-13.3	4.4	305	-4.7
6	55.00	13.7	-3.0	250	2250	6.0	-12.9	1071	-13.3	4.4	291	-4.9
7	66.00	14.4	-3.3	250	2250	6.4	-12.9	1058	-13.3	4.4	278	-4.9
8	77.00	15.5	-3.6	250	2250	6.9	-12.9	1043	-13.3	4.4	265	-4.9
9	88.00	16.4	-3.8	250	2250	7.3	-11.1	1028	-13.3	4.4	252	-4.9
10	99.00	17.7	-4.1	250	2250	7.7	-11.1	1011	-13.3	4.4	239	-4.9
11	110.00	18.2	-4.2	250	2250	8.1	-11.1	999	-13.3	4.4	227	-4.9
12	123.50	19.2	-4.4	250	2250	8.5	-11.1	987	-13.3	4.4	214	-4.9
13	136.00	20.0	-4.4	250	2250	8.8	-10.0	975	-13.3	4.4	202	-4.9
14	148.50	21.1	-4.4	250	2250	9.4	-10.0	963	-13.3	4.4	190	-4.9
15	161.00	22.2	-4.4	250	2250	9.9	-11.1	951	-13.3	4.4	177	-4.9
16	173.50	23.3	-4.4	250	2250	10.3	-11.1	939	-13.3	4.4	168	-4.9
17	186.00	24.4	-4.4	250	2250	10.8	-11.1	927	-13.3	4.4	155	-4.9
18	198.50	25.5	-4.4	250	2250	11.3	-11.1	915	-13.3	4.4	146	-4.9
19	211.00	26.6	-4.4	250	2250	11.7	-12.2	903	-13.3	4.4	133	-4.9
20	223.50	27.7	-4.4	250	2250	12.2	-12.2	891	-13.3	4.4	125	-4.9
21	236.00	28.8	-4.4	250	2250	12.7	-12.2	879	-13.3	4.4	116	-4.9
22	248.50	29.9	-4.4	250	2250	13.1	-11.1	867	-13.3	4.4	106	-4.9
23	261.00	31.0	-4.4	250	2250	13.6	-11.1	855	-13.3	4.4	99	-4.9
24	273.50	32.1	-4.4	250	2250	14.0	-11.1	843	-13.3	4.4	90	-4.9
25	286.00	33.2	-4.4	250	2250	14.4	-11.1	831	-13.3	4.4	82	-4.9
26	298.50	34.3	-4.4	250	2250	14.8	-11.1	819	-13.3	4.4	77	-4.9
27	311.00	35.4	-4.4	250	2250	15.2	-11.1	807	-13.3	4.4	70	-4.9
28	323.50	36.5	-4.4	250	2250	15.6	-11.1	795	-13.3	4.4	66	-4.9
29	336.00	37.6	-4.4	250	2250	16.0	-11.1	783	-13.3	4.4	61	-4.9
30	348.50	38.7	-4.4	250	2250	16.4	-11.1	771	-13.3	4.4	55	-4.9
31	361.00	39.8	-4.4	250	2250	16.8	-11.1	759	-13.3	4.4	51	-4.9
32	373.50	40.9	-4.4	250	2250	17.2	-11.1	747	-13.3	4.4	45	-4.9
33	386.00	42.0	-4.4	250	2250	17.6	-11.1	735	-13.3	4.4	41	-4.9
34	398.50	43.1	-4.4	250	2250	18.0	-11.1	723	-13.3	4.4	39	-4.9
35	411.00	44.2	-4.4	250	2250	18.4	-11.1	711	-13.3	4.4	36	-4.9
36	423.50	45.3	-4.4	250	2250	18.8	-11.1	699	-13.3	4.4	33	-4.9
37	436.00	46.4	-4.4	250	2250	19.2	-11.1	687	-13.3	4.4	31	-4.9
38	448.50	47.5	-4.4	250	2250	19.6	-11.1	675	-13.3	4.4	29	-4.9
39	461.00	48.6	-4.4	250	2250	20.0	-11.1	663	-13.3	4.4	27	-4.9
40	473.50	49.7	-4.4	250	2250	20.4	-11.1	651	-13.3	4.4	25	-4.9
41	486.00	50.8	-4.4	250	2250	20.8	-11.1	639	-13.3	4.4	23	-4.9
42	498.50	51.9	-4.4	250	2250	21.2	-11.1	627	-13.3	4.4	21	-4.9
43	511.00	53.0	-4.4	250	2250	21.6	-11.1	615	-13.3	4.4	19	-4.9
44	523.50	54.1	-4.4	250	2250	22.0	-11.1	603	-13.3	4.4	17	-4.9
45	536.00	55.2	-4.4	250	2250	22.4	-11.1	591	-13.3	4.4	15	-4.9
46	548.50	56.3	-4.4	250	2250	22.8	-11.1	579	-13.3	4.4	13	-4.9
47	561.00	57.4	-4.4	250	2250	23.2	-11.1	567	-13.3	4.4	11	-4.9

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 280

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-5.2	-11.8	19.9	85.3	-2.7	-13.9	264.3	-144.4	461.8	122.3	0.0
1	11.00	-11.4	-24.3	46.5	155.0	-2.4	-15.9	269.9	-142.8	446.6	119.4	1.1
2	31.00	-1.9	-22.6	37.9	127.5	-1.5	-17.7	280.9	-140.4	417.7	113.3	4.4
3	46.00	-1.4	-22.6	35.2	116.3	-1.4	-19.4	282.8	-138.1	399.6	105.9	1.1
4	66.00	-1.6	-32.9	22.0	225.0	-1.3	-14.6	284.2	-135.9	377.1	101.1	4.4
5	87.00	-1.7	-31.1	22.5	225.0	-1.3	-14.6	284.8	-132.6	359.8	98.8	1.1
6	99.00	-1.7	-30.7	22.5	225.0	-1.3	-13.7	285.5	-129.4	344.3	96.8	1.1
7	111.00	-1.7	-29.9	22.5	225.0	-1.3	-13.1	286.2	-126.3	329.7	94.4	1.1
8	123.00	-1.7	-28.8	22.5	225.0	-1.3	-12.6	287.0	-123.4	315.1	91.1	1.1
9	136.00	-1.8	-26.0	22.5	225.0	-1.4	-11.6	288.8	-120.5	299.6	87.7	1.1
10	148.00	-1.8	-24.4	22.5	225.0	-1.4	-11.1	289.9	-117.8	284.1	84.3	1.1
11	161.00	-1.8	-23.3	22.5	225.0	-1.4	-10.9	290.0	-115.3	269.6	80.8	1.1
12	173.00	-1.5	-23.4	22.5	225.0	-1.4	-10.4	291.4	-112.7	255.3	77.7	1.1
13	186.00	-1.4	-24.4	22.5	225.0	-1.4	-10.0	291.4	-110.0	241.4	74.4	1.1
14	198.00	-1.3	-25.1	22.5	225.0	-1.6	-11.1	291.7	-107.6	228.1	71.1	1.1
15	211.00	-1.1	-26.6	22.5	225.0	-1.1	-11.6	289.9	-105.6	215.1	67.7	1.1
16	223.00	-1.1	-26.6	22.5	225.0	-1.1	-11.9	287.7	-103.1	202.1	64.4	1.1
17	235.00	-1.1	-27.7	22.5	225.0	-1.1	-13.3	284.4	-100.5	189.6	61.1	1.1
18	247.00	-1.1	-28.8	22.5	225.0	-1.1	-13.7	280.7	-97.8	177.3	57.7	1.1
19	259.00	-1.1	-31.1	22.5	225.0	-1.1	-13.5	277.0	-95.0	165.6	54.4	1.1
20	271.00	-1.1	-32.2	22.5	225.0	-1.1	-14.4	270.3	-92.1	154.4	51.1	1.1
21	283.00	-1.1	-33.3	22.5	225.0	-1.1	-14.4	266.3	-89.2	143.3	47.7	1.1
22	295.00	-1.1	-34.4	22.5	225.0	-1.1	-15.1	256.6	-86.1	132.6	44.4	1.1
23	307.00	-1.1	-34.4	22.5	225.0	-1.1	-15.1	249.9	-83.0	122.7	41.1	1.1
24	319.00	-1.1	-35.5	22.5	225.0	-1.1	-16.3	240.0	-79.9	113.3	37.7	1.1
25	331.00	-1.1	-36.6	22.5	225.0	-1.1	-17.7	232.2	-76.5	104.4	34.4	1.1
26	343.00	-1.1	-37.7	22.5	225.0	-1.1	-18.8	222.2	-73.1	95.6	31.1	1.1
27	355.00	-1.1	-38.8	22.5	225.0	-1.1	-19.9	213.3	-69.6	87.3	27.7	1.1
28	367.00	-1.1	-39.9	22.5	225.0	-1.1	-19.9	202.2	-66.0	79.6	24.4	1.1
29	379.00	-1.1	-40.4	22.5	225.0	-1.1	-17.7	191.1	-62.3	72.3	21.1	1.1
30	391.00	-1.1	-41.1	22.5	225.0	-1.1	-17.7	180.0	-58.6	65.6	17.7	1.1
31	403.00	-1.1	-42.2	22.5	225.0	-1.1	-17.7	168.8	-55.0	59.9	14.4	1.1
32	415.00	-1.1	-43.3	22.5	225.0	-1.1	-17.7	155.5	-51.9	54.4	11.1	1.1
33	427.00	-1.1	-44.0	22.5	225.0	-1.1	-17.7	141.4	-48.8	49.9	7.7	1.1
34	439.00	-1.1	-44.4	22.5	225.0	-1.1	-18.8	127.7	-46.9	44.4	4.4	1.1
35	451.00	-1.1	-45.5	22.5	225.0	-1.1	-18.8	112.2	-43.0	39.9	1.1	1.1
36	463.00	-1.1	-46.6	22.5	225.0	-1.1	-19.9	96.6	-39.0	33.3	0.0	1.1
37	475.00	-1.1	-47.7	22.5	225.0	-1.1	-19.9	80.0	-34.9	26.6	0.0	1.1
38	487.00	-1.1	-48.8	22.5	225.0	-1.1	-21.1	63.3	-30.8	19.9	0.0	1.1
39	499.00	-1.1	-49.9	22.5	225.0	-1.1	-21.1	46.6	-26.6	13.3	0.0	1.1
40	511.00	-1.1	-51.1	22.5	225.0	-1.1	-19.9	30.0	-22.2	6.6	0.0	1.1
41	523.00	-1.1	-52.2	22.5	225.0	-1.1	-19.9	13.3	-17.7	0.0	0.0	1.1
42	535.00	-1.1	-53.3	22.5	225.0	-1.1	-15.5	0.0	-12.7	0.0	0.0	1.1
43	547.00	-1.1	-54.4	22.5	225.0	-1.1	-14.4	0.0	-8.8	0.0	0.0	1.1
44	559.00	-1.1	-55.5	22.5	225.0	-1.1	-14.4	0.0	-4.4	0.0	0.0	1.1
45	571.00	-1.1	-56.6	22.5	225.0	-1.1	-15.5	0.0	0.0	0.0	0.0	1.1
46	583.00	-1.1	-57.7	22.5	225.0	-1.1	-15.5	0.0	0.0	0.0	0.0	1.1
47	595.00	-1.1	-58.8	22.5	225.0	-1.1	-16.6	0.0	0.0	0.0	0.0	1.1

TABLE 7. SHEAR AND MOMENT DIAGRAMS ;  
WIND DIRECTION 290

CONFIGURATION A

OXFORD CENTRE, PITTSBURGH  
REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-9.9	-14.7	199.0	853	-5.2	-17.3	-392.0	-1226.5	384.9	-78.9	-
	11.00	-22.9	-29.5	44.9	1550	-4.9	-19.0	-382.1	-1211.7	371.1	-77.7	-
	31.00	-11.2	-27.7	37.9	1275	-4.9	-21.1	-359.2	-1182.2	347.7	-74.4	-
	46.00	-11.7	-26.3	35.2	1163	-4.9	-22.6	-347.7	-1153.5	330.0	-72.7	-
	61.00	-8.6	-27.1	22.5	1250	-4.9	-22.6	-336.2	-1129.9	300.0	-67.7	-
	73.50	-9.4	-26.3	22.5	1250	-4.9	-22.6	-327.6	-1101.9	299.9	-66.8	-
	88.50	-10.1	-25.5	22.5	1250	-4.9	-22.6	-318.2	-1075.7	289.9	-64.4	-
	98.50	-10.8	-24.4	22.5	1250	-4.9	-22.6	-308.2	-1050.4	272.2	-64.4	-
	111.00	-11.5	-23.3	22.5	1250	-4.9	-22.6	-297.4	-1026.0	259.9	-64.4	-
	123.50	-12.2	-22.2	22.5	1250	-4.9	-22.6	-285.9	-1002.6	246.6	-64.4	-
	136.00	-12.9	-21.1	22.5	1250	-4.9	-22.6	-273.8	-980.0	234.4	-64.4	-
	148.50	-13.6	-20.0	22.5	1250	-4.9	-22.6	-260.9	-958.0	221.1	-64.4	-
	161.00	-14.3	-19.6	22.5	1250	-4.9	-22.6	-247.9	-938.0	210.0	-64.4	-
	173.50	-14.5	-19.4	22.5	1250	-4.9	-22.6	-233.3	-918.0	198.8	-64.4	-
	186.00	-14.2	-20.1	22.5	1250	-4.9	-22.6	-218.8	-898.0	187.7	-64.4	-
	198.50	-13.8	-20.8	22.5	1250	-4.9	-22.6	-204.4	-878.0	176.6	-64.4	-
	211.00	-13.5	-21.5	22.5	1250	-4.9	-22.6	-190.0	-858.0	165.5	-64.4	-
	223.50	-13.2	-22.2	22.5	1250	-4.9	-22.6	-177.7	-836.0	154.4	-64.4	-
	236.00	-12.9	-22.9	22.5	1250	-4.9	-22.6	-163.3	-814.0	143.3	-64.4	-
	248.50	-12.6	-23.3	22.5	1250	-4.9	-22.6	-151.1	-791.0	132.2	-64.4	-
	261.00	-12.3	-24.4	22.5	1250	-4.9	-22.6	-138.8	-767.0	121.1	-64.4	-
	273.50	-11.9	-25.5	22.5	1250	-4.9	-22.6	-126.6	-743.0	110.0	-64.4	-
	286.00	-11.6	-26.6	22.5	1250	-4.9	-22.6	-114.4	-718.0	98.9	-64.4	-
	298.50	-11.3	-27.7	22.5	1250	-4.9	-22.6	-103.3	-692.0	87.8	-64.4	-
	311.00	-11.0	-28.8	22.5	1250	-4.9	-22.6	-91.1	-666.0	76.7	-64.4	-
	323.50	-10.7	-29.9	22.5	1250	-4.9	-22.6	-80.0	-638.0	65.6	-64.4	-
	336.00	-10.4	-30.0	22.5	1250	-4.9	-22.6	-69.9	-610.0	54.5	-64.4	-
	348.50	-10.1	-31.1	22.5	1250	-4.9	-22.6	-58.8	-581.0	43.4	-64.4	-
	361.00	-9.8	-32.2	22.5	1250	-4.9	-22.6	-48.7	-551.0	32.3	-64.4	-
	373.50	-9.5	-33.3	22.5	1250	-4.9	-22.6	-37.6	-520.0	21.2	-64.4	-
	386.00	-9.2	-34.4	22.5	1250	-4.9	-22.6	-27.5	-489.0	10.1	-64.4	-
	398.50	-8.9	-35.5	22.5	1250	-4.9	-22.6	-17.4	-457.0	-1.0	-64.4	-
	411.00	-8.6	-36.6	22.5	1250	-4.9	-22.6	-7.3	-424.0	-11.1	-64.4	-
	423.50	-8.3	-37.7	22.5	1250	-4.9	-22.6	2.8	-391.0	-21.2	-64.4	-
	436.00	-8.0	-38.8	22.5	1250	-4.9	-22.6	12.9	-358.0	-31.3	-64.4	-
	448.50	-7.7	-40.0	22.5	1250	-4.9	-22.6	23.0	-324.0	-41.4	-64.4	-
	461.00	-7.4	-41.1	22.5	1250	-4.9	-22.6	33.1	-289.0	-51.5	-64.4	-
	473.50	-7.1	-42.2	22.5	1250	-4.9	-22.6	43.2	-254.0	-61.6	-64.4	-
	486.00	-6.8	-43.3	22.5	1250	-4.9	-22.6	53.3	-219.0	-71.7	-64.4	-
	498.50	-6.5	-44.4	22.5	1250	-4.9	-22.6	63.4	-178.0	-81.8	-64.4	-
	511.00	-6.2	-45.5	22.5	1250	-4.9	-22.6	73.5	-139.0	-91.9	-64.4	-
	523.50	-5.9	-46.6	22.5	1250	-4.9	-22.6	83.6	-102.0	-102.0	-64.4	-
	536.00	-5.6	-47.7	22.5	1250	-4.9	-22.6	93.7	-70.0	-112.1	-64.4	-
	548.50	-5.3	-48.8	22.5	1250	-4.9	-22.6	103.8	-57.0	-122.2	-64.4	-
	561.00	-5.0	-49.9	22.5	1250	-4.9	-22.6	113.9	-44.0	-132.3	-64.4	-
	573.50	-4.7	-51.0	22.5	1250	-4.9	-22.6	124.0	-31.0	-142.4	-64.4	-
	586.00	-4.4	-52.1	22.5	1250	-4.9	-22.6	134.1	-18.0	-152.5	-64.4	-

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 300

OXFORD CENTRE, PITTSBURGH  
CONFIGURATION A REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-9.9	-17.9	190.0	85.3	-5.0	-21.0	-674.8	-147.0	463.3	-117.2	-
	11.00	-24.3	-34.4	44.4	14.5	-14.5	-22.2	-664.9	-145.2	447.7	-116.4	-
	31.00	-10.3	-30.5	33.3	11.1	-11.1	-24.0	-640.9	-141.7	418.8	-115.1	-
	46.00	-13.0	-29.4	22.2	7.7	-7.7	-25.3	-630.3	-138.7	397.7	-114.2	-
	61.00	-10.9	-30.2	22.2	7.7	-7.7	-13.4	-616.6	-135.7	376.6	-113.2	-
	73.50	-12.3	-29.5	22.2	7.7	-7.7	-11.1	-603.3	-132.7	355.5	-112.3	-
	86.50	-13.8	-28.7	22.2	7.7	-7.7	-12.8	-593.3	-129.8	334.4	-111.4	-
	98.50	-15.2	-27.9	22.2	7.7	-7.7	-10.4	-579.9	-126.9	313.3	-110.5	-
	111.00	-16.6	-27.1	22.2	7.7	-7.7	-12.1	-564.4	-124.1	292.2	-109.6	-
	123.50	-18.1	-26.3	22.2	7.7	-7.7	-11.7	-547.7	-121.4	271.1	-108.7	-
	136.00	-19.5	-25.5	22.2	7.7	-7.7	-11.3	-529.9	-118.8	250.0	-107.8	-
	148.50	-21.0	-24.4	22.2	7.7	-7.7	-10.0	-510.0	-116.2	228.9	-106.9	-
	161.00	-22.4	-23.5	22.2	7.7	-7.7	-10.6	-489.9	-113.7	207.8	-106.0	-
	173.50	-23.8	-22.6	22.2	7.7	-7.7	-11.4	-466.6	-111.4	186.7	-105.1	-
	186.00	-25.2	-21.5	22.2	7.7	-7.7	-11.0	-443.3	-109.0	165.6	-104.2	-
	198.50	-26.6	-20.6	22.2	7.7	-7.7	-11.4	-421.1	-106.5	144.5	-103.3	-
	211.00	-28.0	-19.5	22.2	7.7	-7.7	-11.1	-399.9	-103.9	123.4	-102.4	-
	223.50	-29.4	-18.4	22.2	7.7	-7.7	-12.8	-377.7	-101.4	102.3	-101.5	-
	236.00	-30.8	-17.3	22.2	7.7	-7.7	-13.3	-355.5	-98.9	81.2	-100.6	-
	248.50	-32.2	-16.2	22.2	7.7	-7.7	-14.4	-333.3	-96.4	60.1	-99.7	-
	261.00	-33.6	-15.1	22.2	7.7	-7.7	-15.2	-311.1	-93.9	39.0	-98.8	-
	273.50	-35.0	-14.0	22.2	7.7	-7.7	-16.6	-288.8	-91.4	17.9	-97.9	-
	286.00	-36.4	-13.0	22.2	7.7	-7.7	-17.3	-266.6	-88.9	6.8	-97.0	-
	298.50	-37.8	-12.0	22.2	7.7	-7.7	-18.0	-244.4	-86.4	-4.3	-96.1	-
	311.00	-39.2	-11.0	22.2	7.7	-7.7	-19.0	-222.2	-83.9	-11.8	-95.2	-
	323.50	-40.6	-10.0	22.2	7.7	-7.7	-20.7	-200.0	-81.4	-20.7	-94.3	-
	336.00	-42.0	-9.0	22.2	7.7	-7.7	-22.5	-177.7	-78.9	-29.6	-93.4	-
	348.50	-43.4	-8.0	22.2	7.7	-7.7	-24.3	-155.5	-76.4	-38.5	-92.5	-
	361.00	-44.8	-7.0	22.2	7.7	-7.7	-26.1	-133.3	-73.9	-47.4	-91.6	-
	373.50	-46.2	-6.0	22.2	7.7	-7.7	-27.9	-111.1	-71.4	-56.3	-90.7	-
	386.00	-47.6	-5.0	22.2	7.7	-7.7	-29.9	-88.9	-68.9	-65.2	-89.8	-
	398.50	-49.0	-4.0	22.2	7.7	-7.7	-31.7	-66.6	-66.4	-74.1	-88.9	-
	411.00	-50.4	-3.0	22.2	7.7	-7.7	-33.6	-44.4	-63.9	-83.0	-88.0	-
	423.50	-51.8	-2.0	22.2	7.7	-7.7	-35.4	-22.2	-61.4	-91.9	-87.1	-
	436.00	-53.2	-1.0	22.2	7.7	-7.7	-37.3	0.0	-58.9	-100.8	-86.2	-
	448.50	-54.6	0.0	22.2	7.7	-7.7	-39.2	22.2	-56.4	-109.7	-85.3	-
	461.00	-56.0	1.0	22.2	7.7	-7.7	-41.1	44.4	-53.9	-118.6	-84.4	-
	473.50	-57.4	2.0	22.2	7.7	-7.7	-43.0	66.6	-51.4	-127.5	-83.5	-
	486.00	-58.8	3.0	22.2	7.7	-7.7	-44.9	88.9	-48.9	-136.4	-82.6	-
	498.50	-60.2	4.0	22.2	7.7	-7.7	-46.8	111.1	-46.4	-145.3	-81.7	-
	511.00	-61.6	5.0	22.2	7.7	-7.7	-48.7	133.3	-43.9	-154.2	-80.8	-
	523.50	-63.0	6.0	22.2	7.7	-7.7	-50.6	155.5	-41.4	-163.1	-79.9	-
	536.00	-64.4	7.0	22.2	7.7	-7.7	-52.5	177.7	-38.9	-172.0	-79.0	-
	548.50	-65.8	8.0	22.2	7.7	-7.7	-54.4	200.0	-36.4	-180.9	-78.1	-
	561.00	-67.2	9.0	22.2	7.7	-7.7	-56.3	222.2	-33.9	-189.8	-77.2	-
	573.50	-68.6	10.0	22.2	7.7	-7.7	-58.2	244.4	-31.4	-198.7	-76.3	-
	586.00	-70.0	11.0	22.2	7.7	-7.7	-60.1	266.6	-28.9	-207.6	-75.4	-



TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 310

MOMENT DIAGRAMS :  
CONFIGURATION A

OXFORD CENTRE, PITTSBURGH  
REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-4.6	-20.2	1900	853	-2.4	-23.7	-605.7	-1611.9	504.5	-155.6	-9.6
1	11.00	-15.0	-40.3	444	1550	-3.2	-26.0	-601.1	-1591.7	486.6	-149.0	-9.7
2	31.00	-5.7	-36.3	595	1275	-1.5	-28.5	-586.1	-1551.4	455.5	-137.1	-10.8
3	46.00	-11.9	-33.6	344	921	-3.4	-28.9	-580.4	-1515.1	432.2	-128.8	-11.2
4	61.00	-11.3	-29.7	250	1163	-3.4	-28.2	-568.0	-1481.5	410.0	-119.7	-11.8
5	73.50	-12.8	-29.4	2250	2250	-5.7	-13.1	-557.1	-1455.1	391.1	-111.1	-11.8
6	86.00	-14.2	-29.1	2250	2250	-6.3	-12.9	-544.3	-1422.4	373.9	-105.0	-11.8
7	98.50	-15.7	-28.8	2250	2250	-7.0	-12.8	-530.1	-1393.3	359.1	-99.0	-11.8
8	111.00	-17.1	-28.8	2250	2250	-7.6	-12.7	-514.4	-1364.4	346.6	-92.2	-11.7
9	123.50	-18.5	-28.3	2250	2250	-8.2	-12.6	-497.7	-1335.5	335.0	-86.6	-11.7
10	136.00	-20.0	-28.8	2250	2250	-8.9	-12.4	-478.8	-1307.9	324.4	-81.0	-11.7
11	148.50	-21.4	-27.7	2250	2250	-9.5	-12.3	-458.8	-1279.9	314.4	-74.4	-11.7
12	161.00	-22.8	-27.7	2250	2250	-10.1	-12.2	-437.4	-1251.1	305.5	-68.8	-11.7
13	173.50	-23.3	-27.7	2250	2250	-10.3	-12.2	-414.6	-1224.4	297.9	-63.3	-11.7
14	186.00	-22.8	-27.7	2250	2250	-9.9	-12.2	-391.1	-1196.6	291.9	-58.8	-11.6
15	198.50	-21.1	-27.7	2250	2250	-9.4	-13.2	-369.9	-1168.8	286.6	-53.3	-11.6
16	211.00	-20.0	-30.0	2250	2250	-8.0	-15.5	-347.7	-1138.8	281.1	-49.1	-11.5
17	223.50	-19.3	-31.1	2250	2250	-6.6	-14.1	-322.7	-1107.7	276.6	-44.9	-11.4
18	236.00	-18.5	-33.3	2250	2250	-6.1	-14.4	-308.8	-1077.7	271.1	-40.8	-11.4
19	248.50	-17.7	-33.3	2250	2250	-5.5	-15.5	-290.0	-1047.7	266.6	-37.7	-11.4
20	261.00	-16.3	-32.2	2250	2250	-4.4	-16.6	-272.2	-1017.7	261.1	-33.3	-11.3
21	273.50	-15.3	-33.3	2250	2250	-3.7	-15.5	-255.6	-974.4	255.6	-30.0	-11.3
22	286.00	-15.0	-34.8	2250	2250	-2.2	-16.3	-241.1	-938.8	249.9	-26.6	-11.3
23	298.50	-14.8	-37.7	2250	2250	-1.6	-16.6	-226.2	-902.2	244.4	-24.4	-11.3
24	311.00	-15.0	-36.6	2250	2250	-1.1	-17.7	-211.4	-864.4	238.8	-21.1	-11.3
25	323.50	-14.4	-39.9	2250	2250	-0.4	-17.4	-196.6	-826.6	233.3	-19.9	-11.3
26	336.00	-14.2	-39.9	2250	2250	-0.3	-17.7	-182.2	-787.7	227.7	-16.6	-11.3
27	348.50	-14.0	-40.0	2250	2250	-0.2	-18.2	-168.8	-747.7	222.2	-14.4	-11.3
28	361.00	-13.8	-41.1	2250	2250	-0.1	-18.5	-154.1	-706.6	216.6	-12.4	-11.3
29	373.50	-13.6	-42.4	2250	2250	0.0	-18.8	-140.0	-665.5	211.1	-10.6	-11.3
30	386.00	-13.3	-42.4	2250	2250	0.0	-19.1	-126.7	-622.2	205.5	-8.9	-11.3
31	398.50	-12.6	-43.3	2250	2250	0.0	-19.3	-113.3	-579.9	200.0	-7.4	-11.3
32	411.00	-12.0	-43.3	2250	2250	0.0	-19.9	-100.0	-536.6	194.4	-6.1	-11.3
33	423.50	-11.4	-43.3	2250	2250	0.0	-19.9	-88.8	-493.3	188.8	-4.9	-11.3
34	436.00	-10.8	-43.3	2250	2250	0.0	-19.9	-77.7	-450.0	183.3	-3.3	-11.3
35	448.50	-10.2	-43.8	2250	2250	0.0	-19.9	-66.6	-406.6	177.7	-2.2	-11.3
36	461.00	-9.9	-44.4	2250	2250	0.0	-19.9	-56.6	-363.3	172.2	-1.1	-11.3
37	473.50	-9.2	-44.4	2250	2250	0.0	-19.9	-46.6	-319.9	166.6	0.0	-11.3
38	486.00	-10.0	-47.4	2250	2250	0.0	-22.2	-37.7	-276.6	161.1	0.0	-11.3
39	498.50	-9.0	-45.6	2250	2250	0.0	-21.1	-27.7	-233.3	155.5	0.0	-11.3
40	511.00	-8.1	-43.3	2250	2250	0.0	-20.0	-18.8	-188.8	150.0	0.0	-11.3
41	523.50	-7.7	-39.9	2250	2250	0.0	-18.8	-10.4	-143.3	144.4	0.0	-11.3
42	536.00	-7.7	-33.3	2250	2250	0.0	-18.8	-3.3	-97.7	138.8	0.0	-11.3
43	548.50	-7.7	-21.1	2250	2250	0.0	-17.4	-1.1	-51.1	133.3	0.0	-11.3
44	561.00	-6.6	-20.0	2250	2250	0.0	-17.4	0.0	-4.4	127.7	0.0	-11.3
45	573.50	-6.6	-19.9	2250	2250	0.0	-16.6	0.0	0.0	122.2	0.0	-11.3
46	586.00	-6.6	-17.7	2250	2250	0.0	-15.7	0.0	0.0	116.6	0.0	-11.3
47	598.50	-6.6	-17.7	2250	2250	0.0	-14.9	0.0	0.0	111.1	0.0	-11.3



TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 330

CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH  
REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT FT	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-4.5	-21.7	1900	853	-2.4	-25.5	-448.1	-1108.2	339.4	-140.5	-
2	11.00	-13.8	-42.5	469	1350	-2.4	-27.4	-443.5	-1086.5	327.3	-135.6	-
3	31.00	-3.3	-37.4	370	1275	-2.4	-29.9	-429.7	-1044.0	306.0	-126.8	-
4	46.00	-8.8	-34.9	352	1163	-2.4	-30.0	-426.4	-1006.6	290.6	-120.4	-
5	61.00	-8.0	-21.8	225	550	-2.4	-19.7	-417.7	-971.1	275.5	-114.1	-
6	73.50	-8.4	-21.2	225	550	-2.4	-19.4	-409.7	-949.9	260.6	-108.8	-
7	86.00	-8.9	-20.6	225	550	-2.4	-19.2	-401.2	-928.8	245.8	-103.5	-
8	98.50	-9.3	-20.0	225	550	-2.4	-19.1	-392.3	-908.8	231.1	-98.2	-
9	111.00	-9.8	-19.5	225	550	-2.4	-19.0	-383.3	-888.8	216.4	-92.9	-
10	123.50	-10.2	-18.9	225	550	-2.4	-18.9	-373.3	-868.8	201.6	-87.6	-
11	136.00	-10.7	-18.3	225	550	-2.4	-18.8	-363.3	-849.7	186.6	-82.4	-
12	148.50	-11.1	-17.7	225	550	-2.4	-18.7	-352.2	-831.4	171.9	-77.1	-
13	161.00	-11.6	-17.2	225	550	-2.4	-18.6	-341.1	-813.3	157.2	-71.9	-
14	173.50	-11.6	-17.7	225	550	-2.4	-18.6	-329.9	-796.6	142.4	-66.6	-
15	186.00	-11.1	-17.7	225	550	-2.4	-18.6	-318.8	-779.9	127.6	-61.3	-
16	198.50	-10.7	-17.7	225	550	-2.4	-18.6	-306.6	-762.2	112.9	-56.0	-
17	211.00	-10.2	-18.3	225	550	-2.4	-18.6	-296.6	-744.4	98.1	-50.7	-
18	223.50	-9.8	-18.3	225	550	-2.4	-18.6	-285.5	-725.5	83.4	-45.4	-
19	236.00	-9.3	-19.9	225	550	-2.4	-18.6	-276.6	-707.7	68.6	-40.1	-
20	248.50	-8.9	-19.6	225	550	-2.4	-18.6	-266.6	-688.8	53.9	-34.8	-
21	261.00	-8.4	-20.1	225	550	-2.4	-18.6	-258.8	-668.8	39.1	-29.5	-
22	273.50	-7.9	-21.1	225	550	-2.4	-18.6	-249.9	-648.8	24.4	-24.2	-
23	286.00	-7.7	-21.1	225	550	-2.4	-18.6	-241.1	-627.7	9.6	-18.9	-
24	298.50	-7.7	-22.2	225	550	-2.4	-18.6	-233.3	-606.6	-6.6	-13.6	-
25	311.00	-7.7	-22.2	225	550	-2.4	-18.6	-225.5	-584.8	-22.2	-8.3	-
26	323.50	-8.0	-22.2	225	550	-2.4	-18.6	-217.7	-562.2	-37.4	-3.0	-
27	336.00	-8.0	-23.3	225	550	-2.4	-18.6	-209.9	-539.9	-52.6	2.3	-
28	348.50	-8.0	-24.2	225	550	-2.4	-18.6	-201.1	-515.5	-67.7	7.6	-
29	361.00	-8.0	-24.8	225	550	-2.4	-18.6	-193.3	-491.1	-82.9	12.9	-
30	373.50	-8.1	-25.4	225	550	-2.4	-18.6	-185.5	-466.6	-98.1	18.2	-
31	386.00	-8.2	-26.6	225	550	-2.4	-18.6	-177.7	-441.1	-113.4	23.5	-
32	398.50	-8.6	-26.8	225	550	-2.4	-18.6	-169.9	-415.5	-128.6	28.8	-
33	411.00	-9.1	-27.7	225	550	-2.4	-18.6	-161.1	-388.8	-143.9	34.1	-
34	423.50	-9.5	-28.3	225	550	-2.4	-18.6	-151.1	-361.1	-159.1	39.4	-
35	436.00	-9.9	-29.9	225	550	-2.4	-18.6	-142.2	-332.2	-174.4	44.7	-
36	448.50	-10.3	-30.7	225	550	-2.4	-18.6	-132.2	-303.3	-189.7	50.0	-
37	461.00	-10.7	-31.3	225	550	-2.4	-18.6	-122.2	-274.4	-205.0	55.3	-
38	473.50	-11.1	-31.7	225	550	-2.4	-18.6	-111.1	-243.3	-220.3	60.6	-
39	486.00	-11.4	-33.4	225	550	-2.4	-18.6	-100.0	-212.2	-235.6	65.9	-
40	498.50	-11.6	-33.3	225	550	-2.4	-18.6	-85.5	-177.7	-250.9	71.2	-
41	511.00	-11.4	-33.3	225	550	-2.4	-18.6	-71.1	-144.4	-266.2	76.5	-
42	523.50	-11.6	-31.8	225	550	-2.4	-18.6	-56.6	-111.1	-281.5	81.8	-
43	536.00	-9.9	-19.4	1188	1188	-2.4	-13.4	-32.2	-59.9	-332.2	87.1	-
44	548.50	-8.7	-17.6	1188	1188	-2.4	-13.4	-14.8	-24.4	-411.1	92.4	-
45	561.00	-8.3	-15.9	1188	1188	-2.4	-13.4	-7.7	-11.1	-490.0	97.7	-
46	573.50	-8.0	-14.1	1188	1188	-2.4	-13.4	-1.1	-1.1	-568.9	103.0	-
47	586.00	-7.7	-12.3	1188	1188	-2.4	-13.4	-	-	-647.8	108.3	-

TABLE 7. SHEAR AND MOMENT DIAGRAMS :  
WIND DIRECTION 340

CONFIGURATION A

OXFORD CENTRE,

PITTSBURGH

REFERENCE PRESSURE 25.0 PSF

GUST FACTOR 1.32

FLOOR	HEIGHT F1	X-FORCE KIPS	Y-FORCE KIPS	X-AREA SQ FT	Y-AREA SQ FT	X-PRESS PSF	Y-PRESS PSF	X-SHEAR KIPS	Y-SHEAR KIPS	X-MOMENT 1000-FT-KIPS	Y-MOMENT 1000-FT-KIPS	Z-MOMENT
GRND	0.00	-7.2	-19.8	1900	853	-3.8	-23.3	-585.6	-1110.0	334.8	-203.8	4.6
2	11.00	-17.5	-38.8	4695	1550	-3.7	-25.1	-578.3	-1090.2	322.7	-197.4	4.6
3	31.00	-6.1	-34.4	3709	1275	-3.7	-27.0	-560.9	-1051.4	301.3	-186.0	4.4
4	46.00	-10.2	-34.5	3521	1163	-3.3	-29.7	-554.7	-1017.0	285.5	-177.6	4.7
5	61.00	-7.4	-22.1	2250	2250	-3.3	-33.3	-544.6	-982.4	270.0	-166.9	4.3
6	73.50	-7.7	-21.8	2250	2250	-3.4	-35.5	-537.2	-960.0	255.5	-155.2	4.0
7	86.00	-8.0	-21.4	2250	2250	-3.6	-38.8	-529.9	-938.8	242.2	-144.9	3.7
8	98.50	-8.4	-21.0	2250	2250	-3.7	-42.2	-521.5	-917.1	229.9	-134.2	3.4
9	111.00	-8.7	-20.7	2250	2250	-3.9	-45.5	-513.1	-896.6	218.2	-124.4	3.1
10	123.50	-9.1	-20.3	2250	2250	-4.0	-48.8	-504.3	-875.4	207.0	-114.9	2.8
11	136.00	-9.5	-19.9	2250	2250	-4.2	-52.2	-495.2	-855.3	196.4	-105.5	2.5
12	148.50	-9.8	-19.5	2250	2250	-4.4	-55.5	-485.8	-835.3	186.1	-96.6	2.2
13	161.00	-10.2	-19.1	2250	2250	-4.4	-58.8	-476.6	-815.5	176.1	-88.2	1.9
14	173.50	-10.3	-19.1	2250	2250	-4.6	-62.2	-465.5	-795.6	166.1	-80.2	1.6
15	186.00	-10.1	-19.4	2250	2250	-4.5	-65.5	-455.0	-775.7	156.1	-72.7	1.3
16	198.50	-9.9	-19.8	2250	2250	-4.4	-68.8	-445.4	-755.8	146.1	-65.5	1.0
17	211.00	-9.7	-20.2	2250	2250	-4.3	-72.2	-435.5	-735.9	136.1	-58.6	0.7
18	223.50	-9.6	-20.5	2250	2250	-4.3	-75.5	-425.8	-716.0	126.1	-52.2	0.4
19	236.00	-9.4	-20.9	2250	2250	-4.2	-78.8	-416.2	-696.1	116.1	-46.1	0.1
20	248.50	-9.2	-21.2	2250	2250	-4.1	-82.2	-406.6	-676.2	106.1	-40.2	0.0
21	261.00	-9.0	-21.6	2250	2250	-4.0	-85.5	-397.7	-656.3	96.1	-34.4	0.0
22	273.50	-8.9	-21.9	2250	2250	-3.9	-88.8	-388.8	-636.4	86.1	-28.8	0.0
23	286.00	-8.7	-22.2	2250	2250	-3.8	-92.2	-379.9	-616.5	76.1	-23.3	0.0
24	298.50	-8.5	-22.4	2250	2250	-3.7	-95.5	-370.4	-596.6	66.1	-17.7	0.0
25	311.00	-10.1	-23.4	2250	2250	-4.4	-98.8	-360.0	-576.7	56.1	-12.2	0.0
26	323.50	-10.5	-23.9	2250	2250	-4.7	-102.2	-350.0	-556.8	46.1	-6.6	0.0
27	336.00	-11.0	-24.3	2250	2250	-4.9	-105.5	-340.0	-536.9	36.1	-1.1	0.0
28	348.50	-11.4	-24.8	2250	2250	-5.1	-108.8	-329.9	-517.0	26.1	0.0	0.0
29	361.00	-11.8	-25.5	2250	2250	-5.3	-112.2	-317.7	-497.1	16.1	0.0	0.0
30	373.50	-12.3	-26.0	2250	2250	-5.5	-115.5	-305.9	-477.2	6.1	0.0	0.0
31	386.00	-12.9	-26.6	2250	2250	-5.7	-118.8	-293.6	-457.3	0.0	0.0	0.0
32	398.50	-13.9	-27.7	2250	2250	-6.0	-122.2	-280.7	-437.4	0.0	0.0	0.0
33	411.00	-15.0	-27.1	2250	2250	-6.6	-125.5	-266.6	-417.5	0.0	0.0	0.0
34	423.50	-16.0	-27.7	2250	2250	-7.1	-128.8	-251.1	-397.6	0.0	0.0	0.0
35	436.00	-17.0	-28.0	2250	2250	-7.7	-132.2	-235.0	-377.7	0.0	0.0	0.0
36	448.50	-18.0	-28.5	2250	2250	-8.0	-135.5	-218.8	-357.8	0.0	0.0	0.0
37	461.00	-19.0	-29.5	2250	2250	-8.5	-138.8	-200.0	-337.9	0.0	0.0	0.0
38	473.50	-20.2	-29.9	2250	2250	-9.1	-142.2	-181.1	-318.0	0.0	0.0	0.0
39	486.00	-24.2	-32.2	2094	2094	-11.1	-155.4	-161.7	-298.1	0.0	0.0	0.0
40	498.50	-24.1	-31.6	2094	2094	-11.1	-158.8	-137.4	-278.2	0.0	0.0	0.0
41	511.00	-24.0	-30.9	2094	2094	-11.1	-162.2	-113.3	-258.3	0.0	0.0	0.0
42	523.50	-23.5	-29.7	2094	2094	-11.1	-165.5	-89.9	-238.4	0.0	0.0	0.0
43	536.00	-14.4	-17.7	1188	1188	-11.1	-168.8	-65.5	-218.5	0.0	0.0	0.0
44	548.50	-13.9	-16.1	1188	1188	-11.1	-172.2	-51.1	-198.6	0.0	0.0	0.0
45	561.00	-13.2	-14.4	1188	1188	-11.1	-175.5	-37.7	-178.7	0.0	0.0	0.0
46	573.50	-12.5	-12.7	1188	1188	-10.0	-178.8	-24.4	-158.8	0.0	0.0	0.0
47	586.00	-11.8	-11.0	1188	1188	-9.9	-182.2	-11.1	-138.9	0.0	0.0	0.0

OXFORD CENTRE,      PITTSBURGH  
 PROJECT 7180  
 SCALE = 400  
 GUST FACTOR = 1.32  
 NUMBER OF SIDES = 8

CONFIGURATION A  
 REF. PRESSURE = 28.0  
 STANDARD FLOOR HEIGHT = 12.50  
 NO. OF FLOORS = 47

SIDE	ANGLE	Z-AXIS
1	0.0	4.575
2	90.0	2.325
3	180.0	2.805
4	270.0	2.325
5	0.0	2.325
6	90.0	2.325
7	180.0	2.325
8	270.0	2.325

FLOOR #	LABEL	HEIGHT-FT
1	GRND	11.00
2	2	20.00
3	3	15.00
4	4	15.00
5	5	12.50
6	6	12.50
7	7	12.50
8	8	12.50
9	9	12.50
10	10	12.50
11	11	12.50
12	12	12.50
13	13	12.50
14	14	12.50
15	15	12.50
16	16	12.50
17	17	12.50
18	18	12.50
19	19	12.50
20	20	12.50
21	21	12.50
22	22	12.50
23	23	12.50
24	24	12.50
25	25	12.50
26	26	12.50
27	27	12.50
28	28	12.50
29	29	12.50
30	30	12.50
31	31	12.50
32	32	12.50
33	33	12.50
34	34	12.50
35	35	12.50
36	36	12.50
37	37	12.50
38	38	12.50
39	39	12.50
40	40	12.50
41	41	12.50
42	42	12.50
43	43	12.50
44	44	12.50
45	45	12.50
46	46	12.50
47	47	12.50

APPENDIX A  
PRESSURE DATA

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

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
0	1	063	087	472	186	0	10823	448	181	913	198	0	10823	050	048	186	168
0	2	063	083	440	110	0	10833	368	112	079	357	0	10833	014	081	393	271
0	3	014	053	262	180	0	10834	364	118	095	354	0	10834	244	083	028	376
0	4	097	027	002	196	0	10835	269	074	032	800	0	10835	233	053	072	420
0	5	093	022	022	160	0	10836	186	064	058	442	0	10836	242	040	120	462
0	6	098	024	014	161	0	10837	161	064	092	407	0	10838	190	034	061	333
0	7	086	025	008	164	0	10838	096	111	033	364	0	10839	173	055	007	417
0	8	090	024	012	162	0	10839	033	066	250	254	0	10890	161	044	024	407
0	9	066	028	065	151	0	10400	017	066	239	251	0	10911	157	030	040	268
0	10	262	057	019	512	0	10411	036	078	379	201	0	10932	140	039	008	334
0	11	143	034	024	329	0	10440	174	118	623	183	0	10933	070	060	228	336
0	12	117	023	031	196	0	10441	286	151	841	208	0	10954	069	046	210	555
0	13	105	022	031	184	0	10442	399	098	071	913	0	10955	138	033	028	555
0	14	126	022	048	210	0	10443	378	096	098	125	0	10956	168	088	212	522
0	15	185	028	111	310	0	10444	287	068	042	607	0	22001	212	030	078	922
0	16	187	034	093	348	0	10445	209	062	024	479	0	22002	333	078	066	932
0	17	189	030	094	315	0	10446	200	063	004	463	0	22003	333	080	016	944
0	18	141	028	050	240	0	10447	001	090	562	249	0	22004	333	073	057	914
0	19	143	076	077	613	0	10448	099	047	182	262	0	22005	333	068	074	935
0	20	298	065	089	588	0	10500	084	045	088	238	0	22006	333	051	095	956
0	21	386	119	062	837	0	10551	045	057	232	215	0	22007	333	050	103	955
0	22	582	120	087	879	0	10552	069	093	500	217	0	22008	333	061	121	977
0	3	044	095	352	379	0	10553	102	121	785	322	0	22009	333	072	123	988
0	4	116	119	547	287	0	10554	41	128	117	228	0	22010	333	086	088	981
0	5	271	161	750	315	0	10555	39	136	117	204	0	22011	333	064	148	910
0	6	500	143	083	194	0	10556	28	076	066	646	0	22012	333	054	122	844
0	7	369	149	059	555	0	10557	193	058	029	455	0	22013	333	052	109	829
0	8	327	139	148	090	0	10558	173	054	011	402	0	22014	333	051	148	812
0	9	049	128	475	368	0	10559	023	080	380	260	0	22015	333	049	141	814
0	10	285	165	792	179	0	10610	106	040	053	249	0	22016	333	085	071	808
0	11	388	189	959	251	0	10611	099	038	041	223	0	22017	333	099	061	920
0	12	351	101	038	835	0	10612	067	043	125	205	0	22018	333	128	028	825
0	13	408	147	078	347	0	10613	002	067	325	203	0	22019	333	107	013	812
0	14	109	101	269	526	0	10614	47	081	423	258	0	22020	333	097	042	750
0	15	047	125	546	469	0	10615	32	096	054	777	0	22021	333	054	157	899
0	16	076	142	554	445	0	10616	34	117	023	990	0	22022	333	068	078	841
0	17	392	209	090	321	0	10617	23	056	078	492	0	22023	333	060	069	830
0	18	091	171	761	460	0	10618	14	033	002	316	0	22024	333	059	076	830
0	19	009	123	446	489	0	10619	13	037	008	305	0	22025	333	056	054	766
0	20	116	140	609	279	0	10700	06	047	237	224	0	22026	333	078	001	648
0	21	358	120	033	161	0	10701	08	040	141	212	0	22027	333	087	057	688
0	22	326	103	104	069	0	10702	08	043	111	295	0	22028	333	117	067	811
0	23	104	096	249	535	0	10703	06	041	158	195	0	22029	333	100	027	466
0	24	092	110	457	279	0	10704	004	064	359	169	0	22030	333	099	030	666
0	25	167	122	604	195	0	10705	039	081	542	171	0	22031	333	057	131	666
0	26	408	169	966	159	0	10706	32	076	061	688	0	22032	333	054	138	688
0	27	187	126	682	203	0	10707	20	051	003	489	0	22033	333	067	117	689
0	28	192	117	624	183	0	10708	24	045	109	484	0	22034	333	056	104	601
0	29	259	124	671	145	0	10709	46	047	015	450	0	22035	333	067	110	699
0	30	360	157	804	224	0	10800	00	044	059	403	0	22036	333	073	095	754

## APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
0	20337	0	068	089	663	0	20887	0	074	036	766	0	20339	0	039	131	465
0	20338	0	088	060	828	0	20888	0	068	139	628	0	20340	0	037	151	453
0	20339	0	117	024	1044	0	20889	0	065	096	529	0	20341	0	037	156	454
0	20400	0	075	143	665	0	20890	0	027	100	269	0	20342	0	037	159	443
0	20401	0	065	148	723	0	20891	0	039	074	409	0	20343	0	038	116	435
0	20402	0	079	158	846	0	20892	0	046	115	575	0	20344	0	047	134	515
0	20403	0	069	138	757	0	20893	0	053	013	457	0	20345	0	049	074	518
0	20404	0	070	058	714	0	20894	0	064	066	643	0	20346	0	054	101	692
0	20405	0	069	089	805	0	20895	0	055	086	524	0	20347	0	051	108	621
0	20406	0	074	076	839	0	20896	0	063	101	041	0	20348	0	044	108	501
0	20407	0	068	104	784	0	20897	0	044	101	396	0	20349	0	040	143	459
0	20408	0	085	087	805	0	20898	0	038	118	466	0	20350	0	039	143	468
0	20409	0	085	086	070	0	20899	0	055	067	423	0	20351	0	039	143	440
0	20500	0	087	070	097	0	20900	0	085	002	673	0	20352	0	038	146	434
0	20501	0	062	153	610	0	20901	0	088	052	850	0	20353	0	038	138	426
0	20502	0	058	143	675	0	20902	0	077	049	727	0	20354	0	038	172	433
0	20503	0	072	136	688	0	20903	0	072	104	665	0	20355	0	044	116	492
0	20504	0	064	122	721	0	20904	0	054	077	515	0	20356	0	077	103	683
0	20505	0	064	141	715	0	20905	0	058	050	560	0	20357	0	079	101	814
0	20506	0	068	165	665	0	20906	0	059	034	562	0	20358	0	091	145	493
0	20507	0	066	155	658	0	20907	0	059	040	443	0	20359	0	064	148	715
0	20508	0	065	144	666	0	20908	0	052	016	511	0	20360	0	055	161	824
0	20509	0	073	136	710	0	20909	0	044	062	426	0	20361	0	040	138	556
0	20600	0	068	180	692	0	20910	0	046	066	450	0	20362	0	040	136	402
0	20601	0	071	158	733	0	20911	0	047	147	468	0	20363	0	039	126	388
0	20602	0	050	156	676	0	20912	0	049	133	483	0	20364	0	038	151	391
0	20603	0	052	121	573	0	20913	0	051	070	478	0	20365	0	038	148	424
0	20604	0	073	092	617	0	20914	0	055	126	518	0	20366	0	037	155	433
0	20605	0	064	126	569	0	20915	0	050	075	417	0	20367	0	036	160	765
0	20606	0	067	113	683	0	20916	0	051	066	438	0	20368	0	036	019	580
0	20607	0	071	076	739	0	20917	0	041	090	423	0	20369	0	033	190	332
0	20608	0	066	136	665	0	20918	0	045	115	430	0	20370	0	033	075	375
0	20609	0	067	160	609	0	20919	0	044	133	456	0	20371	0	033	111	366
0	20700	0	087	187	850	0	20920	0	046	135	449	0	20372	0	033	096	364
0	20701	0	078	153	988	0	20921	0	044	141	445	0	20373	0	030	094	383
0	20702	0	071	167	761	0	20922	0	054	032	467	0	20374	0	030	101	316
0	20703	0	032	082	314	0	20923	0	044	129	450	0	20375	0	030	098	321
0	20704	0	042	089	370	0	20924	0	048	126	499	0	20376	0	030	118	333
0	20705	0	086	059	563	0	20925	0	045	098	616	0	20377	0	032	046	535
0	20706	0	069	020	533	0	20926	0	042	112	398	0	20378	0	032	132	323
0	20707	0	080	040	595	0	20927	0	042	102	407	0	20379	0	032	072	371
0	20708	0	083	070	824	0	20928	0	038	144	412	0	20380	0	044	106	425
0	20709	0	081	069	840	0	20929	0	040	150	424	0	20381	0	022	093	282
0	20800	0	062	101	619	0	20930	0	041	149	424	0	20382	0	033	251	366
0	20801	0	100	125	270	0	20931	0	046	135	462	0	20383	0	029	111	317
0	20802	0	080	113	844	0	20932	0	045	132	600	0	20384	0	028	145	321
0	20803	0	095	089	995	0	20933	0	049	126	683	0	20385	0	031	069	274
0	20804	0	046	074	448	0	20934	0	047	123	644	0	20386	0	033	092	443
0	20805	0	050	103	544	0	20935	0	043	136	585	0	20387	0	033	062	312
0	20806	0	065	009	488	0	20936	0	040	153	516	0	20388	0	033	106	391





## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPHIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPHIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPHIN	
10	1015	065	158	664	612	10	1066	041	093	643	271	10	2020	287	069	262	099	
10	1016	131	160	743	611	10	1066	224	075	028	272	10	2020	319	069	042	099	
10	1017	140	176	696	641	10	1066	234	082	036	737	10	2020	321	070	115	099	
10	1018	448	203	1165	2255	10	1066	177	044	009	420	10	2020	333	065	102	099	
10	1019	219	184	923	352	10	1066	130	031	009	248	10	2020	333	066	108	099	
10	1020	067	139	688	388	10	1070	130	033	014	276	10	2020	333	061	097	099	
10	1021	228	149	752	216	10	1072	067	037	167	196	10	2020	333	100	023	099	
10	1022	500	231	024	479	10	1072	087	029	063	210	10	2020	333	105	016	099	
10	1023	623	271	218	661	10	1073	085	030	049	285	10	2020	333	146	000	099	
10	1024	177	150	546	227	10	1074	073	032	092	192	10	2020	333	444	004	099	
10	1025	079	137	590	222	10	1075	051	046	174	188	10	2020	333	434	091	099	
10	1026	150	147	774	222	10	1076	062	064	283	350	10	2020	333	355	002	099	
10	1027	361	191	962	468	10	1077	234	044	099	470	10	2020	333	317	001	099	
10	1028	213	158	766	246	10	1077	166	036	033	326	10	2020	333	379	121	027	099
10	1029	207	143	701	203	10	1079	159	035	065	413	10	2020	333	343	121	097	099
10	1030	253	153	755	484	10	1080	184	041	069	430	10	2020	333	339	132	064	099
10	1031	329	172	965	149	10	1080	182	035	059	358	10	2020	333	333	143	238	099
10	1032	378	197	046	241	10	1080	066	037	112	180	10	2020	333	444	128	017	099
10	1033	475	178	055	465	10	1080	062	069	274	344	10	2020	333	333	113	014	099
10	1034	563	229	074	32	10	1080	140	042	000	335	10	2020	333	444	143	034	099
10	1035	297	091	004	18	10	1080	171	033	079	312	10	2020	333	333	093	068	099
10	1036	152	059	097	367	10	1080	197	029	109	326	10	2020	333	333	091	074	099
10	1037	119	058	096	384	10	1080	184	033	086	404	10	2020	333	333	097	058	099
10	1038	072	110	627	233	10	1080	161	046	033	487	10	2020	333	333	105	011	099
10	1039	022	064	258	488	10	1090	161	044	002	426	10	2044	333	388	116	037	099
10	1040	016	061	206	000	10	1090	132	027	032	219	10	2045	333	399	120	030	099
10	1041	021	072	284	539	10	1093	099	030	004	252	10	2046	333	389	107	005	099
10	1042	118	118	582	337	10	1093	099	037	181	333	10	2047	333	389	114	059	099
10	1043	206	171	859	367	10	1093	123	035	004	372	10	2048	333	454	152	018	099
10	1044	429	163	024	205	10	1093	110	029	007	214	10	2049	333	454	154	076	099
10	1045	509	175	099	11	10	1093	221	041	002	359	10	2050	333	434	159	093	099
10	1046	269	088	034	2	10	2001	321	085	013	716	10	2051	333	299	063	086	099
10	1047	152	061	050	454	10	2002	368	080	025	640	10	2052	333	313	067	080	099
10	1048	150	062	066	420	10	2003	368	100	009	852	10	2053	333	297	071	067	099
10	1049	008	085	506	271	10	2004	401	053	274	671	10	2054	333	310	080	040	099
10	1050	069	047	181	255	10	2005	343	077	078	769	10	2055	333	327	090	081	099
10	1051	060	045	127	334	10	2006	298	062	106	560	10	2056	333	357	100	098	099
10	1052	036	056	196	48	10	2007	333	038	222	475	10	2057	333	342	088	098	099
10	1053	045	095	492	22	10	2008	331	075	046	620	10	2058	333	360	095	098	099
10	1054	102	118	609	201	10	2009	333	087	096	958	10	2059	333	389	124	086	099
10	1055	332	124	056	123	10	2010	389	110	061	030	10	2060	333	418	131	065	099
10	1056	429	131	079	188	10	2011	346	085	125	697	10	2061	333	433	142	093	099
10	1057	238	067	048	595	10	2012	377	035	300	491	10	2062	333	255	049	105	099
10	1058	148	046	011	414	10	2013	325	066	128	603	10	2063	333	255	055	093	099
10	1059	137	044	019	383	10	2014	320	063	117	596	10	2064	333	260	048	108	099
10	1060	028	071	428	217	10	2015	325	059	136	563	10	2065	333	244	057	023	099
10	1061	091	035	070	224	10	2016	422	149	068	333	10	2066	333	226	071	021	099
10	1062	086	034	051	226	10	2017	370	134	037	278	10	2067	333	276	083	032	099
10	1063	058	042	148	38	10	2018	443	172	024	490	10	2068	333	292	073	077	099
10	1064	066	067	375	44	10	2019	443	144	025	244	10	2069	333	287	070	079	099

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
10	2070	329	106	114	963	10	3072	169	026	093	263	10	3072	169	026	093	263
10	2071	334	095	120	924	10	3073	164	024	093	255	10	3073	164	024	093	255
10	2072	347	095	111	105	10	3074	176	023	094	248	10	3074	176	023	094	248
10	2073	169	027	085	294	10	3075	166	023	095	247	10	3075	166	023	095	247
10	2074	169	026	084	262	10	3076	176	023	105	247	10	3076	176	023	105	247
10	2075	163	033	059	340	10	3077	168	024	084	247	10	3077	168	024	084	247
10	2076	166	038	007	349	10	3078	200	026	119	247	10	3078	200	026	119	247
10	2077	200	053	003	501	10	3079	160	027	072	258	10	3079	160	027	072	258
10	2078	230	059	055	626	10	3080	204	029	104	306	10	3080	204	029	104	306
10	2079	224	053	089	602	10	3081	142	022	067	238	10	3081	142	022	067	238
10	2080	220	047	037	467	10	3082	218	027	129	317	10	3082	218	027	129	317
10	2081	271	080	102	788	10	3083	162	024	084	251	10	3083	162	024	084	251
10	2082	270	061	092	693	10	3084	205	024	131	291	10	3084	205	024	131	291
10	2083	287	067	077	687	10	3085	140	024	060	214	10	3085	140	024	060	214
10	2084	161	031	045	293	10	3086	204	026	119	292	10	3086	204	026	119	292
10	2085	193	031	086	359	10	3087	155	025	079	231	10	3087	155	025	079	231
10	2086	140	034	028	559	10	3088	199	028	086	293	10	3088	199	028	086	293
10	2087	143	039	007	348	10	3089	185	025	107	275	10	3089	185	025	107	275
10	2088	226	037	124	475	10	3090	144	028	069	262	10	3090	144	028	069	262
10	2089	174	034	081	332	10	3091	213	023	134	292	10	3091	213	023	134	292
10	2090	143	023	072	218	10	3092	163	023	084	234	10	3092	163	023	084	234
10	2091	135	028	038	269	10	3093	209	023	134	276	10	3093	209	023	134	276
10	2092	206	031	099	364	10	3094	154	024	067	228	10	3094	154	024	067	228
10	2093	158	031	057	320	10	3095	209	026	122	295	10	3095	209	026	122	295
10	2094	211	035	056	383	10	3096	156	024	084	231	10	3096	156	024	084	231
10	2095	154	033	067	305	10	3097	168	026	078	308	10	3097	168	026	078	308
10	2096	153	044	009	401	10	4001	212	146	620	484	10	4001	212	146	620	484
10	2097	149	028	059	243	10	4002	942	110	421	455	10	4002	942	110	421	455
10	2098	197	029	094	303	10	4003	681	176	144	452	10	4003	681	176	144	452
10	2099	147	031	028	269	10	4004	266	069	061	591	10	4004	266	069	061	591
10	3001	427	095	153	004	10	4005	235	052	096	472	10	4005	235	052	096	472
10	3002	363	095	068	868	10	4006	433	093	198	904	10	4006	433	093	198	904
10	3003	359	087	107	791	10	4007	399	093	110	742	10	4007	399	093	110	742
10	3005	325	071	108	620	10	4008	392	094	118	776	10	4008	392	094	118	776
10	3006	319	061	143	587	10	4009	331	190	913	1055	10	4009	331	190	913	1055
10	3007	282	043	160	458	10	4010	068	145	629	470	10	4010	068	145	629	470
10	3008	240	056	049	450	10	4011	594	203	017	475	10	4011	594	203	017	475
10	3009	259	054	091	458	10	4012	176	116	082	951	10	4012	176	116	082	951
10	3010	225	052	061	431	10	4013	274	055	106	548	10	4013	274	055	106	548
10	3011	278	035	172	423	10	4014	338	085	063	776	10	4014	338	085	063	776
10	3012	272	057	082	469	10	4015	426	102	172	1025	10	4015	426	102	172	1025
10	3013	326	061	157	613	10	4017	195	051	061	446	10	4017	195	051	061	446
10	3014	285	059	087	520	10	4018	291	057	122	546	10	4018	291	057	122	546
10	3015	305	063	117	582	10	4019	303	077	108	681	10	4019	303	077	108	681
10	3016	294	089	068	821	10	4020	096	129	540	288	10	4020	096	129	540	288
10	3017	224	040	069	368	10	4021	186	043	032	362	10	4021	186	043	032	362
10	3018	223	041	072	414	10	4022	223	043	068	368	10	4022	223	043	068	368
10	3019	186	039	059	348	10	4023	222	043	068	402	10	4023	222	043	068	402
10	3020	221	038	072	346	10	4024	292	179	792	604	10	4024	292	179	792	604
10	3021	238	039	089	374	10	4025	070	133	566	380	10	4025	070	133	566	380

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	
10	4026	488	209	183	-1	260	4077	168	035	012	-293	20	17	114	022	046	-	
10	4027	115	107	172	-	874	4078	160	040	-	023	20	18	130	023	039	-	
10	4028	120	059	107	-	561	4079	152	034	-	015	20	19	183	056	034	-	
10	4029	148	051	046	-	392	4080	151	027	-	062	20	1001	283	071	113	-	
10	4030	139	053	078	-	30	4081	057	028	-	041	20	1002	125	089	334	-	
10	4031	040	105	511	-	305	4082	073	024	-	034	20	1003	291	218	414	-	
10	4032	130	051	079	-	27	4083	133	023	-	032	20	1004	224	148	750	-	
10	4033	147	042	062	-	40	9001	028	082	-	520	20	1005	328	129	787	-	
10	4034	217	036	087	-	42	9002	024	057	-	348	20	1006	317	164	773	-	
10	4035	211	159	818	-	41	9003	126	046	-	160	20	1007	484	166	032	-	
10	4036	062	134	583	-	22	9004	145	034	-	006	20	1008	471	156	153	-	
10	4037	332	200	233	-1	21	9005	156	042	-	105	20	1009	068	200	725	-	
10	4038	092	072	186	-	35	9006	164	041	-	012	20	1010	348	192	851	-	
10	4039	100	054	105	-	66	9007	696	212	-	089	20	1011	480	191	971	-	
10	4040	115	051	075	-	87	9008	491	164	-	174	20	1012	380	192	017	-	
10	4041	116	052	091	-	01	9009	287	071	-	079	20	1013	403	133	257	-	
10	4042	000	096	461	-	97	9010	039	045	-	295	20	1014	414	311	418	-	
10	4043	138	045	064	-	44	9011	039	045	-	295	20	1015	186	180	922	-	
10	4044	156	039	003	-	97	9012	318	081	-	134	20	1016	288	183	898	-	
10	4045	227	037	113	-	71	9013	110	035	-	057	20	1017	306	199	947	-	
10	4046	098	125	553	-	99	9014	406	093	-	122	20	1018	443	195	069	-	
10	4047	015	095	400	-	00	9015	185	057	-	050	20	1019	373	185	069	-	
10	4048	268	174	174	-1	124	9016	129	044	-	065	20	1020	283	183	880	-	
10	4049	127	043	015	-	94	9018	293	066	-	092	20	1021	392	187	988	-	
10	4050	130	041	024	-	32	9019	261	064	-	121	20	1022	396	138	118	-	
10	4051	132	039	066	-	00	9020	147	038	-	023	20	1023	610	333	577	-	
10	4052	123	038	051	-	55	9021	062	028	-	065	20	1024	006	185	767	-	
10	4053	063	071	301	-	22	9022	233	041	-	122	20	1025	243	167	869	-	
10	4054	165	037	036	-	49	9023	175	039	-	062	20	1026	296	172	971	-	
10	4055	165	035	018	-	92	9024	358	106	-	006	20	1027	348	171	828	-	
10	4056	212	043	091	-	11	9025	316	066	-	110	20	1028	311	175	825	-	
10	4057	023	093	556	-	17	9026	347	069	-	129	20	1029	289	164	799	-	
10	4058	048	072	402	-	58	9027	337	077	-	051	20	1030	306	165	798	-	
10	4060	120	040	048	-	90	9028	343	117	-	156	20	1031	387	168	945	-	
10	4061	117	035	027	-	60	9029	159	032	-	060	20	1032	304	171	911	-	
10	4062	128	035	002	-	55	1	012	049	-	309	20	1033	484	173	301	-	
10	4063	129	034	005	-	62	2	031	047	-	288	20	1034	724	262	265	-	
10	4064	085	060	286	-	0	3	097	041	-	259	20	1035	316	108	105	-	
10	4065	163	033	064	-	39	4	109	025	-	018	20	1036	139	061	083	-	
10	4066	174	029	080	-	2	5	059	017	-	000	20	1037	091	060	165	-	
10	4067	211	038	087	-	414	6	098	023	-	016	20	1038	061	093	509	-	
10	4068	021	087	546	-	204	7	125	024	-	024	20	1039	024	076	447	-	
10	4069	007	085	470	-	196	8	101	023	-	003	20	1040	008	066	310	-	
10	4070	033	064	232	-	224	9	039	025	-	048	20	1041	040	073	344	-	
10	4071	107	046	086	-	50	10	152	041	-	021	20	1042	121	099	569	-	
10	4072	105	038	059	-	43	11	164	028	-	062	20	1043	149	121	730	-	
10	4073	180	038	014	-	21	12	130	022	-	054	20	1044	347	125	083	-	
10	4074	117	040	116	-	69	13	072	020	-	003	20	1045	485	143	036	-	
10	4075	051	077	373	-	0	14	124	021	-	044	20	1046	231	077	006	-	
10	4076	152	033	003	-	70	15	189	024	-	115	20	1047	120	058	084	-	
10							16	167	028	-	083	20						

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
20	1048	127	060	093	357	20	2003	403	118	006	896	20	2053	213	048	033	499
20	1049	003	069	349	212	20	2004	487	080	271	856	20	2054	322	053	052	462
20	1050	052	048	149	246	20	2005	448	116	155	045	20	2055	333	066	043	523
20	1051	050	047	132	253	20	2006	272	058	116	461	20	2056	344	076	189	611
20	1052	029	050	219	186	20	2007	304	033	219	409	20	2057	244	061	029	399
20	1053	040	073	419	207	20	2008	307	072	046	672	20	2058	264	067	067	720
20	1054	094	097	594	309	20	2009	469	129	118	048	20	2059	333	072	036	618
20	1055	232	077	010	656	20	2010	529	157	118	424	20	2060	322	092	025	967
20	1056	328	093	038	844	20	2011	321	076	035	641	20	2061	377	105	003	077
20	1057	180	051	015	360	20	2012	350	039	250	477	20	2062	233	050	081	625
20	1058	118	038	018	261	20	2013	300	060	147	590	20	2063	233	046	080	491
20	1059	120	042	035	327	20	2014	331	057	125	496	20	2064	188	034	076	370
20	1060	035	058	297	254	20	2015	388	058	097	534	20	2065	188	033	011	326
20	1061	083	032	032	222	20	2016	399	094	073	858	20	2066	199	034	045	436
20	1062	079	031	036	291	20	2017	399	080	073	729	20	2067	170	033	103	359
20	1063	056	033	105	180	20	2018	399	113	036	907	20	2068	197	038	042	433
20	1064	003	054	257	145	20	2019	447	140	096	012	20	2069	189	040	058	370
20	1065	030	067	426	166	20	2020	194	353	029	343	20	2070	203	043	057	433
20	1066	165	047	031	361	20	2021	311	070	103	631	20	2071	222	050	051	645
20	1067	165	052	004	373	20	2022	323	067	105	605	20	2072	252	060	086	609
20	1068	127	033	012	256	20	2023	300	058	097	510	20	2073	145	035	053	273
20	1069	105	027	007	195	20	2024	304	057	108	495	20	2074	143	033	044	242
20	1070	108	027	004	228	20	2025	399	056	113	490	20	2075	133	033	014	249
20	1071	069	025	079	165	20	2026	343	086	077	681	20	2076	133	033	033	247
20	1072	081	025	021	183	20	2027	448	088	112	822	20	2077	133	033	029	266
20	1073	080	024	013	193	20	2028	412	130	103	947	20	2078	146	033	051	394
20	1074	070	025	043	148	20	2029	677	213	164	567	20	2079	150	033	024	283
20	1075	049	035	113	156	20	2030	798	198	316	603	20	2080	148	033	002	266
20	1076	067	042	173	218	20	2031	299	095	010	861	20	2081	159	038	000	399
20	1077	197	041	069	389	20	2032	277	114	037	307	20	2082	176	040	079	389
20	1078	133	036	015	358	20	2033	448	096	067	799	20	2083	196	045	090	370
20	1079	149	033	027	289	20	2034	448	099	066	918	20	2084	156	028	061	256
20	1080	115	033	024	241	20	2035	444	111	017	902	20	2085	199	039	106	332
20	1081	141	032	009	262	20	2036	401	194	914	072	20	2086	137	039	042	267
20	1082	048	029	053	141	20	2037	401	134	004	087	20	2087	099	029	044	212
20	1083	080	042	202	206	20	2038	463	112	100	937	20	2088	198	033	089	345
20	1084	086	032	068	193	20	2039	463	157	065	096	20	2089	167	033	051	334
20	1085	145	033	054	270	20	2040	252	077	028	912	20	2090	137	022	075	214
20	1086	165	031	070	272	20	2041	340	073	038	877	20	2091	145	027	057	277
20	1087	141	031	041	241	20	2042	333	055	064	528	20	2092	206	029	093	348
20	1088	119	034	008	332	20	2043	333	073	045	674	20	2093	143	028	054	234
20	1089	131	033	018	287	20	2044	333	098	030	796	20	2094	180	033	036	314
20	1090	091	029	043	202	20	2045	333	141	250	807	20	2095	144	033	035	313
20	1091	052	024	027	133	20	2046	333	098	000	753	20	2096	122	033	010	370
20	1092	076	027	039	222	20	2047	333	116	013	897	20	2097	160	028	081	280
20	1093	110	029	007	281	20	2048	333	134	018	996	20	2098	190	028	078	284
20	1094	067	029	027	172	20	2049	450	159	010	070	20	2099	126	022	006	231
20	1095	154	034	023	284	20	2050	568	169	095	456	20	3001	401	091	122	770
20	1096	318	083	056	660	20	2051	221	061	004	721	20	3002	330	084	108	941
20	1097	360	097	007	764	20	2052	43	061	033	596	20	3003	343	081	120	733

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
20	3005	.301	.068	.097	.626	20	3005	.217	.054	.048	.553	20	4008	.097	.087	.087	.777
20	3006	.311	.057	.149	.612	20	3006	.201	.046	.069	.462	20	4009	.033	.237	.665	-1.192
20	3007	.270	.044	.148	.442	20	3007	.201	.053	.056	.530	20	4010	.149	.132	.468	.691
20	3008	.229	.058	.009	.511	20	3008	.209	.050	.095	.560	20	4011	.799	.192	.203	-1.589
20	3009	.249	.053	.070	.518	20	3009	.189	.038	.099	.358	20	4012	.441	.226	.018	-1.260
20	3010	.209	.050	.056	.491	20	3010	.192	.030	.107	.336	20	4013	.336	.112	.115	-1.964
20	3011	.262	.032	.167	.418	20	3011	.177	.026	.090	.281	20	4014	.333	.094	.085	.854
20	3012	.255	.053	.085	.475	20	3012	.189	.024	.088	.269	20	4015	.401	.095	.149	.852
20	3013	.312	.059	.110	.557	20	3013	.179	.025	.090	.268	20	4017	.333	.111	.051	-1.981
20	3014	.265	.057	.094	.518	20	3014	.193	.022	.119	.299	20	4018	.333	.090	.151	.832
20	3015	.317	.069	.113	.741	20	3015	.199	.033	.085	.278	20	4019	.314	.083	.075	.782
20	3016	.310	.081	.037	.791	20	3016	.222	.045	.105	.531	20	4020	.111	.154	.395	.766
20	3017	.227	.044	.082	.408	20	3017	.178	.046	.077	.492	20	4021	.222	.064	.006	.632
20	3018	.225	.044	.087	.407	20	3018	.150	.031	.005	.320	20	4022	.222	.049	.056	-1.525
20	3019	.170	.041	.058	.352	20	3019	.135	.023	.058	.217	20	4023	.222	.049	.102	.497
20	3020	.211	.039	.095	.370	20	3020	.152	.022	.078	.262	20	4024	.000	.240	.674	.931
20	3021	.226	.039	.110	.492	20	3021	.142	.022	.068	.241	20	4025	.000	.132	.417	.580
20	3022	.238	.043	.106	.430	20	3022	.150	.023	.076	.254	20	4026	.000	.231	.005	-1.735
20	3023	.265	.064	.009	.536	20	3023	.144	.021	.065	.337	20	4027	.677	.231	.045	-1.177
20	3024	.287	.054	.122	.510	20	3024	.156	.022	.071	.230	20	4028	.111	.107	.021	.935
20	3025	.339	.063	.125	.569	20	3025	.144	.022	.068	.221	20	4029	.222	.084	.005	.948
20	3026	.316	.071	.057	.592	20	3026	.159	.022	.085	.556	20	4030	.196	.071	.008	.781
20	3027	.223	.037	.103	.384	20	3027	.147	.022	.070	.241	20	4031	.000	.134	.368	.872
20	3028	.227	.039	.094	.382	20	3028	.178	.023	.108	.272	20	4032	.000	.063	.038	.773
20	3029	.227	.040	.085	.381	20	3029	.141	.025	.059	.219	20	4033	.177	.045	.030	.501
20	3030	.268	.042	.149	.446	20	3030	.195	.025	.111	.289	20	4034	.200	.041	.050	.389
20	3031	.232	.044	.101	.420	20	3031	.135	.021	.070	.219	20	4035	.000	.115	.532	.445
20	3032	.269	.053	.092	.487	20	3032	.191	.024	.093	.274	20	4036	.000	.106	.418	.421
20	3033	.236	.066	.025	.624	20	3033	.143	.023	.066	.222	20	4037	.446	.185	.047	-1.403
20	3034	.226	.046	.090	.322	20	3034	.186	.023	.113	.279	20	4038	.172	.079	.056	.663
20	3035	.217	.050	.087	.555	20	3035	.111	.024	.030	.198	20	4039	.143	.045	.028	.478
20	3036	.221	.046	.097	.568	20	3036	.175	.025	.091	.334	20	4040	.152	.043	.009	.430
20	3037	.208	.039	.095	.415	20	3037	.138	.025	.061	.234	20	4041	.149	.042	.012	.368
20	3038	.221	.035	.119	.360	20	3038	.199	.028	.106	.307	20	4042	.066	.077	.373	.788
20	3039	.209	.035	.109	.331	20	3039	.184	.024	.110	.266	20	4043	.066	.041	.014	.333
20	3040	.216	.034	.114	.344	20	3040	.134	.025	.052	.227	20	4044	.159	.037	.027	.664
20	3041	.207	.035	.109	.329	20	3041	.194	.024	.115	.277	20	4045	.193	.037	.061	.333
20	3042	.224	.037	.117	.418	20	3042	.142	.022	.071	.210	20	4046	.029	.084	.418	.666
20	3043	.217	.044	.102	.497	20	3043	.190	.023	.126	.302	20	4047	.072	.070	.299	.323
20	3044	.235	.065	.064	.606	20	3044	.132	.023	.062	.258	20	4048	.370	.122	.011	-1.012
20	3045	.195	.041	.085	.545	20	3045	.187	.026	.089	.284	20	4049	.156	.041	.022	.450
20	3046	.216	.047	.100	.577	20	3046	.146	.025	.049	.258	20	4050	.143	.034	.014	.291
20	3047	.201	.044	.097	.565	20	3047	.160	.025	.083	.245	20	4051	.142	.033	.021	.273
20	3048	.207	.037	.107	.426	20	4001	.010	.167	.494	.840	20	4052	.142	.033	.019	.271
20	3049	.196	.031	.100	.376	20	4002	.146	.110	.291	.598	20	4053	.088	.058	.302	.399
20	3050	.208	.029	.127	.348	20	4003	.930	.218	.340	.939	20	4054	.155	.033	.028	.288
20	3051	.194	.029	.114	.319	20	4004	.442	.139	.152	.045	20	4055	.150	.031	.036	.333
20	3052	.205	.029	.119	.325	20	4005	.303	.074	.101	.698	20	4056	.177	.033	.081	.374
20	3053	.203	.031	.102	.337	20	4006	.428	.099	.139	.940	20	4057	.005	.066	.389	.399
20	3054	.220	.037	.110	.394	20	4007	.400	.100	.100	.866	20	4058	.080	.055	.224	.505

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
	4060	.133	.042	.027	.452	20	9029	.141	.029	.026	.258	30	1031	.304	.169	1.245	.170
	4061	.123	.029	.005	.243	30		.024	.052	.271	.202	30	1032	.199	.171	.930	.428
	4062	.131	.028	.022	.232	30		.034	.048	.201	.170	30	1033	.234	.179	.414	.212
	4063	.131	.027	.012	.228	30		.055	.037	.128	.175	30	1034	.299	.263	.467	.440
	4064	.097	.045	.303	.241	30		.077	.027	.008	.169	30	1035	.159	.118	.249	.625
	4065	.147	.028	.029	.278	30		.077	.019	.008	.142	30	1036	.084	.062	.176	.278
	4066	.156	.027	.061	.326	30		.083	.024	.002	.165	30	1037	.062	.060	.169	.300
	4067	.187	.036	.089	.387	30		.072	.024	.007	.151	30	1038	.036	.096	.541	.255
	4068	.031	.044	.250	.142	30		.074	.024	.006	.152	30	1039	.019	.078	.473	.289
	4069	.083	.053	.222	.227	30		.051	.034	.035	.163	30	1040	.003	.071	.331	.246
	4070	.091	.054	.173	.339	30		.133	.040	.063	.291	30	1041	.029	.081	.407	.265
	4071	.136	.034	.024	.233	30	10	.115	.027	.005	.228	30	1042	.096	.122	.678	.355
	4072	.112	.027	.000	.195	30	11	.108	.023	.016	.188	30	1043	.134	.165	.792	.453
	4073	.174	.029	.064	.275	30	12	.099	.022	.034	.161	30	1044	.277	.134	.409	.804
	4074	.111	.030	.008	.222	30	13	.113	.022	.046	.184	30	1045	.359	.158	.418	.021
	4075	.090	.050	.156	.233	30	14	.132	.024	.065	.226	30	1046	.202	.078	.150	.711
	4076	.131	.026	.027	.231	30	15	.130	.025	.062	.290	30	1047	.108	.056	.102	.360
	4077	.163	.025	.034	.262	30	16	.135	.024	.068	.235	30	1048	.113	.062	.112	.421
	4078	.122	.027	.028	.229	30	17	.118	.024	.024	.194	30	1049	.013	.091	.560	.343
	4079	.145	.028	.045	.219	30	18	.119	.042	.042	.345	30	1050	.047	.059	.182	.372
	4080	.132	.023	.044	.219	30	1001	.271	.111	.297	.654	30	1051	.049	.054	.159	.401
	4081	.042	.024	.051	.132	30	1002	.073	.107	.424	.485	30	1052	.022	.062	.230	.332
	4082	.059	.022	.021	.125	30	1003	.089	.182	.494	.101	30	1053	.064	.107	.633	.319
	4083	.116	.022	.037	.207	30	1004	.214	.163	.747	.398	30	1054	.131	.146	.902	.377
	9001	.072	.044	.214	.193	30	1005	.246	.174	.754	.288	30	1055	.204	.082	.092	.789
	9002	.024	.037	.168	.114	30	1006	.187	.185	.780	.466	30	1056	.273	.102	.070	.880
	9003	.109	.033	.102	.203	30	1007	.377	.197	.397	.103	30	1057	.158	.054	.063	.420
	9004	.100	.033	.017	.207	30	1008	.280	.203	.998	.107	30	1058	.109	.044	.079	.377
	9005	.125	.037	.009	.259	30	1009	.194	.180	.998	.602	30	1059	.112	.048	.052	.329
	9006	.121	.037	.108	.245	30	1010	.349	.202	1.063	.360	30	1060	.018	.074	.569	.305
	9007	.714	.197	.181	.475	30	1011	.419	.209	1.156	.273	30	1061	.078	.038	.082	.321
	9008	.539	.159	.049	.297	30	1012	.239	.199	1.915	.447	30	1062	.076	.037	.052	.306
	9009	.195	.045	.014	.458	30	1013	.185	.127	.915	.794	30	1063	.052	.042	.111	.279
	9011	.065	.032	.147	.155	30	1014	.164	.127	.432	.186	30	1064	.012	.072	.365	.403
	9012	.212	.040	.035	.433	30	1015	.181	.177	.491	.186	30	1065	.052	.090	.520	.420
	9013	.132	.027	.003	.250	30	1016	.250	.186	.974	.383	30	1066	.113	.045	.209	.264
	9014	.357	.111	.149	.818	30	1017	.282	.210	1.026	.268	30	1067	.104	.042	.087	.320
	9015	.107	.029	.097	.227	30	1018	.380	.208	1.129	.141	30	1068	.084	.031	.119	.241
	9016	.138	.028	.001	.275	30	1019	.357	.218	1.114	.229	30	1069	.072	.029	.131	.218
	9018	.305	.072	.057	.585	30	1020	.307	.184	.981	.256	30	1070	.076	.030	.141	.201
	9019	.189	.034	.054	.347	30	1021	.371	.199	1.081	.203	30	1071	.061	.026	.042	.153
	9020	.114	.029	.015	.251	30	1022	.201	.121	1.259	.863	30	1072	.066	.029	.041	.160
	9021	.069	.021	.029	.128	30	1023	.246	.273	1.465	.497	30	1073	.068	.028	.032	.199
	9022	.186	.030	.015	.299	30	1024	.112	.170	1.799	.492	30	1074	.067	.027	.045	.159
	9023	.140	.029	.017	.270	30	1025	.216	.154	8.10	.220	30	1075	.051	.034	.116	.153
	9024	.313	.099	.018	.712	30	1026	.241	.159	7.999	.242	30	1076	.042	.039	.131	.163
	9025	.300	.063	.138	.564	30	1027	.297	.161	9.599	.113	30	1077	.088	.055	.068	.749
	9026	.349	.068	.105	.647	30	1028	.292	.164	9.277	.153	30	1078	.082	.043	.073	.382
	9027	.313	.083	.024	.669	30	1029	.269	.155	8.887	.145	30	1079	.115	.038	.070	.285
	9028	.227	.060	.118	.701	30	1030	.276	.160	8.443	.223	30	1080	.072	.035	.189	.250

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
30	1081	114	034	050	242
30	1082	042	032	103	162
30	1083	104	040	162	239
30	1084	100	030	023	211
30	1085	133	031	025	281
30	1086	147	031	034	276
30	1088	068	029	070	205
30	1089	068	030	076	268
30	1090	133	034	009	297
30	1091	067	029	080	153
30	1092	061	027	097	142
30	1093	064	028	036	170
30	1094	058	029	110	140
30	1095	049	031	132	138
30	1096	117	031	058	226
30	2001	301	085	069	743
30	2002	324	104	079	861
30	2003	355	148	013	062
30	2004	532	204	041	374
30	2005	611	184	095	475
30	2006	257	056	090	564
30	2007	300	061	138	670
30	2008	261	080	049	612
30	2009	419	196	083	112
30	2010	699	252	140	851
30	2011	286	074	020	620
30	2012	326	066	079	677
30	2013	279	056	139	544
30	2014	247	051	090	458
30	2015	243	051	088	499
30	2016	343	074	141	735
30	2017	317	072	132	726
30	2018	330	096	061	871
30	2019	298	132	090	154
30	2020	780	329	132	128
30	2021	207	067	132	573
30	2022	275	067	036	615
30	2023	277	059	132	508
30	2024	270	056	124	502
30	2025	279	058	123	536
30	2026	306	072	117	691
30	2027	288	071	103	734
30	2028	274	096	006	836
30	2029	382	192	119	120
30	2030	601	192	109	543
30	2031	236	049	054	474
30	2032	193	048	013	562
30	2033	215	048	029	591
30	2034	176	053	040	573
30	2035	227	062	056	594

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
30	2036	077	149	545	706
30	2037	271	074	144	689
30	2038	252	073	027	748
30	2039	254	102	025	924
30	2040	196	048	042	556
30	2041	178	047	048	560
30	2042	174	036	033	379
30	2043	163	048	032	497
30	2044	193	062	061	595
30	2045	128	113	428	710
30	2046	215	065	012	654
30	2047	206	074	030	720
30	2048	234	093	035	813
30	2049	279	135	127	962
30	2050	433	165	117	141
30	2051	174	054	041	579
30	2052	189	048	033	470
30	2053	183	040	043	365
30	2054	163	047	033	414
30	2055	186	056	013	489
30	2056	187	081	428	460
30	2057	198	057	011	448
30	2058	214	060	007	537
30	2059	208	065	030	587
30	2060	268	085	059	691
30	2061	314	100	197	955
30	2062	191	048	050	619
30	2063	178	045	043	526
30	2064	178	033	064	398
30	2065	154	032	004	356
30	2066	168	036	007	393
30	2067	145	045	100	322
30	2068	172	038	018	338
30	2069	162	039	007	365
30	2070	176	042	012	440
30	2071	186	049	033	616
30	2072	232	060	032	575
30	2073	142	023	060	246
30	2074	138	022	060	244
30	2075	126	024	065	225
30	2076	119	028	044	235
30	2077	124	032	104	243
30	2078	116	048	308	258
30	2079	130	039	174	288
30	2080	134	031	017	279
30	2081	131	037	141	285
30	2082	145	046	155	337
30	2083	175	058	224	412
30	2084	152	025	075	252
30	2085	197	027	111	286

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
30	2086	144	032	030	310
30	2087	125	030	032	269
30	2088	196	031	086	324
30	2089	177	038	056	414
30	2090	120	022	053	196
30	2091	142	026	057	238
30	2092	207	028	107	341
30	2093	146	027	022	257
30	2094	170	032	061	301
30	2095	150	037	033	412
30	2096	118	034	080	239
30	2097	153	026	071	250
30	2098	181	026	071	274
30	2099	124	031	023	300
30	3001	350	085	139	803
30	3002	277	068	117	624
30	3003	259	071	084	697
30	3005	263	057	098	513
30	3006	266	054	122	545
30	3007	270	079	011	718
30	3008	220	071	002	636
30	3009	242	059	071	540
30	3010	199	054	013	490
30	3011	246	050	086	553
30	3012	226	054	002	580
30	3013	290	064	056	713
30	3014	267	057	124	607
30	3015	334	067	141	885
30	3016	292	067	093	610
30	3017	300	052	015	607
30	3018	197	051	034	505
30	3019	177	044	058	656
30	3020	181	038	058	389
30	3021	189	038	084	389
30	3022	186	040	027	376
30	3023	181	061	024	427
30	3024	258	055	113	515
30	3025	268	059	084	510
30	3026	266	062	050	547
30	3027	191	035	070	357
30	3028	188	036	069	354
30	3029	187	036	068	365
30	3030	239	039	114	462
30	3031	198	039	071	422
30	3032	230	041	107	421
30	3033	193	043	047	418
30	3034	187	033	059	388
30	3035	174	035	062	429
30	3036	179	032	071	436
30	3037	163	028	082	303



APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	
30	3088	195	023	115	271	30	3088	195	023	115	271	30	4042	164	042	142	341	
30	3089	1288	023	056	200	30	3089	1288	023	056	200	30	4043	174	035	037	338	
30	3090	1366	024	069	217	30	3090	1366	024	069	217	30	4044	163	032	055	313	
30	3091	1944	023	127	270	30	3091	1944	023	127	270	30	4045	177	031	038	294	
30	3092	1442	023	080	211	30	3092	1442	023	080	211	30	4046	040	113	597	417	
30	3093	1900	022	118	254	30	3093	1900	022	118	254	30	4047	095	095	337	433	
30	3094	131	022	049	195	30	3094	131	022	049	195	30	4048	418	133	053	1007	
30	3095	190	023	110	265	30	3095	190	023	110	265	30	4049	189	047	062	479	
30	3096	149	022	080	238	30	3096	149	022	080	238	30	4050	153	033	041	351	
30	3097	131	024	060	220	30	3097	131	024	060	220	30	4051	153	033	044	312	
30	4001	235	182	348	995	30	4001	235	182	348	995	30	4052	151	033	051	320	
30	4002	251	099	104	766	30	4002	251	099	104	766	30	4053	089	068	243	332	
30	4003	444	220	234	831	30	4003	444	220	234	831	30	4054	158	032	043	311	
30	4004	34	160	064	240	30	4004	34	160	064	240	30	4055	146	029	057	260	
30	4005	33	121	004	892	30	4005	33	121	004	892	30	4056	161	029	047	281	
30	4006	44	123	071	117	30	4006	44	123	071	117	30	4057	008	044	300	389	
30	4007	44	130	044	693	30	4007	44	130	044	693	30	4058	108	044	095	349	
30	4008	44	110	030	899	30	4008	44	110	030	899	30	4059	166	044	034	578	
30	4009	44	234	458	344	30	4009	44	234	458	344	30	4061	140	044	034	257	
30	4010	44	114	182	895	30	4010	44	114	182	895	30	4062	141	044	047	266	
30	4011	44	193	172	650	30	4011	44	193	172	650	30	4063	137	044	045	256	
30	4012	44	181	112	469	30	4012	44	181	112	469	30	4064	099	044	130	268	
30	4013	44	477	067	182	30	4013	44	477	067	182	30	4065	155	022	054	306	
30	4014	44	119	076	898	30	4014	44	119	076	898	30	4066	151	022	070	332	
30	4015	44	085	085	732	30	4015	44	085	085	732	30	4067	164	029	060	282	
30	4017	44	153	020	095	30	4017	44	153	020	095	30	4068	055	044	157	198	
30	4018	44	117	095	932	30	4018	44	117	095	932	30	4069	124	033	107	279	
30	4019	44	098	047	733	30	4019	44	098	047	733	30	4070	123	033	017	372	
30	4020	44	153	324	897	30	4020	44	153	324	897	30	4071	152	033	050	265	
30	4021	44	108	114	815	30	4021	44	108	114	815	30	4072	117	030	012	216	
30	4022	44	080	045	739	30	4022	44	080	045	739	30	4073	178	030	066	286	
30	4023	44	071	028	561	30	4023	44	071	028	561	30	4074	115	028	004	212	
30	4024	44	226	515	646	30	4024	44	226	515	646	30	4075	114	028	041	106	239
30	4025	44	115	189	383	30	4025	44	115	189	383	30	4076	130	026	034	216	
30	4026	44	233	233	597	30	4026	44	233	233	597	30	4077	164	026	081	281	
30	4027	44	193	086	355	30	4027	44	193	086	355	30	4078	116	025	047	219	
30	4028	44	151	025	128	30	4028	44	151	025	128	30	4079	140	030	026	275	
30	4029	44	125	024	951	30	4029	44	125	024	951	30	4080	132	028	066	213	
30	4030	44	100	039	740	30	4030	44	100	039	740	30	4081	039	024	060	114	
30	4031	44	154	372	783	30	4031	44	154	372	783	30	4082	061	022	021	134	
30	4032	44	099	089	719	30	4032	44	099	089	719	30	4083	114	022	041	182	
30	4033	44	200	007	590	30	4033	44	200	007	590	30	9001	103	038	112	212	
30	4034	44	054	011	469	30	4034	44	054	011	469	30	9002	027	040	187	133	
30	4035	44	129	491	607	30	4035	44	129	491	607	30	9003	101	034	084	219	
30	4036	44	090	275	501	30	4036	44	090	275	501	30	9004	056	034	116	196	
30	4037	44	178	050	293	30	4037	44	178	050	293	30	9005	047	037	163	172	
30	4038	44	071	011	670	30	4038	44	071	011	670	30	9006	067	053	323	367	
30	4039	44	181	041	433	30	4039	44	181	041	433	30	9007	556	278	534	537	
30	4040	44	181	040	414	30	4040	44	181	040	414	30	9008	389	175	293	122	
30	4041	44	177	040	411	30	4041	44	177	040	411	30	9009	164	042	142	341	

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPHIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPHIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPHIN
30	9011	082	031	041	221	40	1014	052	130	529	802	40	1064	039	057	262	222
30	9012	181	035	060	231	40	1015	035	126	727	809	40	1065	003	088	482	254
30	9013	108	027	006	203	40	1016	059	139	785	806	40	1066	109	033	060	425
30	9014	190	135	302	281	40	1017	024	137	752	809	40	1067	096	034	023	268
30	9015	118	030	044	245	40	1018	077	139	718	800	40	1068	090	028	011	285
30	9016	118	027	027	252	40	1019	062	152	796	812	40	1069	085	025	004	181
30	9018	268	063	086	554	40	1020	110	127	702	404	40	1070	085	026	006	199
30	9019	169	035	078	304	40	1021	087	142	676	50	40	1071	075	022	023	154
30	9020	103	033	058	338	40	1022	104	094	388	04	40	1072	082	025	034	183
30	9021	098	025	009	333	40	1023	073	125	391	03	40	1073	084	025	023	163
30	9022	171	032	050	334	40	1024	009	103	432	02	40	1074	083	024	011	182
30	9023	131	031	051	335	40	1025	015	092	503	0	40	1075	073	030	087	188
30	9024	250	092	094	555	40	1026	014	088	481	03	40	1076	057	036	140	160
30	9025	257	070	058	557	40	1027	041	099	665	05	40	1077	118	040	052	428
30	9026	231	062	063	559	40	1028	046	104	624	03	40	1078	084	038	111	372
30	9027	224	069	047	622	40	1029	043	104	624	06	40	1079	088	028	041	323
30	9028	198	039	115	499	40	1030	018	099	656	00	40	1080	077	026	043	202
30	9029	137	028	035	276	40	1031	009	099	620	00	40	1081	067	024	087	087
40	101	054	056	235	204	40	1032	088	117	639	00	40	1082	072	026	034	165
40	2	075	049	296	200	40	1033	097	067	210	0	40	1083	093	027	039	179
40	3	018	043	186	128	40	1034	093	077	215	0	40	1084	098	034	056	441
40	4	079	024	002	177	40	1035	083	058	166	0	40	1085	123	030	017	240
40	5	080	021	018	174	40	1036	078	043	139	0	40	1086	089	025	015	192
40	6	095	026	005	183	40	1037	077	045	252	0	40	1088	064	027	034	181
40	7	020	025	094	099	40	1038	058	051	220	0	40	1089	071	026	022	158
40	8	087	023	011	099	40	1039	055	048	221	0	40	1090	093	026	044	186
40	9	037	039	172	333	40	1040	061	048	196	0	40	1091	077	022	019	144
40	10	146	047	077	343	40	1041	064	052	214	0	40	1092	066	025	042	152
40	11	077	029	030	183	40	1042	045	069	343	0	40	1093	072	027	065	152
40	12	120	025	030	209	40	1043	041	110	422	0	40	1094	049	029	092	135
40	13	107	022	041	183	40	1044	140	076	100	0	40	1095	072	025	053	150
40	14	123	022	048	183	40	1045	160	088	103	0	40	1096	080	024	016	150
40	15	092	024	023	195	40	1046	125	050	030	0	40	2001	258	075	049	666
40	16	136	025	064	202	40	1047	094	042	049	0	40	2002	274	098	044	953
40	17	132	024	060	208	40	1048	104	048	038	0	40	2003	203	080	179	693
40	18	129	024	051	212	40	1049	046	058	337	0	40	2004	228	130	259	1095
40	19	111	044	009	222	40	1050	078	042	117	0	40	2005	297	187	272	230
40	1001	103	173	594	444	40	1051	075	040	059	0	40	2006	227	057	083	584
40	1002	007	171	797	466	40	1052	067	043	132	0	40	2007	268	060	098	656
40	1003	005	195	024	444	40	1053	013	080	333	0	40	2008	174	056	101	445
40	1004	044	173	870	477	40	1054	087	126	838	0	40	2009	147	118	302	113
40	1005	037	129	647	486	40	1055	135	055	128	0	40	2010	295	208	509	236
40	1006	055	137	586	486	40	1056	168	072	085	0	40	2011	219	072	006	539
40	1007	114	163	583	499	40	1057	121	044	046	0	40	2012	278	070	055	666
40	1008	040	183	812	819	40	1058	100	033	002	0	40	2013	239	056	108	322
40	1009	060	139	758	440	40	1059	101	036	001	0	40	2014	214	046	072	441
40	1010	038	149	812	737	40	1060	055	052	203	0	40	2015	192	045	050	410
40	1011	062	135	002	360	40	1061	094	031	023	0	40	2016	296	084	115	759
40	1012	108	151	705	369	40	1062	091	029	016	0	40	2017	291	089	112	862
40	1013	087	110	621	576	40	1063	074	032	078	0	40	2018	267	105	056	956

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
40	2019	187	140	374	233	40	2069	139	037	072	357	40	3021	172	037	080	475
40	2020	331	196	336	375	40	2070	141	038	159	337	40	3022	163	035	060	356
40	2021	133	074	429	357	40	2071	144	043	128	325	40	3023	143	042	058	289
40	2022	181	068	410	519	40	2072	179	054	276	383	40	3024	208	056	060	578
40	2023	201	056	200	504	40	2073	147	022	071	232	40	3025	208	063	039	628
40	2024	204	053	134	480	40	2074	140	021	066	230	40	3026	231	068	052	855
40	2025	222	056	048	578	40	2075	131	024	017	217	40	3027	168	033	065	392
40	2026	254	080	044	869	40	2076	132	029	056	230	40	3028	168	033	060	524
40	2027	219	067	025	729	40	2077	129	030	068	225	40	3029	163	033	058	379
40	2028	177	059	078	473	40	2078	111	040	167	223	40	3030	207	033	035	370
40	2029	169	090	257	973	40	2079	123	035	172	217	40	3031	168	036	035	451
40	2030	261	141	316	147	40	2080	137	030	060	242	40	3032	207	038	069	371
40	2031	224	049	071	599	40	2081	127	034	093	235	40	3033	176	040	027	372
40	2032	185	051	035	536	40	2082	130	038	094	256	40	3034	194	033	094	349
40	2033	197	049	002	438	40	2083	149	044	098	354	40	3035	169	034	071	337
40	2034	151	057	145	452	40	2084	154	026	070	377	40	3036	168	030	087	307
40	2035	193	056	126	462	40	2085	144	024	046	306	40	3037	162	026	080	289
40	2036	054	121	641	396	40	2086	157	032	006	392	40	3038	187	024	102	269
40	2037	203	065	322	460	40	2087	118	035	127	301	40	3039	159	024	073	243
40	2038	172	048	037	442	40	2088	147	035	062	576	40	3040	161	024	080	339
40	2039	158	055	166	485	40	2089	162	040	028	535	40	3041	157	024	076	411
40	2040	198	035	097	603	40	2090	131	022	053	210	40	3042	185	024	109	283
40	2041	169	034	088	558	40	2091	152	022	088	258	40	3043	160	024	085	269
40	2042	154	031	028	339	40	2092	159	026	072	404	40	3044	165	032	073	375
40	2043	138	042	085	389	40	2093	153	036	002	681	40	3045	152	026	073	260
40	2044	168	052	238	388	40	2094	168	029	024	255	40	3046	185	028	082	337
40	2045	089	078	622	318	40	2095	150	032	026	311	40	3047	155	027	066	286
40	2046	133	050	278	344	40	2096	085	027	044	191	40	3048	156	024	080	253
40	2047	130	049	172	408	40	2097	155	023	082	331	40	3049	152	023	083	238
40	2048	153	053	235	383	40	2098	133	024	003	279	40	3050	179	022	111	264
40	2049	126	061	387	446	40	2099	133	031	068	263	40	3051	150	022	085	231
40	2050	165	085	421	494	40	3001	299	060	151	611	40	3052	153	022	085	232
40	2051	160	034	061	464	40	3002	236	058	093	567	40	3053	153	022	085	253
40	2052	189	033	099	429	40	3003	193	061	039	582	40	3054	188	022	097	220
40	2053	151	032	060	349	40	3005	230	063	086	648	40	3055	157	031	051	225
40	2054	147	040	182	419	40	3006	237	073	119	061	40	3056	164	031	059	375
40	2055	145	046	395	456	40	3007	233	064	057	611	40	3057	163	034	068	396
40	2056	141	073	512	424	40	3008	193	057	047	525	40	3058	189	034	099	487
40	2057	135	054	285	316	40	3009	222	054	051	764	40	3059	155	027	085	294
40	2058	140	050	226	342	40	3010	182	053	018	526	40	3060	154	023	087	265
40	2059	135	034	393	567	40	3011	233	055	047	522	40	3061	150	021	085	248
40	2060	169	059	371	409	40	3012	205	057	006	576	40	3062	179	022	121	262
40	2061	161	073	297	471	40	3013	235	065	034	647	40	3063	150	023	068	226
40	2062	166	033	066	421	40	3014	233	055	098	585	40	3064	157	023	092	246
40	2063	161	031	063	357	40	3015	239	069	134	781	40	3065	154	024	085	260
40	2064	182	028	060	325	40	3016	247	070	086	668	40	3066	184	039	089	54
40	2065	147	033	026	342	40	3017	175	043	065	441	40	3067	133	038	061	60
40	2066	150	036	124	363	40	3018	171	040	061	406	40	3068	133	039	057	16
40	2067	125	050	283	308	40	3019	151	036	041	370	40	3069	133	022	051	107
40	2068	165	038	046	322	40	3020	159	034	063	321	40	3070	162	021	099	230

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
40	3071	141	020	083	204	40	4025	257	093	073	888	40	4076	134	023	043	223
40	3072	145	020	082	204	40	4026	402	124	046	149	40	4077	119	021	027	204
40	3073	141	020	080	202	40	4027	315	093	039	012	40	4078	130	022	062	222
40	3074	162	023	089	257	40	4028	261	081	039	738	40	4079	097	023	053	193
40	3075	143	022	071	233	40	4029	235	062	028	838	40	4080	137	020	070	214
40	3076	147	022	080	248	40	4030	222	054	015	481	40	4081	046	020	036	113
40	3077	144	022	078	262	40	4031	222	075	106	589	40	4082	019	019	053	084
40	3078	138	018	056	219	40	4032	212	059	053	525	40	4083	119	019	048	187
40	3079	138	021	072	302	40	4033	182	047	017	486	40	9001	078	028	066	190
40	3080	138	022	074	246	40	4034	175	041	007	403	40	9002	067	032	097	172
40	3081	126	021	065	193	40	4035	092	130	397	647	40	9003	077	027	039	175
40	3082	153	020	063	223	40	4036	184	081	146	523	40	9004	072	028	055	164
40	3083	146	019	091	211	40	4037	443	123	108	101	40	9005	051	029	073	174
40	3084	135	018	076	195	40	4038	232	055	014	601	40	9006	093	037	111	237
40	3085	130	020	066	200	40	4039	204	038	058	455	40	9007	108	245	911	136
40	3086	135	019	070	202	40	4040	195	037	064	423	40	9008	166	121	409	840
40	3087	136	019	072	219	40	4041	186	036	052	381	40	9009	101	033	150	220
40	3088	141	021	078	272	40	4042	134	063	191	374	40	9011	116	027	029	208
40	3089	116	022	048	190	40	4043	186	033	058	354	40	9012	125	033	183	226
40	3090	149	020	081	229	40	4044	166	031	042	291	40	9013	123	026	028	223
40	3091	153	019	089	214	40	4045	163	030	059	284	40	9014	103	111	455	406
40	3092	145	018	082	204	40	4046	038	105	392	420	40	9015	118	029	111	263
40	3093	136	018	081	199	40	4047	145	060	111	417	40	9016	131	025	043	231
40	3094	147	019	081	210	40	4048	397	121	052	170	40	9018	224	062	026	545
40	3095	150	019	086	214	40	4049	226	046	098	479	40	9019	106	035	194	202
40	3096	151	020	082	216	40	4050	174	032	056	334	40	9020	123	035	128	330
40	3097	132	023	071	254	40	4051	172	029	068	295	40	9021	112	023	029	195
40	4001	205	025	187	754	40	4052	177	030	078	303	40	9022	126	030	108	249
40	4002	104	027	102	039	40	4053	118	058	251	313	40	9023	137	031	103	391
40	4003	159	027	129	495	40	4054	164	030	071	305	40	9024	211	068	028	617
40	4004	343	027	066	192	40	4055	151	027	061	293	40	9025	218	069	087	737
40	4005	258	076	062	864	40	4056	166	025	082	259	40	9026	125	052	291	433
40	4006	315	081	039	779	40	4057	043	068	342	306	40	9027	174	062	092	487
40	4007	242	063	046	568	40	4058	136	043	021	303	40	9028	137	026	067	386
40	4008	254	069	088	666	40	4060	192	053	058	506	40	9029	152	028	050	363
40	4009	392	234	222	383	40	4061	166	030	039	308	50	1	062	051	201	299
40	4010	321	120	046	070	40	4062	158	029	061	330	50	2	069	053	251	281
40	4011	353	114	066	949	40	4063	151	027	042	256	50	3	112	034	051	218
40	4012	349	109	040	930	40	4064	119	043	118	268	50	4	115	027	025	243
40	4013	339	093	057	858	40	4065	168	029	058	359	50	5	103	021	033	172
40	4014	273	075	066	702	40	4066	155	025	078	284	50	6	108	027	029	214
40	4015	293	062	117	667	40	4067	157	027	073	301	50	7	109	025	037	194
40	4017	300	092	035	833	40	4068	091	038	167	207	50	8	092	025	001	176
40	4018	312	075	027	650	40	4069	106	029	103	211	50	9	104	035	020	233
40	4019	254	068	035	560	40	4070	137	031	009	351	50	10	161	035	021	283
40	4020	294	089	154	711	40	4071	129	028	067	230	50	11	149	024	068	234
40	4021	240	073	032	634	40	4072	130	024	043	228	50	12	137	023	065	231
40	4022	250	061	028	628	40	4073	130	024	041	220	50	13	133	021	072	194
40	4023	197	059	030	605	40	4074	135	025	028	227	50	14	144	021	078	209
40	4024	298	193	261	383	40	4075	104	034	092	219	50	15	168	026	080	284

APPENDIX A -- PRESSURE DATA:

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WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	
50	16	159	026	072	292	50	1047	105	065	069	904	50	2002	328	115	001	-1	032
50	17	164	023	099	280	50	1048	109	045	024	486	50	2003	191	087	137	-1	910
50	18	174	030	076	345	50	1049	111	041	011	451	50	2004	192	117	335	-1	958
50	19	206	047	085	500	50	1050	106	042	038	393	50	2005	178	166	462	-1	908
50	1001	127	143	539	516	50	1051	062	054	270	326	50	2006	249	073	041	-1	592
50	1002	072	132	666	413	50	1052	117	045	051	362	50	2007	305	083	077	-1	466
50	1003	115	132	629	866	50	1053	122	044	040	375	50	2008	189	076	089	-1	494
50	1004	105	139	624	990	50	1054	196	070	117	522	50	2009	133	113	413	-1	744
50	1005	075	134	624	524	50	1055	054	124	673	320	50	2010	191	168	478	-1	152
50	1006	130	127	556	566	50	1056	000	100	496	394	50	2011	188	080	173	-1	651
50	1007	100	152	442	556	50	1057	158	140	222	278	50	2012	249	083	131	-1	830
50	1008	072	159	630	754	50	1058	103	044	050	337	50	2013	247	073	039	-1	707
50	1009	027	126	535	515	50	1059	110	038	038	371	50	2014	241	077	003	-1	662
50	1010	113	135	475	830	50	1060	117	038	035	252	50	2015	235	076	023	-1	664
50	1011	066	106	475	399	50	1061	114	039	033	258	50	2016	255	077	033	-1	494
50	1012	194	119	344	654	50	1062	072	055	222	274	50	2017	246	091	017	-1	844
50	1013	048	149	344	654	50	1063	122	042	047	356	50	2018	195	086	252	-1	322
50	1014	070	127	333	266	50	1064	130	042	046	313	50	2019	109	112	622	-1	820
50	1015	110	133	666	333	50	1065	194	059	068	537	50	2020	149	135	791	-1	700
50	1016	087	101	442	333	50	1066	011	105	540	556	50	2021	191	073	316	-1	616
50	1017	118	098	482	761	50	1067	037	076	349	449	50	2022	208	073	219	-1	766
50	1018	070	104	481	615	50	1068	141	094	118	299	50	2023	217	065	112	-1	497
50	1019	088	105	499	556	50	1069	101	038	049	344	50	2024	224	065	101	-1	515
50	1020	028	107	556	457	50	1070	106	033	006	264	50	2025	232	067	066	-1	506
50	1021	067	108	427	705	50	1071	106	030	001	250	50	2026	218	082	040	-1	977
50	1022	038	138	333	454	50	1072	108	035	011	278	50	2027	186	071	114	-1	535
50	1023	036	143	333	546	50	1073	088	044	154	268	50	2028	115	090	279	-1	444
50	1024	119	142	333	333	50	1074	125	034	017	272	50	2029	067	124	442	-1	358
50	1025	076	077	233	470	50	1075	123	033	006	331	50	2030	062	151	521	-1	898
50	1026	075	068	333	348	50	1076	161	045	010	350	50	2031	264	069	071	-1	999
50	1027	073	065	222	312	50	1077	047	100	468	719	50	2032	226	070	030	-1	618
50	1028	070	069	222	280	50	1078	019	095	407	621	50	2033	210	071	115	-1	477
50	1029	048	081	555	268	50	1079	047	087	457	666	50	2034	148	088	267	-1	544
50	1030	090	066	220	328	50	1080	114	079	183	494	50	2035	176	094	009	-1	599
50	1031	096	073	333	315	50	1081	094	033	048	238	50	2036	038	157	648	-1	437
50	1032	178	088	333	572	50	1082	119	031	011	244	50	2037	168	089	270	-1	444
50	1033	009	148	608	572	50	1083	081	047	165	202	50	2038	127	080	336	-1	451
50	1034	039	113	333	514	50	1084	077	083	352	404	50	2039	091	105	373	-1	882
50	1035	166	161	222	346	50	1085	081	071	243	338	50	2040	223	049	070	-1	682
50	1036	098	070	175	543	50	1086	030	070	322	285	50	2041	205	049	081	-1	621
50	1037	098	047	699	396	50	1088	106	068	149	799	50	2042	147	051	088	-1	352
50	1038	099	045	125	311	50	1089	111	034	012	300	50	2043	078	089	349	-1	407
50	1039	091	044	059	293	50	1090	153	039	033	374	50	2044	063	109	455	-1	517
50	1040	065	057	246	280	50	1091	096	050	207	275	50	2045	065	174	888	-1	464
50	1041	115	045	044	330	50	1092	129	025	001	346	50	2046	008	119	578	-1	386
50	1042	121	045	045	328	50	1093	097	029	013	256	50	2047	010	115	438	-1	459
50	1043	188	064	144	302	50	1094	072	035	091	180	50	2048	005	135	578	-1	498
50	1044	041	144	440	329	50	1095	121	049	061	355	50	2049	034	148	652	-1	405
50	1045	024	107	569	583	50	1096	080	028	020	183	50	2050	025	157	696	-1	405
50	1046	199	180	258	666	50	2001	273	085	041	686	50	2051	196	047	059	-1	833

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WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
2052	210	043	063	544	50	3003	078	068	079	608	50	3054	198	033	090	386	50
2053	153	051	147	440	50	3005	064	054	054	50	3055	185	039	054	408	50	
2054	110	076	449	436	50	3007	074	105	739	50	3056	201	036	091	350	50	
2055	073	097	463	429	50	3008	066	084	680	50	3057	194	036	096	362	50	
2056	057	176	948	359	50	3009	055	053	541	50	3058	204	036	114	376	50	
2057	002	118	551	297	50	3010	059	093	514	50	3059	181	029	106	307	50	
2058	003	113	530	314	50	3011	020	025	493	50	3060	204	029	105	310	50	
2059	003	113	556	429	50	3012	051	081	566	50	3061	185	029	099	298	50	
2060	023	130	556	303	50	3013	061	027	546	50	3062	189	029	102	308	50	
2061	043	149	819	371	50	3014	055	009	649	50	3063	177	029	086	300	50	
2062	072	159	774	371	50	3015	077	036	793	50	3064	181	022	091	295	50	
2063	190	041	055	633	50	3016	081	071	770	50	3065	175	033	074	326	50	
2064	180	040	069	599	50	3017	083	030	742	50	3066	194	038	090	539	50	
2065	177	038	014	376	50	3018	053	066	447	50	3067	173	029	081	305	50	
2066	121	052	112	395	50	3019	053	066	487	50	3068	175	029	091	276	50	
2067	116	068	225	457	50	3020	044	066	447	50	3069	161	029	062	242	50	
2068	021	133	980	407	50	3021	044	065	487	50	3070	175	033	099	252	50	
2069	052	088	331	386	50	3022	045	034	401	50	3071	177	033	099	252	50	
2070	032	085	338	334	50	3023	047	040	389	50	3072	167	033	099	288	50	
2071	020	095	435	319	50	3024	050	030	430	50	3073	172	029	099	288	50	
2072	019	114	630	330	50	3025	055	003	504	50	3074	172	029	092	265	50	
2073	019	117	663	373	50	3026	064	006	564	50	3075	173	029	094	346	50	
2074	009	117	663	358	50	3027	074	010	578	50	3076	173	029	098	281	50	
2075	182	028	093	558	50	3028	082	029	745	50	3077	179	029	098	303	50	
2076	175	028	096	503	50	3029	044	080	496	50	3078	176	029	096	258	50	
2077	116	040	089	227	50	3030	055	056	851	50	3079	173	029	101	465	50	
2078	090	056	178	239	50	3031	051	041	692	50	3080	193	033	080	461	50	
2079	084	062	196	216	50	3032	051	079	544	50	3081	182	033	086	224	50	
2080	025	115	730	209	50	3033	055	039	533	50	3082	155	033	099	72	50	
2081	021	094	594	208	50	3034	055	058	523	50	3083	185	033	099	260	50	
2082	060	078	392	310	50	3035	061	006	482	50	3084	180	029	098	259	50	
2083	030	090	394	294	50	3036	038	097	427	50	3085	172	029	091	271	50	
2084	002	102	542	258	50	3037	038	025	368	50	3086	175	029	096	276	50	
2085	005	111	643	340	50	3038	034	079	369	50	3087	184	029	094	285	50	
2086	198	036	097	398	50	3039	030	094	328	50	3088	180	029	069	325	50	
2087	187	040	058	478	50	3040	033	102	335	50	3089	182	033	069	258	50	
2088	232	070	022	675	50	3041	033	081	327	50	3090	169	029	089	258	50	
2089	096	095	362	414	50	3042	033	093	335	50	3091	187	029	110	290	50	
2090	163	089	249	517	50	3043	033	089	335	50	3092	191	033	110	286	50	
2091	170	110	204	824	50	3044	033	097	425	50	3093	179	033	101	273	50	
2092	163	023	093	241	50	3045	034	084	452	50	3094	177	029	093	259	50	
2093	197	037	052	410	50	3046	035	062	521	50	3095	190	029	093	280	50	
2094	218	050	082	643	50	3047	037	092	382	50	3096	191	033	103	297	50	
2095	240	085	127	737	50	3048	037	102	396	50	3097	190	033	101	304	50	
2096	094	071	207	405	50	3049	032	079	317	50	3098	191	033	072	322	50	
2097	187	086	145	660	50	3050	032	100	300	50	3099	166	029	095	348	50	
2098	048	073	324	232	50	3051	036	101	289	50	3100	264	105	095	982	50	
2099	193	034	070	340	50	3052	036	104	282	50	3101	411	143	074	344	50	
2100	161	045	069	334	50	3053	036	091	265	50	3102	299	099	039	840	50	
2101	124	066	263	389	50	3054	036	110	276	50	3103	254	077	001	651	50	
2102	295	068	145	680	50	3055	036	101	286	50	3104	06	075	117	853	50	
3000	245	068	079	608	50	3056	036	101	286	50							

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
50	4007	244	063	051	055	50	4058	250	076	073	904	50	9028	161	023	086	52
50	4008	251	063	079	055	50	4060	237	059	088	610	50	9029	222	053	091	55
50	4009	351	171	186	-1.098	50	4061	232	054	095	680	50	1	091	098	282	443
50	4010	322	107	031	-1.098	50	4062	211	041	106	439	50	2	103	094	449	428
50	4011	313	107	059	-1.048	50	4063	198	037	080	434	50	3	161	041	015	283
50	4012	292	089	037	-1.028	50	4064	202	044	041	514	50	4	172	037	030	319
50	4013	305	078	100	-0.600	50	4065	213	040	095	468	50	5	129	024	050	333
50	4014	250	062	077	-0.812	50	4066	199	034	103	360	50	6	144	030	033	357
50	4015	273	057	086	-0.804	50	4067	192	032	101	378	50	7	166	033	039	333
50	4017	268	074	053	-0.847	50	4068	261	078	097	742	50	8	094	037	075	333
50	4018	288	061	109	-0.649	50	4069	233	068	102	550	50	9	178	029	095	333
50	4019	236	058	063	-0.649	50	4070	240	068	070	785	50	10	242	044	128	301
50	4020	274	072	291	-0.743	50	4071	220	051	087	617	50	11	211	038	093	427
50	4021	223	061	008	-0.555	50	4072	195	046	085	501	50	12	177	028	088	388
50	4022	245	054	028	-0.555	50	4073	181	034	079	346	50	13	152	024	047	351
50	4023	205	057	015	-0.555	50	4074	183	034	067	362	50	14	175	024	099	329
50	4024	330	144	015	-1.022	50	4075	197	047	079	407	50	15	244	040	110	370
50	4025	280	101	007	-1.031	50	4076	178	033	068	313	50	16	233	047	081	350
50	4026	333	102	070	-0.906	50	4077	159	028	066	276	50	17	233	045	138	333
50	4027	297	087	090	-0.906	50	4078	164	029	059	316	50	18	280	060	119	442
50	4028	270	083	057	-1.000	50	4079	147	034	056	290	50	19	280	060	353	333
50	4029	236	056	052	-0.662	50	4080	162	022	087	241	50	1001	044	213	714	666
50	4030	232	052	053	-0.529	50	4081	069	025	045	159	50	1002	033	187	746	666
50	4031	244	067	034	-0.829	50	4082	039	021	063	103	50	1003	055	172	599	666
50	4032	229	058	027	-0.764	50	4083	148	020	075	217	50	1004	288	218	409	353
50	4033	201	051	024	-0.495	50	9001	095	033	067	222	50	1005	177	108	306	666
50	4034	199	049	026	-0.485	50	9002	107	032	034	218	50	1006	257	122	393	666
50	4035	344	140	033	-1.070	50	9003	109	041	133	269	50	1007	064	229	907	333
50	4036	285	107	030	-1.070	50	9004	070	056	280	273	50	1008	105	267	022	332
50	4037	317	090	106	-0.984	50	9005	010	079	411	315	50	1009	138	215	999	318
50	4038	280	083	061	-0.977	50	9006	016	090	561	332	50	1010	165	190	473	104
50	4039	266	078	095	-0.943	50	9007	132	203	567	024	50	1011	104	099	456	580
50	4040	242	057	091	-0.654	50	9008	211	119	241	845	50	1012	139	099	252	666
50	4041	226	052	021	-0.615	50	9009	009	094	503	236	50	1013	288	229	908	666
50	4042	228	064	004	-0.899	50	9010	210	052	069	598	50	1014	14	204	855	666
50	4043	230	049	061	-0.502	50	9011	003	104	682	202	50	1015	066	213	627	666
50	4044	209	044	044	-0.441	50	9012	186	037	055	384	50	1016	030	133	499	333
50	4045	196	039	061	-0.383	50	9013	144	105	421	630	50	1017	073	124	351	888
50	4046	339	125	070	-1.136	50	9014	079	064	303	299	50	1018	085	142	434	233
50	4047	282	094	068	-0.775	50	9015	184	037	063	382	50	1019	040	163	746	799
50	4048	295	078	080	-0.663	50	9016	238	084	083	594	50	1020	097	192	799	303
50	4049	271	065	113	-0.664	50	9017	029	076	315	245	50	1021	096	143	386	803
50	4050	239	066	089	-0.794	50	9018	110	077	275	550	50	1022	265	234	045	770
50	4051	226	050	090	-0.539	50	9019	163	026	089	307	50	1023	200	210	898	546
50	4052	226	044	049	-0.539	50	9020	087	060	210	274	50	1024	104	273	666	110
50	4053	219	055	005	-0.533	50	9021	155	068	118	485	50	1025	014	133	472	666
50	4054	206	031	031	-0.519	50	9022	197	061	003	598	50	1026	033	102	339	450
50	4055	197	038	063	-0.406	50	9023	218	067	070	768	50	1027	066	088	271	580
50	4056	204	035	073	-0.406	50	9024	179	066	131	512	50	1028	066	097	405	666
50	4057	294	094	081	-0.965	50	9025	230	089	130	713	50	1029	053	156	951	71

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WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
60	10330	111	095	334	445	60	1080	101	088	294	535	60	2035	095	097	229	559
60	10331	130	085	286	510	60	1081	111	038	038	303	60	2036	267	230	915	459
60	10332	226	087	183	809	60	1082	153	037	025	335	60	2037	125	100	333	519
60	10333	298	222	967	883	60	1083	048	060	233	223	60	2038	085	081	239	484
60	10334	164	195	810	510	60	1084	064	077	342	486	60	2039	038	113	402	478
60	10335	258	232	414	372	60	1085	065	081	347	335	60	2040	248	053	100	821
60	10336	097	083	171	633	60	1086	035	091	391	287	60	2041	237	052	088	662
60	10337	130	068	105	489	60	1088	048	091	339	535	60	2042	147	044	049	351
60	10338	133	066	088	490	60	1089	142	039	014	285	60	2043	041	070	300	291
60	10339	136	064	140	404	60	1090	252	059	082	572	60	2044	004	091	419	376
60	10400	046	094	519	357	60	1091	069	067	313	316	60	2045	236	168	814	394
60	10401	177	066	119	489	60	1092	242	066	098	930	60	2046	076	102	516	323
60	10402	170	061	105	448	60	1093	121	023	016	213	60	2047	092	105	514	366
60	10403	231	066	028	598	60	1094	031	057	306	180	60	2048	142	119	551	306
60	10404	268	176	773	357	60	1095	151	064	076	462	60	2049	222	147	700	377
60	10405	140	166	720	397	60	1096	096	026	019	184	60	2050	222	184	864	276
60	10406	269	212	374	267	60	2001	438	141	039	034	60	2051	222	043	088	339
60	10407	154	067	116	452	60	2002	532	186	112	589	60	2052	222	043	093	639
60	10408	178	068	036	496	60	2003	195	102	282	706	60	2053	174	043	041	409
60	10409	184	063	009	470	60	2004	097	135	513	598	60	2054	116	061	238	394
60	10500	174	067	063	482	60	2005	038	189	663	842	60	2055	023	079	390	586
60	10501	098	094	356	493	60	2006	098	098	042	814	60	2056	108	138	786	244
60	10502	202	074	039	565	60	2007	459	132	118	143	60	2057	005	085	435	295
60	10503	192	060	023	474	60	2008	097	097	216	587	60	2058	041	084	384	236
60	10504	223	053	024	626	60	2009	001	157	593	642	60	2059	051	093	458	208
60	10505	197	147	790	161	60	2010	227	217	870	071	60	2060	118	111	599	244
60	10506	136	142	651	250	60	2011	222	112	220	683	60	2061	198	156	746	516
60	10507	171	157	251	013	60	2012	323	114	164	776	60	2062	223	038	102	467
60	10508	148	055	051	445	60	2013	344	094	056	777	60	2063	214	037	088	449
60	10509	183	060	011	472	60	2014	335	094	025	893	60	2064	198	034	045	350
60	10600	184	061	012	491	60	2015	000	091	034	821	60	2065	145	043	119	295
60	10601	185	064	066	513	60	2016	317	080	087	631	60	2066	142	054	153	330
60	10602	115	089	260	445	60	2017	324	099	063	784	60	2067	002	099	663	274
60	10603	210	076	074	632	60	2018	134	094	167	519	60	2068	058	070	338	256
60	10604	197	064	031	491	60	2019	049	140	527	509	60	2069	038	071	337	246
60	10605	247	060	049	549	60	2020	081	187	693	619	60	2070	028	078	395	224
60	10606	157	136	706	208	60	2021	250	088	286	759	60	2071	026	096	509	193
60	10607	077	120	538	447	60	2022	288	084	063	667	60	2072	088	129	657	325
60	10608	112	106	285	759	60	2023	309	080	083	615	60	2073	229	030	137	359
60	10609	112	045	170	349	60	2024	300	080	083	605	60	2074	226	030	120	355
60	10700	135	042	001	338	60	2025	333	079	083	631	60	2075	118	039	132	234
60	10701	142	037	011	341	60	2026	356	142	058	911	60	2076	069	053	220	208
60	10702	141	045	024	406	60	2027	233	086	050	797	60	2077	066	064	268	240
60	10703	093	065	213	357	60	2028	129	101	489	339	60	2078	113	137	816	173
60	10704	166	040	017	348	60	2029	004	157	806	434	60	2079	017	100	634	186
60	10705	161	037	011	316	60	2030	264	208	967	961	60	2080	021	074	323	271
60	10706	211	047	056	427	60	2031	308	074	067	679	60	2081	018	089	457	202
60	10707	016	109	424	502	60	2032	271	073	056	687	60	2082	079	108	676	139
60	10708	079	125	612	565	60	2033	003	067	176	529	60	2083	099	137	813	313
60	10709	050	110	472	467	60	2034	092	083	307	479	60	2084	245	042	135	509



APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
60	085	239	043	088	464	60	3037	238	036	130	376	60	3087	226	033	128	421
60	086	279	069	002	715	60	3038	243	039	139	412	60	3088	227	033	132	417
60	087	126	080	243	508	60	3039	235	041	122	419	60	3089	225	029	133	347
60	088	207	089	233	608	60	3040	240	040	123	420	60	3090	228	027	142	333
60	089	228	122	232	919	60	3041	233	041	113	420	60	3091	227	026	142	326
60	090	218	026	133	330	60	3042	237	040	088	429	60	3092	221	026	130	323
60	091	251	047	130	450	60	3043	230	043	066	428	60	3093	215	027	118	340
60	092	257	052	089	535	60	3044	238	046	059	561	60	3094	223	031	120	366
60	093	281	071	147	628	60	3045	277	046	142	54	60	3095	223	030	112	368
60	094	086	067	195	368	60	3046	282	056	136	541	60	3096	239	035	125	407
60	095	259	090	095	622	60	3047	242	039	117	394	60	3097	234	040	127	416
60	096	058	105	672	186	60	3048	232	032	132	406	60	4001	459	178	031	541
60	097	247	041	111	454	60	3049	223	032	117	469	60	4002	367	142	006	118
60	098	169	038	040	554	60	3050	224	031	139	383	60	4003	415	142	061	153
60	099	156	080	300	666	60	3051	214	032	120	375	60	4004	356	135	013	229
60	001	425	120	100	308	60	3052	222	033	123	406	60	4005	319	115	076	995
60	002	380	117	054	333	60	3053	218	035	120	449	60	4006	365	106	100	882
60	003	367	115	074	74	60	3054	224	037	112	453	60	4007	310	098	040	817
60	005	366	103	097	928	60	3055	218	040	090	424	60	4008	347	105	042	102
60	006	404	103	084	355	60	3056	265	043	118	422	60	4009	388	147	091	248
60	007	329	078	106	111	60	3057	257	043	113	420	60	4010	398	136	048	202
60	008	297	080	085	681	60	3058	245	035	122	441	60	4011	330	106	056	78
60	009	311	076	100	111	60	3059	221	031	127	341	60	4012	335	106	049	949
60	010	271	083	049	302	60	3060	223	029	121	328	60	4013	381	109	102	916
60	011	351	099	116	509	60	3061	215	028	113	327	60	4014	321	083	104	717
60	012	299	095	018	760	60	3062	218	028	132	326	60	4015	349	081	155	72
60	013	363	124	077	001	60	3063	209	029	105	324	60	4017	345	110	109	917
60	014	334	092	078	111	60	3064	219	030	135	337	60	4018	349	081	117	31
60	015	362	090	053	896	60	3065	211	030	113	344	60	4019	310	080	073	628
60	016	332	102	051	916	60	3066	218	038	105	377	60	4020	364	089	097	752
60	017	292	060	128	327	60	3067	226	042	093	414	60	4021	307	079	066	664
60	018	288	062	119	322	60	3068	221	037	114	406	60	4022	339	076	104	626
60	019	250	032	090	202	60	3069	197	028	100	330	60	4023	310	083	097	688
60	020	258	055	061	55	60	3070	202	027	103	302	60	4024	339	116	024	303
60	021	263	067	053	55	60	3071	205	027	083	304	60	4025	327	110	001	163
60	022	248	064	039	40	60	3072	215	027	062	311	60	4026	316	101	012	128
60	023	232	075	064	66	60	3073	209	027	117	303	60	4027	300	092	043	981
60	024	297	073	091	34	60	3074	208	028	112	316	60	4028	306	091	056	888
60	025	314	085	046	53	60	3075	208	028	115	317	60	4029	286	065	086	21
60	026	311	098	010	332	60	3076	220	032	118	348	60	4030	286	068	017	328
60	027	251	055	085	449	60	3077	219	035	122	427	60	4031	294	072	046	679
60	028	248	061	054	681	60	3078	227	028	105	354	60	4032	295	069	056	679
60	029	243	064	032	333	60	3079	232	033	142	421	60	4033	287	063	107	55
60	030	275	064	086	303	60	3080	231	034	130	371	60	4034	290	069	110	62
60	031	242	070	030	66	60	3081	218	027	133	371	60	4035	295	099	079	86
60	032	286	074	045	66	60	3082	234	029	140	382	60	4036	299	102	022	69
60	033	256	072	034	44	60	3083	230	028	149	383	60	4037	288	094	070	88
60	034	280	048	144	95	60	3084	216	026	139	382	60	4038	285	097	050	80
60	035	274	053	115	55	60	3085	223	029	130	376	60	4039	274	075	093	33
60	036	256	040	128	39	60	3086	221	029	117	365	60	4040	270	057	113	55

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
60	4041	- 272	059	- 111	- 640	60	9009	- 042	097	- 449	- 184	70	1013	- 396	154	695	- 076
60	4042	- 272	060	- 115	- 693	60	9011	- 285	067	- 099	- 729	70	1014	- 376	158	919	- 286
60	4043	- 272	055	- 133	- 530	60	9012	- 022	096	- 578	- 195	70	1015	- 115	175	605	- 029
60	4044	- 283	053	- 108	- 496	60	9013	- 258	049	- 120	- 453	70	1016	- 100	116	585	- 392
60	4045	- 283	062	- 125	- 620	60	9014	- 009	173	- 590	- 583	70	1017	- 048	108	503	- 370
60	4046	- 283	060	- 124	- 634	60	9015	- 084	059	- 200	- 329	70	1018	- 048	146	559	- 839
60	4047	- 283	063	- 074	- 680	60	9016	- 258	047	- 118	- 518	70	1019	- 188	205	948	- 549
60	4048	- 283	066	- 066	- 742	60	9018	- 316	088	- 061	- 701	70	1020	- 365	203	168	- 261
60	4049	- 283	051	- 139	- 561	60	9019	- 015	074	- 332	- 179	70	1021	- 050	161	512	- 713
60	4050	- 283	055	- 132	- 610	60	9020	- 123	076	- 259	- 457	70	1022	- 502	173	692	- 139
60	4051	- 283	045	- 136	- 514	60	9021	- 240	036	- 150	- 433	70	1023	- 444	171	924	- 197
60	4052	- 283	048	- 119	- 518	60	9022	- 074	059	- 210	- 352	70	1024	- 119	238	788	- 875
60	4053	- 283	051	- 127	- 613	60	9023	- 176	068	- 054	- 602	70	1025	- 144	126	643	- 401
60	4054	- 283	047	- 139	- 564	60	9024	- 321	104	- 001	- 861	70	1026	- 074	106	546	- 270
60	4055	- 283	046	- 146	- 478	60	9025	- 326	114	- 054	- 1051	70	1027	- 026	091	424	- 265
60	4056	- 283	058	- 123	- 600	60	9026	- 227	082	- 113	- 598	70	1028	- 036	099	449	- 298
60	4057	- 283	073	- 103	- 704	60	9027	- 316	116	- 160	- 759	70	1029	- 194	174	908	- 242
60	4058	- 283	073	- 083	- 691	60	9028	- 223	034	- 116	- 392	70	1030	- 080	093	314	- 352
60	4060	- 283	064	- 067	- 638	60	9029	- 288	056	- 144	- 698	70	1031	- 118	079	261	- 474
60	4061	- 273	063	- 128	- 622	70	1	- 111	115	- 362	- 527	70	1032	- 234	060	014	- 628
60	4062	- 273	054	- 135	- 534	70	2	- 132	117	- 370	- 552	70	1033	- 423	183	181	- 445
60	4063	- 273	053	- 132	- 532	70	3	- 189	048	- 003	- 372	70	1034	- 293	174	915	- 452
60	4064	- 273	054	- 112	- 531	70	4	- 209	043	- 064	- 418	70	1035	- 200	197	463	- 986
60	4065	- 273	051	- 161	- 502	70	5	- 157	029	- 055	- 262	70	1036	- 109	071	166	- 371
60	4066	- 273	047	- 158	- 474	70	6	- 168	034	- 036	- 285	70	1037	- 178	067	137	- 404
60	4067	- 273	060	- 153	- 537	70	7	- 205	039	- 070	- 337	70	1038	- 188	067	116	- 425
60	4068	- 273	092	- 119	- 865	70	8	- 114	043	- 104	- 235	70	1039	- 181	072	099	- 477
60	4069	- 273	080	- 081	- 665	70	9	- 201	036	- 098	- 385	70	1040	- 060	107	501	- 385
60	4070	- 273	078	- 096	- 681	70	10	- 271	054	- 121	- 557	70	1041	- 253	081	053	- 602
60	4071	- 273	057	- 096	- 685	70	11	- 239	044	- 096	- 497	70	1042	- 242	075	056	- 530
60	4072	- 262	054	- 094	- 616	70	12	- 198	034	- 088	- 342	70	1043	- 287	061	069	- 549
60	4073	- 247	039	- 121	- 406	70	13	- 174	031	- 026	- 272	70	1044	- 329	164	873	- 153
60	4074	- 254	042	- 120	- 450	70	14	- 192	030	- 072	- 293	70	1045	- 205	171	908	- 264
60	4075	- 255	048	- 027	- 499	70	15	- 322	057	- 155	- 603	70	1046	- 324	177	291	- 903
60	4076	- 254	040	- 082	- 430	70	16	- 262	053	- 093	- 547	70	1047	- 254	081	008	- 591
60	4077	- 244	041	- 137	- 429	70	17	- 317	057	- 185	- 590	70	1048	- 301	094	053	- 735
60	4078	- 269	053	- 120	- 581	70	18	- 337	064	- 165	- 672	70	1049	- 296	087	047	- 679
60	4079	- 267	055	- 078	- 561	70	19	- 369	077	- 148	- 721	70	1050	- 290	091	031	- 690
60	4080	- 226	029	- 137	- 333	70	1001	- 272	157	- 916	- 348	70	1051	- 216	113	570	- 693
60	4081	- 089	024	- 008	- 171	70	1002	- 263	151	- 885	- 354	70	1052	- 336	099	037	- 927
60	4082	- 066	029	- 030	- 168	70	1003	- 146	153	- 820	- 508	70	1053	- 294	073	028	- 672
60	4083	- 193	022	- 130	- 290	70	1004	- 289	203	- 412	- 091	70	1054	- 322	061	087	- 666
60	9001	- 107	040	- 043	- 235	70	1005	- 142	093	- 288	- 585	70	1055	- 180	137	866	- 178
60	9002	- 129	034	- 006	- 251	70	1006	- 250	089	- 131	- 597	70	1056	- 144	167	801	- 283
60	9003	- 128	049	- 081	- 398	70	1007	- 344	167	- 845	- 256	70	1057	- 189	137	279	- 828
60	9004	- 023	077	- 361	- 257	70	1008	- 478	197	- 183	- 544	70	1058	- 232	074	012	- 675
60	9005	- 107	118	- 637	- 434	70	1009	- 368	181	- 033	- 321	70	1059	- 274	089	008	- 654
60	9006	- 083	120	- 541	- 268	70	1010	- 185	217	- 655	- 202	70	1060	- 278	089	018	- 690
60	9007	- 072	290	- 1	- 225	70	1011	- 047	091	- 443	- 487	70	1061	- 275	094	040	- 681
60	9008	- 271	150	- 296	- 941	70	1012	- 255	074	- 085	- 773	70	1062	- 205	129	396	- 652

APPENDIX A -- PRESSURE DATA

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
70	1063	306	113	057	880	70	2018	108	070	152	385	70	2068	091	058	198	260
70	1064	285	090	004	790	70	2019	118	096	455	241	70	2069	075	058	207	253
70	1065	335	078	078	780	70	2020	181	137	634	371	70	2070	065	063	239	286
70	1066	114	132	626	197	70	2021	276	073	109	540	70	2071	013	076	367	226
70	1067	078	122	553	253	70	2022	338	079	029	610	70	2072	010	102	351	465
70	1068	114	082	204	455	70	2023	360	075	129	693	70	2073	320	059	180	581
70	1069	146	049	064	336	70	2024	358	073	138	668	70	2074	301	052	155	530
70	1070	181	050	004	375	70	2025	369	070	172	655	70	2075	180	041	026	331
70	1071	194	047	047	416	70	2026	471	131	072	980	70	2076	115	054	104	262
70	1072	193	055	027	478	70	2027	278	081	052	916	70	2077	111	067	222	286
70	1073	132	079	293	399	70	2028	007	076	284	276	70	2078	093	133	706	194
70	1074	217	046	054	437	70	2029	198	107	679	117	70	2079	002	093	518	203
70	1075	215	046	048	442	70	2030	301	161	807	502	70	2080	058	062	241	200
70	1076	284	061	089	544	70	2031	340	065	150	605	70	2081	011	076	394	264
70	1077	050	092	382	555	70	2032	304	061	108	564	70	2082	043	093	449	166
70	1078	054	124	607	372	70	2033	211	056	013	484	70	2083	053	115	503	498
70	1079	046	110	498	337	70	2034	084	068	187	401	70	2084	335	096	182	816
70	1080	077	076	414	338	70	2035	074	081	290	307	70	2085	359	089	157	799
70	1081	131	047	069	333	70	2036	402	186	109	178	70	2086	303	071	071	780
70	1082	175	045	025	353	70	2037	148	102	278	482	70	2087	175	070	138	498
70	1083	072	074	336	269	70	2038	086	070	164	428	70	2088	244	074	188	593
70	1084	081	067	194	419	70	2039	078	086	371	248	70	2089	264	102	038	935
70	1085	098	068	278	400	70	2040	296	050	146	658	70	2090	252	034	156	400
70	1086	023	096	498	310	70	2041	288	049	137	659	70	2091	372	087	166	761
70	1088	055	081	314	506	70	2042	183	040	020	379	70	2092	335	072	177	697
70	1089	179	045	035	420	70	2043	066	058	178	286	70	2093	278	065	085	712
70	1090	291	072	073	622	70	2044	023	075	280	246	70	2094	099	054	135	343
70	1091	039	068	329	274	70	2045	222	142	750	186	70	2095	258	071	035	739
70	1092	318	085	132	877	70	2046	045	085	388	226	70	2096	023	104	576	222
70	1093	152	033	031	266	70	2047	072	087	377	209	70	2097	386	099	119	905
70	1094	033	063	286	247	70	2048	125	102	562	209	70	2098	182	040	003	390
70	1095	136	073	210	457	70	2049	220	125	693	191	70	2099	205	071	104	517
70	1096	113	029	015	217	70	2050	306	161	851	319	70	3001	541	130	135	050
70	2001	532	137	145	332	70	2051	287	049	132	659	70	3002	485	118	103	146
70	2002	502	135	138	325	70	2052	286	046	144	682	70	3003	436	103	061	905
70	2003	182	077	061	509	70	2053	221	040	075	384	70	3004	449	088	213	792
70	2004	035	099	285	431	70	2054	108	049	088	546	70	3005	463	096	160	878
70	2005	077	144	563	611	70	2055	152	061	221	298	70	3006	425	080	185	788
70	2006	419	087	175	900	70	2056	074	110	600	192	70	3007	404	088	147	736
70	2007	527	135	204	103	70	2057	022	071	339	221	70	3008	421	089	152	822
70	2008	138	073	112	465	70	2058	013	070	302	226	70	3009	397	100	091	965
70	2009	141	103	526	223	70	2059	027	080	392	221	70	3010	504	118	180	026
70	2010	060	166	704	668	70	2060	078	097	570	204	70	3011	434	105	081	822
70	2011	398	138	247	692	70	2061	15	141	737	436	70	3012	500	130	053	001
70	2012	395	128	181	848	70	2062	301	057	166	583	70	3013	401	084	147	702
70	2013	426	087	157	814	70	2063	284	053	137	609	70	3014	419	078	169	839
70	2014	393	074	131	748	70	2064	251	042	095	416	70	3015	406	093	173	994
70	2015	390	072	160	650	70	2065	184	043	071	335	70	3016	364	063	175	631
70	2016	375	075	163	689	70	2066	175	052	134	413	70	3017	371	084	134	780
70	2017	391	093	155	878	70	2067	031	087	516	318	70	3018	306	059	132	549
70	2018	108	070	152	385	70	2068	091	058	198	260	70	3019	091	058	198	260
70	2019	118	096	455	241	70	2069	075	058	207	253	70	2070	065	063	239	286
70	2020	181	137	634	371	70	2070	013	076	367	226	70	2071	010	102	351	465
70	2021	276	073	109	540	70	2071	320	059	180	581	70	2072	320	059	180	581
70	2022	338	079	029	610	70	2072	301	052	155	530	70	2073	180	041	026	331
70	2023	360	075	129	693	70	2073	115	054	104	262	70	2074	111	067	222	286
70	2024	358	073	138	668	70	2074	335	096	182	816	70	2075	359	089	157	799
70	2025	369	070	172	655	70	2075	278	081	052	916	70	2076	244	074	188	593
70	2026	471	131	072	980	70	2076	402	186	109	178	70	2077	264	102	038	935
70	2027	278	081	052	916	70	2077	296	050	146	658	70	2078	372	087	166	761
70	2028	007	076	284	276	70	2078	183	040	020	379	70	2079	335	072	177	697
70	2029	198	107	679	117	70	2079	066	058	178	286	70	2080	278	065	085	712
70	2030	301	161	807	502	70	2080	222	142	750	186	70	2081	099	054	135	343
70	2031	340	065	150	605	70	2081	045	085	388	226	70	2082	023	104	576	222
70	2032	304	061	108	564	70	2082	072	087	377	209	70	2083	386	099	119	905
70	2033	211	056	013	484	70	2083	125	102	562	209	70	2084	182	040	003	390
70	2034	084	068	187	401	70	2084	220	125	693	191	70	2085	205	071	104	517
70	2035	074	081	290	307	70	2085	306	161	851	319	70	2086	541	130	135	050
70	2036	402	186	109	178	70	2086	287	049	132	659	70	2087	485	118	103	146
70	2037	148	102	278	482	70	2087	045	040	075	384	70	2088	436	103	061	905
70	2038	086	070	164	428	70	2088	108	049	088	546	70	2089	449	088	213	792
70	2039	078	086	371	248	70	2089	152	061	221	298	70	2090	425	080	185	788
70	2040	296	050	146	658	70	2090	074	110	600	192	70	2091	404	088	147	736
70	2041	288	049	137	659	70	2091	222	071	339	221	70	2092	421	089	152	822
70	2042	183	040	020	379	70	2092	013	070	302	226	70	2093	397	100	091	965
70	2043	066	058	178	286	70	2093	027	080	392	221	70	2094	504	118	180	026
70	2044	023	075	280	246	70	2094	078	097	570	204	70	2095	434	105	081	822
70	2045	023	075	280	246	70	2095	142	142	750	186	70	2096	500	130	053	001
70	2046	045	085	388	226	70	2096	072	087	377	209	70	2097	401	084	147	702
70	2047	072	087	377	209	70	2097	125	102	562	209	70	2098	419	078	169	839
70	2048	125	102	562	209	70	2098	220	125	693	191	70	2099	406	093	173	994
70	2049	220															

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
70	020	281	055	115	571	70	3070	249	035	131	402	70	4024	332	059	155	155
70	021	297	071	108	653	70	3071	256	037	117	417	70	4025	332	061	134	917
70	022	272	063	037	544	70	3072	261	041	147	492	70	4026	332	060	152	931
70	023	261	066	033	518	70	3073	269	039	154	430	70	4027	332	057	145	933
70	024	338	065	149	599	70	3074	284	045	158	504	70	4028	333	060	136	933
70	025	377	072	113	667	70	3075	290	048	152	516	70	4029	333	055	129	935
70	026	366	088	102	135	70	3076	222	057	185	590	70	4030	333	056	114	721
70	027	274	052	103	495	70	3077	222	069	167	726	70	4031	333	051	149	778
70	028	270	056	102	638	70	3078	252	039	158	422	70	4032	334	053	136	574
70	029	266	056	077	615	70	3079	333	064	158	613	70	4033	335	058	152	635
70	030	310	058	106	646	70	3080	221	074	157	665	70	4034	338	069	174	662
70	031	282	065	052	646	70	3081	249	033	161	390	70	4035	338	063	152	896
70	032	328	067	067	616	70	3082	244	035	102	386	70	4036	339	070	063	879
70	033	300	064	028	519	70	3083	252	038	070	530	70	4037	332	068	071	822
70	034	357	059	161	738	70	3084	252	040	124	451	70	4038	332	065	123	899
70	035	355	075	161	738	70	3085	275	056	096	508	70	4039	345	068	156	979
70	036	317	050	151	581	70	3086	291	054	121	506	70	4040	339	057	148	683
70	037	289	042	162	462	70	3087	223	065	124	615	70	4041	346	057	150	682
70	038	289	043	168	475	70	3088	267	079	173	774	70	4042	343	058	155	694
70	039	281	043	161	521	70	3089	254	034	150	388	70	4043	346	053	133	623
70	040	283	043	159	492	70	3090	255	042	120	426	70	4044	354	055	148	608
70	041	277	043	157	455	70	3091	250	036	088	375	70	4045	381	070	180	773
70	042	293	044	163	499	70	3092	254	038	124	443	70	4046	333	061	177	725
70	043	287	047	154	540	70	3093	241	034	129	376	70	4047	333	066	183	824
70	044	292	049	142	509	70	3094	239	047	035	428	70	4048	321	061	149	856
70	045	374	062	159	639	70	3095	248	051	057	471	70	4049	353	059	192	939
70	046	376	075	175	750	70	3096	257	060	049	647	70	4050	360	065	155	959
70	047	328	053	176	600	70	3097	331	074	159	713	70	4051	347	056	159	711
70	048	306	043	187	511	70	4001	448	111	048	347	70	4052	359	055	183	623
70	049	294	041	187	467	70	4002	397	106	050	233	70	4053	360	059	194	719
70	050	288	037	185	455	70	4003	420	112	012	455	70	4054	361	056	215	661
70	051	281	038	179	446	70	4004	381	120	020	934	70	4055	360	054	225	704
70	052	285	038	175	444	70	4005	322	106	062	207	70	4056	394	066	209	700
70	053	282	040	172	480	70	4006	378	107	090	947	70	4057	421	110	163	036
70	054	289	047	165	643	70	4007	328	091	008	904	70	4058	392	108	094	964
70	055	284	050	124	649	70	4008	338	105	093	062	70	4059	392	094	164	105
70	056	362	062	187	775	70	4009	355	098	091	449	70	4061	405	094	168	987
70	057	345	060	169	587	70	4010	365	074	138	132	70	4062	383	078	170	724
70	058	328	052	158	523	70	4011	322	067	096	950	70	4063	387	072	206	700
70	059	304	046	184	543	70	4012	326	072	120	963	70	4064	386	077	196	757
70	060	302	042	185	521	70	4013	377	078	142	829	70	4065	395	072	200	769
70	061	396	042	189	485	70	4014	347	073	106	658	70	4066	384	066	160	685
70	062	300	045	151	480	70	4015	441	094	155	808	70	4067	392	077	208	787
70	063	310	047	134	491	70	4017	355	072	067	885	70	4068	464	134	123	330
70	064	310	053	161	581	70	4018	378	070	172	856	70	4069	394	104	074	806
70	065	304	057	159	679	70	4019	353	071	132	868	70	4070	392	108	117	956
70	066	304	059	136	645	70	4020	409	075	197	925	70	4071	349	086	111	798
70	067	271	053	107	521	70	4021	376	076	120	646	70	4072	323	084	046	775
70	068	266	052	135	521	70	4022	437	079	200	870	70	4073	294	068	093	618
70	069	444	057	125	410	70	4023	413	086	081	888	70	4074	293	070	007	645

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
70						80	15	330	060	150	614	80	1046	431	192	288	1.114
70	4075	329	090	143	669	80	16	337	050	130	531	80	1047	302	072	021	634
70	4076	286	063	063	586	80	17	334	065	174	651	80	1048	341	083	090	725
70	4077	261	054	049	479	80	18	376	075	168	732	80	1049	332	076	093	719
70	4078	267	059	091	585	80	19	396	076	182	748	80	1050	331	080	051	759
70	4079	304	069	123	749	80	1001	297	144	220	215	80	1051	264	037	370	677
70	4080	238	034	107	363	80	1002	254	137	66	224	80	1052	386	089	062	872
70	4081	095	027	012	187	80	1003	112	132	543	322	80	1053	336	064	093	613
70	4082	079	034	023	10	80	1004	383	156	186	387	80	1054	334	052	134	582
70	4083	201	028	022	22	80	1005	169	071	000	438	80	1055	089	120	588	227
70	9000	128	053	066	44	80	1006	263	054	80	454	80	1056	003	135	370	370
70	9001	150	042	073	30	80	1007	294	181	80	439	80	1057	322	157	140	011
70	9002	160	066	159	44	80	1008	282	212	66	333	80	1058	264	055	033	613
70	9003	049	076	429	32	80	1009	287	212	80	333	80	1059	286	074	070	706
70	9004	073	115	567	27	80	1010	210	165	80	333	80	1060	292	074	066	697
70	9005	040	108	631	22	80	1011	095	072	2	378	80	1061	286	075	065	685
70	9006	432	214	059	70	80	1012	269	042	2	418	80	1062	330	096	337	700
70	9007	26	101	165	79	80	1013	327	171	80	333	80	1063	332	092	323	858
70	9008	009	088	375	21	80	1014	297	168	80	333	80	1064	316	095	050	735
70	9009	34	099	377	66	80	1015	055	187	80	333	80	1065	346	068	030	682
70	9010	011	088	330	88	80	1016	055	182	80	333	80	1066	010	091	444	286
70	9011	012	088	418	44	80	1017	020	097	4	350	80	1067	024	089	402	306
70	9012	033	088	132	58	80	1018	073	124	4	330	80	1068	155	078	168	712
70	9013	030	088	22	44	80	1019	122	207	8	330	80	1069	167	047	022	478
70	9014	189	129	641	22	80	1020	270	227	8	330	80	1070	196	044	033	447
70	9015	117	048	182	60	80	1021	109	143	4	32	80	1071	209	044	066	398
70	9016	342	077	175	60	80	1022	419	187	8	18	80	1072	207	049	062	421
70	9017	370	061	123	74	80	1023	324	166	8	33	80	1073	147	072	253	415
70	9018	046	069	406	35	80	1024	030	237	8	153	80	1074	235	047	056	475
70	9019	152	070	336	55	80	1025	074	118	4	39	80	1075	219	039	107	373
70	9020	31	055	32	30	80	1026	014	096	4	29	80	1076	301	050	145	505
70	9021	23	079	132	76	80	1027	015	086	5	35	80	1077	080	069	267	433
70	9022	45	099	184	83	80	1028	009	094	8	42	80	1078	018	071	317	309
70	9023	55	099	026	33	80	1029	140	177	8	20	80	1079	038	070	269	296
70	9024	07	087	147	58	80	1030	120	080	2	34	80	1080	129	069	233	480
70	9025	37	101	036	13	80	1031	148	065	1	71	80	1081	161	042	018	316
70	9026	25	096	093	46	80	1032	251	042	0	62	80	1082	201	042	024	351
70	9027	08	096	026	79	80	1033	330	178	9	42	80	1083	142	059	173	347
70	9028	48	099	485	31	80	1034	186	177	8	302	80	1084	101	059	105	416
80	1	112	111	064	42	80	1035	304	215	8	84	80	1085	112	059	178	450
80	2	146	066	088	11	80	1036	162	062	1	69	80	1086	008	068	384	226
80	3	177	044	053	41	80	1037	222	049	0	32	80	1087	085	071	198	374
80	4	157	035	034	30	80	1038	240	049	0	51	80	1088	174	044	033	334
80	5	178	067	067	30	80	1039	232	051	0	11	80	1089	331	069	145	726
80	6	178	066	066	40	80	1040	119	086	0	34	80	1090	075	063	168	299
80	7	170	055	055	55	80	1041	307	056	0	59	80	1091	270	033	030	611
80	8	170	043	165	49	80	1042	302	050	0	64	80	1092	163	033	044	305
80	9	123	123	123	35	80	1043	315	043	0	77	80	1093	083	049	120	218
80	10	078	078	078	73	80	1044	206	169	8	40	80	1094	155	063	088	391
80	11	137	137	137	18	80	1045	073	176	9	44	80	1095	149	030	022	259

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
80	2001	501	109	140	99.7
80	2002	539	160	196	331.8
80	2003	125	085	221	458.3
80	2004	015	113	426	474.4
80	2005	135	141	615	666
80	2006	384	083	092	88
80	2007	521	119	190	144
80	2008	141	079	133	454
80	2009	157	126	586	522
80	2010	125	187	761	424
80	2011	235	146	279	86
80	2012	272	165	377	22
80	2013	340	112	173	44
80	2014	351	097	669	44
80	2015	385	088	041	38
80	2016	347	076	112	38
80	2017	404	099	132	33
80	2018	054	089	282	31
80	2019	140	120	524	2
80	2020	201	155	702	2
80	2021	240	078	140	39
80	2022	287	084	092	54
80	2023	320	076	080	33
80	2024	332	074	116	33
80	2025	352	071	135	33
80	2026	409	141	140	33
80	2027	255	095	661	33
80	2028	031	099	389	33
80	2029	232	134	685	33
80	2030	337	174	904	33
80	2031	348	076	101	42
80	2032	334	074	136	48
80	2033	195	075	067	33
80	2034	054	095	322	33
80	2035	015	106	349	33
80	2036	364	187	288	33
80	2037	064	135	75	11
80	2038	048	092	255	26
80	2039	101	111	493	46
80	2040	326	035	66	7
80	2041	317	034	159	34
80	2042	203	045	27	34
80	2043	083	067	14	10
80	2044	034	086	72	33
80	2045	179	147	161	7
80	2046	039	099	469	200
80	2047	059	099	497	177
80	2048	105	099	489	171
80	2049	186	120	684	149
80	2050	257	150	871	436

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
80	2051	326	054	180	67.7
80	2052	323	051	176	55.3
80	2053	256	041	061	42.1
80	2054	181	047	041	31.9
80	2055	137	059	149	31.6
80	2056	033	111	523	19.3
80	2057	047	071	228	21.7
80	2058	041	071	287	17
80	2059	004	083	459	15.5
80	2060	068	109	518	18.8
80	2061	142	138	711	13.3
80	2062	392	068	236	7.94
80	2063	375	065	200	7.07
80	2064	303	046	151	5.55
80	2065	217	042	002	4.88
80	2066	195	049	007	4.88
80	2067	050	089	489	2.76
80	2068	114	056	223	2.09
80	2069	101	056	181	2.33
80	2070	085	062	277	3.3
80	2071	029	077	406	4.99
80	2072	032	106	491	5.99
80	2073	439	095	212	7.92
80	2074	394	078	198	9.01
80	2075	250	042	104	4.03
80	2076	182	048	097	3.16
80	2077	174	062	201	3.3
80	2078	037	111	60	3.3
80	2079	062	085	530	3.3
80	2080	088	060	196	3.3
80	2081	059	071	268	3.3
80	2082	034	084	348	3.3
80	2083	033	107	433	3.3
80	2084	389	093	151	3.3
80	2085	327	086	141	3.3
80	2086	306	065	67	3.3
80	2087	179	058	092	3.3
80	2088	242	075	45	3.3
80	2089	263	093	00	3.3
80	2090	258	041	049	3.3
80	2091	339	089	141	3.3
80	2092	320	070	137	3.3
80	2093	297	060	121	3.3
80	2094	129	047	00	3.3
80	2095	277	068	029	3.3
80	2096	032	079	331	3.3
80	2097	369	095	133	3.3
80	2098	206	032	48	3.3
80	2099	224	064	002	3.3
80	3001	467	110	099	1

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
80	3002	430	098	124	91.3
80	3003	414	096	113	83.9
80	3005	413	075	184	71.7
80	3006	415	079	188	62.9
80	3007	403	073	205	60.9
80	3008	373	080	152	68.7
80	3009	383	084	140	73.5
80	3010	383	095	109	77.6
80	3011	491	110	188	89.0
80	3012	427	101	102	82.6
80	3013	523	124	92	031
80	3014	411	081	187	79.4
80	3015	401	084	171	77.4
80	3016	463	132	185	147
80	3017	334	053	182	61.1
80	3018	333	061	154	60.3
80	3019	307	061	132	69.3
80	3020	301	064	095	62.4
80	3021	345	095	108	75.0
80	3022	311	072	069	57.8
80	3023	284	070	056	55.9
80	3024	331	070	115	62.8
80	3025	386	081	121	70.9
80	3026	331	088	053	95.7
80	3027	297	061	116	59.7
80	3028	311	077	128	87.3
80	3029	315	083	225	089
80	3030	324	068	128	72.5
80	3031	316	072	060	73.4
80	3032	357	069	127	66.2
80	3033	323	068	043	97
80	3034	358	048	21	33
80	3035	348	056	17	32
80	3036	337	052	14	71
80	3037	325	049	15	72
80	3038	324	050	13	70
80	3039	319	051	18	54
80	3040	320	050	18	55
80	3041	312	050	17	53
80	3042	326	051	17	66
80	3043	318	051	18	41
80	3044	321	052	16	68
80	3045	363	051	9	86
80	3046	366	056	19	62
80	3047	344	048	18	58
80	3048	335	043	15	51
80	3049	329	043	21	53
80	3050	331	044	19	49
80	3051	323	045	17	48
80	3052	322	045	17	50

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
80	3053	323	047	162	518	80	4006	338	070	116	701	80	4057	404	088	154	976
80	3054	325	047	156	615	80	4007	322	065	094	576	80	4058	415	090	085	959
80	3055	318	050	131	644	80	4008	383	089	085	803	80	4060	408	089	169	152
80	3056	377	061	205	645	80	4009	324	045	174	496	80	4061	419	087	136	975
80	3057	357	058	192	614	80	4010	328	049	159	549	80	4062	397	073	192	798
80	3058	361	049	163	592	80	4011	316	044	186	493	80	4063	412	071	174	790
80	3059	357	047	237	551	80	4012	311	047	148	519	80	4064	406	073	127	813
80	3060	369	049	236	580	80	4013	363	048	195	572	80	4065	406	074	198	906
80	3061	366	049	225	538	80	4014	336	053	179	536	80	4066	399	068	187	773
80	3062	360	052	230	662	80	4015	403	072	181	225	80	4067	419	083	222	826
80	3063	357	059	212	725	80	4017	330	044	192	531	80	4068	457	115	206	376
80	3064	383	070	222	974	80	4018	340	048	190	504	80	4069	420	086	172	790
80	3065	383	077	220	836	80	4019	337	048	199	495	80	4070	417	084	149	774
80	3066	401	081	215	279	80	4020	395	051	251	572	80	4071	406	072	179	689
80	3067	339	070	136	665	80	4021	353	053	194	602	80	4072	381	070	146	691
80	3068	338	072	112	677	80	4022	415	058	239	643	80	4073	359	065	180	670
80	3069	294	047	127	480	80	4023	389	066	192	675	80	4074	360	066	176	712
80	3070	291	044	163	434	80	4024	317	043	194	510	80	4075	399	074	096	762
80	3071	300	048	131	483	80	4025	325	043	157	513	80	4076	350	062	186	713
80	3072	300	054	103	570	80	4026	313	041	164	490	80	4077	325	057	185	558
80	3073	323	051	159	538	80	4027	326	042	205	483	80	4078	336	066	154	602
80	3074	337	049	215	555	80	4028	328	042	217	472	80	4079	330	060	179	613
80	3075	342	053	194	644	80	4029	335	042	196	480	80	4080	282	039	171	477
80	3076	387	065	198	718	80	4030	332	040	221	483	80	4081	133	028	018	229
80	3077	428	081	212	798	80	4031	343	040	218	498	80	4082	118	036	002	247
80	3078	302	040	179	465	80	4032	343	043	212	522	80	4083	234	035	088	367
80	3079	380	075	166	713	80	4033	358	047	225	545	80	9001	183	050	006	380
80	3080	378	087	106	736	80	4034	369	057	204	622	80	9002	187	042	013	333
80	3081	252	035	150	425	80	4035	338	045	210	559	80	9003	195	053	192	418
80	3082	288	042	140	465	80	4036	337	047	209	631	80	9004	098	062	292	325
80	3083	283	043	133	477	80	4037	342	046	220	559	80	9005	026	080	373	340
80	3084	300	046	155	480	80	4038	335	044	216	512	80	9006	053	089	317	376
80	3085	333	069	104	722	80	4039	348	044	225	520	80	9007	396	207	988	633
80	3086	334	061	115	623	80	4040	343	044	209	500	80	9008	240	103	141	626
80	3087	366	072	179	553	80	4041	355	043	227	521	80	9009	048	076	289	237
80	3088	403	096	119	858	80	4042	347	043	226	512	80	9011	396	075	186	735
80	3089	257	036	152	403	80	4043	347	041	232	488	80	9012	058	084	458	250
80	3090	320	051	154	535	80	4044	350	044	209	537	80	9013	356	065	143	664
80	3091	265	046	009	423	80	4045	373	054	227	610	80	9014	176	140	610	335
80	3092	285	050	020	495	80	4046	342	050	212	580	80	9015	143	050	142	268
80	3093	266	046	035	450	80	4047	362	057	188	744	80	9016	379	066	155	619
80	3094	240	067	188	503	80	4048	330	053	193	707	80	9018	357	081	121	789
80	3095	240	058	054	477	80	4049	364	054	204	728	80	9019	112	065	225	346
80	3096	226	052	035	440	80	4050	376	059	210	713	80	9020	180	050	100	468
80	3097	303	078	128	737	80	4051	361	054	199	552	80	9021	339	059	172	633
80	4001	378	067	176	680	80	4052	362	053	171	584	80	9022	194	051	058	369
80	4002	361	068	131	671	80	4053	362	056	174	636	80	9023	257	067	028	741
80	4003	391	070	119	767	80	4054	369	055	186	578	80	9024	413	085	142	970
80	4004	350	077	100	799	80	4055	363	054	199	634	80	9025	382	093	074	874
80	4005	311	064	078	584	80	4056	402	066	227	862	80	9026	157	108	382	551

## APPENDIX A -- PRESSURE DATA

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
80	9027	368	099	042	802	90	1029	027	151	706	337	90	1079	016	076	391	308
80	9028	351	070	170	648	90	1030	193	062	096	408	90	1080	169	077	310	554
80	9029	462	096	111	936	90	1031	212	048	062	357	90	1081	195	041	066	405
90	1	256	085	165	583	90	1032	279	036	086	417	90	1082	239	042	076	436
90	2	281	075	206	523	90	1033	321	153	853	367	90	1083	161	057	091	436
90	3	216	069	087	426	90	1034	111	137	628	426	90	1084	090	055	145	332
90	4	262	050	104	482	90	1035	483	184	099	294	90	1085	088	056	124	350
90	5	192	032	069	302	90	1036	205	055	006	542	90	1086	009	064	320	202
90	6	201	036	075	338	90	1037	253	040	105	394	90	1088	113	070	175	547
90	7	250	038	112	404	90	1038	268	038	153	397	90	1089	224	045	058	472
90	8	161	040	007	278	90	1039	266	040	145	443	90	1090	383	080	172	787
90	9	244	044	106	422	90	1040	152	069	258	355	90	1091	081	065	211	288
90	10	340	068	164	725	90	1041	331	045	189	529	90	1092	356	066	173	683
90	11	307	065	149	615	90	1042	220	040	169	470	90	1093	196	033	072	320
90	12	241	038	139	417	90	1043	319	037	203	453	90	1094	068	058	222	242
90	13	215	033	091	345	90	1044	332	156	89	192	90	1095	194	064	055	485
90	14	233	035	128	368	90	1045	031	124	549	304	90	1096	168	029	073	259
90	15	350	062	186	660	90	1046	563	176	026	259	90	20001	518	121	13	047
90	16	302	069	094	656	90	1047	305	055	142	657	90	20002	709	194	24	534
90	17	351	056	193	616	90	1048	338	055	192	663	90	20003	057	097	24	490
90	18	385	069	229	730	90	1049	333	051	204	614	90	20004	123	125	59	292
90	19	388	062	208	679	90	1050	331	053	192	639	90	20005	280	147	71	323
90	1001	277	144	847	164	90	1051	260	065	100	602	90	20006	368	093	65	809
90	1002	189	127	609	215	90	1052	380	058	234	761	90	20007	558	140	149	106
90	1003	004	111	465	393	90	1053	377	045	217	556	90	20008	151	093	201	504
90	1004	571	146	104	271	90	1054	331	039	219	492	90	20009	166	132	69	228
90	1005	249	060	061	474	90	1055	113	107	580	175	90	20010	198	190	84	424
90	1006	316	054	128	531	90	1056	018	087	369	386	90	20011	112	156	39	649
90	1007	274	177	788	313	90	1057	419	163	015	230	90	20012	116	200	58	781
90	1008	299	200	943	451	90	1058	265	048	125	535	90	20013	249	154	46	333
90	1009	150	238	881	365	90	1059	306	056	157	609	90	20014	278	119	15	713
90	1010	298	174	195	146	90	1060	308	056	164	604	90	20015	333	102	10	792
90	1011	185	065	048	424	90	1061	305	057	132	629	90	20016	309	077	05	649
90	1012	314	043	140	511	90	1062	248	074	244	644	90	20017	372	059	11	850
90	1013	305	160	796	137	90	1063	446	067	104	882	90	20018	039	104	42	364
90	1014	200	132	655	163	90	1064	326	059	138	715	90	20019	234	134	67	215
90	1015	252	185	269	196	90	1065	336	054	189	539	90	20020	307	161	79	231
90	1016	031	097	288	489	90	1066	029	090	441	239	90	20021	218	080	26	467
90	1017	052	083	232	480	90	1067	021	094	421	405	90	20022	232	085	10	618
90	1018	124	117	266	865	90	1068	199	092	102	702	90	20023	270	083	04	587
90	1019	023	161	689	533	90	1069	185	046	022	424	90	20024	293	079	00	622
90	1020	083	206	750	436	90	1070	218	042	081	439	90	20025	344	07	06	691
90	1021	244	155	294	890	90	1071	228	036	114	377	90	20026	294	150	28	844
90	1022	385	164	919	162	90	1072	226	041	081	417	90	20027	179	096	1	726
90	1023	216	146	635	186	90	1073	164	067	225	347	90	20028	105	113	52	226
90	1024	278	201	514	943	90	1074	251	040	109	426	90	20029	287	142	7	142
90	1025	025	094	352	596	90	1075	556	039	136	437	90	20030	382	163	8	244
90	1026	071	069	262	299	90	1076	303	043	169	473	90	20031	362	076	1	717
90	1027	097	064	158	271	90	1077	066	077	344	932	90	20032	364	090	1	927
90	1028	094	070	229	291	90	1078	004	078	372	318	90	20033	143	090	28	435



APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
90	2034	021	112	425	317	90	2084	341	093	100	793	90	3036	353	070	149	856
90	2035	061	116	463	372	90	2085	333	089	069	724	90	3037	353	057	160	651
90	2036	356	174	882	149	90	2086	233	073	071	828	90	3038	353	059	144	768
90	2037	046	141	627	383	90	2087	173	065	257	511	90	3039	353	059	137	745
90	2038	034	104	401	301	90	2088	104	085	118	683	90	3040	353	058	137	745
90	2039	177	121	591	179	90	2089	226	108	039	038	90	3041	353	059	140	782
90	2040	336	060	099	917	90	2090	222	071	183	424	90	3042	353	059	158	699
90	2041	331	060	139	909	90	2091	222	075	088	719	90	3043	353	058	142	619
90	2042	183	050	017	465	90	2092	228	060	117	647	90	3044	353	059	124	664
90	2043	044	075	323	355	90	2093	228	065	013	599	90	3045	353	053	142	600
90	2044	016	088	337	230	90	2094	113	048	102	383	90	3046	353	052	161	580
90	2045	238	151	923	167	90	2095	255	081	070	616	90	3047	353	066	187	697
90	2046	107	105	547	171	90	2096	301	080	338	291	90	3048	353	054	190	604
90	2047	122	106	549	155	90	2097	192	082	055	728	90	3049	353	054	200	668
90	2048	146	118	563	129	90	2098	192	034	086	366	90	3050	353	051	173	739
90	2049	229	142	759	089	90	2099	210	069	114	596	90	3051	353	051	167	689
90	2050	295	162	985	241	90	2100	458	111	046	031	90	3052	353	050	161	599
90	2051	344	053	170	651	90	2101	444	110	080	927	90	3053	353	050	167	777
90	2052	346	051	176	684	90	2102	471	121	137	295	90	3054	353	050	213	682
90	2053	267	043	107	487	90	2103	444	093	205	890	90	3055	353	050	200	684
90	2054	173	045	019	397	90	2104	444	095	179	970	90	3056	353	058	156	633
90	2055	125	055	144	362	90	2105	333	061	189	998	90	3057	353	058	180	628
90	2056	078	115	578	230	90	2106	333	064	135	681	90	3058	353	061	191	706
90	2057	007	073	337	330	90	2107	333	077	142	801	90	3059	353	062	215	666
90	2058	002	075	355	266	90	2108	333	079	122	725	90	3060	353	067	234	745
90	2059	045	089	463	221	90	2109	333	095	186	015	90	3061	353	067	198	712
90	2060	145	129	640	136	90	2110	333	080	115	890	90	3062	353	064	211	682
90	2061	237	159	870	119	90	2111	333	131	111	110	90	3063	353	074	223	798
90	2062	437	083	251	818	90	2112	333	090	095	793	90	3064	353	085	197	978
90	2063	429	081	236	805	90	2113	333	083	128	823	90	3065	353	085	215	192
90	2064	325	055	129	622	90	2114	333	134	109	179	90	3066	353	083	223	855
90	2065	213	046	025	402	90	2115	333	049	160	604	90	3067	353	063	212	684
90	2066	179	053	060	421	90	2116	333	053	140	665	90	3068	353	063	212	664
90	2067	005	103	513	284	90	2117	333	069	118	688	90	3069	353	051	205	585
90	2068	072	063	194	243	90	2118	333	068	104	741	90	3070	353	053	183	580
90	2069	058	064	226	225	90	2119	333	086	135	007	90	3071	353	061	147	674
90	2070	031	073	301	207	90	2120	333	072	105	711	90	3072	353	078	027	638
90	2071	041	098	501	175	90	2121	333	081	032	654	90	3073	353	067	223	770
90	2072	106	111	705	323	90	2122	333	076	089	627	90	3074	353	070	238	796
90	2073	528	118	111	111	90	2123	333	093	129	809	90	3075	353	077	230	972
90	2074	459	094	212	866	90	2124	333	083	020	696	90	3076	353	099	234	973
90	2075	262	049	428	428	90	2125	333	064	120	658	90	3077	353	126	241	142
90	2076	165	060	138	311	90	2126	333	088	135	913	90	3078	353	043	192	487
90	2077	147	078	219	308	90	2127	333	097	140	062	90	3079	353	099	179	882
90	2078	030	149	761	233	90	2128	333	089	152	862	90	3080	353	109	130	000
90	2079	006	126	546	215	90	2129	333	089	127	774	90	3081	353	042	138	475
90	2080	051	074	276	234	90	2130	333	080	093	897	90	3082	353	045	153	521
90	2081	013	089	461	193	90	2131	333	075	041	786	90	3083	353	055	112	584
90	2082	016	099	552	221	90	2132	333	049	208	687	90	3084	353	065	139	664
90	2083	026	104	553	433	90	2133	333	054	147	724	90	3085	353	109	093	060

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
90	3086	358	082	134	833	90	4040	329	040	175	475	90	9008	267	118	087	794
90	3087	358	089	172	832	90	4041	345	039	224	483	90	9009	024	080	419	275
90	3088	358	099	147	833	90	4042	335	038	215	480	90	9011	367	060	221	633
90	3089	358	110	147	833	90	4043	336	035	231	457	90	9012	014	105	471	211
90	3090	358	066	020	456	90	4044	332	038	223	465	90	9013	356	057	212	608
90	3091	358	057	103	456	90	4045	347	047	192	619	90	9014	214	146	693	275
90	3092	358	066	106	463	90	4046	324	041	195	532	90	9015	139	053	162	283
90	3093	358	066	069	542	90	4047	324	043	199	511	90	9016	370	058	207	662
90	3094	358	058	040	543	90	4048	310	041	180	454	90	9018	312	080	064	729
90	3095	358	083	267	574	90	4049	338	040	220	500	90	9019	084	079	383	258
90	3096	358	065	031	605	90	4050	353	043	226	580	90	9020	179	058	080	507
90	3097	358	052	033	504	90	4051	336	044	142	540	90	9021	342	049	210	556
90	4001	358	071	081	868	90	4052	353	045	224	568	90	9022	179	061	162	383
90	4002	358	066	138	584	90	4053	351	047	223	595	90	9023	257	082	052	949
90	4003	358	068	100	608	90	4054	360	046	226	578	90	9024	394	090	039	139
90	4004	358	071	120	681	90	4055	349	048	203	570	90	9025	381	104	072	933
90	4005	358	073	053	666	90	4056	344	049	162	534	90	9026	088	132	519	525
90	4006	358	067	116	584	90	4057	338	052	190	537	90	9027	352	091	080	739
90	4007	358	070	062	609	90	4058	350	052	214	573	90	9028	367	063	207	642
90	4008	358	089	087	733	90	4060	347	052	213	538	90	9029	494	105	169	089
90	4009	358	049	178	574	90	4061	370	058	229	707	100	1	336	061	068	640
90	4010	358	047	186	548	90	4062	356	058	170	714	100	2	321	057	136	587
90	4011	358	047	147	495	90	4063	375	057	231	709	100	3	267	056	002	490
90	4012	358	044	178	482	90	4064	366	057	225	685	100	4	301	052	114	525
90	4013	358	046	223	553	90	4065	369	053	231	598	100	5	257	036	089	388
90	4014	358	050	170	534	90	4066	363	055	188	610	100	6	246	038	145	503
90	4015	358	065	174	739	90	4067	378	064	166	697	100	7	288	042	002	374
90	4017	358	045	205	497	90	4068	374	067	213	821	100	8	231	040	114	487
90	4018	358	049	193	570	90	4069	367	069	207	736	100	9	261	053	114	487
90	4019	358	048	213	568	90	4070	372	067	211	722	100	10	349	079	159	783
90	4020	358	051	267	651	90	4071	379	059	240	627	100	11	327	092	087	806
90	4021	358	050	260	595	90	4072	357	058	209	624	100	12	261	048	132	461
90	4022	358	052	260	683	90	4073	349	050	221	598	100	13	233	041	098	403
90	4023	358	061	163	746	90	4074	351	051	204	598	100	14	200	039	017	347
90	4024	358	044	158	507	90	4075	375	053	228	661	100	15	350	056	102	578
90	4025	358	044	168	517	90	4076	375	048	199	567	100	16	271	063	052	551
90	4026	358	043	165	513	90	4077	325	047	202	565	100	17	360	052	149	594
90	4027	358	038	219	462	90	4078	336	052	164	621	100	18	377	051	247	569
90	4028	358	038	218	465	90	4079	385	071	211	709	100	19	371	051	242	583
90	4029	358	039	200	476	90	4080	313	045	199	517	100	1001	288	138	738	244
90	4030	358	038	223	480	90	4081	145	026	055	229	100	1002	183	113	542	221
90	4031	358	042	217	502	90	4082	126	038	010	262	100	1003	053	091	315	411
90	4032	358	043	220	505	90	4083	227	044	055	393	100	1004	770	175	272	459
90	4033	358	045	219	529	90	9001	206	045	035	395	100	1005	354	073	141	749
90	4034	358	053	178	555	90	9002	218	038	054	414	100	1006	300	054	091	575
90	4035	358	041	192	467	90	9003	238	048	051	441	100	1007	216	197	811	376
90	4036	358	043	170	475	90	9004	127	061	203	318	100	1008	180	170	893	520
90	4037	358	042	180	483	90	9005	028	086	484	306	100	1009	025	198	819	450
90	4038	358	040	188	448	90	9006	036	088	506	384	100	1010	380	214	185	231
90	4039	358	038	219	474	90	9007	352	187	923	375	100	1011	207	060	033	503

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
100	1012	294	042	131	443	100	1062	270	065	220	552	100	2017	259	105	087	746
100	1013	245	143	753	353	100	1063	377	059	220	654	100	2018	167	129	619	156
100	1014	107	119	596	236	100	1064	350	050	209	578	100	2019	330	154	813	063
100	1015	431	188	158	288	100	1065	341	047	201	581	100	2020	363	168	890	096
100	1016	080	128	330	696	100	1066	021	111	453	289	100	2021	145	116	339	520
100	1017	060	077	234	680	100	1067	039	108	407	393	100	2022	105	130	403	514
100	1018	110	099	270	527	100	1068	240	100	070	687	100	2023	170	116	275	620
100	1019	064	112	397	475	100	1069	213	046	036	400	100	2024	225	101	141	668
100	1020	053	156	795	548	100	1070	245	039	106	390	100	2025	330	092	046	673
100	1021	372	157	133	975	100	1071	256	035	148	434	100	2026	162	175	416	838
100	1022	313	156	840	199	100	1072	253	039	128	418	100	2027	093	129	438	592
100	1023	116	132	700	286	100	1073	182	072	145	443	100	2028	211	147	745	204
100	1024	464	177	236	021	100	1074	282	040	167	499	100	2029	374	167	874	087
100	1025	139	119	153	726	100	1075	276	036	154	499	100	2030	426	172	970	106
100	1026	142	057	111	340	100	1076	304	037	187	540	100	2031	336	095	032	875
100	1027	169	055	069	463	100	1077	070	068	220	329	100	2032	444	210	105	016
100	1028	171	057	120	373	100	1078	008	088	385	299	100	2033	042	124	464	604
100	1029	073	123	678	372	100	1079	018	089	344	269	100	2034	148	142	704	239
100	1030	061	053	026	443	100	1080	193	087	267	518	100	2035	185	160	672	300
100	1031	267	040	083	406	100	1081	215	040	085	478	100	2036	420	180	151	108
100	1032	308	038	167	452	100	1082	267	041	135	458	100	2037	194	193	816	334
100	1033	297	156	864	257	100	1083	166	062	125	405	100	2038	139	142	537	300
100	1034	058	126	498	440	100	1084	088	065	209	401	100	2039	282	159	337	204
100	1035	620	191	022	353	100	1085	083	061	169	354	100	2040	412	117	136	207
100	1036	249	059	048	660	100	1086	027	078	367	294	100	2041	412	128	168	275
100	1037	293	038	181	415	100	1088	100	081	494	483	100	2042	201	069	059	558
100	1038	305	038	183	454	100	1089	256	054	068	566	100	2043	037	078	248	310
100	1039	177	039	150	437	100	1090	424	090	250	907	100	2044	029	093	377	306
100	1040	070	176	176	368	100	1091	055	072	205	245	100	2045	256	145	828	101
100	1041	335	043	229	512	100	1092	421	075	215	749	100	2046	135	106	552	139
100	1042	333	037	212	469	100	1093	212	033	097	339	100	2047	146	107	558	112
100	1043	330	036	199	488	100	1094	041	064	209	357	100	2048	201	114	730	086
100	1044	269	142	822	096	100	1095	212	072	094	533	100	2049	290	138	336	039
100	1045	035	112	484	313	100	1096	176	030	072	289	100	2050	352	152	907	087
100	1046	350	180	077	437	100	2001	410	108	116	052	100	2051	404	061	228	830
100	1047	326	053	117	602	100	2002	758	193	015	427	100	2052	403	073	215	032
100	1048	359	051	209	668	100	2003	091	117	544	367	100	2053	287	057	083	580
100	1049	355	048	222	639	100	2004	260	135	724	178	100	2054	167	051	057	390
100	1050	355	050	218	650	100	2005	330	156	794	338	100	2055	119	056	129	316
100	1051	286	064	030	525	100	2006	237	103	379	648	100	2056	108	112	699	195
100	1052	344	050	273	602	100	2007	404	156	206	122	100	2057	016	067	254	176
100	1053	332	041	250	527	100	2008	083	105	426	445	100	2058	029	068	282	179
100	1054	340	037	232	488	100	2009	143	154	654	266	100	2059	074	082	400	158
100	1055	167	118	768	083	100	2010	241	186	932	310	100	2060	171	115	668	136
100	1056	010	100	516	296	100	2011	016	189	559	616	100	2061	272	145	831	080
100	1057	534	171	056	450	100	2012	019	231	826	686	100	2062	510	096	201	118
100	1058	302	049	120	557	100	2013	096	185	724	716	100	2063	503	094	261	075
100	1059	338	048	187	535	100	2014	183	143	323	724	100	2064	347	061	131	564
100	1060	340	048	204	531	100	2015	242	128	244	713	100	2065	203	050	043	382
100	1061	338	048	191	538	100	2016	192	088	127	502	100	2066	159	054	143	397

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
100	2067	033	099	628	212	100	3019	365	078	114	823	100	3069	354	050	161	592
100	2068	043	057	256	217	100	3020	371	082	127	814	100	3070	357	060	179	630
100	2069	032	057	208	170	100	3021	385	093	186	239	100	3071	395	074	101	760
100	2070	000	065	242	154	100	3022	401	085	145	879	100	3072	364	103	109	742
100	2071	078	087	449	132	100	3023	356	101	014	780	100	3073	439	079	135	799
100	2072	172	116	808	139	100	3024	366	104	043	873	100	3074	464	086	235	850
100	2073	660	171	222	227	100	3025	474	132	002	044	100	3075	486	097	225	943
100	2074	557	133	224	227	100	3026	271	104	110	633	100	3076	570	128	221	121
100	2075	283	061	247	227	100	3027	379	085	080	926	100	3077	687	158	233	246
100	2076	160	052	677	348	100	3028	461	133	046	111	100	3078	329	042	198	501
100	2077	136	065	143	334	100	3029	472	148	066	440	100	3079	480	120	111	001
100	2078	045	121	558	210	100	3030	374	113	081	014	100	3080	376	117	048	993
100	2079	024	104	558	190	100	3031	368	111	043	352	100	3081	294	046	125	484
100	2080	040	068	227	205	100	3032	401	112	032	353	100	3082	306	051	121	520
100	2081	004	082	371	187	100	3033	365	132	033	307	100	3083	307	050	050	629
100	2082	028	098	504	291	100	3034	402	088	174	903	100	3084	359	087	056	774
100	2083	034	106	505	307	100	3035	404	085	152	855	100	3085	440	153	297	107
100	2084	314	097	028	718	100	3036	432	113	122	103	100	3086	414	112	077	984
100	2085	269	083	000	702	100	3037	412	093	075	905	100	3087	422	121	114	056
100	2086	168	072	262	684	100	3038	399	078	104	921	100	3088	369	127	056	428
100	2087	223	074	176	717	100	3039	400	082	012	974	100	3089	213	073	073	623
100	2088	237	086	138	696	100	3040	390	078	009	913	100	3090	286	072	077	513
100	2089	237	104	123	753	100	3041	384	075	080	845	100	3091	233	062	179	623
100	2090	170	097	285	443	100	3042	407	116	101	146	100	3092	266	074	300	617
100	2091	261	075	033	641	100	3043	401	111	122	046	100	3093	249	064	045	511
100	2092	255	060	662	653	100	3044	393	109	075	099	100	3094	190	110	863	528
100	2093	252	070	643	591	100	3045	408	081	181	840	100	3095	215	068	118	469
100	2094	110	053	171	378	100	3046	408	070	164	749	100	3096	197	053	045	708
100	2095	256	091	171	621	100	3047	439	092	124	904	100	3097	265	069	088	460
100	2096	011	093	445	240	100	3048	412	072	117	737	100	4001	318	064	061	582
100	2097	293	086	013	657	100	3049	412	073	04	794	100	4002	302	069	053	599
100	2098	173	037	041	292	100	3050	414	075	129	853	100	4003	340	072	039	728
100	2099	219	073	088	682	100	3051	411	074	122	871	100	4004	295	069	021	628
100	3001	367	101	010	55	100	3052	396	069	114	732	100	4005	321	061	136	652
100	3002	442	124	039	11	100	3053	411	084	101	218	100	4006	290	067	049	617
100	3003	640	198	187	383	100	3054	415	083	202	526	100	4007	354	072	115	685
100	3005	405	111	101	177	100	3055	410	079	189	144	100	4008	318	082	016	688
100	3006	378	098	007	97	100	3056	401	065	201	759	100	4009	287	049	144	450
100	3007	341	073	109	753	100	3057	409	063	210	727	100	4010	287	050	080	470
100	3008	309	073	023	741	100	3058	433	073	202	855	100	4011	334	050	200	540
100	3009	319	079	054	734	100	3059	452	076	217	760	100	4012	266	045	081	436
100	3010	324	086	046	927	100	3060	469	084	221	856	100	4013	318	046	138	483
100	3011	405	106	190	335	100	3061	478	086	228	959	100	4014	282	048	106	445
100	3012	328	075	079	751	100	3062	476	079	195	863	100	4015	318	064	141	604
100	3013	511	141	034	087	100	3063	490	089	214	925	100	4017	283	041	159	442
100	3014	274	120	155	061	100	3064	512	102	287	032	100	4018	277	047	119	495
100	3015	307	095	049	087	100	3065	519	106	281	034	100	4019	271	048	115	488
100	3016	413	139	034	164	100	3066	508	101	293	232	100	4020	327	050	163	547
100	3017	357	067	153	000	100	3067	376	053	202	359	100	4021	282	050	145	508
100	3018	357	066	125	051	100	3068	372	055	209	683	100	4022	329	050	170	527

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
100	4023	045	054	119	548	100	4074	049	049	225	561	110	14	034	034	069	343
100	4024	045	045	177	523	100	4075	051	051	225	602	110	15	056	056	024	552
100	4025	040	045	178	532	100	4076	045	045	205	536	110	16	049	049	073	470
100	4026	044	044	170	522	100	4077	039	039	196	506	110	17	043	043	155	530
100	4027	040	040	210	511	100	4078	040	040	202	486	110	18	038	038	211	516
100	4028	040	040	203	503	100	4079	071	071	227	688	110	19	039	039	198	466
100	4029	040	040	203	518	100	4080	048	048	192	513	110	1001	138	138	659	441
100	4030	039	039	195	507	100	4081	026	026	026	243	110	1002	102	102	500	278
100	4031	036	036	217	473	100	4082	037	037	002	257	110	1003	082	082	161	472
100	4032	037	037	210	470	100	4083	045	045	043	356	110	1004	190	190	336	659
100	4033	040	040	210	515	100	9001	049	049	068	415	110	1005	114	114	226	993
100	4034	049	049	175	598	100	9002	039	039	117	408	110	1006	067	067	119	718
100	4035	037	037	212	458	100	9003	053	053	017	543	110	1007	163	163	683	518
100	4036	038	038	213	483	100	9004	070	070	218	430	110	1008	144	144	558	331
100	4037	037	037	220	483	100	9005	031	031	577	395	110	1009	152	152	666	640
100	4038	036	036	200	446	100	9006	095	095	439	389	110	1010	240	240	003	610
100	4039	038	038	197	491	100	9007	191	191	873	772	110	1011	060	060	061	686
100	4040	039	039	162	513	100	9008	125	125	174	956	110	1012	045	045	136	526
100	4041	038	038	161	510	100	9009	081	081	436	272	110	1013	129	129	628	480
100	4042	037	037	185	500	100	9011	052	052	205	553	110	1014	097	097	358	280
100	4043	037	037	240	458	100	9012	097	097	512	227	110	1015	191	191	143	247
100	4044	040	040	215	523	100	9013	043	043	217	543	110	1016	138	138	125	984
100	4045	054	054	195	641	100	9014	142	142	733	251	110	1017	120	120	091	882
100	4046	043	043	194	583	100	9015	052	052	207	302	110	1018	108	108	127	715
100	4047	039	039	207	486	100	9016	049	049	229	569	110	1019	127	127	270	816
100	4048	041	041	191	461	100	9018	103	103	635	780	110	1020	129	129	611	614
100	4049	038	038	213	470	100	9019	076	076	360	257	110	1021	132	132	052	060
100	4050	040	040	225	515	100	9020	062	062	216	478	110	1022	182	182	862	730
100	4051	040	040	195	489	100	9021	043	043	230	538	110	1023	110	110	410	426
100	4052	039	039	202	491	100	9022	061	061	128	353	110	1024	149	149	027	353
100	4053	040	040	213	521	100	9023	081	081	025	801	110	1025	158	158	070	005
100	4054	042	042	195	525	100	9024	081	081	026	656	110	1026	065	065	002	553
100	4055	045	045	137	522	100	9025	112	112	084	953	110	1027	055	055	039	483
100	4056	059	059	152	614	100	9026	182	182	745	530	110	1028	050	050	009	433
100	4057	046	046	203	549	100	9027	116	116	084	842	110	1029	100	100	388	397
100	4058	045	045	215	574	100	9028	047	047	225	577	110	1030	043	043	114	460
100	4060	050	050	218	571	100	9029	138	138	057	142	110	1031	040	040	117	495
100	4061	049	049	205	596	110	1	046	046	152	533	110	1032	041	041	172	479
100	4062	049	049	210	546	110	2	043	043	136	477	110	1033	168	168	832	665
100	4063	049	049	222	557	110	3	048	048	072	521	110	1034	116	116	490	449
100	4064	049	049	195	550	110	4	044	044	142	501	110	1035	193	193	161	323
100	4065	050	050	194	586	110	5	032	032	155	375	110	1036	058	058	025	756
100	4066	050	050	220	594	110	6	038	038	095	444	110	1037	040	040	147	482
100	4067	056	056	207	643	110	7	037	037	145	411	110	1038	039	039	190	472
100	4068	056	056	198	614	110	8	036	036	050	392	110	1039	043	043	134	465
100	4069	058	058	203	597	110	9	035	035	127	354	110	1040	068	068	128	422
100	4070	055	055	215	593	110	10	053	053	146	627	110	1041	046	046	210	570
100	4071	048	048	230	538	110	11	046	046	107	481	110	1042	040	040	221	530
100	4072	045	045	228	508	110	12	034	034	124	356	110	1043	041	041	210	473
100	4073	048	048	223	550	110	13	036	036	124	398	110	1044	149	149	754	260

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WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
110	1045	014	109	480	280	110	1096	168	029	070	289	110	2050	315	169	967	381
110	1046	617	198	059	412	110	2001	398	088	136	821	110	2051	514	160	134	630
110	1047	308	048	150	581	110	2002	576	243	310	1455	110	2052	509	160	096	494
110	1048	338	044	226	555	110	2003	178	135	633	305	110	2053	322	089	056	774
110	1049	339	041	230	527	110	2004	300	148	790	269	110	2054	178	064	108	457
110	1050	331	042	210	524	110	2005	343	147	790	197	110	2055	139	065	116	436
110	1051	240	062	125	463	110	2006	134	157	495	701	110	2056	058	110	699	482
110	1052	366	043	208	601	110	2007	213	183	696	892	110	2057	024	068	231	399
110	1053	334	035	210	497	110	2008	017	156	669	412	110	2058	009	066	222	386
110	1054	322	037	220	476	110	2009	166	160	744	242	110	2059	027	077	324	336
110	1055	149	112	658	261	110	2010	139	162	747	375	110	2060	119	109	719	305
110	1056	024	090	397	55	110	2011	092	206	665	646	110	2061	222	145	888	394
110	1057	530	165	018	55	110	2012	114	271	891	529	110	2062	586	146	024	440
110	1058	300	046	159	33	110	2013	027	204	997	600	110	2063	602	151	171	449
110	1059	322	043	200	11	110	2014	118	176	779	723	110	2064	355	081	068	785
110	1060	327	042	216	08	110	2015	168	160	568	815	110	2065	190	057	023	430
110	1061	328	042	200	07	110	2016	127	113	275	613	110	2066	147	058	061	420
110	1062	259	059	059	52	110	2017	174	150	333	733	110	2067	033	100	605	227
110	1063	346	045	220	19	110	2018	252	153	786	199	110	2068	058	054	159	245
110	1064	317	036	218	18	110	2019	394	166	878	078	110	2069	049	053	159	252
110	1065	293	033	190	85	110	2020	385	169	903	128	110	2070	017	060	244	213
110	1066	036	094	363	06	110	2021	033	159	597	493	110	2071	051	083	412	230
110	1067	061	102	396	39	110	2022	035	177	840	527	110	2072	116	101	537	222
110	1068	224	090	133	63	110	2023	038	158	544	548	110	2073	514	159	081	198
110	1069	225	049	040	30	110	2024	107	144	402	583	110	2074	441	121	112	025
110	1070	249	040	122	00	110	2025	218	139	325	650	110	2075	244	058	010	520
110	1071	258	033	152	12	110	2026	012	203	555	773	110	2076	152	048	069	313
110	1072	254	037	115	94	110	2027	004	167	635	505	110	2077	128	059	161	309
110	1073	178	075	195	17	110	2028	274	177	863	221	110	2078	025	113	587	213
110	1074	278	036	156	67	110	2029	400	187	985	235	110	2079	011	098	594	210
110	1075	265	035	121	25	110	2030	406	177	885	286	110	2080	059	056	228	222
110	1076	274	035	140	08	110	2031	455	161	032	105	110	2081	024	066	336	213
110	1077	082	063	214	94	110	2032	654	357	283	291	110	2082	018	078	397	267
110	1078	027	082	409	84	110	2033	017	204	827	781	110	2083	024	090	442	353
110	1079	058	080	355	12	110	2034	230	184	957	294	110	2084	231	076	040	569
110	1080	188	093	242	55	110	2035	267	188	975	353	110	2085	201	066	016	584
110	1081	231	048	049	33	110	2036	474	198	120	221	110	2086	214	064	022	492
110	1082	271	046	108	07	110	2037	321	215	027	304	110	2087	143	060	141	395
110	1083	199	066	062	49	110	2038	197	167	706	326	110	2088	206	079	121	541
110	1084	090	061	223	44	110	2039	323	179	881	203	110	2089	239	108	183	811
110	1085	085	065	178	24	110	2040	651	258	096	064	110	2090	166	084	200	361
110	1086	009	075	321	36	110	2041	752	330	259	385	110	2091	192	064	162	515
110	1088	103	080	244	66	110	2042	325	140	306	929	110	2092	204	054	024	459
110	1089	261	065	086	99	110	2043	103	098	373	508	110	2093	223	062	002	525
110	1090	388	075	192	73	110	2044	023	098	439	396	110	2094	110	055	179	339
110	1091	032	077	423	21	110	2045	220	149	814	178	110	2095	257	085	071	590
110	1092	417	073	147	16	110	2046	105	103	560	237	110	2096	013	084	433	240
110	1093	205	033	079	35	110	2047	113	106	559	235	110	2097	232	082	262	599
110	1094	032	066	262	88	110	2048	148	112	571	318	110	2098	145	039	053	289
110	1095	201	070	173	44	110	2049	240	143	793	291	110	2099	215	068	248	532

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
110	3001	398	094	022	-0.784	110	3052	452	108	168	-1.074	110	4005	329	056	155	-597
110	3002	566	142	083	-1.098	110	3053	509	141	163	-1.449	110	4006	314	070	078	-662
110	3003	836	187	245	-1.596	110	3054	505	136	113	-1.461	110	4007	364	075	121	-668
110	3005	483	151	069	-1.458	110	3055	504	138	160	-1.994	110	4008	328	077	056	-730
110	3006	486	157	056	-1.232	110	3056	356	065	176	-1.709	110	4009	307	049	109	-500
110	3007	383	087	091	-0.826	110	3057	365	062	196	-1.645	110	4010	321	052	120	-564
110	3008	345	088	076	-0.808	110	3058	378	074	161	-1.961	110	4011	344	046	180	-494
110	3009	386	106	044	-1.887	110	3059	406	091	132	-1.126	110	4012	290	047	105	-496
110	3010	409	120	071	-1.086	110	3060	440	106	134	-1.990	110	4013	341	047	168	-517
110	3011	502	148	185	-1.496	110	3061	469	116	013	-1.021	110	4014	313	049	139	-517
110	3012	341	085	074	-1.726	110	3062	455	101	133	-1.959	110	4015	348	068	186	-718
110	3013	486	158	132	-1.159	110	3063	483	116	152	-1.252	110	4017	305	046	131	-520
110	3014	186	152	358	-1.748	110	3064	523	139	089	-1.375	110	4018	319	048	162	-512
110	3015	254	154	230	-1.223	110	3065	557	148	165	-1.532	110	4019	300	049	150	-491
110	3016	364	158	258	-1.103	110	3066	575	146	234	-1.814	110	4020	351	051	192	-571
110	3017	424	090	177	-0.852	110	3067	338	044	214	-1.535	110	4021	302	051	155	-498
110	3018	410	084	153	-0.771	110	3068	335	046	220	-1.593	110	4022	348	051	192	-588
110	3019	422	093	091	-0.868	110	3069	306	039	194	-1.462	110	4023	324	064	111	-680
110	3020	444	102	193	-0.869	110	3070	310	050	121	-1.527	110	4024	345	046	205	-331
110	3021	448	113	187	-1.066	110	3071	339	069	142	-1.794	110	4025	360	047	225	-544
110	3022	454	102	160	-0.827	110	3072	286	109	187	-1.776	110	4026	340	045	210	-520
110	3023	388	117	006	-0.839	110	3073	393	076	062	-0.841	110	4027	342	042	207	-544
110	3024	246	174	325	-1.835	110	3074	419	094	207	-0.870	110	4028	338	042	210	-564
110	3025	383	225	290	-1.295	110	3075	437	109	186	-1.964	110	4029	352	041	225	-517
110	3026	176	153	358	-1.372	110	3076	515	143	210	-1.188	110	4030	334	040	210	-500
110	3027	468	119	122	-1.614	110	3077	626	175	212	-1.601	110	4031	342	040	215	-486
110	3028	550	178	143	-1.367	110	3078	299	038	150	-1.454	110	4032	343	043	190	-498
110	3029	558	164	140	-1.394	110	3079	381	132	041	-1.007	110	4033	361	045	164	-559
110	3030	511	151	007	-1.078	110	3080	260	104	018	-1.903	110	4034	365	057	145	-624
110	3031	536	164	095	-1.214	110	3081	253	037	131	-1.413	110	4035	350	048	200	-597
110	3032	665	203	190	-1.825	110	3082	275	042	058	-1.456	110	4036	345	049	182	-604
110	3033	737	245	131	-1.834	110	3083	263	051	008	-1.536	110	4037	356	047	220	-613
110	3034	420	114	149	-1.219	110	3084	291	064	059	-1.646	110	4038	340	045	203	-576
110	3035	422	113	106	-1.095	110	3085	331	114	089	-1.894	110	4039	349	048	212	-574
110	3036	399	101	070	-1.042	110	3086	326	096	052	-1.805	110	4040	345	049	195	-592
110	3037	415	108	104	-1.057	110	3087	306	104	007	-1.757	110	4041	359	049	211	-620
110	3038	467	138	063	-1.277	110	3088	243	093	002	-1.099	110	4042	340	050	200	-591
110	3039	470	178	208	-1.285	110	3089	212	056	028	-1.371	110	4043	374	062	207	-678
110	3040	498	144	232	-1.136	110	3090	266	060	042	-1.530	110	4044	375	074	175	-903
110	3041	528	163	055	-1.246	110	3091	236	046	064	-1.414	110	4045	412	103	154	-1171
110	3042	583	177	035	-1.324	110	3092	276	057	288	-1.459	110	4046	314	040	190	-493
110	3043	652	208	057	-1.583	110	3093	249	050	007	-1.514	110	4047	319	041	162	-549
110	3044	702	236	089	-1.635	110	3094	203	070	347	-1.472	110	4048	301	039	171	-459
110	3045	401	102	137	-1.034	110	3095	202	054	144	-1.421	110	4049	313	037	210	-463
110	3046	407	093	141	-0.875	110	3096	180	044	030	-1.352	110	4050	344	046	213	-601
110	3047	420	103	119	-0.931	110	3097	206	064	064	-1.516	110	4051	336	047	203	-561
110	3048	421	096	114	-1.257	110	4001	349	070	081	-1.627	110	4052	333	044	190	-547
110	3049	456	101	093	-0.879	110	4002	316	072	003	-1.738	110	4053	323	044	195	-536
110	3050	478	116	040	-1.140	110	4003	349	071	035	-1.628	110	4054	369	056	193	-704
110	3051	470	108	116	-1.010	110	4004	304	064	013	-1.663	110	4055	357	058	195	-751

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
110	4056	379	080	197	243	110	9902	121	197	967	657	120	1028	22	061	012	852
110	4057	282	038	127	473	110	9903	222	172	321	874	120	1029	15	126	494	931
110	4058	302	037	149	492	110	9904	333	040	197	544	120	1030	33	051	177	762
110	4060	290	035	185	436	110	9905	444	120	001	813	120	1031	44	045	192	529
110	4061	314	042	182	484	120	1001	555	052	017	523	120	1032	55	045	243	538
110	4062	319	042	182	486	120	1002	666	049	116	619	120	1033	66	044	288	428
110	4063	333	041	181	502	120	1003	777	038	126	439	120	1034	77	196	724	937
110	4064	312	041	170	459	120	1004	888	046	128	481	120	1035	88	208	171	289
110	4065	348	049	205	554	120	1005	999	032	182	425	120	1036	99	075	014	842
110	4066	342	044	215	536	120	1006	110	037	129	416	120	1037	110	075	131	716
110	4067	365	052	230	684	120	1007	222	038	153	510	120	1038	222	046	200	719
110	4068	294	041	165	530	120	1008	333	031	133	385	120	1039	333	049	088	619
110	4069	283	040	163	502	120	1009	444	032	074	371	120	1040	444	094	399	640
110	4070	294	040	176	489	120	1010	555	033	137	484	120	1041	555	054	195	647
110	4071	315	035	212	469	120	1011	666	033	100	386	120	1042	666	046	197	617
110	4072	296	035	192	439	120	1012	777	030	115	386	120	1043	777	045	224	584
110	4073	299	038	195	472	120	1013	888	031	107	353	120	1044	888	164	789	005
110	4074	305	038	199	477	120	1014	999	037	045	340	120	1045	999	205	789	005
110	4075	332	040	192	523	120	1015	110	067	045	732	120	1046	110	202	647	724
110	4076	309	039	184	490	120	1016	222	045	066	541	120	1047	222	066	038	320
110	4077	278	033	182	410	120	1017	333	049	092	518	120	1048	333	055	136	587
110	4078	301	036	184	454	120	1018	444	042	241	614	120	1049	444	047	190	551
110	4079	371	060	212	680	120	1019	555	042	211	532	120	1050	555	050	118	535
110	4080	262	037	151	457	120	1001	666	083	400	083	120	1051	666	078	257	529
110	4081	134	026	049	217	120	1002	777	090	259	401	120	1052	777	078	257	529
110	4082	106	030	001	212	120	1003	888	071	018	605	120	1053	888	037	230	531
110	4083	194	035	016	314	120	1004	999	191	301	532	120	1054	999	045	238	694
110	9001	214	047	024	368	120	1005	110	157	255	176	120	1055	110	134	664	571
110	9002	241	039	078	444	120	1006	222	107	054	883	120	1056	222	106	463	549
110	9003	277	054	035	561	120	1007	333	142	402	757	120	1057	333	172	032	176
110	9004	166	076	205	487	120	1008	444	111	400	464	120	1058	444	052	100	542
110	9005	091	109	455	544	120	1009	555	111	479	896	120	1059	555	048	172	522
110	9006	086	084	254	421	120	1010	666	131	479	896	120	1060	666	044	202	523
110	9007	238	173	849	206	120	1011	777	254	220	723	120	1061	777	044	160	524
110	9008	161	104	192	720	120	1012	888	107	160	887	120	1062	888	075	363	502
110	9009	054	071	392	269	120	1013	999	333	225	687	120	1063	999	049	207	594
110	9011	295	040	169	494	120	1014	110	393	628	993	120	1064	110	038	200	515
110	9012	015	091	510	212	120	1015	222	102	236	453	120	1065	222	041	205	536
110	9013	294	036	184	434	120	1016	333	089	216	408	120	1066	333	099	258	563
110	9014	220	160	757	338	120	1017	444	41	049	155	120	1067	444	111	414	470
110	9015	135	047	044	329	120	1018	555	46	062	085	120	1068	555	102	091	658
110	9016	307	037	164	467	120	1019	666	34	034	115	120	1069	666	056	000	487
110	9018	206	155	427	694	120	1020	777	38	013	880	120	1070	777	047	108	527
110	9019	058	073	373	254	120	1021	888	29	370	015	120	1071	888	042	174	485
110	9020	153	056	056	421	120	1022	999	52	141	057	120	1072	999	045	100	457
110	9021	302	033	173	428	120	1023	110	02	302	625	120	1073	110	086	220	447
110	9022	161	058	099	372	120	1024	222	11	135	287	120	1074	222	043	172	509
110	9023	206	069	063	566	120	1025	333	67	189	466	120	1075	333	041	181	486
110	9024	360	095	038	793	120	1026	444	40	181	057	120	1076	444	040	204	494
110	9025	523	164	128	307	120	1027	555	32	079	103	120	1077	555	059	169	458
110						120		666	4	073	110	120					



APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
1200	1078	040	080	378	304	1200	2033	156	266	976	650	1200	2083	067	082	351	463
1200	1079	096	075	277	343	1200	2034	258	245	047	353	1200	2084	165	070	102	492
1200	1080	237	112	239	671	1200	2035	303	229	073	383	1200	2085	143	060	110	355
1200	1081	261	054	078	547	1200	2036	401	222	226	309	1200	2086	159	064	079	540
1200	1082	293	050	115	570	1200	2037	354	232	256	327	1200	2087	116	055	132	286
1200	1083	233	069	067	453	1200	2038	231	219	974	358	1200	2088	157	066	077	453
1200	1084	005	070	236	353	1200	2039	276	213	891	465	1200	2089	177	093	262	566
1200	1085	066	064	196	322	1200	2040	526	323	239	089	1200	2090	177	083	183	387
1200	1086	005	072	315	323	1200	2041	569	495	686	279	1200	2091	147	070	225	459
1200	1087	151	097	248	537	1200	2042	218	274	733	006	1200	2092	168	061	172	360
1200	1088	304	084	042	883	1200	2043	084	165	470	570	1200	2093	183	071	074	444
1200	1090	370	074	180	012	1200	2044	033	121	836	449	1200	2094	086	061	147	377
1200	1091	054	078	329	283	1200	2045	076	134	680	335	1200	2095	193	092	172	600
1200	1092	437	071	169	724	1200	2046	041	103	569	294	1200	2096	009	089	436	273
1200	1093	222	034	093	351	1200	2047	049	109	571	271	1200	2097	167	086	346	480
1200	1094	054	068	216	315	1200	2048	041	106	427	454	1200	2098	111	051	149	310
1200	1095	212	067	099	482	1200	2049	093	133	634	363	1200	2099	159	088	175	466
1200	1096	174	029	051	275	1200	2050	136	203	896	769	1200	2001	440	097	190	749
1200	2006	329	086	029	627	1200	2051	144	220	270	557	1200	2002	133	099	178	150
1200	2007	259	212	252	183	1200	2052	612	289	457	947	1200	2003	97	153	436	659
1200	2008	254	147	787	316	1200	2053	340	160	561	891	1200	2004	584	193	012	574
1200	2009	296	150	804	387	1200	2054	177	104	306	690	1200	2005	587	205	101	794
1200	2010	243	146	791	343	1200	2055	142	095	288	583	1200	2006	091	091	136	781
1200	2011	030	176	564	619	1200	2056	004	125	551	421	1200	2007	412	096	091	818
1200	2012	041	201	693	910	1200	2057	048	094	323	428	1200	2008	384	116	037	922
1200	2013	175	207	937	569	1200	2058	042	084	405	521	1200	2009	434	134	086	167
1200	2014	275	187	889	378	1200	2059	023	093	296	541	1200	2010	526	211	305	692
1200	2015	171	152	772	277	1200	2060	024	121	543	779	1200	2011	777	091	001	710
1200	2016	220	167	705	450	1200	2061	087	185	704	959	1200	2012	344	388	168	048
1200	2017	273	236	948	652	1200	2062	483	188	238	573	1200	2013	009	173	597	896
1200	2018	091	217	766	770	1200	2063	582	226	426	492	1200	2014	066	166	432	697
1200	2019	006	191	923	705	1200	2064	305	101	211	774	1200	2015	133	209	470	959
1200	2020	045	175	817	798	1200	2065	161	073	137	518	1200	2016	418	075	220	005
1200	2021	017	165	514	560	1200	2066	135	071	149	488	1200	2017	407	072	210	760
1200	2022	043	221	608	757	1200	2067	002	103	616	411	1200	2018	462	092	157	874
1200	2023	328	203	909	302	1200	2068	066	060	170	617	1200	2019	561	124	174	055
1200	2024	388	200	995	242	1200	2069	063	060	339	586	1200	2020	675	194	230	751
1200	2025	314	186	849	401	1200	2070	037	064	271	655	1200	2021	529	107	109	985
1200	2026	078	203	892	510	1200	2071	009	084	449	434	1200	2022	446	135	064	028
1200	2027	164	229	015	545	1200	2072	075	109	541	447	1200	2023	048	164	600	641
1200	2028	108	193	930	492	1200	2073	394	122	038	874	1200	2024	051	183	554	995
1200	2029	080	186	832	505	1200	2074	346	094	013	706	1200	2025	005	174	526	073
1200	2030	010	173	781	593	1200	2075	196	055	089	394	1200	2026	653	163	182	328
1200	2031	188	239	813	686	1200	2076	133	046	107	278	1200	2027	522	167	158	171
1200	2032	143	231	855	584	1200	2077	117	051	118	284	1200	2028	694	159	126	218
1200	2033	276	216	911	268	1200	2078	028	084	464	222	1200	2029	524	161	188	367
1200	2034	308	215	934	264	1200	2079	031	070	339	206	1200	2030	634	198	138	378
1200	2035	246	222	923	624	1200	2080	075	049	143	266	1200	2031	534	276	064	905
1200	2036	287	167	200	097	1200	2081	049	056	212	190	1200	2032	654	818	202	967
1200	2037	221	329	465	893	1200	2082	056	068	322	306	1200	2033	388	262	190	779

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
120	3035	0.65	-	1.82	-.79	120	3085	-.26	0.73	-.01	-.17	120	4039	-.46	-	2.30	-.57
120	3036	0.54	-	1.65	-.61	120	3086	-.26	0.78	-.04	-.42	120	4040	-.37	-	2.33	-.54
120	3037	0.55	-	1.10	-.69	120	3087	-.24	0.91	-.04	-.41	120	4041	-.38	-	2.35	-.57
120	3038	0.44	-	0.28	-.96	120	3088	-.19	0.76	-.09	-.90	120	4042	-.36	-	2.39	-.53
120	3039	0.81	-	3.80	-.07	120	3089	-.21	0.52	-.06	-.66	120	4043	-.38	-	2.42	-.53
120	3040	0.52	-	1.35	-.97	120	3090	-.26	0.57	-.07	-.75	120	4044	-.37	-	2.31	-.69
120	3041	0.55	-	1.77	-.16	120	3091	-.24	0.37	-.03	-.33	120	4045	-.39	-	2.19	-.77
120	3042	0.41	-	1.34	-.41	120	3092	-.28	0.45	-.02	-.23	120	4046	-.35	-	2.15	-.85
120	3043	0.44	-	0.99	-.93	120	3093	-.24	0.43	-.01	-.11	120	4047	-.36	-	2.18	-.66
120	3044	0.57	-	1.90	-.41	120	3094	-.20	0.59	-.02	-.00	120	4048	-.33	-	2.01	-.72
120	3045	0.40	-	1.47	-.02	120	3095	-.18	0.47	-.03	-.13	120	4049	-.34	-	2.46	-.56
120	3046	0.77	-	0.90	-.11	120	3096	-.15	0.61	-.02	-.03	120	4050	-.38	-	2.44	-.56
120	3047	0.37	-	0.15	-.82	120	3097	-.17	0.91	-.03	-.33	120	4051	-.36	-	2.19	-.56
120	3048	0.66	-	0.63	-.82	120	4001	-.39	0.84	-.12	-.12	120	4052	-.37	-	2.33	-.62
120	3049	0.99	-	1.28	-.83	120	4002	-.32	0.77	-.11	-.13	120	4053	-.36	-	2.44	-.61
120	3050	1.53	-	3.05	-.94	120	4003	-.38	0.68	-.14	-.66	120	4054	-.42	-	1.95	-.61
120	3051	1.01	-	1.27	-.90	120	4004	-.33	0.60	-.14	-.22	120	4055	-.39	-	2.22	-.55
120	3052	1.46	-	1.10	-.01	120	4005	-.38	0.65	-.15	-.95	120	4056	-.40	-	2.05	-.65
120	3053	1.40	-	1.25	-.32	120	4006	-.37	0.92	-.08	-.89	120	4057	-.32	-	2.03	-.61
120	3054	0.66	-	0.44	-.31	120	4007	-.41	0.87	-.14	-.40	120	4058	-.34	-	2.09	-.65
120	3055	0.55	-	0.44	-.91	120	4008	-.36	0.77	-.13	-.38	120	4059	-.32	-	1.96	-.63
120	3056	0.66	-	0.70	-.99	120	4009	-.35	0.54	-.11	-.87	120	4061	-.35	-	1.93	-.55
120	3057	0.58	-	2.21	-.66	120	4010	-.35	0.50	-.11	-.90	120	4062	-.35	-	2.06	-.55
120	3058	0.59	-	0.81	-.65	120	4011	-.38	0.49	-.11	-.73	120	4063	-.37	-	2.14	-.59
120	3059	0.60	-	1.15	-.77	120	4012	-.33	0.44	-.12	-.78	120	4064	-.34	-	1.91	-.59
120	3060	0.62	-	2.49	-.85	120	4013	-.33	0.70	-.16	-.80	120	4065	-.39	-	2.08	-.77
120	3061	0.63	-	1.14	-.94	120	4014	-.34	0.47	-.16	-.90	120	4066	-.37	-	2.01	-.82
120	3062	0.64	-	1.40	-.06	120	4015	-.38	0.45	-.22	-.70	120	4067	-.40	-	2.51	-.75
120	3063	0.65	-	1.37	-.22	120	4016	-.35	0.47	-.22	-.70	120	4068	-.34	-	2.04	-.74
120	3064	0.66	-	1.30	-.30	120	4017	-.35	0.49	-.22	-.70	120	4069	-.33	-	1.73	-.54
120	3065	0.67	-	1.27	-.26	120	4018	-.39	0.47	-.22	-.88	120	4070	-.32	-	1.73	-.46
120	3066	0.68	-	1.42	-.26	120	4019	-.33	0.49	-.22	-.88	120	4071	-.33	-	2.13	-.49
120	3067	0.69	-	1.57	-.64	120	4020	-.39	0.52	-.22	-.48	120	4072	-.31	-	2.04	-.60
120	3068	0.70	-	2.42	-.69	120	4021	-.33	0.50	-.19	-.51	120	4073	-.32	-	1.89	-.46
120	3069	0.71	-	1.59	-.49	120	4022	-.37	0.51	-.21	-.10	120	4074	-.32	-	1.86	-.47
120	3070	0.72	-	1.80	-.47	120	4023	-.34	0.69	-.22	-.54	120	4075	-.36	-	1.98	-.50
120	3071	0.73	-	1.59	-.56	120	4024	-.38	0.47	-.23	-.54	120	4076	-.32	-	2.04	-.48
120	3072	0.74	-	1.41	-.59	120	4025	-.40	0.48	-.23	-.54	120	4077	-.32	-	2.04	-.48
120	3073	0.75	-	1.93	-.56	120	4026	-.37	0.44	-.23	-.54	120	4078	-.28	-	1.79	-.43
120	3074	0.76	-	1.83	-.58	120	4027	-.37	0.42	-.23	-.54	120	4079	-.27	-	1.81	-.50
120	3075	0.77	-	1.74	-.61	120	4028	-.37	0.43	-.23	-.54	120	4080	-.25	-	1.51	-.61
120	3076	0.77	-	1.65	-.79	120	4029	-.39	0.42	-.23	-.54	120	4081	-.14	-	0.92	-.22
120	3077	0.78	-	1.54	-.97	120	4030	-.36	0.41	-.23	-.54	120	4082	-.11	-	0.92	-.21
120	3078	0.79	-	1.88	-.41	120	4031	-.37	0.39	-.23	-.54	120	4083	-.19	-	0.92	-.31
120	3079	0.80	-	2.23	-.09	120	4032	-.36	0.42	-.23	-.54	120	9001	-.25	-	1.23	-.43
120	3080	0.81	-	2.35	-.78	120	4033	-.39	0.46	-.23	-.54	120	9002	-.27	-	1.23	-.51
120	3081	0.82	-	2.52	-.37	120	4034	-.38	0.57	-.23	-.54	120	9003	-.32	-	1.88	-.64
120	3082	0.83	-	1.35	-.44	120	4035	-.37	0.56	-.23	-.54	120	9004	-.23	-	0.97	-.60
120	3083	0.84	-	1.35	-.45	120	4036	-.37	0.61	-.23	-.54	120	9005	-.19	-	2.25	-.70
120	3084	0.85	-	1.35	-.45	120	4037	-.38	0.57	-.23	-.54	120	9006	-.11	-	1.06	-.53
120	3085	0.86	-	1.35	-.49	120	4038	-.36	0.51	-.23	-.54						

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
120	9007	175	146	692	283	130	1011	531	133	225	-1	130	1061	352	052	-	095
120	9008	127	087	277	747	130	1012	465	088	255	-1	130	1062	258	111	-	407
120	9009	082	060	312	315	130	1013	313	254	407	-1	130	1063	387	048	-	205
120	9011	325	037	173	473	130	1014	301	130	164	-1	130	1064	371	041	-	246
120	9012	051	072	529	436	130	1015	660	235	002	-1	130	1065	387	051	-	221
120	9013	324	034	193	436	130	1016	640	243	028	-1	130	1066	201	118	-	218
120	9014	259	185	875	409	130	1017	584	178	140	-1	130	1067	246	111	-	184
120	9015	125	045	276	409	130	1018	478	148	116	-1	130	1068	386	092	-	102
120	9016	341	035	233	409	130	1019	518	142	181	-1	130	1069	315	048	-	153
120	9018	007	190	607	409	130	1020	476	185	480	-1	130	1070	317	043	-	177
120	9019	075	054	371	409	130	1021	621	153	227	-1	130	1071	334	040	-	180
120	9020	120	050	104	409	130	1022	720	445	497	-2	130	1072	316	043	-	120
120	9021	332	030	234	409	130	1023	419	217	233	-1	130	1073	240	086	-	481
120	9022	155	052	077	409	130	1024	793	215	055	-1	130	1074	345	042	-	148
120	9023	152	061	061	409	130	1025	593	232	017	-1	130	1075	322	040	-	166
120	9024	333	120	049	409	130	1026	433	142	052	-1	130	1076	356	041	-	224
120	9025	299	190	080	409	130	1027	433	117	162	-1	130	1077	041	059	-	248
120	9026	126	180	675	409	130	1028	376	103	081	-1	130	1078	072	059	-	199
120	9027	333	140	333	409	130	1029	245	196	617	-1	130	1079	148	053	-	105
120	9028	350	041	077	409	130	1030	387	080	145	-1	130	1080	333	091	-	104
120	9029	371	121	074	409	130	1031	377	065	157	-1	130	1081	298	053	-	078
130	1	317	075	037	409	130	1032	390	054	238	-1	130	1082	323	050	-	150
130	2	346	062	017	409	130	1033	605	466	222	-2	130	1083	292	062	-	009
130	3	248	037	138	409	130	1034	432	346	464	-1	130	1084	049	066	-	303
130	4	285	042	138	409	130	1035	617	248	575	-1	130	1085	043	071	-	328
130	5	259	034	105	409	130	1036	421	181	192	-1	130	1086	026	073	-	243
130	6	247	037	080	409	130	1037	384	108	118	-1	130	1088	236	094	-	215
130	7	228	035	148	409	130	1038	378	087	182	-1	130	1089	340	085	-	081
130	8	227	031	066	409	130	1039	341	073	044	-1	130	1090	350	064	-	176
130	9	227	031	113	409	130	1040	239	151	453	-1	130	1091	059	084	-	298
130	10	246	040	132	409	130	1041	373	071	088	-1	130	1092	423	072	-	177
130	11	264	049	118	409	130	1042	353	054	096	-1	130	1093	234	038	-	082
130	12	204	030	068	409	130	1043	376	046	170	-1	130	1094	106	072	-	180
130	13	211	029	040	409	130	1044	309	357	535	-1	130	1095	210	071	-	107
130	14	183	037	051	409	130	1045	251	250	309	-1	130	1096	177	030	-	061
130	15	230	088	230	409	130	1046	493	200	251	-1	130	2001	194	094	-	145
130	16	238	049	011	409	130	1047	354	102	004	-1	130	2002	005	148	-	464
130	17	315	078	009	409	130	1048	349	061	102	-1	130	2003	282	154	-	730
130	18	406	051	264	409	130	1049	367	051	216	-1	130	2004	224	148	-	738
130	19	388	049	271	409	130	1050	338	057	042	-1	130	2005	101	142	-	607
130	1001	341	262	333	409	130	1051	236	135	762	-1	130	2006	108	167	-	720
130	1002	330	088	158	409	130	1052	388	061	176	-1	130	2007	136	205	-	976
130	1003	366	069	076	409	130	1053	378	050	196	-1	130	2008	165	213	-	894
130	1004	330	124	332	409	130	1054	381	045	219	-1	130	2009	285	178	-	931
130	1005	433	118	221	409	130	1055	134	239	638	-1	130	2010	068	143	-	692
130	1006	471	113	089	409	130	1056	190	169	471	-1	130	2011	301	172	-	884
130	1007	415	240	333	409	130	1057	487	162	176	-1	130	2012	321	199	-	961
130	1008	225	091	087	409	130	1058	340	075	226	-1	130	2013	257	204	-	818
130	1009	505	121	082	409	130	1059	348	053	026	-1	130	2014	193	192	-	042
130	1010	821	203	325	409	130	1060	355	048	192	-1	130	2015	095	174	-	009

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
1330	2016	163	144	619	337	1330	2066	071	081	287	628	1330	2018	396	048	236	620
1330	2017	279	173	728	506	1330	2067	039	081	399	382	1330	2019	490	060	229	730
1330	2018	333	227	981	388	1330	2068	058	070	239	373	1330	2020	483	121	210	1036
1330	2019	306	207	929	332	1330	2069	048	079	380	474	1330	2021	531	273	236	770
1330	2020	125	191	743	407	1330	2070	052	075	209	628	1330	2022	500	120	058	069
1330	2021	200	193	833	359	1330	2071	054	077	345	413	1330	2023	326	124	303	860
1330	2022	266	223	1006	350	1330	2072	050	128	326	702	1330	2024	096	167	891	473
1330	2023	240	179	825	385	1330	2073	223	124	236	650	1330	2025	066	174	583	705
1330	2024	158	169	799	357	1330	2074	199	115	332	562	1330	2026	096	179	765	120
1330	2025	145	151	626	472	1330	2075	095	090	464	584	1330	2027	641	184	117	239
1330	2026	334	192	855	337	1330	2076	064	072	400	250	1330	2028	354	203	462	086
1330	2027	360	225	070	339	1330	2077	055	059	229	314	1330	2029	443	167	179	066
1330	2028	343	228	069	251	1330	2078	046	058	360	271	1330	2030	413	153	050	777
1330	2029	236	200	976	251	1330	2079	059	066	287	230	1330	2031	424	193	018	598
1330	2030	030	192	692	654	1330	2080	023	029	433	227	1330	2032	15	150	110	820
1330	2031	056	112	358	751	1330	2081	033	033	402	255	1330	2033	65	236	046	009
1330	2032	137	165	618	917	1330	2082	053	066	237	344	1330	2034	99	044	282	579
1330	2033	354	202	914	471	1330	2083	075	067	249	333	1330	2035	88	044	271	610
1330	2034	369	203	934	338	1330	2084	096	081	361	380	1330	2036	8	033	224	509
1330	2035	359	220	211	308	1330	2085	064	066	389	350	1330	2037	01	043	152	565
1330	2036	354	210	093	355	1330	2086	077	056	159	427	1330	2038	12	054	109	676
1330	2037	379	230	197	307	1330	2087	080	047	151	252	1330	2039	11	118	452	687
1330	2038	291	221	959	301	1330	2088	107	049	100	299	1330	2040	28	068	027	652
1330	2039	139	147	364	434	1330	2089	093	076	229	553	1330	2041	84	068	080	647
1330	2040	057	139	727	187	1330	2090	102	090	274	358	1330	2042	99	085	033	813
1330	2041	243	237	954	356	1330	2091	074	060	283	259	1330	2043	96	168	034	228
1330	2042	205	239	727	632	1330	2092	096	066	255	306	1330	2044	79	190	079	535
1330	2043	097	212	945	379	1330	2093	068	063	094	400	1330	2045	32	058	232	923
1330	2044	077	157	671	305	1330	2094	038	068	307	330	1330	2046	94	049	246	833
1330	2045	096	127	601	294	1330	2095	093	105	305	523	1330	2047	33	044	227	610
1330	2046	152	130	691	315	1330	2096	065	096	372	411	1330	2048	33	044	155	541
1330	2047	011	169	757	351	1330	2097	086	088	303	443	1330	2049	33	055	137	608
1330	2048	036	102	409	310	1330	2098	046	057	236	234	1330	2050	74	120	300	656
1330	2049	036	102	396	356	1330	2099	055	090	373	440	1330	2051	33	065	052	584
1330	2050	074	222	568	814	1330	2100	443	064	245	703	1330	2052	68	064	062	588
1330	2051	074	222	311	353	1330	2101	484	095	191	914	1330	2053	54	073	054	724
1330	2052	018	277	697	461	1330	2102	949	162	362	600	1330	2054	99	104	020	001
1330	2053	009	239	843	682	1330	2103	670	186	036	614	1330	2055	46	181	047	356
1330	2054	059	160	622	691	1330	2104	900	168	158	714	1330	2056	00	064	190	837
1330	2055	052	106	386	485	1330	2105	300	065	156	680	1330	2057	96	063	196	863
1330	2056	053	098	488	523	1330	2106	369	065	071	694	1330	2058	55	048	234	625
1330	2057	040	093	398	530	1330	2107	403	083	088	783	1330	2059	39	050	157	600
1330	2058	012	122	627	428	1330	2108	493	149	178	103	1330	2060	60	056	114	593
1330	2059	079	096	291	562	1330	2109	896	189	283	646	1330	2061	61	110	234	631
1330	2060	083	099	280	488	1330	2110	257	097	115	609	1330	2062	29	056	129	559
1330	2061	153	197	468	909	1330	2111	164	177	445	129	1330	2063	55	060	098	564
1330	2062	193	172	368	979	1330	2112	112	157	660	559	1330	2064	58	066	062	586
1330	2063	166	270	592	201	1330	2113	064	144	573	666	1330	2065	80	090	036	698
1330	2064	111	180	666	671	1330	2114	032	169	466	807	1330	2066	68	125	056	065
1330	2065	078	106	342	577	1330	2115	408	049	251	645	1330	2067	4	058	209	888

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WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
130	3068	424	067	192	886	130	4022	384	050	243	620	130	4073	350	038	236	592
130	3069	336	039	173	521	130	4023	339	051	177	687	130	4074	346	039	218	591
130	3070	288	036	157	427	130	4024	409	055	265	675	130	4075	395	041	261	589
130	3071	284	041	137	464	130	4025	438	057	266	730	130	4076	327	045	196	583
130	3072	194	069	250	436	130	4026	402	049	243	630	130	4077	323	046	197	588
130	3073	267	053	078	464	130	4027	399	041	283	600	130	4078	363	051	206	631
130	3074	279	052	086	531	130	4028	388	040	273	601	130	4079	349	046	193	559
130	3075	274	057	047	582	130	4029	406	038	286	667	130	4080	270	031	158	420
130	3076	274	075	025	667	130	4030	380	037	269	530	130	4081	140	028	041	242
130	3077	352	094	013	820	130	4031	392	041	275	534	130	4082	132	028	006	231
130	3078	303	032	153	449	130	4032	383	042	247	543	130	4083	177	032	056	296
130	3079	146	088	140	573	130	4033	406	044	286	584	130	9001	281	041	066	471
130	3080	119	066	179	476	130	4034	383	048	238	561	130	9002	299	048	115	466
130	3081	246	036	101	397	130	4035	393	055	247	793	130	9003	349	061	148	647
130	3082	261	036	126	379	130	4036	387	059	189	754	130	9004	289	073	092	676
130	3083	241	035	115	390	130	4037	403	051	231	659	130	9005	260	126	210	909
130	3084	231	042	019	444	130	4038	374	043	251	561	130	9006	098	058	090	044
130	3085	217	051	012	555	130	4039	379	040	273	521	130	9007	124	151	698	371
130	3086	177	060	135	409	130	4040	365	037	273	505	130	9008	216	105	139	623
130	3087	137	058	127	375	130	4041	389	037	294	524	130	9009	067	055	332	001
130	3088	128	063	078	434	130	4042	366	037	271	489	130	9011	343	042	231	521
130	3089	165	065	162	324	130	4043	373	037	268	537	130	9012	056	056	227	444
130	3090	222	050	037	415	130	4044	364	038	255	494	130	9013	369	039	263	233
130	3091	230	034	091	351	130	4045	392	041	271	549	130	9014	086	228	891	1
130	3092	243	043	015	403	130	4046	394	068	236	825	130	9015	076	049	228	999
130	3093	217	044	049	380	130	4047	403	071	212	088	130	9016	374	038	272	588
130	3094	178	057	167	412	130	4048	371	059	242	811	130	9018	093	195	703	166
130	3095	143	051	092	294	130	4049	381	046	258	693	130	9019	044	050	288	199
130	3096	101	048	112	306	130	4050	406	045	236	642	130	9020	073	044	137	966
130	3097	109	059	163	468	130	4051	377	043	218	548	130	9021	376	040	257	638
130	4001	439	089	175	798	130	4052	374	037	268	688	130	9022	103	056	280	344
130	4002	380	080	146	787	130	4053	366	038	235	540	130	9023	087	054	183	444
130	4003	405	068	201	883	130	4054	399	043	229	999	130	9024	368	136	023	566
130	4004	361	062	192	823	130	4055	372	044	259	607	130	9025	743	179	132	452
130	4005	419	068	193	818	130	4056	393	052	275	742	130	9026	213	189	805	925
130	4006	442	090	170	1249	130	4057	397	078	184	762	130	9027	162	105	207	689
130	4007	453	085	202	993	130	4058	431	082	209	993	130	9028	384	050	256	644
130	4008	408	072	183	723	130	4059	402	071	169	786	130	9029	123	087	225	688
130	4009	391	062	217	737	130	4061	407	052	268	681	140	1	344	065	057	633
130	4010	426	062	255	706	130	4062	388	044	255	599	140	2	376	056	115	622
130	4011	421	053	261	604	130	4063	408	042	279	577	140	3	282	046	132	499
130	4012	367	046	225	534	130	4064	385	043	230	548	140	4	276	037	151	403
130	4013	414	046	258	571	130	4065	414	065	230	887	140	5	249	035	067	333
130	4014	378	049	225	551	130	4066	400	059	250	815	140	6	251	034	041	788
130	4015	404	082	165	728	130	4067	422	067	266	922	140	7	252	038	083	977
130	4017	365	044	227	541	130	4068	446	078	228	558	140	8	232	034	048	566
130	4018	397	046	253	571	130	4069	387	056	219	637	140	9	245	031	145	406
130	4019	359	047	218	554	130	4070	330	056	188	624	140	10	274	049	136	700
130	4020	409	051	265	620	130	4071	342	041	216	637	140	11	307	049	175	655
130	4021	357	053	203	628	130	4072	320	038	212	499	140	12	195	035	009	344

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WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
140	13	190	039	045	299	140	1044	847	321	347	-2.605	140	1095	270	080	031	561
140	14	198	046	041	399	140	1045	671	340	311	-2.089	140	1096	186	035	054	355
140	15	136	082	192	404	140	1046	738	210	067	-1.921	140	2001	085	110	363	411
140	16	209	043	043	356	140	1047	563	218	121	-1.610	140	2002	136	129	570	326
140	17	154	100	236	472	140	1048	467	184	113	-1.526	140	2003	279	142	750	289
140	18	407	046	275	667	140	1049	447	125	137	-1.042	140	2004	139	130	636	345
140	19	398	044	280	647	140	1050	390	110	031	-1.913	140	2005	080	122	690	508
140	1001	891	207	076	582	140	1051	314	190	415	-1.196	140	2006	168	137	330	345
140	1002	401	119	059	983	140	1052	387	102	094	-1.952	140	2007	352	209	1	397
140	1003	449	069	195	780	140	1053	380	072	013	-1.816	140	2008	138	235	900	937
140	1004	555	082	329	114	140	1054	389	050	137	-1.691	140	2009	256	158	737	398
140	1005	595	101	278	140	1055	558	266	266	120	-1.585	140	2010	091	118	397	477
140	1006	509	112	158	982	140	1056	329	235	073	-1.659	140	2011	332	196	892	332
140	1007	856	266	028	945	140	1057	333	152	124	-1.801	140	2012	319	196	924	277
140	1008	341	096	045	746	140	1058	468	151	131	-1.792	140	2013	391	194	907	325
140	1009	564	121	170	023	140	1059	407	111	106	-1.159	140	2014	380	198	945	249
140	1010	727	167	205	367	140	1060	391	082	090	-1.923	140	2015	322	212	979	353
140	1011	555	100	194	968	140	1061	376	071	104	-1.793	140	2016	168	134	624	277
140	1012	524	092	197	925	140	1062	319	126	303	-1.818	140	2017	318	147	839	378
140	1013	744	265	315	988	140	1063	402	075	073	-1.033	140	2018	303	164	814	369
140	1014	470	113	070	994	140	1064	388	057	134	-1.716	140	2019	235	147	722	289
140	1015	948	239	223	916	140	1065	420	050	231	-1.617	140	2020	057	138	596	517
140	1016	819	208	178	777	140	1066	522	217	087	-1.391	140	2021	085	135	704	353
140	1017	744	191	195	405	140	1067	598	246	072	-1.825	140	2022	213	171	807	229
140	1018	644	177	107	281	140	1068	591	186	144	-1.186	140	2023	249	176	922	249
140	1019	675	171	195	301	140	1069	409	106	174	-1.186	140	2024	220	173	858	239
140	1020	611	163	100	332	140	1070	351	067	137	-1.923	140	2025	128	161	816	495
140	1021	633	122	274	128	140	1071	374	055	231	-1.770	140	2026	350	148	833	193
140	1022	1.2339	312	132	389	140	1072	321	056	078	-1.650	140	2027	453	170	974	146
140	1023	764	248	033	722	140	1073	200	110	271	-1.677	140	2028	384	178	906	231
140	1024	880	175	302	045	140	1074	336	051	098	-1.592	140	2029	222	155	704	279
140	1025	840	195	249	276	140	1075	327	043	157	-1.520	140	2030	217	134	339	615
140	1026	721	211	203	512	140	1076	366	040	185	-1.524	140	2031	084	122	538	367
140	1027	635	181	244	432	140	1077	038	074	313	-1.428	140	2032	272	144	757	445
140	1028	548	161	067	358	140	1078	110	092	097	-1.597	140	2033	417	153	876	077
140	1029	537	242	468	552	140	1079	217	118	030	-1.972	140	2034	414	149	885	079
140	1030	482	149	005	139	140	1080	403	100	054	-1.043	140	2035	372	152	885	212
140	1031	431	103	093	926	140	1081	337	066	111	-1.905	140	2036	369	147	830	119
140	1032	438	085	198	816	140	1082	337	062	014	-1.834	140	2037	368	161	866	170
140	1033	1.057	341	072	244	140	1083	308	057	017	-1.509	140	2038	440	167	110	119
140	1034	820	317	031	062	140	1084	019	073	458	-1.297	140	2039	332	162	901	162
140	1035	821	202	129	895	140	1085	021	085	335	-1.508	140	2040	000	115	520	561
140	1036	729	240	060	078	140	1086	091	095	166	-1.528	140	2041	201	146	737	445
140	1037	648	256	075	843	140	1088	334	102	021	-1.876	140	2042	385	162	865	198
140	1038	563	190	126	347	140	1089	359	076	153	-1.729	140	2043	359	166	856	207
140	1039	450	145	083	068	140	1090	331	050	175	-1.664	140	2044	278	144	725	171
140	1040	419	236	398	320	140	1091	175	111	138	-1.577	140	2045	233	128	631	159
140	1041	420	154	047	201	140	1092	239	071	200	-1.714	140	2046	249	130	680	150
140	1042	364	096	074	849	140	1093	258	040	054	-1.412	140	2047	333	163	962	143
140	1043	386	078	029	865	140	1094	160	071	166	-1.374	140	2048	051	105	454	332

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
140	2049	.048	.082	.351	-.352	140	2099	.006	.078	.322	-.333	140	3051	-.188	.052	.039	-.424
140	2050	.416	.139	.139	-.919	140	3001	-.530	.079	-.298	-.834	140	3052	-.161	.053	.060	-.393
140	2051	.006	.108	.426	-.411	140	3002	-.465	.082	-.159	-.778	140	3053	-.155	.059	.084	-.501
140	2052	.195	.138	.665	-.377	140	3003	-.955	.182	-.259	-1.641	140	3054	-.194	.108	.216	-.796
140	2053	.316	.175	.919	-.207	140	3004	-.888	.204	-.239	-1.835	140	3055	-.509	.187	.132	-1.373
140	2054	.237	.147	.741	-.129	140	3005	-.899	.167	-.339	-1.489	140	3056	-.393	.039	-.279	-.572
140	2055	.113	.102	.482	-.191	140	3006	-.433	.050	-.275	-.648	140	3057	-.397	.039	-.284	-.594
140	2056	.056	.084	.430	-.422	140	3007	-.433	.049	-.241	-.651	140	3058	-.358	.037	-.234	-.501
140	2057	.072	.086	.438	-.381	140	3008	-.339	.047	-.147	-.683	140	3059	-.276	.042	-.090	-.498
140	2058	.185	.136	.748	-.286	140	3009	-.306	.081	-.087	-.958	140	3060	-.240	.048	.011	-.453
140	2059	.084	.076	.209	-.401	140	3010	-.892	.284	-.215	-1.876	140	3061	-.079	.093	-.339	-.419
140	2060	.137	.083	.174	-.445	140	3011	-.892	.081	-.358	-.522	140	3062	-.220	.045	-.045	-.419
140	2061	.393	.189	.264	-.108	140	3012	.122	.024	-.172	-.784	140	3063	-.192	.047	.005	-.389
140	2062	.004	.114	.384	-.428	140	3013	.180	.168	.715	-.669	140	3064	-.168	.051	.050	-.400
140	2063	.136	.166	.726	-.353	140	3014	.180	.144	.672	-.816	140	3065	-.159	.066	.106	-.435
140	2064	.172	.179	.947	-.390	140	3015	.037	.179	.524	-.908	140	3066	-.427	.162	.129	-1.273
140	2065	.094	.126	.581	-.347	140	3016	.186	.049	-.266	-.672	140	3067	-.446	.049	-.315	-.683
140	2066	.028	.077	.371	-.251	140	3017	.433	.049	-.273	-.592	140	3068	-.433	.051	-.296	-.734
140	2067	.000	.062	.278	-.232	140	3018	.433	.049	-.200	-.594	140	3069	-.321	.031	-.204	-.443
140	2068	.007	.064	.256	-.238	140	3019	.322	.063	-.113	-.636	140	3070	-.267	.032	-.166	-.385
140	2069	.040	.097	.555	-.252	140	3020	.322	.063	-.113	-.636	140	3071	-.251	.032	-.166	-.385
140	2070	.076	.072	.202	-.395	140	3021	.533	.204	-.042	-1.629	140	3072	-.125	.067	.242	-.385
140	2071	.099	.083	.270	-.440	140	3022	.304	.125	-.445	-.684	140	3073	-.193	.045	.008	-.361
140	2072	.314	.150	.127	-.822	140	3023	.168	.112	.269	-.572	140	3074	-.197	.042	-.060	-.364
140	2073	.050	.072	.454	-.329	140	3024	.087	.171	.794	-.650	140	3075	-.179	.045	.032	-.357
140	2074	.014	.084	.410	-.290	140	3025	.074	.174	.628	-1.274	140	3076	-.155	.050	.038	-.375
140	2075	.103	.118	.652	-.266	140	3026	.012	.174	.688	-.726	140	3077	-.306	.108	.061	-.785
140	2076	.108	.115	.651	-.188	140	3027	.085	.131	.004	-.929	140	3078	-.284	.038	-.132	-.408
140	2077	.066	.080	.428	-.147	140	3028	.396	.186	.572	-.699	140	3079	-.047	.062	.210	-.313
140	2078	.003	.061	.314	-.163	140	3029	.213	.143	.334	-.766	140	3080	-.033	.067	.273	-.336
140	2079	.050	.077	.512	-.134	140	3030	.118	.149	.088	-1.011	140	3081	-.248	.043	.099	-.478
140	2080	.115	.108	.592	-.124	140	3031	.192	.149	.206	-.798	140	3082	-.205	.037	-.064	-.327
140	2081	.042	.050	.138	-.249	140	3032	.123	.135	.321	-.840	140	3083	-.193	.034	.075	-.321
140	2082	.084	.050	.134	-.262	140	3033	.433	.038	.214	-1.425	140	3084	-.150	.047	.028	-.304
140	2083	.199	.089	.075	-.589	140	3034	.433	.038	.329	-.596	140	3085	-.132	.049	.112	-.290
140	2084	.035	.093	.499	-.446	140	3035	.413	.039	.305	-.601	140	3086	-.056	.063	.220	-.226
140	2085	.039	.110	.557	-.274	140	3036	.337	.034	.215	-.473	140	3087	-.027	.052	.248	-.172
140	2086	.014	.064	.314	-.245	140	3037	.261	.041	-.093	-.414	140	3088	-.047	.072	.270	-.358
140	2087	.010	.061	.332	-.195	140	3038	.248	.055	.006	-.482	140	3089	-.052	.071	.220	-.246
140	2088	.087	.077	.154	-.504	140	3039	.039	.117	.489	-.548	140	3090	-.143	.042	.006	-.320
140	2089	.046	.065	.212	-.413	140	3040	.173	.066	.096	-.506	140	3091	-.191	.037	-.036	-.317
140	2090	.026	.106	.603	-.265	140	3041	.188	.071	.108	-.549	140	3092	-.158	.047	.046	-.295
140	2091	.046	.083	.524	-.161	140	3042	.188	.083	.093	-.611	140	3093	-.142	.046	.056	-.296
140	2092	.020	.082	.556	-.365	140	3043	.266	.195	.145	-1.037	140	3094	-.095	.058	.180	-.217
140	2093	.039	.060	.205	-.297	140	3044	.500	.171	.106	-1.232	140	3095	-.058	.057	.240	-.273
140	2094	.014	.067	.310	-.576	140	3045	.404	.037	-.284	-.581	140	3096	-.019	.053	.269	-.164
140	2095	.022	.079	.398	-.361	140	3046	.422	.038	.300	-.609	140	3097	-.027	.064	.265	-.314
140	2096	.155	.119	.404	-.530	140	3047	.346	.037	.199	-.476	140	4001	-.502	.106	-.188	-.009
140	2097	.023	.071	.427	-.233	140	3048	.247	.043	-.086	-.415	140	4002	-.441	.099	.182	-.961
140	2098	.014	.063	.305	-.171	140	3049	.250	.051	-.040	-.448	140	4003	-.455	.078	-.247	-.893
140	2099					140	3050	.092	.092	.311	-.390						

APPENDIX A -- PRESSURE DATA

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	
140	4004	401	0.71	158	881	140	4055	372	0.33	240	494	140	9025	018	226	383	-1	987
140	4005	483	0.73	250	753	140	4056	385	0.34	253	66	140	9026	171	167	870	-1	323
140	4006	547	0.97	260	016	140	4057	422	0.53	273	33	140	9027	050	113	362	-1	474
140	4007	560	0.92	282	15	140	4058	452	0.55	305	33	140	9028	407	051	236	-1	30
140	4008	535	0.99	282	32	140	4060	414	0.43	271	55	140	9029	033	075	411	-1	197
140	4009	440	0.76	282	70	140	4061	419	0.40	301	7	150	-	359	066	057	-1	639
140	4010	486	0.77	282	91	140	4062	396	0.36	283	60	150	2	386	062	147	-1	08
140	4011	459	0.58	282	55	140	4063	423	0.34	318	51	150	2	257	049	112	-1	521
140	4012	398	0.50	249	7	140	4064	395	0.36	277	30	150	3	258	046	043	-1	444
140	4013	453	0.54	247	40	140	4065	411	0.35	212	2	150	4	236	034	107	-1	7
140	4014	405	0.51	218	88	140	4066	390	0.35	255	8	150	5	246	041	087	-1	348
140	4015	342	0.66	058	24	140	4068	464	0.73	302	44	150	6	214	038	006	-1	224
140	4017	404	0.51	256	33	140	4069	416	0.61	251	55	150	8	210	041	065	-1	307
140	4018	423	0.46	255	39	140	4070	416	0.48	191	94	150	9	248	046	086	-1	494
140	4019	376	0.44	237	10	140	4071	363	0.39	226	39	150	10	294	042	169	-1	33
140	4020	429	0.46	237	7	140	4072	336	0.37	228	44	150	11	175	040	028	-1	800
140	4021	378	0.44	227	7	140	4073	385	0.38	234	33	150	12	191	041	049	-1	344
140	4022	415	0.42	286	7	140	4074	372	0.37	250	66	150	13	170	039	111	-1	22
140	4023	369	0.46	286	8	140	4075	429	0.38	219	31	150	14	191	041	039	-1	390
140	4024	471	0.93	283	33	140	4076	429	0.38	336	19	150	15	039	090	046	-1	500
140	4025	489	0.80	283	7	140	4077	382	0.42	331	31	150	16	180	046	039	-1	621
140	4026	436	0.61	282	0	140	4078	408	0.48	272	7	150	17	041	104	397	-1	405
140	4027	432	0.47	299	9	140	4079	347	0.47	206	5	150	18	399	046	253	-1	621
140	4028	417	0.45	255	7	140	4080	305	0.43	182	8	150	19	407	044	251	-1	450
140	4029	432	0.38	269	7	140	4081	136	0.31	002	9	150	20	993	160	375	-1	790
140	4030	403	0.37	274	6	140	4082	143	0.28	034	8	150	21	681	181	206	-1	284
140	4031	426	0.39	289	4	140	4083	142	0.29	034	8	150	22	569	126	138	-1	67
140	4032	411	0.39	275	7	140	9000	289	0.42	111	1	150	23	543	090	268	-1	187
140	4033	434	0.40	229	9	140	9001	289	0.42	111	1	150	24	534	096	211	-1	32
140	4034	407	0.42	253	3	140	9002	328	0.47	133	3	150	25	517	112	169	-1	88
140	4035	449	0.94	212	1	140	9003	407	0.69	188	7	150	26	036	211	298	-1	8
140	4036	417	0.72	188	3	140	9004	381	0.11	091	1	150	27	435	105	110	-1	817
140	4037	434	0.61	282	5	140	9005	431	0.59	059	5	150	28	581	113	251	-1	665
140	4038	399	0.50	269	1	140	9006	183	0.16	11	1	150	29	596	119	312	-1	310
140	4039	411	0.45	278	3	140	9007	022	0.12	510	2	150	30	510	084	267	-1	006
140	4040	387	0.38	273	5	140	9008	390	0.15	12	2	150	31	548	090	300	-1	881
140	4041	417	0.39	302	4	140	9009	056	0.49	118	6	150	32	982	234	265	-1	979
140	4042	392	0.38	287	9	140	9010	359	0.39	234	3	150	33	592	143	185	-1	108
140	4043	394	0.38	273	2	140	9011	045	0.52	189	9	150	34	961	200	372	-1	988
140	4044	379	0.36	247	0	140	9012	389	0.39	271	7	150	35	762	160	256	-1	886
140	4045	412	0.37	274	5	140	9013	102	0.35	73	3	150	36	743	136	294	-1	699
140	4046	401	0.55	237	0	140	9014	048	0.48	144	6	150	37	649	123	246	-1	28
140	4047	411	0.50	227	4	140	9015	003	0.39	262	2	150	38	692	125	266	-1	55
140	4048	386	0.45	227	2	140	9016	045	0.73	460	9	150	39	696	164	394	-1	465
140	4049	384	0.35	255	5	140	9017	034	0.40	178	3	150	40	601	107	258	-1	102
140	4050	412	0.39	288	6	140	9018	395	0.53	271	7	150	41	042	233	50	-1	663
140	4051	372	0.35	243	9	140	9019	011	0.97	460	9	150	42	863	180	345	-1	96
140	4052	385	0.34	271	1	140	9020	006	0.81	425	5	150	43	832	175	375	-1	544
140	4053	377	0.35	265	4	140	9021	045	1.09	24	4	150	44	856	185	370	-2	058
140	4054	404	0.34	292	6	140	9022	034	0.40	178	3	150	45	787	159	333	-1	515



APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
15500	1027	689	129	298	-1.219	150	1077	171	117	212	-786	150	2032	380	171	920	-196
15500	1028	627	118	186	-1.121	150	1078	224	123	161	-909	150	2033	380	166	968	-035
15500	1029	674	149	055	-1.354	150	1079	363	149	019	-1.092	150	2034	343	144	877	-029
15500	1030	574	132	111	-1.195	150	1080	426	150	130	-1.294	150	2035	291	139	911	064
15500	1031	492	109	174	-1.088	150	1081	362	110	197	-1.026	150	2036	290	132	899	029
15500	1032	466	97	116	-1.839	150	1082	299	096	169	-1.658	150	2037	274	140	874	063
15500	1033	466	97	116	-1.195	150	1083	305	071	063	-1.623	150	2038	382	169	1.085	054
15500	1034	853	228	468	-2.195	150	1084	108	088	184	-1.618	150	2039	222	145	814	219
15500	1035	853	228	468	-1.889	150	1085	132	101	225	-1.521	150	2040	184	144	763	181
15500	1036	797	190	315	-1.889	150	1086	202	096	118	-1.580	150	2041	348	158	872	156
15500	1037	797	190	315	-1.593	150	1088	365	095	053	-1.848	150	2042	428	152	881	012
15500	1038	772	211	178	-1.800	150	1089	327	093	009	-1.888	150	2043	378	145	879	016
15500	1039	652	160	178	-1.286	150	1090	326	066	136	-1.855	150	2044	267	135	855	055
15500	1040	596	156	132	-1.189	150	1091	175	062	073	-1.438	150	2045	237	122	728	058
15500	1041	622	198	337	-1.457	150	1092	377	076	035	-1.438	150	2046	250	124	744	048
15500	1042	460	156	077	-1.038	150	1093	232	050	014	-1.541	150	2047	334	160	1.066	035
15500	1043	417	101	178	-1.869	150	1094	156	092	245	-1.377	150	2048	065	099	420	191
15500	1044	355	88	057	-1.167	150	1095	214	085	182	-1.739	150	2049	037	081	273	324
15500	1045	355	88	057	-1.150	150	1096	172	047	074	-1.393	150	2050	403	105	114	910
15500	1046	355	88	057	-1.029	150	2001	062	123	604	-1.401	150	2051	161	128	663	182
15500	1047	718	226	073	-1.942	150	2002	187	135	648	-1.263	150	2052	266	140	810	136
15500	1048	623	222	222	-1.557	150	2003	183	133	581	-1.261	150	2053	334	154	880	250
15500	1049	623	222	222	-1.557	150	2004	002	111	377	-1.358	150	2054	277	134	896	073
15500	1050	572	159	123	-1.156	150	2005	238	093	281	-1.565	150	2055	177	104	724	129
15500	1051	499	149	051	-1.157	150	2006	185	145	281	-1.241	150	2056	124	094	506	102
15500	1052	469	166	065	-1.315	150	2007	360	219	444	-1.494	150	2057	145	097	533	093
15500	1053	427	124	045	-1.124	150	2008	154	233	638	-1.030	150	2058	247	143	846	084
15500	1054	422	124	045	-1.124	150	2009	047	185	555	-1.807	150	2059	032	073	289	335
15500	1055	847	220	014	-2.101	150	2010	257	106	142	-1.862	150	2060	140	068	177	417
15500	1056	749	222	071	-1.583	150	2011	272	210	910	-1.317	150	2061	460	120	000	055
15500	1057	732	176	290	-1.705	150	2012	209	202	854	-1.464	150	2062	135	125	559	194
15500	1058	644	197	134	-1.621	150	2013	318	197	902	-1.248	150	2063	238	133	758	093
15500	1059	600	193	079	-1.647	150	2014	284	202	972	-1.388	150	2064	205	139	831	160
15500	1060	498	144	104	-1.124	150	2015	288	233	032	-1.660	150	2065	161	112	714	069
15500	1061	470	120	013	-1.959	150	2016	206	157	864	-1.325	150	2066	092	079	476	091
15500	1062	456	170	134	-1.195	150	2017	278	148	744	-1.832	150	2067	052	066	334	127
15500	1063	444	115	038	-1.003	150	2018	143	155	628	-1.452	150	2068	060	075	401	118
15500	1064	410	082	088	-1.885	150	2019	273	122	628	-1.327	150	2069	144	115	756	137
15500	1065	442	064	155	-1.761	150	2020	043	108	050	-1.588	150	2070	070	056	186	300
15500	1066	705	195	189	-1.541	150	2021	066	120	333	-1.517	150	2071	157	059	087	367
15500	1067	761	221	164	-1.731	150	2022	153	146	756	-1.264	150	2072	442	113	032	025
15500	1068	724	188	301	-1.567	150	2023	240	188	933	-1.210	150	2073	017	091	036	206
15500	1069	494	119	213	-1.134	150	2024	233	188	873	-1.250	150	2074	036	094	500	238
15500	1070	400	090	168	-1.857	150	2025	178	181	811	-1.243	150	2075	122	112	628	360
15500	1071	414	072	242	-1.862	150	2026	340	162	844	-1.091	150	2076	133	102	511	121
15500	1072	332	079	086	-1.747	150	2027	410	162	996	-1.205	150	2077	099	084	444	110
15500	1073	332	079	086	-1.944	150	2028	250	146	768	-1.321	150	2078	037	073	363	166
15500	1074	332	079	086	-1.640	150	2029	092	120	548	-1.270	150	2079	083	085	444	136
15500	1075	332	079	086	-1.568	150	2030	300	098	258	-1.612	150	2080	140	122	725	103
15500	1076	345	042	004	-1.537	150	2031	248	160	738	-1.240	150	2081	055	059	215	232

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
150	20822	122	052	113	313	150	3034	427	038	291	587	150	3084	103	050	126	251
150	20823	307	085	050	659	150	3035	403	039	240	571	150	3085	063	051	231	293
150	20824	061	088	515	332	150	3036	235	039	124	434	150	3086	015	082	348	216
150	20825	010	102	521	526	150	3037	175	056	065	330	150	3087	040	072	399	179
150	20826	016	067	290	347	150	3038	142	068	137	356	150	3088	035	079	419	259
150	20827	003	072	405	204	150	3039	083	114	565	240	150	3089	025	071	307	218
150	20828	150	077	153	523	150	3040	050	072	226	315	150	3090	108	037	044	242
150	20829	109	098	514	420	150	3041	035	075	266	269	150	3091	163	039	011	318
150	20830	064	098	160	229	150	3042	035	084	266	396	150	3092	103	048	093	254
150	20831	036	061	486	112	150	3043	006	129	478	766	150	3093	101	048	072	236
150	20832	080	098	368	462	150	3044	199	202	326	999	150	3094	025	067	420	193
150	20833	083	068	230	547	150	3045	388	039	286	577	150	3095	015	076	632	154
150	20834	049	068	388	348	150	3046	410	038	228	603	150	3096	050	073	666	104
150	20835	068	081	305	431	150	3047	302	040	171	455	150	3097	030	074	366	398
150	20836	154	127	438	462	150	3048	173	052	405	330	150	4001	491	096	145	253
150	20837	033	062	394	275	150	3049	138	063	113	332	150	4002	429	087	145	986
150	20838	006	062	317	167	150	3050	043	106	514	241	150	4003	430	073	166	825
150	20839	044	062	343	296	150	3051	075	066	207	263	150	4004	388	071	154	687
150	20840	486	070	250	743	150	3052	049	068	203	255	150	4005	520	057	230	817
150	30001	344	081	034	640	150	3053	036	073	433	74	150	4006	608	099	312	070
150	30002	340	081	034	640	150	3054	029	106	514	241	150	4007	608	117	269	107
150	30003	692	227	096	444	150	3055	266	039	206	554	150	4008	655	108	332	215
150	30004	722	224	100	672	150	3056	266	039	433	666	150	4009	472	076	264	725
150	30005	779	187	059	476	150	3057	390	039	270	547	150	4010	500	083	255	860
150	30006	426	057	244	638	150	3058	391	039	194	554	150	4011	500	083	255	742
150	30007	390	056	208	636	150	3059	334	038	194	482	150	4012	465	058	288	590
150	30008	307	050	105	472	150	3060	205	047	028	348	150	4013	396	054	232	666
150	30009	196	068	087	443	150	3061	157	056	125	335	150	4014	455	062	257	595
150	30010	504	230	200	348	150	3062	010	055	674	232	150	4015	384	056	174	595
150	30011	079	146	589	470	150	3063	126	059	144	291	150	4016	360	064	125	587
150	30012	168	186	740	689	150	3064	090	061	204	284	150	4017	397	049	256	606
150	30013	187	186	782	600	150	3065	063	065	254	257	150	4018	414	044	199	592
150	30014	209	187	782	600	150	3066	063	065	339	385	150	4019	364	042	214	529
150	30015	046	151	618	534	150	3067	032	083	446	849	150	4020	421	045	257	575
150	30016	025	193	718	900	150	3068	210	054	181	710	150	4021	359	043	198	519
150	30017	428	051	253	781	150	3069	432	055	226	718	150	4022	397	044	260	590
150	30018	411	050	240	684	150	3070	418	032	174	409	150	4023	508	049	177	565
150	30019	309	048	128	526	150	3071	283	033	068	341	150	4024	508	097	261	927
150	30020	204	089	097	499	150	3072	226	036	014	327	150	4025	501	078	000	870
150	30021	262	172	250	037	150	3073	200	058	236	240	150	4026	445	063	268	730
150	30022	068	218	781	601	150	3074	079	042	079	266	150	4027	453	051	304	772
150	30023	026	128	691	449	150	3075	128	045	045	272	150	4028	433	048	295	677
150	30024	128	167	704	295	150	3076	137	046	070	245	150	4029	444	041	292	623
150	30025	013	175	628	838	150	3077	112	052	133	275	150	4030	413	040	247	596
150	30026	017	141	680	541	150	3078	082	118	210	733	150	4031	428	040	278	597
150	30027	017	141	680	541	150	3079	082	055	070	365	150	4032	407	041	269	581
150	30028	123	189	861	531	150	3080	240	088	357	223	150	4033	432	041	292	648
150	30029	142	036	666	537	150	3081	020	088	488	351	150	4034	401	043	265	633
150	30030	052	117	357	636	150	3082	025	041	055	372	150	4035	478	089	009	968
150	30031	038	126	443	622	150	3083	229	038	024	285	150	4036	429	073	125	768
150	30032	078	122	478	664	150	3084	173	035	034	288	150	4037	429	063	125	790
150	30033	087	185	474	840	150	3085	164	035	034	288	150	4038	429	063	125	790

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
150	4038	.409	.052	.218	.769	150	9006	.349	.170	.132	-.213	160	1010	.539	.124	.279	-.484
150	4039	.429	.044	.309	.652	150	9007	.149	.112	.281	-.518	160	1011	.478	.078	.258	-.735
150	4040	.398	.038	.276	.555	150	9008	.523	.104	.203	-.906	160	1012	.533	.086	.290	-.904
150	4041	.432	.039	.210	.597	150	9009	.093	.053	.169	-.287	160	1013	.789	.150	.382	-.419
150	4042	.404	.038	.291	.555	150	9010	.365	.042	.237	-.536	160	1014	.681	.119	.300	-.066
150	4043	.411	.037	.299	.555	150	9011	.093	.053	.169	-.287	160	1015	.713	.133	.287	-.289
150	4044	.386	.035	.271	.555	150	9012	.043	.064	.258	-.252	160	1016	.615	.099	.322	-.141
150	4045	.419	.036	.295	.555	150	9013	.469	.043	.263	-.583	160	1017	.676	.115	.314	-.278
150	4046	.433	.076	.209	.555	150	9014	.655	.459	.679	-.1	160	1018	.582	.117	.275	-.177
150	4047	.439	.059	.226	.555	150	9015	.028	.050	.182	-.246	160	1019	.658	.125	.330	-.170
150	4048	.401	.054	.226	.555	150	9016	.409	.042	.253	-.631	160	1020	.743	.171	.299	-.560
150	4049	.403	.037	.269	.555	150	9017	.034	.152	.508	-.506	160	1021	.571	.091	.266	-.333
150	4050	.434	.041	.305	.555	150	9018	.089	.087	.505	-.132	160	1022	.704	.105	.425	-.305
150	4051	.384	.036	.278	.555	150	9019	.006	.055	.280	-.597	160	1023	.697	.100	.430	-.204
150	4052	.395	.036	.273	.555	150	9020	.398	.045	.280	-.597	160	1024	.676	.098	.357	-.207
150	4053	.382	.036	.279	.555	150	9021	.057	.094	.568	-.208	160	1025	.711	.101	.397	-.066
150	4054	.412	.037	.297	.555	150	9022	.034	.085	.458	-.226	160	1026	.701	.109	.378	-.092
150	4055	.374	.035	.332	.555	150	9023	.367	.141	.017	.840	160	1027	.610	.091	.324	-.962
150	4056	.394	.036	.291	.555	150	9024	.126	.133	.801	-.526	160	1028	.614	.097	.275	-.935
150	4057	.453	.071	.240	.555	150	9025	.222	.113	.465	-.506	160	1029	.674	.103	.347	-.076
150	4058	.477	.070	.272	.555	150	9026	.410	.053	.198	-.613	160	1030	.606	.100	.245	-.011
150	4060	.421	.047	.278	.555	150	9027	.060	.083	.612	-.883	160	1031	.544	.099	.202	-.944
150	4061	.427	.043	.278	.555	150	9028	.335	.062	.061	-.580	160	1032	.467	.091	.120	-.845
150	4062	.405	.041	.295	.555	150	9029	.353	.063	.143	-.662	160	1033	.726	.128	.456	-.764
150	4063	.436	.039	.316	.555	150	9030	.217	.041	.073	-.371	160	1034	.709	.116	.261	-.621
150	4064	.405	.039	.260	.555	150	9031	.229	.049	.027	-.484	160	1035	.685	.108	.357	-.234
150	4065	.425	.042	.278	.555	150	9032	.204	.034	.082	-.349	160	1036	.684	.123	.251	-.449
150	4066	.402	.041	.271	.555	150	9033	.188	.047	.001	-.340	160	1037	.713	.141	.273	-.488
150	4067	.431	.042	.205	.555	150	9034	.227	.043	.073	-.435	160	1038	.643	.115	.232	-.102
150	4068	.435	.075	.207	.555	150	9035	.180	.039	.024	-.321	160	1039	.644	.111	.115	-.033
150	4069	.395	.067	.183	.555	150	9036	.170	.040	.009	-.292	160	1040	.669	.135	.058	-.199
150	4070	.330	.046	.188	.555	150	9037	.209	.041	.078	-.405	160	1041	.655	.133	.139	-.109
150	4071	.371	.042	.239	.555	150	9038	.262	.037	.161	-.414	160	1042	.555	.129	.115	-.118
150	4072	.351	.044	.221	.555	150	9039	.133	.042	.060	-.250	160	1043	.468	.105	.072	-.853
150	4073	.402	.050	.255	.555	150	9040	.125	.049	.115	-.259	160	1044	.706	.134	.386	-.638
150	4074	.379	.044	.096	.555	150	9041	.173	.036	.017	-.301	160	1045	.727	.131	.263	-.820
150	4075	.442	.045	.235	.555	150	9042	.069	.107	.554	-.322	160	1046	.679	.120	.316	-.405
150	4076	.381	.047	.223	.555	150	9043	.127	.045	.118	-.266	160	1047	.684	.143	.331	-.600
150	4077	.407	.048	.254	.555	150	9044	.060	.103	.567	-.349	160	1048	.674	.172	.153	-.664
150	4078	.411	.054	.234	.555	150	9045	.371	.051	.214	-.594	160	1049	.628	.127	.225	-.319
150	4079	.350	.068	.180	.555	150	9046	.777	.049	.248	-.640	160	1050	.579	.124	.089	-.141
150	4080	.286	.043	.133	.555	150	9047	.767	.162	.364	-.469	160	1051	.636	.159	.137	-.351
150	4081	.123	.037	.134	.555	150	9048	.681	.137	.248	-.250	160	1052	.584	.150	.015	-.111
150	4082	.133	.028	.004	.555	150	9049	.604	.139	.034	-.217	160	1053	.520	.137	.066	-.129
150	4083	.121	.030	.041	.555	150	9050	.540	.113	.169	-.982	160	1054	.474	.101	.112	-.903
150	9001	.306	.076	.091	.555	150	9051	.505	.096	.207	-.886	160	1055	.748	.144	.377	-.722
150	9002	.322	.082	.089	.555	150	9052	.480	.113	.084	-.985	160	1056	.748	.139	.267	-.640
150	9003	.430	.116	.124	.555	150	9053	.917	.201	.395	-.793	160	1057	.729	.135	.278	-.455
150	9004	.486	.163	.168	.555	150	9054	.519	.100	.089	-.847	160	1058	.698	.143	.250	-.514
150	9005	.622	.234	.016	.555	150	9055	.557	.113	.269	-.998	160	1059	.686	.163	.130	-.697

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
160	1060	600	132	187	-1.318	160	2015	193	183	926	-322	160	2065	147	115	582	-085
160	1061	570	117	149	-1.109	160	2016	256	170	828	-442	160	2066	080	083	450	-109
160	1062	585	145	015	-1.178	160	2017	242	144	727	-274	160	2067	043	076	381	-135
160	1063	549	139	034	-1.143	160	2018	087	159	387	-696	160	2068	025	077	479	-168
160	1064	467	119	040	-1.876	160	2019	070	094	282	-374	160	2069	108	108	815	-143
160	1065	461	090	154	-1.909	160	2020	317	077	014	-568	160	2070	089	108	243	-266
160	1066	885	193	383	-1.699	160	2021	075	142	575	-484	160	2071	179	043	018	-326
160	1067	882	213	331	-1.794	160	2022	144	136	641	-253	160	2072	466	070	214	-869
160	1068	835	178	373	-1.498	160	2023	206	141	841	-191	160	2073	127	093	576	-102
160	1069	577	136	245	-1.228	160	2024	221	138	841	-215	160	2074	143	098	656	-143
160	1070	460	112	170	-1.082	160	2025	199	138	810	-213	160	2075	148	126	650	-329
160	1071	473	089	286	-1.959	160	2026	263	174	945	-326	160	2076	133	104	580	-114
160	1072	373	094	094	-1.835	160	2027	339	195	927	-268	160	2077	086	089	503	-115
160	1073	347	152	152	-1.045	160	2028	097	144	554	-424	160	2078	021	081	413	-177
160	1074	309	080	060	-1.670	160	2029	025	101	380	-354	160	2079	056	088	653	-142
160	1075	277	064	015	-1.760	160	2030	311	068	058	-592	160	2080	107	111	530	-133
160	1076	312	058	040	-1.591	160	2031	349	167	831	-131	160	2081	107	059	161	-306
160	1077	261	109	070	-1.773	160	2032	411	169	894	-059	160	2082	178	049	051	-353
160	1078	321	107	027	-1.839	160	2033	306	160	786	-176	160	2083	379	072	134	-679
160	1079	447	141	100	-1.022	160	2034	280	130	677	-172	160	2084	115	087	476	-210
160	1080	465	204	018	-1.356	160	2035	244	120	628	-103	160	2085	014	094	463	-438
160	1081	477	176	006	-1.302	160	2036	233	111	625	-123	160	2086	035	066	314	-264
160	1082	321	166	432	-1.075	160	2037	208	122	674	-161	160	2087	002	074	434	-264
160	1083	317	092	240	-1.779	160	2038	315	173	927	-166	160	2088	220	065	017	-536
160	1084	205	084	027	-1.601	160	2039	086	140	582	-528	160	2089	190	066	121	-479
160	1085	240	088	108	-1.701	160	2040	357	176	887	-121	160	2090	156	104	573	-114
160	1086	321	093	014	-1.776	160	2041	404	171	960	-225	160	2091	067	067	478	-157
160	1088	390	112	122	-1.865	160	2042	312	172	934	-299	160	2092	172	099	317	-612
160	1089	344	138	010	-1.149	160	2043	269	135	799	-090	160	2093	147	075	085	-616
160	1090	342	100	113	-1.009	160	2044	201	121	626	-155	160	2094	101	076	203	-438
160	1091	126	068	188	-1.484	160	2045	178	110	580	-159	160	2095	162	076	059	-547
160	1092	323	063	020	-1.583	160	2046	189	112	599	-142	160	2096	053	159	652	-405
160	1093	179	055	046	-1.390	160	2047	276	152	852	-106	160	2097	044	072	442	-231
160	1094	080	111	408	-1.353	160	2048	000	084	374	-334	160	2098	030	052	231	-209
160	1095	134	071	251	-1.420	160	2049	078	069	184	-354	160	2099	098	050	169	-321
160	1096	132	054	135	-1.298	160	2050	367	070	041	-750	160	3001	406	065	133	-663
160	2001	187	126	544	-1.277	160	2051	288	141	769	-072	160	3002	194	086	145	-486
160	2002	193	140	701	-1.301	160	2052	298	150	842	-029	160	3003	238	194	367	-1034
160	2003	004	147	536	-1.718	160	2053	258	166	852	-370	160	3005	379	183	175	-173
160	2004	141	096	271	-1.486	160	2054	216	126	794	-081	160	3006	520	190	118	-253
160	2005	317	073	022	-1.663	160	2055	136	103	584	-117	160	3007	402	052	226	-623
160	2006	203	159	787	-1.275	160	2056	101	099	561	-142	160	3008	364	051	207	-636
160	2007	192	208	875	-1.621	160	2057	122	101	601	-119	160	3009	232	058	002	-414
160	2008	437	227	481	-1.356	160	2058	222	139	787	-112	160	3010	084	085	205	-384
160	2009	239	204	330	-1.128	160	2059	050	075	325	-241	160	3011	212	167	348	-948
160	2010	341	099	029	-1.837	160	2060	143	061	163	-373	160	3012	183	142	712	-413
160	2011	202	163	794	-1.402	160	2061	426	079	146	-826	160	3013	247	159	856	-339
160	2012	121	147	738	-1.519	160	2062	233	121	703	-114	160	3014	223	157	895	-295
160	2013	222	152	620	-1.237	160	2063	262	126	799	-069	160	3015	086	162	665	-598
160	2014	230	169	822	-1.235	160	2064	169	161	692	-405	160	3016	136	174	719	-541

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
160	3017	.415	.043	.261	.638	160	3067	.423	.065	.185	.739	160	4021	.330	.040	.203	.496
160	3018	.392	.041	.266	.560	160	3068	.412	.069	.185	.798	160	4022	.375	.040	.240	.531
160	3019	.222	.051	.001	.466	160	3069	.246	.036	.106	.434	160	4023	.344	.044	.204	.505
160	3020	.056	.096	.373	.415	160	3070	.169	.036	.019	.313	160	4024	.469	.074	.217	.893
160	3021	.027	.155	.531	.672	160	3071	.133	.041	.063	.296	160	4025	.470	.060	.296	.743
160	3022	.234	.236	.987	.478	160	3072	.004	.064	.367	.188	160	4026	.425	.052	.281	.639
160	3023	.154	.178	.858	.392	160	3073	.056	.044	.156	.188	160	4027	.423	.042	.296	.579
160	3024	.182	.145	.894	.252	160	3074	.074	.045	.079	.208	160	4028	.395	.039	.264	.546
160	3025	.113	.146	.641	.650	160	3075	.048	.046	.105	.177	160	4029	.420	.039	.264	.546
160	3026	.092	.149	.669	.712	160	3076	.012	.050	.182	.216	160	4030	.367	.036	.266	.539
160	3027	.013	.131	.446	.525	160	3077	.050	.114	.312	.627	160	4031	.410	.036	.299	.529
160	3028	.257	.181	.109	.314	160	3078	.184	.051	.040	.316	160	4032	.386	.037	.264	.530
160	3029	.127	.138	.844	.297	160	3079	.110	.092	.558	.187	160	4033	.417	.038	.283	.565
160	3030	.087	.113	.525	.349	160	3080	.118	.086	.542	.244	160	4034	.387	.040	.252	.529
160	3031	.163	.108	.550	.300	160	3081	.196	.042	.004	.345	160	4035	.474	.077	.190	.869
160	3032	.162	.115	.545	.183	160	3082	.115	.042	.048	.249	160	4036	.422	.071	.201	.809
160	3033	.136	.164	.617	.621	160	3083	.107	.039	.057	.228	160	4037	.441	.060	.252	.754
160	3034	.419	.042	.265	.697	160	3084	.046	.049	.159	.183	160	4038	.401	.048	.239	.642
160	3035	.394	.041	.251	.642	160	3085	.005	.060	.251	.211	160	4039	.419	.044	.261	.577
160	3036	.235	.045	.069	.385	160	3086	.082	.076	.506	.116	160	4040	.395	.040	.254	.535
160	3037	.064	.071	.203	.270	160	3087	.101	.070	.411	.068	160	4041	.418	.040	.285	.567
160	3038	.020	.089	.292	.294	160	3088	.100	.072	.484	.155	160	4042	.389	.039	.285	.545
160	3039	.020	.131	.770	.164	160	3089	.030	.069	.308	.176	160	4043	.397	.039	.288	.606
160	3040	.086	.096	.415	.157	160	3090	.064	.038	.100	.165	160	4044	.371	.039	.244	.590
160	3041	.099	.097	.431	.151	160	3091	.122	.040	.076	.231	160	4045	.407	.041	.293	.591
160	3042	.104	.110	.605	.171	160	3092	.037	.053	.222	.153	160	4046	.447	.082	.183	.818
160	3043	.175	.127	.728	.325	160	3093	.026	.054	.193	.163	160	4047	.451	.071	.230	.766
160	3044	.129	.210	.847	.631	160	3094	.039	.068	.309	.147	160	4048	.394	.061	.213	.757
160	3045	.381	.047	.254	.664	160	3095	.063	.080	.445	.088	160	4049	.402	.041	.285	.577
160	3046	.398	.044	.258	.660	160	3096	.114	.076	.501	.062	160	4050	.433	.045	.296	.668
160	3047	.246	.046	.006	.415	160	3097	.101	.065	.383	.093	160	4051	.381	.040	.247	.563
160	3048	.084	.066	.232	.284	160	4001	.459	.091	.173	.872	160	4052	.403	.041	.282	.553
160	3049	.033	.078	.304	.281	160	4002	.388	.085	.126	.212	160	4053	.363	.041	.267	.530
160	3050	.128	.122	.803	.187	160	4003	.396	.072	.161	.730	160	4054	.412	.042	.267	.530
160	3051	.035	.089	.440	.188	160	4004	.410	.085	.084	.764	160	4055	.372	.041	.244	.555
160	3052	.055	.088	.473	.167	160	4005	.546	.098	.285	.954	160	4056	.385	.042	.240	.579
160	3053	.072	.095	.531	.386	160	4006	.636	.119	.266	.115	160	4057	.448	.083	.221	.818
160	3054	.114	.112	.553	.385	160	4007	.718	.126	.385	.331	160	4058	.460	.074	.242	.847
160	3055	.070	.199	.680	.621	160	4008	.746	.141	.364	.389	160	4060	.401	.050	.210	.642
160	3056	.379	.048	.223	.683	160	4009	.441	.067	.249	.666	160	4061	.421	.046	.248	.595
160	3057	.381	.049	.155	.712	160	4010	.449	.066	.254	.726	160	4062	.395	.044	.254	.569
160	3058	.285	.043	.097	.444	160	4011	.434	.049	.376	.622	160	4063	.426	.044	.278	.593
160	3059	.125	.060	.147	.283	160	4012	.353	.043	.208	.531	160	4064	.426	.044	.239	.571
160	3060	.065	.070	.250	.256	160	4013	.416	.056	.233	.745	160	4065	.419	.049	.264	.790
160	3061	.104	.110	.642	.141	160	4014	.339	.050	.153	.531	160	4066	.391	.046	.261	.658
160	3062	.015	.075	.232	.194	160	4015	.330	.063	.093	.615	160	4067	.423	.047	.280	.645
160	3063	.018	.076	.290	.167	160	4017	.352	.041	.182	.498	160	4068	.379	.081	.129	.818
160	3064	.045	.080	.334	.152	160	4018	.381	.039	.246	.549	160	4069	.349	.070	.137	.724
160	3065	.093	.095	.436	.180	160	4019	.333	.038	.200	.479	160	4070	.397	.050	.132	.476
160	3066	.046	.165	.624	.621	160	4020	.384	.039	.253	.544	160	4071	.354	.045	.172	.605

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
160	4022	338	048	181	551	170	12	126	039	070	248	170	1043	482	098	165	1.149
160	4073	354	081	210	602	170	13	110	047	173	252	170	1044	609	097	165	1.211
160	4074	346	058	020	558	170	14	153	034	009	293	170	1045	640	098	250	1.156
160	4075	430	055	280	697	170	15	121	124	641	303	170	1046	608	096	344	1.041
160	4076	362	053	207	590	170	16	099	054	212	266	170	1047	628	106	318	1.215
160	4077	402	061	231	747	170	17	094	105	517	270	170	1048	624	128	250	1.460
160	4078	400	064	193	736	170	18	342	068	065	642	170	1049	612	106	247	1.043
160	4079	365	089	170	799	170	19	343	070	110	629	170	1050	582	104	200	0.960
160	4080	268	047	119	440	170	1001	380	104	065	124	170	1051	615	125	157	1.433
160	4081	085	043	113	205	170	1002	571	121	244	149	170	1052	575	120	089	1.070
160	4082	111	032	012	257	170	1003	577	117	133	113	170	1053	537	117	107	1.056
160	4083	085	033	051	215	170	1004	503	093	183	933	170	1054	478	094	186	0.926
160	9001	327	106	094	985	170	1005	465	087	124	886	170	1055	676	111	406	1.284
160	9002	348	113	096	930	170	1006	426	098	133	885	170	1056	681	114	411	1.213
160	9003	503	145	144	130	170	1007	746	173	210	521	170	1057	691	115	344	1.242
160	9004	666	195	201	525	170	1008	523	087	290	874	170	1058	671	119	291	1.170
160	9005	844	204	248	642	170	1009	501	104	183	039	170	1059	679	144	179	1.325
160	9006	546	159	053	359	170	1010	457	074	230	985	170	1060	584	119	173	1.063
160	9007	211	107	258	611	170	1011	422	064	239	680	170	1061	565	110	186	0.997
160	9008	561	091	209	854	170	1012	463	068	285	762	170	1062	582	132	089	1.201
160	9009	149	048	111	313	170	1013	624	114	332	303	170	1063	548	128	096	1.041
160	9011	349	054	183	560	170	1014	610	093	260	959	170	1064	459	119	032	0.938
160	9012	094	071	232	267	170	1015	392	085	340	962	170	1065	452	097	143	0.872
160	9013	376	050	127	623	170	1016	341	083	208	806	170	1066	825	167	430	1.513
160	9014	909	266	208	733	170	1017	628	105	377	122	170	1067	856	183	316	1.789
160	9015	037	055	198	199	170	1018	506	111	197	069	170	1068	817	166	398	1.431
160	9016	390	049	248	607	170	1019	582	116	253	081	170	1069	620	142	250	1.418
160	9018	143	149	719	471	170	1020	642	141	325	565	170	1070	489	120	181	1.012
160	9019	062	086	491	140	170	1021	514	073	259	782	170	1071	473	097	234	0.905
160	9020	007	057	284	175	170	1022	610	078	352	933	170	1072	362	090	035	0.723
160	9021	376	047	235	573	170	1023	601	078	367	943	170	1073	363	141	158	0.855
160	9022	067	087	504	147	170	1024	595	078	336	873	170	1074	292	083	050	0.745
160	9023	040	077	450	259	170	1025	627	079	411	895	170	1075	247	059	017	0.511
160	9024	451	102	104	809	170	1026	618	086	344	955	170	1076	261	059	017	0.475
160	9025	668	124	238	263	170	1027	564	082	318	851	170	1077	322	101	012	0.839
160	9026	142	147	667	468	170	1028	367	085	200	909	170	1078	351	099	103	0.919
160	9027	075	118	451	542	170	1029	611	085	323	952	170	1079	523	129	144	1.072
160	9028	394	066	065	704	170	1030	565	085	273	899	170	1080	514	221	095	1.516
160	9029	123	087	437	231	170	1031	513	091	162	828	170	1081	498	195	041	1.378
170	1	294	059	114	646	170	1032	429	077	172	710	170	1082	315	181	189	1.270
170	2	302	063	094	579	170	1033	624	083	403	217	170	1083	293	095	103	0.908
170	3	212	040	071	462	170	1034	611	064	388	222	170	1084	234	080	032	0.633
170	4	209	053	014	472	170	1035	596	081	328	251	170	1085	286	082	000	0.782
170	5	178	035	023	338	170	1036	587	088	289	296	170	1086	344	088	077	0.771
170	6	165	044	088	330	170	1037	622	103	255	288	170	1088	378	115	087	0.902
170	7	201	043	045	387	170	1038	570	088	252	970	170	1089	336	127	051	1.185
170	8	157	039	015	293	170	1039	597	082	288	951	170	1090	312	096	047	0.908
170	9	159	039	020	302	170	1040	599	103	211	008	170	1091	101	071	167	0.373
170	10	195	040	046	382	170	1041	608	103	256	997	170	1092	289	064	075	0.581
170	11	253	038	130	452	170	1042	537	099	168	876	170	1093	153	055	095	0.338

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
170	1094	057	118	387	-339	170	2048	068	074	304	-273	170	2098	048	057	283	-237
170	1095	096	077	427	-371	170	2049	130	060	233	-301	170	2099	121	043	052	-299
170	1096	117	058	145	-383	170	2050	387	054	167	-552	170	3001	294	080	200	-610
170	2001	255	135	683	-143	170	2051	326	142	856	-205	170	3002	032	101	339	-417
170	2002	112	135	582	-367	170	2052	303	154	821	-116	170	3003	035	143	500	-781
170	2003	293	202	312	-986	170	2053	129	208	709	-659	170	3005	105	188	556	-867
170	2004	263	081	076	-546	170	2054	154	117	569	-234	170	3006	355	171	451	-026
170	2005	373	063	088	-601	170	2055	081	096	477	-179	170	3007	390	057	163	-652
170	2006	337	214	990	-370	170	2056	035	080	304	-182	170	3008	367	065	173	-983
170	2007	152	166	718	-346	170	2057	011	081	380	-172	170	3009	335	079	225	-438
170	2008	644	206	095	-419	170	2058	137	115	663	-187	170	3010	047	105	522	-300
170	2009	514	213	123	-412	170	2059	084	065	236	-281	170	3011	050	153	600	-341
170	2010	447	116	134	-988	170	2060	170	055	101	-409	170	3012	273	140	698	-221
170	2011	145	164	720	-650	170	2061	400	059	156	-682	170	3013	291	147	868	-266
170	2012	129	136	615	-458	170	2062	243	128	753	-197	170	3014	282	190	898	-203
170	2013	286	160	766	-360	170	2063	207	134	758	-239	170	3015	126	186	805	-676
170	2014	292	198	988	-293	170	2064	023	193	626	-844	170	3016	185	188	908	-490
170	2015	212	181	927	-336	170	2065	072	101	473	-340	170	3017	421	055	242	-814
170	2016	211	202	623	-674	170	2066	011	078	402	-174	170	3018	397	050	249	-674
170	2017	153	148	617	-414	170	2067	011	069	285	-195	170	3019	151	064	079	-351
170	2018	312	172	233	-150	170	2068	023	069	301	-219	170	3020	074	112	489	-219
170	2019	162	079	144	-475	170	2069	059	051	600	-192	170	3021	170	147	723	-315
170	2020	360	062	117	-564	170	2070	122	096	139	-264	170	3022	365	191	962	-186
170	2021	053	151	607	-574	170	2071	204	042	000	-340	170	3023	177	163	870	-298
170	2022	094	154	605	-435	170	2072	464	051	296	-731	170	3024	238	178	945	-262
170	2023	184	153	694	-285	170	2073	153	093	544	-076	170	3025	120	131	641	-364
170	2024	229	162	785	-258	170	2074	143	104	576	-096	170	3026	080	128	633	-629
170	2025	224	166	768	-255	170	2075	065	133	586	-462	170	3027	174	137	630	-323
170	2026	090	171	802	-480	170	2076	070	105	429	-486	170	3028	361	181	957	-158
170	2027	085	220	942	-521	170	2077	025	077	338	-248	170	3029	235	146	820	-137
170	2028	125	162	357	-759	170	2078	039	072	291	-267	170	3030	210	120	577	-352
170	2029	167	095	168	-536	170	2079	007	072	405	-239	170	3031	266	122	635	-084
170	2030	362	062	121	-582	170	2080	049	109	605	-183	170	3032	258	132	648	-112
170	2031	400	159	858	-147	170	2081	154	047	091	-298	170	3033	323	152	797	-181
170	2032	379	149	795	-119	170	2082	218	040	020	-370	170	3034	406	054	249	-818
170	2033	153	156	597	-441	170	2083	396	062	197	-623	170	3035	387	056	239	-879
170	2034	209	107	564	-173	170	2084	123	097	597	-131	170	3036	177	056	069	-425
170	2035	134	108	446	-362	170	2085	045	101	387	-491	170	3037	022	084	334	-265
170	2036	093	108	437	-445	170	2086	045	060	218	-325	170	3038	094	101	471	-188
170	2037	055	126	613	-496	170	2087	022	060	280	-200	170	3039	294	144	919	-076
170	2038	230	189	963	-459	170	2088	271	062	073	-560	170	3040	190	108	546	-075
170	2039	089	127	373	-543	170	2089	245	065	048	-530	170	3041	202	109	597	-065
170	2040	352	156	924	-090	170	2090	160	107	605	-177	170	3042	230	124	659	-087
170	2041	322	153	916	-115	170	2091	083	079	478	-154	170	3043	303	141	784	-063
170	2042	106	194	785	-507	170	2092	187	098	184	-706	170	3044	344	173	904	-351
170	2043	152	112	674	-317	170	2093	163	066	031	-582	170	3045	380	067	164	-896
170	2044	075	096	415	-170	170	2094	191	080	221	-517	170	3046	390	068	213	-973
170	2045	061	087	365	-161	170	2095	191	073	016	-637	170	3047	188	056	051	-438
170	2046	071	088	377	-159	170	2096	052	180	795	-484	170	3048	004	078	323	-207
170	2047	159	117	674	-122	170	2097	058	079	545	-207	170	3049	065	090	436	-161

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
170	3050	218	133	788	121	170	4003	411	077	188	759	170	4054	405	063	236	906
170	3051	140	100	691	094	170	4004	466	095	193	859	170	4055	365	060	184	738
170	3052	153	039	643	082	170	4005	595	104	268	021	170	4056	399	060	149	760
170	3053	174	106	672	073	170	4006	597	109	284	995	170	4057	433	105	107	913
170	3054	221	116	649	080	170	4007	697	136	311	340	170	4058	449	089	161	947
170	3055	262	152	795	291	170	4008	845	137	460	364	170	4060	409	070	181	767
170	3056	382	070	135	840	170	4009	384	051	241	586	170	4061	433	077	209	103
170	3057	382	076	221	010	170	4010	410	051	268	638	170	4062	407	077	214	963
170	3058	239	054	013	569	170	4011	423	048	267	614	170	4063	434	074	221	947
170	3059	054	067	295	236	170	4012	342	049	179	527	170	4064	393	075	189	027
170	3060	011	076	365	174	170	4013	424	068	245	995	170	4065	446	082	270	953
170	3061	171	113	661	086	170	4014	322	055	125	573	170	4066	408	071	238	796
170	3062	062	088	507	146	170	4015	266	073	028	552	170	4067	437	071	254	758
170	3063	086	088	569	125	170	4017	333	044	193	492	170	4068	396	079	042	683
170	3064	112	094	616	102	170	4018	366	045	210	628	170	4069	388	065	033	582
170	3065	161	107	716	102	170	4019	320	044	172	497	170	4070	320	054	048	477
170	3066	165	136	651	458	170	4020	369	045	230	546	170	4071	333	061	066	625
170	3067	387	091	014	793	170	4021	322	047	182	525	170	4072	308	067	087	619
170	3068	430	112	107	149	170	4022	373	046	225	546	170	4073	240	160	431	580
170	3069	215	045	057	473	170	4023	336	049	176	593	170	4074	282	101	169	588
170	3070	124	038	057	273	170	4024	419	056	238	658	170	4075	430	074	188	869
170	3071	086	042	126	226	170	4025	435	050	270	650	170	4076	352	069	071	737
170	3072	037	069	495	150	170	4026	400	049	250	704	170	4077	412	079	110	872
170	3073	022	045	166	154	170	4027	420	045	286	618	170	4078	426	100	162	957
170	3074	022	047	180	159	170	4028	388	044	246	556	170	4079	324	089	115	760
170	3075	003	047	194	135	170	4029	418	046	262	583	170	4080	225	050	087	399
170	3076	040	054	280	140	170	4030	383	045	228	528	170	4081	066	047	165	189
170	3077	049	086	443	330	170	4031	398	043	270	560	170	4082	106	036	010	235
170	3078	124	063	135	331	170	4032	372	045	240	564	170	4083	074	039	055	510
170	3079	123	089	778	168	170	4033	465	047	249	657	170	9001	311	111	061	023
170	3080	117	092	504	113	170	4034	376	048	213	599	170	9002	348	119	064	916
170	3081	149	051	093	322	170	4035	457	073	180	813	170	9003	522	146	180	230
170	3082	089	045	124	245	170	4036	413	071	149	804	170	9004	710	185	256	511
170	3083	073	044	115	255	170	4037	431	062	221	802	170	9005	868	173	333	671
170	3084	001	055	250	149	170	4038	389	051	242	843	170	9006	618	141	161	274
170	3085	046	064	313	177	170	4039	413	047	241	634	170	9007	310	098	129	648
170	3086	096	085	504	123	170	4040	386	045	235	572	170	9008	487	119	041	839
170	3087	120	078	498	071	170	4041	409	046	257	608	170	9009	189	040	009	346
170	3088	117	082	584	108	170	4042	379	045	231	344	170	9011	314	072	028	580
170	3089	059	074	371	146	170	4043	403	048	212	718	170	9012	140	058	145	226
170	3090	033	043	153	162	170	4044	374	049	196	616	170	9013	333	070	109	658
170	3091	084	055	226	216	170	4045	411	051	221	670	170	9014	879	196	119	227
170	3092	022	065	338	129	170	4046	444	090	173	328	170	9015	088	049	139	755
170	3093	005	057	317	123	170	4047	452	074	209	779	170	9016	358	063	136	687
170	3094	043	061	308	110	170	4048	468	077	143	850	170	9018	133	127	565	358
170	3095	078	071	501	094	170	4049	388	050	225	600	170	9019	016	080	356	196
170	3096	109	067	393	058	170	4050	411	051	259	606	170	9020	035	054	300	239
170	3097	116	080	460	074	170	4051	370	049	210	575	170	9021	358	069	067	635
170	4001	406	074	190	798	170	4052	393	055	228	686	170	9022	037	092	418	271
170	4002	350	066	147	660	170	4053	366	056	193	647	170	9023	016	075	351	244



APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
170	9024	490	.092	148	804	180	10226	542	.083	312	888	180	1076	233	.065	002	534
170	9025	618	.126	235	138	180	10227	518	.074	301	837	180	1077	310	.073	117	648
170	9026	086	.162	626	457	180	10228	514	.076	294	866	180	1078	357	.094	130	027
170	9027	061	.115	436	411	180	10229	553	.078	334	888	180	1079	502	.099	246	923
170	9028	350	.113	460	777	180	1030	510	.075	270	803	180	1080	488	.186	063	307
170	9029	084	.097	517	394	180	1031	454	.065	198	705	180	1081	468	.171	006	348
180	1	292	.053	122	567	180	1032	389	.056	205	610	180	1082	326	.165	319	353
180	2	301	.065	081	442	180	1033	543	.072	334	851	180	1083	254	.077	061	682
180	3	237	.044	113	447	180	1034	524	.072	322	851	180	1084	249	.072	065	698
180	4	185	.048	049	355	180	1035	545	.074	330	843	180	1085	304	.075	073	680
180	5	171	.032	075	222	180	1036	530	.076	314	827	180	1086	347	.092	158	941
180	6	159	.041	027	666	180	1037	566	.085	324	980	180	1088	366	.107	139	997
180	7	190	.041	053	666	180	1038	529	.080	296	924	180	1089	348	.141	077	414
180	8	147	.038	002	222	180	1039	549	.082	306	884	180	1090	264	.068	068	806
180	9	155	.035	001	666	180	1040	540	.088	298	955	180	1091	110	.059	119	581
180	10	205	.048	044	460	180	1041	564	.089	298	966	180	1092	266	.063	004	575
180	11	259	.041	134	519	180	1042	513	.088	256	954	180	1093	162	.057	119	755
180	12	119	.036	031	222	180	1043	483	.092	130	858	180	1094	109	.117	396	811
180	13	107	.042	072	240	180	1044	544	.095	281	994	180	1095	097	.065	303	881
180	14	150	.037	028	339	180	1045	578	.098	311	1034	180	1096	119	.061	128	166
180	15	087	.124	732	312	180	1046	550	.097	288	017	180	2001	222	.136	699	701
180	16	049	.074	361	222	180	1047	574	.099	260	138	180	2002	027	.125	435	733
180	17	080	.107	613	199	180	1048	570	.116	260	195	180	2003	613	.190	071	668
180	18	283	.086	017	888	180	1049	571	.102	278	029	180	2004	373	.075	057	626
180	19	276	.065	051	771	180	1050	545	.100	241	959	180	2005	423	.064	209	747
180	1001	515	.091	244	554	180	1051	563	.118	255	184	180	2006	412	.240	089	966
180	1002	481	.103	144	655	180	1052	530	.116	082	072	180	2007	159	.148	625	397
180	1003	525	.103	158	999	180	1053	518	.115	041	055	180	2008	706	.178	045	429
180	1004	495	.085	111	799	180	1054	485	.100	137	839	180	2009	713	.187	190	598
180	1005	440	.082	211	979	180	1055	608	.119	322	666	180	2010	531	.137	200	188
180	1006	367	.082	153	988	180	1056	606	.123	314	286	180	2011	091	.196	470	103
180	1007	644	.142	299	377	180	1057	629	.122	342	199	180	2012	008	.154	471	922
180	1008	456	.081	196	774	180	1058	616	.127	315	84	180	2013	200	.210	740	363
180	1009	438	.097	211	071	180	1059	659	.143	275	752	180	2014	297	.254	936	595
180	1010	432	.064	166	703	180	1060	555	.117	226	09	180	2015	273	.206	856	409
180	1011	384	.058	155	119	180	1061	554	.112	244	01	180	2016	161	.196	819	79
180	1012	422	.056	276	119	180	1062	572	.129	193	86	180	2017	088	.133	491	427
180	1013	540	.092	280	440	180	1063	520	.121	117	956	180	2018	603	.239	041	746
180	1014	542	.084	324	711	180	1064	421	.116	009	881	180	2019	240	.059	016	488
180	1015	537	.081	326	989	180	1065	405	.102	026	844	180	2020	382	.055	166	999
180	1016	470	.078	234	833	180	1066	722	.145	357	1	180	2021	024	.138	653	731
180	1017	571	.119	264	750	180	1066	722	.175	273	568	180	2022	004	.179	718	889
180	1018	414	.091	119	555	180	1066	704	.156	294	406	180	2023	079	.162	717	884
180	1019	482	.090	226	944	180	1069	555	.124	219	176	180	2024	141	.171	806	19
180	1020	531	.090	289	994	180	1070	433	.104	164	281	180	2025	161	.180	826	33
180	1021	465	.067	251	729	180	1071	445	.088	229	791	180	2026	043	.146	882	44
180	1022	544	.081	319	666	180	1072	349	.087	074	225	180	2027	076	.198	132	12
180	1023	547	.082	347	855	180	1073	380	.120	085	975	180	2028	286	.165	635	76
180	1024	526	.078	288	761	180	1074	288	.087	066	919	180	2029	272	.087	093	33
180	1025	558	.080	316	836	180	1075	239	.068	101	607	180	2030	394	.067	190	46

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
180	2031	327	175	914	193	180	2081	195	047	056	357	180	3033	399	162	882	062
180	2032	236	153	796	205	180	2082	250	043	055	445	180	3034	423	093	134	090
180	2033	152	198	549	888	180	2083	388	061	061	675	180	3035	459	125	165	208
180	2034	066	118	499	501	180	2084	048	096	523	310	180	3036	111	081	188	550
180	2035	016	111	335	789	180	2085	140	123	224	571	180	3037	134	116	522	218
180	2036	033	096	327	516	180	2086	097	060	160	348	180	3038	204	122	722	134
180	2037	067	107	456	687	180	2087	070	060	252	237	180	3039	375	155	901	063
180	2038	093	173	826	454	180	2088	289	055	057	517	180	3040	294	131	796	036
180	2039	211	121	203	659	180	2089	246	052	086	508	180	3041	299	130	782	032
180	2040	291	163	843	322	180	2090	140	115	599	228	180	3042	340	149	812	062
180	2041	191	155	744	333	180	2091	056	088	616	215	180	3043	397	162	898	058
180	2042	187	224	516	812	180	2092	219	106	203	750	180	3044	408	169	932	164
180	2043	004	153	430	862	180	2093	176	057	026	669	180	3045	420	117	113	009
180	2044	031	077	312	361	180	2094	107	069	257	461	180	3046	437	144	157	382
180	2045	043	069	274	306	180	2095	199	062	038	579	180	3047	146	082	161	474
180	2046	030	070	325	250	180	2096	135	142	431	476	180	3048	079	103	498	215
180	2047	074	105	538	255	180	2097	031	088	419	419	180	3049	148	116	604	140
180	2048	153	061	067	363	180	2098	074	068	257	333	180	3050	287	141	776	118
180	2049	199	050	010	335	180	2099	146	038	008	292	180	3051	233	122	650	105
180	2050	388	052	202	577	180	3001	152	098	218	472	180	3052	236	119	609	091
180	2051	265	166	848	442	180	3002	096	116	500	272	180	3053	258	125	664	079
180	2052	141	152	699	335	180	3003	187	144	701	320	180	3054	305	138	895	013
180	2053	212	239	564	947	180	3005	129	178	666	597	180	3055	329	154	980	225
180	2054	020	145	473	985	180	3006	114	265	746	033	180	3056	444	112	162	058
180	2055	043	081	346	455	180	3007	366	078	095	657	180	3057	471	149	208	437
180	2056	086	068	196	327	180	3008	451	132	178	269	180	3058	212	072	044	714
180	2057	064	070	245	272	180	3009	043	096	350	391	180	3059	005	082	439	228
180	2058	053	106	496	288	180	3010	157	124	673	220	180	3060	070	091	607	162
180	2059	158	057	194	337	180	3011	205	150	751	352	180	3061	200	119	982	095
180	2060	218	049	214	404	180	3012	303	148	770	163	180	3062	146	104	634	095
180	2061	403	063	011	730	180	3013	197	146	728	269	180	3063	159	103	629	076
180	2062	188	145	715	401	180	3014	315	216	922	361	180	3064	181	108	649	086
180	2063	088	138	630	279	180	3015	229	200	947	340	180	3065	222	118	677	077
180	2064	203	208	482	008	180	3016	283	214	969	428	180	3066	228	127	774	167
180	2065	053	126	391	756	180	3017	454	086	165	944	180	3067	289	111	052	772
180	2066	070	073	269	419	180	3018	447	110	206	099	180	3068	488	149	016	147
180	2067	092	065	218	329	180	3019	082	084	239	373	180	3069	180	059	078	418
180	2068	104	060	245	307	180	3020	184	124	706	164	180	3070	086	043	075	260
180	2069	014	089	504	236	180	3021	303	149	819	192	180	3071	053	045	127	283
180	2070	181	049	045	340	180	3022	416	180	996	183	180	3072	055	067	398	157
180	2071	238	043	074	413	180	3023	139	141	904	247	180	3073	006	046	197	163
180	2072	461	069	214	764	180	3024	181	176	841	242	180	3074	001	046	186	162
180	2073	150	095	623	166	180	3025	100	151	662	268	180	3075	022	047	214	155
180	2074	098	096	538	216	180	3026	036	117	503	491	180	3076	053	056	274	169
180	2075	107	177	600	777	180	3027	290	149	796	132	180	3077	080	082	464	281
180	2076	043	119	516	578	180	3028	394	175	988	069	180	3078	086	063	157	292
180	2077	058	073	437	316	180	3029	307	152	919	079	180	3079	097	078	458	250
180	2078	122	066	369	342	180	3030	299	137	868	097	180	3080	089	092	509	150
180	2079	086	066	370	305	180	3031	347	140	866	084	180	3081	083	068	201	270
180	2080	005	109	568	250	180	3032	336	152	806	103	180	3082	066	049	147	238

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
180	33083	.036	.049	.171	.206	180	4037	.422	.075	.150	.881	180	9005	.780	.174	.322	.174
180	33084	.032	.055	.299	.138	180	4038	.378	.066	.146	.712	180	9006	.586	.131	.193	.193
180	33085	.068	.062	.442	.130	180	4039	.404	.067	.213	.848	180	9007	.400	.078	.044	.646
180	33086	.070	.074	.544	.135	180	4040	.373	.069	.182	.875	180	9008	.396	.146	.035	.879
180	33087	.098	.070	.497	.164	180	4041	.401	.067	.198	.855	180	9009	.210	.039	.017	.556
180	33088	.055	.078	.470	.091	180	4042	.366	.063	.180	.798	180	9011	.226	.065	.025	.517
180	33089	.055	.074	.365	.136	180	4043	.406	.079	.174	.111	180	9012	.196	.054	.121	.380
180	33090	.014	.045	.193	.163	180	4044	.370	.075	.143	.836	180	9013	.301	.077	.022	.663
180	33091	.024	.079	.332	.155	180	4045	.404	.076	.175	.978	180	9014	.861	.158	.185	.495
180	33092	.071	.075	.414	.112	180	4046	.436	.100	.132	.043	180	9015	.157	.047	.048	.303
180	33093	.074	.075	.409	.112	180	4047	.448	.092	.177	.066	180	9016	.336	.079	.052	.634
180	33094	.077	.064	.349	.109	180	4048	.396	.095	.072	.897	180	9018	.132	.134	.680	.402
180	33095	.079	.077	.456	.104	180	4049	.386	.070	.096	.066	180	9019	.063	.071	.198	.141
180	33096	.094	.070	.502	.141	180	4050	.419	.081	.070	.865	180	9020	.086	.054	.160	.588
180	33097	.079	.073	.561	.151	180	4051	.391	.087	.133	.970	180	9021	.318	.079	.062	.622
180	4001	.385	.071	.175	.942	180	4052	.406	.081	.177	.872	180	9022	.067	.095	.263	.770
180	4002	.356	.073	.165	.967	180	4053	.366	.074	.151	.844	180	9023	.066	.074	.203	.323
180	4003	.443	.089	.171	.916	180	4054	.421	.104	.173	.574	180	9024	.422	.094	.112	.757
180	4004	.497	.108	.161	.960	180	4055	.374	.086	.138	.925	180	9025	.654	.153	.096	.205
180	4005	.555	.097	.208	.109	180	4056	.404	.084	.069	.956	180	9026	.003	.140	.771	.454
180	4006	.555	.097	.208	.949	180	4057	.374	.103	.050	.157	180	9027	.005	.113	.374	.396
180	4007	.361	.141	.149	.079	180	4058	.404	.091	.034	.845	180	9028	.222	.141	.291	.879
180	4008	.386	.149	.147	.444	180	4060	.418	.099	.032	.939	180	9029	.005	.124	.472	.686
180	4009	.336	.058	.214	.541	180	4061	.463	.101	.185	.533	190	1	.279	.045	.150	.044
180	4010	.333	.050	.234	.576	180	4062	.433	.095	.117	.193	190	2	.291	.053	.140	.555
180	4011	.418	.061	.242	.782	180	4063	.457	.088	.147	.120	190	3	.253	.041	.127	.482
180	4012	.334	.058	.149	.644	180	4064	.415	.089	.162	.147	190	4	.182	.041	.046	.371
180	4013	.443	.090	.183	.881	180	4065	.480	.120	.221	.808	190	5	.168	.028	.068	.297
180	4014	.324	.062	.128	.579	180	4066	.434	.098	.210	.338	190	6	.154	.037	.009	.297
180	4015	.212	.074	.046	.498	180	4067	.461	.095	.219	.027	190	7	.186	.037	.054	.304
180	4017	.322	.058	.145	.615	180	4068	.222	.065	.013	.592	190	8	.142	.035	.013	.299
180	4018	.363	.065	.155	.954	180	4069	.217	.059	.020	.517	190	9	.151	.032	.012	.256
180	4019	.345	.060	.109	.644	180	4070	.195	.059	.009	.479	190	10	.205	.048	.018	.395
180	4020	.364	.060	.156	.624	180	4071	.265	.066	.051	.600	190	11	.255	.041	.054	.433
180	4021	.317	.065	.107	.654	180	4072	.254	.071	.031	.770	190	12	.116	.034	.034	.332
180	4022	.371	.065	.176	.654	180	4073	.083	.179	.560	.934	190	13	.105	.031	.072	.222
180	4023	.357	.085	.133	.795	180	4074	.195	.119	.316	.861	190	14	.147	.032	.031	.293
180	4024	.396	.051	.202	.619	180	4075	.431	.100	.150	.894	190	15	.091	.120	.541	.216
180	4025	.427	.053	.237	.771	180	4076	.338	.084	.007	.675	190	16	.034	.071	.303	.277
180	4026	.402	.064	.193	.842	180	4077	.388	.106	.094	.774	190	17	.105	.108	.614	.200
180	4027	.415	.060	.256	.694	180	4078	.460	.137	.104	.258	190	18	.262	.106	.145	.799
180	4028	.382	.061	.195	.730	180	4079	.261	.067	.078	.566	190	19	.259	.060	.044	.557
180	4029	.413	.064	.229	.740	180	4080	.169	.050	.080	.391	190	1001	.417	.077	.145	.678
180	4030	.377	.062	.185	.696	180	4081	.054	.043	.174	.180	190	1002	.373	.081	.070	.735
180	4031	.402	.066	.200	.646	180	4082	.119	.037	.017	.249	190	1003	.452	.095	.154	.864
180	4032	.377	.062	.174	.717	180	4083	.094	.055	.080	.432	190	1004	.459	.096	.135	.855
180	4033	.383	.062	.201	.776	180	9001	.248	.082	.035	.761	190	1005	.395	.089	.150	.862
180	4034	.383	.064	.167	.709	180	9002	.305	.101	.025	.794	190	1006	.323	.071	.133	.731
180	4035	.448	.078	.132	.840	180	9003	.455	.119	.028	.946	190	1007	.515	.116	.238	.103
180	4036	.409	.080	.088	.828	180	9004	.648	.173	.178	.405	190	1008	.409	.073	.161	.714

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
190	1009	378	070	141	682	190	1059	550	130	222	-1	190	2014	190	287	948	666
190	1010	399	063	206	661	190	1060	450	107	154	-1	190	2015	257	263	044	655
190	1011	342	057	168	596	190	1061	472	103	189	-1	190	2016	082	186	688	422
190	1012	386	057	233	636	190	1062	481	117	191	-1	190	2017	048	110	321	654
190	1013	443	081	230	751	190	1063	479	116	078	-1	190	2018	819	263	084	661
190	1014	463	076	224	813	190	1064	394	107	012	-1	190	2019	287	061	075	669
190	1015	463	077	206	813	190	1065	378	097	202	-1	190	2020	374	057	197	610
190	1016	419	094	172	892	190	1066	610	135	226	-1	190	2021	039	127	737	775
190	1017	456	109	211	934	190	1067	602	138	237	-1	190	2022	141	152	480	828
190	1018	340	072	097	634	190	1068	571	132	242	-1	190	2023	059	138	624	556
190	1019	419	075	205	712	190	1069	481	112	196	-1	190	2024	006	139	684	417
190	1020	452	067	257	821	190	1070	378	094	141	-1	190	2025	058	158	811	888
190	1021	411	062	230	714	190	1071	396	085	194	-1	190	2026	145	111	426	667
190	1022	464	082	219	834	190	1072	328	081	186	-1	190	2027	216	168	552	888
190	1023	466	077	245	716	190	1073	375	097	087	-1	190	2028	428	177	027	653
190	1024	443	082	200	833	190	1074	293	084	239	-1	190	2029	340	072	107	622
190	1025	443	082	242	869	190	1075	241	068	002	-1	190	2030	390	062	186	619
190	1026	459	083	233	881	190	1076	224	066	053	-1	190	2031	169	168	508	288
190	1027	438	068	248	724	190	1077	347	083	169	-1	190	2032	047	126	513	367
190	1028	437	070	244	691	190	1078	357	092	147	-1	190	2033	443	265	331	422
190	1029	470	071	275	731	190	1079	305	100	222	-1	190	2034	120	126	232	885
190	1030	432	066	251	708	190	1080	521	150	070	-1	190	2035	172	121	198	810
190	1031	401	057	192	667	190	1081	405	119	026	-1	190	2036	155	110	135	722
190	1032	354	054	192	614	190	1082	331	107	064	-1	190	2037	183	110	177	800
190	1033	476	075	257	780	190	1083	236	056	443	-1	190	2038	071	165	578	444
190	1034	456	074	230	747	190	1084	270	060	081	-1	190	2039	319	114	113	821
190	1035	469	081	243	757	190	1085	308	065	150	-1	190	2040	073	223	734	877
190	1036	449	081	221	720	190	1086	339	076	174	-1	190	2041	015	137	474	475
190	1037	482	083	335	846	190	1088	365	090	145	-1	190	2042	488	170	193	987
190	1038	452	082	357	763	190	1089	353	116	115	-1	190	2043	284	231	220	009
190	1039	486	081	207	827	190	1090	244	050	075	-1	190	2044	190	132	082	866
190	1040	470	082	195	818	190	1091	127	052	098	-1	190	2045	182	106	046	801
190	1041	496	086	209	892	190	1092	243	054	091	-1	190	2046	162	092	060	714
190	1042	460	088	191	155	190	1093	173	057	222	-1	190	2047	078	142	489	770
190	1043	441	083	145	762	190	1094	163	093	309	-1	190	2048	220	060	028	567
190	1044	457	095	221	945	190	1095	097	069	273	-1	190	2049	250	049	074	001
190	1045	491	099	222	996	190	1096	123	061	110	-1	190	2050	383	059	196	665
190	1046	463	096	220	932	190	2001	164	123	622	-1	190	2051	076	226	670	885
190	1047	494	100	225	958	190	2002	099	100	321	-1	190	2052	032	131	463	470
190	1048	486	109	208	208	190	2003	784	172	249	-1	190	2053	475	197	213	336
190	1049	492	102	334	353	190	2004	447	087	202	-1	190	2054	244	212	180	060
190	1050	472	100	291	200	190	2005	426	070	190	-1	190	2055	169	118	099	825
190	1051	491	102	358	208	190	2006	410	260	251	1	190	2056	176	093	077	669
190	1052	458	101	128	208	190	2007	135	165	232	-1	190	2057	159	085	088	633
190	1053	455	100	125	905	190	2008	631	172	187	-1	190	2058	050	131	404	763
190	1054	434	101	121	905	190	2009	678	165	211	-1	190	2059	216	060	021	631
190	1055	510	105	199	955	190	2010	509	141	100	-1	190	2060	248	051	069	633
190	1056	499	108	216	968	190	2011	323	193	374	-1	190	2061	386	068	194	399
190	1057	525	109	250	045	190	2012	113	163	431	-1	190	2062	035	184	665	54
190	1058	512	113	215	116	190	2013	080	227	660	-1	190	2063	057	123	500	42

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
190	2064	446	190	248	-1	301	190	3016	322	200	903	190	3066	225	134	849	105
190	2065	219	177	187	-1	130	190	3017	492	153	048	190	3067	222	99	199	73
190	2066	165	087	115	-	741	190	3018	628	207	199	190	3068	433	185	987	22
190	2067	173	070	076	-	700	190	3019	028	108	466	190	3069	124	072	183	42
190	2068	174	073	128	-	82	190	3020	299	148	786	190	3070	028	053	269	12
190	2069	091	111	445	-	840	190	3021	406	162	932	190	3071	006	052	252	18
190	2070	232	056	015	-	97	190	3022	396	162	956	190	3072	073	068	464	11
190	2071	268	049	071	-	14	190	3023	104	124	522	190	3073	045	057	280	11
190	2072	429	070	241	-	77	190	3024	080	184	810	190	3074	032	047	223	16
190	2073	112	108	633	-	12	190	3025	047	162	637	190	3075	043	049	245	15
190	2074	045	087	232	-	20	190	3026	007	115	494	190	3076	069	057	298	22
190	2075	306	169	260	-	200	190	3027	354	156	894	190	3077	102	083	442	30
190	2076	185	106	103	-	58	190	3028	376	166	974	190	3078	041	065	300	40
190	2077	152	060	039	-	1	190	3029	333	155	872	190	3079	096	095	369	7
190	2078	215	060	014	-	481	190	3030	333	150	881	190	3080	077	092	351	14
190	2079	173	057	045	-	000	190	3031	375	152	908	190	3081	023	067	301	49
190	2080	058	087	348	-	95	190	3032	348	161	868	190	3082	056	047	169	22
190	2081	032	046	048	-	7	190	3033	365	160	949	190	3083	012	047	217	74
190	2082	775	044	090	-	11	190	3034	456	151	092	190	3084	054	052	275	5
190	2083	025	062	020	-	90	190	3035	594	223	147	190	3085	070	059	352	8
190	2084	025	077	020	-	66	190	3036	087	103	261	190	3086	064	080	680	9
190	2085	259	123	099	-	6	190	3037	213	126	683	190	3087	089	079	631	91
190	2086	156	061	42	-	40	190	3038	293	147	783	190	3088	062	072	495	18
190	2087	119	054	21	-	33	190	3039	398	162	938	190	3089	036	068	303	3
190	2088	332	062	103	-	2	190	3040	366	155	891	190	3090	004	045	179	9
190	2089	276	057	36	-	33	190	3041	361	151	817	190	3091	065	095	300	3
190	2090	084	109	65	-	24	190	3042	395	153	992	190	3092	128	083	574	8
190	2091	024	079	24	-	0	190	3043	421	159	071	190	3093	119	084	523	8
190	2092	327	124	100	-	7	190	3044	350	156	999	190	3094	096	068	439	6
190	2093	201	051	068	-	33	190	3045	460	158	003	190	3095	081	085	493	1
190	2094	136	068	183	-	44	190	3046	589	228	171	190	3096	082	073	455	35
190	2095	220	061	055	-	46	190	3047	130	105	260	190	3097	029	066	361	8
190	2096	188	111	397	-	3	190	3048	148	118	587	190	4001	379	080	094	8
190	2097	032	090	497	-	35	190	3049	225	132	20	190	4002	365	084	075	8
190	2098	111	074	209	-	1	190	3050	331	146	949	190	4003	464	101	162	8
190	2099	176	038	043	-	74	190	3051	308	141	870	190	4004	488	117	095	10
190	2001	022	117	475	-	1	190	3052	300	136	813	190	4005	551	116	263	1
190	2002	229	125	676	-	201	190	3053	318	141	851	190	4006	391	080	081	6
190	2003	280	137	710	-	33	190	3054	332	156	877	190	4007	339	101	010	5
190	2005	267	176	816	-	33	190	3055	275	154	904	190	4008	653	189	160	1
190	2006	134	273	970	-	55	190	3056	471	158	063	190	4009	338	061	169	6
190	2007	251	087	003	-	600	190	3057	651	205	220	190	4010	371	068	170	6
190	2008	530	182	004	-	282	190	3058	188	090	251	190	4011	416	087	117	9
190	2009	056	121	480	-	340	190	3059	075	099	490	190	4012	325	084	107	4
190	2010	259	142	717	-	17	190	3060	141	107	665	190	4013	465	135	121	1
190	2011	288	142	764	-	35	190	3061	233	119	851	190	4014	322	079	052	6
190	2012	266	143	770	-	33	190	3062	228	122	752	190	4015	188	082	089	6
190	2013	096	127	533	-	33	190	3063	227	120	729	190	4017	322	080	095	6
190	2014	351	262	158	-	55	190	3064	242	124	743	190	4018	373	103	089	3
190	3015	296	217	991	-	4	190	3065	263	128	767	190	4019	322	089	077	7

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
190	4020	372	088	119	833	190	4071	242	060	031	525	200	11	041	081	081	365
190	4021	326	092	057	788	190	4072	244	067	037	614	200	202	041	081	081	365
190	4022	394	089	152	869	190	4073	222	155	687	569	200	114	027	010	010	206
190	4023	420	127	088	070	190	4074	222	117	462	578	200	133	030	047	047	194
190	4024	372	067	161	863	190	4075	433	113	098	987	200	144	028	031	031	230
190	4025	411	074	183	875	190	4076	322	090	024	694	200	141	110	641	641	230
190	4026	399	101	130	933	190	4077	372	119	029	995	200	16	067	055	193	229
190	4027	417	089	062	913	190	4078	482	157	003	273	200	177	110	623	623	170
190	4028	389	089	024	847	190	4079	240	055	070	617	200	18	243	086	135	708
190	4029	426	092	084	972	190	4080	120	049	093	334	200	19	198	051	003	407
190	4030	386	087	058	808	190	4081	050	043	103	200	1001	337	076	143	653	
190	4031	407	082	164	969	190	4082	053	040	020	281	200	1002	332	081	037	287
190	4032	389	092	124	965	190	4083	111	062	033	440	200	1003	332	097	150	856
190	4033	418	085	163	935	190	9001	222	073	027	675	200	1004	339	084	130	763
190	4034	391	085	119	875	190	9002	300	092	088	827	200	1005	441	067	143	007
190	4035	434	088	174	884	190	9003	454	102	142	054	200	1006	336	072	045	656
190	4036	396	092	019	905	190	9004	554	137	249	148	200	1007	434	094	148	777
190	4037	421	105	053	011	190	9005	641	151	310	460	200	1008	339	080	174	710
190	4038	383	095	048	877	190	9006	525	110	264	177	200	1009	332	065	140	556
190	4039	420	097	110	985	190	9007	330	077	182	724	200	1010	332	064	168	576
190	4040	393	099	082	912	190	9008	430	121	038	770	200	1011	335	058	146	483
190	4041	421	095	110	912	190	9009	222	039	088	371	200	1012	333	062	191	580
190	4042	378	088	111	848	190	9011	222	059	034	427	200	1013	339	083	090	814
190	4043	427	111	084	452	190	9012	111	048	006	417	200	1014	330	075	087	654
190	4044	387	099	061	094	190	9013	222	083	023	650	200	1015	338	077	123	676
190	4045	427	101	116	034	190	9014	222	162	313	356	200	1016	333	072	124	733
190	4046	383	099	086	964	190	9015	222	043	055	372	200	1017	333	068	094	615
190	4047	410	098	086	881	190	9016	222	080	050	635	200	1018	333	061	085	511
190	4048	380	118	021	124	190	9018	111	163	755	432	200	1019	333	061	148	611
190	4049	387	090	019	868	190	9019	112	055	140	331	200	1020	333	061	198	546
190	4050	435	109	131	011	190	9020	112	051	062	333	200	1021	333	057	176	536
190	4051	408	110	098	023	190	9021	138	088	038	665	200	1022	333	071	195	675
190	4052	433	112	073	324	190	9022	222	074	148	388	200	1023	333	067	141	652
190	4053	386	102	069	078	190	9023	159	058	163	466	200	1024	333	070	159	600
190	4054	447	126	103	332	190	9024	222	093	002	647	200	1025	333	068	189	608
190	4055	394	102	074	898	190	9025	222	163	018	244	200	1026	333	067	176	592
190	4056	421	102	102	052	190	9026	222	118	431	474	200	1027	333	058	215	590
190	4057	341	094	029	868	190	9027	110	115	343	605	200	1028	333	059	190	577
190	4058	393	102	105	958	190	9028	222	115	490	848	200	1029	333	061	222	634
190	4060	424	120	093	209	190	9029	222	128	416	572	200	1030	333	055	197	584
190	4061	469	122	156	311	200	1	222	039	117	387	200	1031	333	056	189	577
190	4062	441	117	145	094	200	2	222	046	116	443	200	1032	333	100	181	027
190	4063	467	109	178	045	200	3	222	036	110	388	200	1033	333	411	157	016
190	4064	426	108	122	034	200	4	222	034	028	288	200	1034	333	441	215	970
190	4065	488	122	145	676	200	5	222	023	031	211	200	1035	333	094	182	942
190	4066	447	104	156	286	200	6	222	029	034	232	200	1036	333	084	202	948
190	4067	485	106	163	068	200	7	222	031	036	255	200	1037	333	084	077	770
190	4068	194	056	080	450	200	8	222	026	025	226	200	1038	333	071	195	711
190	4069	201	057	029	617	200	9	222	026	012	224	200	1039	333	074	141	719
190	4070	180	052	026	443	200	10	222	041	049	376	200	1041	333	074	166	728

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CP	MEAN	CPR	RMS	CP	MAX	CP	MIN	WD	TAP	CP	MEAN	CPR	RMS	CP	MAX	CP	MIN	WD	TAP	CP	MEAN	CPR	RMS	CP	MAX	CP	MIN																																																																																																																																																																																																																																																																																																																																										
2000	1042	072	081	055	055	2000	1093	162	057	2000	2047	337	214	411	-1	124	2000	2048	311	134	030	-	909	2000	2049	313	093	090	-	855	2000	2050	380	079	152	-	731	2000	2051	302	281	458	-1	473	2000	2052	181	122	385	-	882	2000	2053	662	168	090	-1	513	2000	2054	518	219	070	-1	208	2000	2055	366	195	020	-1	161	2000	2056	331	168	000	-1	162	2000	2057	322	152	020	-1	997	2000	2058	273	215	419	-1	043	2000	2059	301	124	034	-	933	2000	2060	258	089	025	-	919	2000	2061	347	078	025	-	855	2000	2062	243	255	457	-1	224	2000	2063	206	115	251	-	629	2000	2064	598	187	118	-	350	2000	2065	468	227	045	-1	417	2000	2066	329	173	026	-1	150	2000	2067	303	144	040	-1	794	2000	2068	239	118	007	-1	867	2000	2069	204	174	331	-1	432	2000	2070	274	089	023	-	973	2000	2071	276	063	069	-	750	2000	2072	381	068	112	-	694	2000	2073	063	117	529	-	340	2000	2074	004	079	323	-	221	2000	2075	466	171	029	-1	266	2000	2076	290	120	015	-	853	2000	2077	211	063	000	-	501	2000	2078	271	064	022	-	613	2000	2079	221	059	003	-	474	2000	2080	103	088	330	-	467	2000	2081	242	046	110	-	418	2000	2082	272	043	130	-	444	2000	2083	308	056	163	-	516	2000	2084	061	072	379	-	307	2000	2085	368	115	009	-	876	2000	2086	208	060	008	-	654	2000	2087	144	042	027	-	297	2000	2088	365	063	110	-	741	2000	2089	281	051	087	-	542	2000	2090	051	083	467	-	240	2000	2091	070	069	289	-	266	2000	2092	411	115	021	-	874	2000	2093	224	051	038	-	532	2000	2094	178	065	067	-	459	2000	2095	237	058	066	-	494	2000	2096	203	074	336	-	545

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
200	2097	109	075	264	503	200	3049	299	140	917	058	200	4002	357	093	067	749
200	2098	178	064	177	403	200	3050	364	134	844	015	200	4003	456	113	104	936
200	2099	194	039	066	370	200	3051	355	137	838	006	200	4004	515	138	122	073
200	3001	199	133	714	327	200	3052	355	135	831	001	200	4005	619	156	248	626
200	3002	337	132	746	075	200	3053	344	137	765	013	200	4006	305	076	046	561
200	3003	296	139	725	226	200	3054	341	143	859	007	200	4007	200	087	122	490
200	3005	337	192	979	404	200	3055	169	141	703	335	200	4008	333	219	341	193
200	3006	280	284	125	957	200	3056	339	164	023	309	200	4009	366	069	129	679
200	3007	158	086	131	665	200	3057	682	215	086	614	200	4010	338	071	148	676
200	3008	358	212	256	268	200	3058	094	114	423	519	200	4011	336	090	138	851
200	3009	204	143	620	191	200	3059	144	108	661	207	200	4012	327	098	075	084
200	3010	349	155	843	045	200	3060	192	112	735	094	200	4013	328	178	115	330
200	3011	323	157	855	099	200	3061	246	112	822	029	200	4014	339	084	063	733
200	3012	176	136	703	263	200	3062	283	114	739	002	200	4015	174	083	171	531
200	3013	026	118	464	413	200	3063	263	115	744	033	200	4017	343	103	088	947
200	3014	372	270	076	643	200	3064	256	117	783	028	200	4018	358	099	076	913
200	3015	368	253	191	599	200	3065	198	117	765	013	200	4019	324	092	050	866
200	3016	304	195	903	308	200	3066	159	122	864	251	200	4020	338	104	107	943
200	3017	300	150	049	961	200	3067	279	074	125	455	200	4021	338	094	070	833
200	3018	628	215	036	564	200	3068	186	186	219	292	200	4022	427	109	143	023
200	3019	086	126	601	343	200	3069	052	079	272	372	200	4023	300	135	122	091
200	3020	372	164	912	104	200	3070	052	056	260	218	200	4024	390	066	139	676
200	3021	434	173	966	058	200	3071	030	055	227	226	200	4025	330	073	136	722
200	3022	340	169	869	256	200	3072	076	056	338	089	200	4026	375	093	058	863
200	3023	026	111	489	331	200	3073	070	052	306	063	200	4027	400	084	141	874
200	3024	026	196	744	554	200	3074	084	054	303	126	200	4028	390	088	076	877
200	3025	014	164	627	577	200	3075	071	057	307	174	200	4029	434	093	021	854
200	3026	093	114	349	586	200	3076	080	062	376	160	200	4030	393	086	118	766
200	3027	444	174	958	022	200	3077	098	082	513	176	200	4031	412	087	123	895
200	3028	399	172	969	054	200	3078	024	095	586	204	200	4032	402	095	141	901
200	3029	383	163	903	034	200	3079	122	102	589	343	200	4033	434	094	216	035
200	3030	377	151	842	036	200	3080	086	090	566	278	200	4034	402	091	189	963
200	3031	401	152	858	011	200	3081	030	079	467	202	200	4035	373	091	070	946
200	3032	348	156	806	061	200	3082	031	058	208	287	200	4036	444	096	013	791
200	3033	288	146	737	158	200	3083	019	055	275	173	200	4037	409	122	028	051
200	3034	328	171	130	025	200	3084	073	051	333	086	200	4038	386	109	018	081
200	3035	680	214	060	544	200	3085	067	056	312	110	200	4039	424	100	088	914
200	3036	013	129	454	392	200	3086	055	068	349	118	200	4040	402	100	149	010
200	3037	303	138	841	076	200	3087	071	078	382	254	200	4041	430	095	172	890
200	3038	390	152	874	018	200	3088	050	081	505	293	200	4042	384	087	155	795
200	3039	431	163	965	011	200	3089	035	062	320	150	200	4043	430	106	049	258
200	3040	423	161	972	025	200	3090	009	052	246	216	200	4044	394	099	144	060
200	3041	417	158	922	028	200	3091	141	101	549	089	200	4045	434	101	141	984
200	3042	442	152	919	040	200	3092	188	097	589	024	200	4046	344	100	037	849
200	3043	415	157	848	037	200	3093	176	077	530	017	200	4047	371	098	080	858
200	3044	224	157	725	198	200	3094	130	062	410	082	200	4048	367	115	062	181
200	3045	379	170	021	035	200	3095	100	074	424	094	200	4049	391	095	031	827
200	3046	638	202	022	528	200	3096	074	072	377	163	200	4050	448	111	116	121
200	3047	056	124	440	423	200	3097	010	076	401	271	200	4051	423	111	071	110
200	3048	226	131	821	099	200	4001	359	086	115	806	200	4052	443	104	118	954



## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
200	4053	-.402	.103	-.113	-.890	200	90223	-.194	.053	.026	-.404	210	10225	-.334	.052	-.203	-.545
200	4054	-.463	.116	-.128	-1.157	200	90224	-.239	.097	.107	-.574	210	10226	-.307	.048	-.163	-.508
200	4055	-.424	.108	-.081	-1.174	200	90225	-.581	.184	.100	-1.255	210	10227	-.308	.043	-.193	-.523
200	4056	-.441	.099	-.176	-.951	200	90226	-.155	.121	.527	-.574	210	10228	-.284	.042	-.175	-.490
200	4057	-.316	.089	-.058	-.778	200	90227	-.197	.121	.198	-.729	210	10229	-.317	.044	-.201	-.520
200	4058	-.365	.096	.053	-1.004	200	90228	-.044	.103	.431	-.413	210	10300	-.291	.042	-.185	-.485
200	4060	-.388	.108	-.013	-1.134	200	90229	-.129	.125	.271	-.767	210	10301	-.313	.051	-.177	-.533
200	4061	-.450	.113	-.049	-.943	210	1	-.191	.033	-.088	-.373	210	10302	-.299	.063	-.134	-.608
200	4062	-.438	.113	-.286	-.979	210	2	-.208	.038	-.074	-.422	210	10303	-.377	.055	-.141	-.924
200	4063	-.469	.103	-.146	-.965	210	3	-.181	.033	-.070	-.317	210	10304	-.345	.090	-.121	-.808
200	4064	-.439	.110	-.147	-1.045	210	4	-.142	.039	-.008	-.241	210	10305	-.347	.073	-.175	-.754
200	4065	-.484	.111	-.102	-1.224	210	5	-.127	.033	-.054	-.208	210	10306	-.318	.065	-.160	-.628
200	4066	-.462	.103	-.183	-1.138	210	6	-.123	.029	.022	-.229	210	10307	-.345	.063	-.177	-.764
200	4067	-.505	.109	-.226	-1.352	210	7	-.129	.029	.036	-.250	210	10308	-.305	.058	-.142	-.635
200	4068	-.171	.047	.040	-.379	210	8	-.116	.029	.015	-.218	210	10309	-.255	.058	-.154	-.575
200	4069	-.174	.054	.001	-.741	210	9	-.111	-.001	-.111	-.203	210	10400	-.306	.059	-.089	-.605
200	4070	-.153	.046	.055	-.352	210	10	-.157	.037	.014	-.314	210	10401	-.331	.061	-.116	-.584
200	4071	-.218	.054	.001	-.491	210	11	-.182	.048	.007	-.432	210	10402	-.296	.061	-.100	-.532
200	4072	-.216	.063	.039	-.579	210	12	-.104	.028	.017	-.213	210	10403	-.312	.074	-.089	-.645
200	4073	-.074	.129	-.602	-.372	210	13	-.095	.026	.010	-.169	210	10404	-.342	.107	-.053	-.792
200	4074	-.083	.101	-.343	-.453	210	14	-.123	.030	-.014	-.239	210	10405	-.367	.114	-.082	-.924
200	4075	-.394	.099	-.131	-.936	210	15	-.099	.022	.553	-.175	210	10406	-.320	.089	-.092	-.898
200	4076	-.279	.075	-.008	-.650	210	16	-.029	.077	.393	-.331	210	10407	-.333	.074	-.128	-.754
200	4077	-.335	.104	.009	-.833	210	17	-.116	.099	.611	-.145	210	10408	-.317	.076	-.147	-.761
200	4078	-.531	.160	-.089	-1.398	210	18	-.168	.087	.281	-.487	210	10409	-.225	.070	-.126	-.700
200	4079	-.211	.041	.081	-.457	210	19	-.154	.040	.021	-.331	210	10500	-.306	.071	-.024	-.679
200	4080	-.075	.054	.133	-.252	210	1001	-.331	.070	-.113	-.651	210	10501	-.220	.070	-.144	-.705
200	4081	-.044	.041	.123	-.173	210	1002	-.281	.073	.082	-.711	210	10502	-.292	.070	-.089	-.722
200	4082	-.090	.044	.057	-.274	210	1003	-.331	.078	.101	-.885	210	10503	-.304	.071	-.085	-.754
200	4083	-.122	.069	.086	-.527	210	1004	-.334	.072	.133	-.632	210	10504	-.299	.078	-.116	-.873
200	9001	-.179	.050	-.050	-.480	210	1005	-.235	.061	.100	-.672	210	10505	-.341	.089	-.131	-.772
200	9002	-.280	.068	-.118	-.633	210	1006	-.266	.070	.047	-.723	210	10506	-.318	.087	-.121	-.675
200	9003	-.366	.072	-.162	-.725	210	1007	-.337	.085	.132	-.717	210	10507	-.340	.083	-.139	-.708
200	9004	-.441	.107	-.202	-1.077	210	1008	-.358	.080	.146	-.713	210	10508	-.321	.079	-.137	-.695
200	9005	-.449	.111	-.224	-1.122	210	1009	-.355	.051	.131	-.484	210	10509	-.341	.087	-.138	-.793
200	9006	-.444	.099	-.211	-1.006	210	1010	-.336	.052	.113	-.511	210	10600	-.375	.073	-.076	-.608
200	9007	-.395	.084	-.153	-.725	210	1011	-.308	.053	.104	-.493	210	10601	-.318	.082	-.082	-.687
200	9008	-.340	.111	-.053	-.775	210	1012	-.308	.061	.151	-.599	210	10602	-.303	.082	-.095	-.658
200	9009	-.229	.041	-.089	-.383	210	1013	-.331	.102	.023	-.754	210	10603	-.303	.079	-.068	-.687
200	9011	-.169	.059	-.052	-.380	210	1014	-.328	.080	.105	-.662	210	10604	-.243	.070	-.093	-.631
200	9012	-.279	.049	-.089	-.483	210	1015	-.318	.071	.119	-.607	210	10605	-.258	.069	-.054	-.659
200	9013	-.245	.076	-.037	-.598	210	1016	-.327	.056	.113	-.497	210	10606	-.328	.083	-.142	-.816
200	9014	-.570	.152	-.135	-1.255	210	1017	-.289	.055	.130	-.576	210	10607	-.344	.080	-.175	-.752
200	9015	-.246	.049	-.119	-.540	210	1018	-.258	.051	.119	-.538	210	10608	-.312	.082	-.144	-.777
200	9016	-.272	.072	-.035	-.584	210	1019	-.314	.052	.177	-.587	210	10609	-.286	.066	-.118	-.612
200	9018	-.072	.187	-.036	-.499	210	1020	-.339	.045	.182	-.488	210	10700	-.243	.066	-.024	-.564
200	9019	-.206	.067	-.042	-.518	210	1021	-.355	.043	.181	-.484	210	10701	-.238	.055	-.094	-.474
200	9020	-.171	.046	-.022	-.393	210	1022	-.355	.070	-.159	-.874	210	10702	-.185	.059	-.009	-.425
200	9021	-.251	.077	-.029	-.601	210	1023	-.333	.064	-.125	-.648	210	10703	-.255	.067	-.087	-.584
200	9022	-.263	.084	-.025	-.650	210	1024	-.311	.059	-.149	-.576	210	10704	-.183	.050	-.011	-.469

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
210	1075	157	041	066	33	210	20330	332	073	071	703	210	20880	128	100	376	439
110	1076	148	038	015	28	210	20331	420	251	285	397	210	20881	128	100	047	419
110	1077	289	060	132	48	210	20332	286	106	111	704	210	20882	128	100	043	443
110	1078	270	062	116	79	210	20333	733	241	023	632	210	20883	128	100	046	477
110	1079	359	075	182	04	210	20334	528	178	016	525	210	20884	128	100	061	313
110	1080	339	092	105	86	210	20335	500	158	033	620	210	20885	128	100	104	947
110	1081	274	096	032	99	210	20336	459	155	084	223	210	20886	128	100	053	520
110	1082	224	083	049	86	210	20337	494	152	050	065	210	20887	128	100	161	307
110	1083	192	038	037	44	210	20338	442	172	321	115	210	20888	128	100	063	639
110	1084	273	052	122	20	210	20339	460	141	113	071	210	20889	128	100	250	509
110	1085	278	066	120	44	210	20340	629	271	241	559	210	20890	128	100	039	299
110	1086	276	060	134	83	210	20411	326	133	081	136	210	20891	128	100	090	353
110	1088	252	056	103	38	210	20412	612	127	111	236	210	20892	128	100	070	920
110	1089	235	068	061	44	210	20413	604	138	126	175	210	20893	128	100	057	133
110	1090	188	032	084	33	210	20414	534	155	099	106	210	20894	128	100	064	459
110	1091	137	037	007	29	210	20445	510	141	129	998	210	20895	128	100	055	474
110	1092	152	036	049	44	210	20446	495	135	043	932	210	20896	128	100	052	440
110	1097	185	047	019	44	210	20447	507	162	170	042	210	20897	128	100	077	474
110	1094	160	035	009	33	210	20448	448	154	055	965	210	20898	128	100	045	538
110	1095	092	046	116	77	210	20449	402	136	021	922	210	20899	128	100	182	412
110	1096	140	047	088	29	210	20500	366	106	011	912	210	20900	128	100	036	327
110	001	126	160	320	99	210	20501	635	283	133	656	210	30001	128	100	153	163
110	002	308	076	031	44	210	20502	301	127	007	166	210	30002	128	100	144	155
110	003	801	171	300	44	210	20503	659	163	217	355	210	30003	128	100	126	101
110	004	589	142	237	44	210	20504	624	158	118	364	210	30004	128	100	403	899
110	005	375	079	076	77	210	20505	535	165	087	277	210	30005	128	100	289	786
110	006	107	285	974	66	210	20506	483	159	109	146	210	30006	128	100	236	515
110	007	008	208	648	66	210	20507	480	151	098	024	210	30007	128	100	193	656
110	008	456	169	072	44	210	20508	484	196	231	176	210	30008	128	100	088	840
110	009	501	142	132	44	210	20509	434	168	013	995	210	30009	128	100	142	090
110	010	403	141	012	44	210	20600	327	138	068	131	210	30010	128	100	400	881
110	011	621	210	029	44	210	20601	339	117	023	097	210	30011	128	100	134	939
110	012	295	162	000	00	210	20602	472	277	359	428	210	30012	128	100	122	088
110	013	116	208	581	00	210	20603	305	119	096	989	210	30013	128	100	028	458
110	014	074	246	86	32	210	20604	607	168	209	562	210	30014	128	100	128	604
110	015	096	279	04	22	210	20605	560	175	093	453	210	30015	128	100	255	608
110	016	421	268	35	22	210	20606	438	156	086	342	210	30016	128	100	392	798
110	017	296	111	26	46	210	20607	395	128	122	369	210	30017	128	100	166	358
110	018	904	292	28	61	210	20608	326	128	063	030	210	30018	128	100	112	798
110	019	436	162	06	69	210	20609	329	188	383	297	210	30019	128	100	243	358
110	020	391	129	003	99	210	20700	313	131	055	133	210	30020	128	100	359	798
110	021	381	121	137	34	210	20701	281	098	040	979	210	30021	128	100	112	242
110	022	556	193	039	80	210	20702	319	083	119	808	210	30022	128	100	299	471
110	023	338	147	25	66	210	20703	039	127	364	618	210	30023	128	100	028	604
110	024	111	144	75	99	210	20704	061	068	236	697	210	30024	128	100	392	608
110	025	117	172	51	22	210	20705	515	162	156	333	210	30025	128	100	255	798
110	026	423	137	129	99	210	20706	353	108	033	842	210	30026	128	100	166	358
110	027	457	132	36	69	210	20707	236	061	047	494	210	30027	128	100	392	798
110	028	562	195	074	99	210	20708	296	071	122	785	210	30028	128	100	112	256
110	029	405	107	152	50	210	20709	236	062	026	540	210	30029	128	100	152	172

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
210	3032	271	151	750	154	210	3082	025	060	220	-214	210	4036	326	104	-039	-787
210	3033	142	136	574	311	210	3083	031	058	260	-199	210	4037	389	137	-014	-936
210	3034	229	113	121	783	210	3084	063	049	241	-098	210	4038	396	142	076	-884
210	3035	500	245	342	515	210	3085	051	050	260	-097	210	4039	466	149	-027	-1031
210	3036	113	157	699	381	210	3086	030	064	402	-162	210	4040	476	153	-074	-1061
210	3037	354	160	829	222	210	3087	031	086	446	-324	210	4041	508	137	-060	-1016
210	3038	395	161	916	022	210	3088	028	089	501	-399	210	4042	471	134	-091	-973
210	3039	407	163	937	034	210	3089	012	046	197	-142	210	4043	545	139	-090	-1211
210	3040	404	163	936	037	210	3090	020	055	324	-204	210	4044	539	134	-117	-1377
210	3041	402	162	928	031	210	3091	145	099	573	-102	210	4045	581	135	-170	-1312
210	3042	417	153	939	010	210	3092	193	100	662	-032	210	4046	294	099	-050	-808
210	3043	349	148	820	046	210	3093	167	085	562	-032	210	4047	319	102	-053	-842
210	3044	058	141	606	083	210	3094	119	068	467	-066	210	4048	295	116	-045	-935
210	3045	281	131	655	418	210	3095	074	076	477	-172	210	4049	333	123	-057	-815
210	3046	510	264	755	111	210	3096	038	067	394	-178	210	4050	426	155	-028	-1157
210	3047	051	141	651	355	210	3097	071	068	255	-336	210	4051	435	168	-170	-1200
210	3048	280	134	822	044	210	4001	298	083	003	-709	210	4052	483	147	-048	-1007
210	3049	328	139	892	066	210	4002	292	087	049	-1038	210	4053	471	156	-068	-1187
210	3050	379	141	939	035	210	4003	384	107	044	-903	210	4054	551	167	-042	-1334
210	3051	379	145	957	029	210	4004	489	151	118	-1275	210	4055	573	169	-130	-1584
210	3052	366	144	961	022	210	4005	815	201	216	-487	210	4056	582	163	-229	-1444
210	3053	347	142	921	005	210	4006	218	079	080	-573	210	4057	241	083	-024	-822
210	3054	308	146	889	028	210	4007	056	098	301	-352	210	4058	278	090	-017	-838
210	3055	057	145	768	002	210	4008	006	187	553	-865	210	4060	264	117	-018	-837
210	3056	301	129	667	949	210	4009	274	068	085	-652	210	4061	335	140	-096	-976
210	3057	531	272	287	102	210	4010	291	068	075	-648	210	4062	334	170	-462	-1081
210	3058	022	134	637	418	210	4011	317	064	115	-663	210	4063	391	132	-060	-936
210	3059	025	123	692	077	210	4012	323	105	047	-829	210	4064	376	141	-039	-1106
210	3060	235	124	662	036	210	4013	705	248	086	-1617	210	4065	451	170	-035	-1335
210	3061	258	122	735	006	210	4014	367	122	340	-835	210	4066	513	165	-099	-1415
210	3062	249	113	740	010	210	4015	145	099	330	-483	210	4067	595	173	-227	-1594
210	3063	233	116	723	049	210	4016	482	152	090	-1097	210	4068	169	042	-034	-404
210	3064	215	117	714	071	210	4017	266	151	363	-819	210	4069	177	061	-003	-519
210	3065	190	113	628	071	210	4018	300	156	249	-1156	210	4070	127	041	-019	-392
210	3066	052	138	753	360	210	4019	491	164	050	-1161	210	4071	175	046	-008	-393
210	3067	094	089	219	374	210	4020	411	155	027	-1125	210	4072	178	052	-062	-407
210	3068	163	190	337	199	210	4021	548	174	134	-1331	210	4073	074	100	-842	-234
210	3069	010	080	324	222	210	4022	738	248	123	-1667	210	4074	042	082	-521	-330
210	3070	056	064	385	156	210	4023	318	076	119	-774	210	4075	269	081	-071	-767
210	3071	051	062	372	137	210	4024	359	081	109	-887	210	4076	171	066	-013	-488
210	3072	073	060	369	096	210	4025	299	069	036	-701	210	4077	192	094	-067	-624
210	3073	078	059	366	074	210	4026	339	089	095	-787	210	4078	362	162	-014	-1181
210	3074	090	037	400	139	210	4027	368	113	039	-926	210	4079	174	032	-060	-299
210	3075	068	059	309	189	210	4028	434	145	146	-1039	210	4080	062	046	-112	-264
210	3076	065	062	309	184	210	4029	451	122	075	-954	210	4081	048	031	-065	-154
210	3077	048	079	306	254	210	4030	508	149	101	-1036	210	4082	063	042	-067	-263
210	3078	004	071	501	188	210	4031	517	156	091	-1011	210	4083	103	080	-083	-493
210	3079	059	088	482	384	210	4032	659	177	173	-276	210	9001	145	031	-045	-259
210	3080	059	087	597	267	210	4033	638	177	219	-1220	210	9002	207	056	-058	-558
210	3081	050	069	438	169	210	4034	346	101	080	-800	210	9003	298	062	-117	-601

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
10	9004	312	086	129	774	22	1008	369	072	160	689	22	1058	288	090	029	739
10	9005	306	085	113	740	22	1009	279	055	120	481	22	1059	279	077	002	807
10	9006	314	087	138	752	22	1010	283	048	131	521	22	1060	238	054	011	834
10	9007	372	082	169	719	22	1011	265	050	116	498	22	1061	260	055	010	855
10	9008	362	068	729	729	22	1012	322	054	153	522	22	1062	245	056	002	862
10	9009	213	048	006	387	22	1013	377	094	073	765	22	1063	290	069	041	696
10	9011	111	091	006	121	22	1014	345	071	095	807	22	1064	291	082	009	737
10	9012	271	057	047	494	22	1015	338	064	119	623	22	1065	337	092	090	515
10	9013	187	066	005	424	22	1016	284	058	112	501	22	1066	198	047	074	487
10	9014	522	171	075	505	22	1017	299	053	126	487	22	1067	219	050	081	526
10	9015	274	056	122	505	22	1018	282	053	101	447	22	1068	188	044	037	446
10	9016	197	069	038	534	22	1019	335	053	148	522	22	1069	218	037	029	333
10	9018	059	199	871	594	22	1020	319	051	179	555	22	1070	202	037	029	333
10	9019	233	067	009	580	22	1021	322	052	170	555	22	1071	215	043	079	399
10	9020	184	039	022	666	22	1022	357	073	123	791	22	1072	201	042	043	399
10	9021	142	088	202	466	22	1023	321	060	157	766	22	1073	235	040	085	420
10	9022	311	078	041	833	22	1024	316	054	170	555	22	1074	204	040	082	333
10	9023	223	049	060	543	22	1025	343	048	201	555	22	1075	191	036	029	333
10	9024	186	091	165	503	22	1026	322	047	190	487	22	1076	200	039	067	333
10	9025	427	201	126	743	22	1027	335	049	196	531	22	1077	210	043	068	425
10	9026	303	107	133	866	22	1028	305	048	173	500	22	1078	200	043	093	510
10	9027	301	109	685	806	22	1029	342	050	195	545	22	1079	261	049	120	588
10	9028	044	107	226	559	22	1030	319	052	174	524	22	1080	195	043	084	887
10	9029	184	125	670	743	22	1031	341	055	196	688	22	1081	206	037	093	483
22	1	173	028	668	309	22	1032	317	058	160	666	22	1082	192	037	001	333
22	2	181	031	074	331	22	1033	400	099	116	861	22	1083	258	038	110	500
22	3	180	038	081	337	22	1034	391	112	777	021	22	1084	234	039	125	400
22	4	165	028	075	338	22	1035	365	079	133	799	22	1085	207	043	086	555
22	5	114	024	024	208	22	1036	313	057	157	660	22	1086	197	042	086	445
22	6	109	030	066	204	22	1037	334	057	095	602	22	1088	195	036	050	445
22	7	123	028	029	185	22	1038	283	055	024	482	22	1089	225	037	083	440
22	8	099	030	020	213	22	1039	295	056	061	522	22	1090	237	033	125	711
22	9	092	030	133	179	22	1040	283	056	095	505	22	1091	186	031	055	333
22	10	136	036	013	261	22	1041	324	071	057	648	22	1092	225	037	108	387
22	11	146	056	098	414	22	1042	333	076	158	589	22	1093	239	039	137	396
22	12	086	028	032	163	22	1043	339	078	040	333	22	1094	236	049	105	505
22	13	083	026	020	164	22	1044	379	117	035	802	22	1095	181	035	099	286
22	14	105	031	036	241	22	1045	415	132	018	114	22	1096	243	033	030	861
22	15	080	086	565	172	22	1046	348	094	008	731	22	2001	446	228	126	308
22	16	017	067	402	230	22	1047	353	075	144	511	22	2002	401	083	121	308
22	17	100	084	481	117	22	1048	316	077	067	654	22	2003	831	193	226	333
22	18	093	077	258	424	22	1049	307	062	028	573	22	2004	598	136	185	022
22	19	130	032	003	234	22	1050	272	063	044	560	22	2005	403	089	148	777
22	1001	316	074	096	684	22	1051	305	064	084	612	22	2006	209	165	742	807
22	1002	283	073	016	740	22	1052	279	074	233	596	22	2007	230	157	513	799
22	1003	225	072	082	700	22	1053	188	081	080	556	22	2008	428	140	110	141
22	1004	332	065	133	661	22	1054	335	083	112	706	22	2009	475	133	179	180
22	1005	326	073	090	636	22	1055	337	104	045	658	22	2010	387	110	096	905
22	1006	287	074	034	744	22	1056	312	109	053	588	22	2011	436	133	016	119
22	1007	388	076	174	888	22	1057	321	093	087	366	22	2012	316	116	048	125

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
2200	2013	256	139	315	825	2200	2063	415	163	006	-1.333	2200	3015	229	278	1.005	580
2200	2014	212	146	310	728	2200	2064	556	143	228	-1.198	2200	3016	126	189	6.400	760
2200	2015	144	160	670	675	2200	2065	548	145	138	-1.247	2200	3017	134	114	2.650	540
2200	2016	595	228	264	434	2200	2066	491	158	082	-1.576	2200	3018	021	232	6.600	897
2200	2017	341	096	090	709	2200	2067	471	148	136	-1.180	2200	3019	379	152	8.861	122
2200	2018	617	24	178	823	2200	2068	420	127	038	-1.872	2200	3020	449	169	9.744	040
2200	2019	412	142	046	027	2200	2069	445	70	335	-1.051	2200	3021	363	151	8.896	087
2200	2020	399	112	012	886	2200	2070	391	158	114	-1.072	2200	3022	100	141	5.445	530
2200	2021	412	100	144	697	2200	2071	363	148	017	-1.930	2200	3023	122	096	2.006	474
2200	2022	315	156	055	294	2200	2072	343	120	025	-1.061	2200	3024	162	129	3.555	560
2200	2023	429	113	012	955	2200	2073	193	120	277	-1.856	2200	3025	114	142	4.644	533
2200	2024	301	402	163	698	2200	2074	154	180	167	-1.931	2200	3026	204	120	2.669	650
2200	2025	209	123	381	609	2200	2075	557	180	164	-1.528	2200	3027	389	147	8.677	001
2200	2026	437	097	066	976	2200	2076	412	140	049	-1.106	2200	3028	259	136	7.336	152
2200	2027	454	095	001	822	2200	2077	376	097	022	-1.777	2200	3029	259	140	7.888	129
2200	2028	469	145	069	885	2200	2078	354	120	045	-1.970	2200	3030	375	160	9.888	042
2200	2029	410	107	100	926	2200	2079	267	100	138	-1.752	2200	3031	291	148	7.888	106
2200	2030	346	087	079	705	2200	2080	119	153	558	-1.748	2200	3032	196	142	6.600	251
2200	2031	615	222	000	484	2200	2081	182	066	034	-1.578	2200	3033	016	117	5.500	365
2200	2032	264	092	004	698	2200	2082	198	054	003	-1.568	2200	3034	110	116	2.333	883
2200	2033	513	159	200	306	2200	2083	171	043	032	-1.410	2200	3035	146	268	6.033	622
2200	2034	440	119	132	260	2200	2084	115	074	174	-1.583	2200	3036	271	153	8.333	345
2200	2035	449	111	082	948	2200	2085	339	087	076	-1.850	2200	3037	396	153	9.336	019
2200	2036	424	129	041	239	2200	2086	219	053	058	-1.508	2200	3038	430	148	9.650	050
2200	2037	477	133	055	306	2200	2087	165	048	013	-1.341	2200	3039	418	147	9.500	024
2200	2038	492	124	069	033	2200	2088	325	040	159	-1.607	2200	3040	420	144	9.422	026
2200	2039	425	113	053	984	2200	2089	200	040	071	-1.422	2200	3041	431	153	1.008	042
2200	2040	766	231	048	828	2200	2090	074	067	383	-1.159	2200	3042	365	148	8.577	008
2200	2041	456	195	027	247	2200	2091	122	078	146	-1.442	2200	3043	275	138	7.422	081
2200	2042	439	124	139	881	2200	2092	398	079	164	-1.778	2200	3044	049	120	3.622	483
2200	2043	439	113	053	984	2200	2093	207	041	164	-1.424	2200	3045	153	108	3.622	609
2200	2044	439	092	139	881	2200	2094	205	048	009	-1.529	2200	3046	193	251	4.777	294
2200	2045	446	102	095	041	2200	2095	183	042	053	-1.385	2200	3047	208	144	7.966	272
2200	2046	451	123	030	344	2200	2096	234	031	130	-1.340	2200	3048	348	141	1.006	016
2200	2047	439	104	009	033	2200	2097	211	050	080	-1.627	2200	3049	351	142	1.011	010
2200	2048	456	121	036	048	2200	2098	198	043	009	-1.384	2200	3050	334	134	7.89	012
2200	2049	424	114	020	040	2200	2099	162	034	035	-1.286	2200	3051	337	138	8.37	011
2200	2050	412	117	012	123	2200	3001	435	140	956	-1.074	2200	3052	349	140	8.47	031
2200	2051	801	230	167	659	2200	3002	398	136	054	-1.066	2200	3053	278	133	7.76	041
2200	2052	409	183	010	291	2200	3003	191	124	992	-1.210	2200	3054	199	121	8.45	110
2200	2053	500	108	194	979	2200	3004	125	144	220	-1.274	2200	3055	117	117	3.17	519
2200	2054	474	108	193	104	2200	3005	019	141	722	-1.435	2200	3056	111	112	3.72	628
2200	2055	488	116	167	168	2200	3006	038	109	337	-1.454	2200	3057	121	124	4.48	116
2200	2056	458	112	033	928	2200	3007	137	155	591	-1.575	2200	3058	155	130	6.47	241
2200	2057	476	115	042	074	2200	3008	375	143	835	-1.077	2200	3059	243	126	8.77	066
2200	2058	470	126	028	021	2200	3009	382	144	799	-1.051	2200	3060	247	120	7.79	088
2200	2059	467	123	056	987	2200	3010	248	134	732	-1.128	2200	3061	234	117	6.99	045
2200	2060	425	120	020	928	2200	3011	283	123	668	-1.630	2200	3062	233	114	7.09	030
2200	2061	425	120	043	059	2200	3012	088	073	220	-1.346	2200	3063	240	122	7.80	053
2200	2062	425	120	043	059	2200	3013	088	073	220	-1.346	2200	3064	193	113	6.45	080
2200	2063	716	254	166	615	2200	3014	004	227	843	-1.635	2200	3065	193	113	6.45	080

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
2200	3065	.129	.108	.621	-.136	2200	4019	-.068	.167	.585	-1.199	2200	4070	-.197	.046	-.030	-.457
2200	3066	-.109	.129	.386	-.687	2200	4020	-.230	.138	.116	-1.160	2200	4071	-.177	.036	-.016	-.312
2200	3067	.020	.080	.490	-.344	2200	4021	-.159	.140	.203	-.912	2200	4072	-.170	.043	.026	-.344
2200	3068	.052	.129	.414	-.765	2200	4022	-.323	.161	.227	-1.504	2200	4073	-.068	.081	.580	-.129
2200	3069	.075	.089	.458	-.211	2200	4023	-.611	.224	.169	-1.639	2200	4074	-.026	.069	.331	-.250
2200	3070	.079	.071	.363	-.125	2200	4024	-.333	.058	.147	-1.580	2200	4075	-.212	.052	-.068	-.441
2200	3071	.068	.060	.289	-.122	2200	4025	-.244	.058	.194	-1.599	2200	4076	-.115	.046	.054	-.323
2200	3072	.078	.054	.284	-.068	2200	4026	-.289	.049	.132	-.471	2200	4077	-.099	.064	.108	-.435
2200	3073	.073	.055	.285	-.077	2200	4027	-.244	.046	.038	-.544	2200	4078	-.233	.039	.095	-.932
2200	3074	.083	.061	.371	-.095	2200	4028	-.213	.063	.005	-.612	2200	4079	-.153	.036	.029	-.188
2200	3075	.037	.052	.302	-.122	2200	4029	-.172	.129	.386	-.795	2200	4080	-.017	.050	.221	-.188
2200	3076	.030	.053	.269	-.144	2200	4030	-.240	.123	.088	-.871	2200	4081	-.075	.028	.013	-.172
2200	3077	.040	.075	.308	-.297	2200	4031	-.251	.131	.065	-.854	2200	4082	-.034	.030	.075	-.172
2200	3078	.044	.077	.432	-.247	2200	4032	-.246	.152	.081	-.835	2200	4083	-.057	.067	.096	-.541
2200	3079	.012	.084	.468	-.393	2200	4033	-.546	.244	.072	-1.315	2200	9001	-.214	.035	-.114	-.338
2200	3080	.021	.093	.485	-.427	2200	4034	-.348	.192	.180	-1.250	2200	9002	-.199	.036	-.094	-.339
2200	3081	.090	.071	.495	-.089	2200	4035	-.360	.082	.078	-.918	2200	9003	-.251	.038	-.076	-.397
2200	3082	.029	.072	.342	-.239	2200	4036	-.340	.082	.048	-.761	2200	9004	-.205	.045	-.087	-.476
2200	3083	.084	.068	.372	-.182	2200	4037	-.333	.069	.103	-.727	2200	9005	-.186	.046	-.064	-.476
2200	3084	.047	.054	.292	-.121	2200	4038	-.266	.097	.013	-.842	2200	9006	-.288	.053	-.098	-.500
2200	3085	.027	.047	.272	-.153	2200	4039	-.339	.144	.038	-.891	2200	9007	-.343	.074	-.142	-.633
2200	3086	.020	.057	.264	-.195	2200	4040	-.292	.218	.280	-1.084	2200	9008	-.355	.086	-.039	-.691
2200	3087	.058	.080	.296	-.385	2200	4041	-.377	.173	.012	-.999	2200	9009	-.167	.044	-.004	-.425
2200	3088	.094	.100	.345	-.440	2200	4042	-.429	.179	.037	-1.091	2200	9011	-.102	.037	-.039	-.242
2200	3089	.028	.046	.220	-.110	2200	4043	-.429	.211	.001	-1.095	2200	9012	-.233	.065	.085	-.584
2200	3090	.067	.056	.377	-.130	2200	4044	-.541	.194	.078	-1.118	2200	9013	-.156	.057	-.035	-.437
2200	3091	.148	.090	.552	-.068	2200	4045	-.644	.140	.252	-.166	2200	9014	-.497	.152	-.094	-.198
2200	3092	.184	.088	.593	-.039	2200	4046	-.297	.081	-.042	-.692	2200	9015	-.271	.057	-.115	-.574
2200	3093	.174	.092	.699	-.037	2200	4047	-.323	.082	-.065	-.767	2200	9016	-.135	.048	-.073	-.311
2200	3094	.113	.066	.397	-.068	2200	4048	-.280	.065	-.028	-.657	2200	9018	-.049	.191	.671	-.527
2200	3095	.032	.072	.440	-.198	2200	4049	-.287	.075	.066	-.669	2200	9019	-.245	.087	.032	-.619
2200	3096	.021	.054	.202	-.208	2200	4050	-.229	.117	.022	-.850	2200	9020	-.180	.045	-.026	-.442
2200	3097	.108	.062	.154	-.313	2200	4051	-.222	.188	.257	-1.017	2200	9021	-.050	.067	.221	-.321
2200	4001	.302	.072	.010	-.684	2200	4052	-.299	.142	.076	-.026	2200	9022	-.289	.080	.077	-.638
2200	4002	.294	.071	-.086	-.618	2200	4053	-.282	.161	.005	-1.131	2200	9023	-.231	.063	-.019	-.754
2200	4003	.343	.064	.150	-.668	2200	4054	-.449	.189	.015	-.161	2200	9024	-.160	.112	.181	-.815
2200	4004	.363	.105	.127	-.903	2200	4055	-.449	.216	.127	-1.623	2200	9025	-.221	.095	.246	-.711
2200	4005	.785	.179	.279	-.430	2200	4056	-.608	.176	.099	-1.336	2200	9026	-.328	.097	.041	-.761
2200	4006	.089	.080	.205	-.403	2200	4057	-.341	.098	-.069	-.887	2200	9027	-.363	.098	.012	-.812
2200	4007	.081	.099	.435	-.251	2200	4058	-.357	.095	.134	-.884	2200	9028	-.105	.090	.483	-.228
2200	4008	.230	.140	.710	-.605	2200	4060	-.218	.054	-.042	-.529	2200	9029	-.164	.091	.244	-.697
2200	4009	.284	.055	.112	-.582	2200	4061	-.233	.074	.044	-.674	2200	9030	-.139	.030	.024	-.258
2200	4010	.284	.057	.116	-.516	2200	4062	-.157	.139	.298	-.897	2200	9031	-.148	.033	-.034	-.302
2200	4011	.295	.050	.148	-.471	2200	4063	-.297	.103	-.029	-.866	2200	9032	-.152	.044	-.033	-.408
2200	4012	.212	.063	.016	-.573	2200	4064	-.297	.121	-.005	-.027	2200	9033	-.133	.033	.010	-.251
2200	4013	.518	.260	.083	-.572	2200	4065	-.297	.133	-.009	-1.053	2200	9034	-.082	.024	.000	-.169
2200	4014	.102	.189	.618	-.587	2200	4066	-.366	.191	.060	-.136	2200	9035	-.070	.029	.025	-.167
2200	4015	.122	.182	.743	-.410	2200	4067	-.588	.182	-.043	-1.608	2200	9036	-.073	.030	.059	-.178
2200	4017	.359	.128	.148	-.964	2200	4068	-.070	.070	.021	-.649	2200	9037	-.061	.029	.056	-.153
2200	4018	.084	.140	.726	-.763	2200	4069	-.416	.118	-.149	-1.212	2200	9038	-.063	.027	.049	-.159

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
2330	10	.096	.044	.149	.317	2330	1041	.438	.100	.021	.816	2330	1092	.217	.054	.077	.476
2330	11	.074	.059	.214	.321	2330	1042	.425	.072	.185	.734	2330	1093	.250	.074	.071	.640
2330	12	.060	.028	.054	.153	2330	1043	.432	.068	.238	.708	2330	1094	.224	.064	.052	.645
2330	13	.055	.026	.049	.137	2330	1044	.392	.117	.024	.835	2330	1095	.195	.048	.048	.428
2330	14	.072	.030	.045	.189	2330	1045	.448	.141	.085	.985	2330	1096	.258	.049	.136	.480
2330	15	.111	.080	.500	.117	2330	1046	.370	.094	.064	.747	2330	2001	.773	.226	.072	.445
2330	16	.007	.061	.363	.160	2330	1047	.395	.104	.012	.815	2330	2002	.542	.127	.127	.046
2330	17	.112	.075	.508	.087	2330	1048	.388	.115	.085	.846	2330	2003	.639	.184	.176	.487
2330	18	.043	.073	.292	.418	2330	1049	.434	.117	.034	.902	2330	2004	.587	.134	.155	.126
2330	19	.096	.033	.082	.209	2330	1050	.388	.110	.021	.845	2330	2005	.446	.105	.089	.908
1001	1001	.382	.085	.104	.704	2330	1051	.423	.098	.029	.976	2330	2006	.423	.129	.048	.886
2330	1002	.347	.076	.106	.623	2330	1052	.434	.106	.038	1.138	2330	2007	.387	.105	.058	.983
2330	1003	.384	.073	.150	.689	2330	1053	.462	.091	.165	.990	2330	2008	.470	.105	.183	.942
2330	1004	.417	.081	.149	.841	2330	1054	.441	.080	.217	.861	2330	2009	.495	.110	.236	.988
2330	1005	.395	.081	.154	.780	2330	1055	.326	.132	.072	.833	2330	2010	.437	.099	.186	.871
2330	1006	.378	.077	.112	.722	2330	1056	.298	.132	.046	.834	2330	2011	.450	.152	.101	.350
2330	1007	.454	.088	.221	.741	2330	1057	.279	.101	.008	.677	2330	2012	.377	.108	.028	.003
2330	1008	.413	.083	.204	.717	2330	1058	.237	.086	.071	.679	2330	2013	.374	.112	.013	.843
2330	1009	.358	.064	.196	.572	2330	1059	.287	.092	.041	.655	2330	2014	.272	.141	.181	.808
2330	1010	.359	.063	.175	.571	2330	1060	.292	.101	.281	.731	2330	2015	.178	.161	.497	.724
2330	1011	.347	.063	.161	.551	2330	1061	.315	.092	.119	.692	2330	2016	.687	.198	.040	.422
2330	1012	.403	.067	.223	.617	2330	1062	.319	.100	.047	.734	2330	2017	.379	.089	.094	.732
2330	1013	.380	.077	.158	.623	2330	1063	.409	.121	.003	.065	2330	2018	.513	.166	.121	.340
2330	1014	.370	.065	.195	.650	2330	1064	.478	.146	.032	.592	2330	2019	.406	.116	.109	.973
2330	1015	.382	.064	.189	.650	2330	1065	.523	.151	.137	.367	2330	2020	.416	.097	.170	.840
2330	1016	.349	.069	.140	.613	2330	1066	.177	.046	.026	.388	2330	2021	.325	.090	.024	.718
2330	1017	.358	.065	.190	.589	2330	1067	.210	.052	.016	.559	2330	2022	.501	.126	.159	.143
2330	1018	.345	.064	.179	.556	2330	1068	.184	.053	.022	.512	2330	2023	.446	.103	.063	.877
2330	1019	.394	.065	.225	.612	2330	1069	.227	.055	.044	.501	2330	2024	.362	.089	.009	.744
2330	1020	.371	.060	.213	.600	2330	1070	.213	.055	.048	.446	2330	2025	.287	.098	.129	.669
2330	1021	.384	.060	.227	.605	2330	1071	.206	.058	.018	.442	2330	2026	.430	.100	.114	.014
2330	1022	.406	.071	.199	.721	2330	1072	.198	.055	.030	.473	2330	2027	.446	.095	.131	.987
2330	1023	.364	.065	.198	.727	2330	1073	.242	.054	.077	.493	2330	2028	.428	.117	.051	.125
2330	1024	.376	.062	.173	.622	2330	1074	.199	.053	.027	.444	2330	2029	.419	.097	.121	.080
2330	1025	.411	.061	.232	.644	2330	1075	.209	.064	.053	.541	2330	2030	.386	.086	.145	.887
2330	1026	.383	.062	.206	.660	2330	1076	.210	.057	.049	.495	2330	2031	.520	.186	.172	.416
2330	1027	.387	.059	.196	.663	2330	1077	.192	.049	.027	.480	2330	2032	.338	.089	.081	.843
2330	1028	.350	.059	.168	.572	2330	1078	.176	.042	.052	.411	2330	2033	.418	.100	.175	.091
2330	1029	.398	.060	.232	.610	2330	1079	.237	.050	.014	.428	2330	2034	.383	.095	.140	.957
2330	1030	.391	.065	.196	.705	2330	1080	.182	.052	.029	.421	2330	2035	.413	.109	.140	.953
2330	1031	.427	.063	.236	.642	2330	1081	.220	.052	.050	.500	2330	2036	.389	.121	.061	.998
2330	1032	.396	.061	.199	.583	2330	1082	.208	.056	.045	.497	2330	2037	.443	.129	.142	.056
2330	1033	.443	.107	.121	.023	2330	1083	.276	.051	.152	.553	2330	2038	.460	.123	.118	.068
2330	1034	.449	.137	.095	.114	2330	1084	.200	.044	.070	.444	2330	2039	.394	.094	.116	.802
2330	1035	.408	.088	.123	.739	2330	1085	.185	.049	.050	.436	2330	2040	.543	.205	.145	.351
2330	1036	.331	.071	.056	.575	2330	1086	.184	.044	.068	.413	2330	2041	.472	.145	.137	.772
2330	1037	.320	.100	.168	.288	2330	1088	.169	.041	.049	.394	2330	2042	.386	.092	.101	.889
2330	1038	.303	.114	.235	.684	2330	1089	.210	.049	.094	.441	2330	2043	.397	.102	.079	.046
2330	1039	.320	.101	.135	.702	2330	1090	.258	.047	.121	.496	2330	2044	.408	.118	.105	.292
2330	1040	.332	.091	.015	.700	2330	1091	.197	.043	.047	.374	2330	2045	.397	.095	.101	.983

APPENDIX A -- PRESSURE DATA

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
2330	046	389	096	101	941	2330	096	231	038	110	418	2330	048	350	150	875	004
2330	047	411	109	089	195	2330	097	263	091	075	713	2330	049	318	143	829	015
2330	048	405	099	070	852	2330	098	188	046	017	374	2330	050	296	135	727	050
2330	049	411	101	104	847	2330	099	142	038	022	328	2330	051	295	137	742	032
2330	050	411	111	089	963	2330	001	371	143	857	108	2330	052	336	149	839	035
2330	051	450	105	106	557	2330	002	278	129	565	114	2330	053	214	129	686	092
2330	052	444	106	098	557	2330	003	026	117	566	368	2330	054	152	120	688	148
2330	053	444	106	004	233	2330	005	239	155	712	249	2330	055	144	100	699	518
2330	054	444	106	004	198	2330	006	040	163	318	424	2330	056	020	117	414	393
2330	055	444	106	004	788	2330	007	149	127	638	300	2330	057	073	174	644	669
2330	056	444	106	004	082	2330	008	312	142	844	221	2330	058	207	122	733	128
2330	057	444	106	004	156	2330	009	412	151	330	079	2330	059	225	121	673	078
2330	058	444	106	004	105	2330	010	344	142	745	096	2330	060	208	115	644	053
2330	059	440	134	069	105	2330	011	167	124	552	744	2330	061	187	112	609	061
2330	060	440	134	115	112	2330	012	243	118	550	431	2330	062	194	103	702	033
2330	061	430	159	042	219	2330	013	124	084	771	795	2330	063	223	119	757	058
2330	062	430	159	121	729	2330	014	047	242	933	549	2330	064	138	103	652	124
2330	063	444	201	048	511	2330	015	152	250	509	336	2330	065	064	096	599	220
2330	064	444	137	148	300	2330	016	021	174	833	441	2330	066	193	094	651	580
2330	065	444	142	145	366	2330	017	130	150	833	318	2330	067	079	083	652	033
2330	066	444	155	138	600	2330	018	323	855	958	441	2330	068	119	084	444	122
2330	067	444	155	099	326	2330	019	419	52	992	019	2330	069	109	075	652	071
2330	068	444	155	099	460	2330	020	415	161	868	032	2330	070	111	073	652	140
2330	069	444	155	099	326	2330	021	267	133	661	152	2330	071	083	062	652	096
2330	070	444	155	099	460	2330	022	047	128	422	483	2330	072	079	057	652	067
2330	071	444	155	099	326	2330	023	131	09	300	490	2330	073	071	057	652	069
2330	072	444	155	099	460	2330	024	131	09	286	702	2330	074	091	063	652	060
2330	073	444	155	099	326	2330	025	185	103	441	523	2330	075	015	047	652	137
2330	074	444	155	099	460	2330	026	244	103	255	523	2330	076	006	044	652	168
2330	075	444	155	099	326	2330	027	324	143	777	595	2330	077	103	059	652	436
2330	076	444	155	099	460	2330	028	171	133	881	071	2330	078	061	071	652	274
2330	077	444	155	099	326	2330	029	134	133	544	309	2330	079	074	075	652	384
2330	078	444	155	099	460	2330	030	411	152	669	007	2330	080	114	104	652	513
2330	079	444	155	099	326	2330	031	237	129	628	141	2330	081	104	068	652	193
2330	080	444	155	099	460	2330	032	130	133	527	245	2330	082	059	070	652	165
2330	081	444	155	099	326	2330	033	055	097	429	390	2330	083	097	065	652	066
2330	082	444	155	099	460	2330	034	099	145	710	328	2330	084	026	051	652	110
2330	083	444	155	099	326	2330	035	083	20	447	645	2330	085	004	042	652	122
2330	084	444	155	099	460	2330	036	383	160	846	043	2330	086	066	050	652	277
2330	085	444	155	099	326	2330	037	399	154	666	006	2330	087	108	068	652	486
2330	086	444	155	099	460	2330	038	370	134	888	037	2330	088	158	090	652	457
2330	087	444	155	099	326	2330	039	346	132	666	011	2330	089	049	046	652	112
2330	088	444	155	099	460	2330	040	341	128	729	023	2330	090	085	056	652	079
2330	089	444	155	099	326	2330	041	396	149	606	033	2330	091	118	091	652	081
2330	090	444	155	099	460	2330	042	270	135	715	043	2330	092	147	087	652	047
2330	091	444	155	099	326	2330	043	177	122	601	124	2330	093	117	089	652	092
2330	092	444	155	099	460	2330	044	096	098	217	540	2330	094	070	063	652	084
2330	093	444	155	099	326	2330	045	065	125	733	271	2330	095	029	064	652	274
2330	094	444	155	099	460	2330	046	152	84	476	700	2330	096	043	046	652	256
2330	095	444	155	099	326	2330	047	321	155	775	648	2330	097	127	045	652	315



## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
2300	4001	397	078	126	643	2300	4052	131	075	144	672	2300	9022	303	086	003	741
2300	4002	396	079	169	641	2300	4053	100	084	168	790	2300	9023	253	076	063	700
2300	4003	374	060	180	561	2300	4054	137	107	168	904	2300	9024	404	197	110	210
2300	4004	272	069	067	633	2300	4055	181	207	270	138	2300	9025	249	092	092	657
2300	4005	629	143	075	150	2300	4056	190	157	157	098	2300	9026	315	081	002	600
2300	4006	022	089	394	249	2300	4057	526	167	123	262	2300	9027	398	088	136	827
2300	4007	159	111	642	226	2300	4058	542	164	154	277	2300	9028	146	102	608	086
2300	4008	326	125	690	076	2300	4060	198	048	005	409	2300	9029	161	081	147	631
2300	4009	358	067	180	580	2300	4061	181	052	030	488	2400	1	125	034	002	243
2300	4010	298	060	187	601	2300	4062	023	090	381	590	2400	2	123	037	029	255
2300	4011	298	048	148	471	2300	4063	147	058	072	574	2400	3	130	041	019	306
2300	4012	146	063	136	406	2300	4064	102	064	123	537	2400	4	104	040	017	262
2300	4013	393	280	244	434	2300	4065	116	081	104	764	2400	5	064	025	069	145
2300	4014	104	192	925	335	2300	4066	119	149	212	956	2400	6	040	030	099	133
2300	4015	338	170	882	281	2300	4067	339	176	195	321	2400	7	032	034	143	144
2300	4017	229	161	232	965	2300	4068	179	074	021	611	2400	8	029	031	114	122
2300	4018	102	157	813	374	2300	4069	489	142	187	027	2400	9	046	029	077	123
2300	4019	159	137	670	319	2300	4070	202	049	074	412	2400	10	059	042	146	223
2300	4020	052	091	304	594	2300	4071	154	034	037	272	2400	11	028	057	210	280
2300	4021	054	084	358	601	2300	4072	132	040	028	272	2400	12	039	029	074	132
2300	4022	003	124	352	734	2300	4073	090	084	451	143	2400	13	041	028	064	118
2300	4023	326	177	239	038	2300	4074	015	073	478	181	2400	14	043	030	079	146
2300	4024	391	057	229	613	2300	4075	138	054	106	363	2400	15	083	084	485	175
2300	4025	433	058	253	688	2300	4076	045	054	198	225	2400	16	004	036	333	137
2300	4026	289	044	128	440	2300	4077	034	065	286	390	2400	17	082	077	488	128
2300	4027	199	045	033	356	2300	4078	106	120	283	877	2400	18	010	070	308	412
2300	4028	144	054	064	392	2300	4079	131	039	018	253	2400	19	066	039	110	208
2300	4029	019	104	484	430	2300	4080	012	049	250	175	2400	1001	449	081	196	757
2300	4030	051	070	210	401	2300	4081	059	030	062	191	2400	1002	394	071	176	700
2300	4031	052	073	188	424	2300	4082	011	020	091	102	2400	1003	431	075	208	746
2300	4032	011	083	233	522	2300	4083	014	055	151	285	2400	1004	508	099	170	249
2300	4033	107	182	267	878	2300	9001	235	044	094	490	2400	1005	480	084	162	980
2300	4034	327	168	134	036	2300	9002	218	055	074	518	2400	1006	443	075	177	714
2300	4035	429	067	240	695	2300	9003	267	055	074	569	2400	1007	510	091	245	818
2300	4036	396	067	206	636	2300	9004	194	051	071	416	2400	1008	464	084	230	777
2300	4037	340	050	186	516	2300	9005	164	046	044	408	2400	1009	378	061	200	582
2300	4038	178	048	029	367	2300	9006	199	050	062	463	2400	1010	411	064	220	760
2300	4039	166	060	078	619	2300	9007	431	076	208	729	2400	1011	393	061	213	633
2300	4040	015	120	503	707	2300	9008	394	089	076	788	2400	1012	438	064	225	677
2300	4041	127	084	129	717	2300	9009	194	064	004	691	2400	1013	397	079	142	725
2300	4042	083	090	178	711	2300	9011	077	035	052	220	2400	1014	388	068	207	763
2300	4043	101	107	178	727	2300	9012	281	099	020	106	2400	1015	409	071	163	731
2300	4044	184	216	267	002	2300	9013	099	059	206	377	2400	1016	386	063	140	607
2300	4045	447	179	275	131	2300	9014	489	111	126	101	2400	1017	409	061	221	641
2300	4046	422	084	151	787	2300	9015	286	074	082	659	2400	1018	402	061	220	624
2300	4047	446	076	227	716	2300	9016	066	051	178	248	2400	1019	443	061	260	631
2300	4048	291	055	104	495	2300	9018	027	163	659	487	2400	1020	423	062	215	653
2300	4049	174	043	010	367	2300	9019	317	103	014	912	2400	1021	450	065	249	777
2300	4050	184	061	075	670	2300	9020	182	059	034	695	2400	1022	409	068	166	695
2300	4051	009	116	386	661	2300	9021	005	062	276	222	2400	1023	387	069	216	728

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
240	1024	395	067	147	635	240	1074	226	076	027	345	240	2029	400	069	186	725
240	1025	444	073	192	756	240	1075	225	082	061	771	240	2030	403	067	169	756
240	1026	432	075	154	737	240	1076	227	068	053	602	240	2031	406	081	133	953
240	1027	468	075	241	802	240	1077	201	055	050	489	240	2032	409	073	003	687
240	1028	422	073	171	700	240	1078	175	050	035	583	240	2033	412	070	098	682
240	1029	467	071	267	748	240	1079	240	052	094	448	240	2034	415	068	093	625
240	1030	485	084	254	880	240	1080	195	057	037	479	240	2035	418	079	099	828
240	1031	490	070	280	779	240	1081	236	072	045	545	240	2036	421	079	088	778
240	1032	456	067	244	708	240	1082	230	077	035	559	240	2037	424	081	132	808
240	1033	447	107	179	955	240	1083	281	072	099	642	240	2038	427	081	144	954
240	1034	458	146	124	332	240	1084	210	059	051	699	240	2039	430	067	131	635
240	1035	411	089	092	698	240	1085	179	058	011	546	240	2040	433	097	175	268
240	1036	331	124	122	84	240	1086	179	046	055	383	240	2041	436	085	173	748
240	1037	396	169	373	841	240	1087	191	059	041	507	240	2042	439	070	132	960
240	1038	442	129	375	862	240	1088	220	068	068	678	240	2043	442	076	128	765
240	1039	443	128	292	873	240	1089	253	071	091	701	240	2044	445	086	123	932
240	1040	451	102	234	888	240	1091	168	047	000	406	240	2045	448	072	129	715
240	1041	553	111	098	038	240	1092	237	066	061	544	240	2046	451	071	129	709
240	1042	502	086	251	901	240	1093	269	116	118	950	240	2047	454	076	128	793
240	1043	492	078	257	139	240	1094	190	077	143	648	240	2048	457	072	183	824
240	1044	389	101	022	894	240	1095	179	057	113	406	240	2049	460	077	160	810
240	1045	440	118	026	033	240	1096	276	064	114	554	240	2050	463	091	161	820
240	1046	403	103	037	854	240	2001	834	201	267	505	240	2051	466	127	156	246
240	1047	445	116	103	930	240	2002	697	150	326	165	240	2052	469	109	120	932
240	1048	455	118	040	920	240	2003	558	130	198	125	240	2053	472	094	078	999
240	1049	511	116	122	033	240	2004	572	110	228	115	240	2054	475	100	102	175
240	1050	465	105	087	959	240	2005	541	103	147	939	240	2055	478	093	110	135
240	1051	497	106	210	995	240	2006	457	099	063	950	240	2056	481	093	108	995
240	1052	513	120	202	209	240	2007	472	092	110	859	240	2057	484	098	076	925
240	1053	546	114	264	222	240	2008	489	090	237	906	240	2058	487	105	085	207
240	1054	539	098	261	005	240	2009	541	091	275	930	240	2059	490	101	152	138
240	1055	378	141	046	168	240	2010	488	090	210	899	240	2060	493	101	028	945
240	1056	399	178	020	384	240	2011	452	143	134	302	240	2061	496	111	068	306
240	1057	337	113	034	849	240	2012	414	090	041	756	240	2062	499	163	149	520
240	1058	269	111	074	745	240	2013	412	091	098	814	240	2063	502	131	097	181
240	1059	288	140	224	951	240	2014	425	109	009	861	240	2064	505	124	125	183
240	1060	319	160	273	909	240	2015	358	125	311	779	240	2065	508	431	145	311
240	1061	365	136	163	898	240	2016	366	174	034	206	240	2066	511	447	153	070
240	1062	407	149	042	084	240	2017	367	089	080	699	240	2067	514	402	122	371
240	1063	498	163	127	212	240	2018	453	120	111	012	240	2068	517	448	120	000
240	1064	617	183	160	958	240	2019	364	097	053	791	240	2069	520	443	032	360
240	1065	670	179	147	771	240	2020	383	081	081	908	240	2070	523	416	009	131
240	1066	185	057	016	431	240	2021	370	081	135	927	240	2071	526	399	007	127
240	1067	200	058	006	442	240	2022	447	089	167	912	240	2072	529	408	047	909
240	1068	178	058	006	450	240	2023	421	077	191	758	240	2073	532	303	106	943
240	1069	216	060	065	461	240	2024	392	076	155	690	240	2074	535	380	149	119
240	1070	196	062	027	420	240	2025	389	082	132	730	240	2075	538	533	174	291
240	1071	216	076	007	528	240	2026	389	080	045	711	240	2076	541	432	126	103
240	1072	214	073	009	528	240	2027	411	079	178	695	240	2077	544	368	114	155
240	1073	260	073	065	582	240	2028	398	091	160	959	240	2078	547	433	122	043

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
240	079	343	103	063	890	240	3031	133	105	549	208	240	3081	089	072	467	103
240	080	306	140	282	058	240	3032	032	095	362	275	240	3082	052	069	478	138
240	081	267	105	180	761	240	3033	098	068	173	346	240	3083	088	066	427	117
240	082	284	110	028	946	240	3034	280	146	832	080	240	3084	009	055	232	140
240	083	198	086	050	447	240	3035	377	162	986	160	240	3085	001	045	209	134
240	084	270	130	057	888	240	3036	396	154	899	129	240	3086	073	052	167	311
240	085	343	117	040	947	240	3037	356	140	630	006	240	3087	087	060	108	388
240	086	247	088	042	696	240	3038	299	125	751	018	240	3088	179	066	165	458
240	087	185	060	002	495	240	3039	271	121	697	019	240	3089	043	046	256	089
240	088	289	080	104	810	240	3040	262	119	672	023	240	3090	071	055	275	086
240	089	189	061	024	590	240	3041	356	149	974	041	240	3091	066	081	459	143
240	090	055	059	320	161	240	3042	205	119	699	090	240	3092	083	074	421	083
240	091	195	095	161	177	240	3043	121	104	538	176	240	3093	066	068	388	091
240	092	308	072	096	737	240	3044	108	071	216	522	240	3094	063	051	253	093
240	093	175	055	013	688	240	3045	210	134	851	231	240	3095	055	050	144	259
240	094	184	065	014	668	240	3046	305	144	902	271	240	3096	031	044	139	205
240	095	165	061	012	344	240	3047	325	149	861	025	240	3097	122	051	104	324
240	096	246	063	104	599	240	3048	299	137	790	009	240	4001	453	086	186	966
240	097	262	095	124	333	240	3049	244	126	707	053	240	4002	453	086	186	825
240	098	179	047	004	795	240	3050	223	120	629	058	240	4003	344	060	149	560
240	099	139	041	002	555	240	3051	111	122	620	063	240	4004	118	066	046	413
240	001	210	152	745	222	240	3052	288	144	803	080	240	4005	124	099	005	933
240	002	123	111	542	399	240	3053	139	110	517	154	240	4006	202	109	670	259
240	003	138	095	294	266	240	3054	070	088	476	203	240	4007	202	129	677	195
240	005	193	131	613	155	240	3055	139	074	131	488	240	4008	343	138	780	142
240	006	078	078	201	511	240	3056	147	111	546	149	240	4009	404	084	182	674
240	007	305	152	809	555	240	3057	201	128	712	308	240	4010	392	064	199	617
240	008	398	159	859	666	240	3058	212	127	681	321	240	4011	279	046	089	435
240	009	348	152	840	202	240	3059	198	114	623	094	240	4012	025	072	230	299
240	010	246	126	640	995	240	3060	164	104	549	097	240	4013	071	169	396	754
240	011	043	097	367	555	240	3061	143	098	532	092	240	4014	386	197	956	200
240	012	350	110	031	893	240	3062	157	090	730	080	240	4015	434	196	999	653
240	013	222	069	014	722	240	3063	218	118	730	081	240	4017	017	130	409	540
240	014	247	165	640	697	240	3064	089	085	421	154	240	4018	317	205	043	254
240	015	000	205	769	155	240	3065	021	074	319	215	240	4019	269	199	999	262
240	016	035	145	409	355	240	3066	191	075	083	511	240	4020	041	111	438	515
240	017	311	151	810	127	240	3067	121	083	487	068	240	4021	135	088	490	169
240	018	435	157	938	122	240	3068	136	090	625	080	240	4022	094	091	371	211
240	019	420	170	919	101	240	3069	102	083	630	136	240	4023	007	185	561	674
240	020	311	140	707	071	240	3070	082	070	436	095	240	4024	470	064	262	734
240	021	127	110	471	173	240	3071	061	060	321	106	240	4025	517	065	303	783
240	022	202	096	236	666	240	3072	054	055	278	107	240	4026	276	046	111	425
240	023	147	080	158	499	240	3073	044	055	260	112	240	4027	121	065	123	327
240	024	363	084	002	779	240	3074	082	074	518	098	240	4028	043	081	261	306
240	025	312	078	024	631	240	3075	005	045	198	201	240	4029	107	127	700	266
240	026	314	078	276	613	240	3076	028	039	132	198	240	4030	059	085	357	203
240	027	201	131	698	139	240	3077	135	045	031	393	240	4031	065	088	420	171
240	028	038	116	502	316	240	3078	044	079	483	236	240	4032	115	088	506	139
240	029	027	114	449	468	240	3079	093	068	230	391	240	4033	122	119	582	476
240	030	395	166	009	133	240	3080	173	083	262	489	240	4034	007	005	750	620

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
4002	4033	511	077	287	923	240	9003	284	072	112	660	2500	1007	456	086	250	821
4004	4036	475	077	259	894	240	9004	205	055	051	569	2500	1008	488	079	266	767
4006	4037	334	051	132	494	240	9005	188	064	012	449	2500	1009	428	074	201	691
4008	4038	103	058	167	261	240	9006	208	066	18	822	2500	1010	467	079	239	816
4010	4039	062	070	211	269	240	9007	485	078	224	822	2500	1011	430	068	214	665
4012	4040	145	107	598	155	240	9008	441	094	086	822	2500	1012	468	072	246	702
4014	4041	004	080	301	229	240	9009	261	105	039	938	2500	1013	445	088	180	809
4016	4042	052	078	338	187	240	9010	033	044	294	163	2500	1014	425	074	208	688
4018	4043	051	083	399	271	240	9011	346	116	017	333	2500	1015	463	084	170	814
4020	4044	112	119	501	559	240	9012	017	078	1	444	2500	1016	447	077	186	733
4022	4045	086	200	543	678	240	9013	505	102	383	833	2500	1017	454	070	173	868
4024	4046	511	111	214	327	240	9014	505	102	11	939	2500	1018	454	072	244	773
4026	4047	531	112	261	336	240	9015	318	087	074	709	2500	1019	493	071	283	773
4028	4048	291	059	025	583	240	9016	002	067	333	755	2500	1020	476	073	213	844
4030	4049	099	051	094	272	240	9018	172	120	356	538	2500	1021	523	082	203	878
4032	4050	085	069	173	290	240	9019	368	117	1	766	2500	1022	425	073	228	748
4034	4051	107	098	542	182	240	9020	186	081	090	709	2500	1023	399	068	201	622
4036	4052	009	068	298	194	240	9021	045	070	045	800	2500	1024	449	089	149	844
4038	4053	029	069	331	139	240	9022	308	092	045	800	2500	1025	518	088	212	892
4040	4054	009	077	346	211	240	9023	272	091	042	800	2500	1026	520	087	243	942
4042	4055	075	109	470	515	240	9024	333	118	118	900	2500	1027	534	083	259	898
4044	4056	049	200	632	846	240	9025	399	080	611	666	2500	1028	503	080	214	904
4046	4057	697	176	277	578	240	9026	372	073	133	709	2500	1029	526	081	255	925
4048	4058	764	188	321	054	240	9027	409	086	122	833	2500	1030	539	087	253	935
4050	4060	142	058	122	311	240	9028	140	107	647	666	2500	1031	520	083	241	925
4052	4061	117	061	121	311	2500	9029	136	088	189	533	2500	1032	496	080	209	889
4054	4062	052	085	451	199	2500		069	082	215	259	2500	1033	445	103	122	839
4056	4063	069	056	152	269	2500		074	039	087	259	2500	1034	425	110	103	103
4058	4064	019	057	203	230	2500		117	015	77	172	2500	1035	435	118	045	106
4060	4065	021	067	309	216	2500		054	036	079	184	2500	1036	460	136	155	956
4062	4066	034	086	402	458	2500		024	026	108	997	2500	1037	562	133	093	110
4064	4067	129	167	477	996	2500		009	038	139	997	2500	1038	552	126	048	121
4066	4068	208	118	069	760	2500		008	034	152	119	2500	1039	540	110	218	996
4068	4069	509	183	176	316	2500		016	029	100	170	2500	1040	529	108	204	928
4070	4070	187	062	045	429	2500	10	033	041	241	170	2500	1041	604	125	282	104
4072	4071	123	038	041	267	2500	11	007	050	313	183	2500	1042	561	110	269	977
4074	4072	088	047	119	282	2500	12	018	028	102	103	2500	1043	572	109	244	168
4076	4073	077	090	519	127	2500	13	006	032	118	090	2500	1044	397	113	022	888
4078	4074	074	074	454	144	2500	14	011	033	126	116	2500	1045	451	121	060	906
4080	4075	047	058	281	233	2500	15	064	063	355	075	2500	1046	413	124	019	905
4082	4076	004	060	367	150	2500	16	053	068	484	114	2500	1047	429	133	008	974
4084	4077	034	065	349	258	2500	17	073	056	333	103	2500	1048	455	147	046	1050
4086	4078	014	094	390	434	2500	18	082	065	209	130	2500	1049	530	154	104	156
4088	4079	108	044	046	262	2500	19	010	048	333	130	2500	1050	487	134	026	981
4090	4080	029	050	279	256	2500	1001	480	089	219	823	2500	1051	531	142	170	343
4092	4081	023	036	129	171	2500	1002	437	081	172	741	2500	1052	562	164	007	459
4094	4082	005	027	111	096	2500	1003	493	091	170	831	2500	1053	639	159	264	529
4096	4083	019	044	173	313	2500	1004	592	110	215	182	2500	1054	659	148	213	600
4098	9000	242	068	086	809	2500	1005	548	089	248	925	2500	1055	409	147	014	097
4100	9002	228	069	068	595	2500	1006	490	087	240	946	2500	1056	430	174	048	360



APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
2550	3014	393	097	052	731	2550	3064	002	082	340	222	2550	4018	365	177	015	256
2550	3015	275	166	467	786	2550	3065	035	067	238	222	2550	4019	268	152	922	234
2550	3016	168	168	501	798	2550	3066	191	054	001	437	2550	4020	139	127	625	453
2550	3017	419	169	936	065	2550	3067	112	084	576	147	2550	4021	237	116	625	110
2550	3018	420	167	957	037	2550	3068	060	078	411	166	2550	4022	196	112	511	133
2550	3019	254	190	850	400	2550	3069	018	083	364	426	2550	4023	222	154	659	466
2550	3020	190	126	609	140	2550	3070	037	067	452	158	2550	4024	524	081	278	931
2550	3021	006	089	317	256	2550	3071	033	057	228	118	2550	4025	572	083	318	088
2550	3022	322	087	005	715	2550	3072	006	056	330	156	2550	4026	226	054	045	492
2550	3023	203	081	076	618	2550	3073	022	054	328	130	2550	4027	007	082	313	271
2550	3024	412	076	208	717	2550	3074	031	062	141	129	2550	4028	103	102	498	206
2550	3025	403	085	128	782	2550	3075	031	045	066	206	2550	4029	241	144	903	168
2550	3026	364	087	093	682	2550	3076	069	041	066	199	2550	4030	182	102	576	147
2550	3027	071	099	452	220	2550	3077	141	043	066	331	2550	4031	157	104	586	141
2550	3028	097	084	226	340	2550	3078	009	073	362	262	2550	4032	209	110	641	104
2550	3029	172	090	097	528	2550	3079	084	059	191	355	2550	4033	232	130	704	129
2550	3030	376	171	059	093	2550	3080	174	066	069	703	2550	4034	266	179	799	355
2550	3031	02	086	325	224	2550	3081	043	061	341	138	2550	4035	619	117	326	640
2550	3032	063	077	237	291	2550	3082	002	058	331	182	2550	4036	581	121	310	564
2550	3033	16	056	037	358	2550	3083	002	060	274	112	2550	4037	310	063	074	747
2550	3034	402	157	834	032	2550	3084	022	054	156	174	2550	4038	014	074	326	218
2550	3035	403	160	876	010	2550	3085	015	047	141	175	2550	4039	039	090	374	202
2550	3036	250	181	847	284	2550	3086	090	050	080	333	2550	4040	238	126	737	055
2550	3037	252	126	720	078	2550	3087	080	055	080	373	2550	4041	115	102	487	134
2550	3038	185	105	572	071	2550	3088	174	059	163	422	2550	4042	159	099	518	063
2550	3039	164	099	555	067	2550	3089	022	043	190	126	2550	4043	167	103	652	054
2550	3040	139	099	530	110	2550	3090	051	053	268	121	2550	4044	253	117	794	008
2550	3041	271	134	830	078	2550	3091	017	087	424	218	2550	4045	215	180	921	443
2550	3042	084	092	411	183	2550	3092	053	076	372	117	2550	4046	651	161	296	467
2550	3043	020	078	314	230	2550	3093	018	067	264	172	2550	4047	747	199	339	650
2550	3044	180	041	041	421	2550	3094	013	051	232	144	2550	4048	300	076	025	687
2550	3045	296	052	896	080	2550	3095	072	048	168	239	2550	4049	029	064	231	185
2550	3046	292	146	872	081	2550	3096	038	043	111	236	2550	4050	000	084	353	216
2550	3047	193	174	710	597	2550	3097	105	051	161	307	2550	4051	177	113	718	097
2550	3048	178	121	604	197	2550	4001	545	099	180	220	2550	4052	088	097	514	144
2550	3049	146	105	527	122	2550	4002	544	097	219	222	2550	4053	128	096	514	110
2550	3050	125	105	649	114	2550	4003	310	066	005	164	2550	4054	112	108	557	137
2550	3051	132	106	666	100	2550	4004	116	076	164	361	2550	4055	195	120	694	092
2550	3052	196	140	816	138	2550	4005	162	154	301	807	2550	4056	145	168	697	487
2550	3053	055	093	519	164	2550	4006	184	121	616	175	2550	4057	700	223	175	629
2550	3054	001	076	316	247	2550	4007	195	132	665	243	2550	4058	873	218	299	000
2550	3055	152	052	053	344	2550	4008	223	133	679	185	2550	4060	086	064	163	293
2550	3056	168	120	758	136	2550	4009	446	075	233	806	2550	4061	044	071	380	233
2550	3057	059	063	337	112	2550	4010	443	076	234	993	2550	4062	107	096	618	094
2550	3058	059	159	577	557	2550	4011	247	055	044	475	2550	4063	005	073	387	163
2550	3059	094	102	511	209	2550	4012	108	090	471	145	2550	4064	052	070	395	095
2550	3060	046	091	418	151	2550	4013	187	151	637	525	2550	4065	060	087	440	141
2550	3061	048	083	383	135	2550	4014	490	177	152	063	2550	4066	120	096	496	258
2550	3062	067	088	431	140	2550	4015	365	249	127	531	2550	4067	065	151	492	543
2550	3063	147	122	687	121	2550	4017	191	122	614	501	2550	4068	278	109	079	694

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
22550	4069	507	162	118	-1.206	2660	9	018	030	127	-1.111	2660	1040	570	142	-1.163	-1.152
22550	4070	141	057	031	206	2660	10	018	041	309	-1.149	2660	1041	658	158	-1.252	-1.385
22550	4071	062	049	137	355	2660	11	026	060	355	-1.151	2660	1042	643	141	-1.256	-1.243
22550	4072	004	056	232	199	2660	12	002	029	134	-1.090	2660	1043	664	135	-1.280	-1.234
22550	4073	097	089	620	102	2660	13	017	029	127	-1.109	2660	1044	354	100	-1.078	-1.980
22550	4074	111	084	469	081	2660	14	005	032	116	-1.114	2660	1045	406	107	-1.149	-1.996
22550	4075	002	072	357	185	2660	15	093	067	399	-1.084	2660	1046	357	096	-1.100	-1.901
22550	4076	072	072	507	104	2660	16	056	066	521	-1.053	2660	1047	401	115	-1.106	-1.930
22550	4077	081	082	429	154	2660	17	079	068	348	-1.084	2660	1048	428	138	-1.040	-1.163
22550	4078	098	092	451	432	2660	18	125	080	464	-1.094	2660	1049	507	170	-1.005	-1.220
22550	4079	081	043	090	234	2660	19	054	062	346	-1.108	2660	1050	485	136	-1.144	-1.100
22550	4080	031	045	264	156	2660	1001	436	097	141	-1.827	2660	1051	524	153	-1.170	-1.133
22550	4081	011	037	199	104	2660	1002	419	094	113	-1.885	2660	1052	547	176	-1.163	-1.356
22550	4082	014	028	113	071	2660	1003	503	108	153	-1.051	2660	1053	677	171	-1.257	-1.617
22550	4083	028	040	165	194	2660	1004	627	138	187	-1.349	2660	1054	707	151	-1.279	-1.510
22550	9001	034	066	089	000	2660	1005	599	113	213	-1.087	2660	1055	372	106	-1.031	-1.919
22550	9002	245	067	036	000	2660	1006	499	098	148	-1.229	2660	1056	358	111	-1.083	-1.892
22550	9003	304	067	130	000	2660	1007	476	093	216	-1.796	2660	1057	374	090	-1.095	-1.749
22550	9004	214	066	036	000	2660	1008	488	084	219	-1.814	2660	1058	326	086	-1.021	-1.812
22550	9005	201	061	033	000	2660	1009	442	085	219	-1.815	2660	1059	370	116	-1.001	-1.016
22550	9006	211	074	033	000	2660	1010	501	105	210	-1.168	2660	1060	353	156	-1.331	-1.053
22550	9007	480	084	266	000	2660	1011	451	084	196	-1.041	2660	1061	430	126	-1.090	-1.053
22550	9008	517	110	163	000	2660	1012	482	088	180	-1.013	2660	1062	419	143	-1.055	-1.238
22550	9009	295	107	007	-1.248	2660	1013	447	101	135	-1.983	2660	1063	468	159	-1.106	-1.226
22550	9011	022	058	344	137	2660	1014	455	085	168	-1.754	2660	1064	548	179	-1.137	-1.521
22550	9012	353	105	034	-1.210	2660	1015	505	110	116	-1.836	2660	1065	682	183	-1.247	-1.612
22550	9013	473	094	481	171	2660	1016	438	089	111	-1.740	2660	1066	267	077	-1.052	-1.849
22550	9014	093	091	212	835	2660	1017	452	086	091	-1.793	2660	1067	278	083	-1.029	-1.694
22550	9015	307	093	083	869	2660	1018	466	095	062	-1.890	2660	1068	247	069	-1.027	-1.490
22550	9016	088	087	553	116	2660	1019	489	088	117	-1.936	2660	1069	300	067	-1.103	-1.546
22550	9018	294	091	091	000	2660	1020	509	088	214	-1.875	2660	1070	285	071	-1.063	-1.551
22550	9019	354	116	076	000	2660	1021	573	112	190	-1.200	2660	1071	249	105	-1.125	-1.999
22550	9020	187	080	077	000	2660	1022	423	093	121	-1.820	2660	1072	284	077	-1.001	-1.586
22550	9021	130	086	057	000	2660	1023	432	082	161	-1.709	2660	1073	349	074	-1.147	-1.654
22550	9022	310	086	024	000	2660	1024	464	128	089	-1.139	2660	1074	286	086	-1.052	-1.611
22550	9023	258	086	024	000	2660	1025	543	121	059	-1.020	2660	1075	257	089	-1.009	-1.668
22550	9024	333	104	052	000	2660	1026	548	118	120	-1.113	2660	1076	338	089	-1.123	-1.709
22550	9025	364	081	058	000	2660	1027	580	120	118	-1.050	2660	1077	208	057	-1.025	-1.460
22550	9026	433	084	189	000	2660	1028	541	112	107	-1.018	2660	1078	195	062	-1.054	-1.534
22550	9027	452	106	080	000	2660	1029	571	115	183	-1.087	2660	1079	296	060	-1.112	-1.553
22550	9028	119	100	625	138	2660	1030	577	124	162	-1.194	2660	1080	282	069	-1.031	-1.567
22550	9029	117	097	132	000	2660	1031	569	116	246	-1.211	2660	1081	330	068	-1.144	-1.649
22550	9030	051	041	249	000	2660	1032	540	118	230	-1.201	2660	1082	306	071	-1.063	-1.616
22550	9031	040	045	169	000	2660	1033	417	095	190	-1.909	2660	1083	269	071	-1.106	-1.517
22550	9032	055	045	094	000	2660	1034	387	095	141	-1.784	2660	1084	232	071	-1.017	-1.995
22550	9033	025	037	104	000	2660	1035	424	111	118	-1.978	2660	1085	160	052	-1.090	-1.401
22550	9034	024	028	104	000	2660	1036	461	141	034	-1.137	2660	1086	196	050	-1.025	-1.447
22550	9035	006	033	129	000	2660	1037	580	160	093	-1.128	2660	1088	269	064	-1.087	-1.567
22550	9036	032	040	235	000	2660	1038	580	165	066	-1.170	2660	1089	274	060	-1.085	-1.544
22550	9037	028	038	222	000	2660	1039	571	137	121	-1.075	2660	1090	225	068	-1.080	-1.581

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WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
260	1091	175	050	010	370	260	2045	310	045	176	487	260	2095	144	061	074	578
260	1092	240	060	052	528	260	2046	333	046	197	529	260	2096	203	072	032	732
260	1093	117	095	216	481	260	2047	338	046	154	505	260	2097	278	106	013	872
260	1094	114	052	048	360	260	2048	337	051	102	528	260	2098	136	054	013	501
260	1095	168	055	097	380	260	2049	336	059	126	655	260	2099	131	051	092	482
260	1096	350	089	106	677	260	2050	384	076	161	695	260	3000	425	219	1	101
260	2001	559	117	194	111	260	2051	299	055	020	685	260	3001	182	087	142	591
260	2002	659	117	293	961	260	2052	312	055	132	621	260	3002	351	071	084	697
260	2003	518	098	208	983	260	2053	320	054	093	596	260	3003	020	112	325	507
260	2004	551	103	235	106	260	2054	329	055	154	598	260	3004	147	055	045	379
260	2005	515	104	198	931	260	2055	335	055	138	685	260	3005	327	163	970	175
260	2006	418	091	142	752	260	2056	377	055	104	549	260	3006	247	150	755	211
260	2007	455	092	194	822	260	2057	355	055	033	513	260	3007	102	190	395	958
260	2008	442	088	162	757	260	2058	329	059	090	562	260	3008	002	092	326	358
260	2009	530	091	297	876	260	2059	318	066	065	664	260	3009	002	066	065	442
260	2010	418	091	164	735	260	2060	334	074	086	721	260	3010	338	100	108	752
260	2011	373	084	152	739	260	2061	351	097	064	992	260	3011	347	081	126	667
260	2012	412	080	182	733	260	2062	311	056	097	575	260	3012	428	090	150	737
260	2013	387	081	177	757	260	2063	288	055	096	581	260	3013	277	113	026	839
260	2014	469	092	191	806	260	2064	305	064	117	770	260	3014	355	150	198	839
260	2015	475	096	195	831	260	2065	306	066	098	777	260	3015	399	191	963	281
260	2016	444	142	019	986	260	2066	346	078	064	833	260	3016	285	167	786	196
260	2017	411	128	106	925	260	2067	290	072	004	738	260	3017	160	201	430	918
260	2018	465	136	103	903	260	2068	306	064	063	669	260	3018	040	107	449	597
260	2019	381	100	130	764	260	2069	307	064	100	710	260	3019	132	071	128	385
260	2020	401	085	173	688	260	2070	327	066	113	639	260	3020	397	091	134	834
260	2021	461	110	183	659	260	2071	325	088	062	717	260	3021	297	089	004	838
260	2022	466	100	204	857	260	2072	405	111	083	330	260	3022	434	077	198	817
260	2023	416	073	213	704	260	2073	285	075	071	659	260	3023	441	086	180	759
260	2024	410	075	217	684	260	2074	354	091	062	968	260	3024	392	093	003	764
260	2025	443	073	242	700	260	2075	300	093	127	872	260	3025	064	075	244	307
260	2026	306	065	058	530	260	2076	326	080	150	949	260	3026	222	066	072	435
260	2027	327	055	098	525	260	2077	300	090	117	661	260	3027	289	079	026	609
260	2028	338	061	156	611	260	2078	315	074	013	803	260	3028	298	162	874	162
260	2029	389	058	219	587	260	2079	288	078	005	879	260	3029	052	066	194	242
260	2030	378	066	149	609	260	2080	335	092	017	124	260	3030	128	060	090	308
260	2031	308	062	119	548	260	2081	277	078	054	881	260	3031	195	048	023	336
260	2032	298	063	099	540	260	2082	280	074	047	696	260	3032	392	163	954	299
260	2033	314	061	084	560	260	2083	230	078	015	591	260	3033	284	159	846	204
260	2034	280	061	055	541	260	2084	305	096	013	851	260	3034	080	222	666	779
260	2035	271	057	052	488	260	2085	328	101	084	019	260	3035	110	088	546	520
260	2036	262	054	050	463	260	2086	263	088	063	832	260	3036	338	083	422	235
260	2037	298	054	096	483	260	2087	253	079	020	662	260	3037	338	088	397	238
260	2038	324	054	144	520	260	2088	269	074	055	649	260	3038	40	088	370	233
260	2039	321	056	153	578	260	2089	191	064	066	512	260	3039	41	088	687	188
260	2040	317	046	176	613	260	2090	065	039	166	159	260	3040	42	088	320	243
260	2041	313	047	170	642	260	2091	213	101	074	784	260	3041	43	062	237	258
260	2042	335	044	207	659	260	2092	301	069	058	703	260	3042	44	044	054	373
260	2043	31	045	190	581	260	2093	185	059	002	585	260	3043	45	143	713	426
260	2044	325	046	112	526	260	2094	192	066	024	506	260	3044	46	140	718	228



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WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
260	047	087	193	452	774	260	3097	153	053	025	420	260	4051	259	132	783	051
260	048	041	102	419	396	260	4001	582	108	157	056	260	4052	168	106	630	086
260	049	028	077	339	172	260	4002	613	135	271	497	260	4053	203	105	653	048
260	050	009	076	330	088	260	4003	239	076	017	490	260	4054	191	116	677	077
260	051	018	076	312	009	260	4004	025	093	288	351	260	4055	268	126	734	033
260	052	102	113	587	007	260	4005	018	124	509	590	260	4056	303	161	882	220
260	053	048	068	247	006	260	4006	214	129	586	184	260	4057	657	254	117	1679
260	054	098	058	191	000	260	4007	124	127	631	259	260	4058	938	255	257	209
260	055	198	044	017	000	260	4008	107	128	564	300	260	4060	013	073	377	209
260	056	174	125	533	000	260	4009	496	111	192	119	260	4061	030	074	352	187
260	057	094	110	538	000	260	4010	516	167	200	456	260	4062	186	107	600	076
260	058	154	156	320	000	260	4011	189	077	086	302	260	4063	092	086	438	128
260	059	004	080	413	000	260	4012	206	115	620	159	260	4064	130	083	461	081
260	060	035	061	309	000	260	4013	323	144	886	149	260	4065	136	103	522	109
260	061	028	056	271	000	260	4014	499	171	014	047	260	4066	200	115	653	061
260	062	035	065	248	000	260	4015	114	258	841	705	260	4067	179	138	690	229
260	063	059	100	550	000	260	4017	302	129	748	150	260	4068	335	108	053	841
260	064	100	083	512	000	260	4018	460	167	093	207	260	4069	553	178	038	138
260	065	110	052	500	000	260	4019	337	137	115	142	260	4070	115	068	166	385
260	066	214	044	333	000	260	4020	231	121	592	166	260	4071	009	058	251	174
260	067	101	094	300	000	260	4021	287	129	693	050	260	4072	054	060	344	119
260	068	010	069	299	000	260	4022	258	127	696	093	260	4073	140	090	684	072
260	069	102	087	299	000	260	4023	348	143	558	077	260	4074	178	091	699	035
260	070	018	051	174	000	260	4024	585	124	433	404	260	4075	086	085	562	110
260	071	019	049	177	000	260	4025	654	183	313	404	260	4076	147	086	670	062
260	072	045	051	188	000	260	4026	174	071	046	474	260	4077	164	096	563	069
260	073	028	051	171	000	260	4027	083	103	493	251	260	4078	175	093	597	096
260	074	012	055	261	000	260	4028	211	120	623	160	260	4079	061	048	150	250
260	075	081	040	660	000	260	4029	341	165	556	102	260	4080	066	060	380	083
260	076	110	037	025	000	260	4030	271	125	691	048	260	4081	028	039	276	093
260	077	177	038	332	000	260	4031	271	126	748	045	260	4082	022	031	165	084
260	078	049	062	488	000	260	4032	329	133	817	003	260	4083	030	041	207	078
260	079	118	049	088	000	260	4033	359	152	837	024	260	9001	252	080	017	646
260	080	209	050	014	000	260	4034	433	163	989	005	260	9002	308	077	114	647
260	081	013	054	294	000	260	4035	730	182	194	704	260	9003	366	076	146	714
260	082	043	049	158	000	260	4036	759	232	392	836	260	9004	291	069	066	578
260	083	022	048	833	000	260	4037	297	085	012	825	260	9005	267	064	041	505
260	084	085	047	080	000	260	4038	060	086	385	201	260	9006	289	093	060	774
260	085	072	041	163	000	260	4039	134	103	540	125	260	9007	492	084	250	796
260	086	149	045	075	000	260	4040	336	138	992	043	260	9008	564	130	136	058
260	087	092	039	093	000	260	4041	221	115	695	077	260	9009	301	072	069	838
260	088	195	051	009	000	260	4042	259	111	727	033	260	9011	075	064	473	101
260	089	000	040	228	000	260	4043	282	121	712	068	260	9012	355	077	112	968
260	090	014	062	220	000	260	4044	370	132	805	018	260	9013	151	091	556	050
260	091	076	071	178	000	260	4045	385	155	847	234	260	9014	446	083	198	729
260	092	022	051	083	000	260	4046	720	211	233	515	260	9015	363	100	111	151
260	093	049	033	211	000	260	4047	906	256	380	982	260	9016	168	091	589	051
260	094	046	033	156	000	260	4048	299	097	082	716	260	9018	384	084	098	701
260	095	133	042	028	000	260	4049	034	074	353	144	260	9019	355	106	064	018
260	096	073	037	067	000	260	4050	077	098	512	171	260	9020	241	086	049	743

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WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
2260	9021	186	108	824	042	270	1023	371	077	126	753	270	1073	300	071	109	591
2260	9022	346	078	107	841	270	1024	413	129	029	865	270	1074	233	073	052	554
2260	9023	296	091	057	776	270	1025	202	143	071	085	270	1075	217	073	023	657
2260	9024	336	106	121	791	270	1026	554	146	057	111	270	1076	262	076	030	577
2260	9025	420	096	079	801	270	1027	554	148	036	384	270	1077	183	051	001	387
2260	9026	471	103	171	925	270	1028	554	133	034	230	270	1078	165	056	036	516
2260	9027	488	122	050	978	270	1029	554	133	144	265	270	1079	280	049	093	491
2260	9028	098	100	529	237	270	1030	554	133	134	378	270	1080	269	058	077	548
270	9029	184	106	219	629	270	1031	554	133	230	510	270	1081	306	069	101	768
270	1	039	053	197	342	270	1032	554	144	206	450	270	1082	241	086	034	689
270	2	019	056	255	255	270	1033	554	070	162	687	270	1083	171	076	120	527
270	3	012	031	128	158	270	1034	554	074	159	842	270	1084	204	056	036	615
270	4	014	033	145	117	270	1035	554	086	114	912	270	1085	156	052	037	443
270	5	023	028	127	119	270	1036	554	104	083	065	270	1086	187	044	037	438
270	6	001	030	157	096	270	1037	554	086	150	187	270	1088	246	052	110	566
270	7	024	038	298	091	270	1038	554	188	187	188	270	1089	250	054	085	511
270	8	014	035	257	098	270	1039	554	137	028	990	270	1090	173	073	107	589
270	9	025	025	257	111	270	1040	554	150	138	141	270	1091	172	045	005	325
270	10	020	035	206	167	270	1041	554	137	175	407	270	1092	211	053	024	476
270	11	001	042	265	149	270	1042	554	168	126	606	270	1093	071	072	155	352
270	12	011	023	087	093	270	1043	554	144	321	538	270	1094	052	059	291	298
270	13	022	026	088	119	270	1044	554	070	115	751	270	1095	151	045	058	315
270	14	012	029	099	125	270	1045	554	067	144	824	270	1096	229	121	246	769
270	15	051	075	400	254	270	1046	554	075	121	721	270	1097	291	096	131	862
270	16	012	054	347	166	270	1047	554	071	107	809	270	1098	002	106	243	915
270	17	026	063	309	199	270	1048	554	049	069	075	270	1099	332	106	123	825
270	18	107	071	467	050	270	1049	554	160	175	156	270	2004	441	106	146	876
270	19	085	072	519	075	270	1050	554	108	118	932	270	2005	423	100	129	133
270	1001	405	105	110	907	270	1051	554	133	170	255	270	2006	366	084	106	691
270	1002	420	108	070	951	270	1052	554	42	133	503	270	2007	401	084	187	736
270	1003	509	131	038	071	270	1053	554	59	162	504	270	2008	379	084	146	691
270	1004	622	159	160	402	270	1054	554	74	285	439	270	2009	457	079	248	751
270	1005	598	131	265	509	270	1055	554	32	087	708	270	2010	356	083	094	693
270	1006	518	110	173	145	270	1056	554	09	044	748	270	2011	354	079	143	640
270	1007	423	084	203	767	270	1057	554	07	124	692	270	2012	398	084	178	693
270	1008	445	086	179	865	270	1058	554	06	100	655	270	2013	360	080	143	627
270	1009	463	106	163	865	270	1059	554	07	018	728	270	2014	444	079	225	725
270	1010	517	142	112	315	270	1060	554	12	179	817	270	2015	414	081	207	707
270	1011	454	108	172	027	270	1061	554	08	079	791	270	2016	411	115	001	822
270	1012	485	107	158	237	270	1062	554	09	082	932	270	2017	366	103	106	761
270	1013	369	086	090	734	270	1063	554	12	099	387	270	2018	333	108	117	831
270	1014	385	081	124	726	270	1064	554	15	092	207	270	2019	328	077	114	662
270	1015	422	112	057	154	270	1065	554	15	213	446	270	2020	340	074	117	671
270	1016	406	107	040	973	270	1066	554	07	098	642	270	2021	433	101	190	084
270	1017	456	109	007	931	270	1067	554	09	084	763	270	2022	388	096	208	777
270	1018	486	126	130	120	270	1068	554	05	079	492	270	2023	380	076	200	632
270	1019	500	112	123	112	270	1069	554	05	117	497	270	2024	410	075	178	667
270	1020	476	101	163	947	270	1070	554	05	067	486	270	2025	410	067	205	647
270	1021	548	138	139	493	270	1071	554	09	138	538	270	2026	391	050	023	488
270	1022	378	086	140	718	270	1072	554	07	047	523	270	2027	391	043	145	488

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
270	2028	290	047	171	505	270	2078	289	058	026	574	270	3030	122	155	835	415
270	2029	341	050	213	545	270	2079	246	058	026	461	270	3031	126	050	062	364
270	2030	319	061	144	601	270	2080	305	060	116	682	270	3032	185	047	024	370
270	2031	254	051	038	475	270	2081	236	058	002	508	270	3033	211	043	060	386
270	2032	244	052	033	455	270	2082	270	086	061	838	270	3034	202	199	748	571
270	2033	265	050	064	493	270	2083	286	090	015	806	270	3035	071	152	594	406
270	2034	235	048	057	440	270	2084	268	078	085	709	270	3036	393	204	325	166
270	2035	241	042	103	406	270	2085	296	075	086	745	270	3037	097	170	334	915
270	2036	236	041	109	399	270	2086	219	067	029	550	270	3038	066	085	209	556
270	2037	271	042	137	440	270	2087	254	064	043	636	270	3039	068	074	175	563
270	2038	302	045	150	460	270	2088	244	064	010	555	270	3040	094	072	134	462
270	2039	292	045	166	444	270	2089	170	054	012	456	270	3041	063	121	509	513
270	2040	284	039	154	444	270	2090	031	044	165	169	270	3042	107	061	151	366
270	2041	277	039	146	456	270	2091	197	086	046	637	270	3043	127	048	089	333
270	2042	296	037	174	459	270	2092	300	065	075	581	270	3044	231	035	102	348
270	2043	276	037	147	421	270	2093	179	053	008	502	270	3045	175	201	746	935
270	2044	287	039	114	414	270	2094	184	050	011	487	270	3046	177	146	683	334
270	2045	274	038	126	406	270	2095	131	052	051	385	270	3047	239	189	509	091
270	2046	293	038	117	432	270	2096	177	085	028	907	270	3048	085	121	322	883
270	2047	277	038	101	429	270	2097	246	094	049	985	270	3049	061	073	268	505
270	2048	295	041	151	451	270	2098	199	043	058	454	270	3050	087	065	214	389
270	2049	288	045	166	507	270	2099	122	045	073	380	270	3051	074	063	218	448
270	2050	322	055	166	643	270	3001	708	172	119	530	270	3052	016	106	436	427
270	2051	255	041	106	426	270	3002	326	115	003	947	270	3053	118	054	125	337
270	2052	271	044	124	461	270	3003	378	073	112	808	270	3054	147	046	071	476
270	2053	257	044	100	431	270	3004	168	137	166	931	270	3055	203	036	052	360
270	2054	283	044	122	482	270	3005	172	057	043	482	270	3056	054	200	697	792
270	2055	267	045	068	460	270	3006	239	172	756	563	270	3057	003	139	563	528
270	2056	268	045	091	466	270	3007	101	145	576	449	270	3058	255	088	331	76
270	2057	255	045	062	439	270	3008	460	202	141	225	270	3059	066	105	269	525
270	2058	286	045	124	506	270	3009	101	099	123	761	270	3060	090	073	188	479
270	2059	276	053	081	564	270	3010	155	099	123	761	270	3061	080	065	158	419
270	2060	296	059	061	649	270	3011	262	061	038	462	270	3062	093	059	109	351
270	2061	304	072	113	790	270	3012	382	095	119	860	270	3063	001	099	418	328
270	2062	280	051	119	516	270	3013	363	082	136	668	270	3064	148	053	062	360
270	2063	266	051	114	487	270	3014	397	088	153	772	270	3065	147	044	036	348
270	2064	273	049	129	631	270	3015	401	093	110	754	270	3066	219	041	074	441
270	2065	271	051	070	649	270	3016	394	114	021	769	270	3067	036	129	461	456
270	2066	306	061	139	798	270	3017	276	210	794	730	270	3068	025	085	426	335
270	2067	258	050	050	498	270	3018	110	155	577	424	270	3069	120	079	207	452
270	2068	270	050	059	534	270	3019	466	190	204	210	270	3070	055	052	221	224
270	2069	270	050	059	534	270	3020	151	152	234	925	270	3071	062	048	142	229
270	2070	271	050	113	520	270	3021	207	062	042	548	270	3072	089	049	104	333
270	2071	286	051	132	683	270	3022	393	086	172	801	270	3073	077	048	120	220
270	2072	354	094	134	872	270	3023	322	085	091	732	270	3074	044	063	326	221
270	2073	289	069	118	704	270	3024	407	072	210	650	270	3075	118	041	039	291
270	2074	355	081	168	787	270	3025	388	075	184	682	270	3076	143	040	015	391
270	2075	284	075	121	783	270	3026	355	080	102	674	270	3077	194	041	022	386
270	2076	331	075	152	773	270	3027	169	063	085	647	270	3078	078	060	161	350
270	2077	317	094	008	961	270	3028	295	060	068	596	270	3079	158	043	020	315
270	2077	317	094	008	961	270	3029	328	073	116	590	270	3079	158	043	020	315

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
270	3080	214	043	081	398	270	4034	402	167	943	136	270	9002	233	077	031	665
270	3081	015	056	221	230	270	4035	688	276	066	900	270	9003	310	076	073	717
270	3082	087	047	133	250	270	4036	031	313	063	383	270	9004	275	052	089	537
270	3083	071	046	135	218	270	4037	260	130	277	681	270	9005	233	051	021	475
270	3084	128	043	057	260	270	4038	146	112	708	183	270	9006	249	078	017	554
270	3085	110	037	041	234	270	4039	217	128	727	110	270	9007	430	077	235	685
270	3086	191	039	034	347	270	4040	378	151	889	007	270	9008	481	130	074	962
270	3087	125	037	010	246	270	4041	289	141	796	060	270	9009	311	096	124	108
270	3088	197	048	025	405	270	4042	318	134	763	008	270	9011	120	090	651	072
270	3089	020	045	163	198	270	4043	314	139	847	011	270	9012	319	059	147	743
270	3090	066	086	243	357	270	4044	377	151	861	017	270	9013	147	091	699	066
270	3091	160	071	094	365	270	4045	331	169	811	276	270	9014	379	085	189	783
270	3092	086	055	153	254	270	4046	566	241	034	850	270	9015	348	093	131	911
270	3093	101	050	121	257	270	4047	928	336	024	191	270	9016	162	088	694	028
270	3094	084	036	056	189	270	4048	207	146	345	754	270	9018	357	065	146	598
270	3095	172	036	013	306	270	4049	092	084	540	115	270	9019	340	076	160	791
270	3096	106	035	041	228	270	4050	116	099	603	119	270	9020	239	076	017	950
270	3097	162	046	017	372	270	4051	263	124	814	015	270	9021	157	093	647	053
270	4001	535	142	150	026	270	4052	182	102	711	066	270	9022	367	081	142	877
270	4002	843	216	269	711	270	4053	212	099	721	016	270	9023	290	079	026	735
270	4003	166	092	239	529	270	4054	190	112	711	055	270	9024	467	136	072	968
270	4004	068	110	485	276	270	4055	253	127	770	036	270	9025	371	108	004	735
270	4005	134	120	601	379	270	4056	237	168	810	214	270	9026	441	107	219	908
270	4006	213	128	671	222	270	4057	396	227	094	596	270	9027	431	106	105	798
270	4007	076	122	460	347	270	4058	681	311	159	961	270	9028	003	147	55	474
270	4008	035	115	405	403	270	4060	034	081	706	198	270	9029	225	100	126	597
270	4009	552	176	062	437	270	4061	054	074	464	196	280	1	018	077	265	401
270	4010	810	251	241	669	270	4062	173	096	667	128	280	2	045	071	274	403
270	4011	151	097	312	519	270	4063	093	078	459	145	280	3	016	036	188	142
270	4012	303	128	707	099	270	4064	128	074	487	105	280	4	015	042	189	112
270	4013	414	153	891	045	270	4065	112	084	610	118	280	5	004	032	112	116
270	4014	462	163	996	030	270	4066	158	099	733	113	280	6	010	031	138	108
270	4015	127	242	788	871	270	4067	100	144	801	312	280	7	047	035	190	072
270	4017	386	141	871	021	270	4068	233	113	080	816	280	8	028	033	148	081
270	4018	463	175	067	012	270	4069	401	209	067	322	280	9	023	034	166	192
270	4019	387	163	910	075	270	4070	043	093	263	382	280	10	029	038	123	181
270	4020	279	143	754	161	270	4071	020	073	374	180	280	11	011	041	299	174
270	4021	323	136	834	050	270	4072	082	077	483	138	280	12	013	029	107	132
270	4022	294	134	759	062	270	4073	151	085	655	037	280	13	021	028	095	109
270	4023	364	169	883	116	270	4074	190	086	696	002	280	14	013	028	089	113
270	4024	709	218	164	466	270	4075	109	086	536	083	280	15	073	070	218	469
270	4025	081	326	386	534	270	4076	155	082	555	031	280	16	033	037	168	166
270	4026	192	098	147	561	270	4077	126	084	491	081	280	17	091	072	175	374
270	4027	119	119	589	157	270	4078	122	094	589	167	280	18	112	098	611	116
270	4028	309	135	805	079	270	4079	064	047	125	283	280	19	198	105	725	058
270	4029	415	167	032	050	270	4080	031	056	327	115	280	1001	392	101	089	973
270	4030	328	144	873	013	270	4081	033	040	235	075	280	1002	423	115	036	106
270	4031	365	148	810	084	270	4082	007	030	112	101	280	1003	499	130	111	045
270	4032	376	153	868	046	270	4083	006	046	171	151	280	1004	599	138	099	087
270	4033	385	168	927	060	270	9001	174	078	108	541	280	1005	597	111	199	231

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
280	1006	513	103	223	-1 249	280	10556	250	063	084	-627	280	2011	358	075	095	-645
280	1007	414	077	157	-737	280	10557	305	054	160	-601	280	2012	333	080	159	-778
280	1008	430	084	081	-702	280	10558	277	045	126	-451	280	2013	333	066	119	-606
280	1009	456	098	008	-888	280	10559	306	051	137	-614	280	2014	338	066	208	-698
280	1010	529	137	036	-1 187	280	10600	141	094	279	-658	280	2015	337	065	177	-660
280	1011	488	109	129	-1 086	280	1061	300	054	149	-667	280	2016	362	083	082	-752
280	1012	511	108	183	-1 078	280	1062	256	055	110	-684	280	2017	313	066	115	-567
280	1013	351	080	105	-687	280	1063	249	069	024	-974	280	2018	308	068	027	-773
280	1014	377	080	131	-831	280	1064	245	141	181	-1 132	280	2019	285	058	028	-492
280	1015	403	109	013	-815	280	1065	526	221	101	-1 407	280	2020	311	063	015	-638
280	1016	404	111	006	-846	280	1066	287	077	095	-648	280	2021	428	084	161	-855
280	1017	467	122	164	-903	280	10667	277	069	089	-665	280	2022	425	090	167	-791
280	1018	490	132	251	-968	280	10668	241	049	084	-476	280	2023	381	075	189	-753
280	1019	506	113	100	-933	280	10669	274	042	127	-441	280	2024	364	074	170	-716
280	1020	489	107	081	-832	280	10700	274	043	049	-389	280	2025	396	065	220	-692
280	1021	545	121	078	-1 232	280	1071	128	062	221	-355	280	2026	293	047	113	-507
280	1022	342	074	114	-793	280	1072	179	046	037	-400	280	2027	297	039	147	-436
280	1023	346	068	160	-654	280	1073	231	050	063	-492	280	2028	280	039	155	-435
280	1024	360	105	014	-834	280	1074	170	050	008	-441	280	2029	334	043	182	-520
280	1025	488	130	013	-1 016	280	1075	130	061	155	-406	280	2030	307	054	115	-676
280	1026	506	131	015	-978	280	1076	169	092	169	-495	280	2031	253	053	075	-638
280	1027	528	144	150	-1 074	280	1077	189	056	004	-452	280	2032	240	053	011	-495
280	1028	512	114	044	-920	280	1078	146	043	039	-290	280	2033	256	048	079	-430
280	1029	587	122	129	-1 173	280	1079	293	044	139	-494	280	2034	236	045	072	-411
280	1030	570	121	151	-1 150	280	1080	266	053	120	-483	280	2035	246	038	108	-429
280	1031	602	113	217	-1 150	280	1081	253	051	017	-503	280	2036	243	037	117	-404
280	1032	611	115	309	-1 175	280	1082	142	058	073	-459	280	2037	273	038	152	-433
280	1033	327	049	175	-596	280	1083	144	108	204	-702	280	2038	292	038	172	-458
280	1034	285	049	136	-594	280	1084	164	040	009	-360	280	2039	274	037	168	-435
280	1035	309	047	121	-609	280	1085	153	048	025	-344	280	2040	284	040	166	-511
280	1036	325	060	135	-708	280	1086	178	040	047	-355	280	2041	276	041	143	-555
280	1037	409	086	139	-839	280	1088	230	039	109	-383	280	2042	291	034	179	-496
280	1038	303	176	243	-958	280	1089	205	049	000	-392	280	2043	269	032	162	-408
280	1039	417	116	152	-979	280	1090	056	068	237	-328	280	2044	276	033	164	-399
280	1040	410	128	140	-1 168	280	1091	178	037	026	-298	280	2045	262	032	153	-385
280	1041	481	156	187	-1 120	280	1092	188	047	107	-379	280	2046	280	032	159	-404
280	1042	584	197	103	-1 206	280	1093	021	066	284	-367	280	2047	264	032	159	-391
280	1043	798	163	091	-1 452	280	1094	222	067	592	-272	280	2048	282	035	131	-404
280	1044	270	052	097	-557	280	1095	153	040	040	-295	280	2049	273	037	143	-411
280	1045	317	053	155	-570	280	1096	095	160	401	-487	280	2050	300	042	144	-530
280	1046	285	047	144	-543	280	2001	419	102	068	-970	280	2051	260	045	103	-530
280	1047	322	050	167	-672	280	2002	496	101	165	-844	280	2052	253	046	061	-631
280	1048	334	065	069	-903	280	2003	367	094	065	-743	280	2053	253	040	070	-443
280	1049	260	133	157	-983	280	2004	366	085	108	-708	280	2054	274	037	099	-416
280	1050	332	088	139	-835	280	2005	392	084	125	-945	280	2055	257	036	075	-413
280	1051	356	096	162	-956	280	2006	326	073	095	-657	280	2056	261	037	074	-421
280	1052	340	118	130	-968	280	2007	354	070	159	-708	280	2057	250	037	108	-418
280	1053	517	215	068	-1 267	280	2008	333	070	157	-737	280	2058	277	038	122	-491
280	1054	759	193	135	-1 391	280	2009	398	063	204	-637	280	2059	259	041	078	-449
280	1055	276	066	109	-682	280	2010	329	069	097	-613	280	2060	274	046	076	-464

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
2800	2061	276	052	100	513	2800	3013	369	076	094	689	2800	3063	199	118	453	772
2800	2062	301	053	107	573	2800	3014	351	066	164	601	2800	3064	262	072	010	714
2800	2063	284	054	068	581	2800	3015	373	077	149	684	2800	3065	234	055	025	563
2800	2064	293	051	134	681	2800	3016	382	093	097	902	2800	3066	270	048	079	831
2800	2065	290	046	146	499	2800	3017	144	285	586	571	2800	3067	260	128	246	875
2800	2066	292	043	141	550	2800	3018	160	122	791	791	2800	3068	205	084	044	706
2800	2067	295	040	114	401	2800	3019	769	160	321	444	2800	3069	213	073	003	594
2800	2068	297	042	139	456	2800	3020	554	228	008	243	2800	3070	168	049	046	386
2800	2069	269	042	111	488	2800	3021	365	126	112	059	2800	3071	165	045	104	368
2800	2070	283	044	149	456	2800	3022	450	099	172	981	2800	3072	194	045	077	799
2800	2071	257	051	065	579	2800	3023	389	067	172	871	2800	3073	172	043	059	322
2800	2072	313	070	146	471	2800	3024	392	067	192	644	2800	3074	133	055	166	331
2800	2073	295	054	111	601	2800	3025	365	066	179	606	2800	3075	179	043	022	368
2800	2074	357	063	162	739	2800	3026	341	075	049	839	2800	3076	208	042	072	411
2800	2075	394	056	112	665	2800	3027	348	141	069	994	2800	3077	235	041	114	454
2800	2076	342	057	127	738	2800	3028	405	105	180	811	2800	3078	161	040	074	417
2800	2077	304	068	093	866	2800	3029	377	091	144	866	2800	3079	205	044	015	417
2800	2078	297	047	074	536	2800	3030	156	199	484	977	2800	3080	239	046	037	406
2800	2079	231	047	049	444	2800	3031	219	090	030	856	2800	3081	105	039	113	233
2800	2080	287	047	070	496	2800	3032	236	061	012	803	2800	3082	192	046	026	392
2800	2081	338	062	026	867	2800	3033	223	045	030	525	2800	3083	167	046	013	371
2800	2082	336	084	009	955	2800	3034	258	303	626	606	2800	3084	193	042	004	378
2800	2083	312	074	114	759	2800	3035	216	133	288	201	2800	3085	161	040	011	332
2800	2084	248	054	094	544	2800	3036	753	183	181	692	2800	3086	243	039	065	410
2800	2085	271	049	124	475	2800	3037	541	237	062	257	2800	3087	171	041	010	349
2800	2086	199	052	034	449	2800	3038	319	179	004	243	2800	3088	221	044	047	391
2800	2087	229	045	043	411	2800	3039	281	149	004	915	2800	3089	112	043	104	263
2800	2088	247	044	077	423	2800	3040	287	125	028	828	2800	3090	238	074	040	288
2800	2089	166	047	076	476	2800	3041	167	192	402	358	2800	3091	261	052	029	428
2800	2090	141	043	050	303	2800	3042	232	097	111	618	2800	3092	177	044	015	308
2800	2091	189	055	001	471	2800	3043	215	062	027	862	2800	3093	194	045	034	350
2800	2092	271	050	111	471	2800	3044	268	042	035	682	2800	3094	142	040	045	322
2800	2093	198	054	031	600	2800	3045	309	308	669	425	2800	3095	217	039	042	390
2800	2094	177	041	031	600	2800	3046	266	143	301	906	2800	3096	150	042	066	318
2800	2095	123	045	013	322	2800	3047	651	199	007	387	2800	3097	168	038	030	327
2800	2096	087	096	150	106	2800	3048	467	229	072	343	2800	4001	366	090	108	949
2800	2097	198	055	041	522	2800	3049	308	169	044	209	2800	4002	748	234	026	648
2800	2098	198	035	093	343	2800	3050	308	149	036	053	2800	4003	029	116	443	498
2800	2099	106	041	058	230	2800	3051	274	123	014	855	2800	4004	157	121	701	955
2800	001	786	187	243	599	2800	3052	215	192	332	078	2800	4005	194	137	601	294
2800	002	556	162	116	167	2800	3053	237	100	095	914	2800	4006	132	134	573	282
2800	003	455	115	002	990	2800	3054	227	060	016	671	2800	4007	024	114	408	555
2800	005	514	212	023	323	2800	3055	234	041	103	466	2800	4008	175	095	222	595
2800	006	254	081	058	612	2800	3056	395	251	431	350	2800	4009	384	167	018	301
2800	007	037	220	571	209	2800	3057	277	115	240	729	2800	4010	824	246	111	823
2800	008	165	134	286	710	2800	3058	486	156	039	356	2800	4011	028	122	471	397
2800	009	881	216	299	707	2800	3059	352	155	061	034	2800	4012	392	141	860	036
2800	3010	393	132	090	941	2800	3060	295	122	003	021	2800	4013	451	158	106	135
2800	3011	354	072	130	716	2800	3061	257	101	009	774	2800	4014	378	158	005	161
2800	3012	387	085	144	821	2800	3062	247	078	024	644	2800	4015	426	196	315	014

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
280	4017	471	145	943	011	280	4068	062	098	270	538	290	8	016	039	219	091
280	4018	452	156	980	017	280	4069	085	160	263	867	290	9	045	036	107	173
280	4019	402	148	889	041	280	4070	124	073	448	106	290	10	068	037	121	218
280	4020	332	144	838	096	280	4071	126	091	565	121	290	11	045	033	095	188
280	4021	354	150	796	181	280	4072	184	099	737	031	290	12	038	029	090	139
280	4022	303	144	731	133	280	4073	196	113	673	053	290	13	047	029	059	134
280	4023	301	153	815	253	280	4074	237	113	709	007	290	14	047	028	050	133
280	4024	508	203	085	373	280	4075	173	119	670	083	290	15	123	046	104	385
280	4025	015	274	045	919	280	4076	173	111	638	110	290	16	082	039	056	269
280	4026	041	121	515	465	280	4077	109	097	558	172	290	17	159	048	064	511
280	4027	298	133	860	091	280	4078	008	077	314	225	290	18	028	072	409	230
280	4028	414	145	990	075	280	4079	034	049	148	259	290	19	111	093	733	251
280	4029	446	163	044	066	280	4080	028	044	119	201	290	1001	368	108	054	125
280	4030	451	153	040	015	280	4081	043	048	256	097	290	1002	378	128	063	268
280	4031	433	151	936	001	280	4082	027	032	091	121	290	1003	423	135	109	272
280	4032	469	154	956	033	280	4083	079	036	139	188	290	1004	487	149	055	041
280	4033	438	166	904	019	280	9001	074	109	360	551	290	1005	571	143	216	190
280	4034	330	171	847	216	280	9002	118	080	132	432	290	1006	653	162	290	525
280	4035	470	194	041	460	280	9003	231	063	006	474	290	1007	389	073	186	694
280	4036	851	357	184	004	280	9004	249	044	043	442	290	1008	367	078	088	752
280	4037	071	150	493	666	280	9005	218	043	070	395	290	1009	368	126	056	077
280	4038	294	136	837	195	280	9006	236	050	066	473	290	1010	416	166	021	996
280	4039	347	148	973	067	280	9007	429	066	182	690	290	1011	502	205	009	198
280	4040	442	156	023	051	280	9008	447	112	060	884	290	1012	645	180	161	592
280	4041	393	161	984	002	280	9009	381	135	165	554	290	1013	319	062	015	593
280	4042	411	152	996	044	280	9010	215	110	691	032	290	1014	341	065	141	720
280	4043	394	171	020	067	280	9011	319	052	121	842	290	1015	336	078	035	847
280	4044	407	174	977	072	280	9012	245	129	847	032	290	1016	303	098	013	757
280	4045	199	198	836	404	280	9013	337	068	130	696	290	1017	347	130	022	940
280	4046	365	178	176	447	280	9014	362	079	172	043	290	1018	295	204	578	048
280	4047	616	340	317	670	280	9015	238	144	835	091	290	1019	388	125	078	055
280	4048	010	138	489	565	280	9016	365	062	137	655	290	1020	393	127	135	951
280	4049	208	126	690	111	280	9017	337	068	180	926	290	1021	435	162	096	369
280	4050	202	146	740	149	280	9018	236	057	059	593	290	1022	310	051	157	613
280	4051	271	139	871	070	280	9019	337	117	589	112	290	1023	322	049	148	645
280	4052	281	153	899	064	280	9020	410	088	218	155	290	1024	296	061	086	750
280	4053	301	149	905	057	280	9021	277	063	117	669	290	1025	370	085	063	859
280	4054	254	158	932	118	280	9022	672	151	189	345	290	1026	347	114	053	008
280	4055	260	152	860	125	280	9023	298	112	048	808	290	1027	286	192	264	970
280	4056	053	169	783	399	280	9024	415	084	209	797	290	1028	374	124	031	920
280	4057	181	150	269	065	280	9025	377	079	134	711	290	1029	453	159	108	181
280	4058	344	300	345	568	280	9026	283	131	658	763	290	1030	419	177	056	120
280	4060	114	098	530	174	280	9027	278	076	130	630	290	1031	543	227	012	374
280	4061	085	108	694	246	290	9028	071	072	436	214	290	1032	692	189	004	430
280	4062	137	108	679	162	290	1	090	070	516	116	290	1033	327	041	196	528
280	4063	086	114	670	211	290	2	010	043	225	169	290	1034	279	039	132	454
280	4064	118	109	686	205	290	3	006	041	158	147	290	1035	298	038	169	462
280	4065	100	116	697	262	290	4	030	033	093	134	290	1036	318	045	156	523
280	4066	099	110	641	254	290	5	016	033	111	130	290	1037	401	057	105	925
280	4067	107	128	420	497	290	6	043	042	232	070	290	1038	165	110	306	026

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
2990	1039	331	069	152	984	2990	1090	000	063	266	439	2990	2044	283	036	159	493
2990	1040	308	079	126	047	2990	1091	183	041	010	344	2990	2045	285	031	158	405
2990	1041	343	101	075	263	2990	1092	191	051	044	426	2990	2046	283	031	171	413
2990	1042	321	208	068	307	2990	1093	002	064	299	252	2990	2047	287	030	164	407
2990	1043	590	263	145	492	2990	1094	040	069	454	183	2990	2048	281	033	171	418
2990	1044	254	042	116	548	2990	1095	158	041	002	317	2990	2049	280	033	155	433
2990	1045	306	042	166	570	2990	1096	000	141	575	431	2990	2050	285	038	176	480
2990	1046	278	038	137	428	2990	2001	355	100	001	783	2990	2051	282	038	083	757
2990	1047	334	052	102	546	2990	2002	438	103	143	870	2990	2052	283	038	026	787
2990	1048	349	060	014	533	2990	2003	310	082	035	867	2990	2053	282	060	082	549
2990	1049	201	087	342	778	2990	2004	326	073	107	705	2990	2054	282	046	136	507
2990	1050	293	050	033	740	2990	2005	376	082	144	840	2990	2055	282	039	108	448
2990	1051	290	050	164	999	2990	2006	284	082	104	590	2990	2056	282	034	144	401
2990	1052	244	060	056	888	2990	2007	266	055	130	534	2990	2057	282	033	135	387
2990	1053	246	140	101	200	2990	2008	244	055	120	561	2990	2058	282	034	146	408
2990	1054	427	235	251	383	2990	2009	355	055	204	630	2990	2059	282	033	141	420
2990	1055	249	043	117	388	2990	2010	300	066	128	695	2990	2060	282	035	151	436
2990	1056	227	041	083	333	2990	2011	300	069	085	637	2990	2061	282	039	145	440
2990	1057	297	040	158	485	2990	2012	310	063	088	751	2990	2062	282	060	102	675
2990	1058	283	043	127	474	2990	2013	272	053	092	532	2990	2063	282	059	073	686
2990	1059	315	050	125	509	2990	2014	340	054	174	589	2990	2064	282	045	114	637
2990	1060	112	084	291	226	2990	2015	224	051	165	717	2990	2065	282	045	130	533
2990	1061	283	042	005	500	2990	2016	298	052	126	618	2990	2066	282	044	129	517
2990	1062	231	038	091	780	2990	2017	266	048	092	530	2990	2067	282	035	141	413
2990	1063	208	040	038	474	2990	2018	255	047	122	489	2990	2068	282	035	139	485
2990	1064	120	072	099	535	2990	2019	300	050	085	481	2990	2069	282	035	135	589
2990	1065	266	180	219	533	2990	2020	343	055	098	602	2990	2070	282	037	146	465
2990	1066	263	053	114	575	2990	2021	311	067	078	686	2990	2071	282	039	134	552
2990	1067	260	048	105	511	2990	2022	336	063	195	586	2990	2072	282	046	147	563
2990	1068	230	039	071	391	2990	2023	336	054	194	586	2990	2073	282	059	089	573
2990	1069	268	037	121	410	2990	2024	333	054	183	563	2990	2074	282	054	155	618
2990	1070	221	038	071	421	2990	2025	390	054	236	621	2990	2075	282	045	156	528
2990	1071	101	057	160	268	2990	2026	314	044	160	527	2990	2076	282	047	136	558
2990	1072	160	039	009	391	2990	2027	317	039	149	494	2990	2077	282	051	076	504
2990	1073	207	039	045	362	2990	2028	291	037	151	475	2990	2078	282	041	124	453
2990	1074	138	038	030	294	2990	2029	344	040	193	538	2990	2079	282	040	095	387
2990	1075	082	049	109	264	2990	2030	304	044	167	525	2990	2080	282	039	147	589
2990	1076	091	082	218	406	2990	2031	373	074	026	718	2990	2081	282	047	084	532
2990	1077	247	056	004	606	2990	2032	285	067	023	638	2990	2082	282	055	176	662
2990	1078	191	048	047	401	2990	2033	255	056	042	511	2990	2083	282	053	069	597
2990	1079	320	040	182	493	2990	2034	255	048	075	446	2990	2084	282	050	088	493
2990	1080	253	042	100	470	2990	2035	255	041	129	428	2990	2085	282	052	087	624
2990	1081	253	044	087	474	2990	2036	248	038	133	407	2990	2086	282	044	085	538
2990	1082	120	043	066	355	2990	2037	227	039	158	434	2990	2087	282	046	078	426
2990	1083	067	105	323	703	2990	2038	303	035	187	504	2990	2088	282	051	013	501
2990	1084	221	050	061	499	2990	2039	280	034	153	461	2990	2089	282	046	013	416
2990	1085	201	051	031	493	2990	2040	313	072	079	812	2990	2090	282	041	086	416
2990	1086	229	043	087	415	2990	2041	297	074	067	866	2990	2091	282	048	013	390
2990	1088	249	042	093	425	2990	2042	306	054	126	828	2990	2092	282	054	058	527
2990	1089	188	046	022	381	2990	2043	277	043	113	643	2990	2093	282	047	064	549



APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
2990	094	241	053	002	536	2990	3046	440	171	101	391	2990	3096	217	054	015	406
2990	095	180	052	006	423	2990	3047	611	186	103	483	2990	3097	224	052	027	523
2990	096	188	070	287	531	2990	3048	546	167	067	216	2990	4001	316	107	115	755
2990	097	245	030	013	572	2990	3049	439	150	063	155	2990	4002	425	270	430	432
2990	098	160	039	037	297	2990	3050	417	128	074	047	2990	4003	024	150	617	539
2990	099	245	053	066	338	2990	3051	380	109	003	051	2990	4004	121	161	877	398
2990	001	160	200	190	359	2990	3052	382	161	249	055	2990	4005	087	188	718	406
2990	002	533	171	068	158	2990	3053	342	117	039	055	2990	4006	039	185	526	499
2990	003	417	120	016	458	2990	3054	313	094	073	077	2990	4007	152	141	443	669
2990	005	536	173	037	144	2990	3055	285	079	044	058	2990	4008	238	101	139	731
2990	006	295	085	002	674	2990	3056	603	201	188	527	2990	4009	299	135	284	178
2990	007	283	242	325	496	2990	3057	446	144	087	262	2990	4010	485	335	521	915
2990	008	310	117	078	331	2990	3058	491	128	196	436	2990	4011	081	162	867	466
2990	009	929	227	271	775	2990	3059	438	116	004	231	2990	4012	329	166	931	194
2990	010	474	127	135	555	2990	3060	409	117	047	107	2990	4013	321	193	895	599
2990	011	375	086	119	882	2990	3061	356	099	051	889	2990	4014	202	191	722	344
2990	012	535	084	070	866	2990	3062	348	082	021	750	2990	4015	510	190	143	417
2990	013	377	078	054	737	2990	3063	341	101	028	828	2990	4017	370	195	992	108
2990	014	390	052	123	555	2990	3064	353	088	062	808	2990	4018	315	192	961	192
2990	015	07	053	105	574	2990	3065	305	075	050	664	2990	4019	258	186	919	544
2990	016	311	064	221	444	2990	3066	301	058	034	959	2990	4020	257	180	892	470
2990	017	487	304	44	350	2990	3067	449	127	001	477	2990	4021	263	188	800	469
2990	018	320	130	053	181	2990	3068	329	083	022	85	2990	4022	217	175	722	699
2990	019	790	179	050	94	2990	3069	269	056	012	655	2990	4023	162	179	755	282
2990	020	686	169	139	1	2990	3070	241	050	074	666	2990	4024	324	177	372	145
2990	021	466	129	113	52	2990	3071	229	048	075	111	2990	4025	597	424	568	88
2990	022	468	100	186	0	2990	3072	258	050	064	39	2990	4026	061	147	680	222
2990	023	398	085	082	91	2990	3073	230	048	037	501	2990	4027	269	153	848	123
2990	024	551	053	187	533	2990	3074	187	061	083	471	2990	4028	339	176	015	071
2990	025	331	050	174	66	2990	3075	226	053	054	415	2990	4029	325	200	101	119
2990	026	442	059	130	63	2990	3076	248	053	005	447	2990	4030	355	190	090	072
2990	027	477	148	133	16	2990	3077	252	050	020	466	2990	4031	332	190	960	108
2990	028	433	122	138	04	2990	3078	218	039	081	364	2990	4032	343	202	977	125
2990	029	333	116	152	00	2990	3079	249	056	115	111	2990	4033	277	219	964	55
2990	030	373	169	250	94	2990	3080	284	055	035	90	2990	4034	103	228	782	805
2990	031	330	127	084	00	2990	3081	168	036	043	291	2990	4035	179	200	369	214
2990	032	305	099	061	84	2990	3082	273	052	094	475	2990	4036	226	407	635	795
2990	033	262	075	059	77	2990	3083	237	052	018	426	2990	4037	081	153	668	688
2990	034	560	317	385	00	2990	3084	260	054	025	539	2990	4038	237	119	864	102
2990	035	390	160	046	43	2990	3085	202	049	011	475	2990	4039	230	125	769	110
2990	036	739	173	319	88	2990	3086	292	051	071	436	2990	4040	279	139	880	044
2990	037	624	160	172	33	2990	3087	224	052	005	485	2990	4041	236	144	874	093
2990	038	501	155	036	57	2990	3088	258	054	038	500	2990	4042	272	136	839	067
2990	039	447	136	105	37	2990	3089	187	046	044	483	2990	4043	222	179	077	155
2990	040	441	118	007	95	2990	3090	301	073	039	36	2990	4044	221	193	030	216
2990	041	399	168	178	98	2990	3091	323	055	055	522	2990	4045	051	235	699	773
2990	042	799	130	128	60	2990	3092	337	049	018	403	2990	4046	065	182	539	884
2990	043	314	097	084	3	2990	3093	266	052	066	417	2990	4047	079	310	611	646
2990	044	314	077	017	98	2990	3094	200	054	126	455	2990	4048	135	131	710	337
2990	045	560	291	318	00	2990	3095	285	057	024	491	2990	4049	189	089	587	102

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
290	4050	128	106	594	227	290	90220	268	050	104	528	300	10223	333	056	174	584
290	4051	167	108	713	161	290	90221	015	086	521	168	300	10224	333	055	153	751
290	4052	137	109	650	157	290	90222	389	068	239	193	300	10225	333	050	145	538
290	4053	178	110	645	112	290	90223	302	056	113	696	300	10226	333	052	194	698
290	4054	079	129	655	207	290	90224	630	167	125	329	300	10227	333	056	051	741
290	4055	078	138	690	111	290	90225	287	109	057	745	300	10228	333	108	402	220
290	4056	182	186	629	111	290	90226	354	065	130	754	300	10229	333	056	108	677
290	4057	032	121	480	111	290	90227	363	079	052	813	300	10230	333	064	131	962
290	4058	018	172	491	156	290	90228	533	169	061	450	300	10231	333	073	043	330
290	4060	104	067	441	118	290	90229	284	060	039	623	300	10232	333	197	016	293
290	4061	045	070	423	111	290	90230	093	077	529	383	300	10233	333	192	019	333
290	4062	073	067	450	135	290	90231	099	077	454	355	300	10234	333	054	189	604
290	4063	020	069	439	122	290	90232	025	039	131	209	300	10235	333	054	144	521
290	4064	081	083	541	208	290	90233	003	048	201	147	300	10236	333	054	179	399
290	4065	018	085	421	233	290	90234	031	035	118	156	300	10237	333	059	175	955
290	4066	033	084	407	237	290	90235	032	033	107	159	300	10238	333	066	254	718
290	4067	304	118	226	274	290	90236	021	046	322	102	300	10239	333	092	331	397
290	4068	028	084	408	239	290	90237	010	041	282	103	300	10240	333	050	118	660
290	4069	064	125	492	239	290	90238	053	030	062	161	300	10241	333	054	075	660
290	4070	162	071	452	277	290	90239	080	032	030	198	300	10242	333	101	167	391
290	4071	106	081	502	231	290	90240	070	031	064	185	300	10243	333	236	251	225
290	4072	141	090	623	080	290	90241	054	026	033	137	300	10244	333	050	148	692
290	4073	086	098	616	131	290	90242	048	026	045	127	300	10245	333	050	206	177
290	4074	137	096	650	120	290	90243	053	027	040	131	300	10246	333	049	177	663
290	4075	088	102	640	143	290	90244	155	045	022	372	300	10247	333	058	216	611
290	4076	036	104	623	203	290	90245	082	036	021	257	300	10248	333	066	200	338
290	4077	063	096	499	195	290	90246	153	043	605	364	300	10249	333	082	265	456
290	4078	124	084	231	111	290	90247	023	081	385	190	300	10250	333	054	074	493
290	4079	040	051	139	206	290	90248	122	114	585	294	300	10251	333	047	127	492
290	4080	060	044	195	206	290	90249	390	096	088	811	300	10252	333	051	016	434
290	4081	047	048	238	149	290	90250	378	094	054	668	300	10253	333	090	131	781
290	4082	059	035	062	198	290	90251	410	098	009	836	300	10254	333	246	246	334
290	4083	131	037	043	275	290	90252	429	086	122	804	300	10255	333	197	090	333
290	9001	009	106	471	614	290	90253	540	128	210	075	300	10256	333	056	137	673
290	9002	065	057	214	335	290	90254	770	185	289	616	300	10257	333	054	118	461
290	9003	215	052	098	418	290	90255	421	092	190	780	300	10258	333	053	191	577
290	9004	234	039	089	413	290	90256	403	088	162	801	300	10259	333	053	152	521
290	9005	238	043	081	390	290	90257	324	081	073	663	300	10260	333	055	132	266
290	9006	256	046	054	369	290	90258	311	078	062	818	300	10261	333	080	315	384
290	9007	386	069	192	388	290	90259	410	195	023	107	300	10262	333	044	091	496
290	9008	361	085	123	386	290	90260	783	184	105	503	300	10263	333	041	091	407
290	9009	340	084	182	398	290	90261	342	071	094	647	300	10264	333	045	008	666
290	9011	169	089	632	044	290	90262	341	064	153	626	300	10265	333	067	158	429
290	9012	333	048	172	623	290	90263	358	064	169	634	300	10266	333	197	270	999
290	9013	114	086	753	098	290	90264	289	057	088	494	300	10267	333	075	109	820
290	9014	296	053	136	566	290	90265	316	060	135	542	300	10268	333	067	087	277
290	9015	339	064	158	888	290	90266	032	144	423	611	300	10269	333	049	083	476
290	9016	100	096	862	330	290	90267	367	085	117	676	300	10270	333	046	154	458
290	9018	352	057	179	640	290	90268	357	070	130	725	300	10271	333	046	051	625
290	9019	338	052	195	637	290	90269	341	079	044	81	300	10272	333	059	204	275

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
300	1072	156	043	016	329	300	2002	349	058	159	574	300	2007	331	086	053	967
300	1073	211	044	055	413	300	2002	318	052	153	533	300	2007	332	086	053	967
300	1074	135	042	033	326	300	2002	375	054	214	619	300	2007	333	059	181	715
300	1075	076	050	188	262	300	2003	325	054	167	589	300	2007	334	059	093	688
300	1076	088	081	202	580	300	2003	351	107	045	053	300	2007	335	059	094	763
300	1077	300	081	083	043	300	2003	346	113	011	907	300	2008	330	064	035	854
300	1078	230	060	017	647	300	2003	334	084	016	963	300	2008	331	075	176	110
300	1079	341	054	182	647	300	2003	334	070	037	591	300	2008	332	072	134	928
300	1080	270	055	104	647	300	2003	334	061	107	648	300	2008	333	068	060	750
300	1081	256	053	045	799	300	2003	334	056	115	575	300	2008	334	062	033	543
300	1082	108	050	087	310	300	2003	334	056	147	559	300	2008	335	075	077	954
300	1083	068	114	375	532	300	2003	338	055	166	534	300	2008	336	069	021	677
300	1084	254	071	068	990	300	2004	401	052	163	508	300	2009	222	041	104	421
300	1085	252	073	048	647	300	2004	410	132	021	082	300	2009	223	056	007	582
300	1086	273	058	088	594	300	2004	423	153	042	154	300	2009	224	078	108	696
300	1088	283	053	107	508	300	2004	423	090	098	847	300	2009	225	064	051	617
300	1089	185	032	020	322	300	2004	444	066	128	753	300	2009	226	078	096	831
300	1090	016	071	288	454	300	2004	444	047	170	734	300	2009	227	071	007	631
300	1091	194	051	020	777	300	2004	444	046	182	530	300	2009	228	076	242	666
300	1092	164	068	170	666	300	2004	444	047	182	530	300	2009	229	076	035	437
300	1093	019	075	392	111	300	2004	448	048	168	555	300	2009	230	061	055	584
300	1094	061	095	518	193	300	2004	488	049	152	526	300	2009	231	061	011	503
300	1095	161	053	141	555	300	2004	499	053	162	557	300	2009	232	111	057	310
300	1096	042	141	646	440	300	2005	511	126	070	000	300	2009	233	124	028	266
300	2001	375	109	010	874	300	2005	522	151	023	400	300	2009	234	129	024	055
300	002	461	110	113	975	300	2005	531	096	057	742	300	2009	235	128	052	033
300	003	341	094	084	760	300	2005	544	071	069	646	300	2009	236	098	050	811
300	2004	359	090	159	848	300	2005	553	062	133	665	300	2009	237	316	306	872
300	2005	417	096	159	848	300	2005	553	046	131	530	300	2009	238	141	050	135
300	2006	335	075	115	333	300	2005	553	045	115	545	300	2009	239	624	059	902
300	2007	351	073	138	666	300	2005	553	046	130	526	300	2009	240	443	037	170
300	2008	325	067	129	866	300	2005	553	046	140	526	300	2009	241	417	125	003
300	2009	367	069	168	597	300	2006	601	051	165	511	300	2010	333	119	037	062
300	2010	333	082	095	712	300	2006	610	053	147	521	300	2010	334	128	002	180
300	2011	343	095	103	021	300	2006	622	102	140	837	300	2010	335	074	030	600
300	2012	338	075	122	857	300	2006	633	105	105	919	300	2010	336	074	052	679
300	2013	320	072	054	155	300	2006	644	093	118	987	300	2010	337	091	129	806
300	2014	376	069	159	222	300	2006	654	084	105	762	300	2010	338	326	184	105
300	2015	383	069	169	666	300	2006	664	083	155	576	300	2010	339	224	184	486
300	2016	343	069	171	666	300	2006	675	060	145	859	300	2010	340	157	031	481
300	2017	311	065	134	666	300	2006	686	054	046	506	300	2010	341	164	090	589
300	2018	298	064	078	666	300	2006	699	057	097	627	300	2010	342	147	074	225
300	2019	284	065	045	604	300	2007	700	055	094	670	300	2011	400	128	003	008
300	2020	298	066	105	580	300	2007	710	051	130	700	300	2011	401	115	039	005
300	2021	393	079	144	839	300	2007	721	051	156	640	300	2011	402	074	092	717
300	2022	382	074	147	723	300	2007	732	058	156	640	300	2011	403	085	082	776
300	2023	385	071	134	645	300	2007	743	092	083	694	300	2011	404	095	079	169
300	2024	366	073	083	555	300	2007	754	081	143	812	300	2011	405	154	018	170
300	2025	435	076	121	088	300	2007	765	074	129	786	300	2011	406	142	023	156
300	2026	357	065	139	602	300	2007	776	093	094	000	300	2011	407	142	023	156

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
300	3029	469	137	015	-1	300	3079	280	078	053	-1	300	4033	193	146	745	-242
300	3030	431	155	047	-1	300	3080	303	077	014	-1	300	4034	112	136	468	-566
300	3031	402	147	107	-1	300	3081	173	038	032	-1	300	4035	021	148	488	-619
300	3032	388	135	062	-1	300	3082	282	052	100	-1	300	4036	123	224	688	-1061
300	3033	360	140	067	-1	300	3083	243	052	063	-1	300	4037	288	170	831	-219
300	3034	770	276	043	-1	300	3084	278	062	030	-1	300	4038	355	157	936	-061
300	3035	520	205	043	-1	300	3085	220	065	003	-1	300	4039	323	157	990	-042
300	3036	493	146	118	-1	300	3086	309	068	024	-1	300	4040	337	149	913	-038
300	3037	465	141	060	-1	300	3087	239	067	063	-1	300	4041	295	156	943	-100
300	3038	499	165	061	-1	300	3088	271	063	022	-1	300	4042	363	163	1077	-081
300	3039	451	140	084	-1	300	3089	217	052	068	-1	300	4043	233	145	836	-148
300	3040	472	141	132	-1	300	3090	322	084	086	-1	300	4044	181	129	733	-210
300	3041	471	156	149	-1	300	3091	329	061	093	-1	300	4045	228	136	284	-949
300	3042	477	152	064	-1	300	3092	253	053	033	-1	300	4046	055	146	596	-473
300	3043	444	151	066	-1	300	3093	283	054	088	-1	300	4047	096	172	679	-735
300	3044	471	185	055	-1	300	3094	220	058	031	-1	300	4048	230	150	778	-221
300	3045	730	257	098	-1	300	3095	305	058	093	-1	300	4049	247	108	636	-007
300	3046	536	190	106	-1	300	3096	234	054	033	-1	300	4050	168	119	612	-133
300	3047	500	149	115	-1	300	3097	230	065	000	-1	300	4051	190	110	607	-098
300	3048	511	149	118	-1	300	4001	202	103	229	-1	300	4052	159	128	728	-135
300	3049	495	162	100	-1	300	4002	037	177	538	-1	300	4053	232	144	841	-085
300	3050	468	126	116	-1	300	4003	190	167	886	-1	300	4054	079	128	638	-337
300	3051	457	125	023	-1	300	4004	167	157	705	-1	300	4055	054	110	541	-258
300	3052	493	142	027	-1	300	4005	069	145	581	-1	300	4056	270	107	220	-794
300	3053	456	133	046	-1	300	4006	347	213	423	-1	300	4057	060	111	619	-265
300	3054	461	144	041	-1	300	4007	235	107	198	-1	300	4058	070	127	630	-509
300	3055	451	162	067	-1	300	4008	299	096	054	-1	300	4060	117	087	541	-121
300	3056	750	237	251	-1	300	4009	159	124	374	-1	300	4061	051	084	439	-184
300	3057	585	188	148	-1	300	4010	015	236	667	-1	300	4062	082	077	431	-138
300	3058	566	156	205	-1	300	4011	312	185	961	-1	300	4063	026	080	368	-191
300	3059	543	158	145	-1	300	4012	442	188	970	-1	300	4064	098	095	556	-157
300	3060	547	162	155	-1	300	4013	300	168	856	-1	300	4065	035	082	313	-277
300	3061	489	144	110	-1	300	4014	033	161	703	-1	300	4066	057	073	227	-328
300	3062	466	122	091	-1	300	4015	495	168	158	-1	300	4067	379	106	025	-751
300	3063	468	139	012	-1	300	4017	373	163	966	-1	300	4068	053	086	445	-202
300	3064	470	134	052	-1	300	4018	210	149	743	-1	300	4069	076	108	501	-336
300	3065	415	120	067	-1	300	4019	196	163	912	-1	300	4070	155	083	588	-061
300	3066	412	096	083	-1	300	4020	317	180	055	-1	300	4071	098	100	574	-187
300	3067	537	147	195	-1	300	4021	193	162	864	-1	300	4072	134	102	677	-063
300	3068	380	097	108	-1	300	4022	124	143	834	-1	300	4073	109	109	519	-142
300	3069	312	069	138	-1	300	4023	049	143	616	-1	300	4074	162	109	559	-096
300	3070	272	053	113	-1	300	4024	155	127	282	-1	300	4075	109	115	521	-169
300	3071	256	054	080	-1	300	4025	122	266	561	-1	300	4076	044	105	421	-172
300	3072	284	056	081	-1	300	4026	325	172	948	-1	300	4077	021	084	389	-231
300	3073	254	054	062	-1	300	4027	402	175	972	-1	300	4078	161	071	198	-449
300	3074	214	078	153	-1	300	4028	406	166	973	-1	300	4079	051	057	188	-294
300	3075	252	068	023	-1	300	4029	340	167	945	-1	300	4080	071	039	048	-109
300	3076	273	073	054	-1	300	4030	375	162	971	-1	300	4081	049	052	250	-103
300	3077	281	075	050	-1	300	4031	392	176	055	-1	300	4082	064	036	066	-200
300	3078	232	040	103	-1	300	4032	322	156	886	-1	300	4083	141	039	015	-288

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
3000	9001	007	117	360	42	3000	1005	442	112	195	958	310	1055	324	058	154	689
3000	9002	049	067	245	44	3000	1006	691	153	095	432	310	1056	289	056	121	683
3000	9003	203	063	232	44	3000	1007	404	083	156	807	310	1057	359	053	203	695
3000	9004	243	046	085	44	3000	1008	395	080	139	718	310	1058	309	050	157	683
3000	9005	262	052	049	44	3000	1009	294	066	086	581	310	1059	352	062	093	680
3000	9006	274	055	058	44	3000	1010	257	059	074	544	310	1060	124	076	322	688
3000	9007	397	083	151	44	3000	1011	284	175	069	046	310	1061	305	047	087	666
3000	9008	415	103	102	44	3000	1012	651	172	030	416	310	1062	243	043	072	622
3000	9009	379	109	145	44	3000	1013	351	067	139	655	310	1063	230	043	042	690
3000	9010	203	115	986	44	3000	1014	344	062	150	374	310	1064	117	057	092	656
3000	9011	203	060	167	44	3000	1015	352	061	159	684	310	1065	285	174	233	621
3000	9012	133	113	711	44	3000	1016	269	052	112	484	310	1066	305	061	109	664
3000	9013	133	113	130	44	3000	1017	280	053	092	685	310	1067	307	062	139	643
3000	9014	337	088	666	44	3000	1018	029	139	585	556	310	1068	252	048	089	412
3000	9015	349	085	689	44	3000	1019	028	072	016	747	310	1069	288	044	144	464
3000	9016	110	119	689	44	3000	1020	323	056	139	533	310	1070	228	044	077	400
3000	9018	402	088	689	44	3000	1021	289	057	134	603	310	1071	118	057	155	295
3000	9019	380	088	190	44	3000	1022	338	059	193	590	310	1072	161	043	011	319
3000	9020	304	075	689	44	3000	1023	338	055	176	514	310	1073	216	044	064	322
3000	9021	039	086	558	44	3000	1024	328	055	150	524	310	1074	137	042	017	295
3000	9022	457	134	202	44	3000	1025	300	054	149	555	310	1075	077	052	195	600
3000	9023	353	087	339	44	3000	1026	354	056	149	509	310	1076	101	082	296	602
3000	9024	771	166	011	44	3000	1027	292	057	062	330	310	1077	365	095	152	694
3000	9025	04	131	121	44	3000	1028	076	108	520	539	310	1078	281	064	067	667
3000	9026	392	078	079	44	3000	1029	275	054	079	339	310	1079	336	052	131	607
3000	9027	479	102	070	44	3000	1030	325	059	141	004	310	1080	265	049	124	637
3000	9028	370	171	152	44	3000	1031	245	065	052	960	310	1081	336	052	087	607
3000	9029	347	099	029	44	3000	1032	311	183	082	171	310	1082	251	047	087	437
3000	9030	112	092	051	44	3000	1033	632	187	002	284	310	1083	118	046	054	332
3000	9031	112	092	551	44	3000	1034	381	056	211	077	310	1084	093	106	372	456
3000	9032	060	038	126	44	3000	1035	322	053	159	366	310	1085	315	081	120	555
3000	9033	025	051	248	44	3000	1036	352	054	181	885	310	1086	295	081	089	664
3000	9034	073	032	668	44	3000	1037	428	059	184	727	310	1087	310	057	144	667
3000	9035	068	032	422	44	3000	1038	342	064	233	721	310	1088	299	059	135	605
3000	9036	003	049	197	44	3000	1039	102	086	404	422	310	1089	204	055	003	626
3000	9037	023	041	164	44	3000	1040	309	051	149	009	310	1090	033	075	247	628
3000	9038	075	028	228	44	3000	1041	261	049	091	487	310	1091	212	048	023	660
3000	9039	086	041	228	44	3000	1042	284	052	082	395	310	1092	182	053	042	333
3000	9040	074	039	119	44	3000	1043	136	092	151	769	310	1093	028	063	300	338
3000	9041	074	028	026	44	3000	1044	435	217	279	208	310	1094	011	082	684	299
3000	9042	070	025	020	44	3000	1045	312	053	133	500	310	1095	178	047	068	744
3000	9043	173	026	040	44	3000	1046	379	056	193	570	310	1096	099	145	615	463
3000	9044	094	034	160	44	3000	1047	333	053	166	524	310	2001	336	084	046	739
3000	9045	169	050	019	44	3000	1048	383	066	208	597	310	2002	431	092	124	875
3000	9046	040	065	303	44	3000	1049	207	073	177	622	310	2003	319	089	070	751
3000	9047	109	107	628	44	3000	1050	307	070	236	414	310	2004	340	090	077	822
3000	9048	040	065	303	44	3000	1051	207	054	107	489	310	2005	401	089	144	779
3000	9049	374	085	125	44	3000	1052	303	049	149	485	310	2006	331	067	115	617
3000	9050	360	083	953	44	3000	1053	236	048	055	407	310	2007	323	065	111	622
3000	9051	382	086	105	44	3000	1054	195	078	114	669	310	2008	321	063	135	626
3000	9052	403	074	103	44	3000	1055	389	214	290	202	310	2009	366	062	152	606

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
310	2010	324	074	136	68	310	2060	345	059	172	645	310	2010	324	074	136	68
310	2011	306	071	046	66	310	2061	338	062	151	665	310	2011	306	071	046	66
310	2012	313	061	095	53	310	2062	437	108	115	962	310	2012	313	061	095	53
310	2013	297	060	090	60	310	2063	407	106	072	093	310	2013	297	060	090	60
310	2014	364	063	166	55	310	2064	417	094	120	872	310	2014	364	063	166	55
310	2015	372	063	176	55	310	2065	383	085	131	852	310	2015	372	063	176	55
310	2016	320	068	114	66	310	2066	385	081	158	901	310	2016	320	068	114	66
310	2017	297	063	102	53	310	2067	347	061	169	610	310	2017	297	063	102	53
310	2018	306	062	136	55	310	2068	354	060	172	564	310	2018	306	062	136	55
310	2019	294	063	100	54	310	2069	355	060	151	605	310	2019	294	063	100	54
310	2020	299	065	073	52	310	2070	329	054	137	540	310	2020	299	065	073	52
310	2021	385	072	189	66	310	2071	322	059	151	594	310	2021	385	072	189	66
310	2022	370	065	179	60	310	2072	364	060	206	594	310	2022	370	065	179	60
310	2023	370	061	176	59	310	2073	381	092	038	761	310	2023	370	061	176	59
310	2024	345	062	140	59	310	2074	379	087	142	947	310	2024	345	062	140	59
310	2025	418	065	193	66	310	2075	364	097	027	799	310	2025	418	065	193	66
310	2026	348	054	184	66	310	2076	396	098	108	041	310	2026	348	054	184	66
310	2027	350	058	183	66	310	2077	317	085	109	883	310	2027	350	058	183	66
310	2028	330	058	184	66	310	2078	369	064	194	723	310	2028	330	058	184	66
310	2029	394	060	245	66	310	2079	399	060	092	602	310	2029	394	060	245	66
310	2030	337	059	181	66	310	2080	354	064	080	686	310	2030	337	059	181	66
310	2031	330	095	099	66	310	2081	399	068	101	870	310	2031	330	095	099	66
310	2032	320	098	084	66	310	2082	366	073	152	886	310	2032	320	098	084	66
310	2033	309	073	102	66	310	2083	306	070	167	744	310	2033	309	073	102	66
310	2034	294	063	107	66	310	2084	305	070	010	633	310	2034	294	063	107	66
310	2035	299	054	145	66	310	2085	384	119	046	157	310	2035	299	054	145	66
310	2036	294	053	150	66	310	2086	307	084	107	721	310	2036	294	053	150	66
310	2037	303	052	148	66	310	2087	314	078	084	749	310	2037	303	052	148	66
310	2038	340	050	183	66	310	2088	384	094	106	094	310	2038	340	050	183	66
310	2039	323	051	167	66	310	2089	301	086	032	182	310	2039	323	051	167	66
310	2040	394	113	102	66	310	2090	217	041	046	417	310	2040	394	113	102	66
310	2041	375	117	109	66	310	2091	219	078	170	672	310	2041	375	117	109	66
310	2042	353	070	132	66	310	2092	426	153	019	359	310	2042	353	070	132	66
310	2043	326	059	114	66	310	2093	322	076	070	722	310	2043	326	059	114	66
310	2044	352	056	162	66	310	2094	344	084	091	699	310	2044	352	056	162	66
310	2045	341	053	186	66	310	2095	266	071	091	503	310	2045	341	053	186	66
310	2046	352	053	173	66	310	2096	081	078	197	206	310	2046	352	053	173	66
310	2047	327	056	122	66	310	2097	200	070	153	626	310	2047	327	056	122	66
310	2048	358	057	159	66	310	2098	342	089	102	144	310	2048	358	057	159	66
310	2049	338	057	161	66	310	2099	260	072	060	624	310	2049	338	057	161	66
310	2050	359	060	158	66	310	3000	388	084	141	804	310	2050	359	060	158	66
310	2051	403	113	047	66	310	3001	385	092	067	876	310	2051	403	113	047	66
310	2052	410	124	117	66	310	3002	438	098	086	974	310	2052	410	124	117	66
310	2053	363	086	099	66	310	3003	381	103	100	010	310	2053	363	086	099	66
310	2054	364	069	141	66	310	3004	355	087	090	756	310	2054	364	069	141	66
310	2055	345	062	164	66	310	3005	394	199	127	660	310	2055	345	062	164	66
310	2056	352	057	174	66	310	3006	352	102	017	880	310	2056	352	057	174	66
310	2057	336	057	151	66	310	3007	384	127	085	098	310	2057	336	057	151	66
310	2058	349	061	129	66	310	3008	346	114	003	958	310	2058	349	061	129	66
310	2059	340	057	162	66	310	3009	363	122	059	498	310	2059	340	057	162	66

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
3310	0662	490	130	120	-1.217	3310	4015	399	143	071	-1.152	3310	4067	364	097	004	-1.745
3310	0663	495	144	047	-1.386	3310	4017	361	146	907	-0.993	3310	4068	062	088	455	-1.220
3310	0664	502	136	132	-1.233	3310	4018	212	126	756	-2.244	3310	4069	072	112	566	-1.297
3310	0665	451	121	074	-1.118	3310	4019	183	136	734	-2.256	3310	4070	157	100	560	-1.108
3310	0666	451	112	144	-1.000	3310	4020	353	157	830	-1.109	3310	4071	102	110	610	-1.146
3310	0667	547	169	126	-1.000	3310	4021	226	144	724	-1.188	3310	4072	139	106	679	-1.084
3310	0668	390	106	093	-1.000	3310	4022	153	124	606	-2.14	3310	4073	089	106	608	-1.174
3310	0669	309	074	087	-1.000	3310	4023	037	099	341	-1.383	3310	4074	142	107	645	-1.120
3310	0670	285	064	105	-1.000	3310	4024	047	140	474	-1.642	3310	4075	085	119	657	-1.181
3310	0671	271	066	082	-1.000	3310	4025	059	245	633	-1.143	3310	4076	027	095	543	-1.213
3310	0672	295	070	090	-1.000	3310	4026	401	167	979	-2.335	3310	4077	024	080	353	-1.234
3310	0673	267	067	027	-1.000	3310	4027	406	169	896	-0.111	3310	4078	161	071	471	-1.476
3310	0674	240	080	045	-1.000	3310	4028	403	160	891	-0.112	3310	4079	080	059	214	-1.278
3310	0675	263	073	038	-1.000	3310	4029	333	162	852	-0.091	3310	4080	094	041	064	-1.243
3310	0676	289	079	009	-1.000	3310	4030	368	156	875	-0.030	3310	4081	021	055	252	-1.134
3310	0677	290	085	071	-1.000	3310	4031	413	173	986	-0.057	3310	4082	069	034	057	-1.183
3310	0678	266	037	098	-1.000	3310	4032	330	151	809	-1.104	3310	4083	136	035	018	-1.277
3310	0679	262	072	041	-1.000	3310	4033	198	143	648	-2.15	3310	9001	011	122	478	-1.442
3310	0680	307	081	041	-1.000	3310	4033	072	111	375	-1.520	3310	9002	063	067	255	-1.367
3310	0681	174	037	018	-1.000	3310	4033	021	155	725	-1.451	3310	9003	208	063	112	-1.548
3310	0682	282	055	081	-1.000	3310	4033	185	211	049	-1.662	3310	9004	245	046	097	-1.427
3310	0683	239	058	057	-1.000	3310	4033	313	165	023	-1.149	3310	9005	288	057	072	-1.510
3310	0684	268	063	011	-1.000	3310	4033	366	152	044	-0.27	3310	9006	282	057	070	-1.517
3310	0685	207	066	039	-1.000	3310	4033	336	157	929	-0.883	3310	9007	376	075	169	-1.687
3310	0686	289	067	004	-1.000	3310	4040	351	149	940	-0.47	3310	9008	394	092	106	-1.695
3310	0687	225	065	094	-1.000	3310	4041	308	156	925	-1.109	3310	9009	359	072	202	-1.269
3310	0688	265	070	053	-1.000	3310	4042	381	164	022	-0.67	3310	9011	197	119	761	-1.040
3310	0689	111	049	048	-1.000	3310	4043	225	146	738	-1.147	3310	9012	385	062	216	-1.673
3310	0690	280	079	077	-1.000	3310	4044	180	132	661	-1.151	3310	9013	135	113	702	-1.089
3310	0691	311	058	101	-1.000	3310	4045	180	123	216	-1.667	3310	9014	337	068	152	-1.639
3310	0692	234	051	042	-1.000	3310	4046	063	138	595	-1.38	3310	9015	339	067	174	-1.765
3310	0693	267	052	074	-1.000	3310	4047	151	179	850	-1.581	3310	9016	102	104	644	-1.715
3310	0694	209	053	027	-1.000	3310	4048	271	140	051	-0.77	3310	9018	381	083	170	-1.861
3310	0695	286	055	046	-1.000	3310	4049	278	121	686	-0.35	3310	9019	385	083	189	-1.207
3310	0696	218	049	020	-1.000	3310	4050	191	128	621	-1.152	3310	9020	330	087	145	-1.987
3310	0697	219	058	004	-1.000	3310	4051	209	117	612	-1.112	3310	9021	022	081	542	-1.164
3310	4001	091	096	283	-1.000	3310	4052	180	120	663	-1.154	3310	9022	448	104	226	-1.279
3310	4002	100	133	630	-1.000	3310	4053	263	137	795	-1.112	3310	9023	376	098	079	-1.085
3310	4003	253	138	754	-1.000	3310	4054	091	121	530	-1.348	3310	9024	458	134	062	-1.104
3310	4004	193	127	645	-1.000	3310	4055	064	106	492	-1.335	3310	9025	357	109	030	-1.864
3310	4005	025	110	423	-1.000	3310	4056	242	106	114	-1.614	3310	9026	376	070	146	-1.835
3310	4006	405	140	141	-1.000	3310	4057	077	114	525	-1.252	3310	9027	396	083	180	-1.875
3310	4007	266	084	040	-1.000	3310	4058	106	132	701	-1.421	3310	9028	555	172	172	-1.367
3310	4008	397	073	009	-1.000	3310	4060	136	100	545	-0.85	3310	9029	370	117	108	-1.052
3310	4009	038	122	447	-1.000	3310	4061	064	092	431	-1.190	3310	9030	004	081	530	-1.346
3310	4010	160	196	790	-1.000	3310	4062	091	084	434	-1.126	3310	9031	000	078	615	-1.319
3310	4011	393	163	921	-1.000	3310	4063	035	087	399	-1.184	3310	9032	075	046	158	-1.250
3310	4012	445	164	908	-1.000	3310	4064	123	108	645	-1.335	3310	9033	079	041	162	-1.219
3310	4013	280	144	793	-1.000	3310	4065	033	081	280	-1.292	3310	9034	093	028	021	-1.191
3310	4014	005	139	506	-1.000	3310	4066	055	068	234	-1.314	3310	9035	093	031	018	-1.217

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
3220	7	070	043	139	191	3220	1038	134	091	368	477	3220	1089	213	047	031	424
3220	8	071	033	104	173	3220	1039	293	048	014	469	3220	1090	106	055	197	332
3220	9	079	035	046	184	3220	1040	248	046	033	502	3220	1091	213	045	049	348
3220	10	103	061	306	271	3220	1041	291	052	042	617	3220	1092	179	044	084	321
3220	11	113	053	203	268	3220	1042	190	102	202	949	3220	1093	086	056	327	296
3220	12	103	029	000	196	3220	1043	458	242	360	317	3220	1094	088	056	239	333
3220	13	096	025	009	175	3220	1044	299	050	164	551	3220	1095	183	041	047	313
3220	14	107	026	004	189	3220	1045	368	052	225	637	3220	1096	258	125	190	525
3220	15	187	042	042	406	3220	1046	309	046	190	529	3220	2001	288	079	044	609
3220	16	147	036	012	308	3220	1047	330	048	162	571	3220	2002	372	072	114	805
3220	17	169	047	043	516	3220	1048	291	056	103	575	3220	2003	269	072	044	716
3220	18	067	067	348	215	3220	1049	292	081	216	523	3220	2004	298	080	095	722
3220	19	006	107	596	277	3220	1050	277	048	050	475	3220	2005	360	079	114	675
3220	1001	334	083	048	716	3220	1051	290	047	096	464	3220	2006	286	060	103	571
3220	1002	326	081	011	653	3220	1052	290	049	043	405	3220	2007	266	060	108	514
3220	1003	334	081	003	668	3220	1053	244	086	102	780	3220	2008	291	055	092	532
3220	1004	346	065	130	588	3220	1054	387	215	222	200	3220	2009	334	068	143	573
3220	1005	303	083	016	708	3220	1055	309	046	188	749	3220	2010	330	068	053	613
3220	1006	568	189	110	340	3220	1056	277	045	140	682	3220	2011	283	063	110	526
3220	1007	364	077	152	98	3220	1057	338	041	215	622	3220	2012	283	063	097	485
3220	1008	373	078	139	79	3220	1058	274	038	146	465	3220	2013	263	055	076	475
3220	1009	273	065	095	687	3220	1059	312	049	127	549	3220	2014	311	055	113	524
3220	1010	218	057	005	665	3220	1060	133	074	272	351	3220	2015	331	055	128	553
3220	1011	171	136	222	999	3220	1061	299	045	092	498	3220	2016	287	055	099	566
3220	1012	520	218	361	729	3220	1062	293	041	087	423	3220	2017	274	055	128	529
3220	1013	320	063	105	640	3220	1063	233	046	031	413	3220	2018	272	055	094	494
3220	1014	303	054	130	655	3220	1064	156	058	194	514	3220	2019	260	055	039	592
3220	1015	302	051	066	522	3220	1065	344	177	141	132	3220	2020	266	055	029	552
3220	1016	219	052	030	548	3220	1066	299	052	163	638	3220	2021	344	055	145	605
3220	1017	227	053	028	505	3220	1067	319	056	184	742	3220	2022	338	055	171	564
3220	1018	072	169	791	460	3220	1068	258	043	113	490	3220	2023	334	055	154	588
3220	1019	276	064	032	559	3220	1069	302	042	134	461	3220	2024	302	055	067	534
3220	1020	299	055	085	628	3220	1070	242	042	067	415	3220	2025	374	055	116	617
3220	1021	250	063	009	861	3220	1071	163	053	170	320	3220	2026	320	049	163	583
3220	1022	328	047	157	579	3220	1072	183	040	004	351	3220	2027	327	055	154	513
3220	1023	303	048	159	473	3220	1073	24	042	072	466	3220	2028	303	050	149	502
3220	1024	276	043	113	471	3220	1074	177	041	005	366	3220	2029	367	055	218	582
3220	1025	324	052	008	557	3220	1075	137	048	117	338	3220	2030	307	052	158	524
3220	1026	260	060	091	601	3220	1076	198	089	158	646	3220	2031	268	061	039	661
3220	1027	068	125	480	820	3220	1077	371	076	148	759	3220	2032	262	059	037	634
3220	1028	240	057	011	707	3220	1078	293	056	107	603	3220	2033	266	055	122	546
3220	1029	293	064	062	063	3220	1079	323	046	144	493	3220	2034	266	055	109	534
3220	1030	214	073	024	998	3220	1080	262	042	132	431	3220	2035	271	044	153	462
3220	1031	244	171	231	154	3220	1081	227	050	059	544	3220	2036	270	044	152	455
3220	1032	523	228	367	432	3220	1082	153	050	080	457	3220	2037	333	043	145	457
3220	1033	364	052	235	634	3220	1083	154	087	145	543	3220	2038	337	048	166	496
3220	1034	303	049	178	549	3220	1084	319	074	109	753	3220	2039	305	048	164	478
3220	1035	329	044	164	510	3220	1085	316	069	125	619	3220	2040	333	078	146	027
3220	1036	303	046	157	480	3220	1086	312	050	108	519	3220	2041	315	069	135	824
3220	1037	394	055	131	649	3220	1088	285	044	112	456	3220	2042	333	060	138	623



APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
320	043	315	050	128	521	320	093	321	069	118	812	320	045	315	169	104	446
320	044	327	045	173	488	320	094	353	063	190	697	320	046	446	124	097	049
320	045	318	044	153	492	320	095	280	059	131	551	320	047	333	105	088	017
320	046	329	044	172	490	320	096	149	060	173	582	320	048	333	107	102	050
320	047	304	045	153	471	320	097	208	057	115	507	320	049	333	115	106	053
320	048	335	053	200	349	320	098	346	066	101	678	320	050	333	087	097	877
320	049	317	052	160	449	320	099	334	063	112	752	320	051	333	091	108	938
320	050	334	054	169	349	320	100	334	084	101	725	320	052	333	096	080	973
320	051	350	089	037	222	320	101	333	090	063	768	320	053	333	092	131	973
320	052	353	095	226	444	320	102	333	094	053	820	320	054	333	098	107	024
320	053	326	066	111	466	320	103	322	094	092	868	320	055	333	120	086	438
320	054	334	054	169	349	320	104	300	085	055	693	320	056	333	173	225	595
320	055	322	050	096	322	320	105	454	173	111	251	320	057	333	144	151	520
320	056	312	049	212	322	320	106	300	101	041	887	320	058	333	144	178	567
320	057	333	053	190	300	320	107	300	092	041	239	320	059	333	154	155	768
320	058	311	053	116	300	320	108	300	098	008	057	320	060	333	162	157	477
320	059	321	050	191	300	320	109	300	106	061	013	320	061	333	144	225	192
320	060	325	047	160	300	320	110	300	106	061	013	320	062	333	144	225	279
320	061	321	049	145	300	320	111	300	073	061	798	320	063	333	118	009	470
320	062	325	096	229	300	320	112	300	052	083	487	320	064	333	130	003	504
320	063	355	096	089	300	320	113	300	061	105	702	320	065	333	127	104	058
320	064	362	080	178	300	320	114	300	073	110	536	320	066	333	112	124	899
320	065	336	068	145	300	320	115	300	061	163	726	320	067	333	109	103	025
320	066	344	061	157	300	320	116	300	073	097	053	320	068	333	130	003	806
320	067	323	054	151	300	320	117	300	083	095	737	320	069	333	127	104	558
320	068	323	046	202	300	320	118	300	094	086	827	320	070	333	112	106	540
320	069	307	053	160	300	320	119	300	100	108	901	320	071	333	109	103	540
320	070	330	047	160	300	320	120	300	089	154	996	320	072	333	055	063	524
320	071	330	043	160	300	320	121	300	066	152	701	320	073	333	055	041	504
320	072	365	048	282	300	320	122	300	056	188	581	320	074	333	068	023	596
320	073	358	076	174	300	320	123	300	063	189	761	320	075	333	064	034	623
320	074	358	072	174	300	320	124	300	079	191	857	320	076	333	071	007	763
320	075	358	084	127	300	320	125	300	096	079	904	320	077	333	074	055	837
320	076	333	079	158	300	320	126	300	081	168	823	320	078	333	053	114	387
320	077	313	059	99	300	320	127	300	079	116	764	320	079	333	054	005	578
320	078	333	054	127	300	320	128	300	069	050	702	320	080	333	050	054	664
320	079	312	049	127	300	320	129	300	068	065	709	320	081	333	033	066	364
320	080	355	054	127	300	320	130	300	066	074	670	320	082	333	044	112	458
320	081	307	055	156	300	320	131	300	079	085	748	320	083	333	045	071	414
320	082	333	050	153	300	320	132	300	187	085	646	320	084	333	049	059	611
320	083	333	058	153	300	320	133	300	141	055	230	320	085	333	050	039	448
320	084	333	090	098	300	320	134	300	114	063	072	320	086	333	051	067	503
320	085	333	068	098	300	320	135	300	109	012	969	320	087	333	048	017	619
320	086	333	066	098	300	320	136	300	111	058	186	320	088	333	058	059	584
320	087	312	066	199	300	320	137	300	089	091	725	320	089	333	037	098	390
320	088	309	076	199	300	320	138	300	095	104	862	320	090	333	063	052	596
320	089	330	071	130	300	320	139	300	098	071	844	320	091	333	048	017	448
320	090	323	034	087	300	320	140	300	099	094	951	320	092	333	042	074	443
320	091	309	062	017	300	320	141	300	099	086	844	320	093	333	044	123	450
320	092	417	114	109	300	320	142	300	131	085	301	320	094	333	044	123	414

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
3095	289	.045	.097	.498	320	4049	170	.153	.676	.149	330	9019	.365	.063	.202	.749	
3096	224	.040	.076	.404	320	4050	.099	.164	.687	.268	330	9020	.337	.092	.134	.920	
3097	223	.045	.038	.477	320	4051	.130	.149	.685	.207	330	9021	.031	.075	.380	.189	
4001	034	.132	.546	.441	320	4052	.102	.157	.807	.253	330	9022	.417	.080	.251	.087	
4002	212	.169	.666	.458	320	4053	.175	.172	.891	.198	320	9023	.357	.082	.154	.854	
4003	267	.167	.746	.317	320	4054	.039	.153	.778	.303	320	9024	.378	.132	.013	.049	
4004	163	.138	.561	.339	320	4055	.029	.130	.620	.320	320	9025	.329	.093	.004	.822	
4005	036	.105	.287	.448	320	4056	.247	.162	.066	.658	320	9026	.352	.061	.159	.612	
4006	479	.136	.073	.058	320	4057	.047	.082	.274	.433	320	9027	.352	.075	.175	.726	
4007	310	.100	.036	.773	320	4058	.043	.109	.428	.704	320	9028	.463	.143	.187	.453	
4008	291	.070	.013	.603	320	4060	.053	.105	.473	.227	330	9029	.347	.103	.078	.905	
4009	047	.161	.601	.473	320	4061	.022	.101	.348	.399	330	1001	.028	.056	.339	.211	
4010	271	.210	.953	.727	320	4062	.019	.092	.360	.488	330	1002	.030	.058	.375	.155	
4011	352	.203	.992	.343	320	4063	.037	.096	.349	.333	330	1003	.055	.045	.136	.205	
4012	418	.188	1.059	.262	320	4064	.034	.113	.500	.352	330	1004	.091	.030	.028	.230	
4013	231	.150	.812	.339	320	4065	.083	.099	.394	.348	330	1005	.092	.022	.011	.172	
4014	068	.150	.389	.858	320	4066	.086	.083	.353	.346	330	1006	.093	.026	.003	.179	
4015	318	.139	.116	.001	320	4067	.354	.093	.018	.777	330	1007	.085	.033	.052	.170	
4017	278	.156	.728	.224	320	4068	.046	.064	.210	.275	330	1008	.079	.027	.028	.170	
4018	141	.142	.580	.405	320	4069	.023	.088	.548	.380	330	1009	.074	.032	.170	.186	
4019	107	.145	.699	.465	320	4070	.070	.090	.487	.153	330	1010	.140	.063	.244	.370	
4020	337	.190	1.097	.310	320	4071	.007	.098	.442	.199	330	1011	.141	.046	.189	.310	
4021	156	.144	.596	.347	320	4072	.052	.096	.472	.176	330	1012	.116	.026	.026	.211	
4022	097	.122	.476	.333	320	4073	.019	.106	.472	.215	330	1013	.101	.025	.009	.179	
4023	058	.100	.422	.494	320	4074	.068	.104	.523	.162	330	1014	.118	.025	.027	.197	
4024	005	.162	.563	.643	320	4075	.002	.108	.529	.251	330	1015	.203	.036	.053	.431	
4025	107	.242	.942	.890	320	4076	.023	.089	.364	.208	330	1016	.179	.037	.047	.359	
4026	339	.199	1.087	.277	320	4077	.077	.073	.400	.208	330	1017	.176	.035	.071	.367	
4027	332	.193	.913	.229	320	4078	.162	.054	.123	.368	330	1018	.120	.043	.160	.384	
4028	324	.172	.837	.203	320	4079	.126	.045	.096	.325	330	1019	.092	.072	.251	.395	
4029	246	.169	.758	.268	320	4080	.116	.037	.039	.262	330	1001	.317	.085	.016	.046	
4030	288	.162	.822	.212	320	4081	.035	.044	.198	.162	330	1002	.339	.093	.039	.845	
4031	358	.207	1.092	.283	320	4082	.079	.030	.034	.191	330	1003	.340	.087	.103	.778	
4032	255	.166	.758	.285	320	4083	.146	.031	.039	.245	330	1004	.299	.067	.018	.548	
4033	128	.153	.592	.356	320	9001	.076	.081	.033	.405	330	1005	.196	.083	.195	.628	
4034	082	.103	.258	.622	320	9002	.116	.058	.264	.373	330	1006	.286	.212	.358	.252	
4035	092	.136	.428	.648	320	9003	.244	.056	.001	.466	330	1007	.350	.087	.090	.999	
4036	048	.206	.637	.838	320	9004	.239	.041	.059	.438	330	1008	.369	.087	.131	.967	
4037	167	.183	.806	.462	320	9005	.273	.045	.030	.444	330	1009	.271	.078	.045	.756	
4038	245	.172	.847	.182	320	9006	.268	.048	.098	.587	330	1010	.148	.064	.141	.361	
4039	188	.167	.836	.281	320	9007	.330	.072	.123	.810	330	1011	.017	.110	.480	.490	
4040	218	.155	.812	.206	320	9008	.323	.082	.050	.712	330	1012	.189	.245	.718	.031	
4041	170	.162	.808	.235	320	9009	.345	.062	.195	.247	330	1013	.306	.061	.125	.631	
4042	248	.175	.917	.225	320	9011	.096	.114	.684	.131	330	1014	.291	.051	.126	.493	
4043	101	.157	.687	.250	320	9012	.379	.055	.241	.651	330	1015	.257	.048	.092	.457	
4044	085	.136	.573	.245	320	9013	.026	.101	.544	.168	330	1016	.157	.059	.105	.376	
4045	198	.108	.168	.648	320	9014	.297	.058	.103	.560	330	1017	.161	.065	.107	.402	
4046	063	.116	.393	.546	320	9015	.335	.070	.177	.867	330	1018	.196	.202	.866	.455	
4047	032	.163	.679	.886	320	9016	.021	.100	.513	.166	330	1019	.226	.068	.140	.480	
4048	091	.147	.698	.366	320	9018	.343	.074	.170	.894	330	1020	.246	.060	.047	.543	

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
3330	1021	164	072	103	514	3330	1071	133	061	143	302	3330	2026	301	041	135	538
3330	1022	316	046	186	538	3330	1072	149	046	052	340	3330	2027	317	046	159	524
3330	1023	278	044	151	488	3330	1073	216	049	030	503	3330	2028	288	045	177	525
3330	1024	238	043	028	488	3330	1074	137	048	076	410	3330	2029	356	045	234	582
3330	1025	263	060	007	459	3330	1075	080	056	198	312	3330	2030	292	045	157	509
3330	1026	183	071	154	410	3330	1076	079	081	260	603	3330	2031	237	046	095	501
3330	1027	029	159	751	441	3330	1077	396	079	190	744	3330	2032	245	045	098	485
3330	1028	172	064	081	380	3330	1078	301	055	050	54	3330	2033	264	046	126	222
3330	1029	218	077	057	399	3330	1079	333	047	125	599	3330	2034	260	039	128	419
3330	1030	126	077	153	333	3330	1080	269	041	098	442	3330	2035	253	039	143	449
3330	1031	089	117	377	333	3330	1081	248	048	022	75	3330	2036	264	041	147	448
3330	1032	238	261	533	333	3330	1082	117	051	115	95	3330	2037	260	040	142	446
3330	1033	359	041	227	333	3330	1083	068	075	283	54	3330	2038	313	043	156	266
3330	1034	324	039	42	333	3330	1084	318	071	000	729	3330	2039	287	043	134	499
3330	1035	327	041	303	333	3330	1085	328	069	160	04	3330	2040	305	051	097	646
3330	1036	397	049	202	333	3330	1086	316	051	105	58	3330	2041	338	048	149	621
3330	1037	390	060	663	333	3330	1088	301	050	104	72	3330	2042	338	056	191	608
3330	1038	115	102	539	333	3330	1089	207	056	030	49	3330	2043	315	040	181	448
3330	1039	66	060	016	333	3330	1090	119	049	070	22	3330	2044	330	035	230	444
3330	1040	242	057	36	333	3330	1091	211	043	063	77	3330	2045	317	035	223	455
3330	1041	242	060	099	333	3330	1092	170	051	126	55	3330	2046	327	035	228	477
3330	1042	188	028	88	333	3330	1093	049	063	282	48	3330	2047	305	037	139	491
3330	1043	288	039	66	333	3330	1094	068	066	427	21	3330	2048	327	036	220	499
3330	1044	368	040	174	333	3330	1095	182	044	026	22	3330	2049	308	036	196	455
3330	1045	368	039	42	333	3330	1096	180	128	311	22	3330	2050	320	038	196	492
3330	1046	303	039	55	333	3330	2001	251	068	064	81	3330	2051	286	050	082	591
3330	1047	338	049	39	333	3330	2002	348	071	158	94	3330	2052	316	051	102	582
3330	1048	112	036	01	333	3330	2003	270	076	037	84	3330	2053	344	064	144	614
3330	1049	191	039	55	333	3330	2004	288	076	067	66	3330	2054	355	044	204	599
3330	1050	339	052	01	333	3330	2005	333	078	026	88	3330	2055	329	040	216	516
3330	1051	355	050	06	333	3330	2006	249	055	098	32	3330	2056	337	036	228	497
3330	1052	183	057	134	333	3330	2007	248	049	056	00	3330	2057	324	036	213	487
3330	1053	262	086	22	333	3330	2008	280	060	090	32	3330	2058	327	038	208	466
3330	1054	251	172	33	333	3330	2009	319	059	140	77	3330	2059	318	036	201	506
3330	1055	325	044	33	333	3330	2010	293	072	084	42	3330	2060	328	038	208	486
3330	1056	321	044	58	333	3330	2011	265	055	093	15	3330	2061	321	043	203	562
3330	1057	350	042	22	333	3330	2012	44	048	124	4	3330	2062	329	066	121	002
3330	1058	350	044	53	333	3330	2013	44	046	111	18	3330	2063	315	059	069	803
3330	1059	309	049	81	333	3330	2014	287	049	118	55	3330	2064	362	065	117	74
3330	1060	309	049	81	333	3330	2015	310	048	141	33	3330	2065	336	048	193	539
3330	1061	266	047	76	333	3330	2016	252	047	103	44	3330	2066	336	045	143	535
3330	1062	202	042	03	333	3330	2017	248	045	095	44	3330	2067	344	042	201	528
3330	1063	199	052	04	333	3330	2018	258	057	030	33	3330	2068	339	043	206	551
3330	1064	089	068	38	333	3330	2019	259	062	055	66	3330	2069	317	045	144	519
3330	1065	233	128	22	333	3330	2020	258	058	088	77	3330	2070	337	043	225	006
3330	1066	133	060	67	333	3330	2021	322	055	134	55	3330	2071	310	039	204	666
3330	1067	119	053	20	333	3330	2022	308	048	179	91	3330	2072	368	046	255	080
3330	1068	44	040	00	333	3330	2023	317	046	161	84	3330	2073	259	046	087	477
3330	1069	44	043	11	333	3330	2024	277	045	124	46	3330	2074	350	046	202	647
3330	1070	18	045	19	333	3330	2025	352	047	185	22	3330	2075	338	060	085	648

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN		
3330	2076	386	054	217	735	3330	3028	346	058	180	740	3330	3078	252	033	150	375		
3330	2077	309	045	156	597	3330	3029	293	054	140	641	3330	3079	266	041	109	617		
3330	2078	379	050	247	737	3330	3030	242	051	091	565	3330	3080	289	047	097	487		
3330	2079	309	047	187	645	3330	3031	255	050	119	476	3330	3081	190	031	071	303		
3330	2080	363	043	129	583	3330	3032	255	047	133	485	3330	3082	293	038	137	431		
3330	2081	305	049	195	767	3330	3033	255	053	135	526	3330	3083	246	036	110	377		
3330	2082	369	045	262	657	3330	3034	255	121	137	304	3330	3084	273	036	132	437		
3330	2083	308	047	184	573	3330	3035	255	108	006	077	3330	3085	221	037	088	426		
3330	2084	294	054	058	562	3330	3036	255	093	056	061	3330	3086	229	043	109	416		
3330	2085	393	084	160	847	3330	3037	255	089	079	890	3330	3087	228	037	109	357		
3330	2086	298	065	058	573	3330	3038	255	090	112	986	3330	3088	262	048	055	472		
3330	2087	315	056	160	612	3330	3039	255	070	101	669	3330	3089	239	037	070	539		
3330	2088	406	080	193	912	3330	3040	255	072	126	743	3330	3090	233	060	121	534		
3330	2089	328	075	173	672	3330	3041	255	075	102	745	3330	3091	233	043	165	595		
3330	2090	219	032	081	359	3330	3042	255	069	132	745	3330	3092	247	036	198	385		
3330	2091	254	054	063	531	3330	3043	255	065	129	813	3330	3093	277	035	130	424		
3330	2092	430	105	147	109	3330	3044	255	075	138	966	3330	3094	222	034	080	343		
3330	2093	319	067	155	662	3330	3045	255	122	094	214	3330	3095	223	041	130	426		
3330	2094	356	070	185	794	3330	3046	255	093	065	116	3330	3096	226	036	053	352		
3330	2095	294	068	143	751	3330	3047	255	088	080	881	3330	3097	228	044	036	448		
3330	2096	126	051	063	537	3330	3048	255	081	112	962	3330	4001	157	165	788	334		
3330	2097	258	059	023	479	3330	3049	255	075	134	860	3330	4002	268	199	293	462		
3330	2098	350	064	183	643	3330	3050	255	081	112	962	3330	4003	196	177	793	570		
3330	2099	286	068	114	634	3330	3051	255	080	027	840	3330	4004	082	138	497	494		
3330	3001	312	081	014	749	3330	3052	255	083	049	1005	3330	4005	103	093	229	511		
3330	3002	304	086	001	915	3330	3053	255	078	042	763	3330	4006	525	136	029	669		
3330	3003	356	088	056	775	3330	3054	255	069	115	811	3330	4007	420	128	104	908		
3330	3005	326	107	085	876	3330	3055	255	077	061	908	3330	4008	304	080	013	706		
3330	3006	281	079	064	624	3330	3056	255	124	136	194	3330	4009	241	198	1	027	294	
3330	3007	354	134	090	270	3330	3057	255	102	089	900	3330	4010	373	218	1	093	447	
3330	3008	304	093	024	902	3330	3058	255	089	156	912	3330	4011	345	202	1	908	369	
3330	3009	249	077	030	635	3330	3059	255	094	156	903	3330	4012	293	177	830	333		
3330	3010	252	080	001	709	3330	3060	255	103	172	506	3330	4013	087	135	576	503		
3330	3011	255	082	022	823	3330	3061	255	081	144	995	3330	4014	224	158	273	1	158	555
3330	3012	242	071	024	794	3330	3062	255	067	156	792	3330	4015	297	145	159	1	055	268
3330	3013	234	058	061	572	3330	3063	255	070	134	671	3330	4017	151	138	640	506	420	
3330	3014	244	050	085	414	3330	3064	255	072	131	869	3330	4018	037	129	506	466	709	
3330	3015	248	047	100	526	3330	3065	255	070	114	244	3330	4019	036	143	466	1	138	273
3330	3016	260	052	107	633	3330	3066	255	064	152	745	3330	4020	368	218	1	562	471	
3330	3017	396	123	183	303	3330	3067	255	083	114	855	3330	4021	087	147	422	091	239	347
3330	3018	321	093	071	043	3330	3068	255	065	058	589	3330	4022	044	121	422	091	239	454
3330	3019	284	071	064	662	3330	3069	255	045	109	531	3330	4023	092	091	751	091	239	380
3330	3020	313	074	081	884	3330	3070	255	040	090	472	3330	4024	151	189	924	041	17	667
3330	3021	281	073	059	818	3330	3071	255	041	074	462	3330	4025	217	218	830	731	212	285
3330	3022	352	063	141	706	3330	3072	255	041	112	492	3330	4026	281	197	1	017	206	426
3330	3023	308	054	165	635	3330	3073	255	040	099	473	3330	4027	207	180	830	731	212	285
3330	3024	316	047	176	580	3330	3074	255	052	009	521	3330	4028	197	159	731	640	224	332
3330	3025	327	050	150	742	3330	3075	255	043	034	529	3330	4029	107	156	640	680	224	332
3330	3026	319	062	167	119	3330	3076	255	043	003	550	3330	4030	160	152	680	876	224	332
3330	3027	278	070	102	888	3330	3077	255	043	077	551	3330	4031	229	208	876			

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
3330	4032	121	155	603	323	3330	4083	156	029	043	287	3340	1004	268	078	069	581
3330	4033	004	141	598	378	3330	9001	009	071	315	339	3340	1005	098	098	234	469
3330	4034	134	090	267	561	3330	9002	068	064	318	339	3340	1006	031	164	460	689
3330	4035	026	133	650	383	3330	9003	212	060	154	438	3340	1007	407	132	118	040
3330	4036	117	131	682	427	3330	9004	238	041	069	387	3340	1008	397	114	139	090
3330	4037	052	162	645	672	3330	9005	289	047	088	452	3340	1009	320	112	042	934
3330	4038	101	131	661	179	3330	9006	273	046	078	476	3340	1010	077	084	300	374
3330	4039	037	130	717	263	3330	9007	345	100	131	862	3340	1011	132	138	591	280
3330	4040	076	122	716	225	3330	9008	300	090	015	700	3340	1012	165	245	867	809
3330	4041	019	129	676	277	3330	9009	347	055	198	711	3340	1013	329	074	141	690
3330	4042	118	144	857	222	3330	9010	034	057	391	555	3340	1014	316	061	130	641
3330	4043	015	123	515	309	3330	9011	389	053	259	874	3340	1015	218	061	066	459
3330	4044	006	105	423	289	3330	9012	044	054	243	197	3340	1016	085	083	227	354
3330	4045	225	081	095	521	3330	9013	290	063	120	590	3340	1017	073	096	346	394
3330	4046	022	103	392	437	3330	9014	320	058	197	853	3340	1018	330	226	177	297
3330	4047	002	090	494	650	3330	9015	062	061	336	722	3340	1019	146	113	351	511
3330	4048	011	106	640	444	3330	9016	306	052	169	638	3340	1020	192	082	167	502
3330	4049	011	076	403	212	3330	9017	358	045	226	528	3340	1021	064	100	391	352
3330	4050	066	085	439	87	3330	9018	326	080	141	817	3340	1022	340	051	160	621
3330	4051	022	080	416	242	3330	9019	080	052	385	211	3340	1023	298	047	128	490
3330	4052	121	082	432	522	3330	9020	412	055	233	724	3340	1024	208	052	048	419
3330	4053	019	093	554	200	3330	9021	340	062	130	589	3340	1025	190	086	263	419
3330	4054	011	087	371	338	3330	9022	356	132	114	779	3340	1026	089	099	373	346
3330	4055	092	079	334	309	3330	9023	317	087	067	779	3340	1027	170	195	355	327
3330	4056	263	071	019	648	3330	9024	337	053	179	562	3340	1028	069	099	366	348
3330	4057	035	077	371	291	3330	9025	324	057	169	716	3340	1029	115	102	338	407
3330	4058	038	063	246	438	3330	9026	428	097	173	910	3340	1030	008	110	401	308
3330	4059	042	050	294	219	3330	9027	352	076	148	732	3340	1031	077	144	612	317
3330	4060	110	050	176	281	3340	9028	031	069	408	206	3340	1032	128	239	797	703
3330	4061	066	047	209	217	3340	9029	026	067	379	164	3340	1033	377	048	217	629
3330	4062	121	048	175	85	3340	9030	042	059	314	199	3340	1034	306	045	148	529
3330	4063	047	060	391	76	3340	9031	073	031	051	242	3340	1035	326	046	188	527
3330	4064	174	054	189	85	3340	9032	073	023	005	151	3340	1036	267	053	058	491
3330	4065	145	049	184	68	3340	9033	072	028	029	169	3340	1037	350	066	045	657
3330	4066	314	054	079	224	3340	9034	088	030	050	171	3340	1038	025	132	634	356
3330	4067	019	070	386	207	3340	9035	073	027	028	153	3340	1039	195	069	077	472
3330	4068	026	064	399	338	3340	9036	035	040	133	169	3340	1040	138	068	122	360
3330	4069	033	059	335	280	3340	10	112	065	333	47	3340	1041	161	087	191	402
3330	4070	055	048	182	203	3340	11	136	046	190	33	3340	1042	029	123	543	258
3330	4071	024	050	244	155	3340	12	111	028	051	198	3340	1043	062	210	747	823
3330	4072	062	056	255	221	3340	13	093	023	009	165	3340	1044	296	045	158	545
3330	4073	011	056	306	170	3340	14	112	023	038	85	3340	1045	376	046	217	621
3330	4074	073	061	220	241	3340	15	199	029	102	431	3340	1046	303	043	153	524
3330	4075	093	054	157	40	3340	16	177	029	064	352	3340	1047	328	051	168	539
3330	4076	122	051	167	81	3340	17	162	029	069	97	3340	1048	286	055	045	513
3330	4077	169	042	067	336	3340	18	115	033	074	262	3340	1049	129	110	422	407
3330	4078	127	035	027	27	3340	19	089	059	204	39	3340	1050	194	052	020	389
3330	4079	119	034	012	257	3340	1001	324	092	016	99	3340	1051	211	052	025	417
3330	4080	026	041	134	197	3340	1002	436	114	068	89	3340	1052	122	069	288	338
3330	4081	084	031	022	193	3340	1003	453	116	116	30	3340	1053	067	113	687	364

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
340	1054	.027	.158	.478	.665	340	2009	.062	.130	.595	340	2059	.319	.046	.191	.556	.62
340	1055	.341	.053	.203	.711	340	2010	.323	.001	.658	340	2060	.323	.044	.201	.556	.44
340	1056	.289	.051	.151	.712	340	2011	.311	.088	.568	340	2061	.313	.047	.186	.556	.83
340	1057	.352	.046	.194	.548	340	2012	.282	.059	.491	340	2062	.314	.062	.141	.556	.55
340	1058	.262	.045	.075	.436	340	2013	.282	.053	.464	340	2063	.305	.055	.110	.556	.55
340	1059	.297	.050	.095	.497	340	2014	.298	.050	.494	340	2064	.363	.069	.174	.556	.44
340	1060	.076	.093	.442	.338	340	2015	.277	.053	.520	340	2065	.336	.053	.159	.556	.69
340	1061	.248	.045	.043	.427	340	2016	.292	.097	.484	340	2066	.349	.054	.227	.556	.04
340	1062	.179	.042	.000	.328	340	2017	.292	.053	.525	340	2067	.336	.055	.211	.556	.89
340	1063	.176	.050	.074	.432	340	2018	.292	.053	.729	340	2068	.342	.052	.232	.556	.39
340	1064	.052	.071	.297	.328	340	2019	.292	.053	.804	340	2069	.315	.051	.107	.556	.20
340	1065	.062	.114	.432	.556	340	2020	.292	.067	.630	340	2070	.336	.056	.744	.50	
340	1066	.335	.066	.161	.624	340	2021	.333	.054	.585	340	2071	.306	.049	.184	.556	.88
340	1067	.356	.069	.213	.758	340	2022	.333	.054	.146	340	2072	.367	.054	.232	.556	.27
340	1068	.241	.042	.134	.439	340	2023	.342	.049	.160	340	2073	.236	.044	.101	.556	.33
340	1069	.269	.040	.154	.427	340	2024	.342	.048	.117	340	2074	.336	.049	.174	.556	.99
340	1070	.198	.041	.068	.364	340	2025	.355	.050	.189	340	2075	.344	.077	.099	.556	.71
340	1071	.140	.053	.129	.315	340	2026	.355	.044	.171	340	2076	.380	.075	.068	.556	.32
340	1072	.136	.041	.095	.294	340	2027	.355	.044	.178	340	2077	.315	.060	.014	.556	.45
340	1073	.208	.042	.023	.407	340	2028	.355	.044	.488	340	2078	.401	.068	.214	.556	.45
340	1074	.130	.042	.040	.308	340	2029	.355	.044	.551	340	2079	.328	.064	.162	.556	.19
340	1075	.072	.052	.207	.269	340	2030	.355	.044	.567	340	2080	.365	.057	.165	.556	.52
340	1076	.091	.075	.284	.456	340	2031	.355	.046	.408	340	2081	.321	.072	.094	.556	.26
340	1077	.403	.095	.109	.828	340	2032	.355	.047	.099	340	2082	.380	.062	.202	.556	.61
340	1078	.281	.055	.054	.552	340	2033	.355	.053	.118	340	2083	.322	.068	.129	.556	.91
340	1079	.293	.050	.116	.493	340	2034	.355	.043	.124	340	2084	.292	.066	.114	.556	.69
340	1080	.258	.043	.102	.427	340	2035	.355	.042	.101	340	2085	.332	.089	.109	.556	.60
340	1081	.217	.044	.001	.403	340	2036	.355	.043	.439	340	2086	.273	.081	.024	.556	.79
340	1082	.098	.050	.229	.252	340	2037	.355	.042	.432	340	2087	.343	.075	.112	.556	.50
340	1083	.082	.079	.391	.355	340	2038	.355	.044	.193	340	2088	.407	.075	.171	.556	.07
340	1084	.307	.090	.057	.689	340	2039	.355	.044	.648	340	2089	.339	.077	.154	.556	.34
340	1085	.314	.069	.102	.683	340	2040	.355	.054	.544	340	2090	.207	.031	.068	.556	.19
340	1086	.291	.046	.154	.483	340	2041	.355	.048	.495	340	2091	.239	.058	.062	.556	.36
340	1088	.261	.045	.102	.433	340	2042	.355	.060	.663	340	2092	.353	.090	.141	.556	.22
340	1089	.175	.050	.005	.437	340	2043	.355	.044	.186	340	2093	.352	.065	.112	.556	.96
340	1090	.115	.048	.100	.372	340	2044	.355	.041	.218	340	2094	.352	.073	.124	.556	.73
340	1091	.177	.038	.043	.333	340	2045	.355	.040	.485	340	2095	.302	.071	.121	.556	.53
340	1092	.141	.043	.048	.293	340	2046	.355	.040	.494	340	2096	.120	.062	.198	.556	.76
340	1093	.059	.056	.239	.555	340	2047	.355	.042	.478	340	2097	.254	.062	.085	.556	.08
340	1094	.075	.056	.257	.555	340	2048	.355	.045	.186	340	2098	.313	.063	.144	.556	.66
340	1095	.145	.040	.006	.303	340	2049	.355	.045	.507	340	2099	.288	.072	.101	.556	.15
340	1096	.134	.112	.255	.475	340	2050	.355	.045	.493	340	3000	.313	.089	.048	.556	.36
20001	.252	.071	.034	.573	.340	2051	.355	.066	.100	.653	340	3001	.300	.090	.020	.556	.82
340	2002	.363	.069	.134	.823	340	2052	.355	.061	.179	340	3002	.359	.088	.102	.556	.19
340	2003	.278	.076	.011	.658	340	2053	.355	.061	.655	340	3003	.305	.091	.051	.556	.93
340	2004	.275	.075	.038	.652	340	2054	.355	.046	.234	340	3004	.266	.069	.101	.556	.57
340	2005	.337	.085	.052	.925	340	2055	.355	.046	.213	340	3005	.289	.092	.065	.556	.94
340	2006	.250	.051	.118	.492	340	2056	.355	.045	.522	340	3006	.275	.082	.058	.556	.99
340	2007	.248	.047	.116	.441	340	2057	.355	.045	.220	340	3007	.236	.068	.021	.556	.12
340	2008	.282	.064	.103	.551	340	2058	.355	.044	.172	340	3010	.246	.071	.006	.556	.61

## APPENDIX A -- PRESSURE DATA:

## OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
40	011	0.41	0.68	0.34	0.63	340	3061	0.289	0.60	0.134	0.707	340	4014	0.306	0.135	0.032	0.943
40	012	0.23	0.60	0.22	0.53	340	3062	0.296	0.44	0.130	0.465	340	4015	0.330	0.129	0.202	0.885
40	013	0.23	0.54	0.22	0.48	340	3063	0.287	0.45	0.159	0.495	340	4017	0.059	0.112	0.467	0.885
40	014	0.24	0.51	0.24	0.45	340	3064	0.296	0.45	0.167	0.637	340	4018	0.064	0.101	0.259	0.827
40	015	0.24	0.49	0.24	0.44	340	3065	0.296	0.42	0.144	0.523	340	4019	0.160	0.119	0.239	0.670
40	016	0.26	0.52	0.26	0.50	340	3066	0.298	0.47	0.111	0.531	340	4020	0.366	0.213	1.120	0.282
40	017	0.35	0.69	0.17	0.91	340	3067	0.369	0.88	0.142	0.934	340	4021	0.010	0.113	0.534	0.387
40	018	0.29	0.67	0.18	0.68	340	3068	0.279	0.57	0.086	0.589	340	4022	0.016	0.092	0.383	0.327
40	019	0.26	0.60	0.19	0.60	340	3069	0.238	0.39	0.102	0.493	340	4023	0.127	0.073	0.123	0.392
40	020	0.30	0.57	0.20	0.67	340	3070	0.252	0.34	0.140	0.412	340	4024	0.288	0.187	0.859	0.180
40	021	0.26	0.57	0.21	0.67	340	3071	0.241	0.33	0.137	0.367	340	4025	0.260	0.193	0.889	0.179
40	022	0.33	0.69	0.22	0.69	340	3072	0.258	0.34	0.160	0.413	340	4026	0.177	0.206	0.921	0.595
40	023	0.33	0.50	0.22	0.57	340	3073	0.240	0.32	0.142	0.392	340	4027	0.130	0.156	0.688	0.234
40	024	0.33	0.51	0.22	0.53	340	3074	0.221	0.39	0.023	0.391	340	4028	0.117	0.133	0.605	0.229
40	025	0.31	0.49	0.22	0.48	340	3075	0.234	0.32	0.117	0.355	340	4029	0.021	0.126	0.482	0.226
40	026	0.34	0.52	0.22	0.49	340	3076	0.250	0.33	0.108	0.384	340	4030	0.078	0.124	0.560	0.214
40	027	0.34	0.60	0.22	0.53	340	3077	0.245	0.35	0.132	0.395	340	4031	0.206	0.187	0.937	0.232
40	028	0.34	0.52	0.22	0.53	340	3078	0.247	0.31	0.124	0.345	340	4032	0.058	0.117	0.519	0.249
40	029	0.33	0.49	0.22	0.54	340	3079	0.257	0.41	0.095	0.454	340	4033	0.055	0.106	0.437	0.343
40	030	0.33	0.48	0.22	0.55	340	3080	0.292	0.55	0.119	0.733	340	4034	0.160	0.065	0.110	0.473
40	031	0.25	0.49	0.19	0.55	340	3081	0.176	0.28	0.073	0.258	340	4035	0.159	0.160	0.819	0.298
40	032	0.24	0.48	0.19	0.53	340	3082	0.293	0.38	0.126	0.495	340	4036	0.200	0.134	0.770	0.520
40	033	0.24	0.50	0.19	0.57	340	3083	0.247	0.33	0.137	0.390	340	4037	0.025	0.179	0.708	0.969
40	034	0.23	0.72	0.18	0.80	340	3084	0.269	0.32	0.156	0.441	340	4038	0.090	0.100	0.578	0.206
40	035	0.28	0.75	0.18	0.91	340	3085	0.206	0.33	0.087	0.332	340	4039	0.017	0.095	0.499	0.224
40	036	0.28	0.68	0.18	0.86	340	3086	0.273	0.41	0.099	0.410	340	4040	0.052	0.087	0.524	0.158
40	037	0.28	0.63	0.18	0.83	340	3087	0.215	0.38	0.045	0.368	340	4041	0.009	0.091	0.497	0.232
40	038	0.28	0.61	0.18	0.84	340	3088	0.261	0.51	0.061	0.501	340	4042	0.121	0.117	0.754	0.157
40	039	0.27	0.49	0.15	0.47	340	3089	0.232	0.34	0.116	0.454	340	4043	0.058	0.085	0.314	0.275
40	040	0.27	0.49	0.13	0.59	340	3090	0.298	0.51	0.157	0.519	340	4044	0.041	0.073	0.295	0.237
40	041	0.23	0.50	0.12	0.70	340	3091	0.327	0.37	0.212	0.465	340	4045	0.241	0.061	0.029	0.504
40	042	0.21	0.52	0.15	0.71	340	3092	0.245	0.30	0.142	0.353	340	4046	0.155	0.132	0.809	0.178
40	043	0.27	0.46	0.14	0.53	340	3093	0.271	0.31	0.179	0.383	340	4047	0.055	0.100	0.483	0.321
40	044	0.22	0.51	0.15	0.58	340	3094	0.219	0.32	0.116	0.366	340	4048	0.032	0.139	0.530	0.747
40	045	0.26	0.59	0.15	0.73	340	3095	0.278	0.41	0.099	0.488	340	4049	0.222	0.059	0.433	0.227
40	046	0.23	0.61	0.16	0.76	340	3096	0.222	0.37	0.055	0.395	340	4050	0.065	0.063	0.381	0.260
40	047	0.25	0.56	0.16	0.64	340	3097	0.234	0.51	0.022	0.517	340	4051	0.022	0.059	0.366	0.219
40	048	0.26	0.51	0.11	0.68	340	4001	0.278	0.182	0.866	0.291	340	4052	0.069	0.058	0.222	0.219
40	049	0.26	0.50	0.11	0.68	340	4002	0.298	0.189	0.882	0.230	340	4053	0.034	0.080	0.477	0.178
40	050	0.27	0.47	0.12	0.55	340	4003	0.085	0.167	0.583	0.480	340	4054	0.130	0.061	0.208	0.330
40	051	0.26	0.50	0.12	0.68	340	4004	0.001	0.114	0.372	0.392	340	4055	0.098	0.054	0.150	0.271
40	052	0.27	0.50	0.13	0.70	340	4005	0.192	0.079	0.087	0.497	340	4056	0.251	0.051	0.037	0.483
40	053	0.26	0.46	0.11	0.58	340	4006	0.544	0.131	0.163	1.176	340	4057	0.054	0.087	0.475	0.183
40	054	0.28	0.42	0.17	0.55	340	4007	0.504	0.130	0.143	0.042	340	4058	0.008	0.074	0.321	0.209
40	055	0.28	0.46	0.17	0.58	340	4008	0.346	0.091	0.075	0.885	340	4060	0.023	0.044	0.179	0.206
40	056	0.31	0.64	0.15	0.79	340	4009	0.403	0.205	0.946	0.193	340	4061	0.091	0.044	0.148	0.234
40	057	0.30	0.65	0.14	0.74	340	4010	0.447	0.196	0.022	0.062	340	4062	0.045	0.041	0.184	0.188
40	058	0.32	0.72	0.14	0.93	340	4011	0.187	0.226	0.877	0.700	340	4063	0.109	0.042	0.143	0.257
40	059	0.31	0.79	0.14	0.97	340	4012	0.203	0.145	0.689	0.216	340	4064	0.023	0.058	0.242	0.204
40	060	0.32	0.75	0.14	0.86	340	4013	0.013	0.103	0.310	0.443	340	4065	0.163	0.042	0.053	0.298

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
340	4066	0.133	0.36	0.22	0.284	350	1037	0.306	0.57	0.68	0.499	350	1037	0.306	0.57	0.68	0.499
340	4067	0.300	0.46	0.19	0.534	350	1038	0.034	0.06	0.459	0.325	350	1038	0.034	0.06	0.459	0.325
340	4068	0.001	0.67	0.46	1.87	350	1039	0.185	0.33	0.140	0.422	350	1039	0.185	0.33	0.140	0.422
340	4069	0.019	0.75	0.360	1.64	350	1040	0.155	0.39	0.143	0.335	350	1040	0.155	0.39	0.143	0.335
340	4070	0.039	0.63	0.384	2.27	350	1041	0.135	0.33	0.231	0.403	350	1041	0.135	0.33	0.231	0.403
340	4071	0.051	0.53	0.296	1.91	350	1042	0.019	0.09	0.595	0.553	350	1042	0.019	0.09	0.595	0.553
340	4072	0.029	0.45	0.201	1.49	350	1043	0.033	0.33	0.613	0.573	350	1043	0.033	0.33	0.613	0.573
340	4073	0.081	0.43	0.086	0.66	350	1044	0.111	0.33	0.174	0.626	350	1044	0.111	0.33	0.174	0.626
340	4074	0.028	0.46	0.355	2.27	350	1045	0.323	0.33	0.241	0.707	350	1045	0.323	0.33	0.241	0.707
340	4075	0.052	0.72	0.688	2.27	350	1046	0.288	0.44	0.144	0.566	350	1046	0.288	0.44	0.144	0.566
340	4076	0.104	0.38	0.654	3.53	350	1047	0.291	0.48	0.127	0.538	350	1047	0.291	0.48	0.127	0.538
340	4077	0.131	0.35	0.533	2.27	350	1048	0.466	0.55	0.067	0.465	350	1048	0.466	0.55	0.067	0.465
340	4078	0.172	0.36	0.26	0.53	350	1049	0.163	0.84	0.371	0.436	350	1049	0.163	0.84	0.371	0.436
340	4079	0.125	0.37	0.19	0.39	350	1050	0.185	0.48	0.010	0.367	350	1050	0.185	0.48	0.010	0.367
340	4080	0.127	0.30	0.22	0.32	350	1051	0.200	0.09	0.009	0.365	350	1051	0.200	0.09	0.009	0.365
340	4081	0.017	0.43	0.17	0.32	350	1052	0.127	0.55	0.163	0.303	350	1052	0.127	0.55	0.163	0.303
340	4082	0.086	0.31	0.17	0.55	350	1053	0.123	0.88	0.276	0.353	350	1053	0.123	0.88	0.276	0.353
340	4083	0.159	0.27	0.050	0.44	350	1054	0.000	0.11	0.464	0.496	350	1054	0.000	0.11	0.464	0.496
340	9001	0.022	0.76	0.330	1.1	350	1055	0.333	0.33	0.204	0.793	350	1055	0.333	0.33	0.204	0.793
340	9002	0.057	0.65	0.36	0.66	350	1056	0.366	0.66	0.155	0.667	350	1056	0.366	0.66	0.155	0.667
340	9003	0.182	0.62	0.78	0.66	350	1057	0.444	0.49	0.213	0.579	350	1057	0.444	0.49	0.213	0.579
340	9004	0.209	0.39	0.34	0.77	350	1058	0.777	0.41	0.117	0.462	350	1058	0.777	0.41	0.117	0.462
340	9005	0.241	0.49	0.47	0.33	350	1059	0.222	0.43	0.127	0.521	350	1059	0.222	0.43	0.127	0.521
340	9006	0.245	0.53	0.22	0.33	350	1060	0.102	0.66	0.236	0.294	350	1060	0.102	0.66	0.236	0.294
340	9007	0.401	1.49	0.68	0.66	350	1061	0.241	0.41	0.085	0.401	350	1061	0.241	0.41	0.085	0.401
340	9008	0.337	1.07	0.18	0.51	350	1062	0.174	0.38	0.037	0.323	350	1062	0.174	0.38	0.037	0.323
340	9009	0.355	0.63	0.179	0.51	350	1063	0.183	0.45	0.041	0.360	350	1063	0.183	0.45	0.041	0.360
340	9011	0.035	0.58	0.433	1.30	350	1064	0.000	0.58	0.187	0.277	350	1064	0.000	0.58	0.187	0.277
340	9012	0.407	0.69	0.37	0.22	350	1065	0.111	0.99	0.201	0.649	350	1065	0.111	0.99	0.201	0.649
340	9013	0.044	0.47	0.180	0.66	350	1066	0.333	0.33	0.179	0.789	350	1066	0.333	0.33	0.179	0.789
340	9014	0.283	0.70	0.96	0.46	350	1067	0.333	0.66	0.214	0.665	350	1067	0.333	0.66	0.214	0.665
340	9015	0.345	0.60	1.78	0.44	350	1068	0.222	0.44	0.130	0.421	350	1068	0.222	0.44	0.130	0.421
340	9016	0.550	0.58	2.44	0.22	350	1069	0.666	0.33	0.158	0.393	350	1069	0.666	0.33	0.158	0.393
340	9018	0.315	0.49	1.65	0.59	350	1070	0.149	0.36	0.052	0.333	350	1070	0.149	0.36	0.052	0.333
340	9019	0.370	0.61	1.11	0.59	350	1071	0.143	0.50	0.074	0.295	350	1071	0.143	0.50	0.074	0.295
340	9020	0.340	0.96	1.13	0.78	350	1072	0.133	0.37	0.016	0.282	350	1072	0.133	0.37	0.016	0.282
340	9021	0.075	0.37	0.33	0.78	350	1073	0.209	0.39	0.073	0.388	350	1073	0.209	0.39	0.073	0.388
340	9022	0.406	0.65	2.01	0.41	350	1074	0.131	0.65	0.030	0.296	350	1074	0.131	0.65	0.030	0.296
340	9023	0.348	0.81	1.29	0.50	350	1075	0.000	0.40	0.196	0.240	350	1075	0.000	0.40	0.196	0.240
340	9024	0.361	1.31	2.01	1.10	350	1076	0.000	0.65	0.233	0.365	350	1076	0.000	0.65	0.233	0.365
340	9025	0.329	0.83	0.64	0.71	350	1077	0.000	0.66	0.086	0.707	350	1077	0.000	0.66	0.086	0.707
340	9026	0.347	0.53	1.94	0.66	350	1078	0.000	0.45	0.063	0.416	350	1078	0.000	0.45	0.063	0.416
340	9027	0.325	0.55	1.79	0.59	350	1079	0.000	0.40	0.103	0.424	350	1079	0.000	0.40	0.103	0.424
340	9028	0.433	1.09	1.56	0.95	350	1080	0.000	0.33	0.127	0.421	350	1080	0.000	0.33	0.127	0.421
340	9029	0.351	0.93	1.23	0.77	350	1081	0.000	0.33	0.084	0.360	350	1081	0.000	0.33	0.084	0.360
350	1	0.009	0.60	2.86	1.55	350	1082	0.000	0.43	0.083	0.232	350	1082	0.000	0.43	0.083	0.232
350	2	0.062	0.61	2.94	1.55	350	1083	0.000	0.59	0.150	0.484	350	1083	0.000	0.59	0.150	0.484
350	3	0.070	0.46	2.47	1.98	350	1084	0.000	0.76	0.043	0.649	350	1084	0.000	0.76	0.043	0.649
350	4	0.092	0.27	0.37	1.98	350	1085	0.277	0.47	0.139	0.486	350	1085	0.277	0.47	0.139	0.486
350	5	0.080	0.21	0.00	1.43	350	1086	0.277	0.40	0.121	0.498	350	1086	0.277	0.40	0.121	0.498



APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPHIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPHIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPHIN
3550	1088	253	033	143	368	3550	2042	3550	062	180	704	3550	2092	3003	055	141	773
3550	1089	184	043	003	397	3550	2043	322	051	178	591	3550	2093	3003	055	094	555
3550	1090	151	040	042	278	3550	2044	319	042	186	539	3550	2094	3003	055	126	540
3550	1091	180	031	062	275	3550	2045	313	042	186	561	3550	2095	3003	049	111	530
3550	1092	147	035	070	279	3550	2046	310	041	187	553	3550	2096	3003	041	101	441
3550	1093	081	048	194	249	3550	2047	301	041	183	554	3550	2097	3003	041	104	463
3550	1094	111	038	194	271	3550	2048	307	045	164	556	3550	2098	3003	046	101	577
3550	1095	153	031	040	278	3550	2049	301	046	153	543	3550	2099	3003	055	091	613
3550	1096	231	080	097	449	3550	2050	303	048	153	555	3550	3001	3003	082	046	717
3550	2001	231	064	034	539	3550	2051	290	045	129	517	3550	3002	3003	079	037	793
3550	2002	343	065	130	664	3550	2052	314	047	164	502	3550	3003	3003	076	111	716
3550	2003	262	074	020	663	3550	2053	335	065	205	668	3550	3005	3003	076	088	633
3550	2004	254	073	030	669	3550	2054	333	059	204	598	3550	3006	3003	058	076	495
3550	2005	319	078	040	794	3550	2055	333	055	201	589	3550	3007	3003	063	002	641
3550	2006	244	048	073	478	3550	2056	333	054	208	622	3550	3008	3003	063	034	496
3550	2007	233	045	101	490	3550	2057	333	054	210	620	3550	3009	3003	055	039	433
3550	2008	259	060	100	496	3550	2058	322	053	149	608	3550	3010	3003	055	001	513
3550	2009	281	055	125	547	3550	2059	322	057	196	639	3550	3011	3003	055	029	492
3550	2010	287	078	016	608	3550	2060	311	046	189	549	3550	3012	3003	050	053	421
3550	2011	278	056	087	568	3550	2061	315	050	188	563	3550	3013	3003	046	041	431
3550	2012	257	047	090	499	3550	2062	277	047	110	697	3550	3014	3003	046	048	447
3550	2013	249	045	086	447	3550	2063	284	048	059	621	3550	3015	3003	041	094	385
3550	2014	276	045	154	470	3550	2064	333	068	116	685	3550	3016	3003	043	099	426
3550	2015	304	044	166	489	3550	2065	333	052	054	531	3550	3017	3003	048	180	531
3550	2016	220	046	031	429	3550	2066	348	055	156	606	3550	3018	3003	048	122	457
3550	2017	230	052	041	522	3550	2067	349	058	186	788	3550	3019	3003	044	091	402
3550	2018	259	075	046	704	3550	2068	333	061	155	622	3550	3020	3003	046	134	548
3550	2019	259	070	037	679	3550	2069	333	061	156	598	3550	3021	3003	044	125	504
3550	2020	249	065	054	585	3550	2070	333	079	185	905	3550	3022	3003	044	290	544
3550	2021	293	044	182	474	3550	2071	300	066	191	848	3550	3023	3003	044	159	477
3550	2022	298	046	154	484	3550	2072	300	048	187	523	3550	3024	3003	044	159	484
3550	2023	317	043	157	498	3550	2073	300	036	102	366	3550	3025	3003	041	205	491
3550	2024	268	042	113	452	3550	2074	333	040	137	432	3550	3026	3003	043	173	509
3550	2025	350	043	183	546	3550	2075	325	072	077	681	3550	3027	3003	038	120	382
3550	2026	287	040	134	449	3550	2076	314	061	101	602	3550	3028	3003	039	193	479
3550	2027	326	043	196	486	3550	2077	319	050	112	553	3550	3029	3003	035	157	395
3550	2028	282	046	130	486	3550	2078	320	050	166	624	3550	3030	3003	038	089	360
3550	2029	259	047	165	566	3550	2079	314	049	157	603	3550	3031	3003	039	094	364
3550	2030	293	048	102	489	3550	2080	300	045	113	467	3550	3032	3003	038	103	363
3550	2031	238	044	112	424	3550	2081	333	058	202	698	3550	3033	3003	041	090	400
3550	2032	254	043	096	392	3550	2082	341	044	137	495	3550	3034	3003	052	099	619
3550	2033	268	050	108	476	3550	2083	333	050	199	551	3550	3035	3003	050	041	658
3550	2034	258	041	105	430	3550	2084	333	050	087	535	3550	3036	3003	053	012	651
3550	2035	246	042	108	403	3550	2085	333	066	059	647	3550	3037	3003	049	064	611
3550	2036	253	044	099	442	3550	2086	333	073	069	622	3550	3038	3003	040	140	527
3550	2037	241	043	092	415	3550	2087	333	064	073	624	3550	3039	3003	040	114	454
3550	2038	325	045	162	498	3550	2088	333	065	181	779	3550	3040	3003	038	141	433
3550	2039	279	046	111	477	3550	2089	301	058	151	562	3550	3041	3003	037	131	450
3550	2040	308	057	113	646	3550	2090	196	027	092	289	3550	3042	3003	040	128	485
3550	2041	313	050	148	586	3550	2091	217	047	070	545	3550	3043	3003	040	128	481

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
3550	3044	274	045	120	546	3550	3094	203	029	106	331	3550	4048	025	110	422	110
3550	3045	248	050	119	624	3550	3095	253	035	076	371	3550	4049	013	060	239	210
3550	3046	254	048	082	571	3550	3096	211	035	066	462	3550	4050	042	058	226	226
3550	3047	250	046	084	525	3550	3097	242	045	089	465	3550	4051	052	055	188	229
3550	3048	251	042	086	511	3550	4001	361	161	834	48	3550	4052	051	052	184	201
3550	3049	251	040	099	470	3550	4002	305	158	875	43	3550	4053	005	084	418	212
3550	3050	249	034	123	408	3550	4003	053	171	450	88	3550	4054	103	048	170	262
3550	3051	253	036	123	409	3550	4004	048	087	216	88	3550	4055	121	043	120	271
3550	3052	255	036	139	409	3550	4005	219	067	027	88	3550	4056	208	035	015	403
3550	3053	252	035	149	392	3550	4006	438	106	138	88	3550	4057	028	081	466	277
3550	3054	265	035	159	437	3550	4007	481	112	152	73	3550	4058	002	066	377	211
3550	3055	279	039	163	491	3550	4008	356	089	011	67	3550	4059	073	047	248	299
3550	3056	321	069	168	819	3550	4009	489	175	042	60	3550	4060	083	044	105	241
3550	3057	326	073	161	942	3550	4010	422	171	951	66	3550	4061	096	043	089	333
3550	3058	322	071	155	841	3550	4011	038	198	613	66	3550	4062	097	042	084	222
3550	3059	324	075	158	797	3550	4012	114	104	532	24	3550	4063	059	062	243	244
3550	3060	315	071	110	216	3550	4013	073	071	181	25	3550	4064	143	038	024	555
3550	3061	286	059	146	800	3550	4014	300	104	008	86	3550	4065	172	034	025	222
3550	3062	286	047	164	440	3550	4015	340	110	062	71	3550	4066	253	043	115	666
3550	3063	290	051	168	590	3550	4017	002	079	365	74	3550	4067	013	073	357	164
3550	3064	285	049	173	116	3550	4018	122	071	142	00	3550	4068	032	055	263	76
3550	3065	271	043	154	59	3550	4019	209	088	145	96	3550	4069	045	063	263	80
3550	3066	277	045	181	69	3550	4020	339	188	024	28	3550	4070	110	046	202	433
3550	3067	333	068	181	69	3550	4021	037	082	342	66	3550	4071	078	045	210	33
3550	3068	225	054	022	315	3550	4022	052	066	238	74	3550	4072	119	042	155	48
3550	3069	218	035	111	390	3550	4023	146	053	117	00	3550	4073	070	042	224	98
3550	3070	224	033	125	427	3550	4024	387	192	093	67	3550	4074	117	054	245	71
3550	3071	223	033	121	402	3550	4025	336	171	965	19	3550	4075	134	036	161	33
3550	3072	225	034	106	386	3550	4026	095	193	562	83	3550	4076	163	032	091	58
3550	3073	218	032	106	397	3550	4027	124	113	530	21	3550	4077	174	031	067	55
3550	3074	210	034	084	386	3550	4028	059	098	421	39	3550	4078	145	031	053	166
3550	3075	220	033	105	444	3550	4029	016	086	307	35	3550	4079	140	028	045	68
3550	3076	228	032	125	41	3550	4030	026	090	365	32	3550	4080	140	028	045	54
3550	3077	222	034	099	338	3550	4031	203	154	652	00	3550	4081	053	034	114	76
3550	3078	238	028	083	338	3550	4032	008	086	289	99	3550	4082	079	029	017	43
3550	3079	224	037	094	444	3550	4033	008	071	250	76	3550	4083	157	025	065	66
3550	3080	270	044	144	444	3550	4034	181	045	001	99	3550	9001	049	061	300	76
3550	3081	177	027	057	275	3550	4035	215	142	791	17	3550	9002	043	056	226	59
3550	3082	281	034	143	474	3550	4036	191	133	717	22	3550	9003	173	047	047	71
3550	3083	226	031	127	374	3550	4037	030	144	530	30	3550	9004	201	035	061	47
3550	3084	246	029	144	346	3550	4038	054	084	355	22	3550	9005	223	045	024	36
3550	3085	181	030	067	290	3550	4039	028	080	457	89	3550	9006	233	049	073	28
3550	3086	244	033	088	353	3550	4040	009	077	428	22	3550	9007	394	152	095	43
3550	3087	195	031	055	354	3550	4041	006	076	418	07	3550	9008	326	103	066	43
3550	3088	250	041	099	440	3550	4042	098	117	642	11	3550	9009	023	051	415	181
3550	3089	233	033	113	416	3550	4043	039	069	351	52	3550	9010	395	046	153	99
3550	3090	245	041	121	409	3550	4044	077	060	259	22	3550	9011	270	069	254	196
3550	3091	290	031	198	409	3550	4045	190	042	002	46	3550	9012	325	079	044	31
3550	3092	220	026	141	305	3550	4046	072	117	575	86	3550	9013	100	054	159	914
3550	3093	254	028	159	368	3550	4047	086	096	631	99	3550	9014	025	054	136	282

APPENDIX A -- PRESSURE DATA:

OXFORD CENTRE -- PITTSBURGH

WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN	WD	TAP	CPMEAN	CPRMS	CPMAX	CPMIN
350	9018	-.291	.044	-.143	-.465	350	9022	-.371	.063	-.208	-.749	350	9026	-.327	.048	-.175	-.588
350	9019	-.370	.070	-.174	-.807	350	9023	-.325	.083	-.149	-.968	350	9027	-.302	.048	-.138	-.593
350	9020	-.303	.099	-.040	-.945	350	9024	-.325	.112	-.063	-.878	350	9028	-.368	.096	-.169	-.686
350	9021	-.100	.031	.077	-.197	350	9025	-.317	.070	-.068	-.785	350	9029	-.277	.075	-.104	-.717

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