2/01
17th floor Me

Environmental Testing & Balancing, Inc.

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PRELIMINARY CERTIFIED TESTING AND BALANCING REPORT

Date: February 2001 – Preliminary Report

Project: DPW Hartford

Address: 25 Sigourney St.
Hartford
Connecticut

HVAC Contractor: Johnson Controls, Inc.

The Data Presented in this Report is an Exact Record of the System Performance and was Obtained in Accordance with NEBB Standard Procedures. Any Variances from Design Quantities which Exceed NEBB Tolerances are Noted Throughout this Report.

The Air Distribution Systems and Hydronic Distribution Systems have been Tested and Balanced and Final Adjustments have been Made in Accordance with NEBB "Procedural Standards for Testing–Adjusting–Balancing of Environmental Systems" and the Project Specifications.

Submitted and Certified by:

NEBB Certified Test and Balance Supervisor David T. Marks

Environmental Testing & Balancing, Inc.
Registration No. is 2968

TABLE OF CONTENTS

Sheet Title	Page Numbers
Instrument Calibration Sheet	
Remarks	
17th Floor North AHU	
Pitot Traverse Test Sheets	2
17th Floor South AHU	
Pitot Traverse Test Sheets	4
General Fans	
Grille Test Sheet	

REMARKS

DPW Hartford 25 Sigourney St. - Preliminary Report
February 14, 2001

*There is no building relief fan as shown on the prints.

*While in the dump mode, all of the relief dampers open and the 17th floor in 100% cooling, a positive static pressure in the relief plenum of .005"wg. was measured. At the same time a static pressure of -.07"wg. was measured on the 17th floor. Therefore while in the dump mode there is a possibility of moving air from one floor to another floor through the relief plenum but it will be hard to maintain the design building SP of .05"wg..

* The design totals listed on the velgrid sheets for the supply are based on a previous balancing report. The outside air and relief velgrid designs were based on a number close to what was actually tested due to limited information. The same applies to the exhaust fan grille designs.

*The air handlers on the 17th floor were tested with boxes in full cooling and the outside air in the minimum position and then in the dump position.

*In either mode, the outside air exceeds the exhaust for the floor tested creating an extreme positive condition on the floor based on the equipment tested.

*A velgrid was taken on the roof at the relief discharge: 144" x 34" outlet (34 square feet area) with a 233 average fpm and equaled 7922 Cfm.

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Page -

PITOT TRAVERSE TEST SHEET

Job Name: DPW Hartford 25 Sigourney St. -- Preliminary Report
Tested By: John Burgess (2001018)

Velgrid Face Velocity Profile for
17th fl. N. AHU Total

Design CFM = 17618

Height = 30 inches
Width = 94 inches

Area = 19.6 Square Feet

710	898	880	769	814	640	657	746
729	841	824	636	719	583	604	708
557	786	782	678	708	655	691	719

Average Velocity = 722 Feet Per Minute

Total CFM = 14144 or 80% of Design CFM

Velgrid Face Velocity Profile for
17th fl. N. AHU Outside Air Min.

Design CFM = 2500

Height = 28 inches
Width = 16 inches

Area = 3.1 Square Feet

837	872
883	947
703	756

Average Velocity = 833 Feet Per Minute

Total CFM = 2592 or 104% of Design CFM

10% 259 cfm
13 people
26

PITOT TRAVERSE TEST SHEET

Job Name: DPW Hartford 25 Sigourney St. – Preliminary Report
Tested By: John Burgess (2001018)

Velgrid Face Velocity Profile for
17th fl. N. AHU Outside Air Dump Mode

Design CFM – 10000

Height = 28 inches
Width = 44 inches

Area = 8.6 Square Feet

412	586	549	429
1328	1262	1617	1531
1315	1431	1479	1428

Average Velocity = 1114 Feet Per Minute

Total CFM = 9530 or 95% of Design CFM

Page -

PITOT TRAVERSE TEST SHEET

Job Name: DPW Hartford 26 Sigourney St. – Preliminary Report
Tested By: John Burgess (2001018)

Velgrid Face Velocity Profile for
17 th. fl. S. AHUTotal

Design CFM = 17618

Height = 30 inches
Width = 94 inches

Area = 19.6 Square Feet

742	827	767	809	731	738	838	829
740	820	748	774	725	689	795	731
669	782	804	749	729	730	716	766

Average Velocity = 760 Feet Per Minute

Total CFM = 14890 or 85% of Design CFM

Velgrid Face Velocity Profile for
17 th. fl. S. AHUOutside Air Min.

Design CFM = 4000

Height = 28 inches
Width = 16 inches

Area = 3.1 Square Feet

796	812
1061	1203
1399	1287

Average Velocity = 1093 Feet Per Minute

Total CFM = 3400 or 85% of Design CFM

10%

340 cfm

17 people

34

2500
3400
5900

Say fresh air is ~5900