

CITY OF SACRAMENTO
1231 I Street, Sacramento, CA 95814

Permit No: 0602971
Insp Area: 1
Thos Bros: 297C3

Site Address: 980 9TH ST SAC
Parcel No: 006-0036-031

SUITE #700

Sub-Type: TI
Housing (Y/N): N

CONTRACTOR
RUDOLPH AND SLETTEN INC
1504 EUREKA RD SUITE 200
ROSEVILLE CA 95661

OWNER
TEACHERS INS/ANNUITY ASSOC OF
730 3RD AV
NEW YORK, NY 10017

ARCHITECT
RMW ARCHITECTS
1718 3RD ST # 101
SAC, CA.

Nature of Work: TENANT IMPROVEMENT FOR EXISTING OCCUPIED BLDG - OFFICE SPACE

CONSTRUCTION LENDING AGENCY: I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C).

Lender's Name N/A Lender's Address _____

LICENSED CONTRACTORS DECLARATION: I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

✓ License Class B License Number 198069 Date 4.11.06 Contractor Signature Ralph Alsgood

OWNER-BUILDER DECLARATION: I hereby affirm under penalty of perjury that I am exempt from the contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code; any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 8 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500.00);

____ I, as a owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professional Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he/she did not build or improve for the purpose of sale.)

____ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law).

____ I am exempt under Sec. _____ B & PC for this reason: _____

Date _____ Owner Signature _____

IN ISSUING THIS BUILDING PERMIT, the applicant represents, and the city relies on the representation of the applicant, that the applicant verified all measurements and locations shown on the application or accompanying drawings and that the improvement to be constructed does not violate any law or private agreement relating to permissible or prohibited locations for such improvements. This building permit does not authorize any illegal location of any improvement or the violation of any private agreement relating to location of improvements.

I certify that I have read this application and state that all information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

× Date 4.11.06 Applicant/Agent Signature Ralph Alsgood

WORKER'S COMPENSATION DECLARATION: I hereby affirm under penalty of perjury one of the following declarations:

____ I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of work for which the permit is issued.

× ✓ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number is:

Carrier AMERICAN GUARANTEE & LIABILITY Policy Number WC 3495307-06 Exp Date 10/01/2006

____ (This section need not be completed if the permit is for \$100 or less) I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

× Date 4.11.06 Applicant Signature Ralph Alsgood

WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000) IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEY'S FEE.

THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.

Microfilm Report

Certified Test, Adjust, Balance Report

**US Bank Plaza - Investment Bank / Trust
980 9th Street
Sacramento, CA**



FINAL AIR BALANCE CO., INC

License# 777985



FINAL AIR BALANCE CO., INC
Testing & Balancing – Industrial & Environmental Systems
13020 Piper Hill Dr. Penn Valley, CA 95946
Ph: (530) 432-2226 Fax: (530) 432-2901

**CERTIFIED TEST, ADJUST, BALANCE REPORT
FOR**

US Bank Plaza - Investment Bank / Trust
980 9th Street
Sacramento, CA

Architect:

Engineer: Glumac International
10419 Old Placerville Rd. Ste. 250
Sacramento, CA 958272508
(916) 362-9394

Contractor: Frank M. Booth Design Build Co.
4220 Douglas Blvd
Granite Bay, CA 95746
(916) 784-0777

The data represented in this report is a record of system measurements and final adjustments that have been obtained in accordance with the current edition of the *NEBB Procedural Standards for Testing, Adjusting, and Balancing of Environmental Systems*. Any variances from design quantities, which exceed NEBB tolerances, are noted in the Test, Adjust, Balance Report Summary.

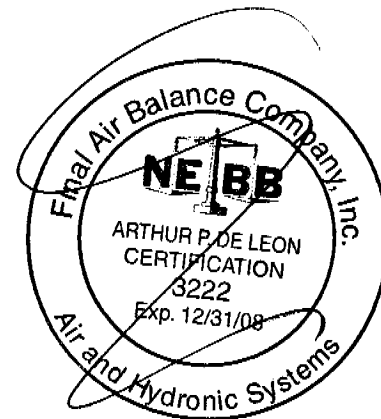
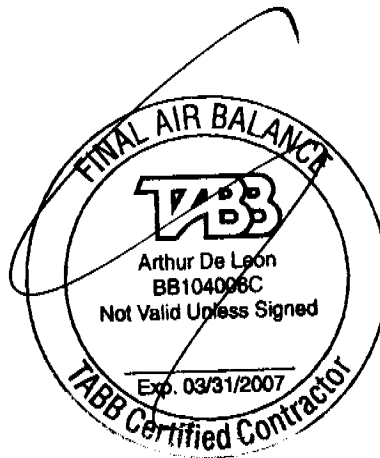
NEBB Certification: 3222

TABB Certification: BB104006C

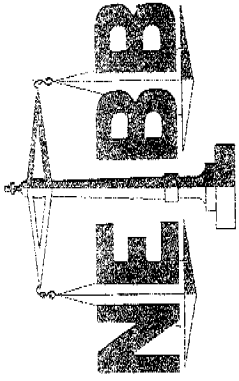
Date : 5/2/06

FAB Job Number: 0604J668

Approved : Art De Leon



National Environmental Balancing Bureau



Certificate of Recertification

THIS IS TO CERTIFY THAT

Final Air Balance Company, Inc.
in Penn Valley, CA

HAS MET ALL REQUIREMENTS FOR RENEWAL OF NEBB
CERTIFICATION IN THE FOLLOWING DISCIPLINE

Air and Hydronics Systems

FOR THE BOARD OF DIRECTORS:

2006 - 2008

Final Air Balance Company, Inc./CA

No. 3222

NEBB Cert. No.

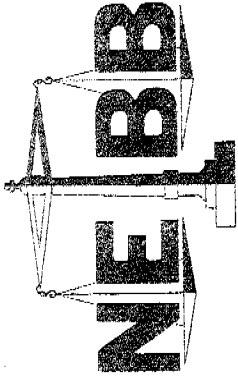
Erin Jenkins

President

John S. Apple

President-Elect

National Environmental Balancing Bureau



Certificate of Requalification

THIS IS TO CERTIFY THAT

Arthur P. De Leon

with Final Air Balance Company, Inc. in Penn Valley, CA

HAS QUALIFIED TO SUPERVISE ENVIRONMENTAL
TESTING AND BALANCING FOR

Air and Hydronics Systems

FOR THE BOARD OF DIRECTORS:

2006 - 2008

Final Air Balance Company, Inc./CA

No. 3222

NEBB Cert. No.

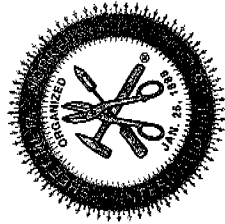
Eric Jensen

President

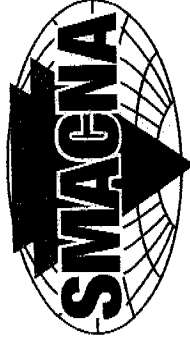
John S. Koppell

President-Elect

Testing Adjusting and Balancing Bureau



TESTING, ADJUSTING AND BALANCING BUREAU
"THE PROFESSIONAL'S CHOICE"



This certifies that

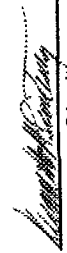
Final Air Balance Co., Inc.

is a certified Testing, Adjusting, and Balancing Contractor since

April 1, 2003

and has met all the qualifications for renewal on this date of

March 4, 2005


Labor Co-Chairman


Administrator of TABB

BB104006C

Certification No.




Management Co-Chairman


Director of Certification

3/31/2007

Expiration Date

International Certification Board



TESTING, ADJUSTING AND BALANCING BUREAU

**CERTIFIED
SUPERVISOR**

Sheet Metal and Air Conditioning Industry

This certifies that

Arthur De Leon

has completed the requirements of Certification as a
Testing, Adjusting and Balancing Supervisor

on

March 4, 2005

BB1620025

Certification #

March 4, 2005

Valid Date

March 31, 2007

Expiration Date



[Signature]
Labor Co-Chairman

[Signature]
Management Co-Chairman

[Signature]
Administrator of TABB

International Certification Board



Sheet Metal and Air Conditioning Industry

This Certifies that
Arthur DeLeon

has completed the Competency requirements for Certification as a
Sound and Vibration Engineer on
February 9, 2006

SV060106E

Certification#

Feb. 9, 2006

Valid Date


Mar. 31, 2008

Expiration Date




Labor Co-Chairman


Management Co-Chairman


Administrator of TABB

Valid during qualified employment



FINAL AIR BALANCE CO., INC
Testing & Balancing – Industrial & Environmental Systems
13020 Piper Hill Dr. Penn Valley, CA 95946
Ph: (530) 432-2226 Fax: (530) 432-2901

Performance Guarantee

Pursuant to the agreement between

FINAL AIR BALANCE CO., INC.

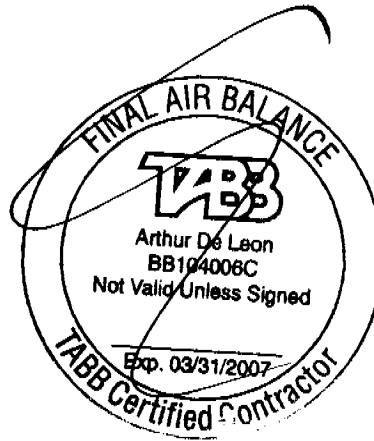
And

Frank M. Booth Design Build Co.

All systems shall be balanced in accordance with the plans and specifications and to the optimum performance capabilities of the equipment and design. Testing and balancing shall be done in accordance with the standards published by the National Environmental Balancing Bureau.

Air Balance performed by Final Air Balance Co., Inc. shall be guaranteed for one year. This applies to all equipment and air distribution per specifications on the Certified Test, Adjust, Balance Report. Any problems will be investigated and corrected at no additional charge. This guarantee is void if the systems involved are changed in any way or adjusted by another person(s), facilities, or another air balance company.

Project Name US Bank Plaza - Investment Bank / Trust
Date 5/2/06
By Arthur De Leon



FINAL AIR BALANCE CO., INC
Testing & Balancing – Industrial & Environmental Systems
 13020 Piper Hill Dr. Penn Valley, CA 95946
 Ph: (530) 432-2226 Fax: (530) 432-2901

TEST AND BALANCE INSTRUMENTATION

The following **bold/italicized** instruments were used to successfully measure and set each device on this project. These instruments meet the National Environmental Balancing Bureau's minimum guidelines for accuracy and calibration.

Instrument	Manufacturer	Model	Serial number	Calibration Date
Air Data Multimeter	Shortridge	ADM870C	M02540	7/20/05
Air Data Multimeter	Shortridge	ADM870C	M00755	9/19/05
Amp/Volt Meter – Digital	Fluke	337 AC/DC True RMS	85910057	2/15/06
Amp/Volt Meter – Digital	Fluke	36 AC/DC True RMS	78203394	7/22/05
Amp/Volt Meter – Digital	Fluke	336 AC/DC True RMS	80904943	1/28/05
Duct Leakage Test Kit with Oriface Tube 4"	McGill Airflow	LTK-SCA	48608	N/A
Oriface Tube 4"		2"	2310-S	N/A
Oriface Tube 4"		1 1/16"	2861-S	N/A
Duct Leakage Test Kit	Energy Conservatory	DG-700	4676-4-700	2/6/06
Flow Hood – Analog	Alnor	6461	3845/1735	12/23/03
Flow Hood - Digital	Shortridge	8400	M02540	7/20/05
Flow Hood - Digital	Shortridge	8400	M00755	9/19/05
Hydronic Manometer	Alnor	HM650	393	1/7/05
Hydronic Manometer	Alnor	HM680	70536221	9/16/05
Hygrometer – Digital	Dwyer	485-1	0206	2/21/06
Manometer - Digital	Dwyer	475-1	N45N / 3209	7/22/05
Pitot Tube	Dwyer	18"	-----	N/A
Pitot Tube	Dwyer	36"	-----	N/A
Pitot Tube	Dwyer	48"	-----	N/A
Pitot Tube	Dwyer	60"	-----	N/A
Pressure Gauge – Digital	PSI-Tronix	PG2000CG	3208	2/15/06
Pressure Gauge – Digital	PSI-Tronix	PG2000CG	8024652-1	7/22/05
Rotating Vane – Digital	Alnor	RVA+	70549173	12/8/05
Rotating Vane – Digital	Alnor	RVA+	70549175	12/8/05
Sound Level Meter	Extech	407764	020620718	8/21/02
Sound Level Calibrator	Extech	407766	P879365	8/21/02
Tachometer - Digital	Monarch	Tach-100	1354512	7/22/05
Tachometer - Digital	Monarch	Tach-100	1354509	1/28/05
Tachometer - Digital	Monarch	Tach-100	1355786	2/15/06
Thermo Anemometer - Digital	Dwyer	471-3	N-210	1/28/05
Thermometer – Non contact	Raytek	RAYST20	2039480201-0001	2/15/06
Thermometer – Thermocouple	Fluke	51-II	80390110	2/15/06

Definitions of Abbreviations, Terminology, and Symbols

A	Nameplate Amps	FD	Fire Damper
AHU	Air Handling Unit	FG	Floor Grille
AC or ACU	Air Conditioner or Air Conditioning Unit	FLA	Full Load Amperage
ACCU	Air-Cooled Condensing Unit	FLEX	Flexible
ACH	Air Changes per Hour	FLTS	Filters
ACV	Automatic Control Valve	FPB	Fan Powered Box
AMB	Ambient	FPM	Feet Per Minute
AMP	Ampere	FR	Floor Register
AP	Access Point or Panel	FSD	Fire Smoke Damper
AVG	Average	FTU	Fan Terminal Unit
BAD	Bypass Air Damper	GA	Gauge
BHP	Brake Horsepower	GPM	Gallons per Minute
BTU	British Thermal Unit	HC	Heating Coil
BTUH	British Thermal Units per Hour	HD	Head pressure measured in inches or feet of water
CAV	Constant or Continuous Air Volume	Heater O.L.	Thermal Overload protection for motors located at the motor starter
CC	Cooling Coil	HEPA	High Efficiency Particulate Air Filter
CD	Ceiling Diffuser	HOA	Hand/Off/Auto switch
CFM	Cubic Feet per Minute	HP	Horsepower
CG	Ceiling Grille	HPS	High Pressure Steam
CH	Chiller	HRC	Heat Recovery or Reclaim Coil
CHWR	Chilled Water Return	HVAC	Heating, Ventilating & Air Conditioning
CHWS	Chilled Water Supply	HWR	Hot Water Return or Heating Water Return
COP	Coefficient of Performance	HWS	Hot Water Supply or Heating Water Supply
CP	Circulating Pump	HX	Heat Exchanger
CR	Ceiling Register	Hydronic	Indicates the use of conveyance of liquid for Thermal transfer
CT	Cooling Tower	ID	Inside Diameter
CU	Condensing Unit	IV	Inlet Vanes
CUH	Cabinet Unit Heating	K	Correction Factor
CV	Control Valve	LAT	Leaving Air Temperature
CWR	Condenser Water Return	LD	Linear Slot Diffuser
CW or CWS	Condenser Water Supply	LDB	Leaving Dry Bulb
DAT	Discharge Air Temperature	LPS	Low Pressure Steam
DB	Dry Bulb	LRA	Locked Rotor Ampere
DD	Direct Drive	LV	Leaving
DIA	Diameter	LWB	Leaving Wet Bulb
Delta	Difference, net decrease or increase	LWG	Low Wall Grille
DNA	Data Not Available	LWR	Low Wall Register
DNL	Data Not Listed	LWT	Leaving Water Temperature
E	Existing	MAU / MUA	Make-up Air Unit or Make-up Air
EA	Exhaust Air	MAX	Maximum
EAT	Entering Air Temperature	MBH	Thousand BTU's per Hour
Economizer	Controls and componentry that allow an air handler to logically utilize outdoor air for cooling as opposed to the use of mechanical cooling.	MIN	Minimum
EDB	Entering Dry Bulb	MVD	Manual Volume Damper
EDC	Electric Duct Coil	(N)	New
EDH	Electric Duct Heater	N/A	Not applicable
EF	Exhaust Fan	N/L	Not Listed
EG	Exhaust Grille	NIC	Not in contract
EMS	Energy management System(s)	OBDD	Opposed Blade Damper
EMCS	Energy Management Control System(s)	OD	Outside Diameter
ENT	Entering	OSA or OA	Outside Air
ER	Exhaust Register	OAT	Outside Air Temperature
ESP	External Static Pressure	P	Circulating Pump
EWB	Entering Wet Bulb	PF	Power Factor
EWT	Entering Water Temperature		

FCU	Fan Coil Unit	PH	Phase(s)
FCV	Flow Control Valve	PRV	Pressure Relief Valve
PSI	Pounds per Square Inch		
R	Return Air or Round (for sizes)		
RA	Return Air		
RAT	Return Air Temperature		
REQ	Required		
RF	Return Air Fan		
RG	Return Grille		
RHC	ReHeat Coil		
RLA	Running Load Amps		
RM	Room		
RPM	Revolutions per Minute		
S	Supply		
SA	Supply Air		
SAT	Supply Air Temperature		
SD	Supply Diffuser		
SEF	Smoke Exhaust Fan		
SF (air)	Supply Fan		
SF (elect)	Service Factor		
SHC	Steam Heating Coil		
SP	SetPoint		
SPF	Stairwell Pressurization Fan		
SP "WC"	Static Pressure resistance measured in inches Of Water Column		
SWG	Sidewall Grille		
SWR	Sidewall Register		
TAB	Testing, Adjusting, and Balancing		
TCP	Temperature Control Valve		
TP	Traverse Point or Test Point		
TSP	Total Static Pressure		
TV	Turning Vanes		
TYP	Typical		
UH	Unit Heater		
V	Volt or Voltage		
VAV	Variable Air Volume		
VD	Volume Damper		
VEL	Velocity		
VFD	Variable Frequency Drive (electric motor speed controller)		
VP	Velocity Pressure		
W	Watts		
W/	With		
WB	Wet Bulb		
WG	Water Gauge		
#	Symbol for PSI or pounds per square inch		



FINAL AIR BALANCE CO., INC
Testing & Balancing – Industrial & Environmental Systems

S U M M A R Y

The following conditions were noted during the process of balancing:

- 1) Air balanced (5) new VAV boxes and (1) new exhaust fan per F.M. Booth's direction.
Existing VAV's not in scope of work per F.M. Booth.



VAV TEST SHEET

JOB NAME: Investors Bank - Suite 700

SYSTEM: VA-1, VA-2, VB-3, VB-4, VC-5

Room No.	Terminal No.	Terminal		Effective Area	Max Design		Max Final		Minimum CFM		Notes
		Type	Size		FPM	CFM	FPM	CFM	Design	Final	
	VA-1		6" rnd								
705	1-1	CR	24 x 24	FH	FH	190	FH	195	57	55	
			VP = 0.156" / 0.024"								
	VA-2		6" rnd								
704	2-1	CR	24 x 24	FH	FH	190	FH	180	57	60	
			VP = 0.131" / 0.014"								
	VB-3		6" rnd								
703	3-1	CR	24 x 24	FH	FH	140	FH	145			
706	3-2	CR	24 x 24	FH	FH	140	FH	135			
			VP = 0.327" / 0.043"			280		280	84	90	
	VB-4		6" rnd								
711	4-1	CR	24 x 24	FH	FH	150	FH	160	45	50	
			VP = 0.110" / 0.011"								
	VC-5		8" rnd								
712	5-1	CR	24 x 24	FH	FH	500	FH	460	150	165	
			VP = 0.267" / 0.024"								

FH = Direct read with flow hood

VP = Velocity pressure @ controller

Remarks:

**AIR EXHAUST EQUIPMENT TEST SHEET**

JOB NAME: Investors Bank - Suite 700

ADDRESS: 980 9th St. Sacramento, CA

SYSTEM	EF-1	
Equipment Location	714	
Area Served	712	
Equipment Manufacturer	Greenheck	
Model	SQ-95-D6EX-QD	
Serial number	DNL	

	Specified	Actual	Specified	Actual
Total CFM - Fan	600	620 (1)		
Total CFM - Inlets	600	620		
Static Pressure Total	0.5	0.34		
Inlet Pressure	DNL	-0.19		
Discharge Pressure	DNL	0.15		
Fan RPM	3 speed	High speed		

	Specified	Actual	Specified	Actual
Motor Manufacturer	DNL	Fasco		
Motor HP / BHP	0.125 / DNL	0.125 / 0.103		
Phase	1	1		
Voltage	115	120		
Amperage	1.7	1.4		
Motor RPM	3 speed	High speed		
Motor Service Factor	Thermally Protected			
Frame	DNL			

Motor Sheave & Bore	Direct Drive	
Fan Sheave & Bore	Direct Drive	
Number of Belts & Size	Direct Drive	
Sheave Position, % closed	Direct Drive	
C to C / In / Out	Direct Drive	

Remarks:

(1) Summation of inlets. No valid location for traverse.
