



TEST, ADJUST & BALANCE
SUBMITTAL

Clair Gehrt
clairg@velocitybts.com
206-751-2047

VELOCITY INTRODUCTION

WHO WE ARE

Velocity BTS is a team of diverse individuals with exceptional technical know-how devoted to the health, functionality, and efficiency of commercial buildings.

Our qualified technicians are trained in multiple technical services. This single service approach increases productivity, reduces troubleshooting time and improves customer satisfaction.

WHAT WE DO

Velocity ensures your commercial building's safety, energy efficiency, and equipment longevity while reducing maintenance expenses, and improving indoor air quality. We specialize in building technical services with a holistic approach which incorporates improving the building's health and air quality and sustainability improvement measures.



**AIR & HYDRONIC
TEST AND
BALANCE**



**INDOOR AIR
QUALITY**



**FIRE LIFE/
SAFETY**



**ENERGY
SUSTAINABILITY
SOLUTIONS**



**SERVICE
CONTROLS**



**COMMISSIONING/
RETRO-
COMMISSIONING**



HOW WE HELP YOU



EVEN, COMFORTABLE, CONSISTENT

Velocity tests, adjusts and balances your mechanical systems to maintain comfort, efficiency and equipment longevity.

**rebalancing of HVAC systems is strong recommended by the CDC as of 3/23/2021.*



NEW, RENEWED, RETROFITTED

Whether your building is new, re-purposed, or remodeled, Velocity critically analyzes your systems to ensure its function matches your needs. Energy modeling through recommissioning also increases your eligibility for energy rebates for early adopters.



KEEPING YOUR BUILDING FIRE-SAFE

Velocity reviews your mechanical fire life/safety and smoke-control systems to ensure its proper function, maintaining highest safety levels, and assuring compliance with state testing requirements.



PUTTING YOU IN CONTROL

Whether your building is new, re-purposed, or remodeled, Velocity critically analyzes your systems to ensure its function matches your needs. Energy modeling through recommissioning also increases your eligibility for energy rebates for early adopters.





June 30, 2021

Velocity Building Technical Services
Brad Sharp, CHC, TABB Supervisor
21440 68th Ave S #220
Kent, WA 98032

Re: ICB/TABB Certification for 3rd Party TAB Firms as an Acceptable Building Standard

To Whom It May Concern,

The purpose of this letter is to explain with justified reasoning from professional sources how ICB/TABB certification is equal to the NEBB certification for Test and Balance firms and should be included as an acceptable building standard.

Presently, there are numerous TABB only firms throughout the US and Canada. These firms have performed the most technically demanding and complex balance operations for over 20+ years. This is due to rigorous training the technicians receive as well as the high standards for certification. ICB/TABB has an issue resolution process unique to the industry. It guarantees the work performed by the technicians meets or exceed all industry standards or it will be re-accomplished/resolved at no charge. As the only testing, adjusting and balancing entity in the HVAC industry to earn [ANSI accreditation under ISO Standard 17024](#), TABB-certified technicians and supervisors demonstrate the highest level of professional expertise, are licensed and bonded and are held personally responsible for their work. This standard provides an international benchmark for personnel certification programs to ensure that they operate in a consistent, comparable, and reliable manner. NEBB standards are incorporated into TABB ensuring there is no difference in the outcome other than users of TABB get additional safeguards and higher recognized formal training from the technicians performing the balance work. These are but a few of the reasons California, Colorado, New York and the Army Corps of Engineers all specify TABB over all other options.

Here are a few of the many resources to justify including TABB as an acceptable building standard:

1. 2005 GSA Standards narrative which includes TABB on page 42:
https://www.gsa.gov/cdnstatic/Chapter_5_Mechanical_Engineering.pdf
2. The Whole Building Design Guide Division 23 spec for TAB used by multiple US Federal Agencies: <https://www.wbdg.org/FFC/DOD/UFGS/UFGS%2023%2005%2093.pdf>
3. Canadian National Standards for TAB: <https://www.gov.nl.ca/ti/files/works-masterspec-2three0five9three.doc>
4. Last but not least, a technical paper by Univ. of California Davis comparing AABC, NEBB, and TABB: <https://wcec.ucdavis.edu/testing-adjusting-and-balancing-hvac-systems-an-overview-of-certification-agencies/>.

Sincerely,

A handwritten signature in black ink that reads "Brad Sharp".

Brad Sharp
Director of Technical Services
Velocity Building Technical Services

Test and Balance Qual. Package

Relevant Experience:

800 5th Avenue Office Building

Levels 11, 14, & 36

Seattle, Washington

Scope: Test water source heat pump for proper installation and safe operation. Verify airflows to achieve design, adjusted volume dampers to reduce flow. Inspection of seven heat pumps and one terminal unit to achieve design CFM. All systems were found to be operating in good working conditions and design CFM totaled 100k.

Harbor Steps Apartments

Seattle, Washington

Scope: Verify noise source, possible smells, measure pressure and airflow. Inspection of existing space HVAC for proper installation and safe operations. Test, adjust, and balance exhaust fans and makeup air unit to achieve design CFM totaling over 100K.

505 Fifth Avenue Office Building

Vulcan Level 6

Seattle, Washington

Scope: Inspection of newly installed variable air volume, exhaust fans, transfer fan and fan coil units for proper install and safe operation. Verify airflow to achieve design CFM for best comfort and balance. K factors for each terminal unit were recorded and distributed to the control's technicians at the conclusion of the project. The primary airflows for the system were calibrated to over 100K CFM

Western State Hospital

Lakewood, Washington

Scope: Test, Adjust and record fan rpm to design requirements. Test and record motor amperes at design conditions. Make Pitot tube traverse of main supply duct and obtain design cfm at fans, systems of 1000CFM or greater. Test static pressure for systems 200CFM or greater. Test, adjust and record system for design CFM air and outside air CFM totaling over 100k.

Sabey Data Center, Suite 4203

Tukwila, Washington

Scope: Measure and adjust supply outlets in new TI space. Verify airflows on eight supply diffusers fed by existing RTU, which also supplies at least one other office space on the same floor. Increased fan speed to achieve design CFM totaling over 100K.

Test and Balance Qual. Package

Radisson Hotel Upgrades

Seattle, Washington

Scope: Newly installed guest room exhaust fans serving the central suites, all exhaust air through vertical risers serving the guest room restrooms. Measure air velocities to determine airflow volume. Tested, adjusted airflow of the system and balanced to achieve design CFM totaling over 100K.

Healthpoint Clinic

Auburn, Washington

Scope: Verify Install and setup of equipment, then verify controls Sequence of Operations is complete. Compare readings to motor nameplate to ensure motor can achieve design airflow. AHU, EF and GRD's totaling over 100K CFM.

Rich Uncles Building 7

Seattle, Washington

Scope: Test and Balance existing 164 VAV's associated with 6 RTU's totaling over 100K CFM. Verify airflows and manipulate front-end controls to determine if design CFM is achieved. Afterwards, adjust and balance airflow to +/- 10% of the design values.

Costco Headquarters Building #1

Issaquah, Washington

Scope: Set and Verify Fan Speed and proportion outlets for all VAV's associated with RTU-01 and RTU-02 totaling over 100,000CFM. Balanced system in full cooling mode with outlet designs values referenced from mechanical drawings. Completed a full set of As-Builts drawings showing current locations and current CFM design values of all associated VAV's.

References:

Rod Cross

American Assets Trust
425-890-4783

Rcross@americanassets.com

Mark Crudge

ABB
253-514-1782

mark.crudge@us.abb.com

Sgt. Scott Brender

Nisqually Public Health
360-790-1511

brender.scott@nisqually-nsn.gov

Test and Balance Qual. Package

Project Equipment List:

Equipment	Manufacturer	Model / Serial Number	Calibration Date
Capture Hood	Testo	420 / 50605539/0219	3/19/2023
Thermo-Hygrometer	Testo	605i / 49309620	10/25/2022
Hot-Wire Anemometer	Testo	405i / 48907852	10/25/2022
IR Thermometer	Testo	805i / 49611867	10/25/2022
Vane Anemometer	Testo	410i / 49008393	10/25/2022
DP Manometer	Testo	510i / 49101891	10/25/2022

Test and Balance Qual. Package

Team & Certification:

On the following pages, please find resumes and relevant certification for Hermanson's proposed Test, Adjust & Balance (TAB) project team:

- Brad Sharp, TAB Superintendent
- Dave Petrie, TAB Lead Foreman and Supervisor
- Angela Roper, TAB and IAQ Supervisor
- Nic Hanson, TAB, Controls, and Service Technician



BRAD SHARP, CHC

Director of Technical Services

DISABLED VETERAN
26 YEARS, UNITED STATES
AIR FORCE

Responsibilities: Brad provides leadership and direction, as well as supervision of production of Cx/TAB work. He is able to handle tight schedules, limited support, off-hours, sensitive issues, and situation control.

SERVICE



23 Years

Industry Experience

EDUCATION

United States Air Force
HVAC Apprentice Course

South Seattle Community College

ASHRAE Commercial-Industrial Building Auditor Certificate

TRAINING AND CERTIFICATIONS

ITI/ANSI Certified | TAB Supervisor | Fire/Life/Safety Level 1&2 Tech. & Supervisor

ITI Certified Commissioning Supervisor (CxA) | Total Building Energy Audit Technician | Sound and Vibration Supervisor | ASHRAE 110 Performance Hood Testing Tech. | Indoor Air Quality Technician and Supervisor

California Title 24 Certified Technician

NEBB Certified TAB Technician

NAFA Certified Filtration Technician

Fluke Thermography Certified

REFERENCES

Thomas Booth
MacDonald Miller FS
(206) 255-3096

Gary Andis
National Energy Management Institute
(703) 739-7100

Brian Meyer
City of Woodinville Public Works
(425) 424-0682

EXPERIENCE + BENEFITS

Brad brings Velocity over 20 years of experience in the mechanical construction industry. He has worked on a variety of jobs from large, complex projects to small work with quick turnaround times.

Brad is an Infection Control Risk Assessment Vetted Subject Matter Expert representing the National Institute of Energy Management. He has been working for years on developing new certifications (Healthcare Monitor, Healthcare Construction Technician and Healthcare Construction Supervisor). This work is being monitored by ASHE, National Building Science Institute, Joint Commission, WHO, CDC and Health Departments nationwide.

MULTICARE CT-2 EQUIPMENT REPLACEMENT | Auburn, WA



Scope: Plan & Spec Tenant Improvement; Establish pressurization & maintain compliance with Infection Control Protocols (\$85,000)

Role: TABB & Commissioning

GC: JR Abbott Construction

SWEDISH AMBULATORY SURGERY CENTER | Edmonds, WA



Scope: Design-Assist New Construction. 1 year Follow Up: Fire/Life Safety and Energy Work; Hundreds of inspections, damper testing, and equipment function testing & verification.

Role: TABB & Commissioning

GC: Sellen

EVERGREEN HEALTH - MONROE HOSPITAL | Monroe, WA



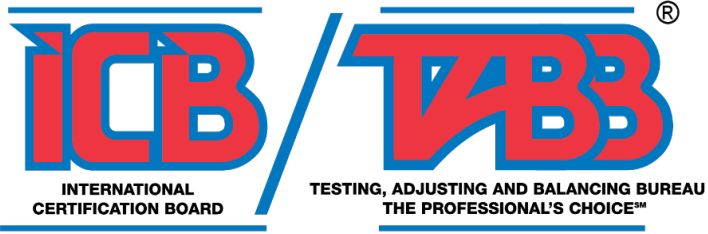
Scope: Design-Build ESCO work; Test & Balance, Energy Compliance (\$490,000)

Role: TABB & Commissioning

GC: Hermanson Company

ADDITIONAL EXPERIENCE

REI Spring District Headquarters - Bellevue, WA | **Tacoma General Hospital FLS** - Tacoma, WA | **Custom Array LabCorp** - Redmond, WA | **Clearview Eye Clinics** - Seattle, WA | **Peninsula College** - Port Angeles, WA | **Pike Place - Livingston Barker Facility** - Seattle, WA | **Pike Place Market** - Seattle, WA | **Bellevue Square** - Bellevue, WA | **Lincoln Square I** - Bellevue, WA | **Lincoln Square II** - Bellevue, WA



*The Sheet Metal Industry
International Certification Board
Certifies that*

Brad Sharp

Has successfully completed the requirements for

Fire and Smoke Damper Supervisor

FLS1977756S

Certification #

9/14/2022

Certification Date

9/30/2024

Valid Through



Valid during qualified employment



Labor Co-Chairperson

Management Co-Chairperson

ICB/TABB Administrator



Veteran
10 YEARS ARMY

DAVID PETRIE

TAB Supervisor

Responsibilities: Dave is responsible for assisting with full test and balance services, scheduling and documentation for multiple on-going projects, and supervising apprentices.

SERVICE

15 Years
Industry Experience

EDUCATION

United States Army

TRAINING AND CERTIFICATIONS

TABB Supervisor
ICB Fire Life Safety Technician
ICB Smoke Control Technician

REFERENCES

Darrin Williams
MacDonald Miller Facility Solutions
(206) 510-6617

Mark Webb
Holaday-Parks, Inc.
(253) 380-1467

Nick Wright
Holaday-Parks, Inc.
(360) 440-0437

EXPERIENCE + BENEFITS

Dave brings over a decade of experience in the mechanical construction industry. He has worked on a variety of jobs from the Space Needle to Weyerhaeuser HQ. Dave is deeply involved with TABB certification and has been a proctor and judge for the TABB Technician certification test for the past 5 years.

American Express Lounge STIA | SeaTac, WA



Scope: Test and Balance of mechanical systems for new lounge at SeaTac.
Size: 14,000 sf
Role: TAB Supervisor
Client: Hermanson Company
Reference: David Goit
(206) 391-1052

Good Samaritan Hospital | Puyallup, WA



Scope: Test & Balance of the 1-Forest MEP upgrades.
Size: 38,000 sf
Role: TAB Supervisor
Client: Hermanson Company
Reference: Jay Danner
(206) 743-7494

Premera Annex Building | Mountlake Terrace, WA



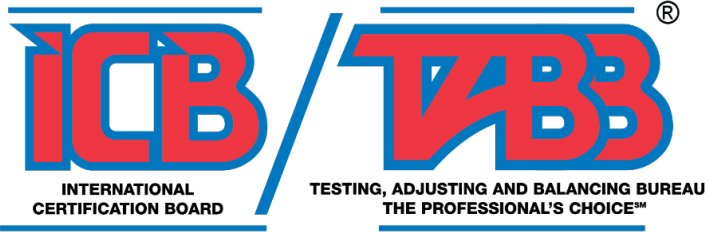
Scope: Testing, Adjusting & Balancing perform in accordance with SMACNA and ASHRAE.
Size: 60,000 sf
Role: TABB & Commissioning Support
Client: Hermanson Company
Reference: Scott Sinclair
(206) 556-5428

AFFILIATIONS



ADDITIONAL EXPERIENCE

5808 Lake Washington Blvd Kirkland, WA | **REI Headquarters** Bellevue, WA | **Watershed Test & Balance** Seattle, WA | **Google Jayhawk** Kirkland, WA | **SeaTac Airport IAQ Mitigation & Airflow Management** Tukwila, WA



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David S Petrie

Has successfully completed the requirements for

TABB Supervisor

TB1090873S

Certification #

11/10/2022

Certification Date

9/30/2024

Valid Through



Valid during qualified employment



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Labor Co-Chairperson

A handwritten signature in black ink.

Management Co-Chairperson

A handwritten signature in black ink.

ICB/TABB Administrator



Reserves
US ARMYRESERVES

ANGELA ROPER

TAB Technician

Responsibilities: As TAB Technician, Angela is responsible for Testing, Adjusting, and Balancing (TAB) is an important part of mechanical HVAC systems. TAB technicians ensure the cooling or process related airflow(s) and/or waterflow(s) are delivered efficiently, quietly, & safely throughout a system.

SERVICE

7 Years
Industry Experience

EDUCATION

SMART Local 66 TABB Technician Program
University of Management & Technology - BA

TRAINING AND CERTIFICATIONS

OSHA 30
Duct Leakage Testing
Fire & Smoke Damper Technician
Smoke Control Systems Technician
Local 66 Sheet Metal Union
US Army Reserve / Medic / Transportation Manager

REFERENCES

Mike Touchette
(253) 777-7180
Jaime Christensen
Holmberg
(425) 530-7192
Jason Gilbreth
Local 66 JATC
(360) 789-1551

AFFILIATIONS



EXPERIENCE + BENEFITS

Angela strives to make people comfortable, taking pride in the fact that if she's done her job correctly, you'd never know she was there. Manipulating air and water systems to provide quality conditioned air is a critical component of building efficiency and management. She firmly believes indoor air quality is a top priority when assessing peoples health in the workplace.

St. Michaels Medical Center | Silverdale, WA



Scope: Test & Balance of new HVAC equipment. Adjusted system to design & assisted with commissioning functional testing.
Size: 500,000 sf
Role: TABB & CommissioningSupport
Client: Randall Wiesbarth
Reference: Randall Wiesbarth (564) 240-0139

Puyallup Surgical Consultant | Puyallup, WA



Scope: Design-Build, full mechanical renovation of a Urology Suite.
Size: 18,800 sf
Role: TAB Technician
Client: Hermanson Company
Reference: Jeff Schuk (206) 319-8174

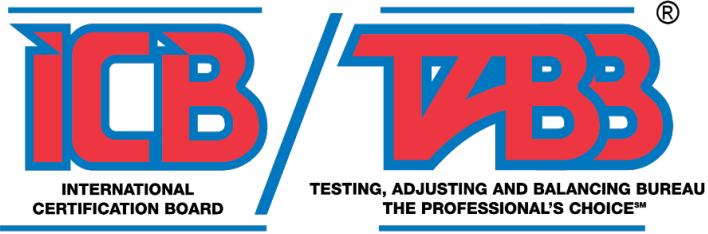
Hood Canal School District | Hood Canal, WA



Scope: Testing, Adjusting & Balancing of 17 ERV's, 34 VRF units, verifying air flows, & testing for proper installation & safe operation.
Size: 18,700 sf
Role: Lead TAB Technician
Client: Hermanson Company
Reference: Tyler Rogers (206) 445-4389

ADDITIONAL EXPERIENCE

7 Cedars Casino Sequim, WA | **Puget Sound Naval Shipyards Nuclear Research Building** Bremerton, WA | **Sound Transit N160 Northgate Station** Seattle, WA | **Central Kitsap Middle & High School** Silverdale, WA | **South Sound Behavioral Hospital** Lacey, WA | **UW Mary Gates Hall** Seattle, WA



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Certifies that*

Angela M Roper

Has successfully completed the requirements for

TABB Supervisor

TB1182813S

Certification #

6/16/2023

Certification Date

6/30/2025

Valid Through



Valid during qualified employment



Labor Co-Chairperson

Management Co-Chairperson

ICB/TABB Administrator



NISQUALLY PUBLIC SAFETY COMPLEX HVAC UPGRADES | NISQUALLY, WASHINGTON

Completed the HVAC upgrade project at the Nisqually Public Safety Complex. Our team brought innovation and efficiency to the facility by replacing HVAC controllers, upgrading user interfaces, and enhancing overall functionality. Installing state-of-the-art ABB Cylon BACnet IP controllers for air handling units improved system control and energy efficiency. Upgraded sensors, meticulous testing, and comprehensive documentation ensure long-term performance and ease of maintenance for the facility staff.

To ensure the facility's smooth operation and future maintenance, Velocity BTS provided comprehensive Operation and Maintenance manuals (O&Ms) and Control Drawings for the equipment we supplied.

Project Budget

Mechanical Value: \$99,000

References

Terry Combs

Holmberg Mechanical (206) 498-8082

FOUNDED:
2021 KENT, WA

2023 REVENUE: \$3.2M

\$1.5M TAB	\$1.5M Controls	\$200,000 Energy/ Commissioning
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ANTICIPATED REVENUE: \$960,000

\$3.7M
Available
Capacity

\$4M
Available
Capacity

\$4.25M
Available
Capacity

EMPLOYEES: 13



\$250,000
Contracted

\$0
Contracted

\$0
Contracted

2024

2025

2026