



Commissioning Agency

WAE Balancing, Inc.

**HVAC
Commissioning
Proposal**

**J.E. Harrison Education Center
Baldwin-Whitehall School District**

WAE BALANCING, INC.



15 Tripplewood Drive – Mercer, PA 16137

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November 30, 2023

HHSDR Architects/Engineers
40 Shenango Avenue
Sharon, PA 16146

Attention: Rob Schafer

Subject: J.E. Harrison Education Center

Dear Mr. Schafer,

I would like to thank you for the opportunity to submit for your consideration the enclosed proposal for Commissioning Agent Services for the J.E. Harrison Education Center project.

WAE Balancing is a member in good standing with the Associated Air Balance Council (AABC) since its incorporation in 1985. We are also a Certified Commissioning Authority accredited by the AABC Commissioning Group (ACG).

Commissioning is a comprehensive process of documentation, testing, and verification to ensure that all of the equipment is functioning as it was designed. The commissioning agent (CA) is responsible to lead this process which is done by writing and implementing a commissioning plan. The plan outlines the commissioning team members' responsibilities, identifies which equipment is to be tested, creates a guideline as to when each step will be performed, and verifies that the equipment functions properly. These tasks will be completed by the commissioning team which consists of the CA, contractors, engineers, architects, and the owner. The commissioning agent must have the thorough knowledge of the process and know how to lead this team to guarantee that all phases of the commissioning plan are implemented correctly and performed within the project schedule.

WAE Balancing, Inc. is committed to the commissioning process. We have been the commissioning agent on several projects similar to the J.E. Harrison Education Center project and know what it will take to ensure that your project is commissioned properly. The commissioning plan, meetings, and all functional testing will be conducted by one of our certified commissioning agents. This will guarantee that the person performing the work has the experience and knowledge necessary to implement a successful plan.

WAE Balancing, Inc. also believes that the Commissioning agent must take a "hands-on" approach when verifying and testing the equipment. This helps in creating an atmosphere of communication and cooperation among the commissioning team members towards a common goal of providing a quality project to the owner.

We look forward to working with you on this project. If we can answer any questions regarding our proposal for providing Commissioning Agent Services, please feel free to call me at 724-662-5743.

Respectfully,

Daniel Cameron

Proposal for:

Testing & Balancing and Commissioning Services
J.E. Harrison Education Center

By:

WAE Balancing, Inc.
November 30, 2023

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Company Approach to Commissioning

Commissioning is a systematic process that will aid in the start up of equipment, verification of proper installation, and operation of all HVAC equipment and systems.

Many specialized contractors, a commissioning agent (CA), engineers, and the owners carry out the commissioning process. These different professions will make up the commissioning team. The strengths and specialties of each team member play a significant role in the commissioning process. The process of organizing and implementing all of the different tasks of the commissioning team is accomplished by following a commissioning plan. This plan will focus on the different aspects of each team member and incorporate them into a common goal.

The responsibility of the commissioning agent is to be able to lead the commissioning team. The commissioning agent will organize all of the information that is required for each team member. Once the information is organized, the CA must be able to communicate all of the information with its team so that everyone understands their responsibilities. Many contractors' prior experience with commissioning has been vague or completely misunderstood. This is why communication is so essential. With a systematic plan intact, the CA will be able to clearly define the role and responsibilities of each member of the team. It will also give them the direction they will need so they can implement their responsibilities and how to rectify any problems that may prevent them from meeting the goals of the commissioning plan.

J.E. Harrison Education Center will be completed in several phases of construction. The commissioning team will focus on the milestones that will need to be completed in order to accomplish the requirements set forth in the commissioning plan. The commissioning agent will facilitate and ensure that the required communication, coordination, testing and verification results in a building whose HVAC systems will perform as designed and is ready to be turned over to the owner.

The commissioning process will be performed in three specific phases: construction, acceptance, and post-acceptance.

Construction Phase:

In this phase, the commissioning plan will be implemented. The commissioning agent must provide leadership by creating a culture of cooperation, objectivity, and commitment to the quality of the project.

- **Coordinate Planning**

The commissioning activities must be coordinated with the overall project schedule. This requires open communications between the owners, designers, and contractors.

- **Review TAB Procedures**

The certified test and balancing (TAB) agency will submit a report that will detail their procedures and instruments to be used. The TAB agency will need to submit a schedule for the TAB work. This will give the commissioning team a guideline of when other work needs to be completed to keep on schedule. The commissioning agent will review this information and forward it to the engineer for comment.

- **Submittal Review**

The commissioning agent will review all of the submittals and consult with the designers and contractors regarding how the submittals conform to design criteria.

- **Update Commissioning Plan**

Once the submittals have been reviewed and accepted. The commissioning agent will update the design phase of the commissioning plan to include specific equipment to be installed, adjustments of the control sequences, and any revisions to the test procedures. Any changes to design intent documents (DID) due to change orders or alterations need to be revised in the commissioning plan. Once the owners and designers review the updated commissioning plan, it will be distributed to everyone on the commissioning team.

- **Observe Site Installation**

The CA will make onsite inspections of the HVAC installation and construction. If there are any deviations from what has been designed, it must be brought to the appropriate contractors' attention.

- **Update Project Schedules**

The commissioning team needs to periodically review the schedules. During construction, there are often many delays or setbacks in schedules for many unforeseen reasons. It is the commissioning agent's responsibility to help identify these areas with the help of the commissioning team. By identifying the problems, the commissioning team can re-evaluate its current planned schedule and adapt it to ensure the commissioning activities are addressed in the commissioning plan.

- **Track Construction Issues**

Problems and questions will always arise during the construction process. Although it is the responsibility of the contractor to get the problems and

questions answered, it is important that these issues be documented. Resolution tracking forms (RTF) work well for this process. When all of the members on the commissioning team use the same RTF, it makes it easy to keep track of all the issues in a systematic process. It also helps by keeping these issues out in the open until the appropriate party addresses them.

- **Commissioning Meeting**

Commissioning meetings are essential to the commissioning process. It is essential that all of the parties of the commissioning team be present at the meetings. Scheduling the commissioning meetings should coincide with the regular scheduled job meetings. This will help make certain that all the members of the commissioning team will be present because many participants will attend both.

The CA will keep minutes of the meetings and distribute them to all of the team members. Dates, times, and prerequisites for upcoming commissioning reviews, checks, start-ups, or tests will be established. Resolution tracking forms will be evaluated and addressed by the appropriate parties. Any scheduling issues will also be addressed at this time.

- **System Verification Checks (SVC)**

System verification checks are a process of evaluating the equipment and systems to make certain they conform to the specifications and are ready for start-up. The CA will prepare the system verification checklist. The specifications will state who is responsible for the documentation of the checklist. Any deviation from the design criteria and the installation will need to be documented and rectified by the appropriate team member.

- **Control Point to Point Checks**

The automatic temperature control (ATC) contractor will do a point-to-point checkout and document the results on checkout forms. These will verify that the controls are properly installed and operate correctly. The CA will verify the results to guarantee they conform to the specifications.

- **HVAC Start-up**

Once the system verification has been completed, the equipment startup process can begin. The mechanical contractor will be responsible for the startup of their equipment or by a certified manufacturer's representative. The CA will schedule the start up dates with the commissioning team.

Prior to equipment start-ups, schedules will be established to make sure that all responsible parties will be present. Appropriate start-up forms must be completed

for each piece of equipment being started. Any abnormalities during start-up will be documented and rectified by the appropriate parties.

- **Correct Problems and Re-Test**

Any problems that were discovered in the system verification, ATC point-to-point checkouts, and system startups, must be corrected before moving to the next phase of the commissioning process. Any equipment that will require re-testing will also be done in this phase.

- **Test and Balance (TAB) Service**

Upon completion of the equipment start-up, the certified test and balancing contractors will begin their work. Any problems that are encountered during the TAB procedures will be brought to the commissioning agent's attention. The CA will direct any corrective measures to the appropriate people on the commissioning team.

- **Operation and Maintenance (O&M) Documentation and Training**

The specification should detail the outline of what is to be included in the O&M documentation and training program. The mechanical contractor shall submit a copy of the O&M documentation and training plan. The commissioning agency, designer, owner, and O&M staff will review the plan to see if it will meet the facilities needs.

- **Preparing for Functional Performance Testing**

The CA will prepare the functional performance test (FPT) worksheets. The mechanical, ATC, and other applicable sub-contractors carry out functional performance checks prior to the formal tests, using the functional performance checklists as a guide. Once they have determined that the systems are to function as designed, they will inform the commissioning agent that the system is ready for formal functional testing.

Acceptance Phase:

The next phase of the commissioning plan is the acceptance phase. Formal functional performance testing will begin on specified systems. The O&M staff will receive documentation and training as outlined in the O&M training plan.

The ATC contractor will submit all aspects of the control installation. This should include the following information: schematic diagrams, computer graphics, point-to-point wiring and field test, sequence of controls, installation calibration, and maintenance information. They should also include any other information that would be listed in the specification.

The O&M training will involve all members of the commissioning team. The CA will schedule the training with the owner, contractor, and the design team. The contractor will schedule the equipment suppliers and any of their subcontractors. The specifications will outline the responsibility of what is to be covered in the O&M training. Training sessions will be implemented following the procedures and schedule that is outlined in the O&M training plan that was established by the contractor. The CA will gather the documents and training material to be submitted to the owner in the commissioning report.

The formal functional performance test (FPT) will be conducted in this phase of the commissioning plan. The CA will directly witness and document the FPT of all the equipment commissioned. The functional performance test will progress from individual items of equipment, to complete systems, to interfaces between HVAC systems, and finally between HVAC systems and non-HVAC systems. Assistance from the ATC contractor is essential to be able to simulate different modes of operation that the system will need to perform. If the functional testing checklists were used by the mechanical contractor and the ATC contractor to pre-test their systems and components, few systems will require retesting due to failure of tests. If numerous problems prevent the systems from being tested correctly, the CA will stop the process. The parties responsible for the systems failure will be financially accountable for cost incurred for retesting. The final functional performance testing should be completed before proceeding to the next phase of commissioning.

The test and balancing agency will complete and submit the preliminary TAB report to the design engineer. The TAB agency will verify their readings on the TAB report. Any inconsistency outside the specified parameters will need to be rectified. Once all items are acceptable, the TAB agency will resubmit a final report to the engineer.

The primary goal of the acceptance phase is to have verified that the owner has a completed system that has been tested and verified to function as it was designed. It also makes certain that his staff can operate and maintain the equipment that was installed. This will allow the owner to accept the equipment and start the warranty period.

Post Acceptance Phase:

The last phase in the commissioning plan is the Post Acceptance Phase. Some tests cannot be performed during the acceptance phase of commissioning due to the time of the year that it is completed. For instance, if the heating system needs to be tested at the peak of the heating season and the acceptance phase concludes in the cooling season, the heating system will need tested at a later date. The only parts of the system that should be left at a later date should be those that are

directly affected by weather dependant items. The testing procedure will be conducted in the same manner as all the other testing prior to the off-season test.

The commissioning agent is responsible for preparing and submitting the final commissioning report to the owner.

The report includes all system verification and start-up checklists and all functional performance test checklists. They should be completed with all test observations, problems encountered, corrective actions taken, and retest results dated and signed by those carrying out and witnessing the tests.

An executive summary should be included addressing design intent conformance for all commissioned equipment and systems. The report should be organized and tabulated to facilitate access to specific information. The commissioning report should then be reviewed by the commissioning team to determine the completion of the commissioning plan.

DANIEL L. CAMERON

OBJECTIVE

To provide the services of a Commissioning Agent and Test and Balance Engineer for the J.E. Harrison Education Center project.

PROFESSIONAL EXPERIENCE

- Worked with Design Engineers preparing Commissioning Specifications prior to bid documents being released.
- Performed design review of mechanical systems to identify areas that can be improved prior to bid release.
- Provided the service as Commissioning Agent on several projects including schools, office buildings, and medical facilities.
- Led commissioning projects through all phases of the commissioning plan including design review, writing, and implementing the commissioning plan to O&M training.
- Provided test and balancing services for the past 32 years.
- Partner in WAE Balancing, Inc.
- Lead ongoing training programs for test and balance technicians.

ACCREDITATIONS

- 2018 Nationally Certified Energy Management Professional (EMP) with Energy Management Association.
- 2003 Nationally Certified Commissioning Agent with AABC.
- 2000 Nationally Certified as a Test and Balance Engineer (TBE) with AABC.

EDUCATION

1987-1991	Slippery Rock University	Slippery Rock, PA
	B.S., Business Administration	

MARK E. SEPIK

OBJECTIVE

To provide the services of a Commissioning Agent and Test and Balance Contractor for the J.E. Harrison Education Center project.

PROFESSIONAL EXPERIENCE

- Performed submittal and specification reviews to develop and write commissioning plans on several projects.
- Led commissioning meetings and project reviews to establish project time lines and the scope of work for team members.
- Led commissioning teams through functional testing and documentation of test results in the commissioning plan.
- Worked with Engineers and Contractors to resolve issues in the commissioning process that did not conform to results expected in the commissioning plan.
- Partner in WAE Balancing, Inc. since its incorporation in 1985.
- Led training seminars for Mechanical Contractors and other industry professionals dealing with testing and troubleshooting mechanical systems.
- Over forty years experience providing test and balancing services.

ACCREDITATIONS

- 2004 Nationally Certified Commissioning Agent with AABC.
- 1998 Nationally Certified as a Test and Balance Engineer (TBE) with AABC.

EDUCATION

1970-1973 Gateway Technical Institute
Associate Degree in HVAC Engineering



hereby certifies that

Daniel Cameron, CxA

WAE Balancing, Inc.

has met all prerequisites demonstrating independence and the technical, management, and communications skills required to implement the commissioning process in new and existing buildings, and passed the necessary examination to be awarded this certificate in recognition of their qualifications as an ACG

Certified Commissioning Authority

Registration number: 1003-026 . This certificate, valid only for the year 2023, is renewable on an annual basis upon meeting all requirements noted in the CxA Candidate Handbook.



Program #1215

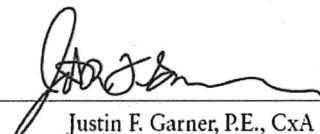


RECOGNIZED PROGRAM

MEETS U.S. DEPARTMENT
OF ENERGY GUIDELINES



ISO/IEC 17024
PERSONNEL CERTIFICATION
BODY
Program #1215


Justin F. Garner, P.E., CxA
Certification Council Chair


Ray Bert
ACG Executive Director

This certificate is the sole property of ACG and must be returned upon request.



Associated Air Balance Council

Annual Certificate


Awarded to

Daniel L. Cameron, TBE
WAE Balancing, Inc.

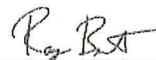
In recognition of his qualifications as a
Certified Test and Balance Engineer
under the rules, regulations, and requirements of the
Associated Air Balance Council. The above named is fully
authorized to perform total system balance in accordance
with the standards as established by the AABC and as a
member of the Associated Air Balance Council for the year
2023

*This registration number **00-07-32** is fully recognized*
by the bylaws and charter of this professional association.
Certification is renewable on an annual basis after
examination of the agency's record for the preceding
year. This certificate expires December 31, 2023.





Gaylon Richardson, President



Raymond R. Bert, Executive Director



Annual Membership Certificate

Awarded to

WAE Balancing, Inc.

as a member in good standing of the AABC Commissioning Group for the year

2023

This company has met all requirements for membership and is entitled to all rights and privileges thereof. This certificate is renewable on an annual basis and expires December 31, 2023.

A handwritten signature in blue ink, reading 'Troy Byers'.

Troy N. Byers, P.E., CxA, President

A handwritten signature in blue ink, reading 'Ray Bert'.

Ray Bert, Executive Director



Associated Air Balance Council

Annual Certificate

Awarded to

Mark Sepik, TBE
WAE Balancing, Inc.

In recognition of his qualifications as a

Certified Test and Balance Engineer

under the rules, regulations, and requirements of the Associated Air Balance Council. The above named is fully authorized to perform total system balance in accordance with the standards as established by the AABC and as a member of the Associated Air Balance Council for the year

2023

*This registration number **98-07-31** is fully recognized by the bylaws and charter of this professional association. Certification is renewable on an annual basis after examination of the agency's record for the preceding year. This certificate expires December 31, 2023.*





Gaylon Richardson, President



Raymond R. Bert, Executive Director



Associated Air Balance Council

Annual Certificate

Awarded to

Bruce R. Wamboldt, TBE

WAE Balancing, Inc.

In recognition of his qualifications as a

Certified Test and Balance Engineer

under the rules, regulations, and requirements of the Associated Air Balance Council. The above named is fully authorized to perform total system balance in accordance with the standards as established by the AABC and as a member of the Associated Air Balance Council for the year

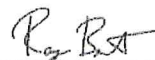
2023

*This registration number **03-07-33** is fully recognized by the bylaws and charter of this professional association. Certification is renewable on an annual basis after examination of the agency's record for the preceding year. This certificate expires December 31, 2023.*





Gaylon Richardson, President



Raymond R. Bert, Executive Director



Associated Air Balance Council

Annual Certificate

Awarded to

Drew J. Sepik, TBE
WAE Balancing, Inc.

In recognition of his qualifications as a

Certified Test and Balance Engineer

under the rules, regulations, and requirements of the Associated Air Balance Council. The above named is fully authorized to perform total system balance in accordance with the standards as established by the AABC and as a member of the Associated Air Balance Council for the year

2023

*This registration number **22-02-09** is fully recognized by the bylaws and charter of this professional association. Certification is renewable on an annual basis after examination of the agency's record for the preceding year. This certificate expires December 31, 2023.*





Gaylon Richardson, President



Raymond R. Bert, Executive Director



Associated Air Balance Council

hereby certifies that

Dale S. Bish

*has met all requirements and passed the necessary examination
to perform testing and balancing as an AABC*

Certified Test & Balance Technician

under the supervision of a certified test and balance engineer for

WAE Balancing, Inc.

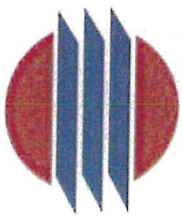
*This registration number 41-07-03 is only recognized under the
auspices of the above named AABC member agency. This certificate
expires December 31, 2023 and is renewable on an annual basis.*

Gaylon Richardson

Gaylon Richardson, President

R. Bert

Raymond R. Bert, Executive Director



AABC

Associated Air Balance Council

hereby certifies that

Kevin E. Cameron

*has met all requirements and passed the necessary examination
to perform testing and balancing as an AABC*

Certified Test & Balance Technician

under the supervision of a certified test and balance engineer for

WAE Balancing, Inc.

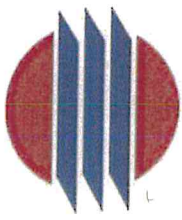
*This registration number 42-07-03 is only recognized under the
auspices of the above named AABC member agency. This certificate
expires December 31, 2023 and is renewable on an annual basis.*

Gaylon Richardson

Gaylon Richardson, President

R. Bert

Raymond R. Bert, Executive Director



AABC

Associated Air Balance Council

hereby certifies that

Christopher J. Evans

*has met all requirements and passed the necessary examination
to perform testing and balancing as an AABC*

Certified Test & Balance Technician

under the supervision of a certified test and balance engineer for

WAE Balancing, Inc.

*This registration number 74-07-07 is only recognized under the
auspices of the above named AABC member agency. This certificate
expires December 31, 2023 and is renewable on an annual basis.*

Gaylon Richardson

Gaylon Richardson, President

R. Bert

Raymond R. Bert, Executive Director

Staff Assignments

Daniel L. Cameron – Project Manager

The project manager will perform the duties of the lead commissioning agent. He will lead the commissioning team through the three phases of the commissioning plan. He will be responsible for the development and implementation of the commissioning plan. He will also schedule and run all of the commissioning meetings. Leadership and motivation of the commissioning team members to perform their work according to their scope of work is also a responsibility of the project manager.

Mark Sepik – Field Supervisor

The field supervisor will work under the supervision of the Project Manager. He will be a part of the commissioning team starting in the construction phase through the end of the acceptance phase. The field supervisor will help process the flow of information between the commissioning team and the commissioning agent. He will also witness the testing verification and document the results in the acceptance phase. The field supervisor will also help process resolution tracking forms between the commissioning agent and other commissioning team members.

HVAC Commissioning Scope

Different companies who will make up the commissioning team will conduct the work performed in the commissioning plan. The following is a list of those who will make up the commissioning team.

- Commissioning Agent
- Architect
- Mechanical Engineer
- Electrical Engineer
- Owner
- Mechanical Contractor
- General Contractor
- Test and Balance Agency
- Electrical Contractor
- Sheet Metal Contractor
- Owner's Operations and Maintenance (O&M) Staff
- Automatic Temperature Controls Contractor

The following outline will address what each commissioning team members' scope of work will include in each phase of the commissioning plan and the mechanical systems to be commissioned.

I Construction Phase

A. Commissioning Agent (CA):

1. Implement the commissioning plan.
2. Cultivate support for the commissioning process.
3. Coordinate commissioning planning with all of the affected parties.
4. Review submittals.
5. Update the commissioning plan.
6. Observe site installation.
7. Update project schedule.
8. Track construction issues
9. Schedule and conduct commissioning meetings.
10. Witness System Verification.
11. Monitor HVAC controls point-to-point checkouts.
12. Witness and document system start-ups.
13. Coordinate any retest of equipment that did not pass the start-up.
14. Review the O&M training plan.
15. Prepare Functional Performance Test reports.

B. Architect:

The Architect, and any other consultants, will need to be available for appropriate involvement as required in the commissioning process.

C. Designer (Mechanical Engineer):

1. Design of the HVAC system.
2. Help coordinate commissioning planning with the affected parties.
3. Review TAB procedures.
4. Review HVAC submittals.
5. Provide necessary changes in order to update the commissioning plan.
6. Observe site installation.
7. Be available to address Resolution Tracking Forms.
8. Attend commissioning meeting.

D. Electrical Engineer:

The Electrical Engineer will need to be available for consultation in the commissioning process.

E. Owner:

1. Coordinate commissioning planning with affected parties.
2. Periodic review and update of project schedule.
3. Attend commissioning meetings.
4. May attend system start-ups.
5. Review O&M training program.

F. Mechanical Contractor:

1. Coordinate commissioning planning with all affected parties.
2. Provide submittals.
3. Periodic site inspections.
4. Attend commissioning meeting.
5. Monitor installation.
6. Complete System Verification Checks (SVC's).
7. Ensure the ATC sub- contractor completes point-to-point checkouts.
8. Perform HVAC start-up.
9. Prepare O&M documentation and training.
10. Prepare for Functional Performance Testing.

G. General Contractor:

1. Support the commissioning process.
2. Coordinate commissioning activities with overall project schedule.
3. Update project schedule.
4. Track construction issues.
5. Attend commissioning meetings.
6. Monitor installation.

H. Test and Balance Agency:

1. Support the commissioning process.
2. Provide a pre-TAB plan.
3. Attend commissioning meeting upon completion of the start-up of equipment.

I. Electrical Contractor:

1. Support the commissioning process.
2. Help coordinate schedule of commissioning activities.
3. Monitor installation.
4. Perform Pre and Start-up of equipment.

J. Sheet Metal Contractor:

1. Support the commissioning process.
2. Perform any duct leakage testing as required in the specifications.

K. Owner's Operation and Maintenance Staff:

1. Support the commissioning process.
2. O&M training.

L. Automatic Temperature Control Contractor:

1. Support the commissioning process.
2. Coordinate planning of commissioning activities.
3. Provide submittals.
4. Help update project schedule.
5. Attend commissioning meeting.
6. Perform point-to-point checks.
7. Attend HVAC start-up.
8. Coordinate activities with TAB contractor.
9. Perform O&M documentation and training.

II. Acceptance Phase

The Acceptance Phase is the second phase of the commissioning plan. It will not begin until all of the major milestones have been completed in the Construction Phase.

In the Acceptance Phase, the functional performance testing will begin. The O&M staff will receive documentation and training necessary for effective operation and maintenance of all HVAC systems. The Design Engineer will review the submitted TAB report.

The following items will outline the commissioning team members' responsibilities throughout the Acceptance Phase of the project:

A. Commissioning Agent:

1. Provide and document the Functional Performance Test worksheets.
2. Review TAB report.
3. Document ATC installation.
4. Help organize and attend O&M training.

B. Mechanical Engineer:

1. Review TAB report

C. Owner:

1. Schedule staff for O&M training.
2. Acceptance of equipment.

D. General Contractor:

1. Help coordinate commissioning activities with project schedule.

E. Mechanical Contractor:

1. Schedule sub-contractors and manufacturer representatives for FPT and O&M training.
2. Operate equipment for FPT.
3. Notify the CA when systems are ready for TAB
4. Perform O&M training.

F. Test and Balance Contractor:

1. Start Test and Balance (TAB) work.
2. Submit TAB report for review.
3. Verify readings with CA.

G. Electrical Contractor:

1. Be present for Functional Testing.

H. Owner's O&M Staff:

1. Schedule staff for O&M training.
2. Acceptance of equipment.

I. Automatic Temperature Control Contractor:

1. Document controls installation.
2. Work with the TAB contractor.
3. Operate control sequences for the FPT.
4. Provide training to O&M staff.

III. Post Acceptance Phase

- A. Perform off-season FPT
- B. Correct any problems and retest FPT.
- C. Submit completed commissioning plan.

NOTABLE PROJECTS COMMISSIONED BY WAE BALANCING, INC.

Ringgold High School
South Buffalo Elementary
A.W. Beattie Career Center
Baldwin High School
Stewartsville Elementary
Homer Center Jr./Sr. High School
North East Elementary School
Logan Middle School – East Allegheny S.D.
Butler Intermediate High School
Seagate Technology Center
Schenley Center
Norwin High School
Hillman Cancer Center, BSL III Lab
Hillcrest Intermediate School
Charleston Federal Building
Norwin Middle School
Penns Manor Elementary
Indiana County Technology Center
North Allegheny High School

J.E. Harrison Education Center

Provide Test and Balance and Commissioning Agent Services:

BASE BID: \$88,000.00

H-1: No change

H-2: No change

H-3: No change

H-4: No change

H-5: Add \$6,800.00

H-6: Add \$6,800.00

H-7: Add \$6,800.00

H-8: Add \$500.00

H-9: Add \$9,400.00

H-10: Add \$9,400.00

H-11: Add \$9,400.00

H-12: Add \$2,600.00

H-13: Add \$2,600.00

H-14: Add \$2,600.00

H-15: Add \$1,100.00