



**Johnson Controls, Inc.  
Performance Contract**

## PERFORMANCE CONTRACT

This Performance Contract (this "Agreement") is made this 11 day of May, 2021 between:

### PARTIES

JOHNSON CONTROLS, INC. ("JCI")  
6 AERIAL WAY  
SYOSSET, NY 11791

and

BOARD OF EDUCATION OF THE  
PLAINEDGE SCHOOL DISTRICT  
("Customer" or the "District")  
241 WYNGATE DRIVE  
BOX 1669  
NO. MASSAPEQUA, NY 11758

### RECITALS

**WHEREAS**, Customer desires to retain JCI to perform the work specified in Schedule 1 (Scope of Work) hereto (the "Work") relating to the installation of the improvement measures/energy efficient measures (the "Improvement Measures" or "ECMs") described therein; and

**WHEREAS**, Customer is authorized and empowered under applicable Laws to enter into this Agreement, and has taken necessary action under applicable Laws to enter into this Agreement; and

**WHEREAS**, Customer has selected JCI to perform the Work after it determined JCI's proposal was the most advantageous to Customer in accordance with all applicable procurement and other Laws.

**NOW, THEREFORE**, in consideration of the mutual promises set forth herein, the parties agree as follows:

- 1. SCOPE OF THE AGREEMENT.** JCI shall perform the Work set forth in Schedule 1. After the Work is Substantially Complete (as defined below) and the Certificate of Substantial Completion is executed by Customer, the Engineer of Record (as defined below in paragraph 3), and JCI, JCI shall provide the assured performance guarantee (the "Assured Performance Guarantee") and the measurement and verification services (the "M&V Services") set forth in Schedule 2 (Assured Performance Guarantee). Customer shall make payments to JCI for the Work and the M&V Services in accordance with Schedule 4 (Price and Payment Terms). Prior to the commencement of the Work, JCI shall provide the Engineer of Record with a list of sub-contractors that JCI intends to use for the project for approval by the Customer and the Engineer of Record.

JCI will install the Equipment identified on Schedule 1 of this Agreement (Work) and provide services detailed on Schedule 1 and Schedule 2 of this Agreement (Services). JCI shall supervise and direct the Work and Services and shall be solely responsible for all construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the Work and M&V Services under this Agreement. JCI shall be responsible to pay for all labor, materials, equipment, tools, construction equipment and machinery, transportation, and other

facilities and services necessary for the proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work and Services.

**2. AGREEMENT DOCUMENTS:** In addition to the terms and conditions of this Agreement, the following Schedules, Attachments and Appendices are incorporated into and shall be deemed part of this Agreement:

- Schedule 1 – Scope of Work
- Schedule 2 – Assured Performance Guarantee
- Schedule 3 – Customer Responsibilities
- Schedule 4 – Price and Payment Terms
- Attachment 1 – Notice to Proceed
- Attachment 2 – Change Order
- Attachment 3 – Certificate of Substantial Completion; Certificate of Final Completion
- Attachment 4 – Lighting Survey line-by-line “Plainedge Schools Rev-G (1-20-2021)”
- Attachment 5 – Customer’s Request for Proposals (“RFP”)
- Attachment 6 – Contract between Customer and ECG Engineering, P.C.
- Attachment 7– JCI proposal in response to Customer’s RFP
- Attachment 8 – Detailed Energy Audit
- Attachment 9 – Customer’s AHERA Report and asbestos ceiling tile surveys
- Attachment 10 – Pro Forma Cash Flow “May 6, 2021”
- Appendix 1 – Scope of Engineering Services
- Appendix 2 – General Conditions

**3. ARCHITECT OF RECORD.** The Customer has identified ECG Engineering, P.C. as the certified Architect of Record (the “Architect” or “Engineer”) to provide architectural/engineering services in connection with the Work to be performed by JCI (“Architectural/Engineering Services”). The fees and total compensation for such Architectural/Engineering Services shall be \$384,641 and shall be paid by JCI to the Architect in accordance with the terms of the contract between the Customer and ECG Engineering, P.C. as attached hereto as Attachment 6 and as set forth in Schedule 4 hereof. The Architect’s fees are included in the Total Project Benefits and shall be covered by the Guaranteed Savings in all respects. Both JCI and Customer agree and acknowledge that the Architect owes its/his/her professional obligations and duties, including duties of care to the Customer. The Architect shall remain free from any financial interest in the Agreement which conflicts with the proper completion of its/his/her responsibilities under this Agreement and which conflicts with its/his/her responsibilities and duties to the Customer. JCI will coordinate all Work and activities under this Agreement with the Architect.

JCI will utilize the services of the Architect of Record and issue payment as set forth herein and in Attachment 6.

**4. NOTICE TO PROCEED; SUBSTANTIAL COMPLETION; M&V SERVICES.** Pursuant to 8 NYCRR §155.20, this Agreement is subject to the approval of the Commissioner of Education of the State of New York. After receipt of written approval from the New York State Education Department (“SED”), and after Customer has secured financing subject to Section 32 of this Agreement, the Customer shall issue a Notice to Proceed, a form of which is attached hereto as Attachment 1 and which is in a form acceptable to SED. JCI shall commence performance of the Work within ten (10) business days of receipt of Customer’s Notice to Proceed, and shall achieve Substantial Completion of the Work by the Substantial Completion date, which shall be the date on which Customer and Architect execute a Certificate of Substantial Completion in the form attached hereto as Attachment 3.

Substantial Completion shall be achieved when the following items are completed by JCI and approved by Customer and the Architect:

- a. A written acknowledgement by the Customer that all of the Improvement Measures have been installed by JCI and completed to the satisfaction of the Customer and the Architect;
- b. A written acknowledgment by the Customer of receipt of manuals and training provided by JCI under the Agreement;
- c. A written acknowledgement by the Customer of the warranty start date and warranty period;
- d. The receipt of a punch list of items remaining to be completed by JCI;

- e. A written acknowledgement by the Customer of receipt of warranties, release of liens, and proof of payment to subcontractors; and,
- f. JCI is responsible for obtaining fire marshal approval, if such is required for this Project. JCI shall be responsible for any costs related to its failure to secure such approval.

The M&V Services shall commence on the first day of the month following the month in which Customer executes a Certificate of Substantial Completion for all ECMs and shall continue throughout the Guarantee Term, subject to earlier termination of the Assured Performance Guarantee as provided herein. Customer acknowledges and agrees that if, for any reason, it (i) cancels or terminates receipt of M&V Services, (ii) fails to pay for M&V Services in accordance with Schedule 4, (iii) fails to fulfill any of Customer's responsibilities necessary to enable JCI to complete the Work and provide the M&V Services, or (iv) otherwise cancels, terminates or materially breaches this Agreement, the Assured Performance Guarantee shall automatically terminate.

- 5. **DELAYS AND IMPACTS.** If JCI is delayed in the commencement, performance, or completion of the Work and/or M&V Services by causes beyond its reasonable control and without its fault, including but not limited to inability to access property; concealed or unknown conditions encountered at the project, differing from the conditions represented by Customer in the proposal documents or otherwise disclosed by Customer to JCI prior to the commencement of the Work; a Force Majeure (as defined below) condition; failure by Customer to perform its obligations under this Agreement; or failure by Customer to cooperate with JCI in the timely completion of the Work, JCI shall provide written notice to Customer of the existence, extent of, and reason for such delays and impacts. Under such circumstances, an equitable adjustment in the time for performance may be made subject to the mutual written agreement of the parties.
- 6. **ACCESS.** Customer shall provide JCI, its subcontractors, and its agents reasonable and safe access to all facilities and properties in Customer's control that are subject to the Work and M&V Services. Customer further agrees to assist JCI, its subcontractors, and its agents to gain access to facilities and properties that are not controlled by Customer but are necessary for JCI to complete the Work and provide the M&V Services. An equitable adjustment in the time for performance may be made as a result of any failure to grant such access, subject to the mutual written agreement of the parties. JCI shall be required to perform its Work between the hours of 2:30 p.m. to 10:30 p.m., Monday through Friday on school days when the buildings are open. During the summer, JCI shall be required to perform its work between the hours of 7:00am and 3:30pm Monday through Friday with no interruption to the District's operations, including its educational, administrative, business, special events and summer operations. All schedules must be approved by the District and its Architect in writing prior to commencing any work. Any work which will interfere with the District's operations and/or which is to be performed when the District's facilities are in operation shall be performed on evenings and weekends. Additionally, JCI shall conduct its Work during hours that are in compliance with federal, state, county or local, laws, rules, regulations, codes and ordinances. Provided that Customer allows JCI continuous access to the applicable facilities during normally scheduled custodial shifts, all costs incurred by the District, including overtime costs for District personnel, to make the facilities available during evening and weekends (Saturday and Sunday) shall be borne by JCI. The District reserves the right to determine what work will interfere with its operations and said determination shall be final. In addition, all overtime work that may be necessary must be pre-approved in writing by the Customer's Superintendent and the Assistant Superintendent. JCI shall be solely responsible for all costs associated with its failure to obtain such prior written approval. The Customer reserves the right to reject the use of any proposed subcontractors.

No drinking of alcoholic beverages, smoking or use of controlled substances is permitted on the grounds. JCI shall ensure that none of its employees, agents, consultants, or its Subcontractors' employees, agents, and/or consultant's report to the site impaired by alcohol or controlled substances. JCI bears the responsibility of determining if its employees, or its subcontractors', employees are in any way impaired and whether the safety of the public, the employees of JCI and its subcontractors, the Owner, Architect, or Construction Manager are jeopardized. Each contractor shall provide drinking water for its own employees. JCI's employees, representatives, agents and consultants, and all of its subcontractors' employees, representatives, agents and consultants at the site are to refrain from using indecent language. All doing so will be removed from the site. Artwork or decoration found on vehicles belonging to Contractor or Subcontractor employees parked on or near the school property which contain indecent language or pictures shall either be covered or removed from the location.

- 7. **PERMITS, TAXES, AND FEES.** JCI shall be responsible for obtaining all building permits and related permit fees associated with the Work and Services. Customer represents that it is a governmental entity and that it will

cooperate with JCI and provide JCI with appropriate documentation that Customer is not obligated to pay any taxes associated with this Agreement. JCI shall pay any applicable sales, consumer, use, and other similar taxes and shall secure and pay for the building permit and other permits and governmental fees, licenses, and inspections necessary for proper execution. The Customer shall be responsible for securing any necessary approvals, easements or assessments required for the Work or the ownership and use of the Improvement Measures.

JCI shall not be obligated to provide any changes to or improvement of the facilities or any portion thereof required under any applicable building, fire, safety, sprinkler or other applicable code, standard, law, regulation, ordinance or other requirement unless the same regulates the installation of the Improvement Measures. Without limiting the foregoing, JCI's obligations with respect to the Work is not intended to encompass any changes or improvements that relate to any compliance matters (whether known or unknown) that are not directly related to the installation of the Improvement Measures or which have been imposed or enforced because of the occasion or opportunity of review by any governmental authority. JCI shall be responsible for and shall pay when due all assessments, charges and sales, use, property, excise, or other taxes now or hereafter imposed by any governmental body or agency upon the provision of the Work or the M&V Services, implementation or presence of the Improvement Measures, the use of the Improvement Measures or payments due to JCI under this Agreement.

8. **WARRANTY.** JCI warrants that materials and equipment furnished by JCI will be of good quality and new and of recent manufacture, unless otherwise required or permitted by the Agreement documents; that the Work will be free from defects not inherent in the quality required or permitted; and that the Work and M&V Services will conform to the requirements of the Agreement Documents. Work not conforming to these requirements including substitutions not properly approved and authorized may be considered defective.

If within two (2) years following Substantial Completion (except where longer periods of time are specified in Schedule 1 and/or the Detailed Energy Audit or provided for in any manufacturer's warranties or special warranties issued or obtained following the commencement of the Work, in which case such longer periods shall apply) any of the work is found to be not in accordance with the requirements of the Agreement, JCI shall correct it promptly after receipt of written notice from the District and/or the Architect to do so, unless the District has previously given JCI a written acceptance of such condition. This period of two (2) years shall be extended with respect to portions of JCI's work first performed after Substantial Completion by the period of time between Substantial Completion and the actual performance of such work. The obligation set forth hereunder shall survive acceptance by the District of the work, and/or termination of JCI's agreement with the District. The District shall give such notice within a reasonable period of time after discovery of the condition.

Upon written notice from the Customer, JCI shall, at its option, repair or replace the defective Work or re-perform defective Services to the satisfaction of the Customer, as long as Customer provides written notice to JCI within two (2) years following Substantial Completion except where longer periods of time are specified in Schedule 1. These warranties do not extend to any Work that has been abused, altered, misused, or repaired by the Customer or third parties without the supervision and/or prior written approval of JCI, except in the case of an emergency; or if JCI serial numbers or warranty date decals have been removed or altered. If any Work is altered or repaired in an emergency, Customer will notify JCI immediately of such alterations or repairs. The Customer must promptly report any failure of the Equipment to JCI in writing. All replaced Equipment or parts remain Customer's property.

Customer understands that JCI is a provider of services under this Agreement. JCI shall not be considered a merchant or a vendor of goods. If JCI installs or furnishes a piece of equipment under this Agreement, and that equipment is covered by a warranty from the manufacturer, JCI will transfer the benefits of that manufacturer's warranty to Customer if this Agreement with Customer terminates before the equipment manufacturer's warranty expires.

JCI further warrants that the design, engineering, and installation services it performs will be performed consistent with good engineering practices and that all Work performed by JCI is warranted to be free from defects in materials and workmanship for a period of two (2) years from the date of execution of the Certificate of Substantial Completion by Customer. Any manufacturers' warranties which exceed this two (2) year period shall be assigned to Customer to the extent allowed by the manufacturer. The warranty provided in this Agreement shall be in addition to and not in limitation of any other warranty required by the contract documentation or otherwise

prescribed by law. JCI shall procure and deliver to the District, no later than the date claimed by JCI as the date of final completion, all normal and special warranties required by the contract documents.

Prior to the commencement of the Work and issuance of the final cash flow statement as set forth herein, JCI shall be fully responsible for reviewing any and all existing warranties of equipment, fixtures and appurtenances located at the Customer's facilities, including but not limited to roofs, windows, doors, and boilers that may be directly and/or indirectly impacted by the work performed under the Agreement and any amendment to the Agreement to verify that the Work will not void any such existing warranties. In the event that its review uncovers a potential issue, JCI will notify the Customer in writing and the parties will agree upon a resolution. JCI shall coordinate with the existing manufacturers, including the roofing manufacturers for all roof PV installations, and have a pre-inspection of the equipment and/or materials performed prior to installation of any ECM, including the PV system. Further, JCI shall comply with all roof manufacturer, boiler, window, door manufacturers and other manufacturer warranty(ies) continuation procedures and will be responsible for all fees, inspections and additional materials to maintain the roof warranty(ies) or any other warranty(ies) that is directly and/or indirectly impacted by the work performed under the Agreement and any amendment. All inspections must be coordinated with the Customer and its Architect. Pre-inspection shall occur during the SED review phase. In the event that said work has any negative impact on the validity of any warranty, as determined by the applicable manufacturer(s), the Customer in its sole discretion shall have the right to terminate the Agreement or to reduce the scope of Work as necessary to achieve a positive cash flow for Customer during the term of the Agreement. In the event that the work proceeds as authorized by the manufacturer and said work is not installed in accordance with any manufacturer's requirements as set forth in the manufacturers' pre-inspection, JCI shall be full responsible for performing the necessary work to achieve the requirements of the manufacturer(s) for purposes of maintaining the existing warranties. JCI shall coordinate all pre and post installation inspections with the Customer's Architect of Record. In addition, all pre-inspection and post-inspection costs shall be borne solely by JCI. Notwithstanding the foregoing, if JCI (a) proceeds with any work that will impair or nullify any existing warranty(ies) and (b) the Customer has not been notified in writing of the potential issue and agreed to the performance of such work, JCI shall be fully liable for the warranty(ies). Upon completion of the work/services of the Agreement and any amendment thereto, JCI shall be fully responsible for reviewing and informing Customer of all warranties for equipment installed and/or replaced during the installation.

9. **CLEANUP.** JCI shall keep the premises and the surrounding area free from accumulation of waste materials or rubbish caused by the Work on a daily basis and, upon completion of the Work, JCI shall remove all waste materials, rubbish, tools, construction equipment, machinery, and surplus materials and shall clean up the Work, including any dust from the materials, and surrounding areas to the reasonable satisfaction of the Customer. In the event that JCI fails to clean up the Work and the surrounding areas, upon twenty-four (24) hours written notice to JCI, the Customer will have the same cleaned. All reasonable costs associated with such clean up shall be back charged to JCI.
10. **SAFETY; COMPLIANCE WITH LAWS.** JCI shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Work and M&V Services. JCI shall comply with all applicable laws, ordinances, rules, regulations, and lawful orders of public authorities (collectively, "Laws") in connection with its performance hereunder.

#### 11. **ASBESTOS-CONTAINING MATERIALS AND OTHER HAZARDOUS MATERIALS.**

Asbestos-Containing Materials: JCI shall be responsible for the abatement, cleanup, control, removal or disposal of asbestos-containing materials ("ACM") as identified in the Agreement, attachments and appendices. JCI hereby represents and warrants that it has reviewed the Customer's AHERA Report, asbestos ceiling tile surveys and any and all other testing results or documentation related to such materials that have been provided to JCI by Customer and shall ensure that its subcontractors review said Report, surveys and other documentation. ACM removal, abatement or clean-up identified therein or in the attached schedules or Attachments and Appendices hereof is being undertaken as part of the Agreement. JCI shall cause to be performed such removal/abatement and clean-up in accordance with all applicable Federal, State and local laws, codes, rules, regulations and ordinances. JCI shall be fully responsible for the failure of JCI and/or its subcontractors to perform the Work in accordance with said requirements. JCI shall defend and hold harmless Customer, its officers, trustees, and employees from any and all actions, claims, costs, causes of action, damages, fines, fees, penalties, suits of any kind arising directly or indirectly from the performance of ACM related work and shall further cause its subcontractors to defend and hold harmless Customer, its officers, trustees, and employees from any and all actions, claims, costs, causes of action, damages, fines, fees, penalties, suits of any kind arising directly or

indirectly from the performance of ACM related work. Customer shall provide in writing, and JCI and its subcontractors must review and become familiar with, the Customer's Asbestos Management Plan, AHERA Report, ceiling tile surveys and any other testing results or documentation provided to JCI. Consistent with applicable Laws, Customer shall supply JCI with any information in its possession relating to the presence of ACM in areas where JCI undertakes any Work or M&V Services that may result in the disturbance of ACM. If either Customer or JCI becomes aware of or suspects the presence of ACM that has not previously been identified in Customer's AHERA Report, the Customer's asbestos ceiling tile surveys, and other testing results or documentation set forth above and that may be disturbed by JCI's Work or M&V Services, it shall promptly stop the Work or M&V Services in the affected area and notify the other, and the parties shall meet to discuss how to proceed. Customer may request that JCI provide a calculation of the cost of enclosing, removing, encapsulating or otherwise abating such ACM in the areas in which Work or M&V Services are to be performed in accordance with applicable code, laws, rules, regulations, ordinances and guidelines. Upon receiving said calculation, the parties will meet and mutually agree upon how to proceed, including but not limited to the following options: (i) arranging to have said ACM abated at the Customer's cost; or (ii) Customer paying JCI to cause such ACM to be abated; and/or (iii) revising the scope of work to include additional ACM abatement subject to review and approval of SED.

**Other Hazardous Materials:** JCI shall be solely responsible for abating, removing or disposing of any Hazardous Materials (as defined below) associated with the Work or M&V Services ("JCI Hazardous Materials") and for the remediation of any areas impacted by the release of JCI Hazardous Materials. All costs for said abatement, disposal and/or removal of JCI Hazardous Materials, including all necessary and required testing, are solely the responsibility of JCI. For other Hazardous Materials that may be otherwise present at Customer's facilities ("Non-JCI Hazardous Materials"), Customer shall supply JCI with any information in its possession relating to the presence of such materials if their presence may affect JCI's performance of the Work or M&V Services. If either Customer or JCI becomes aware of or suspects the presence of Non-JCI Hazardous Materials that may interfere with JCI's Work or M&V Services other than those Non-JCI Hazardous Materials already identified by Customer and JCI in writing as part of this Agreement, it shall promptly stop the Work or M&V Services in the affected area and notify the other. For purposes of this Agreement, "Hazardous Materials" means any material or substance that, whether by its nature or use, is now or hereafter defined or regulated as a hazardous waste, hazardous substance, pollutant or contaminant under applicable Law relating to or addressing public or employee health and safety and protection of the environment, or which is toxic, explosive, corrosive, flammable, radioactive, carcinogenic, mutagenic or otherwise hazardous or which is or contains petroleum, gasoline, diesel, fuel, another petroleum hydrocarbon product, polychlorinated biphenyls or mercury. "Hazardous Materials" specifically includes mold. Should JCI and/or its subcontractors become aware of the presence of Non-JCI Hazardous Materials that may be disturbed by JCI's Work or M&V Services, JCI shall promptly notify Customer, and the parties shall meet to discuss how to proceed. Customer may request that JCI provide a calculation of the cost of remediating such Non-JCI Hazardous Materials in the areas in which Work or M&V Services are to be performed in accordance with applicable code, laws, rules, regulations, ordinances and guidelines. Upon receiving said calculation, the parties will meet and mutually agree upon how to proceed, including but not limited to the following options: (i) arranging to have said Non-JCI Hazardous Materials remediated at the Customer's cost; or (ii) Customer paying JCI to cause such Non-JCI Hazardous Materials to be remediated; and/or (iii) revising the scope of work to include additional ACM abatement subject to review and approval of SED.

JCI shall not be responsible for any losses, costs, damages, expenses (including reasonable legal fees and defense costs), claims, causes of action or liability, directly or indirectly, relating to or arising from the Customer's use, or Customer's storage, release, discharge, handling or presence of mold or Non-JCI Hazardous Materials on, under or about the facilities, or Customer's failure to comply with this Section 11. Notwithstanding the foregoing, JCI shall indemnify and hold harmless the District from any and all liability associated with the removal, abatement and/or disposal of asbestos containing and hazardous materials undertaken by JCI, its employees, agents, representatives or its subcontractors or agents pursuant to this Agreement.

JCI shall coordinate any asbestos/hazardous material testing and sampling with the Customer's Environmental Consultant. All costs associated with such testing/sampling shall be the responsibility of JCI.

**12. CHANGE ORDERS.** The parties, without invalidating this Agreement, may request changes in the Work to be performed under this Agreement, consisting of additions, deletions, or other revisions to the Work ("Change Orders"). The price and payment terms, time for performance and, if necessary, the Assured Performance Guarantee, shall be equitably adjusted in accordance with the Change Order. Such adjustments shall be

determined by mutual written agreement of the parties and shall be subject to the availability of funds and written approval of the Board of Education for Customer, the Architect, SED and leasing company, if necessary. Any Change Order will not be considered effective until it is signed by an authorized representative of each party and the Architect. Upon written consent of the Customer, JCI may delay performance of Work subject to the Change Order until adjustments arising out of the Change Order are clarified and agreed upon. If concealed or unknown conditions are encountered at the project, differing from the conditions represented by Customer in the proposal documents or otherwise disclosed by Customer to JCI prior to the commencement of the Work, price and payment terms, time for performance and, if necessary, the Assured Performance Guarantee, shall be equitably adjusted subject to the availability of funds and written approval of the Board of Education, the Architect and SED.

- 13. TITLE TO THE EQUIPMENT.** Title to all completed or partially completed work at the job site, all materials to be used in connection with the work, and all materials delivered to and/or stored at said job site which are intended to become a part of the completed work covered by this Agreement shall be in the name of the Customer. Notwithstanding the foregoing, and prior to acceptance of the completed work by the Customer, JCI shall be liable for all loss of or damage to said completed work, partially completed work, materials furnished by JCI, and/or materials or equipment furnished by others, the custody of which has been given to JCI, arising from any cause other than those against which the Customer herein undertakes to carry insurance. In the event of loss or damage from cause other than those against which the Customer undertakes to carry insurance, JCI shall replace or repair the said work or materials at its own cost and expense, to the complete satisfaction of the Customer and its Architect.
- 14. CUSTOMER FINANCING; TREATMENT; TAXES.** The parties acknowledge and agree that JCI is not making any representation or warranty to Customer with respect to matters not expressly addressed in this Agreement, including, but not limited to:
- (a) Customer's ability to obtain or make payments on any financing associated with paying for the Improvement Measures, related services, or otherwise; and
  - (b) Customer's proper legal, tax, accounting, or credit rating agency treatment relating to this Agreement.

**15. INSURANCE.**

- A. Prior to commencing the Work, JCI shall provide a certificate of insurance with JCI showing its insurance coverage's, and JCI shall maintain such insurance in full force and effect at all times until the Work and Services have been completed, in the following minimum amounts:

**COVERAGES**

Errors & Omissions Policy

Workmen's Compensation Insurance or self- insurance, including Employer's Liability

**LIMITS OF LIABILITY**

\$5,000,000.00 per occurrence  
 \$5,000,000.00 aggregate

Statutory Workers' Compensation (C-105.2 or U-26.3); and NYS Disability Insurance (DB-120.1) for all employees. Proof of coverage must be on the approved specific form, as required by the New York State Workers' Compensation Board. ACORD certificates are not acceptable. A person seeking an exemption must file a CE-200 Form with the state. The form can be completed and submitted directly to the WC Board online.

\$1,000,000 each accident, disease each employee and disease policy limit

Commercial General Liability Insurance, including Contractual.	\$10,000,000 per Occurrence \$10,000,000 Aggregate on a per project basis
Products – Completed/Operations Personal & Advertising Injury	\$10,000,000 \$10,000,000 each occurrence
Fire Damage (any one fire) Medical Expenses (any one person)	\$1,000,000 \$500,000
Commercial Automobile Liability Insurance	\$10,000,000 Combined Single Limit for owned, hired, borrowed and non-owned motor vehicles.
Installation floater insurance	Amount sufficient to repair or replace the work. The Customer must be listed as a loss payee on this policy.

The above limits are obtained through primary and excess policies.

Coverages shall be maintained without interruption from the date of commencement of the Work and for three (3) years following the completion of the contract.

- B. The insurance required to be procured by JCI pursuant to paragraph A of this section shall be purchased from and maintained by an insurance carrier licensed to do business in the State of New York, with an A. M. Best rating of "A" or better. JCI must submit the Certificate of Insurance to the Customer for its approval prior to the commencement of any work as well as any endorsement pages requested by Customer or its representatives.
- C. All insurance coverage to be provided by JCI pursuant to paragraph A of this section shall include a cancellation pursuant to the terms of the policy(ies).
- D. All commercial general and automobile liability insurance coverage to be provided by JCI shall include the Customer and its Architect and Construction Manager as additional insureds on the policy(ies) with respect to operations performed for Customer by or on behalf of JCI. Additionally, the insurance coverage to be provided by JCI pursuant to paragraph A of this section shall state that JCI's coverage shall be the primary coverage for JCI's work. Additional insured status will be provided by both ISO additional insured endorsement CG 2033 and CG 20 37 or equivalent.
- E. In the event that any of the insurance coverage to be provided by JCI to the Customer contains a deductible, JCI shall indemnify and hold the Customer, Architect, Consultant or Sub-Consultants and agents and employees of Customer, Architect, Consultant or Sub-Consultants harmless from the payment of such deductible, which deductible shall in all circumstances remain the sole obligation and expense of JCI.
- F. JCI acknowledges that its failure to obtain or keep current the insurance coverage required by paragraph A of this section shall constitute a material breach of contract and subjects JCI to liability for damages the Customer sustains as a result of such breach. This indemnity obligation is in addition to any other indemnity obligation provided in the Agreement. In addition, JCI shall be responsible for the indemnification to the Customer of any and all costs associated with such lapse in coverage, including but not limited to reasonable attorney's fees.
- G. JCI shall require all subcontractors to carry appropriate insurance coverages and limits of liability similar to those set forth in paragraph A of this section and adjusted to the nature of subcontractors' operations and submit proof of same to the Customer for approval by the Customer prior to start of any work. JCI shall require that its subcontractors name the District as an additional insured on all policies in the manner set forth herein. In the event that JCI fails to require its subcontractors to carry such insurance and a claim is made or suffered, JCI shall indemnify, defend, and hold harmless the District, Engineer, Consultants, and Sub-Consultants, Board, officers and their agents and employees from any and all claims for which the required insurance would have provided



coverage. This indemnity obligation is in addition to any other indemnity obligation in this Agreement, including attachments and appendices.

- H. JCI assumes responsibility for all injury or destruction of JCI's materials, tools, machinery, equipment, appliances, shoring, scaffolding, false and form work, and personal property of JCI's employees. Any policy of insurance secured covering JCI or Subcontractors leased or hired by them and any policy of insurance covering JCI or Subcontractors against physical loss or damage to such property shall include an endorsement waiving the right of subrogation against the Customer for any loss or damage to such property.
- I. The Customer in good faith may adjust and settle a loss with JCI's insurance carrier.
- J. JCI waives all rights against the Customer, its board, officers, agents and employees for damages caused by fire or other perils to the extent of actual recovery of any insurance proceeds under any insurance policy procured or other property insurance applicable to JCI's work.
- K. In addition to the coverages required and under the same terms and requirements of such coverages, in the event that JCI undertakes any asbestos and/or hazardous material work under this Agreement, JCI shall provide hazardous material liability insurance as follows: \$2,000,000/occurrence/\$2,000,000 aggregate, including products and completed operations. Such insurance shall name the Customer, its Architect and Construction Manager as additional insureds and include coverage for JCI's operations including, but not limited to, removal, replacement, enclosure, encapsulation and/or disposal of asbestos, or any other hazardous material, along with any related pollution events, including coverage for third party liability claims for bodily injury, property damage and cleanup costs. If a retroactive date is used, it shall predate the inception of the Agreement. If motor vehicles are used for transporting hazardous materials, shall provide pollution liability broadened coverage (ISO endorsement CA 9948) as well as proof of MC90. Coverage shall fulfill all requirements set forth herein and shall extend for a period of three (3) years following acceptance by the Customer of the Certificate of Completion. In the event that JCI engages an environmental subcontractor for removal, replacement, enclosure, encapsulation and/or disposal of asbestos, or any other hazardous material, along with any related pollution events, JCI shall require said environmental subcontractor to provide the hazardous material liability insurance as described herein.
- L. In addition to the coverages required and under the same terms and requirements of such coverages, JCI shall require its environmental subcontractor to provide hazardous material liability insurance as follows: \$2,000,000/occurrence/\$2,000,000 aggregate, including products and completed operations. Such insurance shall name the Customer and its Architect as an additional insured and include coverage for the subcontractor's operations including, but not limited to, removal, replacement, enclosure, encapsulation and/or disposal of asbestos, or any other hazardous material, along with any related pollution events, including coverage for third party liability claims for bodily injury, property damage and cleanup costs. If a retroactive date is used, it shall predate the inception of the Agreement. If motor vehicles are used for transporting hazardous materials, JCI's environmental subcontractor shall provide pollution liability broadened coverage (ISO endorsement CA 9948) as well as proof of MC90. Coverage shall fulfill all requirements set forth herein and shall extend for a period of three (3) years following acceptance by the Customer of the Certificate of Completion.
- M. Before commencement of its work, JCI shall obtain and pay for such insurance as may be required to comply with the provisions outlined under the Agreement.
- N. Under no circumstance, shall JCI limit its liability to the amount of its primary general comprehensive policy limits.

## **16. INDEMNIFICATION.**

To the fullest extent permitted by applicable Law, JCI agrees to defend, indemnify and hold the District, its Board, officers, employees, agents, representatives and assigns, harmless from and against any and all claims, liabilities, actions, judgments, losses, costs, damages or expenses (including reasonable attorneys' fees) suits, actions or damages ("claims") arising by reason of bodily injury, death or damage to property to the extent caused by the negligence, misconduct or wrongful act of JCI, its officers, agents, subcontractors or employees.

JCI shall indemnify and hold harmless the District, its board, officers, employees, agents, representatives and assigns against any and all claims, actions, damages, liabilities, and expenses, including reasonable attorney's fees as

Performance Contract [Rev 15 EC] 04/09

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determined by court order, arising out of or related to any claims of patent infringement and any claims of construction or materialman's lien made by any subcontractor or materialman.

JCI shall indemnify and hold harmless the District, its board, officers, employees, agents and assigns from and against all claims, actions, damages, liabilities and expenses, including reasonable attorney's fees, arising out of or related to JCI's, its officers, employees, agents, representatives, or its subcontractor's performance of this Agreement.

This paragraph 16 shall survive termination of this Agreement.

## **17. PAYMENT AND PERFORMANCE BOND.**

**A.** JCI shall, prior to the commencement of construction, deliver to the Customer Performance and Payment Bonds in a sum equal to the contract amount with sureties licensed by the State of New York and satisfactory to the Customer, conditioned upon the faithful performance by JCI, for the implementation of the Improvement Measures, such bonds to be in such form of AIA Document A312, as modified, and shall contain such provisions as are reasonably satisfactory to the Customer. The Performance and Payments Bonds shall apply only to the Installation Period, as defined in Schedule 2. Such bonds shall not apply to the Assured Performance Guarantee. A rider including the following provisions shall be attached to each Bond:

1. Surety hereby agrees that it consents to and waives notice of any addition, alteration, omission, change, or other modification of the Agreement Documents. Such addition, alteration, change, extension of time, or other modification of the Agreement Documents, or a forbearance on the part of either the Customer or JCI to the other, shall not release the Surety of its obligations hereunder and notice to the Surety of such matters is hereby waived.
2. Surety further agrees that in event of any default by the Customer in the performance of the Customer's obligations to JCI under the Agreement, JCI or Surety shall cause written notice of such default (specifying said default in detail) to be given to the Customer, and the Customer shall have thirty (30) days from time after receipt of such notice within which to cure such default, or such additional reasonable period of time as may be required if the nature of such default is such that it cannot be cured within thirty (30) days. Such Notice of Default shall be sent by certified or registered U.S. Mail, return receipt requested, first class postage prepaid, to Lender and the Customer.
3. Surety shall be liable for the costs of litigation expenses, including but not limited to, reasonable attorneys' fees, as well as reasonable litigation expenses incurred by the District in prosecuting a claim against, or defending a claim by, either JCI or the Surety.

**B.** In addition to the payment and performance bond described herein, JCI shall deliver to the Customer an Energy Savings Guarantee Bond in an amount equal to 100% of the total cost of the guaranteed savings as set forth in this Agreement. The Energy Savings Guarantee Bond shall be issued for the term of the Guarantee Period as defined in Schedule 2 hereof.

**C.** If the financial lending institution selected by the District requires a Dual Obligee Rider, such Rider shall be subject to review and approval by the District and its legal counsel. In addition, JCI shall undertake all necessary efforts to expedite the issuance of said Dual Obligee Rider and the required modifications to said Rider, if any.

**18. REVIEW BY THE STATE EDUCATION DEPARTMENT/APPROVAL OF CONTRACT.** JCI and Customer acknowledge that this Agreement is subject to 8 NYCRR 155.20 and, as such, requires the approval of the Commissioner of Education of the State of New York. This Agreement shall not be executory until Commissioner's approval is obtained. Upon receiving SED approval and building permits, state aid runs, and all necessary approvals, the cash flow for the Project will be recalculated with current energy costs, utility rebates, building aid and current interest rates. If the recalculation of cash flow does not yield a positive cash flow for Customer, Customer reserves the right in its sole discretion and without any liability to JCI whatsoever, to terminate this Agreement in its entirety or reduce the scope of the Work as necessary to achieve a positive cash flow for the Customer during the term of the Agreement. Moreover, in the event that building aid for the Project

is reduced and/or eliminated or, the necessary approvals referenced herein are not received or are substantially modified, Customer, in its sole discretion and without any liability to JCI whatsoever, shall have the right to terminate the Agreement or to reduce the scope of Work as necessary to achieve a positive cash flow for Customer during the term of the Agreement. Moreover, in the event that it is determined that any ECM included herein is prohibited from being included in the scope of work by SED and/or the Customer, in whole or in part, as a result of any Customer agreement or obligation, or it is determined by the Customer that it is not in its best interest to include any ECM in this project because of any Customer agreement(s) or obligation(s), in whole or in part, Customer, in its sole discretion and without any liability to JCI whatsoever, shall have the right to terminate the Agreement or to reduce the scope of Work as necessary to achieve a positive cash flow for Customer during the term of the Agreement. The Price and Payment Terms set forth at Schedule 4 of this Agreement will be adjusted by Change Order or amendment to this Agreement to reflect any necessary modifications resulting therefrom. Upon request by Customer, JCI will assist Customer in obtaining additional aid for the Project which may include SED building aid and/or rebates.

In addition, this Agreement shall not be executory until Customer's attorneys' approval is obtained. Prior to SED approval, it shall be JCI's sole responsibility to validate each Improvement Measure with Customer and gain the final approval of the savings outlined in Schedule 2. This process may include the providing of mock-ups and/or site visits as well as delivering additional presentations if necessary. Without final Customer approval of Schedule 2 and any requested mock-ups, this Agreement shall not be executory. If SED approval is not obtained within 365 days of the date of the Architect's submittal to SED, JCI reserves the right to propose modifying the terms of this Agreement, including but not limited to the cost to be financed under this Agreement, subject to Customer's approval in writing, which shall not be unreasonably withheld. JCI agrees to cooperate with Customer in obtaining necessary approvals, including approval by the Commissioner of Education. This shall include providing the certifications pursuant to 155.20 (d) (7) (ii), (iii) and (iv) of the Regulations of the Commissioner of Education. Notwithstanding the above, should any portion of this Agreement fail to be approved by SED, or, if the Scope of Work contained in this Agreement is not approved by SED in its entirety, Customer may, in its sole discretion, elect to terminate this Agreement. JCI shall have no remedy at law or in equity for such termination or for any costs incurred by JCI up to the effective date of termination.

In addition to the Customer's right to reduce the scope of work as set forth in this Section 18 and Section 19 herein or Customer's right to terminate this Agreement as described herein, the Customer further reserves the right, in its sole discretion and without any liability to JCI whatsoever, to reduce the scope of work if the Customer determines that any ECM, or portion thereof, is no longer necessary or if any ECM, or portion thereof, is undertaken by the Customer as part of a capital improvement project or bond referendum project. JCI shall schedule its work with ECG and shall be responsible for coordinating its work with any capital improvements undertaken at the District.

19. **CASH FLOW STATEMENTS.** It is understood and agreed that, at all times during the Guarantee Period, the annual savings set forth in the cash flow statements must remain positive. JCI shall provide the District with the required cash flow statements as set forth herein. Such cash flow statements shall be appended to this Agreement. The cash flow statement shall list the guaranteed rebates; however, all rebates shall inure to and be payable to the District. In addition, JCI shall provide the District with revised cash flow statements at the following intervals: (1) upon the New York State Education Department's approval of the Agreement and any amendment between the parties; (2) upon issuance of the State Aid report identifying the aid that will be allocated for the project; (3) upon receipt of any utility rebate or incentive; (4) upon the District's finalization of its financing of the project (the "Financing Period"); (5) prior to the commencement of any work under the Agreement and any amendments; and (6) at any other time as may be requested by the District. All revised cash flow statements shall be attached and become part of the contract documents. If the Project does not yield a positive cash flow to the District for any year of the contract term (as identified by the cash flow statements provided during the Financing Period), the District shall be permitted to reduce the scope of the Project without liability of any type so as to achieve a positive cash flow in each year of the contract term. The Project shall not commence until the District provides its written acceptance of the final cash flow statement, which must include the eligible building aid for the Project as provided by the New York State Education Department in writing and the applicable interest rate for the Project. Under no circumstance, shall the Project commence without written authorization from the District approving the cash flow for the Project. In the event that JCI commences without written approval of the final cash flow statement, JCI shall be liable for any negative cash flow of the District for the entire term of the Agreement and for any other loss incurred by the District resulting from its failure to produce a positive cash flow for each year of the Project.

- 20. CORRESPONDENCE.** JCI shall provide copies of all correspondence and/or other communications by and/or between it, the Architect, Consultants and/or the New York State Education Department contemporaneously with its transmission or receipt of such communications. JCI shall be responsible for assuring that the District received the transmittals and correspondence, maintaining all correspondence and turning over the same after project completion.
- 21. FORCE MAJEURE.** Neither party will be responsible to the other for damages, loss, injury, or delay caused by conditions that are beyond the reasonable control, and without the intentional misconduct or negligence of that party. Such conditions (each, a "Force Majeure") include, but are not limited to: acts of God; acts of government officials or agencies; quarantine restrictions; pandemics; fires; explosions or other casualties; riots or war; acts of terrorism; electrical power outages; or interruptions or degradations in telecommunications, computer, or electronic communications systems.
- 22. JCI'S PROPERTY.** Except as set forth in Schedule 1 – Scope of Work regarding materials to be furnished or installed as part of the Work, all materials and tools used by JCI personnel and/or JCI subcontractors or agents at the installation site, including documentation, schematics, test equipment, software and associated media, remain the exclusive property of JCI or such other third party. Customer agrees not to use such materials for any purpose at any time without the express authorization of JCI. Customer agrees to allow JCI personnel and/or JCI subcontractors or agents to retrieve and to remove all such materials remaining after installation or maintenance operations have been completed upon appointment during normal business hours. Customer acknowledges that any software furnished in connection with the Work and/or M&V Services is proprietary and subject to the provisions of any software license agreement associated with such software.
- 23. GOVERNING LAW.** The Agreement shall be governed and construed in accordance with the laws of the State of New York without regard to choice of law principles. The parties agree that the sole jurisdiction and venue for actions related to the subject matter hereof shall be the State and U.S. Federal courts in the County of Suffolk, New York. Both parties consent to the jurisdiction of such courts and waive any objections regarding venue in such courts.
- 24. MODIFICATIONS.** Additions, deletions, and modifications to this Agreement may be made upon the mutual agreement of the parties in writing. The parties contemplate that such modifications may include, but are not limited to, the installation of additional improvement measures, energy conservation measures, facility improvement measures, and operational efficiency improvements or furnishing of additional services within the identified facilities, as well as other facilities owned or operated by the Customer or the deletion or reduction of scope. These modifications may take the form of additional work or modifications to or deletion of the original scope of Work or Services.
- 25. TERMINATION.** Customer reserves the right to terminate this Agreement for any reason, or no reason whatsoever, upon thirty (30) days written notice to JCI. In the event of such termination, the parties shall endeavor in an orderly manner to wind down activities hereunder. In the event of termination, all reports and services due to the Customer must be completed by JCI, its employees, and/or agents within thirty (30) days of the termination date. Customer shall pay to JCI all undisputed amounts due for Work satisfactorily completed up to the date of termination.
- 26. WAGE AND HOURS PROVISIONS.** This is a public work contract covered by Article 8 of the Labor Law. Neither JCI's employees nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statutes, except as otherwise provided in the Labor Law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, JCI and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the Labor Law. Accordingly, JCI and each of its subcontractors shall comply with Prevailing Wage Rates as issued by the State of New York Department of Labor for the location and duration of this Project and shall comply with all requirements governing its payments to its employees as set forth in section 220 et. seq. of the New York State Labor Law. JCI must submit the required certified payrolls with its requests for payment. The Customer will not make any payment to JCI unless the completed certified payrolls are submitted to the Customer.
- 27. CONSENTS; APPROVALS; COOPERATION.** Whenever Customer's consent, approval, satisfaction or determination shall be required or permitted under this Agreement, and this Agreement does not expressly state

that Customer may act in its sole discretion, such consent, approval, satisfaction or determination shall not be unreasonably withheld, qualified, conditioned or delayed, whether or not such a "reasonableness" standard is expressly stated in this Agreement. Whenever Customer's cooperation is required by JCI in order to carry out JCI's obligations hereunder, Customer agrees that it shall act in good faith and reasonably in so cooperating with JCI and/or JCI's designated representatives or assignees or subcontractors. Customer shall furnish decisions, information, and approvals required by this Agreement in a timely manner so as not to delay the performance of the Work or M&V Services.

- 28. FURTHER ASSURANCES.** The parties shall execute and deliver all documents and perform all further acts that may be reasonably necessary to effectuate the provisions of this Agreement.
- 29. INDEPENDENT CONTRACTOR.** JCI is an independent contractor in all respects with regard to this Agreement. Nothing contained in this Agreement shall be deemed to create a partnership, joint venture, fiduciary, or similar relationship between the parties. Nothing in this Agreement shall be construed as reserving to Customer any right to exercise any control over or to direct in any respect the conduct or management of business or operations of JCI on the Customer's property. The entire control or direction of such business and operations shall be in and shall remain in JCI, subject only to JCI's performance of its obligations under this Agreement. Neither JCI nor any person performing any duties or engaged in any Work on the Customer's property on behalf of JCI shall be deemed an employee or agent of Customer. Nothing in this Section shall be deemed to be a waiver of the Customer's right to use its property. Customer and JCI are independent of one another and shall have no other relationship relating to or arising out of this Agreement. Neither party shall have or hold itself out as having the right or authority to bind or create liability for the other by its intentional or negligent act or omission, or to make any contract or otherwise assume any obligation or responsibility in the name of or on behalf of the other party.
- 30. NOTICE/SERVICE OF PROCESS.** In addition to the methods of service allowed by the New York State Civil Practice Law & Rules ("CPLR"), the parties hereby consent to service of process upon them by registered or certified mail, return receipt requested. Service hereunder shall be complete upon a party's receipt of process or upon the sending party's receipt of the return thereof by the United States Postal Service as refused or undeliverable. The parties must promptly notify each other, in writing, of each and every change of address to which service of process can be made. Service by a party to the last known address of the other party shall be sufficient.
- 31. COMPLIANCE WITH LAW.** JCI shall comply with and obtain, at its expense, all licenses and permits required by Federal, State and local laws, rules, regulations and ordinances in connection with the installation of the Improvement Measures. To the extent that JCI agrees to perform operations and/or maintenance of specified Improvement Measures or other equipment, it shall comply with and obtain, at its expense, all licenses and permits which may be required by Federal, state and local laws, rules, regulations and ordinances in connection with the operation and/or maintenance of such specified Improvement Measures. In the event that JCI cannot procure any such license or permit in light of a requirement that Customer is required to do so, Customer will procure the same at JCI's cost and expense. JCI shall comply with all applicable laws, ordinances, rules, regulations, and lawful orders of public authorities (collectively "Laws") in connection with its performance hereunder.
- 32. NON-APPROPRIATION.** Pursuant to New York State Energy Law section 109, et. seq. and 8 N.Y.C.R.R. 155.20, this Agreement shall be executory only to the extent of the monies appropriated and available for the purposes of this Agreement, and no liability on account therefor shall be incurred beyond the amount of such monies. It is understood that neither this Agreement nor any representation by any public employee or officer creates any legal or moral obligation to request, appropriate or make available monies for the purpose of the Agreement.
- 33. ASSIGNMENT.** The parties agree not to assign, transfer, convey or sublet or otherwise dispose of this Agreement nor any duties or obligations hereunder or rights, title and interest therein or power to execute such Agreement, to any other person, firm or corporation without the previous consent in writing of the other party; provided, however, that JCI may subcontract any portion of the Work to be performed hereunder in accordance with the provisions set forth herein. JCI may not assign any monies due or to become due to it pursuant to its Agreement with Customer without Customer's prior written consent. Any such assignment shall be in a form acceptable to Customer and the financial lending institution selected by the Customer, if necessary. If JCI attempts to make such an assignment without such consent from Customer, JCI shall nevertheless remain legally responsible for all obligations under its Agreement with Customer.

- 34. SUBCONTRACTING.** JCI shall provide the Customer with a list of subcontractors that it proposes to use in meeting its obligations hereunder; however, all subcontractors must be approved by Customer in writing and in advance. JCI shall meet with the Customer to review the list of proposed subcontractors before any work commences. Customer shall have the right to reject the use of any subcontractor in its sole discretion. Subcontractors will not be acceptable unless evidence is furnished that the proposed subcontractor has satisfactorily completed similar subcontracts as contemplated under this prime contract, and has the necessary experience, personnel, equipment, plant, and financial ability to complete the subcontract in accordance with the intent of this Agreement. JCI and its subcontractors will be required to wear photo identification and yellow safety vests at all times while on Customer's property. JCI and its subcontractors as necessary shall attend any meetings when reasonably required during the construction of the Project. By appropriate agreement, JCI shall require each subcontractor to be bound to JCI by the terms of this Agreement and shall further require its subcontractors to procure the required insurance as set forth herein at paragraph 15.
- 35. NOTIFICATIONS OF GOVERNMENTAL ACTION - Occupational Safety and Health.** The parties agree to notify each other as promptly as is reasonably possible upon becoming aware of an inspection under, or any alleged violation of, the Occupational Safety and Health Act or any other provision of Federal, state or local codes, laws, rule or regulation relating in any way to the undertakings of either Party under this Agreement. JCI represents and warrants that it will meet all applicable OSHA requirements applicable to this Agreement, including any required certification and training requirements for its employees and its subcontractors.
- 36. TRAINING.** JCI shall provide adequate training to Customer's employees to allow Customer or its employees to have sufficient knowledge with respect to the proper use and operation of the equipment and ECMs.
- 37. WAIVER.** The failure of either party to require compliance with any provision of this Agreement shall not affect that party's right to later enforce the same. It is agreed that the waiver by either party of performance of any other terms of this Agreement or of any breach thereof will not be held or deemed to be a waiver by that party of any subsequent failure to perform the same or any other term or condition of this Agreement or any breach thereof.
- 38. NON-DISCRIMINATION.** JCI agrees not to discriminate against any employee, or applicant for employment, to be employed in the performance of this Agreement, with respect to hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of age, sex, race, disability, color, religion, national origin, Vietnam era military service or ancestry in accordance with applicable Federal, New York State or local laws, rules, and ordinances.
- 39. INTERNATIONAL BOYCOTT.** In accordance with Section 220-f of the Labor Law and Section 139-h of the State Finance Law, if this Agreement exceeds \$5,000, JCI, as a material condition of the Agreement, represents that neither JCI nor any substantially owned or affiliated person, firm, partnership or corporation has participated, is participating, or shall participate in an international boycott in violation of the Federal Export Administration Act of 1979 (50 USC App. Sections 2401 et seq.) or regulations thereunder. If JCI, or any of the aforesaid affiliates of JCI, is convicted or is otherwise found to have violated said laws or regulations under the final determination of the United States Commerce Department or any other appropriate agency of the United States subsequent to the contractors execution, such contract, amendment or modification thereto shall be rendered forfeit and void. JCI shall so notify Customer within five (5) business days of such conviction, determination or disposition of appeal (2 NYCRR 105.4).
- 40. NON-COLLUSION.** JCI warrants, under penalty of perjury, that its proposal was arrived at independently and without collusion aimed at restricting competition. JCI further warrants that at the time it submitted its response to the Customer's RFP an authorized and responsible person executed and delivered to the Customer a valid non-collusive, certification on JCI's behalf.
- 41. SET OFF RIGHTS.** Customer shall have all of its common law, equitable and statutory rights of setoff. These rights shall include, but not be limited to, Customer's option to withhold for the purposes of set-off any moneys due to JCI under this Agreement up to any amounts due and owing to Customer with regard to this Agreement, any other contract with Customer, including any contract for a term commencing prior to the term of this Agreement, plus any amounts due and owing to Customer for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto. Customer shall exercise its set-off rights in accordance with normal Customer practices including, in cases of set-off pursuant to an audit, the finalization of such Customer audit by a State agency, its representatives, or the State Comptroller.

- 42. BOOKS; RECORDS.** JCI shall establish and maintain complete and accurate books, records, documents, accounts and other evidence directly pertinent to performance under this Agreement (hereinafter, collectively the "Records"). The Records must be kept for the balance of the calendar year in which they were made and for six (6) additional years thereafter or such longer period as may be required by applicable Law. The State Comptroller, the Attorney General, the Commissioner of Education, and any other person or entity authorized to conduct an examination, as well as the agency or agencies involved in this Agreement, shall have access to the Records during normal business hours at an office of JCI within the State of New York or, if no such office is available, at a mutually agreeable and reasonable venue within the State, for the term specified above for the purposes of inspection, auditing and copying. Customer shall take reasonable steps to protect from public disclosure any of the Records which are exempt from disclosure under Section 87 of the Public Officers Law provided that: (i) JCI shall timely inform an appropriate Customer official, in writing, that said Records should not be disclosed; and (ii) said Records shall be sufficiently identified; and (iii) designation of said Records as exempt under the statute is reasonable. Nothing contained herein shall diminish, or in any way adversely affect, either party's right to discovery in any pending or future litigation.
- 43. THIRD PARTY BENEFICIARIES.** This Agreement does not create, and shall not be construed as creating, any rights or interests enforceable by any person not a party to this Agreement.
- 44. CUSTOMER POLICIES.** It is understood and agreed that JCI, its employees, agents, subcontractors and employees of such agents and subcontractors, shall adhere to Customer's policies with respect to conduct on the Customer's property as well as any and all Federal, State, and local laws, rules, ordinances, regulations, Customer's policies and procedures applicable to construction projects on Customer's premises, to the extent such policies are provided to JCI in writing.
- 45. POWER AND AUTHORITY.** Each party represents and warrants to the other that (i) it has all requisite power and authority to execute and deliver this Agreement and perform its obligations hereunder, (ii) all corporate, board, body politic, or other approvals necessary for its execution, delivery, and performance of this Agreement have been or will be obtained, and (iii) this Agreement constitutes its legal, valid, and binding obligation, except as provided in Section 32 hereof.
- 46. SEVERABILITY.** In the event that any clause, provision, or portion of this Agreement or any part thereof shall be declared invalid, void, or unenforceable by any court having jurisdiction, such invalidity shall not affect the validity or enforceability of the remaining portions of this Agreement unless the result would be manifestly inequitable or materially impair the benefits intended to inure to either party under this Agreement.
- 47. COMPLETE AGREEMENT.** It is understood and agreed that this Agreement contains the entire agreement between the parties relating to all issues involving the subject matter of this Agreement. In the event that any of the terms of this Agreement, any schedule, attachment or appendix hereto, except for those terms of Attachment 6 which do not apply to JCI, and except for any scope of work provisions in the RFP, conflict with one another or with the terms of the Customer's RFP for District-wide implementation of Energy Conservation Measures on a Performance Contracting basis, the terms more favorable to Customer shall prevail. Notwithstanding anything to the contrary contained in the RFP or any of the other attachments or appendices hereto, no third-party construction manager is required. No binding understandings, statements, promises or inducements contrary to this Agreement exist. This Agreement supersedes and cancels all previous agreements, negotiations, communications, commitments and understandings with respect to the subject matter hereof, whether made orally or in writing. Each of the parties to this Agreement expressly warrants and represents to the other that no promise or agreement which is not herein expressed has been made to the other, and that neither party is relying upon any statement or representation of the other that is not expressly set forth in this Agreement. Each party hereto is relying exclusively on the terms of this Agreement, its own judgment, and the advice of its own legal counsel and/or other advisors in entering into this Agreement. Customer acknowledges and agrees that any purchase order issued by Customer associated with this Agreement is intended only to establish payment authority for Customer's internal accounting purposes. No purchase order shall be considered a counteroffer, amendment, modification, or other revision to the terms of this Agreement.
- 48. HEADINGS.** The captions and titles in this Agreement are for convenience only and shall not affect the interpretation or meaning of this Agreement.
- 49. COUNTERPARTS.** This Agreement may be executed in any number of counterparts, all of which when taken together shall constitute one single agreement between the parties.

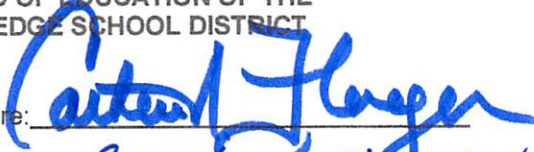
**50. NOTICES.** All notices or communications related to this Agreement shall be in writing and shall be deemed served if and when mailed by certified or registered mail: to Johnson Controls, Inc. at the address listed on the first page of this Agreement, ATTN: Regional Area General Manager, Performance Infrastructure, with a copy to Johnson Controls, Inc., ATTN: General Counsel – Building Solutions, North America, 507 East Michigan Street, Milwaukee, Wisconsin, 53202: and to Customer by mail or certified mail at the address listed on the first page of this Agreement.

**51. EXECUTION.** A copy of a signature on a facsimile and/or electronic transmission of this Agreement shall have the same force and effect as if it were an original signature.

IN WITNESS WHEREOF, the duly authorized officers or representatives of the Parties have set their hand on the date first written above with the intent to be legally bound.

BOARD OF EDUCATION OF THE  
PLAINEDGE SCHOOL DISTRICT

Signature: \_\_\_\_\_



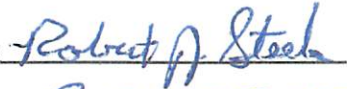
Printed Name: CATHERINE FLANAGAN

Title: BOE PRESIDENT

Date: 5/11/2021

JOHNSON CONTROLS, INC.

Signature: \_\_\_\_\_



Printed Name: ROBERT J. STEELE

Title: AREA GENERAL MANAGER

Date: 5-7-2021



**Construction Management**

All work set forth in the Agreement shall be coordinated with the Customer, approved by the Architect as set forth in the Agreement and attachments thereto and be carried out in accordance with this Agreement and all attachments and appendices hereto.

1. JCI will prepare and maintain an overall Project Management Plan and Construction Schedule which shall be provided to the Customer and Architect for approval. Updates will be provided by JCI to the Customer and the Architect on an on-going basis.
2. JCI shall maintain a staff to administer the contract terms and conditions with all project subcontractors.
3. JCI will provide coordination and total supervision of the work of separate ECMs ensuring enforcement of all contract provisions, compliance with energy initiatives, and timely completion of the project. All such work shall be coordinated with the Customer and the Architect and shall further be scheduled and coordinated with any capital improvements undertaken at the District facilities. JCI shall be responsible for scheduling and coordinating all work identified within Schedule 1 with any capital work being undertaken at the Customer's Facilities.
4. JCI shall establish and maintain coordination procedures, including project meetings and documentation process. JCI shall attend all project meetings as required by the Customer and/or the Architect.
5. JCI shall submit a site accessibility plan to the Customer, Architect and contractors/subcontractors to ensure continuous operation of school services and activities. All schedules and site accessibility plans require approval by the Customer and Architect.
6. JCI shall perform all inspection work necessary to assure the conformity to the plans and specifications until final completion and acceptance of the project by the Customer.
7. JCI shall coordinate post-completion activities including the assembly of guarantees, manuals, as-built drawings of all trade and subcontractors, and the Customer's final acceptance with the Architect. JCI shall coordinate training of the Customer's personnel by installers and vendors for the operations of the project with the Customer's Representative and Architect.
8. JCI shall coordinate all aspects of the project with the District-approved Architectural/Engineering firm, ECG Engineering P.C. ECG will prepare and submit all necessary design work to the New York State Education Department for approval in accordance with the terms of the Agreement between the District and Architect attached hereto at Attachment 6 and Appendix 1, Scope of Architectural Services.
9. JCI and its subcontractors will be required to wear photo identification at all times while on School District property.
10. JCI and its subcontractors shall attend Customer Committee meetings at the request of the Customer, if any, during the construction of the project and meetings related to the District's capital improvement projects being undertaken by the Customer. JCI shall be fully aware of any and all capital improvement projects undertaken by the District which may have an impact on the energy performance project. JCI hereby further certifies that it has reviewed and examined all prior energy performance contracts undertaken at the Customer's facilities and hereby warrants and represents that the ECM's to be installed under this energy performance contract in no way conflict with and/or overlap with any ECM provided under previous energy performance contracts.
11. In addition to the terms set for the herein, Appendix 2, Scope of Construction Services and the General Conditions delineate the terms and conditions of the construction services to be provided by JCI. JCI represents that it is aware of and bound by the terms and conditions of the services as provided said Appendices. Construction phase services will be performed according to the terms and conditions of Appendix 1, Scope of Architectural Services and Appendix 2, Scope of Construction Services.

## Schedule 1

12. Work will commence upon SED approval and the Customer's receipt of the necessary financing for the project. Hours of work shall be as set forth in paragraph six (6) of this Agreement. All costs incurred by the Customer, including overtime costs for District personnel, to make the facilities available during evening and weekends shall be borne solely by JCI.

## SCOPE OF WORK

**SUMMARY OF WORK:** The following summarizes the Work to be provided by JCI under this Agreement, as further defined below:

ECM #	Proposed Measures	Plainedge High School	Plainedge Middle School	Eastplain Elementary School	John H. West Elementary School	Charles E. Schwarting Elementary School	Plainedge Athletic Center
ECM 1	Lighting - Interior Retrofit	x	x	x	x	x	x
ECM 2	Lighting - Exterior Retrofit	x		x	x	x	
ECM 3	Building Envelope - Weatherization	x		x	x	x	
ECM 4	Building Envelope - Window Replacement	x					
ECM 5.1	Energy Management System - Temperature Setback	x		x	x	x	
ECM 5.2	Energy Management System - Demand Controlled Ventilation	x	x				
ECM 5.3	Energy Management System - Relief Damper Control	x					
ECM 6	Heating System - Furnace Controllers			x		x	x
ECM 7	Heating System - Pipe and Valve Insulation	x	x	x	x	x	
ECM 8	Energy Efficient Transformers		x				
ECM 9	Renewable Energy- Photovoltaic Generation	x	x		x	x	
ECM 10	Plug Load Controllers	x	x	x	x	x	x
ECM 11	Heating System - DHW Replacement		x				
ECM 12	AC Compressor Controllers	x		x		x	x

## GENERAL

All work to be undertaken and performed by JCI shall be performed in strict accordance with all applicable laws, rules, regulations and ordinances in effect at the time of contract signing. In the event that any applicable law, rule, regulation or ordinance is modified between the date of contract signing and the date of installation, JCI shall notify the Customer in writing. The parties shall meet to review such modifications prior to installation to determine whether a contract amendment is deemed necessary. In addition, all work undertaken by JCI shall be in strict accordance with the plans and specifications developed by the District Architect and approved by the SED. All work will be performed by JCI and its subcontractors in a neat and workman like manner.

***JCI shall be responsible for all removal, remediation and disposal of hazardous materials/wastes impacted by the scope of work included in this energy performance project, either directly or indirectly in accordance with paragraph 11 and the requirements set forth in the District's RFP. The guaranteed savings for the energy performance project must cover the costs for the removal, remediation and disposal of these hazardous materials/wastes. All necessary abatement work impacted by this scope shall be included.***

All work to be performed by JCI under this Agreement shall be certified and signed by the District's Architect of Record before submission to SED. As built drawings, as required and deemed necessary by the Customer and the Customer's Architect shall be provided for the ECMs installed by JCI.

The following scope of work is included in this Agreement and shall be supplied, installed and commissioned by JCI:

***ECM 1: Lighting – Interior Retrofit***

Johnson Controls will furnish and install energy efficient LED lighting in specified areas in the facilities listed in Attachment 4, Line by Line Survey, by retrofitting the existing fixture with new lamps and/or ballasts or by replacing with new lighting fixtures. Please refer to the detailed lighting survey in Attachment 4 for the retrofit type and locations.

***Demolition and Removal Work***

Existing lamps, ballasts and fixtures associated with the above-referenced scope of work will be removed and properly disposed according to all applicable, laws, rules and regulations.

***New Installation Work***

Johnson Controls will furnish necessary materials, labor and necessary equipment to complete the above Interior LED Retrofits. No reconfiguration of lighting systems is included. No repair, replacement or upgrade of existing indoor or exterior emergency and/or egress lighting system is included, unless otherwise noted in the Scope of Work.

**Exclusions:**

1. Repair or replacement of defective equipment, other than the equipment specifically described in the ECM description, unless said repair or replacement is required due to the acts or omissions of JCI. Johnson Controls will identify the location of defective equipment and notify Customer in writing.

***ECM 2: Lighting – Exterior Retrofit***

Johnson Controls will furnish and install energy efficient LED lighting in specified areas in the facilities listed in Attachment 4, Line by Line Survey, either by retrofitting the existing fixture with new lamps and ballasts or by replacing with new lighting fixtures. Please refer to the detailed lighting survey in Attachment 4 for the retrofit type and locations.

***Demolition and Removal Work***

Existing lamps, ballasts and fixtures associated with the above-referenced scope of work will be removed and properly disposed according to all applicable, laws, rules and regulations.

***New Installation Work***

Johnson Controls will furnish necessary materials, labor and necessary equipment to complete the above exterior LED Retrofits. No reconfiguration of lighting systems is included.

**Exclusions:**

1. Existing poles shall be used. Repair of wiring to or within existing poles is not included in this scope of work. Customer is responsible for said repairs, unless said repair or replacement is required due to the acts or omissions of JCI.
2. Repair or replacement of defective equipment, other than the equipment specifically described in the ECM description, unless said repair or replacement is required due to the acts or omissions of JCI. Johnson Controls will identify the location of defective equipment and notify Customer in writing.

***ECM 3: Building Envelope - Weatherization***

Johnson Controls shall furnish and install foam and caulking around structural leakage where appropriate as outlined below:

**Plainedge High School**

- 158' Buck Frame Air Sealing (Above Windows)
- 305' Roof-Wall Intersection Air Sealing

**Charles Schwarting School**

- 316' Buck Frame Air Sealing (Above Windows)

**Eastplain Elementary School**

- 336' Buck Frame Air Sealing (Above Windows)

**John West Elementary School**

- 264' Buck Frame Air Sealing (Above Windows)
- 12' Caulking around window (Interior Seal)
- 22' Overhang Air Sealing (Block, Seal)
- 479' Roof-Wall Intersection Air Sealing (Block, Seal Paint)

**Exclusions:**

- Repair or replacement of windows is excluded in this scope of work other than as described in the scope of work and unless said repair or replacement is required due to the acts or omissions of JCI. If any doors are found to be inoperable, or windows are found to be broken, JCI will report the deficiency to the Customer for in writing for repair or replacement prior to performing work.
- Repair or replacement of existing brick or other masonry materials/systems is excluded in this scope of work, unless said repair or replacement is required due to the acts or omissions of JCI.
- The scope of work does not include the repair or installation of any structural systems, unless said repair or installation is required due to the acts or omissions of JCI.

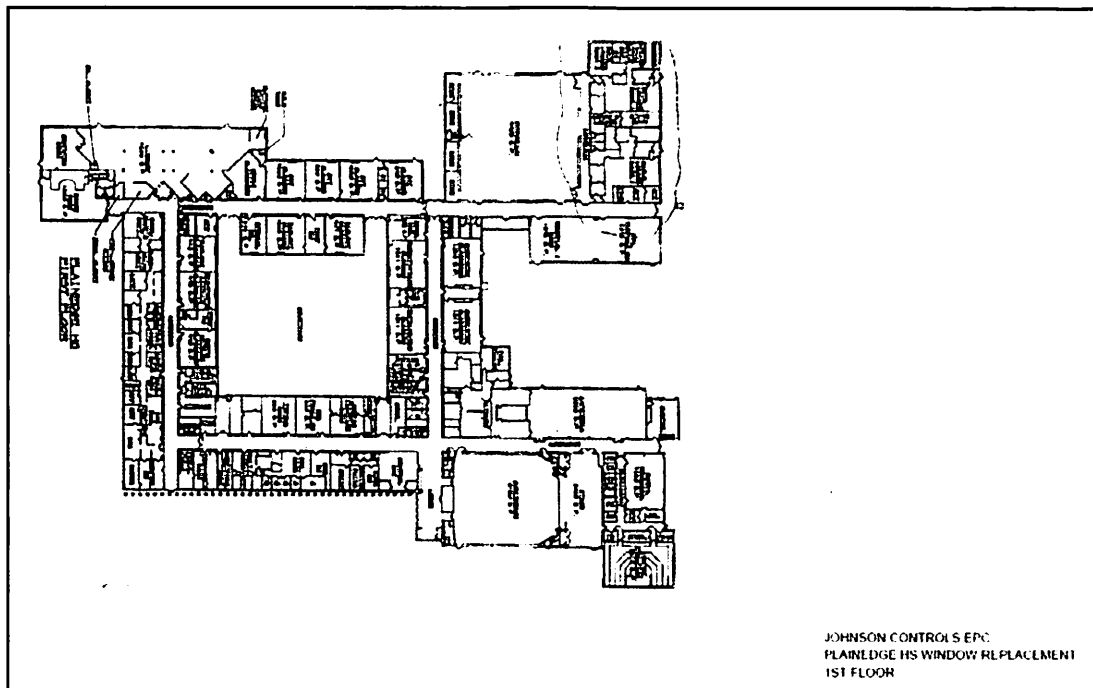
**ECM 4: Building Envelope – Window Replacement**

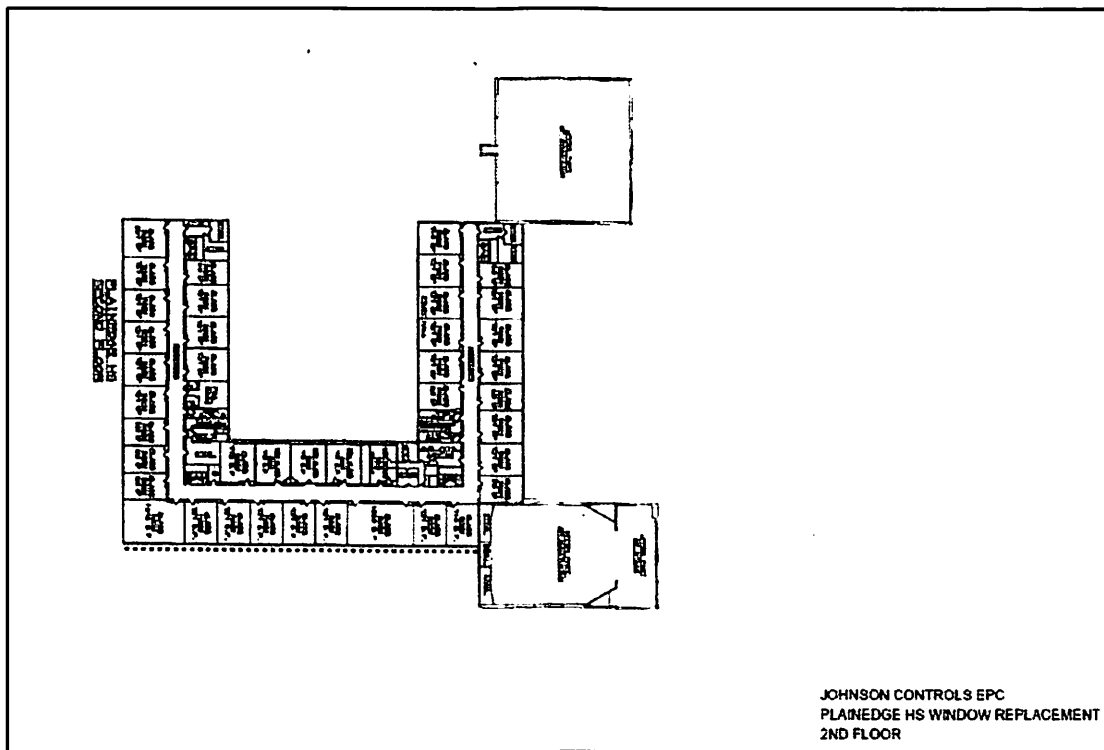
At Plainedge High School, Johnson Controls shall furnish and install new energy efficient window systems for the south elevation first and second floor windows from SW corner east to main entrance per the NYS Energy Code in effect at the time of NYSED approval.

Johnson Controls will also include new solar shades at this elevation.

Building	Window Area (SF)
Plainedge High School	3,057

Locations outlined on the floor plan below shows locations of the Window Replacement at the High School.:





### Scope of Work:

- Proposed windows to match existing configuration and window type.
- New windows to be 115 series 4700I double hung windows manufactured by Architectural Window.
- Project windows & accessories will match the new windows that are being installed on the west elevation.
- Glazing will be 1" insulated glass consisting of 1/8" clear annealed glass –TPS air space filled with Argon gas –1/8" tempered with Low "E" solar ban 60 glass.
- Insulated panels to consist of .032 smooth aluminum skins with a Kynar finish, 1/8" cement board stabilizers and a polyisocyanurate core.
- Any required interior restoration associated with removal of existing windows is included.
- Remove and dispose of existing blinds.
- Furnish and install new Draper Flex Shades Sunblock SB9040 with clear anodized hardware/fascia.
- Abatement of exterior window caulking is included.
- Abating caulk between frame and masonry ahead of removal.

### ECM 5: Energy Management System

#### Temperature Setback

Johnson Controls will include following scope of work as part of this EPC and eliminate pneumatics from the three elementary schools and the High School.

**Unit Ventilator DDC Conversions (includes fan coil units with OA ventilation):  
(Eastplain, John West, and Schwarting)**

- Provide DDC conversion to existing units, as listed in table below, including low voltage field wiring required for zone temperature sensor, auxiliary heat, and network connections.
- Impacted pneumatic devices shall be changed out with electric/electronic, including damper and valve actuators, sensors and relays, and power supplies such that the units will be fully DDC and no longer require a compressed air supply.
- Fabricate pre-wired controller assembly to include controller, mounting bracket, low-temperature cut-out relays, and terminal strip with printed identification.
- Unit ventilators shall be integrated onto the existing Facility Explorer BMS, and configured for control and monitoring by the system operator, historical data collection, and alarm routing.

**Unit Ventilator BMS Tie-in:  
(John West and Schwarting)**

Johnson Controls will tie-in existing Honeywell system-controlled Unit Ventilators, as listed in table below, to the Johnson Controls FX BMS system.

**Stand-alone Radiators, Baseboards, Convectors & Unit Heaters:  
(Eastplain, John West, Schwarting, and High School)**

- Provide full DDC conversion to existing units, as listed in table below, including all low voltage field wiring required for remote zone control panels, temperature sensors, valve actuators, and network connections.
- Existing pneumatic valves shall be refit with electronic actuators.
- Remote zone control panels (maximum 12 zones per panel) shall be shop-fabricated and shall include controllers, expansion modules, power supplies, terminal strips with printed identification, and panel ID tags of engraved acrylic.
- Zone controls shall be integrated onto the existing Facility Explorer BMS, and configured for control and monitoring by the system operator, historical data collection, and alarm routing.

**Unit Heaters, Cabinet Unit Heaters, and Recirculating Fan Coils:  
(Eastplain, John West, Schwarting, and High School)**

- Provide DDC conversion to existing units, as listed in table below, including all low voltage field wiring required for remote zone control panels, temperature sensors, valve actuators, and network connections.
- Existing pneumatic valves shall be refit with electronic actuators. Remote zone control panels (maximum 12 zones per panel) shall be shop-fabricated and shall include controllers, expansion modules, power supplies, terminal strips with printed identification, and panel ID tags of engraved acrylic.
- Zone controls shall be integrated onto the existing Facility Explorer BMS, and configured for control and monitoring by the system operator, historical data collection, and alarm routing.

**Replacement of Central Plant Hot Water Mixing Valve and Zone Control Valve Actuators:  
(Eastplain, John West, and Schwarting)**

- Convert existing pneumatic building hot water tempering valves, as listed in table below, from pneumatic to electric actuation.
- Remove existing actuator, refit new electric, tie back to existing BMS command and test.



**Replacement of Central Plant Hot Water Mixing Valve and Zone Control Valve Actuators:  
(High School)**

The central plant controls will have existing pneumatic control valve actuators, as listed in table below, upgraded to DDC type. All new control wiring shall be installed in Electric Metallic Tube (EMT).

The scope includes actuator upgrades of the existing, working valve bodies, and whole replacement of the defective valve assemblies. Work also includes all hardware as required to integrate the new valves back into the existing DDC controls.

Additionally, there are 2 main hot water mixing valves in the boiler room which are pneumatically actuated. These are to be converted to DDC control.

**Supervisory Controller:  
(High School)**

Provide one new supervisory controller (JCI FX80) to accommodate the additional memory overhead required by the proposed additions of scope identified in this measure and wellness center and café expansion being undertaken by Customer at High School.

The following table lists the controls to be upgraded as part of this scope:

<b>Scope</b>	<b>High School</b>	<b>Eastplain</b>	<b>John West</b>	<b>Schwartzing</b>	<b>Total</b>
Convert Boiler Rm Hot Water Mixing Valves to Elec. Actuation	2				2
Convert Electric Stand-Alone Cabinet Heaters to DDC/BMS			3	7	10
Convert Head Pressure Control Valves to Electric Actuation	7				7
Convert Honeywell XL50 Unit ventilators to JCI			19	18	37
Convert Pneumatic Convectors & UHs to DDC/BMS	97				97
Convert Pneumatic Convectors To DDC/BMS			17	4	21
Convert Pneumatic Relief Hoods to Electric/DDC Actuation	4				4
Convert Pneumatic Unit Vents To DDC		4	12	15	31
Refit HW Mixing Valve with Electric Actuation			1	1	2
Replace Defective Pneumatic Head Pressure Control Valve Assemblies, Replace with Elect/DDC Actuation	3				3
<b>Total</b>	<b>113</b>	<b>4</b>	<b>52</b>	<b>45</b>	<b>214</b>

***Demand Controlled Ventilation***

New controls will be installed to measure the concentration of CO<sub>2</sub> and vary the amount of outside air that is drawn into the space by modulating the outdoor and exhaust air dampers. New dampers controls will be installed to interface with the existing control system. The sensors will be able to provide the building owner with a trend to show concentrations over time.

At each location the following will be installed:

- Install new zone CO<sub>2</sub> transmitters to monitor CO<sub>2</sub> levels to provide an indication of occupancy in the area specified for use in demand-controlled ventilation.
- Install new outside air duct mounted CO<sub>2</sub> transmitter to monitor outdoor CO<sub>2</sub> levels.

## Schedule 1

- Wire CO2 transmitters to the existing DDC panel for the air handling unit(s).
- All CO2 installation work must be in accordance with applicable laws, rules, codes and regulations and requirements of the State Education Department.

Provide programming as required to reset the minimum outside air damper position based on the CO2 levels in the space.

On the units listed below, demand control ventilation strategies will be employed.

Building	Location	Area Served	Equipment Name	Supply Fan (HP)	Return Fan (HP)
Plainedge High School	Roof	Auditorium	HC-1	5	2
Plainedge High School	Roof	Auditorium	HC-2	5	2
Plainedge Middle School	Mechanical Room #1	Auditorium	AHU-B1	10	5
Plainedge Middle School	Mechanical Room #1	Auditorium	AHU-B2	10	5

### Relief Damper Control

Johnson Controls shall tie in relief dampers to the facilities' BMS to achieve energy savings.

The following scope of work will be performed:

#### Gravity Relief Vents

- Remove existing pneumatic damper actuators on roof-mounted vents
- Replace with new electric/DDC damper actuators on roof-mounted vents
- Extend existing signal from control panels to new actuators

Building	Relief Vents
Plainedge High School	4

### ECM 6: Heating System – Furnace Controls

Johnson Controls will furnish and install seven (7) Intelligent Control Systems ICON-3300 controllers furnace controllers at the following locations on existing, functioning furnaces.

Building	Gas Fired RTU Furnace Controllers
Schwarting School	1
Eastplain School	1
Athletic Center	5
<b>Total</b>	<b>7</b>

### ECM 7: Heating System – Pipe and Valve Insulation

Johnson Controls shall install pipe and valve insulation and/or thermal jackets based on specifications submitted to SED on existing hot water to reduce heat loss according to the table below.

## Schedule 1

The fiberglass pipe insulation shall be manufactured by Johns Manville or a manufacturer of equivalent type and quality (subject to Customer approval), and with PVC fitting covers where applicable. The removable insulated fiberglass pads on serviceable connections shall be made with Silicone Impregnated Fiberglass Cloth manufactured by GLT Products or a manufacturer of equivalent type and quality (subject to Customer approval).

The following table lists the items that will be insulated:

Scope	Charles Schwarting School	Eastplain Elementary School	John West Elementary School	Plainedge High School	Plainedge Middle School	Total Quantity
Ball Valve Insulation (Units)	2	1	4			7
Butterfly Valve Insulation (Units)	1					1
Check Valve Insulation (Units)					1	1
End Cap Insulation (Units)				1		1
Flange Insulation (Units)	1	1		5	10	17
Pipe Fitting Insulation (Units)	4			11	13	28
Pipe Reducer Insulation (Units)			2			2
Pump Insulation (Units)	4	5	4	6	5	24
Straight Pipe Insulation (LF)	10	6		72	20	108
Strainer Insulation (Units)	2		4			6

### ECM 8: Energy Efficient Transformers

Johnson Controls will replace the existing transformer installed at the locations specified, and furnish and install with new Hammond high efficiency transformers.

Building	Location	Equipment Manufacturer	Eq Model Number	Serial Number	Capacity	Notes
Plainedge Middle School	Main Electric Room	Cutler-Hammer	V48M28F55CU	J03G00629	500 kVA	5.5% IMP, PRI: 480 Delta, SEC: 208Y/120
Plainedge Middle School	Technology Elec. Closet C217	Cutler-Hammer	N48M28F33CU	J04D06701	300 kVA	3.4% IMP, PRI: 480 Delta, SEC: 208Y/120

Johnson Controls will install the following scope:

- Accept delivery of Transformers.
- Rigging of transformers from staging area to transformer location, new pads where needed.
- Disconnect and remove existing transformer as per table above and properly dispose in accordance with all laws, rules, codes and regulations.
- Install new high efficiency transformer of same size, utilizing existing feeds and grounds.
- Work will be coordinated with the site contact in advance to minimize interruptions. No temporary power will be provided.

**ECM 9: Renewable Energy – Photovoltaic Electric Generation**

Johnson Controls will furnish, install and commission a total of 1,454 kW roof mounted photovoltaic electrical generation systems as detailed in the table below that will interconnect with the existing electrical distribution system at the associated schools.

The following table identifies the PV sizes and installation type at each location:

<b>Locations</b>	<b>Roof Mounted PV (kW-DC)</b>
Plainedge High School	688.8
Plainedge Middle School	405.6
John H. West Elementary School	203.6
Charles E. Schwarting Elementary School	156.0
<b>Total</b>	<b>1454.0</b>

Installation includes the following specifications for new Roof Ballasted Systems:

- UL Certificate
- New wiring to meet the requirements of the 2017 National Electric Code (“NEC”), as amended.
- Solar Module to be 72 cell 400 watt JA Solar or equal and as approved by Customer’s Architect/Engineer.
- Inverters to be SMA or equal and as approved by Customer’s Architect/Engineer.
- Balance of new system to meet 2017 NEC Code, as amended.
- Required Interconnection to building system located as per 2017 NEC Code, as amended lineside tap as determined by the utility(ies) having jurisdiction.
- Unirac RM, Ecofoot or equal self-ballasted racking system
- Furnish and install required ballast block as per design.
- One time training for 4 hours to the District.
- District to support monitoring by supplying an IT drop to a gateway location and necessary IP addresses that the District will maintain for guarantee period.
- Protective slip sheet to meet roofing warranty certifications.

In the event that any of the building roofs are determined to be unsuitable for roof mounted PV arrays, Johnson Controls will attempt to move the arrays or portions of the arrays to another location that is suitable at any of the other buildings outlined above, subject to all necessary review and approvals and written approval of the Customer.

Johnson Controls shall install the new PV systems with existing roof manufacturer standards to maintain current and any new roof warranty(ies) as it relates to the solar panel installation. At impacted locations, existing structural steel, joists, roof decks, are anticipated to be adequate for solar panel installation. If during the design phase, the architect / engineer of record, ECG Engineering, P.C. encounters structural issues, with any of roofs, roof framing, JCI shall relocate the problem areas of solar arrays to a different location in order to maintain the 1,454 kW DC of total system size. JCI shall be fully responsible for coordinating its work with any ongoing capital work at the District. An adjustment to the guarantee may occur in form of Contract Amendment if the new location is on a different electric rate.

In the event that any of the proposed locations are determined to not be a viable option, the scope of work for this ECM shall be reduced subject to all necessary approvals, including Customer’s written approval by amendment and the costs associated with the reduced scope shall be credited to the Customer. The guaranteed savings shall also be adjusted accordingly by a formal written amendment to the Agreement. All adjustments require Customer’s written approval and must maintain a positive cash flow as set forth in the contract documents.

The weather station monitoring is included through the web-based dashboard as long as the internet IP address is maintained. The weather station includes a pyranometer at each location, one at each of the 4 schools. The irradiance value will be trended and logged into the cloud for 10 years. At the end of the 10 years, the Customer can elect to renew the monitoring service at an additional cost.

**Schedule 1**

Power to the building will be temporarily shut down by the utility for up to four (4) hours during the tie-in. Advanced coordination with the District will be required before the tie-in.

**Exclusions:**

1. Repair or replacement of defective electrical equipment and electrical distribution system, except the equipment described in the Scope of Work, unless said repair or replacement is required due to the acts or omissions of JCI. (Defective equipment identified by JCI during implementation of the Scope of Work will be brought to the attention of the Customer in writing).

**ECM 10: Plug Load Controllers**

Johnson Controls shall furnish and install 128 plug load management controllers that will gain control of specified plug load equipment listed below. The system will use an existing Wi-Fi network that will communicate to an energy management user interface. Through the user interface, equipment shall be monitored, scheduled and turned on / off. In areas where no Wi-Fi connection exists, plugs shall be programmed with the intended schedule for the equipment.

<b>Building</b>	<b>Window AC</b>	<b>Large Copy Machine</b>	<b>Water Fountain</b>	<b>Large Coffee Maker</b>
Plainedge High School	0	2	3	0
Plainedge Middle School	0	6	20	0
Eastplain School	16	1	1	1
Schwarting School	35	2	3	0
John West Elementary School	31	1	4	0
Athletic Center	0	0	2	0
<b>Total</b>	<b>82</b>	<b>12</b>	<b>33</b>	<b>1</b>

Following is the scope of work for the plug load controllers:

- Provide plug load control devices as per final schedule of outlets
- Install and connect devices
- Load and configure software on an owner designated head custodian PC
- Start, test, and checkout the system

**Exclusions:**

- Repair or replacement of defective plug load equipment, and the electrical distribution system and components, unless said repair or replacement is required due to the acts or omissions of JCI. (Defective equipment identified by JCI during implementation of the Scope of Work will be brought to the attention of the Customer in writing).

**ECM 11: Heating System – DHW Replacement**

Johnson Controls shall furnish and install one (1) AO Smith Model XP Plus 1250, domestic hot water heater at Plainedge Middle School.

- Remove existing hot water heater and dispose of properly
- Provide Pipe Supports, Hangers and Brackets
- Provide Valve Tags and ID Chart
- Provide Pipe Labeling and Directional Arrows

**Schedule 1**

- Provide new Replacement Re-circulation Bronze Pumps (DHW)
- Provide new Domestic Hot Water 3 Way Mixing Valves
- Furnish and install piping required.
- Insulate new piping and repair or replace insulation of point of connection as required
- Provide Required Electrical Control Wiring

**ECM 12: AC Compressor Controllers**

Johnson Controls shall furnish and install ten (10) nine Intelligent Control Systems ICON-2400 controllers on the existing, functioning, individual compressor units located in the buildings listed below:

Location	No. of Compressors
Plainedge High School	1
Schwarting School	1
Eastplain School	1
Athletic Center	7
<b>Total</b>	<b>10</b>

Building	Location	Equipment Name	Manufacturer	Model	Cooling Capacity (Tons)	Compressor Data	No. of Compressors
Plainedge High School	Roof	Split Condensing Unit	Trane	TTA090G300AA	7.5	25 RLA 164 LRA 208V	1
Charles E. Schwarting School	Roof	RTU	Trane	YSC090H3RHA02	7.5	25 RLA 164 LRA 208V	1
Eastplain Elementary School	Roof	RTU	Trane	YSC090H3RHA02	7.5	25 RLA 164 LRA 208V	1
Athletic Center	Roof	RTU	Carrier	48PGFC06-A-50YTM	5	17.6 RLA 123 LRA 208/230	1
Athletic Center	Roof	RTU	Carrier	48PGFC04-A-50YTM	3	11.5 RLA 77 LRA	1
Athletic Center	Roof	RTU	Carrier	48PGFC05-A-50YTM	4	14.6 RLA 91 LRA	1
Athletic Center	Roof	RTU	Carrier	48PGFC12-A-50YTM	10	17.6 RLA 123 LRA 208/230	2
Athletic Center	Roof	RTU	Carrier	48PGFC12-A-50YTM	10	17.6 RLA 123 LRA 208/230	2

**ASSURED PERFORMANCE GUARANTEE**

**A. Certain Definitions.** For purposes of this Agreement, the following terms have the meanings set forth below:

**Annual Project Benefits** are the portion of the projected Total Project Benefits to be achieved in any one year of the Guarantee Period.

**Annual Project Benefits Realized** are the Project Benefits actually realized for any one year of the Guarantee Period.

**Annual Project Benefits Shortfall** is the amount by which the Annual Project Benefits exceed the Annual Project Benefits Realized in any one year of the Guarantee Period.

**Annual Project Benefits Surplus** is the amount by which the Annual Project Benefits Realized exceed the Annual Project Benefits in any one year of the Guarantee Period.

**Baseline** is the mutually agreed upon data and/or usage amounts that reflect conditions prior to the installation of the Improvement Measures as set forth in Schedule 2, Exhibit 6 below.

**Guarantee Period** will commence on the first day of the next month following the Substantial Completion date and will continue for eighteen (18) years.

**M&V Services** means the services performed to monitor and report the performance relative to the guarantee defined in the Assured Performance Guarantee set forth in Schedule 2.

**M&V Services Period** will commence on the first day of the next month following the date of the Certificate of Substantial Completion and will continue for three (3) years, subject to earlier termination or extension as provided in this Agreement.

**Installation Period** is the period beginning on JCI's receipt of Customer's Notice to Proceed and ending on the commencement of the Guarantee Period.

**Measured 'ECM' Savings** are the utility savings and cost avoidance calculated in accordance with the methodologies set forth in Schedule 2, Exhibit 2 below.

**'Operation and Maintenance' Savings** are the O&M savings that is submitted to SED and will be verified on a one time basis during the first performance year.

**Guaranteed Rebate Project Benefits** are rebate dollars offered through the local utility for installing energy efficient equipment and guaranteed by JCI as set forth in Exhibit 4.

**Project Benefits** are the Measured Project Benefits plus the Operational and Maintenance Project Benefits to be achieved for a particular period during the term of this Agreement. M&V Services for the first three years shall be provided at no cost to the District.

**Total Project Benefits** are the Project Benefits to be achieved during the entire term of this Agreement.

**B. Guarantee Details**

The following Exhibits are attached and made part of this Schedule 2, Section B:

**Table 2.1.1: Exhibits Summary**

Exhibit 1	Total Project Benefits
Exhibit 2	Measurement and Verification Methodologies
Exhibit 3	Measured Project Benefits
Exhibit 4	Operational Cost Avoidance and Guaranteed Rebate Project Benefits
Exhibit 5	Change in Use or Condition
Exhibit 6	Baseline Calculations and Utility Rates
Exhibit 7	Primary Operations Schedules Pre & Post Retrofit
Exhibit 8	Measurement and Verification Services



**Exhibit 1: Total Project Benefits**

Subject to the terms and conditions of this Agreement, JCI and Customer agree that Customer will be deemed to achieve a total of \$1,024,794 in Operational and Maintenance Cost Avoidance, \$115,500 in guaranteed rebates from JCI and JCI further guarantees that Customer will achieve a total of \$9,428,069 in Measured Project Benefits during the term of this Agreement, for Total Project Benefits of \$10,568,363, as set forth in the Total Project Benefits table below.

**Total Project Benefits**

<b>Year</b>	<b>Utility Cost Avoidance* Measurable Savings</b>	<b>Operations &amp; Maintenance Cost Avoidance<sup>2</sup></b>	<b>Guaranteed Energy Rebate-Non Recurring Savings</b>	<b>Total Guaranteed Project Benefits</b>
1	\$440,311	\$56,933	\$115,500	\$612,744
2	\$449,117	\$56,933		\$506,050
3	\$458,099	\$56,933		\$515,032
4	\$467,261	\$56,933		\$524,194
5	\$476,606	\$56,933		\$533,539
6	\$486,139	\$56,933		\$543,072
7	\$495,861	\$56,933		\$552,794
8	\$505,779	\$56,933		\$562,712
9	\$515,894	\$56,933		\$572,827
10	\$526,212	\$56,933		\$583,145
11	\$536,736	\$56,933		\$593,669
12	\$547,471	\$56,933		\$604,404
13	\$558,420	\$56,933		\$615,353
14	\$569,589	\$56,933		\$626,522
15	\$580,981	\$56,933		\$637,914
16	\$592,600	\$56,933		\$649,533
17	\$604,452	\$56,933		\$661,385
18	\$616,541	\$56,933		\$673,474
<b>Totals</b>	<b>\$9,428,069</b>	<b>\$1,024,794</b>	<b>\$115,500</b>	<b>\$10,568,363</b>

<sup>1</sup> Utility Cost Avoidance is a Measured Project Benefit. Utility Cost Avoidance figures in the Table above are based on anticipated 2% increase in unit energy costs as set forth in the Tables at Exhibit 2.6.1 and 2.6.2.

<sup>2</sup>Operational and maintenance cost avoidance figures in the table above are based on anticipated 0% increase of material cost.

<sup>3</sup>See Exhibit 4 for guaranteed rebate source.

### Annual Measurement and Verification (M&V) Services

JCI shall provide M&V Services for a period of three (3) years starting on the first day of the month next following the date of the Certificate of Substantial Completion, provided that Customer may request an extension of the M&V Services Period for years 4-18 as set forth in Schedule 4. Within sixty (60) days of the commencement of the M&V Services Period, JCI will calculate the Measured Project Benefits achieved during the Installation Period plus any Operations & Maintenance Project Benefits applicable to such period and advise Customer of same in writing. Any Project Benefits achieved during the Installation Period shall inure to the benefit of the Customer and shall not be allocated to the Annual Project Benefits for the first year of the Guarantee Period. Within sixty (60) days of each anniversary of the commencement of the Guarantee Period, for so long as the M&V Services Period is in effect, JCI will calculate the Measured Project Benefits achieved for the applicable year plus any Operations & Maintenance Project Benefits applicable to such period and advise Customer of the same in writing. JCI agrees to provide a presentation of the Annual Measurement & Verification Report to the Customer at a public meeting annually for three years at the request of the Customer.

As set forth in the Certification provided by JCI to the NY State Education Department, JCI guarantees recovery of costs of the Agreement from energy savings realized by the Customer during a period of 18 years after Substantial Completion.

Customer acknowledges and agrees that if, for any reason during the initial agreed-upon M&V Services Period of three (3) years and any renewal period authorized by the Customer in years 4-18, it (i) cancels or terminates receipt of M&V Services, or (ii) cancels or terminates this Agreement, it shall be assumed (in accordance with Option A and Option B of the North American Energy Measurement and Verification Protocol (NEMVP)), and based upon the equipment continuing to operate in accordance with the specified criteria throughout the term of the Agreement, that the Annual Project Benefits will be met during each year of the Guarantee Period.

Customer further acknowledges and agrees that if, for any reason, it (i) fails to pay for M&V Services in accordance with Schedule 4 – Price and Payment Terms, (ii) fails to pay for M&V Services in accordance with Schedule 4 after receipt of a notice to cure within thirty (30) days, (iii) fails to fulfill any of Customer's responsibilities necessary to enable JCI to complete the Work and provide the M&V Services, including but not limited to Customer's failure to operate and maintain the equipment and/or systems pursuant to manufacturer instructions provided by JCI, or (iv) otherwise materially breaches this Agreement, JCI shall issue a written notice to the Customer stating the nature of the alleged breach and shall provide Customer with a twenty (20) day period to cure such breach. If the Customer fails to cure such breach within such twenty (20) day period, Customer acknowledges and agrees that the Assured Performance Guarantee shall automatically terminate.

### C. Project Benefits Shortfalls or Surpluses.

- (1) During the period in which JCI is providing M&V Services, the following shall apply:
  - (a) Project Benefits Shortfalls. If an Annual Project Benefits Shortfall occurs for any one year of the Guarantee Term, JCI shall (a) pay to Customer the amount of such shortfall, or (b) subject to Customer's written agreement, provide to Customer additional products or services, in the value of such shortfall, at no additional cost to Customer in accordance with all applicable laws, rules, codes and regulations.
  - (b) Project Benefits Surpluses. If an Annual Project Benefits Surplus occurs for any one year of the Guarantee Term, the surplus, in its entirety, shall inure to the benefit of the Customer and shall not be applied to any shortfall during any year of the Guarantee Term. In addition, any savings achieved during the installation phase shall inure solely to the benefit of the Customer.
- (2) Following the conclusion of the M&V Services Period, the following shall apply:
  - (a) If the Annual Project Benefits are met in each year during the period that M&V Services are provided, it shall be assumed (in accordance with Option A and Option B of the NEMVP, and based upon the equipment continuing to operate in accordance with specified criteria) that the Annual Project Benefits will be met during each year of the Guarantee Period.
  - (b) If there is an Annual Project Benefits Shortfall in any one year during the period that M&V Services are provided and such Shortfall is the result of the equipment not operating in accordance with

## Schedule 2

specified criteria, then Customer shall allow JCI access to the property to conduct repairs or make adjustments to the equipment as necessary to resolve the cause of the Shortfall. Once the cause of the Shortfall is resolved and payment of the shortfall is received by the Customer, it shall be assumed (based upon the equipment continuing to operate in accordance with the specified criteria) that the Annual Project Benefits will be met during each year of the Guarantee Period. If the Shortfall continues to exist notwithstanding the equipment operating in accordance with the specified criteria, JCI shall pay the amount of the Shortfall to Customer from the time the Shortfall occurred through the remainder of the Guarantee Period.

- (c) If there is an Annual Project Benefits Shortfall in any one year during the period that M&V Services are provided and such Shortfall is not the result of the equipment not operating in accordance with specified criteria, then JCI shall pay the amount of the Shortfall to Customer from the time the Shortfall occurred through the remainder of the Guarantee Period.

All payments to Customer for any Shortfall shall be payable to Customer in the form of a certified check.

**Exhibit 2: Measurement and Verification Methodologies**

The following is a brief overview of the measurement and verification methodologies applicable to the Improvement Measures set forth below. JCI shall use these methodologies as more fully detailed in the guidelines and standards of the North American Energy Measurement and Verification Protocol (NEMVP), in connection with the provision of M&V Services hereunder.

**NEMVP Option A****Potential to Perform Verification and Performance Calculation**

Option A is a verification approach designed for projects where the potential to perform needs to be verified, but the actual performance (savings) can be calculated based on the results of the “potential to perform and generate savings” verification and engineering calculations. Option A involves procedures for verifying that:

- Baseline conditions have been properly defined.
- The equipment and/or systems that were contracted to be installed have been installed.
- The installed equipment/systems meet the specifications of the contract in terms of quantity, quality and rating.
- The installed equipment is operating and performing in accordance with the specifications in the contract and meeting all functional tests.
- The installed equipment/systems continue, during the term of the contract, to meet the specifications of the contract in terms of quantity, quality and rating, operation and functional performance.

The potential to perform may be verified through inspections and/or spot or short-term metering conducted immediately before and/or immediately after project installation. Annual (or some other regular interval) inspections may also be conducted to verify an ECM's continued potential to perform and generate savings. Estimated factors used in calculations are supported by historical, published, or manufacturers' data. Savings are determined by means of engineering calculations of baseline and reporting period energy use based on measured and estimated values. With Option A, actual achieved energy or cost savings are not verified; they are predicted using engineering or statistical methods that do not involve long-term measurements. Reference: NEMVP Version 1.0

Measured Energy Cost Avoidance Project Benefits from the following ECMs will be calculated using Option A:

**Table 2.2.1: Option A Measures**

<b>ECM #</b>	<b>Energy Conservation Measure</b>	<b>M&amp;V Option</b>
1	Lighting - Interior Retrofit	A
2	Lighting - Exterior Retrofit	A
3	Building Envelope - Weatherization	A
4	Building Envelope - Window Replacement	A
6	Heating System - Furnace Controllers	A
7	Heating System - Pipe and Valve Insulation	A
8	Energy Efficient Transformers	A
10	Plug Load Controllers	A
11	Heating System - DHW Replacement	A
12	AC Compressor Controllers	A

**ECM 1: Lighting - Fixture Retrofit**

**M&V Option:** NEMVP-A (One Time)

**Measurement Boundary:** Retrofit isolation – Project savings will be determined within the measurement boundary that encompasses only the light fixtures subject to the lighting retrofit project.

**Measured Key Parameter:** kW

**Estimated Parameter:** Standard NY SED hours of operation as set forth at Exhibit 7 of Schedule 2.

**Interaction:** Lighting kw reduction leads to increase in heat energy usage during winter and decrease in cooling energy usage during summer. The net energy usage due interaction will be accounted during pre-retrofit and post-retrofit savings calculation.

**Measuring Equipment:** True-RMS Wattmeter (kw measurement) and light meter (light level measurement)

**Measuring Equipment Accuracy:**

True RMS Watt Meter:  $\pm 3\%$  of measurement range

Light Meter:  $\pm 3\%$  of measurement range

**Measuring Equipment Calibration:** Equipment will be quality checked for calibration at the time of measurement and documented in the M&V report.

**Measurement Period:** One-minute average

**Measurement Frequency:** One-time post-retrofit measurement. Inspection checks for remainder of M&V Services Period

**Measurement and Verification Details:**

**Sampling Procedure:**

To reduce M&V cost, all fixtures installed will not be measured, an effective NEMVP recommended sampling method will be used. Lighting fixture types that account for greater than 10% of the total fixtures installed will be measured. Lighting fixtures will be separated to homogenous groups and sampled to achieve  $\pm 20\%$  precision with 80% confidence assuming a 0.5 coefficient of variance.

**Measurement Procedure:**

True RMS power measurements will be taken at the light switch that energizes the circuit containing only the sampled fixtures.

**Quality Check Procedure:**

In order to ensure that a room is not under lit due to lighting kW reduction, a sample of light levels pre and post retrofit will be measured. This data will be compared against the ASHRAE/IES recommended light levels for each space usage type. The installation team will check the lighting installation line by line. The JCI M&V team will quality check the line by line and take photographs of sample spaces for documentation.

**Pre-Installation Activities:**

Pre-retrofit lighting kW will be analyzed and listed in the lighting line by line by location and fixture type. The kW data from the line by line will be used for pre-retrofit savings calculation. Pre-kW will be sampled and measured to validate the line by line. Light level will be quality checked.

**Post-Installation Activities:**

Post-kW measurements will be sampled and measured once after retrofit and will be used for remainder of the M&V Services Period. Light level will be quality checked one time. Inspection results and JCI warranty commitments will be communicated to the Customer in writing to maximize warranty benefits. Warranty claim procedure will be the responsibility of the Customer.

**Formulas and run hours in the DEA will be used to calculate the savings**

**ECM 2: Lighting - Exterior Lighting**

**M&V Option:** NEMVP-A (One Time)

**Measurement Boundary:** Retrofit isolation – Project savings will be determined within the measurement boundary that encompasses only the light fixtures subject to the lighting retrofit project.

**Measured Key Parameter:** kW,

**Verification Period & Frequency:** One time during post-retrofit year in Customer's presence.

**Measuring Equipment:** True-RMS Wattmeter (kW measurement) and light meter (light level measurement)

**Measuring Equipment Accuracy:**

True RMS Watt Meter:  $\pm 3\%$  of measurement range

Light Meter:  $\pm 3\%$  of measurement range

**Measuring Equipment Calibration:** Equipment will be quality checked for calibration at the time of measurement and documented in the M&V report.

**Measurement Period:** One-minute average

**Measurement Frequency:** One-time post-retrofit measurement. Inspection checks for remainder of M&V Services Period

**Measurement and Verification Details:**

**Sampling Procedure:**

To reduce M&V cost, all fixtures installed will not be measured, an effective NEMVP recommended sampling method will be used. Lighting fixture types that account for greater than 10% of the total fixtures installed will be measured. Lighting fixtures will be separated to homogenous groups and sampled to achieve  $\pm 20\%$  precision with 80% confidence with an assume 0.5 coefficient of variance.

**Measurement Procedure:**

True RMS power measurements will be taken at the panel that energizes the circuit containing only the sampled fixtures.

**Quality Check Procedure:**

In order to ensure that an area is not under lit due to lighting kw reduction, a sample of light levels pre and post retrofit will be measured. This data will be compared against the ASHRAE/IES recommended light levels for each area type. The installation team will check the lighting installation line by line. The JCI M&V team will quality check the line by line and take photographs of sample fixtures for documentation.

**Pre-Installation Activities:**

Pre-retrofit lighting kW uses NYSERDA values. These will be analyzed and listed in the lighting line by line by location and fixture type. The kw data from the line by line will be used for pre-retrofit savings calculation. Pre-kW will be sampled and measured to validate the line by line. Light level will be quality checked.

**Post-Installation Activities:**

Post-kW measurements will be sampled and measured once after retrofit and will be used for remainder of the M&V Services Period. Light level will be quality checked one time. Inspection results and JCI warranty commitments will be communicated to the customer to maximize warranty benefits Warranty claim procedure will be the responsibility of the Customer with the. Visual inspections of a sample of fixtures will occur annually.

**Formulas and run hours in the DEA will be used to calculate the savings**

**ECM 3: Building Envelope Improvements – Weatherization**

**M&V Option:** NEMVP-A (One Time)

**Measurement Boundary:** Retrofit isolation – Project savings will be determined within the measurement boundary that encompasses only the items that are subject to this building envelope improvement project.

**Interaction:** All thermal ECMs.

**Verification Equipment:** Infrared camera, thermal gun, and measuring tape

**Verification Period & Frequency:** One time during post-retrofit year in Customer’s presence and under appropriate weather conditions as agreed to by Customer.

**Pre-Installation Activities:**

A digital camera will primarily be used to document the pre-retrofit conditions. An infrared camera will be used to capture the thermo graphic image of pre-retrofit thermal leaks. Linear footage of weatherization will be measured using a measuring tape.

**Post-Installation Activities:**

A digital camera will primarily be used to document the post-retrofit conditions. An infrared camera will be used to capture the thermo graphic image of post retrofit thermal leaks. Linear footage of weatherization will be measured using a measuring tape. Visual inspections of a sample set for the remainder of the M&V services period.

**Formulas and values in the DEA will be used to calculate the savings**

**ECM 4: Building Envelope – Window Replacement**

**M&V Option:** NEMVP-A (One Time)

**Measurement Boundary:** Retrofit isolation – Project savings will be determined within the measurement boundary that encompasses only the windows subject to this project.

**Measured Parameters:** Solar heat gain coefficient and UV(A) (ultraviolet), Visible Light (VLT), and Near Infrared (NEAR IR) transmission values for a pre-retrofit and post-retrofit windows will be measured.

**Measuring Equipment:** Solar heat gain profiler

**Measuring Equipment Accuracy:** ±5% of measurement range

**Measuring Equipment Calibration:** Equipment will be quality checked for calibration at the time of measurement and documented in the M&V report.

**Measurement Period:** 10-second average

**Measurement Frequency:** One-time pre-retrofit measurement and One-time post-retrofit measurement.

**Measurement and Verification Details:**

***Measurement Procedure:***

The solar heat gain profiler will be placed across different areas of the measurement sample and 10-second averages will be taken. The results will be documented using photographs.

***Quality Check Procedure:***

The JCI M&V team will inspect the windows for quality workmanship and proper installation. Inspection results and JCI warranty commitments will be communicated to the customer to maximize warranty benefits. Warranty claim procedure will be the responsibility of the Customer.

**Pre-Installation Activities:**

Solar heat gain coefficient and UV(A) (ultraviolet), Visible Light (VLT), and Near Infrared (NEAR IR) transmission values for at least 5% of the pre-retrofit windows.

**Post- Installation Activities:**

Solar heat gain coefficient and UV(A) (ultraviolet), Visible Light (VLT), and Near Infrared (NEAR IR) transmission values for at least 5% of the post-retrofit windows.

**Formulas and values in the DEA will be used to calculate the savings**

**ECM 6: Heating System - Furnace Controllers**

**M&V Option:** NEMVP-A (One Time)

**Verification Boundary:** Retrofit isolation – Project savings will be determined within the measurement boundary that encompasses only the items that are subject to this furnace controller project.

**Verification Period & Frequency:** One-time the first post-retrofit year.

**Pre-Installation Activities:**

Verify that the furnace do not have any controllers installed on them.

**Post- Installation Activities:**

A digital camera will be used to document the post- retrofit conditions. Inspect and verify installed furnace



controllers to see if they meet the specifications of the contract in terms of quantity. Verify if they perform in accordance with functional tests.

**Formulas and values in the DEA will be used to calculate the savings**

**ECM 7: Heating Distribution System - Pipe and Valve Insulation**

**M&V Option:** NEMVP-A (One Time)

**Measurement Boundary:** Retrofit isolation – Project savings will be determined within the measurement boundary that encompasses only the items that are subject to this Pipe and Valve Insulation project.

**Verification Equipment:** Thermal gun (or infrared camera) and measuring tape

**Verification Frequency & Period:** One time during both pre-retrofit period and post-retrofit period

**Pre-Installation Activities:**

A thermal gun will be used to measure surface temperatures, or an infrared camera will be used to capture the thermo graphic image of pre-retrofit thermal leaks.

**Post- Installation Activities:**

Accuracy of the as built will be verified. A digital camera will be used to document the post-retrofit conditions. A thermal gun or an infrared camera will be used to verify installation. Visual inspections of a sample of insulation will occur annually.

**Formulas and values in the DEA will be used to calculate the savings**

**ECM 8: Energy Efficient Transformers**

**M&V Option:** NEMVP-A (One Time)

**Verification Boundary:** Retrofit isolation – Project savings will be determined within the measurement boundary that encompasses only the items that are subject to the transformer replacements project.

**Interaction:** All Electric ECMs.

**Verification Period & Frequency:** One-time kW pre and post measurements.

**Pre-Installation Activities:**

Measure kW of a sample set of transformers that will be replaced. Measurement will be the with approximately same loading before and after.

**Post-Installation Activities:**

A digital camera will be used to document the post- retrofit conditions. Inspect and verify the transformer installation to see if they meet the specifications of the DEA in terms of quantity, quality and rating. Verify if they perform in accordance with the functional specifications in the DEA and meeting all functional tests and provide commissioning report for each unit. Measure the Post kW of the same sample set of transformers from the premeasurements.

**Formulas and assumptions in the DEA will be used to calculate the savings**

**ECM 10: Plug Load Controllers**

**M&V Option:** NEMVP-A (One Time)

**Verification Boundary:** Retrofit isolation – Project savings will be determined within the measurement boundary that encompasses only the items that are subject to the Plug Load Management project.

**Interaction:** Electric ECMs

**Measured Key Parameter:** Operating Schedule

**Measuring Equipment:** BERT Controllers

**Measuring Equipment Calibration:** Equipment will be quality checked at the time of measurement and documented in the M&V report.

**Verification Period & Frequency:** One time two weeks prior to installation and one time two weeks after installation

**Pre-Installation Activities:** Once the Bert's are installed, they will be logging the equipment operation without any schedules for a two-week period.

**Post-Installation Activities:** A digital camera will be used to document the post- retrofit conditions. Inspect and verify the BERT installation to see if they meet the specifications of the contract in terms of quantity and functionality. Once the Bert plug controllers are installed, schedules are established and operational; we will collect usage schedule data for two-week period and compare it to the baseline to validate savings. An annual visual inspection of a sample of units will occur to ensure the equipment is still in place and operational.

**Formulas and assumptions in the DEA will be used to calculate the savings**

**ECM 11: Heating System - DHW Replacement**

**M&V Option:** NEMVP-A

**Measurement Boundary:** Retrofit isolation – Project savings will be determined within the measurement boundary that encompasses only the items that are subject to this DHW replacement project.

**Verification Period & Frequency:** One-time post-retrofit period. Inspection checks for rest of the Guarantee Period.

***Post-Installation Activities:***

The size and performance of the installed equipment as shown on the name plate will be verified against design specifications. A digital camera will be used to document the post-retrofit conditions.

**Formulas and values in the DEA will be used to calculate the savings**

**ECM 12: Air Conditioning Compressor Controllers**

**M&V Option:** NEMVP-A (One Time)

**Verification Boundary:** Retrofit isolation – Project savings will be determined within the measurement boundary that encompasses only the items that are subject to air conditioning compressor controller project.

**Interaction:** Electric ECMs.

**Verification Period & Frequency:** One time during both pre-retrofit period and post-retrofit period.

***Pre-Installation Activities:***

A digital camera will be used to document that a controller does not exist.

**Post-Installation Activities:**

A digital camera will be used to document the post- retrofit conditions. Inspect and verify the air conditioning compressor controller installation to see if they meet the specifications of the DEA in terms of quantity. Verify if they perform in accordance with the functional specifications in the contract and meeting all functional tests. An annual visual inspection of a sample of units will occur to ensure the equipment is still in place and operational.

**Formulas and assumptions in the DEA will be used to calculate the savings**

**NEMVP Option B**

**Potential to Perform Verification and Continuous Performance Measurement**

Option B is for projects where: i) the potential to perform and generate savings needs to be verified, and ii) actual performance during the term of the Agreement needs to be measured (verified). Option B involves procedures for verifying the same items as Option A plus actual achieved energy savings during the term of the Agreement.

Performance verification techniques involve engineering calculations with metering and monitoring. Option B:

- Confirms that the proper equipment/systems were installed and that they have the potential to generate the predicted savings
- Determines an energy (and cost) savings value using measured data taken as needed throughout the M&V term.

Methods employed in this option will involve the use of short or long-term measurement of one or more variables.

Reference: NEMVP Version 1.0

Measured Project Benefits from the following Conservation Measures will be calculated using Option B:

**Table 2.2.2: Option B Measures**

<b>ECM #</b>	<b>Energy Conservation Measure</b>	<b>M&amp;V Option</b>
5.1	Energy Management System - Temperature Setback	B
5.2	Energy Management System - Demand Controlled Ventilation	B
5.3	Energy Management System - Relief Hood	B
9	Renewable Energy- Photovoltaic Generation	B

**ECM 5.1: Energy Management System - Temperature Setback****M&V Option:** NEMVP-B (Continuous)**Measurement Boundary:** Retrofit isolation – Project savings will be determined within the measurement boundary that encompasses only the space temperatures and unit statuses affected by the energy project.**Measured Parameter:** Continuous measurement of a sample set of space temperatures, space temperature set points, outdoor air temperature, and unit statuses.**Interaction:** Demand Control Ventilation (DCV)**Measuring Equipment:** Energy Management System**Measurement Period:** 15-minute samples**Measurement Frequency:** Continuous measurement**Measurement and Verification Details:****Post-Installation Activities:**

Energy Management system will continuously monitor post-retrofit outdoor air temperature, space temperature, and unit status. The date-time stamp will be included to differentiate occupied/unoccupied and summer/winter periods. Johnson Controls will also monitor and record the setpoint changes during the Guarantee Period.

**Formulas and values in the DEA will be used to calculate the savings****ECM 5.2: Energy Management System - Demand Controlled Ventilation****M&V Option:** NEMVP-B (Continuous)**Measurement Boundary:** Retrofit isolation – Project savings will be determined within the measurement boundary that encompasses only the DCV ECM affected by the energy project.**Measured Parameter:** Continuous measurement of a sample set of CO2 levels and damper positions.**Interaction:** with temperature setback.**Measuring Equipment:** Energy Management System**Measurement Period:** 15-minute samples**Measurement Frequency:** Continuous measurement**Measurement and Verification Details:****Post-Installation Activities:**

Energy Management system will continuously monitor post-retrofit CO2 levels, outside air temperature, and outside air damper position. The date-time stamp will be included to differentiate occupied/unoccupied and summer/winter periods.

**Formulas and values in the DEA will be used to calculate the savings**

**ECM 5.3: Energy Management System - Relief Hood**

**M&V Option:** NEMVP-B (Continuous)

**Measurement Boundary:** Retrofit isolation – Project savings will be determined within the measurement boundary that encompasses only the Relief Hood; EF affected by the energy project.

**Measured Parameter:** Continuous measurement of damper open/closed status and occupancy status.

**Interaction:** with temperature setback.

**Measuring Equipment:** Energy Management System

**Measurement Period:** 15-minute samples

**Measurement Frequency:** Continuous measurement

**Measurement and Verification Details:**

**Post-Installation Activities:**

Energy Management system will continuously monitor damper open/closed status, fan status, and occupancy status. The date-time stamp will be included.

**Formulas and values in the DEA will be used to calculate the savings**

**ECM 9: Renewable Energy- Photovoltaic Electric Generation**

**M&V Option:** NEMVP-B (Continuous)

**Verification Boundary:** Retrofit isolation – Project savings will be determined within the measurement boundary that encompasses only the items that are subject to this photovoltaic electric generation project.

**Measuring Equipment:** PV dashboard will be capable of logging 15-minute interval data for kW, kWh and solar irradiance.

**Interaction:** Electrical System

Key Parameter	Measurement Frequency	Measurement Description (including sampling plan)
Electricity Generated (kW and kWh)	Continuous	The amount of electricity generated (kW and kWh) will be verified using data from the inverter. Measurements from all the panels installed by the project will be used.
Sunshine for Normalization (Measured as irradiance (kWh/m <sup>2</sup> ))	Continuous	<p>Average expected Irradiance data for Long Island, NY is used to calculate the contract savings.</p> <p>During the Guarantee Period, the actual Irradiance will be measured using a pyrometer. The value will be totalized, and the totalized value will be recorded on an hourly basis. Data will be reviewed at least quarterly.</p> <p>The actual generated power will be normalized using the expected irradiance assumption in the contract (shown in the Table below) and the actual measured irradiance.</p>

Month	Contract Assumption for Expected Horizontal Irradiance in Long Island, NY Area (kWh/m <sup>2</sup> )
January	61.6
February	80.3
March	129.7
April	147.1
May	169.3
June	178.4
July	185.4
August	162.8
September	133.4
October	99.4
November	61.0
December	53.8
<b>Annual</b>	<b>1462.2</b>

The energy production guarantee shall assume the monthly baseline (reference) solar irradiance as shown above. On a monthly basis, the average amount of electricity produced per kWh/m<sup>2</sup> of solar irradiance will be calculated and the savings will be adjusted accordingly:

The energy production guarantee shall assume the monthly baseline (reference) solar irradiance as shown above. On a monthly basis, the average amount of electricity produced per kWh/m<sup>2</sup> of solar irradiance will be calculated and the savings will be adjusted accordingly:

$$kWh_{Adjusted} = (kWh_{measured}) \left( \frac{kWh/m^2_{contract}}{kWh/m^2_{measured}} \right) (\%RSS_{adjusted})$$

Where kWh/m<sup>2</sup> is the irradiance. The achieved dollar savings shown in Table 2.3 are based on the rates shown in Exhibit 6.

$$\%RSS_{Month} = \left( \frac{Irradiance (kWh/m^2)_{Month}}{Irradiance (kWh/m^2)_{Total}} \right)$$

$$\%RSS_{adjusted} = \sum_{1-12}^{Month} (\%RSS_{Month}) \left( \frac{Days_{Month} - (Days_{offline}) \left( \frac{Panels_{offline}}{Panels_{total}} \right)}{Days_{Month}} \right)$$

Where %RSS<sub>month</sub> = Percentage of the total expected annual solar resource for that month  
 Days<sub>month</sub> = number of days in that month, Days<sub>offline</sub> = number of days each inverter is offline  
 Panels<sub>offline</sub> = number of panels offline, Panels<sub>total</sub> = total number of panels installed

kWh impact of any production factors that occur during the measurement period. Production factors are defined as events outside JCI control that has the effect of reducing kWh generation or failures in system operation due to maintenance that influences data collection and recording for complete and accurate data pertaining to production and weather. Other production factors include, but are not limited to, physical obstructions or interference with the solar irradiation of each array (i.e. over shadowing or shading), snow-frost-ice, utility grid outages, outages directed by the owner-customer, casualty events, Force Majeure events, theft, vandalism, equipment failure, DAS failure (lost connection or data), or utility system permit events (system disabled).

**Formulas and values in the DEA will be used to calculate the savings.**

**Exhibit 3: Measured Project Benefits**

Table 2.3 below defines and describes the ECMs included in this guarantee that comprise Measured Utility Cost Avoidance savings:

**Table 2.3: Measured Project Benefits Summary**

ECM	Energy Conservation Measures	Electric Savings			Thermal Savings		Total (\$)
		kW	kWh	\$/Year	MMBtu	\$/Year	\$/Year
ECM 1	Lighting - Interior Retrofit	162	603,383	\$103,563	(717)	-\$6,655	\$96,908
ECM 2	Lighting - Exterior Retrofit	0	8,084	\$1,195	0	\$0	\$1,195
ECM 3	Building Envelope - Weatherization	0	4,146	\$611	336	\$3,358	\$3,968
ECM 4	Building Envelope - Window Replacement	0	6,312	\$893	441	\$3,894	\$4,786
ECM 5.1	Energy Management System - Temperature Setback	0	55,958	\$8,154	902	\$9,148	\$17,301
ECM 5.2	Energy Management System - Demand Controlled Ventilation	0	18,969	\$2,555	1,148	\$9,995	\$12,551
ECM 5.3	Energy Management System - Relief Damper Control	0	0	\$0	139	\$1,229	\$1,229
ECM 6	Heating System - Furnace Controllers	0	0	\$0	72	\$733	\$733
ECM 7	Heating System - Pipe and Valve Insulation	0	0	\$0	301	\$2,727	\$2,727
ECM 8	Energy Efficient Transformers	7	45,676	\$6,188	0	\$0	\$6,188
ECM 9	Renewable Energy- Photovoltaic Generation	0	1,884,013	\$266,072	0	\$0	\$266,072
ECM 10	Plug Load Controllers	0	111,500	\$15,902	0	\$0	\$15,902
ECM 11	Heating System - DHW Replacement	0	0	\$0	1,042	\$9,000	\$9,000
ECM 12	AC Compressor Controllers	0	12,569	\$1,750	0	\$0	\$1,750
<b>TOTAL SAVINGS</b>		<b>169</b>	<b>2,750,608</b>	<b>\$406,882</b>	<b>3,664</b>	<b>\$33,428</b>	<b>\$440,311</b>

**Table 2.3.2: Detailed breakdown required by 8 N.Y.C.R.R. §155.20(d)(4)**



**Schedule 2**

**Table 2.3.2 represents the detailed breakdown set forth in 8 N.Y.C.R.R. §155.20(d). Said chart is subject to modification based upon review by SED. All modifications to this Table must be submitted to the Customer for its written approval.**

ECM #	Proposed Measures	Savings	Costs	SPB (yr.)
ECM 1	Lighting - Interior Retrofit	\$96,908	\$1,238,000	12.8
ECM 2	Lighting - Exterior Retrofit	\$1,195	\$7,300	6.1
ECM 3	Building Envelope - Weatherization	\$3,968	\$25,841	6.5
ECM 4	Building Envelope - Window Replacement	\$4,786	\$795,571	166.2
ECM 5.1	Energy Management System - Temperature Setback	\$17,301	\$854,669	49.4
ECM 5.2	Energy Management System - Demand Controlled Ventilation	\$12,551	\$31,937	2.5
ECM 5.3	Energy Management System - Relief Hood Control	\$1,229	\$40,290	32.8
ECM 6	Heating System - Furnace Controllers	\$733	\$6,664	9.1
ECM 7	Heating System - Pipe and Valve Insulation	\$2,727	\$21,559	7.9
ECM 8	Energy Efficient Transformers	\$6,188	\$71,919	11.6
ECM 9	Renewable Energy- Photovoltaic Generation	\$266,072	\$4,472,116	16.8
ECM 10	Plug Load Controllers	\$15,902	\$33,804	2.1
ECM 11	Heating System - DHW Replacement	\$9,000	\$100,724	11.2
ECM 12	AC Compressor Controllers	\$1,750	\$9,520	5.4

Annual Energy Savings	\$440,311
Annual Operations & Maintenance (O&M) Savings	\$56,933
Energy Engineering, SED Submission & General Conditions	\$837,670
Architect/Engineering Fees	\$384,641
Total Project Cost	\$8,932,224
Guaranteed Rebates	\$115,500
Simple Payback (Yrs)	17.73

\*\*The Architectural/Professional Fees as set forth at Schedule 4 are included within the above costs.

**Exhibit 4: Operational & Maintenance (O&M) & Rebate Project Benefits****Operational and Maintenance Cost Avoidance:****M&V Option: NEMVP-A**

For measures where the baseline (or boundary) is well understood, and measure operating hours are not currently expected to change, only the "change in equipment performance" is needed in order to calculate the savings (or cost avoidance).

Lighting Operational Cost Avoidance is calculated by comparing the existing lamp and ballast average failure rate and replacement cost with the proposed project replacement lamp and ballast average failure rate and replacement cost. Measure operating hours are not expected to change. The average annual savings for all schools is determined to be \$8,872.

Window Replacement Cost Avoidance is calculated by comparing the cost of repair of the existing windows versus the newly installed windows. The reduction in repairs of the windows is deemed to be the cost avoidance. The average annual savings for the window replacement is determined to be \$4,061.

Energy Management System Operational Cost Avoidance is calculated by comparing the cost of maintaining the existing pneumatic controls system and all associated components versus the new direct digital controls. The average annual savings for the Energy Management System is determined to be \$44,000.

**Total Operational Cost Avoidance: \$56,933**

*The O & M savings are based on the scope of work as well as discussions with the customer. Customer agrees that the O&M Project Benefits are reasonable and supportable, and that the installation of the Improvement Measures will enable Customer to take actions that will result in the achievement of such O&M Project Benefits.*

**Guaranteed Energy Rebates/Incentives:**

Rebates: \$115,500

**Total Rebates: \$115,500**

JCI will apply for utility company rebates programs at the time of application. JCI hereby guarantees the rebate amount of \$115,500, and if the Customer receives the rebate less than the guaranteed amount then JCI will pay the difference in rebates to the Customer within thirty (30) days. *All rebates and incentives shall inure to the benefit of Customer. All rebates and/or incentives shall be payable to Customer. JCI shall be responsible for assuring that said rebates/incentives and payments for rebate deficits are promptly distributed to Customer within the time periods specified in the cash flow statement at Attachment 10 as approved by the Customer. In the event that the guaranteed rebates are not received by the Customer within the time periods specified in the cash flow statements, JCI shall immediately pay to the District the amount of such rebate within the time period specified in the cash flow statement. Notwithstanding the foregoing, if (a) the rebate is not distributed to the Customer within the specified time period, (b) JCI therefore pays \$115,500 to the Customer and (c) the rebate is subsequently issued for the Project, the Customer shall transfer and pay to JCI the amount of such rebate, provided that the Customer retains any rebate amount in excess of \$115,500.*

*Accordingly, if the rebate amount is greater than \$115,500, such excess shall inure to the benefit of the Customer and such excess shall not be counted toward the Annual Project Benefits for any year of the Agreement or the Total Project Benefits. JCI shall be responsible for providing all documentation concerning rebates to the Customer and for providing the Customer with an accounting of all rebates applied for and received.*

**Exhibit 5: Changes in Use or Condition****ADJUSTMENT TO BASELINE  
AND/OR ANNUAL PROJECT BENEFITS**

Customer agrees to notify JCI, within fourteen (14) days, of (i) any actual or intended change, whether before or during the M&V Services Period, in the use of any facility, equipment, or Improvement Measure to which this Schedule applies; (ii) any proposed or actual expansions or additions to the premises or any building or facility at the premises except for those capital improvements for which JCI is aware of as of the date of the execution of this Agreement, including any capital project being undertaken by the Customer; (iii) a change to utility services to all or any portion of the premises; or (iv) any other change or condition arising before or during the M&V Services Period that reasonably could be expected to change the amount of Project Benefits realized under this Agreement.

Such a change, expansion, addition, or condition is defined as: (a) changes in the primary use of any facility, Improvement Measure, or portion of the premises; (b) changes to the hours of operation of any facility, Improvement Measure, or portion of the premises; (c) changes or modifications to the Improvement Measures or any related equipment; (d) changes to the M&V Services provided under this Agreement; (e) known failure of any portion of the premises to meet building codes; (f) changes in utility suppliers, utility rates, known method of utility billing, or method of utility purchasing; (g) insufficient or improper maintenance not in accordance with manufacturer requirements of the Improvement Measures or any related equipment at any facility or portion of the premises (other than by JCI); (h) changes to the Improvement Measures or any related equipment or to any facility or portion of the premises required by building codes or any governmental or quasi-governmental entity; or (i) additions or deletions of Improvement Measures or any related equipment at any facility or portion of the premises.

Upon receipt of such notice, or if JCI independently learns of any such change or condition, JCI shall calculate and send to Customer a notice of adjustment to the Baseline and/or Annual Project Benefits to reflect the impact of such change or condition, and the adjustment shall become effective as of the date the change or condition first arose provided, however that Customer shall have thirty (30) days following its receipt of the notice to review and approve such adjustment, which approval shall not be unreasonably withheld, conditioned or delayed.

**Exhibit 6: Baseline Calculations and Utility Rates**

The unit utility costs for the Baseline period are set forth below as “Base Utility Cost” and shall be used for all calculations made under this Schedule. The Base Utility Cost shall be escalated annually by the actual utility cost escalation, but such escalation shall be no less than the mutually agreed “floor” escalation rate of two percent (2%). The Base Utility Cost for each type of utility represents the 12-month average utility costs from July 2018 through June 2019, unless the time period used is otherwise modified by SED or requested by the Customer.

**Table 2.4.1: Baseline Electrical Consumption Data & Rates**

Building	Demand kW	Avg kW Cost	Electric Usage kWh	Usage kWh Cost	Unblended \$/kWh	Total Electric Cost
Plainedge High School	284	\$12.16	1,213,942	\$171,657	\$0.14	\$213,066
Plainedge Middle School	299	\$11.83	1,607,643	\$214,747	\$0.13	\$257,189
Eastplain Elementary School	93	\$11.70	313,764	\$46,449	\$0.15	\$59,538
John H. West Elementary School	117	\$12.65	390,631	\$58,767	\$0.15	\$76,567
Charles E. Schwarting Elementary School	105	\$12.24	297,760	\$44,223	\$0.15	\$59,663
Plainedge Athletic Center	34	\$14.51	69,920	\$9,471	\$0.14	\$15,347
<b>Totals</b>	<b>932</b>	<b>\$12.11</b>	<b>3,893,660</b>	<b>\$545,314</b>	<b>\$0.14</b>	<b>\$681,370</b>

The above rates shown in Table 2.4.1 will be known as **Floor Electrical Rates**, for the purpose of the Assured Performance Guarantee. The annual calculated electric rates are expected to increase every year. In the event that the annual rates are lower than the above baseline rates, the 2% escalated floor rates will be substituted for the annual calculated rate.

The Electric Rates will be averaged over the course of the one-year baseline period, as provided by Customer. In turn, the Incremental Electric Rate (IER), and the Demand Rate (DR) will be averaged annually over the course of the reporting periods, as reflected on actual utility invoices, for equitable cost avoidance savings reporting.

The following formula will be used to calculate the current reporting period Incremental Energy Rate (IER):

**FORMULA B-2**

<b>IER= <math>\square</math>TKC<sub>1-12</sub>+ <math>\square</math>TKWH<sub>1-12</sub></b>	
<b>Where:</b>	
<b>IER:</b>	Incremental Electrical Rate (Dollars per kWh)
<b><math>\square</math>TKC<sub>1-12</sub>:</b>	Sum Total of Monthly Electrical Utility Costs (Dollars) for kWh included Fuel Adjustment Cost and other related Energy Charges for Months 1 Through 12 of the current reporting period.
<b><math>\square</math>TKWH<sub>1-12</sub>:</b>	Sum Total of Monthly Electrical Incremental Use (kWh) for Months 1 Through 12 of the current reporting period.

The following formula will be used to calculate the current reporting period Incremental Demand Rate (DR):

FORMULA B-3

$DR = \frac{\sum TKC_{1-12}}{\sum TKWH_{1-12}}$	
<p>Where:</p>	
DR:	Demand Electrical Rate (Dollars per kW)
$\sum TKC_{1-12}$ :	Sum Total of Monthly Electrical Utility Costs (Dollars) for kW included Fuel Adjustment Cost and other related Energy Charges for Months 1 Through 12 of the current reporting period.
$\sum TKWH_{1-12}$ :	Sum Total of Monthly Electrical Demand Use (kW) for Months 1 Through 12 of the current reporting period.

**Table 2.4.2: Baseline Gas Consumption Data & Rates**

Building	Gas Usage Therms	Gas Cost	Cost per Therm
Plainedge High School	66,254	\$58,440	\$0.88
Plainedge Middle School	88,477	\$76,432	\$0.86
Eastplain Elementary School	27,188	\$25,902	\$0.95
John H. West Elementary School	25,254	\$25,598	\$1.01
Charles E. Schwarting Elementary School	23,503	\$23,917	\$1.02
Plainedge Athletic Center	8,138	\$8,499	\$1.04
<b>Totals</b>	<b>238,814</b>	<b>\$218,788</b>	<b>\$0.92</b>

The above rates shown above in Table 2.4.2 will be known as **Floor Natural Gas Rates**, for the purpose of the Assured Performance Guarantee. The annual calculated natural gas rates are expected to increase every year. In the event that the annual rates are lower than the above baseline rates, the 2% escalated floor rates will be substituted for the annual calculated rate.

The natural gas unit costs have been averaged over the course of the one-year period. In turn, unit costs will be averaged over the course of the reporting period, as reflected on utility invoices, for equitable cost avoidance savings reporting.

The following formulas will be used to calculate the current reporting period Fuel Rate(s) for Natural Gas:

**FORMULA G-1**

$NGR = \frac{\sum TGC_{1-12}}{\sum TGU_{1-12}}$	
<p>Where:</p>	
NGR:	Natural Gas Rate (\$/Therm)
$\sum TGC_{1-12}$ :	Sum Total of Monthly Gas Costs (\$)
$\sum TGU_{1-12}$ :	Sum Total of Monthly Gas Purchased (Therms) for Months 1 Through 12 of the reporting period.

**Table 2.4.3: Baseline Fuel Oil Consumption Data & Rates**

Building	Oil Usage (Gallons)	Oil Cost	Cost per Gallon
Plainedge High School			
Plainedge Middle School			
Eastplain Elementary School			
John H. West Elementary School	4,000	\$7,918	\$1.98
Charles E. Schwarting Elementary School			
Plainedge Athletic Center			
<b>Totals</b>	<b>4,000</b>	<b>\$7,918</b>	<b>\$1.98</b>

The above rates shown above in Table 2.4.3 will be known as the for the purpose of this Assured Performance Guarantee. The annual calculated FOR shall never go below the floor rate(s). For buildings that utilize both oil and gas a combined weighted average \$/MMBTU will be used in the savings calculations.

In the event that the annual rates are lower than the above baseline rates, the 2% escalated floor rates will be substituted for the annual calculated rate.

The Fuel Oil unit costs have been averaged over the course of the one-year period. In turn, unit costs will be averaged over the course of the reporting period, as reflected on utility invoices, for equitable cost avoidance savings reporting.

The following formulas will be used to calculate the current reporting period Fuel Rate(s) for Fuel Oil:

**FORMULA O-1**

<b>FOR = <math>\frac{\sum TGC_{1-12}}{\sum TGU_{1-12}}</math></b>	
Where:	
FOR:	Fuel Oil Rate (\$/Gallon)
$\sum TGC_{1-12}$ :	Sum Total of Monthly Oil Costs (\$)
$\sum TGU_{1-12}$ :	Sum Total of Monthly Oil Purchased (Gallons) for Mos. 1 – 12 of the reporting period

**Energy Conversion Conventions**

For purposes of this Guarantee the follow fuel conversions will apply:

- 1 CCF (100 cubic feet) of Natural Gas = 103,000 Btus (British Thermal Units)
- 1 Therm of Natural Gas = 100,000 Btus
- 1 MMBtu of Natural Gas = 1,000,000 Btus
- 1 Decatherm of Natural Gas = 1,000,000 Btus
- 1 Gallon of Fuel Oil = 139,000 Btus

**Exhibit 7: Primary Operations Schedule Pre & Post Retrofit**

**Table 2.5.1: District Wide Pre and Post Temperature Schedule & District wide Operational Schedule**

This Section documents the pre-retrofit and post-retrofit set points, building operation hours, equipment list, and building occupancy. The Customer understands that it needs to operate the post-retrofit building as documented in this section to achieve the guaranteed project savings.

**Building Space Temperature Set points:**

School/Building	Summer Inside Setpoint (F)			
	Existing Occupied	Existing Unoccupied	Proposed Occupied	Proposed Unoccupied
Plainedge High School	72	74	76	80
Plainedge Middle School	72	74	72	80
Eastplain Elementary School	72	74	76	80
John H. West Elementary School	72	74	76	80
Charles E. Schwarting Elementary School	72	74	76	80
Plainedge Athletic Center	72	74	76	80

School/Building	Winter Inside Setpoint (F)			
	Existing Occupied	Existing Unoccupied	Proposed Occupied	Proposed Unoccupied
Plainedge High School	72	68	70	55
Plainedge Middle School	72	68	70	55
Eastplain Elementary School	72	68	70	55
John H. West Elementary School	72	68	70	55
Charles E. Schwarting Elementary School	72	68	70	55
Plainedge Athletic Center	72	68	70	55

**Baseline and Post-Retrofit Occupancy / HVAC Schedules:**

**Building occupancy each day:**

School/Building	Existing			Proposed		
	Midnight - 8 AM	8 AM - 4 PM	4 PM - Midnight	Midnight - 8 AM	8 AM - 4 PM	4 PM - Midnight
Plainedge High School	2	8	4	2	8	4
Plainedge Middle School	2	8	4	2	8	4
Eastplain Elementary School	2	8	4	2	8	4
John H. West Elementary School	2	8	4	2	8	4
Charles E. Schwarting Elementary School	2	8	4	2	8	4
Plainedge Athletic Center	2	8	4	2	8	4

**Building occupancy each week:**

Day	Existing					
	Days of the week					
	Plainedge High School	Plainedge Middle School	Eastplain Elementary School	John H. West Elementary School	Charles E. Schwarting Elementary School	Plainedge Athletic Center
Monday	Occupied	Occupied	Occupied	Occupied	Occupied	Occupied
Tuesday	Occupied	Occupied	Occupied	Occupied	Occupied	Occupied
Wednesday	Occupied	Occupied	Occupied	Occupied	Occupied	Occupied
Thursday	Occupied	Occupied	Occupied	Occupied	Occupied	Occupied
Friday	Occupied	Occupied	Occupied	Occupied	Occupied	Occupied
Saturday	Occupied	Occupied	Unoccupied	Unoccupied	Unoccupied	Occupied
Sunday	Unoccupied	Unoccupied	Unoccupied	Unoccupied	Unoccupied	Unoccupied

Day	Proposed					
	Days of the week					
	Plainedge High School	Plainedge Middle School	Eastplain Elementary School	John H. West Elementary School	Charles E. Schwarting Elementary School	Plainedge Athletic Center
Monday	Occupied	Occupied	Occupied	Occupied	Occupied	Occupied
Tuesday	Occupied	Occupied	Occupied	Occupied	Occupied	Occupied
Wednesday	Occupied	Occupied	Occupied	Occupied	Occupied	Occupied
Thursday	Occupied	Occupied	Occupied	Occupied	Occupied	Occupied
Friday	Occupied	Occupied	Occupied	Occupied	Occupied	Occupied
Saturday	Occupied	Occupied	Unoccupied	Unoccupied	Unoccupied	Occupied
Sunday	Unoccupied	Unoccupied	Unoccupied	Unoccupied	Unoccupied	Unoccupied



Building occupancy each month:

Month	Existing					
	Weeks Per Month					
	Plainedge High School	Plainedge Middle School	Eastplain Elementary School	John H. West Elementary School	Charles E. Schwarting Elementary School	Plainedge Athletic Center
Jan	4.43	4.43	4.43	4.43	4.43	4.43
Feb	4.00	4	4	4	4	4
Mar	4.43	4.43	4.43	4.43	4.43	4.43
Apr	4.29	4.29	4.29	4.29	4.29	4.29
May	4.43	4.43	4.43	4.43	4.43	4.43
Jun	4	4	4	4	4	4
Jul	0	4	0	0	0	0
Aug	0	1	0	0	0	0
Sep	4.29	4.29	4.29	4.29	4.29	4.29
Oct	4.43	4.43	4.43	4.43	4.43	4.43
Nov	4.29	4.29	4.29	4.29	4.29	4.29
Dec	4.43	4.43	4.43	4.43	4.43	4.43

Month	Proposed					
	Weeks Per Month					
	Plainedge High School	Plainedge Middle School	Eastplain Elementary School	John H. West Elementary School	Charles E. Schwarting Elementary School	Plainedge Athletic Center
Jan	4.43	4.43	4.43	4.43	4.43	4.43
Feb	4.00	4	4	4	4	4
Mar	4.43	4.43	4.43	4.43	4.43	4.43
Apr	4.29	4.29	4.29	4.29	4.29	4.29
May	4.43	4.43	4.43	4.43	4.43	4.43
Jun	4	4	4	4	4	4
Jul	0	4	0	0	0	0
Aug	0	1	0	0	0	0
Sep	4.29	4.29	4.29	4.29	4.29	4.29
Oct	4.43	4.43	4.43	4.43	4.43	4.43
Nov	4.29	4.29	4.29	4.29	4.29	4.29
Dec	4.43	4.43	4.43	4.43	4.43	4.43

**Exhibit 8: Measurement & Verification Services**

JCI will provide the M&V Services set forth below in connection with the Assured Performance Guarantee.

1. During the Installation Period, a JCI Performance Engineer will track Measured Project Benefits. JCI will report the Measured Project Benefits achieved during the Installation Period, to Customer within 60 days of the commencement of the Guarantee Period.
2. During the M&V Services, Period, within 60 days of each anniversary of the commencement of the M&V Services Period, JCI will provide Customer with an annual written report containing:
  - A. an executive overview of the project's performance and Project Benefits achieved to date;
  - B. a summary analysis of the Measured Project Benefits accounting; and
  - C. depending on the M&V Option, a detailed analysis of the Measured Project Benefits calculations.
3. During the M&V Services Period, a JCI Performance Engineer will monitor the on-going performance of the Improvement Measures, as specified in this Agreement, to determine whether anticipated Measured Project Benefits are being achieved. In this regard, the Performance Engineer will periodically assist Customer, on-site or remotely, with respect to the following activities:
  - A. review of information furnished by Customer from the facility management system to confirm that control strategies are in place and functioning;
  - B. advise Customer's designated personnel of any performance deficiencies based on such information;
  - C. coordinate with Customer's designated personnel to address any performance deficiencies that affect the realization of Measured Project Benefits; and
  - D. inform Customer of opportunities to further enhance project performance and of opportunities for the implementation of additional Improvement Measures.
4. For specified Improvement Measures utilizing an "Option A" M&V protocol, JCI will:
  - A. conduct pre and post installation measurements required under this Agreement;
  - B. analyze actual as-built information and adjust the Baseline and/or Measured Project Benefits to conform to actual installation conditions (e.g., final lighting and water benefits calculations will be determined from the as-built information to reflect the actual mix of retrofits encountered during installation).
5. For specified Improvement Measures utilizing an "Option B" M&V protocol, JCI will:
  - A. confirm that the appropriate metering and data points required to track the variables associated with the applicable Improvement Measures' benefits calculation formulas are established; and
  - B. set up appropriate data capture systems (e.g., trend and totalization data on the facility management system) necessary to track and report Measured Project Benefits for the applicable Improvement Measure.
  - C. Trend data records maintained in the ordinary course of system operation shall be used and relied upon by Johnson Controls to in connection with Project Benefit calculations. JCI will use commercially reasonable efforts to ensure the integrity of the data collected to calculate the required savings. In the event data are lost due to equipment failure, power failure or other interruption in data collection, transmission or storage, JCI will immediately advise the Customer in writing and if agreed upon by the Customer, use reasonable engineering methods to estimate the or replace the impact of the lost data.

**CUSTOMER RESPONSIBILITIES**

In order for JCI to perform its obligations under this Agreement with respect to the Work, the Assured Performance Guarantee, and the M&V Services, Customer shall be responsible for:

1. Providing JCI, its subcontractors, and its agents reasonable and safe access to all facilities and properties that are subject to the Work and/or M&V Services;
2. Providing for shut down and scheduling of affected locations during installation, including timely shutdowns of chilled water and hot water systems as needed to accomplish the Work and/or M&V Services; provided said shutdowns shall not interrupt Customer's daily operations.
3. Providing assistance to JCI in obtaining any permits, approvals, and licenses required under this Agreement [Note: JCI is responsible for obtaining all permits as per the terms of the Agreement that are JCI's responsibility to obtain as set forth in Schedule 1];
4. Properly maintaining, and performing appropriate preventative maintenance on, all equipment and building systems affecting the Assured Performance Guarantee in accordance with manufacturers' standards and specifications and training provided by JCI;
5. Providing the utility bills, reports, and similar information reasonably necessary for administering JCI's obligations under the Assured Performance Guarantee within fifteen (15) days of Customer receipt and/or generation or JCI's request therefor; and
6. Providing all records relating to energy and/or water usage and related maintenance of the premises and relevant equipment requested by JCI;

## PRICE AND PAYMENT TERMS

Customer shall make payments to JCI pursuant to this Schedule 4.

**Total Project Costs.** The total cost of the Project, including payment for JCI and the Architect of Record, is \$8,932,224 and is broken down as follows:

Johnson Controls, Inc.:	\$8,547,583
ECG Engineering, P.C.:	\$384,641

1. **Payments shall be made to JCI as follows:** within fifteen (15) days after execution of this Agreement, JCI shall submit for the Architect's review and approval a Schedule of Values for all of the Work to be performed under the Agreement. Such Schedule will (i) subdivide the Work into its respective parts; (ii) include values for all items comprising the Work; and (iii) serve as the basis for monthly progress payments made to JCI throughout the Work. The Work will commence upon approval of SED, the securing of the necessary financing by the Customer for the Work and the Customer's receipt of all necessary documents, including the final cash flow statement.

Customer shall make payment to JCI against monthly invoices for work completed and approved in accordance with the agreed upon Schedule of Values. Payments will be made on a progress payment basis for work completed and accepted by the Customer and the Architect using the AIA format. JCI must attach certified payrolls to each application for payment, together with supporting documents as required by the Customer and Architect. All communications related to payment for work performed shall be directed to the Customer. Under no circumstance, shall JCI contact the Customer's financial representatives or selected financial institutions.

The District shall withhold three percent (3%) of the total Work completed and stored. Upon reaching Substantial Completion, as defined in the Agreement, retainage shall be reduced to two percent (2%), which remaining retention shall be released at Final Completion.

2. **Payments for Architectural/Engineering Services.** JCI shall be responsible for making payments for Architectural/Engineering services directly to Architect as set forth herein. The total fee to be paid to the Architect is \$384,641. JCI will make payments to the Architect according to the following schedule:
  - a. 25% upon District signing contract with JCI.
  - b. 35% upon submittal of plans and specifications to NYSED.
  - c. 20% upon approval of plans and specifications to NYSED.
  - d. 20% upon completion of post-construction services.
  - e. At the completion of post-construction services, the Customer shall withhold the amount of \$5,000 from the Architect's final payment identified above. In accordance therewith, the owner will direct JCI to deduct \$5,000 from the last invoice submitted by the engineer. The Customer will further require JCI to issue payment for the remaining \$5,000 directly to the owner. This amount shall be paid to the Architect by the Customer upon completion of its evaluation of the actual energy savings realized at the conclusion of the first and second year of the Guarantee Period. The Architect will receive two (2) annual payments of \$2,500 in connection with these services. Such payments shall be issued by the owner within thirty (30) days of the Customer's receipt of the Architect's evaluation report.

## Schedule 4

- f. In the event that the selected ESCO fails to make payment for engineering services within 45 days of receipt of an invoice from ECG, the ESCO, the ESCO shall be charged a late payment penalty of 1% per month.
3. **M&V Services.** JCI shall provide M&V Services for the project from the construction period through Year 3 at no additional cost to the Customer.

The Customer may request additional years of M&V Services beyond Year 3 annually for years 4-18 at the annual rate set forth below. This schedule of costs is not included in the Total Project Cost of the energy performance contract set forth above.

Year	M&V Services
4	\$31,089
5	\$31,089
6	\$31,089
7	\$31,089
8	\$31,089
9	\$31,089
10	\$31,089
11	\$31,089
12	\$31,089
13	\$31,089
14	\$31,089
15	\$31,089
16	\$31,089
17	\$31,089
18	\$31,089

NOTICE TO PROCEED

Johnson Controls, Inc.  
6 Aerial Way  
Syosset, New York

ATTN: Danny Haffel

Re: Notice to Proceed for Plainedge School District Performance Contract

Dear Mr. Haffel:

This Notice to Proceed is being issued by Plainedge School District ("Customer") to Johnson Controls, Inc. ("JCI") pursuant to that certain Performance Contract entered into between Customer and JCI for the purpose of notifying JCI to commence work under such contract. This Notice to Proceed shall not relieve JCI of its responsibility to perform any and all duties, tasks and/or obligations required by the Agreement, as may be amended, that may be required prior to commencement of the Work.

By signing and dating this Notice to Proceed, the parties hereto agree to these terms and represent and warrant they have the authority to execute this Notice to Proceed on behalf of their respective organizations.

BOARD OF EDUCATION OF THE  
PLAINEDGE SCHOOL DISTRICT

Signature: \_\_\_\_\_



Printed Name: \_\_\_\_\_

CATHERINE FLANAGAN

Title: \_\_\_\_\_

BOE PRESIDENT

Date: \_\_\_\_\_

5/11/2021

ACKNOWLEDGED & AGREED TO:

JOHNSON CONTROLS, INC.

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**CHANGE ORDER  
AIA G701 Change Order Form to be used**

**CERTIFICATE OF SUBSTANTIAL COMPLETION  
AIA G704 Form to be used**



CERTIFICATE OF FINAL COMPLETION

**PARTIES:** JOHNSON CONTROLS, INC. ("JCI")  
6 AERIAL WAY  
SYOSSET, NEW YORK 11791

BOARD OF EDUCATION OF THE  
PLAINEDGE SCHOOL DISTRICT ("Customer")  
241 WYNGATE DRIVE  
BOX 1669  
NO. MASSAPEQUA, NY 11758

**PROJECT:** PLAINEDGE SCHOOL DISTRICT; Performance Contract dated [redacted], 20 [redacted] between JCI and Customer

By executing this Certificate of Final Completion, Customer acknowledges the following:

- a. The work set forth in the Performance Contract has been reviewed and determined by Customer to be fully complete.

The Work performed under this performance contract has been reviewed and found to be complete. The date of final completion of the Project designated above is hereby established as \_\_\_\_\_. In accordance with the Agreement documents, based upon on-site observations and all data submitted in connection with the Project, the Architect certifies to Customer that to the best of the Architect's knowledge, information and belief, the Work has progressed as indicated, the quality of the Work is in accordance with the Agreement documents, and JCI is entitled to payment in accordance with the Agreement documents.

Amount Certified: \_\_\_\_\_

ECG Engineering, LLC.

By: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Dated [redacted], 20 [redacted].

**BOARD OF EDUCATION OF THE  
PLAINEDGE SCHOOL DISTRICT**

Signature: *Catherine Flanagan*

Printed Name: CATHERINE FLANAGAN

Title: 5/11/2021

**JOHNSON CONTROLS, INC.**

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

**Lighting Survey line-by-line "Plainedge Schools Rev-G (1-20-2021)"**

**Customer's Request for Proposals ("RFP")**

**Contract between Customer and ECG Engineering, P.C.**

**JCI proposal in response to Customer's RFP**

**Detailed Energy Audit**

**Customer's AHERA Reports and Asbestos Ceiling Tile Surveys**

**Pro Forma Cash Flow "May 6, 2021"**



**Scope of Architectural Services**

