

## PERFORMANCE CONTRACT

This Performance Contract (this "Agreement") is made this \_\_\_\_ day of \_\_\_\_\_, 20\_\_  
between:

### PARTIES

JOHNSON CONTROLS, INC. ("JCI")  
6A Aerial Way  
Syosset, NY – 11791

and

ISLAND TREES SCHOOL DISTRICT ("Customer")  
74 Farmedge Road 2nd Floor  
Levittown, New York 11756

### 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 (the "Improvement Measures") described therein; and

WHEREAS, Customer is authorized and empowered under applicable Laws (as defined below) to enter into this Agreement, and has taken all 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:

### AGREEMENT

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 2.A.) 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). JCI shall pay for all labor, materials, equipment, tools, construction equipment and machinery, transportation and other facilities and services necessary for the proper installation, execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work. JCI shall supervise and direct the Work and shall be solely responsible for all construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the Work under this Agreement. All equipment installed and/or capital improvement(s) integrated by JCI to the Customer's property, buildings, or facilities shall become the sole and exclusive property of the Customer upon JCI's receipt of payment for the specific equipment and/or specific capital improvement.
2. **AGREEMENT DOCUMENTS:** In addition to the terms and conditions of this Agreement, the following Schedules are incorporated into and shall be deemed an integral 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

In the event of any direct conflict between or among any of the Agreement Documents, the order of precedence shall be as follows: Agreement terms and conditions; Schedule 1; Schedule 2; Schedule 3; Schedule 4.

**2A. ENGINEER OF RECORD:** The Customer has identified ECG Engineering, LLC as the certified Engineer of Record (Engineer) to provide engineering services in connection with the Work to be performed by JCI (Engineering Services). The fees and total compensation for such Engineering Services shall be \$240,319 and are the sole responsibility of JCI. Both JCI and Customer agree and acknowledge that the Engineer owes its/his/her professional obligations and duties, including duties of care to JCI and the Customer. The Engineer 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.

**3. NOTICE TO PROCEED; SUBSTANTIAL COMPLETION; M&V SERVICES.** The term is of this Agreement is thirty-five (35) years or the useful life of the energy facilities and equipment being provided by JCI pursuant to this Agreement, whichever is less. This Agreement shall become effective on the date of the last signature on the signature page below. The parties' obligations hereunder are contingent upon written approval of the New York State Education Department ("SED"), the requirements of the Regulations of the Commissioner of Education, Section 155.20 and the Customer securing financing as set forth within Paragraph 30 of this Agreement. After receipt of written approval from SED, and after Customer has secured financing in accordance with Paragraph 30 of this Agreement, the Customer shall issue a Notice to Proceed, a form of which is attached hereto as Attachment 1, which JCI has confirmed is 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 Engineer execute a Certificate of Substantial Completion substantially in the form attached hereto as Attachment 3.

For purposes of this Agreement, "Substantial Completion" means that JCI has provided sufficient materials and services to permit Customer to operate the Improvement Measures and utilize the Work to obtain savings as set forth in this Agreement. After an on-site inspection of the Work, the Engineer shall certify the date that the Work has been substantially completed by JCI. The Engineer shall also provide Customer and JCI in writing a description of all items that remain to be completed. Substantial Completion shall not be attained if it is determined by the Engineer that JCI must correct any condition(s) which impairs the reliability or safety of the Work. Substantial Completion shall not be attained until all heating plants or heating plant modifications have been inspected and accepted by the local utility and the Customer's insurance inspector. No Improvement Measure will be considered substantially complete until it is actually capable of generating the savings it is designed to generate. In the case of control improvements, any associated operator interface must be complete and operable by the Customer before Substantial Completion is attained. The Project Benefits shall begin to be achieved at the date of Substantial Completion.

As a condition to the issuance of the Certificate of Substantial Completion, JCI must provide to the Customer a complete list of all manuals and training sessions provided by JCI to Customer which shall include a description of the manual or training provided, the date, and location where the manual or training was provided, the name of the person providing the manual or training, and the name of the person receiving the manual or training. Customer shall review the list and description provided by JCI and if Customer agrees that such manuals and training were provided as set forth herein, Customer will provide acknowledgement of receipt of manuals and training by executing the Certificate of Substantial Completion. Prior to the issuance of the Certificate of

Substantial Completion, the Customer and Engineer will provide JCI a punch list of items remaining to be completed by JCI. All punch list items shall be completed within 90 days, unless otherwise agreed to by the parties in writing.

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 and shall continue throughout the Guarantee Term, subject to earlier termination of the Assured Performance Guarantee as provided herein. The final completion date shall be the date when all Work is completed, including all punch list items, as evidenced by the execution of the Certificate of Final Completion by the Customer and Engineer. Customer acknowledges and agrees that if, for any reason during the agreed-upon period of M&V Services, 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 of the North American Energy Measurement and Verification Protocol (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. 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 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 exactly as stipulated by JCI, or (iii) 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 ten (10) day period to cure such breach. If the Customer fails to cure such breach within such ten (10) day period, Customer acknowledges and agrees that the Assured Performance Guarantee shall automatically terminate.

4. **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 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 bid documents or otherwise disclosed by Customer to JCI prior to the commencement of the Work (unless JCI should have discovered those conditions through reasonable visual inspection of the property and/or facilities and/or through a reasonable review of specifications, drawings, and/or plans regarding the Project); 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, price and payment terms, and the Assured Performance Guarantee shall be made, subject to the mutual written agreement of the parties.
5. **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. JCI shall not perform the Work in areas where classes or student activities are in progress while such classes or student activities are in progress, except as agreed to by both parties. 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, price and payment terms, and Assured Performance Guarantee shall be made as a result of any failure to grant such access, subject to the mutual written agreement of the parties.
6. **PERMITS, TAXES, AND FEES.** Unless otherwise specified in Schedule 3 (Customer Responsibilities), JCI shall be responsible for obtaining all building permits required for it to perform the Work. Unless otherwise specified in Schedule 1 (Scope of Work), Customer shall be responsible for obtaining all other permits, licenses, approvals, permissions and certifications, including but not limited to, all zoning and land use changes or exceptions required for the provision of 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 expressly 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. Customer 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, other than taxes upon the net income of JCI. Customer shall also be responsible for real or personal property taxes relating to equipment or material included in the Improvement Measures. Any fees, taxes, or other lawful charges paid by JCI on account of Customer shall become immediately due from Customer to JCI.

7. **WARRANTY.** JCI will perform the Work in a professional, workman-like manner. JCI will promptly re-perform any non-conforming Work for no charge, as long as Customer provides written notice to JCI within one (1) year following Substantial Completion or such other period identified in Schedule 1. If JCI installs or furnishes goods or equipment under this Agreement, and such goods or equipment are covered by an end-user warranty from their manufacturer, JCI will transfer the benefits of such warranty to Customer. The foregoing remedy with respect to the Work, together with any remedy provided by goods or equipment manufacturers, shall be Customer's sole and exclusive remedies for warranty claims. Customer agrees that the one (1) year period following Substantial Completion, or such other period identified in Schedule 1, shall be a reasonable time for purposes of submitting valid warranty claims with respect to the Work. These exclusive remedies shall not have failed of their essential purpose so long as JCI transfers the benefits of any goods or equipment end-user warranty to Customer and remains willing to re-perform any non-conforming Work for no charge within the one (1) year period described above or such other period identified in Schedule 1. NO OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE PROVIDED BY JCI. This warranty does not extend to any Work that has been abused, altered, or misused, or repaired by Customer or third parties without the supervision or prior written approval of JCI. Except with respect to goods or equipment manufactured by JCI and furnished to Customer hereunder, for which JCI shall provide its express written manufacturer's warranty, JCI shall not be considered a merchant or vendor of goods or equipment.
8. **CLEANUP.** JCI shall keep the premises and the surrounding area free from accumulation of waste materials or rubbish caused by the Work and, upon completion of the Work, JCI shall remove all waste materials, rubbish, tools, construction equipment, machinery, and surplus materials.
9. **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. Each of JCI and Customer shall comply with all applicable laws, ordinances, rules, regulations, and lawful orders of public authorities (collectively, "Laws") in connection with its performance hereunder.
10. **ASBESTOS-CONTAINING MATERIALS AND OTHER HAZARDOUS MATERIALS.**

Asbestos-Containing Materials: Neither party desires to or is licensed to undertake direct obligations relating to the identification, abatement, cleanup, control, removal or disposal of asbestos-containing materials ("ACM"). 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. It is JCI's policy to seek certification for facilities constructed prior to 1982 that no ACM is present, and Customer shall provide such certification for buildings it owns, or aid JCI in obtaining such certification from facility owners in the case of buildings that Customer does not own, if JCI will undertake Work or M&V Services in the facility that could disturb ACM. If either Customer or JCI becomes aware of or suspects the presence of ACM 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. As between Customer and JCI, Customer shall be responsible at its sole expense for addressing the potential for or the presence of ACM in conformance with all applicable Laws and addressing the impact of its disturbance before JCI continues with its Work or M&V Services, unless JCI had actual knowledge that ACM was present and acted with intentional disregard of that knowledge, in which case (i) JCI shall be responsible at its sole expense for remediating areas impacted by the disturbance of the ACM, and (ii) Customer shall resume its responsibilities for the ACM after JCI's remediation has been completed.

Other Hazardous Materials: JCI shall be responsible for removing or disposing of any Hazardous Materials (as defined below) that it uses in providing Work or M&V Services ("JCI Hazardous Materials") and for the remediation of any areas impacted by the release of JCI Hazardous Materials. 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, it shall promptly stop the Work or M&V Services in the affected area and notify the other. As between Customer and JCI, Customer shall be responsible at its sole expense for removing and disposing of Non-JCI Hazardous Materials from its facilities and the remediation of any areas impacted by the release of Non-JCI Hazardous Materials, unless JCI had actual knowledge that Non-JCI Hazardous Materials were present and acted with intentional disregard of that knowledge, in which case (i) JCI shall be responsible at its sole expense for the remediation of any areas impacted by its release of such Non-JCI Hazardous Materials, and (ii) Customer shall remain responsible at its sole expense for the removal of Non-JCI Hazardous Materials that have not been released and for releases not resulting from JCI's performance of the Work or M&V Services. 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, or polychlorinated biphenyls.

Environmental Indemnity: To the fullest extent permitted by Law, Customer shall indemnify and hold harmless JCI and JCI's subcontractors, and their respective directors, officers, employees, agents, representatives, shareholders, affiliates, and assigns and successors, from and against any and all 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 the storage, release, discharge, handling or presence of ACM, or Non-JCI Hazardous Materials on, under or about the facilities, or Customer's failure to comply with this Section 10. This environmental indemnity shall not apply to any claims, causes of action, and/or suits to the extent they arise out of JCI's handling, removing and/or disposing of ACM or any Hazardous Materials pursuant to this Agreement.

**11. 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, may be equitably adjusted in accordance with the Change Order. Such adjustments shall be determined by mutual written agreement of the parties. JCI may delay performance relating to the Work subject to the Change Order until adjustments arising out of the Change Order are clarified and agreed upon, if the Customer requests such Change Order. Any Change Order must be signed by an authorized representative of each party and the Engineer and acceptable to SED. If concealed or unknown conditions are encountered at the project, differing from the conditions represented by Customer in the bid documents or otherwise disclosed by Customer to JCI prior to the commencement of the Work, or of which JCI could not have become aware during a reasonable visual inspection of the conditions, price and payment terms, time for performance and, if necessary, the Assured Performance Guarantee, may be equitably adjusted upon mutual written agreement of the parties. Claims for equitable adjustment may be asserted in writing within a reasonable time from the date a party becomes aware of a change to the Work by written notification. Failure to promptly assert a request for equitable adjustment, however, shall not constitute a waiver of any rights to seek any equitable adjustment with respect to such change.

**12. 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;

- (b) Customer's proper legal, tax, accounting, or credit rating agency treatment relating to this Agreement; and
- (c) the necessity of Customer to raise taxes or seek additional funding for any purpose.

Customer is solely responsible for its obligations and determinations with respect to the foregoing matters. In addition, the parties acknowledge and agree that Customer shall be responsible to comply, at its cost and expense, with all Laws that may be applicable to it relating to performance contracting, including, without limitation, any requirements relating to the procurement of goods and/or services and any legal, accounting, or engineering opinions or reviews required or obtained in connection with this Agreement.

- 13. INSURANCE.** JCI shall maintain insurance in amounts no less than those set forth below in full force and effect at all times until the Work has been completed, and shall provide a certificate evidencing such coverage promptly following Customer's request therefor.

COVERAGES	LIMITS OF LIABILITY
Workmen's Compensation Insurance or self insurance, including Employer's Liability	Statutory
Commercial General Liability Insurance	\$5,000,000 Per Occurrence \$5,000,000 Aggregate
Comprehensive Automobile Liability Insurance	\$5,000,000 Combined Single Limit

The above limits may be obtained through primary and excess policies, and may be subject to self-insured retentions.

Customer shall be responsible for obtaining builder's risk insurance coverage for the Improvement Measures and shall at all times be responsible for any loss or casualty to the Improvement Measures. Customer shall also maintain insurance coverage, of the types and in the amounts customary for the conduct of its business, throughout the term of this Agreement.

- 14. INDEMNIFICATION.** To the fullest extent permitted by applicable Law, each party shall indemnify the other with respect to any third party claim alleging bodily injury, including death, or property damage to the extent such injury or damage is caused by the negligence or willful misconduct of the indemnifying party. JCI shall also indemnify and hold harmless Customer, its Board of Education, employees, agents, and/or assigns against all loss, damages, liabilities, and expenses, including reasonable attorneys' fees, 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. A condition precedent to any obligation of a party to indemnify the other pursuant to this Section 14 shall be for the indemnified party to advise the indemnifying party within a reasonable time of the claim pursuant to the notice provision of this Agreement.

- 15. LIMITATION OF LIABILITY.** NEITHER JCI NOR CUSTOMER WILL BE RESPONSIBLE TO THE OTHER FOR ANY SPECIAL, INDIRECT, CONSEQUENTIAL, REMOTE, PUNITIVE, EXEMPLARY, LOSS OF PROFITS OR REVENUE, LOSS OF USE, OR SIMILAR DAMAGES, REGARDLESS OF HOW CHARACTERIZED AND REGARDLESS OF A PARTY HAVING BEEN ADVISED OF THE POSSIBILITY OF SUCH POTENTIAL LOSSES OR RELIEF, ARISING IN ANY MANNER FROM THIS AGREEMENT, THE WORK, THE IMPROVEMENT MEASURES, THE PREMISES, THE M&V SERVICES, OR OTHERWISE. Notwithstanding anything to the contrary, the limitation of liability herein shall not be construed as a limitation on either party's right to contract damages from the other party, including, but not limited to the Customer's right to recover under the Assured Performance Guarantee and/or substitute performance. Nothing in this provision shall be construed to limit either party's recovery for compensatory or actual damages suffered by either party resulting from the other party's or its agents' negligent, grossly negligent, reckless, or intentional acts or omissions, provided however, that actual damages shall not include consequential or indirect damages. If this Agreement covers fire safety or security equipment, Customer understands that JCI is not an insurer regarding

those services, and that JCI shall not be responsible for any damage or loss that may result from fire safety or security equipment that fails to prevent a casualty loss. The foregoing waivers and limitations are fundamental elements of the basis for this Agreement between JCI and Customer, and each party acknowledges that JCI would not be able to provide the work and services contemplated by this Agreement on an economic basis in the absence of such waivers and limitations, and would not have entered into this Agreement without such waivers and limitations.

16. **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 agencies; strikes; labor disputes; fires; explosions or other casualties; thefts; vandalism; riots or war; acts of terrorism; electrical power outages; interruptions or degradations in telecommunications, computer, or electronic communications systems; changes in Laws; or unavailability of parts, materials or supplies.
17. **JCI'S PROPERTY.** All materials furnished or 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 and/or JCI's subcontractor(s) and/or agent(s) or third parties, as applicable. 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. Notwithstanding the above, all software furnished or installed as part of the Work and which is needed to operate the systems installed as part of the Work or any part thereof shall remain in place and shall not be removed from the site except upon the mutual written agreement of the parties. All data generated as a result of the M & V services shall be the property of the Customer. 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.
18. **DISPUTES.** JCI and Customer will attempt to settle any controversy, dispute, difference, or claim between them concerning the performance, enforcement, or interpretation of this Agreement (collectively, "Dispute") through direct discussion in good faith.
19. **GOVERNING LAW.** This Agreement and the construction and enforceability thereof shall be interpreted in accordance with the laws of the state of New York.
20. **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. These modifications may take the form of additional phases of work or modifications to the original scope of Work or Services.
21. **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 JCI's consent shall be required or permitted under this Agreement, and this Agreement does not expressly state that JCI may act in its sole discretion, such consent 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. Whenever JCI's cooperation is required by Customer in order to carry out Customer's obligations hereunder, JCI agrees that it shall act in



good faith and reasonably in so cooperating with Customer and/or Customer's designated representatives or assigns.

- 22. 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.
- 23. INDEPENDENT CONTRACTOR.** The relationship of the parties hereunder shall be that of independent contractors. Nothing in this Agreement shall be deemed to create a partnership, joint venture, fiduciary, or similar relationship between the parties.
- 24. 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.
- 25. 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.
- 26. 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. 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.
- 27. HEADINGS.** The captions and titles in this Agreement are for convenience only and shall not affect the interpretation or meaning of this Agreement.
- 28. 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.
- 29. NOTICES.** All notices or communications related to this Agreement shall be in writing and shall be deemed served if and when sent by facsimile or mailed by certified or registered mail: to Johnson Controls, Inc. at the address listed on the first page of this Agreement, ATTN: Regional Solutions Manager, with a copy to Johnson Controls, Inc., ATTN: General Counsel – Building Efficiency Americas, 507 East Michigan Street, Milwaukee, Wisconsin, 53202; and to Customer at the address listed on the first page of this Agreement.
- 30.** Pursuant to NYS Energy Law 109-3, this Agreement shall be deemed executory only to the extent of the monies appropriated and available for the purpose of the Agreement, and no liability on account therefore 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.
- 31.** According to the Regulations of the Commissioner of Education, Section 155.20(d), this Agreement shall not be executory until approval of the Commissioner is obtained in writing. The Customer's obligations within this Agreement are contingent upon and subject to prior review and written approval of SED, pursuant to the laws



and regulations of the State of New York and are also contingent upon and subject to the Customer's securing of financing, terms and conditions of financing and other means of payment acceptable to Customer in its sole discretion. In the event approval of said financing or other means of payment has not been secured by the Customer within 180 days after SED approval, then this Agreement shall terminate with no further obligation of Customer to JCI or any other party. This Agreement may be extended beyond 180 days if such extension is in writing signed by both parties.

32. It is understood and agreed that, except as otherwise provided in this Agreement, the Customer shall not be responsible for any costs incurred by JCI, including, but not limited to, costs associated with the audit and/or costs associated with the Engineer of record and/or costs incurred by JCI in attempting to obtain SED approval, should SED not approve this Agreement.
33. Neither party shall assign, transfer or otherwise dispose of this Agreement or its rights, title or interests as set forth herein or its power to execute this Agreement to any other person, entity or corporation without the prior written permission of the other party. Nothing within this provision shall be construed to limit, restrict and/or preclude the subrogation rights of any insurer(s) of either the Customer or JCI.
34. This Agreement is subject to prevailing wage requirements. All workers will be paid according to the prevailing wage rates set forth by the New York Department of Labor.

**ISLAND TREES SCHOOL DISTRICT**

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

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

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

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

*Patricia Mahon*  
*PATRICIA MAHON*  
*BOARD President*  
*8/4/10*

**JOHNSON CONTROLS, INC.**

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

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

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

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

*Barbara A. Moretz*  
*BARBARA A. MORETZ*  
*REGIONAL VP/GM*  
*06-21-10*

## SCOPE OF WORK SCHEDULE

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

<b>Island Trees High School</b>	<b>Island Trees Middle School</b>
FIM 1 Lighting – Fixture Retrofit	FIM 1 Lighting – Fixture Retrofit
FIM 2 Lighting – Fixture Controls	FIM 2 Lighting – Fixture Controls
FIM 3 Building Envelope Improvements - Weatherization	FIM 3 Building Envelope Improvements - Weatherization
FIM 4 Energy Management System	FIM 4 Energy Management System
FIM 5 Steam Traps - Replacement	FIM 5 Steam Trap - Replacement
FIM 6 Heat Distribution System - Pipe and Valve Insulation	FIM 6 Heat Distribution System - Pipe and Valve Insulation
FIM 7 Boiler – Burner Controllers	FIM 7 Boiler – Burner Controllers
FIM 8 Windows – Window Film	FIM 8 Windows - Window Film
FIM 10 Computers - Power Management	FIM 9 Kitchen Hood – Exhaust Fan Control
FIM 11 Water Conservation	FIM 10 Computers - Power Management
FIM 12 Renewable Energy - Photovoltaic Electric Generation	FIM 11 Water Conservation
<b>Stokes Elementary School</b>	<b>Sparke Elementary School</b>
FIM 1 Lighting – Fixture Retrofit	FIM 1 Lighting – Fixture Retrofit
FIM 2 Lighting – Fixture Controls	FIM 2 Lighting – Fixture Controls
FIM 3 Building Envelope Improvements - Weatherization	FIM 3 Building Envelope Improvements - Weatherization
FIM 4 Energy Management System	FIM 4 Energy Management System
FIM 5 Steam Trap - Replacement	FIM 5 Steam Trap - Replacement
FIM 6 Heat Distribution System - Pipe and Valve Insulation	FIM 6 Heat Distribution System - Pipe and Valve Insulation
FIM 7 Boilers - Burner Controllers	FIM 7 Boiler – Burner Controllers
FIM 8 Windows - Window Film	FIM 8 Windows - Window Film
FIM 9 Kitchen Hood – Exhaust Fan Control	FIM 9 Kitchen Hood – Exhaust Fan Control
FIM 10 Computers Power Management	FIM 10 Computers - Power Management
FIM 11 Water Conservation	FIM 11 Water Conservation
<b>Karopczyc Elementary School</b>	
FIM 1 Lighting – Fixture Retrofit	
FIM 2 Lighting – Fixture Controls	
FIM 3 Building Envelope Improvements - Weatherization	
FIM 4 Energy Management System	
FIM 6 Heat Distribution System - Pipe and Valve Insulation	
FIM 7 Boilers - Burner Controllers	

## **Construction Management**

### **Construction Management Services**

1. JCI will prepare and maintain an overall Project Management Plan and Construction Schedule.  
~~Updates will be provided to the Customer on an on-going basis.~~
2. JCI shall maintain a staff to administer the contract terms and conditions with all subcontractors.
3. JCI shall provide coordination and total supervision of the work of separate FIMs ensuring enforcement of all contract provisions, compliance with energy initiatives, and timely completion of the project.
4. JCI shall establish and maintain coordination procedures, i.e. project meetings, documentation process, etc...
5. JCI shall coordinate site accessibility for the Owner and contractors for continuous operation of school services and activities.
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 owner.
7. JCI shall coordinate post-completion activities including the assembly of guarantee, manuals, as-built drawings of all trade and subcontractors, and the Owner's final acceptance. Coordinate training of the Owner's personnel by installers and vendors for the operations of the project.
8. JCI shall subcontract with ECG Engineering, the Customer's approved engineering firm unless the Customer provides written notice to JCI of an alternate engineering firm that JCI shall subcontract with instead, to prepare and submit all necessary design work to the New York State Education Department ("NYSED") for approval. Attachment 1 to the Customer's RFP, Scope of Engineering Services and Attachment 2, Scope of Construction Services delineate the terms and conditions of the engineering and construction services to be provided. JCI is aware of and bound by the terms and conditions of the services as provided by Attachment 1 and Attachment 2 to the Customer's RFP, except to the extent of any direct conflict between the terms of such Attachments and this Agreement, in which event the terms of this Agreement shall control.
9. JCI and its subcontractors will be required to wear photo identification at all times while on Customer's property.
10. Work by JCI will commence upon NYSED approval and upon the Customer obtaining financing for the Project. Hours of work are 7AM to 4PM Monday thru Friday. If work is required off-hours; all custodial overtime costs are the responsibility of the Customer.

### **FIM 1 – LIGHTING-FIXTURE RETROFIT**

#### **Proposed Improvements**

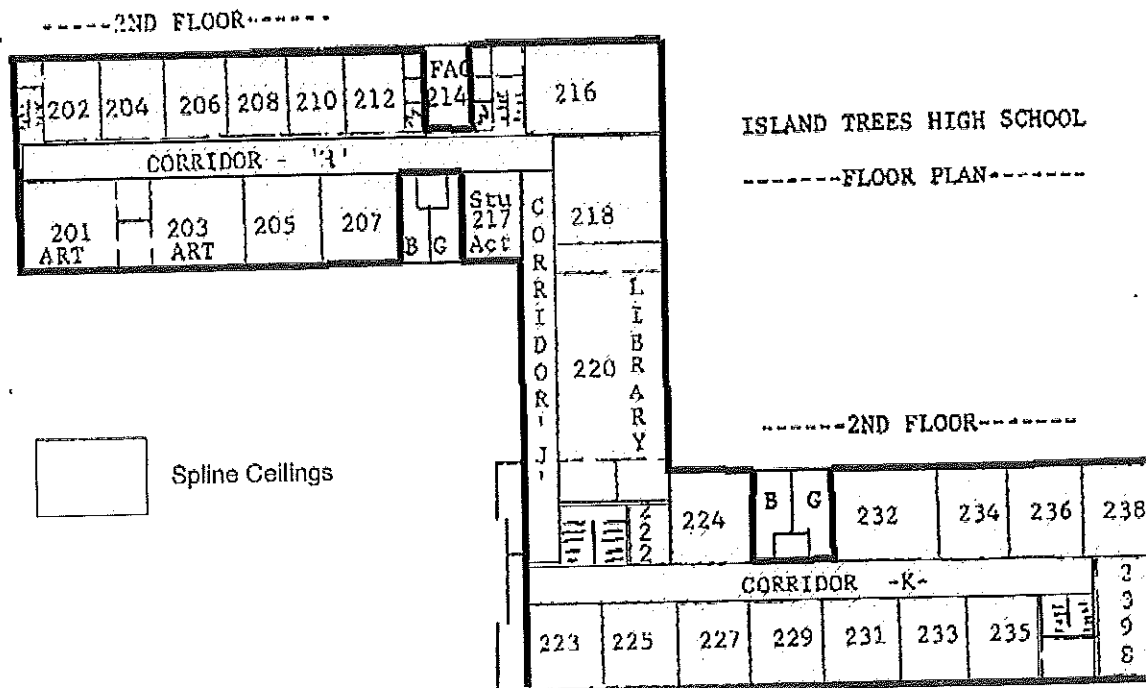
**JCI will provide selected lighting system improvements throughout the schools indicated below:**

- High School
- Middle School
- Stokes Elementary
- Sparke Elementary
- Karopczyc Elementary

### Island Trees High School

The majority of the fixtures in the building are T-8 with electronic ballast. The T-8 style fixtures are operated with tandem wall switches. Some locations are good candidates for fixture modification to reduce the amount of lamps while still maintaining proper light levels. The hallways and common areas contain a combination of 2 and 3-light T8 recessed prismatic, 2-light T8 surface wraps and 2x2 U-lamp T8 recessed fixtures. The cafeteria contains a combination of 2 and 4-light T8 pendant egg-crate fixtures. The kitchen contains primarily 2x4 4-light T8 recessed prismatic fixtures and some pendant industrial fixtures. The library contains a combination of 2 and 4-light T8 pendant egg-crate fixtures. The classrooms and shops contain a combination of 2 and 4-light T8 pendant egg-crate fixtures, some 3 and 4-light T8 recessed fixtures, as well as some U-lamp fixtures. The auditorium contains compact fluorescent hi-hats. The little theater contains 4-light T8 old recessed parabolic fixtures. The offices contain a combination of 2 and 4-light T8 pendant egg-crate fixtures, some 3-light T8 recessed fixtures, as well as some U-lamp fixtures. The restrooms contain a combination of 1 and 2-light T8 surface wraps, some vapor-tights and some incandescent fixtures. The locker rooms currently contain old 2-light & 4-light T8 surface wrap fixtures, old compact fluorescent surface drums, and some F96T12 vapor-tights. The boiler room contains compact fluorescent fixtures.

As part of the lighting project the the 2<sup>nd</sup> Floor spline ceilings will be replaced with Armstrong 15/16" rated grid, and a class A ceiling tile by Armstrong Tundra 301 or Certainteed Sand Micro shm150. The following map shows the areas of the second floor that are to get new ceilings:

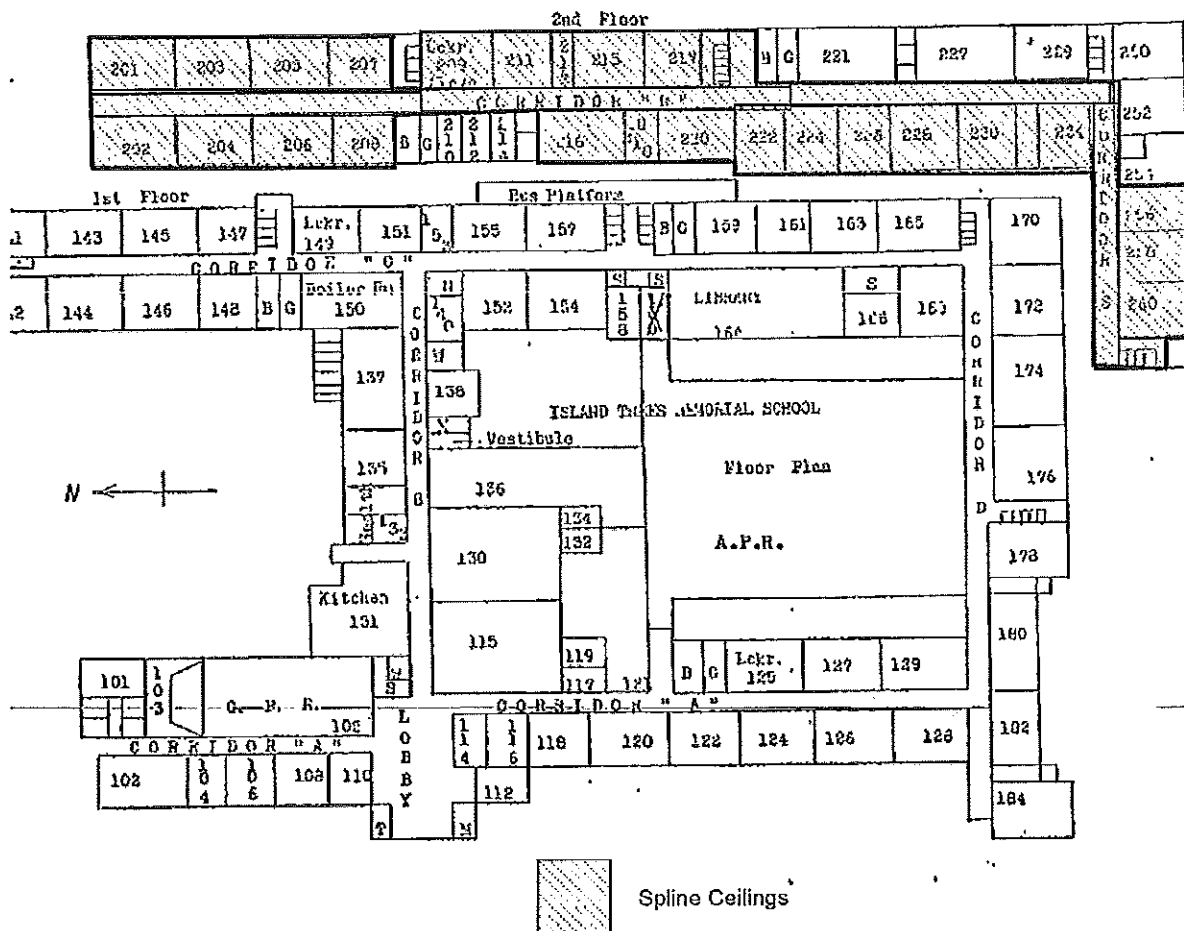


### Island Trees Memorial Middle School

The majority of the fixtures in the building are T-8 with electronic ballast. The T-8 style fixtures are operated with tandem wall switches. Some locations are good candidates for fixture modification to reduce the amount of lamps while still maintaining proper light levels. The hallways and common areas contain a combination of 2 -light T8 recessed prismatic, old 2-light T8 surface wraps, 2x2 U-lamp T8

recessed fixtures and some compact fluorescent units. The cafeteria contains 2x2 U-lamp T8 recessed fixtures. The kitchen contains primarily 2x4 4-light T8 recessed prismatic fixtures and some incandescent jelly jars. The library contains old recessed parabolic fixtures. The classrooms contain a combination of 2 and 4-light T8 pendant egg-crate fixtures, some 3 and 4-light T8 recessed fixtures, some industrial fixtures, as well as some U-lamp fixtures. The offices contain a combination of 2 and 4-light T8 pendant egg-crate fixtures, some 3-light T8 recessed fixtures, as well as some U-lamp fixtures. The restrooms contain a combination of 1 and 2-light T8 surface wraps, and some recessed U-lamp fixtures. The storages contain a combination of 2 and 4-light T8 pendant egg-crate fixtures, some 4-light T8 recessed fixtures, as well as some U-lamp fixtures. The boiler room contains a combination of 1-light T8 industrial units, some incandescent fixtures, and some compact fluorescent fixtures.

As part of the lighting project the the 2<sup>nd</sup> Floor spline ceilings will be replaced with Armstrong 15/16" rated grid, and a class A ceiling tile by Armstrong Tundra 301 or Certainteed Sand Micro shm150. The following map shows the areas of the second floor that are to get new ceilings:



### Michael F. Stokes Elementary School

The majority of the fixtures in the building are T-8 with electronic ballast. The T-8 style fixtures are operated with tandem wall switches. Some locations are good candidates for fixture modification to reduce the amount of lamps while still maintaining proper light levels. The hallways and common areas

contain a combination of 2 -light T8 recessed prismatic, some old 2-light T8 egg-crate units, and some 2x2 U-lamp T8 recessed fixtures. The cafeteria contains 2x2 U-lamp T8 surface mounted fixtures. The kitchen contains primarily 1x4 2-light T8 surface wraps, some 1-light wraps, and some incandescent jelly jars. The library contains a combination of 2 and 4-light T8 pendant egg-crate fixtures. The classrooms contain a combination of 2 and 4-light T8 pendant egg-crate fixtures, some industrial fixtures, as well as some U-lamp fixtures. The offices contain a combination of 2 and 4-light T8 pendant egg-crate fixtures, some old 2 and 4-light T8 recessed parabolic fixtures, as well as some U-lamp fixtures. The restrooms contain a combination of 1 and 2-light T8 surface wraps, and some incandescent fixtures. The storages contain a combination of 1 and 2-light T8 surface wraps and industrial fixtures. The boiler room contains a combination of incandescent fixtures and some 1 and 2-light T8 industrial fixtures.

### **J. Fred Sparke Elementary School**

The majority of the fixtures in the building are T-8 with electronic ballast. The T-8 style fixtures are operated with tandem wall switches. Some locations are good candidates for fixture modification to reduce the amount of lamps while still maintaining proper light levels. The hallways and common areas contain a combination of 2 -light T8 recessed prismatic, some old 2-light T8 wraps units, and some 2x2 U-lamp T8 recessed fixtures. The cafeteria contains 2x2 U-lamp T8 surface mounted fixtures. The kitchen contains a combination of 2 and 4-light T8 pendant egg-crate fixtures. The library contains a combination of 2 and 4-light T8 pendant egg-crate fixtures. The classrooms contain a combination of 2 and 4-light T8 pendant egg-crate fixtures, and some wrap fixtures. The offices contain a combination of 2 and 4-light T8 pendant egg-crate fixtures, as well as some old wrap-around fixtures, and some 2x2 U-lamp T8 recessed fixtures. The restrooms contain a combination of 2 and 4-light T8 pendant egg-crate fixtures, some 2-foot vanity units, and some old wrap-around fixtures. The storages contain a combination of 1 and 2-light T8 surface wraps and industrial fixtures. The locker rooms currently contain old 2-light & 4-light T8 egg-crate fixtures, and some F96T12 vapor-tights. The boiler room contains a combination of compact fluorescent fixtures and 1-light T8 industrial fixtures.

### **Karopczyc Elementary School**

The hallways and common areas contain primarily 3-light T8 recessed prismatic. We propose to re-lamp and re-ballast these fixtures with F17T8 lamps and electronic ballasts. The cafeteria contains high wattage incandescent recessed enclosed fixtures. We are proposing to replace these fixtures with new T8 fluorescent hi-bays with bi-level controls and wire-guards. Note: Daylight harvesting controls will be employed in order to take advantage of ample natural daylight that penetrates the space. The kitchen contains 2-light T12 pendant egg-crate fixtures. We are proposing to install new high efficiency wraps with 25-watt F32T8 lamps and electronic ballasts. The library contains 2-light T8 surface wrap fixtures. We propose to re-lamp and re-ballast the linear fluorescent fixtures with 25-watt F32T8 lamps and electronic ballasts. Note: Daylight harvesting controls will be employed in order to take advantage of ample natural daylight that penetrates the space. The classrooms contain a combination of 2-light T12 surface egg-crate fixtures and 2-light T8 surface wrap fixtures. We propose to replace all of the egg-crate fixtures with new high efficiency wraps with 25-watt F32T8 lamps and electronic ballasts. We propose to re-lamp and re-ballast the surface wrap fixtures with 25-watt F32T8 lamps and electronic ballasts. The offices contain a combination of 2-light T8 surface wrap fixtures, 2-light T12 surface egg-crate fixtures, 3-light T8 recessed prismatic fixtures, and incandescent recessed enclosed fixtures. We propose to replace all of the egg-crate and incandescent fixtures in the offices with new high efficiency wraps with 25-watt T8 lamps and electronic ballasts. The surface wrap fixtures and recessed prismatic fixtures will be re-lamped and re-ballasted with 25-watt F32T8 lamps and electronic ballasts. The restrooms contain 3-light T8 recessed prismatic fixtures. We propose to re-lamp and re-ballast these fixtures with 25-watt F32T8 lamps and electronic ballasts. The storages contain a combination of incandescent fixtures, compact fluorescent fixtures, and 2-light T8 surface wrap fixtures. We propose to re-lamp and re-ballast the linear fluorescent fixtures with 25-watt F32T8 lamps and electronic ballasts. The incandescent and compact fluorescent fixtures will be replaced with new high efficiency wraps with 25-watt T8 lamps and electronic ballasts. The boiler room contains primarily incandescent pendent shield fixtures. We propose to replace the pendent shield fixtures with new high efficiency wraps with 17-watt T8 lamps and electronic ballasts.

**FIM 2 – LIGHTING- FIXTURE CONTROL**

Sensors will be installed in locations that will generate additional energy savings in classrooms, offices and utility areas to monitor occupancy and turn off lights when areas are not in use. Using occupancy sensors to turn lights off can generate energy savings. Occupancy sensors can detect inactivity in a space and turn lights off when no one is present. Although lowering kWh will always lower the electric bill, not every location is a good candidate for occupancy sensor use. The lighting auditors have reviewed the occupancy and use of each room utilizing an occupancy sensor. Areas that have relatively low operating hours and would only save an hour or two per day are usually not good candidates for sensors from a cost perspective. A total of 178 sensors will be installed throughout the Customer's school district.

**Facilities to Receive This Measure**

Island Trees High School  
 Island Trees Memorial Middle School  
 Michael F. Stokes Elementary School  
 J. Fred Sparke Elementary School  
 Karopczyc Elementary School

**FIM 3 – BUILDING ENVELOPE IMPROVEMENTS - WEATHERIZATION**

Under this FIM weather-stripping will be installed around exterior doors and caulking will be applied around the building to seal structural gaps or cracks to prevent air leakage. Cracks and openings within the building envelope will be sealed properly to help prevent air infiltration.

**Island Trees High School**

- 16 Single Commercial Doors to be weather-stripped (0 previously weather-stripped)
- 20 Double Commercial Doors to be weather-stripped (0 previously weather-stripped)
- 45 Roof top Ventilators to be opened, perimeter sealed, dampers lubricated, 312 linear feet
- 1 Over Head Door to be weather-stripped

**Island Trees Memorial Middle School**

- 12 Single Commercial Doors to be weather-stripped (0 previously weather-stripped)
- 19 Double Commercial Doors to be weather-stripped (1 previously weather-stripped)
- 38 Roof top Ventilators to be opened, perimeter sealed, dampers lubricated, 264 linear feet
- 3 Over Head Door to be weather-stripped

**J. Fred Sparke Elementary School**

- 11 Single Commercial Doors to be weather-stripped (0 previously weather-stripped)
- 5 Double Commercial Doors to be weather-stripped (0 previously weather-stripped)
- 12 Roof top Ventilators to be opened, perimeter sealed, dampers lubricated, 76 linear feet
- 151' Roof Wall Joint to be sealed (2-component foam)
- 517' Roof Wall Joint to be sealed (Caulking)
- 2 Bulkheads to be sealed

**Michael F. Stokes School**

- 8 Single Commercial Doors to be weather-stripped (0 previously weather-stripped)
- 7 Double Commercial Door to be weather-stripped (0 previously weather-stripped)
- 11 Roof top Ventilators to be opened, perimeter sealed, dampers lubricated, 88 linear feet
- 2 Bulkheads to be sealed



**Karopczyc Elementary School**

- 3 Single Commercial Doors to be weather-stripped (0 Previously weather-stripped)
- 5 Double Commercial Door to be weather-stripped (0 Previously weather-stripped)
- 7 Roof top Ventilators to be opened, perimeter sealed, dampers lubricated, 28 linear feet

**FIM 4 – ENERGY MANAGEMENT SYSTEM****Temperature Setback:**

This FIM provides for more effective temperature control of the schools. The univents, corridor convectors, and air handlers are pneumatically controlled via the existing control system. The exhaust fans throughout the building are not tied into the building management system. Individual zone setback is not performed and the operating staff is not able to effectively operate the system for variable scheduling or monitoring. Heating occupied setpoint is 70-72°F and unoccupied setpoint is 55°F for the building. Cooling occupied temperatures are 70-72°F with the setback temperature of 74 °F. There are a total of seven (7) zones. These zones include the Cafeteria, North Classrooms, South Classrooms, Music Practice, Administration, Shops/Music and Gymnasium/Locker Rooms.

**Facilities to receive this measure:**

Island Trees High School – seven (7) zones, Cafeteria, North Classrooms, South Classrooms, Music Practice, Administration, Shops/Music and Gymnasium/Locker Rooms.  
 Island Trees Middle School – four (4) zones, Original Classrooms, Original Gymnasium, Cafeteria/Multi-Purpose Room and New Classroom Wing.  
 Karopczyc Elementary School – three (3) zones, North Zone, South Zone, Multipurpose Room.

**Exhaust Fan Shutdown:**

This FIM provides for all non-toilet exhaust fans to be connected to the facilities Building Management System. The following scope of work is proposed:

- Provide DDC control for all non-toilet exhaust fans.
- Integrate into BMS
- Provide start/stop, status, and alarm
- Provide occupancy programming/control as per owner requirements

**Facilities to Receive This Measure:**

High School – 47 fans  
 Memorial Middle School – 25 fans  
 Stokes Elementary – 9 fans  
 Sparke Elementary School – 9 fans

**Demand Control Ventilation**

This FIM is to provide demand ventilation control based on NYSED draft guidelines for carbon dioxide based demand controlled ventilation systems. This shall include:

- Installation of CO2 sensor in controlled space or return air acceptable to the engineer
- Installation of cabling between CO2 sensor and unit controls
- Reconfiguration of unit controls to incorporated CO2 ventilation routines
- Integration of CO2 controls into BMS, permitting full monitoring and adjustment capabilities
- Alarming and trending as specified

**This FIM applies to the following locations:**

- Island Trees High School: Auditorium

**Optimum Start/Stop**

This FIM provides for the conversion or migration of air-handling units to DDC Control, including replacement of existing pneumatic end devices with electronic type [note that all converted units will be fully electronic and will no longer require a compressed air supply]. Quantities and I/O list are indicated in attached itemization. This includes the following points and sequences:

- Economizer control, including outdoor air enthalpy change-over on cooling equipment
- Mixed air/low-limit control
- Heating (discharge or room control as required)
- Cooling (discharge or room control as required)
- Discharge control
- Freeze protection
- Local or remote set point control
- Warm-up/Cool-down

This FIM applies to air handlers in the following locations:

**Island Trees High School**

- (2) Gymnasium AHU's
- (2) Auditorium AHU's

**Island Trees Middle School:**

- Old Gym AHU
- Cafeteria AHU
- (2) H&V Units in new Gymnasium

**Stokes Elementary**

- Gymnasium H&V
- Multipurpose Room H&V

**FIM 5– STEAM TRAPS- REPLACEMENTS**

This FIM provides for the replacement of failed steam traps located in the buildings. Replacing the traps will give Customer the best possible operation of the steam traps at the start of the program, and allow for a more manageable maintenance program in the future.

Facilities Recommended for This Measure

Building	Thermostatic	F&T / Bucket
Island Trees High School	163	16
Island Trees Middle School	206	48
Sparke Elementary School	85	13
Stokes Elementary School	115	16
<b>Totals</b>	<b>569</b>	<b>93</b>

**FIM 6 – HEAT DISTRIBUTION SYSTEM-PIPE AND VALVE INSULATION**

This FIM is to provide insulation on exposed Hot Water and Steam, piping and valves. The insulation will prevent the loss of heat from the pipes, thereby saving boiler energy as well as reducing overheating conditions in adjacent spaces. This will result in improved comfort conditions.

Insulation at least 2" thick should be installed on the hot water piping and 3" on all steam piping. The domestic hot water lines noted should have at least 1" of fiberglass insulation. Johnson Controls will install an energy-saving thermal blanket system on valves and fittings identified during the field engineering survey. The thermal blanket system consists of high-quality insulation, custom fit to match gate valves, pressure reducing valves, flanges, strainers, heat exchanger heads, and condensate pumps. The thermal blanket insulation system is designed for ease of installation through the application of prefabricated two piece jackets and the use of stainless steel lacing.

#### Facilities Recommended for This Measure

Island Trees High School  
Island Trees Memorial Middle School  
Michael F. Stokes Elementary School  
J. Fred Sparke Elementary School  
Karopczyc Elementary School

Building	Type of Piping/Tank	Location	Pipe Material	Line Size Diam.(in)	Length (ft) or Surface Area (sqft)
Island Trees High School	Steam Bonnet	Boiler Room	Steel	8	0.75
Island Trees High School	Steam Bonnet	Boiler Room	Steel	8	0.75
Island Trees High School	Steam Bonnet	Boiler Room	Steel	8	0.75
Island Trees High School	Steam Bonnet	Boiler Room	Steel	8	0.75
Island Trees High School	Steam Bonnet	Boiler Room	Steel	8	0.75
Island Trees High School	Steam Bonnet	Boiler Room	Steel	8	0.75
Island Trees High School	Steam Bonnet	Boiler Room	Steel	8	0.75
Building	Type of Piping/Tank	Location	Pipe Material	Line Size Diam.(in)	Length (ft) or Surface Area (sqft)
Island Trees High School	Steam Bonnet	Boiler Room	Steel	6	0.75
Island Trees High School	Steam Bonnet	Boiler Room	Steel	6	0.75
Island Trees High School	Steam Bonnet	Boiler Room	Steel	6	0.75
Island Trees High School	Steam Bonnet	Boiler Room	Steel	4	0.50
Island Trees High School	Steam Bonnet	Boiler Room	Steel	4	0.50
Island Trees High School	Boiler Header	Boiler Room	Steel	8	6.00
Island Trees High School	Boiler Header	Boiler Room	Steel	8	6.00
Island Trees High School	Boiler Header	Boiler Room	Steel	8	6.00
Island Trees High School	Condensate Piping	Boiler Room	Steel	4	70.00
Island Trees High School	Condensate Piping	Boiler Room	Steel	0.75	125.00
Island Trees High School	Condensate Piping	Boiler Room	Steel	1.50	70.00
Island Trees High School	Steam Flange	Boiler Room	Steel	6	0.25
Island Trees High School	Steam Flange	Boiler Room	Steel	8	0.25
Island Trees High School	Steam Flange	Boiler Room	Steel	8	0.25
Island Trees High School	Steam Flange	Boiler Room	Steel	8	0.25
Island Trees High School	Steam Flange	Boiler Room	Steel	8	0.25
Island Trees High School	Steam Flange	Boiler Room	Steel	8	0.25
Island Trees High School	Feed Water Tank	Boiler Room	Steel	24'x3'x5.5'	72.00

## Schedule 2

Island Trees High School	Steam Elbow	Fan Room	Steel	8	1.00
Island Trees High School	Condensate Piping	Fan Room	Steel	1.5	4.00
Middle School	Boiler Header	Boiler Room	Steel	8	6.00
Middle School	Boiler Header	Boiler Room	Steel	8	6.00
Middle School	Boiler Header	Boiler Room	Steel	8	6.00
Middle School	Steam End Plate	Boiler Room	Steel	16	1.00
Middle School	Steam End Plate	Boiler Room	Steel	16	1.00
Middle School	Steam Bonnet	Boiler Room	Steel	6	0.75
Middle School	Steam Bonnet	Boiler Room	Steel	6	0.75
Middle School	Steam Bonnet	Boiler Room	Steel	6	0.75
Middle School	Steam Bonnet	Boiler Room	Steel	8	0.75
Middle School	Steam Bonnet	Boiler Room	Steel	8	0.75
Middle School	Steam Bonnet	Boiler Room	Steel	8	0.75
Middle School	Steam Bonnet	Boiler Room	Steel	8	0.75
Middle School	Steam Bonnet	Boiler Room	Steel	8	0.75
Middle School	Steam Bonnet	Boiler Room	Steel	8	0.75
Middle School	Steam Bonnet	Boiler Room	Steel	8	0.75
Middle School	Steam Piping	Fan Room	Steel	3.00	12.00
Middle School	Steam Piping	Fan Room	Steel	1.50	15.00
Middle School	Condensate Piping	Fan Room	Steel	1.50	30.00
Middle School	Feed Water Tank	Boiler Room	Steel	10'x3'x5.5'	30.00
Stokes Elementary School	Steam Bonnet	Boiler Room	Steel	10	1.00
Stokes Elementary School	Steam Bonnet	Boiler Room	Steel	10	1.00
Stokes Elementary School	Steam Bonnet	Boiler Room	Steel	6	0.75
Stokes Elementary School	Steam Bonnet	Boiler Room	Steel	6	0.75
Stokes Elementary School	Steam Bonnet	Boiler Room	Steel	6	0.75
Stokes Elementary School	Steam Bonnet	Boiler Room	Steel	4	0.50
Stokes Elementary School	Boiler Header	Boiler Room	Steel	8	6.00
Building	Type of Piping/Tank	Location	Pipe Material	Line Size Diam.(in)	Length (ft) or Surface Area (sqft)
Stokes Elementary School	Boiler Header	Boiler Room	Steel	8	6.00
Stokes Elementary School	Feed Water Tank	Boiler Room	Steel	5'x3'x5.5'	15.00
Stokes Elementary School	Steam Piping	Fan Room	Steel	2	6.00
Stokes Elementary School	Steam Valve	Fan Room	Steel	2	0.33
Stokes Elementary School	Steam Valve	Fan Room	Steel	2	0.33
Stokes Elementary School	Steam Valve	Fan Room	Steel	3	0.33
Stokes Elementary School	Steam Valve	Fan Room	Steel	3	0.33
Stokes Elementary School	Steam Valve	Fan Room	Steel	3	0.33
Stokes Elementary School	Steam Valve	Fan Room	Steel	2	0.33
Sparke Elementary School	Feed Water Tank	Boiler Room	Steel	5'x3'x5.5'	15.00
Sparke Elementary School	Steam End Plate	Boiler Room	Steel	10.00	1.00
Sparke Elementary School	Steam End Plate	Boiler Room	Steel	10.00	1.00
Sparke Elementary School	Steam Bonnet	Boiler Room	Steel	6	0.75
Sparke Elementary School	Steam Bonnet	Boiler Room	Steel	6	0.75

## Schedule 2

Sparke Elementary School	Steam Bonnet	Boiler Room	Steel	6	0.75
Sparke Elementary School	Steam Bonnet	Boiler Room	Steel	8	0.75
Sparke Elementary School	Steam Bonnet	Boiler Room	Steel	8	0.75
Sparke Elementary School	Steam Flange	Boiler Room	Steel	8	0.25
Sparke Elementary School	Steam Flange	Boiler Room	Steel	8	0.25
Sparke Elementary School	Steam Flange	Boiler Room	Steel	8	0.25
Sparke Elementary School	Steam Flange	Boiler Room	Steel	8	0.25
Sparke Elementary School	Steam Flange	Boiler Room	Steel	8	0.25
Sparke Elementary School	Steam Flange	Boiler Room	Steel	8	0.25
Sparke Elementary School	Steam Flange	Boiler Room	Steel	6	0.25
Sparke Elementary School	Steam Flange	Boiler Room	Steel	6	0.25
Sparke Elementary School	Steam Flange	Boiler Room	Steel	6	0.25
Sparke Elementary School	Steam Flange	Boiler Room	Steel	6	0.25
Sparke Elementary School	Steam Flange	Boiler Room	Steel	6	0.25
Sparke Elementary School	Steam Flange	Boiler Room	Steel	6	0.25
Sparke Elementary School	Steam Flange	Boiler Room	Steel	6	0.25
Sparke Elementary School	Boiler Header	Boiler Room	Steel	8	6.00
Sparke Elementary School	Boiler Header	Boiler Room	Steel	8	6.00
Karopczyc Elementary School	Steam Bonnet	Boiler Room	Steel	2	1
Karopczyc Elementary School	Steam Bonnet	Boiler Room	Steel	2	1
Karopczyc Elementary School	Steam Bonnet	Boiler Room	Steel	2	1
Karopczyc Elementary School	Steam Bonnet	Boiler Room	Steel	2	1
Karopczyc Elementary School	Steam Bonnet	Boiler Room	Steel	8	2
Karopczyc Elementary School	Steam Bonnet	Boiler Room	Steel	8	2
Karopczyc Elementary School	Steam Bonnet	Boiler Room	Steel	4	2
Karopczyc Elementary School	Steam Bonnet	Boiler Room	Steel	6	2
Karopczyc Elementary School	Steam Bonnet	Boiler Room	Steel	3	1
Karopczyc Elementary School	Steam Valve	Boiler Room	Steel	6	2
Karopczyc Elementary School	Steam Valve	Boiler Room	Steel	3	2
Karopczyc Elementary School	Elbow	Boiler Room	Steel	8	1
Karopczyc Elementary School	Elbow	Boiler Room	Steel	8	1
Karopczyc Elementary School	Boiler Header	Boiler Room	Steel	10	5.5
Karopczyc Elementary School	Condensate Piping	Boiler Room	Steel	3	25

**FIM 7 – BOILERS-BURNER CONTROLLERS**

This FIM is for the installation of boiler controllers on all existing boilers listed in the following table:

Location	Amount
High School	3
Middle School	3
Stokes Elementary School	2
Sparke Elementary School	2
Karopczyc Elementary School	2

**FIM 8 – WINDOWS – WINDOW FILM**

This FIM is for the installation of a Vista Low Emissivity series VE 50 CDF window film on inside surface of the perimeter windows. The window film reduces up to 51% of solar gain during the summer periods and up to 31% winter heat loss reduction for single pane windows and provides up to 99% ultraviolet radiation gain as well. The most significant benefit of the film is the increase in insulative value of the windows, reducing the U-Value.

The film will be installed on the interior surface of all perimeter windows and door glass that is accessible without the need to disassemble fixtures and/or fixed equipment that blocks reasonable access to the interior surface of the windows/doors.

This installation includes removal and replacement of non-fixed (unattached) furniture, fixtures and window treatments, cleaning of only the interior surface of the windows and doors, and the installation of the film on said surface.

QUANTITY	DESCRIPTION	SQUARE FT.
1	Middle School	6,668
1	High School	7,570
1	Spark Elementary	4,218
1	Stokes Elementary	4,717

**FIM 9 – KITCHEN HOOD- EXHAUST FAN CONTROL**

This FIM provides for integration of kitchen exhaust hoods into the new BMS being provided under a separate proposal. The scope of work shall include:

- Provide DDC control of existing kitchen hood exhaust fans
- Provide start/stop, status, and alarm
- Provide local timed user override, with feedback to BMS
- Integrate into workstation and provide individual system graphic
- Provide alarming and trending as per project requirements

The facilities to get this measure:

- Island Trees Middle School
- Stokes Elementary
- Sparke Elementary

**FIM 10 – COMPUTERS- POWER MANAGEMENT**

Johnson Controls will provide Verdiem, Surveyor software for the installation on 453 PC's. The software can only be installed on non-Apple computers. Verdiem will work with Customer's IT Department to install and rapidly deploy the Surveyor software on Customer PC network. A two day installation plan will address server and client installation, basic administrative configurations, logical power management profile groupings, and energy consumption reporting. Verdiem will also provide ongoing technical support and product revisions for a three (3) year period.

**FIM 11 – WATER CONSERVATION**

This FIM is for the installation of the following:

- Staff and public restroom faucets will receive a .5 GPM aerator flow restrictor. These aerator flow restrictors will be tamper proof so that users cannot remove them. Special keys, used to remove the aerator flow restrictors for any necessary maintenance, will be supplied to the maintenance group. Also, these faucets will be repaired/replaced as necessary to eliminate leaks.
- General purpose sinks will receive a 1.5 GPM aerator flow restrictor. These aerator flow restrictors will be tamper proof so that users cannot remove them. Special keys, used to remove the aerator flow restrictors for any necessary maintenance, will be supplied to the maintenance group. Also, these faucets will be repaired/replaced as necessary to eliminate leaks.
- Food Service Sinks will receive the installation of Pedal Valve controls. The food service sinks will be retrofitted with hands free foot pedal faucet controllers. These pedals will eliminate existing faucet leaks as well as help prevent the user from walking away from the sink and leaving the water running. Customers prefer the Pedal Valve controls since they eliminate the need to touch the faucet controls and so eliminate hand contamination at the faucets. The food preparation and pot washing service Pedal Valve controls will be equipped with a locking mechanism for those applications where an unattended constant flow is necessary.

Facilities to receive this measure:

Building Name	A1	A2	P1
Sparke Elementary	10	30	4
Stokes Elementary	6	33	7
Middle School	48	35	10
High School	15	8	10
<b>TOTALS</b>	<b>79</b>	<b>106</b>	<b>31</b>

Scope Summary Upgrade Legend	
Code	Upgrade Type
A1	Restroom Faucet - Installation of 0.5 GPM flow restrictor and repair or replace faucet as needed
A2	General Purpose Faucet - Installation of 1.5 GPM flow restrictor and repair or replace faucet as needed
P1	Sinks - Installation of Pedal Valve on Sink

#### FIM 12 – RENEWABLE ENERGY – PHOTOVOLTAIC ELECTRIC GENERATION

This FIM provides for the installation of a new 5 kW photovoltaic electrical generation systems that will inter connect with the existing electrical distribution system at this location. The system consists of 22, 225 Watt modules to be located on the roof of the High School.

Dated , 2010

**CUSTOMER: ISLAND TREES UFSD**

Signature: 

Performance Contract (Rev 15 EC) 04/09  
Johnson Controls, Inc. – Proprietary  
© 2009 Johnson Controls, Inc.

**JOHNSON CONTROLS, INC.**

Signature: 



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

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

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

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

## ASSURED PERFORMANCE GUARANTEE

### I. PROJECT BENEFITS

**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 Term.

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

**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 Term.

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

**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 Section IV below.

**Guarantee Period** is eighteen (18) years or the useful life of the equipment being installed pursuant to this Agreement, whichever is less.

**Guarantee Term** will commence on the first day of the month next following the Substantial Completion date and will continue through the duration of the M&V Services, subject to earlier termination 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 Term.

**Measured Project Benefits** are the utility savings and cost avoidance calculated in accordance with the methodologies set forth in Section III below.

**Non-Measured Project Benefits** are identified in Section II below. The Non-Measured Project Benefits have been agreed to by Customer and will be deemed achieved in accordance with the schedule set forth in the Total Project Benefits table below. Customer and JCI agree that: (i) the Non-Measured Project Benefits may include, but are not limited to, future capital and operational costs avoided as a result of the Work and implementation of the Improvement Measures, (ii) achievement of the Non-Measured Project Benefits is outside of JCI's control, and (iii) Customer has evaluated sufficient information to conclude that the Non-Measured Project Benefits will occur and bears sole responsibility for ensuring that the Non-Measured Project Benefits will be realized. Accordingly, the Non-Measured Project Benefits shall not be measured or monitored by JCI at any time during the Guarantee Term; but rather shall be deemed achieved in accordance with the schedule set forth in the Total Project Benefits table below.

**Project Benefits** are the Measured Project Benefits plus the Non-Measured Project Benefits to be achieved for a particular period during the term of this Agreement. The cost of the M&V Services is included in the Total Project Benefits guaranteed to be achieved during the entire term of this Agreement.

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

**B. Project Benefits Summary.** Subject to the terms and conditions of this Agreement, JCI and Customer agree that Customer will be deemed to achieve a total of **\$1,253,665** in Non-Measured, **\$181,692** O&M savings and **\$83,000** Rebate Project Benefits and JCI guarantees that Customer will achieve a total of **\$4,995,353** in Measured Project Benefits during the term of this Agreement, for Total Project Benefits of **\$6,513,710** as set forth in the Total Project Benefits table below.

#### Total Project Benefits

Year	Utility Cost Avoidance* Measurable Savings	Utility Cost Avoidance** Non-Measurable Savings	Operations & Maintenance Cost Avoidance**	Energy Rebate- Non Recurring Savings	Total Guarantee d Project Benefits
Implem				\$83,000	\$83,000
1	\$213,345	\$53,542	\$10,094		\$276,981
2	\$219,745	\$55,149	\$10,094		\$284,988
3	\$226,338	\$56,803	\$10,094		\$293,235
4	\$233,128	\$58,507	\$10,094		\$301,729
5	\$240,122	\$60,262	\$10,094		\$310,478
6	\$247,325	\$62,070	\$10,094		\$319,490
7	\$254,745	\$63,932	\$10,094		\$328,772
8	\$262,387	\$65,850	\$10,094		\$338,332
9	\$270,259	\$67,826	\$10,094		\$348,179
10	\$278,367	\$69,861	\$10,094		\$358,322
11	\$286,718	\$71,957	\$10,094		\$368,768
12	\$295,319	\$74,115	\$10,094		\$379,529

13	\$304,179	\$76,339	\$10,094		\$390,612
14	\$313,304	\$78,629	\$10,094		\$402,027
15	\$322,703	\$80,988	\$10,094		\$413,785
16	\$332,385	\$83,417	\$10,094		\$425,896
17	\$342,356	\$85,920	\$10,094		\$438,370
18	\$352,627	\$88,497	\$10,094		\$451,218
<b>Totals</b>	<b>\$4,995,353</b>	<b>\$1,253,665</b>	<b>\$181,692</b>	<b>\$83,000</b>	<b>\$6,513,710</b>

\* Utility Cost Avoidance for Measurable Savings figures in the table above are based on anticipated increases in unit energy costs as set forth in the table in Section IV below.

\*\* Utility Cost Avoidance for Non-Measurable Savings in the table above are based on a mutually agreed fixed annual escalation rate of three percent (3%).

#### **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 Substantial Completion date. Within sixty (60) days of the commencement of the Guarantee Term, JCI will calculate the Measured Project Benefits achieved during the Installation Period plus any Non-Measured Project Benefits applicable to such period and advise Customer of same. Any Project Benefits achieved during the Installation Period may, at JCI's discretion, be allocated to the Annual Project Benefits for the first year of the Guarantee Term. Within sixty (60) (90) days of each anniversary of the commencement of the Guarantee Term, JCI will calculate the Measured Project Benefits achieved for the applicable year plus any Non-Measured Project Benefits applicable to such period and advise Customer of same.

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, or the useful life of the equipment being installed, whichever is less.

*Customer acknowledges and agrees that if, for any reason during the agreed-upon period of M&V Services, 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 of the North American Energy Measurement and Verification Protocol (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.*

*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 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 exactly as stipulated by JCI, or (iii) 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 ten (10) day period to cure such breach. If the Customer fails to cure such breach within such ten (10) day period, Customer acknowledges and agrees that the Assured Performance Guarantee shall automatically terminate.*

Moreover, 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 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.

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 specified criteria, then either: (a) the M&V Services will be renewed for a minimum of one (1) year, subject to Schedule 4 – Price and Payment Terms, until the cause of the Shortfall is resolved; or (b) 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, 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 for the remainder of the Guarantee Period.

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 for the remainder of the Guarantee Period.

### C. Project Benefits Shortfalls.

(i) Project Benefits Shortfalls. If an Annual Project Benefits Shortfall occurs for any one year of the Guarantee Term, JCI shall, subject to Customer's agreement which shall not be unreasonably withheld, (a) set off the amount of such shortfall against any unpaid balance Customer then owes to JCI, (b) where permitted by applicable law, increase the next year's amount of Annual Project Benefits by the amount of such shortfall, (c) pay to Customer the amount of such shortfall, or (d) subject to Customer's agreement, provide to Customer additional products or services, in the value of such shortfall, at no additional cost to Customer.\*

(ii) Additional Improvements. Where an Annual Project Benefits Shortfall has occurred, JCI may, subject to Customer's approval, implement additional Improvement Measures, at no cost to Customer, which may generate additional Project Benefits in future years of the Guarantee Term.

## II. NON-MEASURED PROJECT BENEFITS

The Project Benefits identified below shall be Non-Measured Project Benefits (as defined above) under this Schedule. The amount of the Non-Measured Project Benefits shall be deemed to increase during each year of the Guarantee Term by the escalation percentages set forth below.

Source of Non-Measured Project Benefits	First Year Project Benefits	Escalation
Steam Traps Replacements	\$33,870	3%
Boilers-Burner Controllers	\$10,925	3%
Water Conservation	\$7,619	3%
Kitchen Hood-Exhaust Fan Control	\$1,128	3%

TOTAL NON-MEASURED PROJECT BENEFITS	\$53,542	N/A
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Table 1.1

**FIM #5 Steam Traps- Replacements:**

JCI will replace/rebuild steam traps to reduce steam loss.

Steam Traps-Replacements				
Electric	Electric	Fossil Fuel	Fossil Fuel	Total
(kwh)	(\$)	MMBTU	(\$)	(\$)
0	0	2,933	\$33,870	\$33,870

Table 1.2

**FIM #7 Boilers-Burner Controllers:**

Johnson Controls will furnish and install a duty cycle controller manufactured by Intellidyne on Customer's boilers.

Boilers-Burner Controllers				
Electric	Electric	Fossil Fuel	Fossil Fuel	Total
(kwh)	(\$)	MMBTU	(\$)	(\$)
0	0	928	\$10,925	\$10,925

Table 1.3

**FIM #9 Kitchen Hood- Exhaust Fan Controls:**

Johnson Controls will install Kitchen Hood-Exhaust Fan Controls.

Kitchen Hood-Exhaust Fan Control				
Electric	Electric	Fossil Fuel	Fossil Fuel	Total
(kwh)	(\$)	MMBTU	(\$)	(\$)
1,741	263	77	\$865	\$1,128

Table 1.4

**FIM #11 Water Conservation**

Johnson Controls will install water valve controllers.

Water Conservation				
Electric	Electric	Fossil Fuel	Fossil Fuel	Total

(kwh)	(\$)	MMBTU	(\$)	(\$)
0	0	667	\$7,619	\$7,619

Table 1.5

### Description of Operations and Maintenance Cost Avoidance

It is mutually agreed that the following annual operation & maintenance savings will occur with the implementation of this Performance Contracting Project.

Lighting Upgrade - \$10,094

**Total - \$10,094**

### Energy Rebate Incentive Non-Recurring Savings

#### LIPA REBATE:

"Johnson Controls, Inc. will submit for LIPA's Commercial Construction Program pertaining to the lighting upgrade. JCI guarantees the LIPA lighting program rebate of \$68,000, and will pay that amount, or the difference thereof, whether or not LIPA makes the full final anticipated award."

**Lighting Rebate: \$68,000**

#### SOLAR PV REBATES:

Please note the rebate for the Photovoltaic is estimated based on the current rebate structure. If the rebate is reduced between the time of contract signing and SED approval then the size of the Photovoltaic systems will be redesigned accordingly. If the rebate actually obtained is higher than the estimated rebate, then any amount in excess of the estimated rebate shall be paid to customer.

**Solar PV Rebate: \$15,000**

**GUARANTEE RECONCILIATION:**

In the guarantee reconciliation documents, JCI will claim a credit equal to the actual amount of the rebates procured.

*Customer has furnished the foregoing information to JCI, which information forms the basis of the Non-Measured Project Benefits. Customer agrees that the Non-Measured Project Benefits are reasonable and that the installation of the Improvement Measures will enable Customer to take actions that will result in the achievement of such Non-Measured Project Benefits.*

**III. 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 apply these methodologies, as more fully detailed in the guidelines and standards of the International Measurement and Verification Protocol (IPMVP) and/or the Federal Energy Management Program (FEMP) and/or the North American Energy Measurement and Verification Protocol (NEMVP), in connection with the provision of M&V Services hereunder.*

**Option A****Partially Measured Retrofit Isolation**

Measured Project Benefits are determined by partial field measurement of the energy use of the system(s) to which an Improvement Measure was applied separate from the energy use of the rest of the facility. Measurements will be short-term with only one-time measurements before and after the Installation Period.

Partial measurement means that some but not all parameters will be measured. Careful review of the design and installation of Improvement Measures is intended to demonstrate that the projected values fairly represent the probable actual values. Agreed-upon values will be shown in the measurement and verification plan, along with analysis of the significance of the error they may introduce. Engineering calculations using short-term pre and post-retrofit measurements and stipulations are used to calculate Measured Project Benefits for the duration of the Guarantee Term.

Measured Project Benefits from the following Improvement Measures will be calculated using Option A:

**FIM # 1 Lighting-Fixture Retrofit**

**The baseline is fixed on field measurement and stipulated parameters--no continuous metering is required.**

The energy savings analysis for the post-installation is based on field measurement and stipulated parameters--no continuous metering is required.



## Pre-Installation Verification

The Baseline data is determined using:

- Occupancy hours of building as defined in exhibit 5. (Facility personnel interview and/or logger data)
- Use of a simple data recorder
- Surveys of actual lighting usage (line-by-line audit)

Johnson Controls determined the power (kilo-watts) of the various fixture types of the existing lighting systems in accordance with the detailed survey in Attachment 1, Lighting Fixture Guide. The wattage shall remain in effect through-out the term of this agreement and shall not be measured, monitored or adjusted.

Lighting savings calculations were completed using spreadsheet calculations. A complete audit of the existing lighting systems was performed for all buildings listed. The data recorded in the lighting survey is building name, room location, fixture type, fixture quantity, watts / fixture and annual hours of operation.

The following formulas are used in performing the baseline energy savings calculations:

### FORMULA 1

$$EFW_i = EMCW_i \div NF_i$$

$$EADC = \{EFW_i * NMP * PEDR\} + \{EFW_i * NMOP * OPEDR\}$$

Where:

EFW<sub>i</sub>: Existing fixture kilo-wattage for each type (i) (kW per fixture type)

EMCW<sub>i</sub>: Existing measured circuit kilo-wattage for each type (i) (kW)

NF<sub>i</sub>: Number of fixtures on circuit for each type (i).

NMP: Number of months peak per year (1.5)

NMOP: Number of months off peak per year (8)

PEDR: Peak Electrical demand rate (\$/kW)

OPEDR: Off Peak Electrical demand rate (\$/kW)

EADC: Existing annual demand cost for the existing lighting system (\$)

Johnson Controls will then determine Existing Annual Electrical Cost (EAEC) for the existing lighting system according to the following formula:

### FORMULA 2

$$EAEC = \{\sum EFW_i * ABH * EER\}$$

Where:

EAEC: Existing annual electrical cost for the existing lighting system (\$)

$\sum EFW_i$ : The sum of the existing fixture kW for all existing fixture types (kW)

ABH: Annual burn hours as defined in the benchmark annual burn hours section of this document

EER: Electrical energy rate (\$/kWh)

## Post-Installation Verification

Johnson Controls will make post retrofit power (kilo-watt) measurements. At the completion of each building under the project scope, a sample of the total fixtures that underwent retrofit measurements shall be sampled to determine post installation energy consumption. However, should a specific fixture type represent less than 5% of the total building fixture count, it may be excluded from the sampling. This will be performed once for the life of the contract.

**FORMULA 3**

$$NFW_i = NMCW_i + NF_i$$

$$NADC = \{NFW_i * NMP * PEDR\} + \{NFW_i * NMOP * OPEDR\}$$

Where:

NFW<sub>i</sub>: New fixture kilo-wattage for each type (i) (kW per fixture type)

NMCW<sub>i</sub>: New measured circuit kilo-wattage for each type (i) (kW)

NF<sub>i</sub>: Number of fixtures on circuit for each type (i)

NMP: Number of months peak per year (1.5)

NMOP: Number of months off peak per year (8)

PEDR: Peak Electrical demand rate (\$/kW)

OPEDR: Off Peak Electrical demand rate (\$/kW)

NADC: New annual demand cost for the new lighting system (\$)

Johnson Controls will then determine New Annual Electrical Cost (NAEC) for the new lighting system according to the following formula:

**FORMULA 4**

$$NAEC = \{\sum NFW_i * ABH * EER\}$$

Where:

NAEC: New annual electrical cost for the new lighting system (\$)

$\sum NFW_i$ : The sum of the new fixture kW for all new fixture types (kW)

ABH: Annual burn hours as defined in exhibit 5 of this document

EER: Electrical energy rate (\$/kWh)

**CALCULATION OF SAVINGS:**

Johnson Controls will determine net annual savings resulting from the Lighting Energy Conservation Measures according to the following formula:

**FORMULA 5**

$$NAS = \{(EAE - NAEC) + (EADC - NADC)\}$$

Where:

NAS: Net annual savings (\$)

EAE: Existing annual electrical cost (\$)

NAEC: New annual electrical cost (\$)

EADC: Existing annual demand cost for the existing lighting system (\$)

NADC: New annual demand cost for the new lighting system (\$)

**FIM # 2 Lighting- Fixture Controls**

Fixture Wattage Metering. Post-installation fixture wattages will be measured. An example of a metering protocol is:

JCI will take 15-minute, true RMS wattage measurements from at least six fixtures representative of the post-installation fixtures. Readings will be averaged to determine per fixture wattage values. For post-installation fixtures, readings should be taken only after the new fixtures have been operating for at least 100 hours. Meters used for this task will be calibrated and have an accuracy of +/- 2% of reading or better.

For lighting control measures, the measurement or definition of connected load will occur after all other energy-efficiency retrofits have been installed to avoid double counting the savings. The post-installation conditions identified in the post-installation equipment survey will be used for this purpose.

The reduction in post-installation energy use will be calculated based on a stipulated average 30% reduction in operating hours for each usage group depending on the space.

Operating hours are defined for each unique usage group within each building or facility that is being retrofitted and defined in. As described above, usage groups are areas with similar operating hours. Each usage group has similar use patterns and comparable average operating hours. The annual operating hours are equal to the mutually agreed upon hours tabled in Exhibit 5 under "Primary Operations Schedules Pre & Post Retrofit".

**Equations for Calculation of Energy Savings**

Savings for lighting control projects are defined by the following equation:

$$kWh\ Savings_t = \sum [(kW/fixture_{post} \times Quantity_{post}) \times (Hours\ of\ Operation_{baseline} \times \% \text{ Reduction in Hours})]_{t,u}$$

$$Savings = kWh\ Savings_t \times EER$$

Where:

$kWh\ Savings_t =$	the kilowatt-hour savings realized during the post-installation time period t
$kW/fixture_{post} =$	the lighting demand per fixture during post-installation period for usage group u
$Quantity_{post} =$	the quantity of affected fixtures after the lighting retrofit adjusted for inoperative and non-operative lighting fixtures for usage group u
$Hours\ of\ Operation_{baseline} =$	the total number of annual operating hours for usage group u (see "Lighting Burning Hours" Tables in Appendix)

% Reduction in Hours <sub>post</sub> =	the percent reduction in the total number of operating hours due to the installation of controlling devices for usage group u (stipulated as 20% or 33% for all usage groups based on space)
EER =	Electrical Energy Rate (Dollars per kWh without Demand)

### **FIM # 3 Building Envelope Improvements - Weatherization**

Utilizing an infrared camera the pre existing conditions will be documented. A thermo graphic picture of sample areas will be captured and documented as existing conditions.

Once the weatherization improvements have been completed, the areas captured under the pre existing condition will be revisited one time and a thermo graphic picture of the same areas will be captured.

The pre and post will be compared to show the improvement made to the building envelope. Savings will be based on field surveyed data and engineering calculations not from the thermo graphic images

### **FIM # 6 Heat Distribution System – Pipe and Valve Insulation**

Utilizing an infrared camera the pre existing conditions will be documented. A thermo graphic picture of sample exposed pipes and valves will be captured and documented as existing conditions.

Once the insulation has been completed, the sample captured under the pre existing condition will be revisited one time and a thermo graphic picture of the same pipes and valves will be captured.

The pre and post will be compared to show the improvement made through the insulation. Savings will be based on field surveyed data and engineering calculations detailed in the DEA not from the thermo graphic images.

### **FIM # 8 Windows-Window Film**

Utilizing an infrared camera the pre existing conditions will be documented. A thermo graphic picture of existing windows will be captured and documented as existing conditions.

Once the new window film installation is completed, the sample captured under the pre existing condition will be revisited one time and a thermo graphic picture of the same windows will be captured.

The pre and post will be compared to show the improvement made through the window film. Savings will be based on field surveyed data and engineering calculations detailed in the DEA not from the thermo graphic images.

### **FIM # 12 Renewable Energy- Photovoltaic Electric Generation**

Peak kW (PkW) will be measured on a design day during the first year after the installation to test the maximum output of the array. The Effective Full Load Hours (EFLH) are from published weather data and are stipulated to be used in the calculation as given below. The output must achieve the rated output as specified by the manufacturer.

Month	EFLH
January	80

February	90
March	100
April	100
May	110
June	130
July	140
August	130
September	120
October	110
November	100
December	90

**FORMULA 1**

$$MES = \sum PKW * EFLH * BER$$

Where:

MES: Monthly Energy savings (\$)  
 PKW: Peak kW (kW)  
 EFLH: Effective Full Load Hours (hours)  
 BER: Blended Electrical Energy Rate (\$/ kWh)

**Option B**  
**Retrofit Isolation**

Measured Project Benefits are determined by field measurement of the energy use of the systems to which an Improvement Measure was applied separate from the energy use of the rest of the facility. Short-term, long-term or continuous measurements are taken throughout the pre and post-retrofit periods. Engineering calculations using short term, long-term or continuous pre and post-retrofit measurements are used to calculate the Measured Project Benefits for the duration of the Guarantee Term.

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

**FIM # 4 Energy Management System**

Johnson Controls will show trend/history reports to prove that the systems are operating as outlined in the scope of work, Schedule 1. Specific calculations use reasonable estimates for the seasonal heating load. Johnson Controls will install a DDC control system at the Customer's schools. This would offer an array of energy management feature such as individual occupancy scheduling for each zone of the building, optimal start, holiday programming, hot water reset, pump control, trend logging, alarm generation and e-mail notification etc. In buildings, that already have older DDC systems, all existing points would be imported in to the new system.

The new system will also provide web-based remote access in order to allow Johnson Controls and Customer to maximize energy savings through implementation of energy saving strategies using the proposed DDC control system.

The savings are the result of the above mentioned improvement measures and are incurred because heating levels will be reduced during unoccupied periods in the heating season. Temperature trend/set back reports will document space conditions and will verify performance.

### **FIM # 10 Computers-Power Management**

Ongoing technical support and product revisions, with an annual energy audit to ensure maximized energy savings will be provided for the first three years. Detailed reports on kWh consumption for every PC and for the entire network will be provided annually for the first three years. Reports can also include the cost of PC and network-wide energy consumption based on the actual energy rate—as well as energy consumption before and after the adoption of new power management policies. The average energy savings from the first three years will be used for the remaining term to calculate the savings.

#### **a) Utility Baseline & Project Benefits**

*{Mutually agreed upon parameters}*

##### **PERFORMANCE MEASUREMENT:**

Johnson Controls will determine the Blended Electrical Energy Rate (BER) according to the following formula:

##### **FORMULA 1**

$$BER = \sum TKC_{1-12} \div \sum kWh_{1-12}$$

Where:

BER: Blended Electrical Energy Rate (Dollars per kWh)

$\sum TKC_{1-12}$ : Sum Total of Monthly kWh Costs (Dollars) including Fuel Adjustment Cost and other related Energy Charges for Months 1 Through 12

$\sum kWh_{1-12}$ : Sum Total of Monthly Electricity Use (kWh) for Months 1 Through 12

Johnson Controls will then determine the Electrical Energy Rate (EER) according to the following formula:

##### **FORMULA 2**

$$EER = \sum TKC_{1-12} \div \sum kWh_{1-12}$$

Where:

EER: Electrical Energy Rate (Dollars per kWh without Demand)

$\sum TKC_{1-12}$ : Sum Total of Monthly kWh Costs (Dollars) not including Demand Charge for Months 1 Through 12

$\sum kWh_{1-12}$ : Sum Total of Monthly Electricity Use (kWh) for Months 1 Through 12

Johnson Controls will determine the Average Oil Rate (AOR) based on the following formula:

##### **FORMULA 3**

$$\text{AOR} = \Sigma \text{TOC}_{1-12} \div \Sigma \text{TOU}_{1-12}$$

Where:

AOR: Annual Average Fuel Oil Rate (\$/Gal)

$\Sigma \text{TOC}_{1-12}$ : Sum of Monthly Oil Costs for months 1 Through 12 (\$)

$\Sigma \text{TOU}_{1-12}$ : Sum of Monthly Oil Use for Months 1 Through 12 (Gal)

Johnson Controls will determine the Natural Gas Rate (NGR) based on the following formula:

#### FORMULA 4

$$\text{NGR} = \text{STGC}_{1-12} \div \text{STGU}_{1-12}$$

Where:

NGR: Natural Gas Rate (Dollars per Therm)

$\text{STGC}_{1-12}$  Sum Total of Monthly Gas Costs (Dollars) for Months 1 through 12

$\text{STGU}_{1-12}$  Sum Total of Monthly Gas Use (Therms) for Months 1 through 12

Johnson Controls determines the Off Peak Electrical Demand Rate (OPEDR) according to the following formulas:

#### FORMULA 5

$$\text{OPEDR} = \Sigma \text{TKC}_{1-8} \div \Sigma \text{kW}_{1-8}$$

Where:

OPEDR<sup>1</sup>: Off Peak Electrical Demand Rate (Dollars per kW)

$\Sigma \text{TKC}_{1-8}$ : Sum Total of Monthly kW Costs (Dollars) for Months 1 Through 8

$\Sigma \text{kW}_{1-8}$ : Sum Total of Monthly Electricity Demand (kW) for Months 1 Through 8

Johnson Controls determines the Peak Electrical Demand Rate (PEDR) according to the following formulas:

#### FORMULA 6

$$\text{PEDR} = \Sigma \text{TKC}_{1.5} \div \Sigma \text{kW}_{1.5}$$

Where:

PEDR<sup>1</sup>: Peak Electrical Demand Rate (Dollars per kW)

$\Sigma \text{TKC}_{1.5}$ : Sum Total of Monthly kW Costs (Dollars) for 1.5 Months

$\Sigma \text{kW}_{1.5}$ : Sum Total of Monthly Electricity Demand (kW) for 1.5 Months

### 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 Guarantee Term, 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; (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 Guarantee Term that reasonably could be expected to change the amount of Project Benefits realized under this Agreement.

Such a change, expansion, addition, or condition would include, but is not limited to: (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) failure of any portion of the premises to meet building codes; (f) changes in utility suppliers, utility rates, method of utility billing, or method of utility purchasing; (g) insufficient or improper maintenance or unsound usage 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.

Such a change or condition need not be identified in the Baseline in order to permit JCI to make an adjustment to the Baseline and/or the Annual Project Benefits. If JCI does not receive the notice within the time period specified above or travels to either Customer's location or the project site to determine the nature and scope of such changes, Customer agrees to pay JCI, in addition to any other amounts due under this Agreement, the applicable hourly consulting rate for the time it took to determine the changes and to make any adjustments and/or corrections to the project as a result of the changes, plus all reasonable and documented out-of-pocket expenses, including travel costs. 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. Should Customer fail to promptly provide JCI with notice of any such change or condition, JCI may make reasonable estimates as to the impact of such change or condition and as to the date on which such change or condition first arose in calculating the impact of such change or condition, and such estimates shall be conclusive.

#### IV. 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 three percent (3%). The Base Utility Cost for each type of utility represents the 12 month average utility costs from July 2008 to June 2009.

Building	Sq.Ft	Average kW Cost	Cost Per kWh (BEER)	Cost per Therm	Cost per Gallon
Island Trees Stokes ES	73,906	\$ 9.90	\$0.19	-	\$1.44
Island Trees Middle Memorial School	154,376	\$ 8.90	\$0.18	\$4.82	\$1.62
Island Trees High School	125,993	\$ 9.99	\$0.19	\$1.91	\$1.65
Island Trees Sparke ES	57,993	\$ 9.28	\$0.20	-	\$1.63

Karopczyc School	41,779	\$ 9.27	\$0.20	\$2.18	\$1.78
<b>Total</b>	<b>454,047</b>	-	-	-	-

## V. PRIMARY OPERATIONS SCHEDULE PRE & POST RETROFIT

### Island Trees High School

#### Pre/Post Retrofit –

	Lighting – Classrooms/Gyms (Post)	
	Time On	Time Off
Monday	6:00 am	4:00 pm
Tuesday	6:00 am	4:00 pm
Wednesday	6:00 am	4:00 pm
Thursday	6:00 am	4:00 pm
Friday	6:00 am	4:00 pm
Saturday	Average of 5 hours over the weekend	
Sunday		
Holidays	OFF	OFF

HVAC – Occupied Hours (Pre)		
Monday	6:00 am	10:00 pm
Tuesday	6:00 am	10:00 pm
Wednesday	6:00 am	10:00 pm
Thursday	6:00 am	10:00 pm
Friday	6:00 am	10:00 pm
Saturday	-	-
Sunday	-	-
Holidays	-	-

HVAC – Occupied Hours (Post)		
Monday	6:00 am	4:00 pm
Tuesday	6:00 am	4:00 pm
Wednesday	6:00 am	4:00 pm
Thursday	6:00 am	4:00 pm
Friday	6:00 am	4:00 pm
Saturday	-	-
Sunday	-	-
Holidays	-	-

### Pre/Post Retrofit Building Temperatures:

#### Pre/Post Retrofit –

##### Pre-Temperatures:

Occupied Room Temperature During Heating Season: 70-72 degrees F

Unoccupied Low Temperature Limit During Heating Season: 65 degrees F

Heating season is October to May

Occupied Room Temperature During Cooling Season: 70 degrees F

Unoccupied High Temperature Limit During Cooling Season: 74 degrees F

Cooling season is June to September

##### Post-Temperatures:

Occupied Room Temperature During Heating Season: 68 degrees F

Unoccupied Low Temperature Limit During Heating Season: 55 degrees F

Heating season is October to May

Occupied Room Temperature During Cooling Season: 72 degrees F

Unoccupied High Temperature Limit During Cooling Season: 78 degrees F

Cooling season is June to September

**Island Trees Middle School****Pre/Post Retrofit –**

	Lighting – Classrooms/Gyms (Post)	
	Time On	Time Off
Monday	6:00 am	4:00 pm
Tuesday	6:00 am	4:00 pm
Wednesday	6:00 am	4:00 pm
Thursday	6:00 am	4:00 pm
Friday	6:00 am	4:00 pm
Saturday	Average of 5 hours over the weekend	
Sunday		
Holidays	OFF	OFF

HVAC – Occupied Hours (Pre)		
Monday	6:00 am	5:00 pm
Tuesday	6:00 am	5:00 pm
Wednesday	6:00 am	5:00 pm
Thursday	6:00 am	5:00 pm
Friday	6:00 am	5:00 pm
Saturday	-	-
Sunday	-	-
Holidays	-	-

HVAC – Occupied Hours (Post)		
Monday	6:00 am	4:00 pm
Tuesday	6:00 am	4:00 pm
Wednesday	6:00 am	4:00 pm
Thursday	6:00 am	4:00 pm
Friday	6:00 am	4:00 pm
Saturday	-	-
Sunday	-	-
Holidays	-	-

#### **Pre/Post Retrofit –**

##### **Pre-Temperatures:**

Occupied Room Temperature During Heating Season: 70-72 degrees F

Unoccupied Low Temperature Limit During Heating Season: 65 degrees F

Heating season is October to May

Occupied Room Temperature During Cooling Season: 70 degrees F

Unoccupied High Temperature Limit During Cooling Season: 74 degrees F

Cooling season is June to September

##### **Post-Temperatures:**

Occupied Room Temperature During Heating Season: 68 degrees F

Unoccupied Low Temperature Limit During Heating Season: 55 degrees F

Heating season is October to May

Occupied Room Temperature During Cooling Season: 72 degrees F

Unoccupied High Temperature Limit During Cooling Season: 78 degrees F

Cooling season is June to September

Stokes Elementary School

## Pre/Post Retrofit --

	Lighting -- Classrooms/Gyms (Post)	
	Time On	Time Off
Monday	6:00 am	4:00 pm
Tuesday	6:00 am	4:00 pm
Wednesday	6:00 am	4:00 pm
Thursday	6:00 am	4:00 pm
Friday	6:00 am	4:00 pm
Saturday	Average of 5 hours over the weekend	
Sunday		

Holidays	OFF	OFF
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HVAC – Occupied Hours (Pre)		
Monday	6:00 am	3:00 pm
Tuesday	6:00 am	3:00 pm
Wednesday	6:00 am	3:00 pm
Thursday	6:00 am	3:00 pm
Friday	6:00 am	3:00 pm
Saturday	-	-
Sunday	-	-
Holidays	-	-

HVAC – Occupied Hours (Post)		
Monday	6:00 am	3:00 pm
Tuesday	6:00 am	3:00 pm
Wednesday	6:00 am	3:00 pm
Thursday	6:00 am	3:00 pm
Friday	6:00 am	3:00 pm
Saturday	-	-
Sunday	-	-
Holidays	-	-

**Pre/Post Retrofit –****Pre-Temperatures:**

Occupied Room Temperature During Heating Season: 70-72 degrees F  
 Unoccupied Low Temperature Limit During Heating Season: 65 degrees F  
 Heating season is October to May  
 Occupied Room Temperature During Cooling Season: 70 degrees F  
 Unoccupied High Temperature Limit During Cooling Season: 74 degrees F  
 Cooling season is June to September

**Post-Temperatures:**

Occupied Room Temperature During Heating Season: 68 degrees F  
 Unoccupied Low Temperature Limit During Heating Season: 55 degrees F  
 Heating season is October to May  
 Occupied Room Temperature During Cooling Season: 72 degrees F  
 Unoccupied High Temperature Limit During Cooling Season: 78 degrees F

Cooling season is June to September

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**Sparke Elementary School**

**Pre/Post Retrofit –**

	Lighting – Classrooms/Gyms (Post)	
	Time On	Time Off
Monday	6:00 am	4:00 pm
Tuesday	6:00 am	4:00 pm
Wednesday	6:00 am	4:00 pm
Thursday	6:00 am	4:00 pm
Friday	6:00 am	4:00 pm



Saturday	Average of 5 hours over the weekend	
Sunday		
Holidays	OFF	OFF

HVAC – Occupied Hours (Pre)		
Monday	6:00 am	3:00 pm
Tuesday	6:00 am	3:00 pm
Wednesday	6:00 am	3:00 pm
Thursday	6:00 am	3:00 pm
Friday	6:00 am	3:00 pm
Saturday	-	-
Sunday	-	-
Holidays	-	-

HVAC – Occupied Hours (Post)		
Monday	6:00 am	3:00 pm
Tuesday	6:00 am	3:00 pm
Wednesday	6:00 am	3:00 pm
Thursday	6:00 am	3:00 pm
Friday	6:00 am	3:00 pm
Saturday	-	-
Sunday	-	-
Holidays	-	-

**Pre/Post Retrofit –****Pre-Temperatures:**

Occupied Room Temperature During Heating Season: 70-72 degrees F  
 Unoccupied Low Temperature Limit During Heating Season: 65 degrees F  
 Heating season is October to May  
 Occupied Room Temperature During Cooling Season: 70 degrees F  
 Unoccupied High Temperature Limit During Cooling Season: 74 degrees F  
 Cooling season is June to September

**Post-Temperatures:**

Occupied Room Temperature During Heating Season: 68 degrees F  
 Unoccupied Low Temperature Limit During Heating Season: 55 degrees F

Heating season is October to May

Occupied Room Temperature During Cooling Season: 72 degrees F

Unoccupied High Temperature Limit During Cooling Season: 78 degrees F

Cooling season is June to September

**Karopczyz Elementary School**

**Pre/Post Retrofit –**

	Lighting – Classrooms/Gyms (Post)	
	Time On	Time Off
Monday	6:00 am	4:00 pm
Tuesday	6:00 am	4:00 pm
Wednesday	6:00 am	4:00 pm

Thursday	6:00 am	4:00 pm
Friday	6:00 am	4:00 pm
Saturday	Average of 5 hours over the weekend	
Sunday		
Holidays	OFF	OFF

HVAC – Occupied Hours (Pre)		
Monday	6:00 am	3:00 pm
Tuesday	6:00 am	3:00 pm
Wednesday	6:00 am	3:00 pm
Thursday	6:00 am	3:00 pm
Friday	6:00 am	3:00 pm
Saturday	-	-
Sunday	-	-
Holidays	-	-

HVAC – Occupied Hours (Post)		
Monday	6:00 am	3:00 pm
Tuesday	6:00 am	3:00 pm
Wednesday	6:00 am	3:00 pm
Thursday	6:00 am	3:00 pm
Friday	6:00 am	3:00 pm
Saturday	-	-
Sunday	-	-
Holidays	-	-

**Pre/Post Retrofit –****Pre-Temperatures:**

Occupied Room Temperature During Heating Season: 70-72 degrees F

Unoccupied Low Temperature Limit During Heating Season: 70 degrees F

Heating season is October to May

Occupied Room Temperature During Cooling Season: 70 degrees F

Unoccupied High Temperature Limit During Cooling Season: 74 degrees F

Cooling season is June to September

**Post-Temperatures:**

Occupied Room Temperature During Heating Season: 68 degrees F

Unoccupied Low Temperature Limit During Heating Season: 55 degrees F

Heating season is October to May

Occupied Room Temperature During Cooling Season: 72 degrees F

Unoccupied High Temperature Limit During Cooling Season: 78 degrees F

Cooling season is June to September

**VI. 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 Assurance Engineer will track Measured Project Benefits. JCI will report the Measured Project Benefits achieved during the Installation Period, as well as any Non-Measured Project Benefits applicable to the Installation Period, to Customer within sixty (60) days of the commencement of the Guarantee Term.

2. Within sixty (60) days of each anniversary of the commencement of the Guarantee Term, JCI will provide Customer with an annual 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 Guarantee Term, a JCI Performance Assurance 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 Assurance Engineer will periodically assist Customer, on-site or remotely, with respect to the following activities:~~
- A. conduct annual on site visits to each building to verify proper operation of the equipment installed under the project.
  - B. review of information furnished by Customer from the facility management system to confirm that control strategies are in place and functioning;
  - C. advise Customer's designated personnel of any performance deficiencies based on such information;
  - D. coordinate with Customer's designated personnel to address any performance deficiencies that affect the realization of Measured Project Benefits; and
  - E. 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. confirm the building management system employs the control strategies and set points specified in this Agreement; and
  - C. 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

## 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;
3. Providing timely reviews and approvals of design submissions, proposed change orders, and other project documents;
4. Providing the following information with respect to the project and project site as soon as practicable following JCI's request:
  - a. surveys describing the property, boundaries, topography and reference points for use during construction, including existing service and utility lines;
  - b. geotechnical studies describing subsurface conditions, and other surveys describing other latent or concealed physical conditions at the project site;
  - c. temporary and permanent easements, zoning and other requirements and encumbrances affecting land use, or necessary to permit the proper design and construction of the project and enable JCI to perform the Work;
  - d. a legal description of the project site;
  - e. as-built and record drawings of any existing structures at the project site; and
  - f. environmental studies, reports and impact statement describing the environmental conditions, including hazardous conditions or materials, in existence at the project site.
5. Providing assistance to JCI in obtaining any permits, approvals, and licenses that are JCI's responsibility to obtain as set forth in Schedule 1;
6. Obtaining any permits, approvals, and licenses that are necessary for the performance of the Work and are not JCI's responsibility to obtain as set forth in Schedule 1;
7. 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;
8. Providing the utility bills, reports, and similar information reasonably necessary for administering JCI's obligations under the Assured Performance Guarantee within seven (7) days of Customer's receipt and/or generation or JCI's request therefore;
9. Providing all records relating to energy and/or water usage and related maintenance of the premises and relevant equipment requested by JCI;
10. Providing and installing utility sub-meters on all new construction and/or additions built during the Guarantee Term as recommended by JCI or, alternatively, paying JCI's applicable fees for calculating necessary adjustments to the Assured Performance Guarantee as a result of the new construction;

11. Providing and maintaining a dedicated telephone line and/or TCP/IP remote connection to facilitate remote monitoring of relevant equipment;

12. Promptly notifying JCI of any change in use or condition described in Section III of Schedule 2 or any other matter that may impact the Assured Performance Guarantee;

In addition to the foregoing, Customer is responsible for the items set forth below in connection with utility meter projects:

1. Isolating the utility system to allow for meter/valve change out, including identification of all shut-off valves;
2. Scheduling shutdowns, downtimes, and relocation of new commercial vaults;
3. Traffic safety during installation;
4. Ongoing care and maintenance of the utility system, including all meters, AMR equipment and systems, meter boxes, and meter vaults at or above manufacturers' specifications and recommendations;

## Schedule 4

### PRICE AND PAYMENT TERMS

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

1. Work. The price to be paid by Customer for the Work shall be **\$5,046,697**. Payments (including payment for materials delivered to JCI and work performed on and off-site) shall be made to JCI as follows:

To be based on a schedule of values mutually negotiated between the Customer, JCI and the leasing company.

2. M&V Services. The total annual price for JCI's M&V Services, as detailed on the mutually agreeable Schedule 2 attached to this Agreement, is **\$11,288 for the first year**. This amount will be paid to JCI in two (2) semi-annual installments of **\$5,644** each. These payments will be due and payable when the Customer receives JCI's invoice and in advance of the services JCI is to provide, and shall be made for the first three years. The annual price is escalated 3% every year.

Annual amount due for the first year: **\$11,288**

Due Date: within thirty (30) days of Customer's receipt of JCI's invoice

First payment due: Within thirty (30) days of invoice date.

Year	Amount
1	\$11,288
2	\$11,627
3	\$11,975
<b>Total</b>	<b>\$34,890</b>



NOTICE TO PROCEED

Johnson Controls, Inc.  
6A Aerial Way  
Syosset NY, 11791  
ATTN: Charlie Murphy

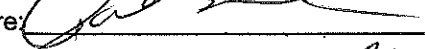
Re: Notice to Proceed for Island Trees UFSD

Dear Charlie Murphy:

This Notice to Proceed is being issued by Island Trees UFSD ("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.


The parties' obligations under the Performance Contract are contingent upon written approval of the New York State Education Department ("SED"), the requirements of the Regulations of the Commissioner of Education, Section 155.20 and the Customer securing financing as set forth within Paragraph 30 of the Agreement. The parties acknowledge and agree that this Notice to Proceed shall not be executed or effective until after Customer has received written approval from SED and secured financing in accordance with Paragraph 30 of this Agreement. 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.

ISLAND TREES UNION FREE SCHOOL DISTRICT

Signature:   
Printed Name: Patricia Mahon  
Title: Board President  
Date: 8/4/10

ACKNOWLEDGED & AGREED TO:

JOHNSON CONTROLS, INC.

Signature:   
Printed Name: BARBARA A. MORETZ  
Title: REGIONAL VP/GM  
Date: 06-21-10

## CHANGE ORDER

Performance Contract dated _____, 20____ between Johnson Controls, Inc. and Customer	Change Order No. _____	Date (mo/day/yr) _____
Customer [Insert Customer Name]		
The above referenced Performance Contract is hereby modified to the extent described below in accordance with the Terms and Conditions of the CHANGE ORDERS section thereof.		
Scope of Work changed as follows:          		
Total amount of this Change Order .....	\$ _____	
Total Performance Contract amount as revised by this Change Order .....	\$ _____	
The time for completion is: <input type="checkbox"/> increased, <input type="checkbox"/> decreased, <input type="checkbox"/> unchanged. The new completion date resulting from this Change Order is:		(mo, day, yr)
[check if applicable] Assured Performance Guarantee changed as follows:          		
Unless specifically changed by this Change Order, all terms, conditions and provisions of the above referenced Performance Contract remain unchanged and in full effect.		
<b>JOHNSON CONTROLS, INC.</b>	<b>CUSTOMER</b>	
Signature:	Signature:	
Printed Name:	Printed Name:	
Title:	Title:	

**CERTIFICATE OF SUBSTANTIAL COMPLETION**

**PARTIES:** JOHNSON CONTROLS, INC. ("JCI")  
[Insert JCI Address]

[Insert Customer Name] ("Customer")  
[Insert Customer Address]

**PROJECT:** [Insert Project Name]; Performance Contract dated \_\_\_\_\_, 20\_\_ between JCI and Customer

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

- a. The work set forth in the Performance Contract is substantially complete.
- b. Customer has received the manuals, warranty information, and training required under the Performance Contract.
- c. The following punch list items must be completed by JCI (check as applicable):
  - ☐ punch list attached
  - ☐ punch list complete
- d. Upon completion of the punch list items, or if such punch list items are complete, JCI and Customer shall sign the Certificate of Final Completion attached hereto.

Dated \_\_\_\_\_, 20\_\_.

**CUSTOMER:**

**JOHNSON CONTROLS, INC.**

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

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

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

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

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

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

**CERTIFICATE OF FINAL COMPLETION**

**PARTIES:** JOHNSON CONTROLS, INC. ("JCI")  
[Insert JCI Address]

[Insert Customer Name] ("Customer")  
[Insert Customer Address]

**PROJECT:** [Insert Project Name]; Performance Contract dated \_\_\_\_\_, 20\_\_ 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.
- b. Customer accepts the work as complete and hereby releases JCI's obligations under any performance and payment bonds posted for the project as of the date set forth below.

Dated \_\_\_\_\_, 20\_\_ .

**CUSTOMER:**

**JOHNSON CONTROLS, INC.**

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

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

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

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

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

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