

## **ENERGY SERVICE PERFORMANCE CONTRACT**

This Energy Service Performance Contract (“Contract”) is made and entered into this 29<sup>th</sup> day of October, 2023 by and between Day Automation Systems, Inc. (“Day”), having its principal place of business at 7931 Rae Boulevard, Victor, New York 14564 and Charlotte Valley Central School District (“Customer”) located at 15611 State Hwy 23 Davenport, NY 13750..

### **R E C I T A L S**

**WHEREAS**, Customer owns and operates the facility described herein and wishes to acquire equipment and services to reduce energy costs and related expenses at the facility; and

**WHEREAS**, Day has experience and technical management capabilities to identify and evaluate energy cost saving opportunities, and provide for engineering, procurement, installation, maintenance and measurement of cost-effective energy cost saving measures; and

**WHEREAS**, Day has delivered to the Customer a technical energy audit report development plan (“Audit Report”) which includes an assessment of the energy consumption characteristics of the Customer’s facility and the identification and evaluation of viable cost saving measures as well as estimates of expected energy and operational savings and associated project costs for each recommended cost saving measure; and

**WHEREAS**, Customer desires to contract with Day for the design, installation, maintenance and measurement of the cost saving measures all set forth herein.

**NOW, THEREFORE**, the parties hereto agree as follows:

**ARTICLE 1 - CONTRACT SERVICES AND COMPENSATION**

1.1 **Contract Exhibits.** Day has prepared and Customer has approved and accepted the exhibits set forth below, copies of which are attached hereto and made a part of his Contract by reference:

Exhibit A	Payment Schedule
Exhibit B	Scope of Services
Exhibit C	Description of the Premises
Exhibit D	Construction and Installation Schedule
Exhibit E	Guaranty
Exhibit F	Performance Period Services
Exhibit G	Addendum No. 1

1.2. **Services and Performance Period Services.**

a. **Services.** Day shall commence performance of the services outlined in Exhibit B within thirty (30) days following the execution of this Contract (the "Start Date") and approval by SED. Day shall use commercially reasonable efforts to substantially complete performance of the services at the premises identified in Exhibit C within 540 days of the Start Date (hereinafter "Substantial Completion"). Attached here to as Exhibit D is an indicative project schedule setting forth estimated performance time frames and sequencing of the services. Exhibit D is subject to change upon the agreement of the parties. Day and the Customer shall cooperate jointly in good faith to develop and maintain the schedule for the performance of the services hereunder. Day's obligations hereunder are limited to performing the services as defined herein. Excluded from the services are any modifications or alterations to the premises that may be required by the operation of Americans with Disabilities Act or any other law or building codes.

b. **Performance Period Services.** During the term thereof, Day shall furnish and Customer shall pay for the Performance Period Services as and when described in Exhibit F.

1.3 **Contract Price.** Subject to the terms and conditions herein, as payment for Day's performance in furnishing of the services as described in Exhibit B, Customer shall pay or caused to be paid to Day pursuant to Section 1.5 the sum of \$1,066,999 (One Million, Sixty Six Thousand, Nine Hundred and Ninety Nine Dollars) which contract price includes all applicable sales, consumer use or similar taxes for the services required to be performed by Day pursuant to this Contract. The contract price does not include the cost to Customer for Performance Period Services to be furnished by Day pursuant to Exhibit F or the Customer's direct cost (if any) as shown in Exhibit A.

(i) **Price Adjustment:** The Parties acknowledge that this contract is contingent upon NYSED approval, which occurs subsequent to the initial contract pricing submitted by Day. Within sixty (60) days of NYSED approval, Day shall notify Customer of any price escalations in materials or equipment that accrued from the submission of Day's original pricing to final approval of the project by NYSED that would materially impact the cost or schedule for the Project. Upon such notice, the Customer shall have the option to approve the additional pricing proposed by Day or terminate this Agreement within ten (10) days of receipt of said notice, all at no cost to the Customer.

1.4 **Service Payment Terms.** Customer shall pay or caused to be paid to Day for the services as follows:

(i) **Initial Payment.** Upon execution hereof, Customer shall pay 20% of the Contract Price for engineering, drafting, mobilization and other costs;

(ii) **Monthly Payment and Final Payment.** Day will invoice for the Contract Price on a monthly basis for all materials and equipment delivered to the premises and for all installation, labor and services performed during the billing period. Day anticipates that construction progress will be billed in accordance with the payment schedule set forth in Exhibit A - Table A.1. Customer shall pay all amounts due upon receipt of the invoice and any invoice not paid within 30 calendar days of its due date shall bear interest at the rate of 1.5% per month.

(iii) **Annual Services Payment.** Day will invoice annually for the Measurement and Verification Services and the Maintenance Services as set forth in Exhibit A, Table A.2 and Table A.3 and as set forth in Exhibit F.

(iv) **Rebates and Incentives –** Day will apply for rebate and incentive funds on the behalf of the Customer through programs that are available prior to construction of the project that are managed by NYSERDA and the Local Utility provider. DAY, with any needed assistance from the Customer, will submit all required documentation and measurement and verification for the programs. These funds, however, are not guaranteed to be available and are based on project performance.

1.5 **Energy Savings Guaranty.** Day guarantees the level of energy and operational savings as provided for in Exhibit E and any sub-exhibits thereto which will be achieved each year as a result of the services specified herein.

1.6 **Term.** The term of this Contract shall commence as of the date first written above and shall end upon the expiration of the guaranty term set forth in Exhibit E, unless terminated earlier pursuant to the terms herein.

## **ARTICLE 2 - PERFORMANCE**

2.1 **Construction Procedures and Change to Services.** Day shall supervise and direct services using qualified personnel. Day shall have the exclusive control over construction means, methods, techniques, sequences and procedures except as set forth herein. For any revisions to the services herein, Day shall obtain Customer's prior consent to material deviations from the original scope of services, which consent shall not be unreasonably withheld, conditioned or delayed. With respect to any material deviations from the original scope of services sought by Day, it shall provide the details of the deviations and the impact on the schedule and the additional cost to the District, if any.

2.2 **Substantial Completion.** Day may provide written notice to Customer that one or more items comprising the services described in Exhibit B is/are substantially complete and request the Customer issue a certificate of substantial completion with respect to such service in a form mutually agreeable to both parties. Substantial completion with respect to the service element shall be the date when the specified service has been performed or installed and is operating as required by this Contract, with only minor work remaining, which shall be specified on a punchlist agreed upon by Customer and Day and, if applicable, attached to the certificate of substantial completion and acceptance. Customer shall within thirty (30) days following receipt of the certificate of substantial completion and acceptance inspect the specified service elements and either execute the certificate or reject such certificate setting forth in detail the reasons for such rejection. If Customer fails to accept or reject the certificate of substantial completion and acceptance within such 30-day period, Customer shall be deemed to have accepted the services outlined in the certificate of substantial completion and acceptance. If Customer timely and properly rejects such certificate, Day shall, with reasonable diligence and speed, correct deficiencies in the services and will issue another certificate of substantial completion and acceptance to Customer. The procedures set forth above shall be repeated until the certificate of substantial completion and acceptance has been executed or deemed executed by the Customer. Customer's acceptance of the certificate of substantial completion and acceptance shall not be unreasonably withheld, conditioned or delayed by Customer.

2.3 **Final Completion.** Upon Customer's receipt of written notice from Day that the services are ready for final inspection and acceptance, Customer and Day shall inspect the services

and determine whether the same had been performed in accordance with this Contract. If Customer considers the services complete and performed in accordance with this Contract, Customer shall execute a certificate of final completion and acceptance in a form mutually agreed to by the parties to be executed by an authorized representative of Customer. Upon Day presenting a certificate of final completion and acceptance to Customer for execution, Customer shall have thirty (30) days from the date of the certificate in order to obtain written objections, if any, to the issuance of the certificate, identifying the specific parts of the services that Customer believes have not been completed and providing specific facts in support of Customer's belief that the services have not been finally completed. If Customer executes the certificate or fails to deliver to Day written objections prior to the deadline set forth above, the date of final completion shall be the date the certificate was submitted to Customer.

2.4 **Delays.** If Day is delayed in the commencement or completion of any part of the services due to an event of Force Majeure (defined herein) or due to the acts or omissions of the Customers or any of its affiliates or its respective employees, representatives, agents, contractors, lenders, successors or assigns (collectively "Customer's Representatives"), or the failure of any Customer's Representatives to perform its obligations under this Contract or cooperate with Day in the timely performance of the services, then Day will notify the Customer as soon as practicable but in no event greater than 21 business days of the existence, extent of and reasons for such delay. Day shall be entitled to a change order to extend the time of completion of the services and/or any additional costs for furnishing the services to the extent affected by such delays in accordance with Section 2.8.

2.5 **Permits and Governmental Fees.** Day shall secure (with Customer's assistance) and pay for building and other permits and governmental fees, licenses, and inspections necessary for proper performance and completion of the services which are legally required to be obtained in Day's or its subcontractor's name. Customer is responsible for any other approvals, easements, assessments and charges for construction, use or occupancy of permanent structures or for permanent changes to existing facilities which are not the responsibility of Day under this section. Notwithstanding the following, Customer is responsible for any governmental or regulatory permits identified in Exhibit B. Customer may, but shall not be obligated to, retain a third-party consultant acceptable to Day, at Customer's sole cost and expense, to review and validate Day's drawings and permit application in order to expedite any state permitting review. In the event such third-party recommends changes or clarifications to the drawings or other elements of this Contract, the parties shall evaluate and

negotiate in good faith such recommended changes or clarifications, provided that Day shall not be required to implement any changes or clarifications that are not required by state law or code.

2.6 **Utilities During Construction.** Customer shall provide Day with access to existing water, heat and utilities and shall pay such utilities consumed by Day during performance of the services. Day shall install and pay the cost of any temporary facilities not already in existence that will be required during construction for assessing such water, heat and utilities. Day shall, at its cost, remove any temporary utility facilities and restore the area subject to any damage resulting therefrom at the conclusion of the work.

2.7 **Concealed or Unknown Conditions.** Day shall promptly notify Customer if it encounters the following conditions at the premises:

- (i) subsurface or otherwise concealed physical conditions; or
- (ii) unknown physical conditions of an unusual nature that differ from those conditions ordinarily found to exist in construction activities of the type and character as the services.

If such conditions cause an increase in Day's costs of or time required for performance of any part of the services, Day shall be entitled to an equitable adjustment to the contract price and/or the project schedule and Day and Customer shall agree by change order issued in accordance with Section 2.8 on how to proceed and the extent of any adjustment to the time required for the performances of the services and to the contract price of the differing conditions. If the parties are unable to reach agreement on an appropriate change order then either party may terminate this Contract by delivery of written notice in accordance with Section 5.1.

2.8 **Equitable Adjustment.**

(a) Day shall be entitled to an equitable adjustment to the services, the contract price, the project schedule and/or the guaranty (in each case to the extent individually or in the aggregate, materially affected) upon occurrence of any of the following events:

- (i) the services are delayed, suspended or accelerated by any Customer representatives;
- (ii) failure by Customer to timely perform and failure to timely cure any breach of its obligations herein;
- (iii) a change in any applicable law, permitting requirement, code or other governmental approvals occurs after the date of this Contract that materially impacts the nature of the services or the occurrence of an event of force majeure affecting services;
- (iv) any change to the service requested or directed by the Customer; or

(v) Day encounters a concealed or unknown condition as described in Section 2.7 that has been shown to alter any of Day's obligations herein.

(vi) An increase in the cost of applicable materials, labor, parts or equipment that increase the cost of the project by more than 20%. Within sixty (60) days of NYSED approval, Day shall notify Customer in writing of any supply chain delays or disruptions and of any price escalations in materials or equipment that accrued from the submission of Day's original pricing to final approval of the project by NYSED that would increase the cost of the Project by more than 20%. Upon such notice, the Customer shall have the option to approve the additional pricing proposed by Day or terminate this Agreement within ten (10) days of receipt of said notice, all at no cost to the Customer and subject to NYSED approval. After the said sixty (60) day period, supply chain delays or disruptions and price escalations shall not constitute a Force Majeure condition and will not require equitable adjustment.

(b) Procedure. If Day contends it is entitled to an equitable adjustment, Day shall submit a proposed change order to Customer showing all cost escalations to the Customer for its review and approval which approval shall not be unreasonably withheld, conditioned or delayed. Customer shall either (i) execute and deliver to Day such change order as provided by Day or (ii) request that certain amendments or modifications be made to the change order. If Customer requests amendments or modifications to the change order, the parties shall negotiate in good faith and shall promptly agree on and execute an amended change order. All executed change orders are hereby incorporated by reference into this Contract. If the parties are unable to agree on the terms and conditions of a change order, Day may either (i) perform the services and Customer shall compensate Day for such performance on a time and material basis in accordance with Day's then current prices and procedures or upon some other basis mutually agreeable to the parties if they are unable to come to an agreement; (ii) terminate this Contract by notice to the Customer which termination shall be deemed a termination without cause pursuant to Section 5.1.

(c) Force Majeure. Day shall not be responsible to the Customer for damage, loss, injury, or delay caused by conditions beyond Day's reasonable control and without the intentional misconduct or negligence of Day. Such conditions include acts of God, orders from the Government, terrorism, pandemics, epidemics, riots, and war. Day is not responsible for any injury, loss, or damage caused by equipment that is not covered equipment under the Agreement, unless said injury, loss, or damage

caused by equipment that is not covered equipment could have been prevented by proper operation or functioning of covered equipment.

2.9 **Damage to Equipment, Casualty or Condemnation of Premises.** Any fire, flood, other casualty or condemnation affecting any portion of the premises shall permit Day to modify any affected baseline applicable to the guaranty to account thereof in accordance with Exhibit E. If any such fire, flood or other casualty or condemnation renders a majority of the premises materially incapable of being occupied so as to allow work to be completed or destroys a substantial part of the areas within which the service is/are to be performed, Day may terminate this Contract effective immediately by delivery of a written notice to Customer which termination shall be deemed termination pursuant to 5.1. The parties shall use commercially reasonable efforts to access any insurance proceeds in the event of a loss to compensate for same. If any significant item or equipment furnished hereunder is irreparably damaged by the recklessness or gross negligence or willful misconduct of the Customer or Customer's representative or if Customer fails to repair or replace said item within a reasonable period of time, Day may terminate this Contract effective immediately which termination shall be deemed a termination pursuant to Section 5.1.

2.10 **Force Majeure.** Day shall not be responsible to the Customer for damage, loss, injury, or delay caused by conditions beyond Day's reasonable control and without the intentional misconduct or negligence of Day. Such conditions include acts of God, orders from the Government, terrorism, pandemics, epidemics, riots, war, and supply chain delays or disruptions related to the delivery of equipment, materials and supplies required for the Work.

2.11 **Substitutions:** In the event covered equipment, parts, materials or supplies are unavailable for any reason other than stated in Section 2.10 above, Day shall provide equal or better substitution parts, materials, or supplies, as approved by the Customer, until such time as original covered equipment is again available. The requirement to substitute covered equipment parts, materials or supplies under this section shall not constitute a Force Majeure condition.

### **ARTICLE 3 -CUSTOMER'S OBLIGATIONS**

3.1 **Access to Premises.** Customer shall provide Day with reasonable access to the premises, upon reasonable prior notice to Customer, subject to Customer's access policies and procedures, including but not limited to identification badge requirements and infection control precautions.



3.2 **Representations, Warranties and Covenants of the Customer.** Customer hereby represents, warrants and covenants to Day the following:

(a) Customer has furnished or caused others to furnish and for the term hereof will continue to furnish to Day promptly as information becomes available, accurate and complete data concerning energy usage for and other information pertaining to the premises including, but not limited to the following:

- Utility records for 36-month period preceding the date hereof and throughout the term
- Occupancy and usage information including (if applicable) current representative tenant leases for the 36-month preceding the date hereof and throughout the term
- Written surveys and descriptions of heating, cooling, lighting and other systems in existence and previously completed or energy requirements and any changes thereto
- Descriptions of all energy consuming or saving equipment used on or affecting the premises
- Any energy or environmental audits previously performed relating to all or any part of the premises
- Any services or maintenance agreements regarding any heating, cooling, lighting or other building systems or parts thereof
- Construction drawings (as-builts) in existence as of the date hereof or developed during the term; and
- A description of energy management procedures presently utilized by Customer for the premises and any revisions thereto throughout the term.

(b) All records heretofore requested by Day and the information set forth therein is and all information and other records to be subsequently provided pursuant to this Contract will be, true and accurate in all material respects except as may be disclosed to Day by Customer in writing;

(c) Customer has not entered into any contracts or agreements with any other persons or entities regarding the provisions of energy management services with regard to any servicing of any of the energy-related equipment located on the premises which would likely,

individually or in the aggregate, affect the guaranty or the baseline in accordance with Exhibit E except as heretofore disclosed to Day in writing by Customer;

(d) During the term of this Contract, Customer will not enter into any agreements with other persons or entities regarding the provisions of energy management services or with regard to any services of any of the energy-related equipment furnished by Day hereunder without prior written consent of Day which consent shall not be unreasonably withheld;

(e) Customer presently intends to continue to use the premises in a manner similar to the present use, except as may have been disclosed to Day by Customer in writing;

(f) No part of the systems controlled by Day will be placed in a permanent "on" operating mode or manually controlled and during the term of this Contract Customer shall permit only Day personnel and other qualified providers to repair, adjust or program equipment, systems and/or controls except in the event of an emergency in which event Customer may remedy the emergency and shall notify Day as soon as possible of the existence of the emergency and the measures taken by Customer;

(g) Customer has disclosed in writing to Day the existence and location of all known or reasonably suspected asbestos and other known hazardous materials currently located on the premises and Day hereby acknowledges receipt of the Customer's Asbestos Hazard Emergency Response Act (AHERA) report;

(h) Customer will provide Day with copies of any successor or additional contracts from management or servicing of preexisting equipment that may be executed from time-to-time hereafter within 30 days after execution thereof and information or services under Customer's control shall be furnished promptly by Customer;

(i) The execution, delivery and performance by Customer of this Contract does not violate any provisions of law and does not conflict with or result in a breach of any order, writ, injunction or decree of any court or governmental instrumentality, or Customer's respective charter or bylaws or create a default under any agreement, bond, note or indenture to which Customer is a party or by which Customer is bound or to which any of Customer's property is subject; and Customer has no knowledge of any facts or circumstances that but for the passage of time would materially adversely affect either party's ability to perform their respective obligations hereunder and if Customer is a governmental entity or instrumentality thereof, Customer has complied with all laws and regulations relative to bidding or procurement of the services hereunder;

(j) The Contract has been duly authorized, executed and delivered by Customer and constitutes a valid and legally binding obligation of Customer, enforceable in accordance with its

terms, except as may be limited by bankruptcy, insolvency, reorganization or other laws or equitable principals of general obligation relating to or affecting the enforcement of creditor's rights and remedies, subject to the approval set out in 3.2(k).

(k) If the Customer is a School District or Board of Cooperative Educational Services that the Scope of Services has been developed and approved by the New York State Commissioner of Education.

(l) Customer shall notify Day within seventy-two (72) hours of Customer's receipt of actual or constructive notice of (i) any material malfunction in the operation of the equipment installed or equipment affected by the services provided pursuant to this Contract and/or (ii) any material interruption or alteration of the energy supply at the premises;

(m) Customer acknowledges and agrees that the Performance Period Services will be performed by Day or on behalf of Day by a Day authorized service provider but in the event any such work is to be performed by anyone other than Day, Day shall provide the name and credentials of such authorized provided prior to initiation of the work to be performed;

(n) Customer is the fee owner of the premises and real estate upon which the premises are located.

3.3 **Customer Default.** The following events or conditions shall constitute a default by Customer and Customer shall have the same right to cure material defaults as Day, with the exception of payment defaults subsection (a), (c) or (e) of this Section.

(a) Failure by Customer to pay or cause to be paid amounts due Day more than 45 days after the date of the invoice thereof;

(b) Any material representation or specifically identified warranty furnished by Customer in this Contract is false or misleading in any material respect when made;

(c) Any material default by Customer under any instrument or agreement:

(i) related to the financing or leasing of all or any part of the services or equipment hereunder; and/or

(ii) granting to any person or entity a security interest in and to the equipment to be installed or furnished hereunder without Day's express written consent.

(d) Any failure by Customer to perform or comply with any material provisions of this Contract, including breach of any covenant contained herein provided that such failure continues for 60 days after written notice to Customer demanding that such failure be cured or, if cure cannot be effective in such 60 days, Customer fails to promptly begin to cure and diligently proceed with completion thereof.

(e) Any failure by Customer to pay as and when due the Performance Period Services price 45 days after the date of the invoice thereof.

#### **ARTICLE 4 - DAY DEFAULT**

4.1 Each of the following events shall constitute a default by Day:

(a) Any material representation or warranty furnished by Day in this Contract is false or misleading in any material respect when made;

(b) Any failure by Day to perform or comply with any material provision of this Contract including breach of any covenant contained herein, provided that such failure continues for 60 days after written notice to Day demanding that such failure be cured or, if cure cannot be effective in such 60 days, Day fails to promptly begin to cure or diligently proceed to completion thereof.

Day's liability to Customer under the Guaranty shall be limited to energy savings guaranteed in connection with energy conservation measures that are typically installed by Day (or by Customer in accordance with the specifications and requirements hereof, and/or prepared on behalf of Day for the same, and Day reasonably accepts the work) such savings shall be determined in accordance with the appropriate guaranty exhibit and generally accepted engineering principals. In the event Customer proceeds to complete the services, it shall complete the same on or before the expiration of 120 calendar days after the date of termination of this Contract by Customer or in a reasonable time period, whichever is longer.

#### **ARTICLE 5 TERMINATION**

5.1 Customer termination of this Agreement without cause may be effectuated by delivery of at least 20 days' advance written notice declaring termination upon which event:

(a) Day shall cease any work immediately and Customer shall be liable to Day for any services furnished up to the date of termination, together with the costs associated with terminating orders or subcontracts for labor or materials as well as the cost of specifically manufactured items, whether in production or delivered;

(b) Day shall promptly deliver to the Customer upon payment by Customer all work product for which Day received payment or services furnished, including Day delivering to Customer any drawings, specifications or manufactured or partially manufactured items and Day shall not be entitled to any other fees or costs for such delivery of such work product beyond the amounts

paid by Customer pursuant to this section and Day shall have no further obligation to Customer under this Contract, except for removal by Day of any tools, items, substances or facilities belonging to Day.

5.2 **Termination by Day due to Customer Default.** If Customer default has occurred and is continuing for more than seven (7) days after written notice and opportunity to cure, Day may immediately suspend all or a portion of the services at Day's discretion and/or, if the default is material, terminate this Contract by written notice to Customer. In the event Day terminates this Contract for a Customer default, Day shall be entitled to the actual direct damages sustained by Day, including the contract price less costs avoided, demobilization costs, the cost of terminating orders or contracts for labor and materials and the price of any specially manufactured items, whether in production or delivered.

5.3 **Termination by Customer due to Day Default.** If a material Day default has occurred and is continuing for more than seven (7) days after written notice and opportunity to cure, Customer may terminate this Contract by written notice to Day. In the event Customer terminates this Contract for a material Day default, Customer may take possession of the premises together with all materials thereon and move to complete the services itself within a commercially reasonable time and fashion. Customer shall use commercially reasonable efforts to minimize its damages as Customer may determine in its sole reasonable discretion, and if feasible to utilize materials or equipment or any specially manufactured or fabricated equipment delivered by Day to the premises prior to any default which are in the process of being manufactured, fabricated and/or delivered but only pay for such materials being manufactured, fabricated or delivered if the Customer determines, utilizing any such materials or equipment will facilitate the expeditious completion of the services. If after completion by Customer of the work included in the services the unpaid balance of the contract price exceeds the expenses of finishing the services, the excess shall be paid to Day. If the expenses to complete the services exceeds the unpaid balance, Day shall be responsible for the difference to Customer as Customer's sole and exclusive remedy hereunder in connection with the Day default.

#### **ARTICLE 6 - INSURANCE**

6.1 **Day's Liability Insurance.** Day shall purchase from and maintain without interruption from the commencement of the services throughout the term a commercial general liability policy, worker's compensation and employment liability policy, commercial automobile liability policy, through a company or companies rate A- or better and such commercial general liability, commercial automobile liability insurance shall be issued at minimum coverage of one million dollars (\$1,000,000) per occurrence, and each policy of insurance shall identify the Customer

as an additional insured on a non-contributory basis. Further, each of the referenced insurers shall waive any right of subrogation or contribution of any kind against the Customer. Day shall purchase the statutorily required worker's compensation coverage in the amounts required under New York and other applicable law.

6.2 **Title and Risk of Loss.** Title to the materials and equipment comprising the services shall pass to the Customer in the course of construction upon the latter of (i) incorporation of such materials or equipment into the premises; or (ii) payment by customer for services corresponding to such material or equipment. Notwithstanding the foregoing, risk of loss for the services shall pass to Customer in the course of construction upon incorporation into the premises.

6.3 **Customer's Liability and Property Insurance.**

(a) Customer shall maintain commercial general liability insurance and property insurance of the type and amount Customer deems necessary and appropriate;

(b) Customer shall maintain (until the later of the date of issuance of the certificate of final completion or the date of Customer's final payment) property insurance that shall include coverage for the installation of work in progress at least in an amount equal to the scope of the work completed as the same may be adjusted from time-to-time for the installation work (including the equipment on a replacement cost basis) from an insurer with the same rating as identified in section 6.1. Such property insurance shall include the interest of Customer, Day and its subcontractors as additional insureds as their interest may appear. The property insurance purchased by Customer shall be of an all risk policy form. Customer, for itself and its insurance carrier hereby waives all rights of subrogation against Day and any of its subcontractors, agents, employees and officers with respect to property insurance identified herein.

6.4 **Evidence of Insurance.** Customer and Day shall furnish to each other certificates of insurance in accordance with the provisions herein and a copy of each such policy of insurance prior to commencement or performance of any services, evidencing the coverages and limits required to be maintained under this Contract. Such certificates shall contain a provision that coverages afforded under the policies shall not be canceled or allowed to expire until at least 30 days after prior written notice has been given to the other party. Neither the procurement nor maintenance of any type of insurance by Customer or by Day shall in any way be construed or deemed to limit, waive or release Customer or Day from any of their obligations and risks of Customer and Day under this Contract.

6.5 **Indemnification and Limitation of Liability.**

6.5.1 **Indemnification.** To the fullest extent permitted by law, Day agrees to indemnify the Customer and all of its officers, members of the Board of Education, volunteers and employees harmless from any and all third-party actions, costs, expenses, damages and liabilities, including reasonable attorney's fees, resulting from death or bodily injury or damage to property to the extent arising out of or resulting from the negligence of their respective employees or authorized agents in connection with the premises except to the extent any such injury, death or damage is addressed under the New York State Worker's Compensation Law and/or covered by statutorily required New York State Worker's Compensation Insurance. Day shall not be required to indemnify the Customer against actions, costs, expenses, damages and liabilities to the extent attributable to the acts or omissions of the Customer. The duty to indemnify will continue in full force and effect notwithstanding the expiration or early termination of this Contract, with respect to any claims based on facts or conditions that occurred prior to the expiration or termination,

6.5.2 **Limitation of Liability.** Notwithstanding any provision to the contrary, neither party shall be liable to the other for any special, incidental, consequential (including without limitation to lost revenue or lost profits) or punitive damages regardless of whether such liability arises from breach of contract, tort or any other theory. In no event shall Day be liable to the Customer for any damage resulting from mold, fungus, bacteria, micro-bio growth or other contaminants or airborne biological agents. Customer further waives all claims and causes of action it may have against Day or any of its subcontractors, agents, employees and officers for loss of use of the Customer's property business interruption whether insured or not, including consequential, incidental, special or other damages due to hazardous materials, regardless of cause, except to the extent resulting from Day's gross negligent conduct or willful conduct.

**ARTICLE 7 - WARRANTY**

7.1 **Workmanship and Equipment Warranty.** Day warrants that for a period of one year from the date of substantial completion (the "Warranty Period") that Day manufactured equipment installed hereunder and the installation work included within the services (i) shall be free from defects in materials, manufacture and workmanship; and (ii) shall have the capacities and ratings set forth in Day's catalogs and bulletins. The parts that are not manufactured by Day are not warranted by Day and have such warranties that may be extended by their respective manufacturer.

7.2 **Warranty Remedy.** If Customer files a claim with respect to a defect in Day manufactured equipment or the installation work within the Warranty Period, Day will correct the

defect or furnish replacement equipment at Day's option. Day's sole liability and Customer's sole remedy with respect to any warranty claim shall be limited to Day's option to Day's cost to correct the defective equipment or work and/or replace equipment known to be defective. Day's warranties expressly exclude any remedy for damages or defect caused by corrosion, erosion or deterioration, abuse, modifications or repairs not performed by Day or improper operation. The foregoing does not apply to Performance Period Services and the warranties for Performances Period Services are separately stated in Exhibit F of this Contract.

7.3 The warranty and liability remedies set forth in this section are exclusive and in lieu of all other warranties, liabilities or remedies whether in contract or negligence, express or implied in law or in fact. In no event shall Day be liable for any special, incidental, consequential (including without limitation) lost profits or punitive damages related to warranty issues. There is no representation or warranty of merchantability or fitness of purpose.

#### **ARTICLE 8 - HAZARDOUS MATERIALS**

8.1 **Definitions.** For purposes of this section, "Hazardous Material" means:

A. any substance that is listed, defined, designated or classified under any State, Federal or Local law relating to the protection of the environment or human health as a:

- (i) hazardous material constituent or waste,
- (ii) toxic material, substance, constituent or waste,
- (iii) radioactive material, substance constituent or waste,
- (iv) dangerous material, substance, constituent or waste,
- (v) pollutant,
- (vi) contaminant, or
- (vii) special waste, or

B. Petroleum, petroleum products, radioactive materials, polychlorinated biphenyl, pesticides, asbestos or asbestos containing materials.

8.2 **Day's Obligations.** Day's obligations under this Contract do not include, directly or indirectly the detection, testing, handling, storage, removal or treatment, transportation, disposal, monitoring, abatement, or remediation of any contamination by hazardous materials, including but not limited to contamination of soil or groundwater of any location or facility at which work under this Contract is performed. The foregoing sentence includes, without limitation, asbestos, PCBs, refrigerants, mercury ball thermostats, mercury in lighting, used oil, ionization smoke detectors and ballasts.



8.3 **Customer's Warranty.** Customer warrants that, prior to execution of this Agreement, it notified Day in writing of any and all hazardous materials, to the best of its knowledge, following due inquiry, known to be present, potentially present or likely to become present at the project site and provided Day with a copy of the project site safety policies and information. In the event hazardous materials are discovered or encountered by Day during the project, it shall notify Customer in writing within 72 hours of discovery and shall take all necessary and appropriate actions required by law to ensure the safety and protection of its laborers, including but not limited to, the immediate suspension of all work in the area where hazardous materials are discovered. Upon notice by Day, Customer shall be responsible for the abatement or removal of all hazardous substances in accordance with all applicable law, codes and statutes.

#### **ARTICLE 9 - GENERAL PROVISIONS**

9.1 **Assignment.** Customer may not assign, transfer or convey this Contract or any part hereof or its right, title or interest herein without the written consent of Day which consent shall not be unreasonably withheld or delayed. Pursuant to the foregoing, this Contract shall be binding and inure to the benefit of the parties respective successors and assigns.

9.2 **Applicable Law and Jurisdiction.** This Contract is made and shall be interpreted and enforced in accordance with the laws of the State of New York.

9.3 **Complete Agreement.** This Agreement and the exhibits attached hereto, together with any documents expressly incorporated herein by referenced shall constitute the entire agreement between the parties regarding the subject matter hereof. There are no other agreements, understanding or covenants between the parties of any kind, express or implied, oral or otherwise pertaining to the services. Any proposals furnished by Day prior to the execution of this Agreement were for negotiation purposes only and shall not constitute legally binding commitments. This agreement may not be amended, modified or supplemented except by a writing signed by authorized representatives of the parties hereto. The energy audit authored by Day and/or its consultants, including any summaries, excerpts and abstracts thereof (collectively the "Energy Audit") are used to demonstrate operational and consumption data and calculations and projections regarding savings but do not reflect the savings guaranteed by Day; in the event of any conflict or contradiction between the Energy Audit and the provisions of this Agreement and its exhibits the provisions of this Agreement and its exhibits shall control and govern.

9.4 **Additional Documents.** The parties shall timely execute and deliver all documents and perform all other acts that may be reasonably necessary to effectuate the provisions of this Agreement.

9.5 **Severability.** The invalidity or unenforceability of any provision of this Agreement shall in no way affect the validity or enforceability of any other portion or provision hereof except as long as the economic or legal substance of the transaction contemplated herein is not affected in a manner adverse to any party hereto. Upon any determination of invalidity, illegality or unenforceability, the parties hereto shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in any acceptable manner, to the end that the transactions contemplated by this Agreement are consummated to the extent possible.

9.9 **Signature in Counterparts.** This Agreement may be executed in several counterparts, each of which when executed shall be deemed to be an original, but all together shall constitute one and same agreement. A facsimile copy hereof shall suffice as an original.

9.10 **Executory Notice of Contract.** If Customer is a New York State agency, municipality (including a school district) or public authority then this Contract shall be deemed executory only to the extent that monies appropriated and available for the purpose of the contract, and no liability on account thereof shall be incurred beyond the amount of such monies. Furthermore, this Agreement shall not become executory until approval of the New York State Commissioner of Education is obtained. It is understood that neither this Contract nor any representations by any public employee or officer creates any legal or moral obligation to request, appropriate or make available monies for the purpose of the Contract.

9.11 **Contractor Certification:** If Customer is a New York school district or BOCES then Day certifies:

(i) that it has guaranteed recovery of contract costs from energy savings realized by the school district during the term of the energy performance contract, which shall not exceed 18 years, or the useful life of the equipment being installed, whichever is less;

(ii) that measurement and verification techniques for determining cost savings will be performed in accordance with the North American Energy Measurement and Verification Protocol, March 1996 (U.S. Department of Energy, Washington, DC 20585: available at the Office of Facilities Planning, Room 1060, State Education Building Annex, Albany, NY 12234);

(iii) that any State building aid attributable to such project has been excluded in determining the cost savings and payback period under the energy performance contract.

9.12 Customer Certification - Customer certifies that in lieu of competitive bidding, this Agreement was procured pursuant to a request for proposal (RFP) process in accordance with the Customer's procurement policies and procedures adopted pursuant to applicable provisions of General Municipal Law section 104-b.


9.13 Performance and Payment Bonds: In the event that applicable law or the Customer requires that Day Automation Systems, Inc is obligated to furnish a Performance Bond and Payment Bond, the requirements are hereby clarified as follows: "The Performance and Payment Bonds furnished by Day shall apply solely to the construction services identified in Article 1 of Exhibit B to the Contract Documents (the "scope of services") and for a period of 12 months from the acceptance and final payment of the construction work. The Performance and Payment Bonds shall not be applicable to any services (including guarantees) related to the Work Implementation Period, the Measurement and Verification Program and the Maintenance Service and Technical Support specified in Exhibit E (Guaranty), and Exhibit F (Performance Period Services), or any other performance guarantee, efficiency guarantee, or energy savings guarantees. The Amount of all Bonds shall be One Hundred Percent (100%) of the sum for Day's construction work specified in Exhibit A, Table A.1."

**IN WITNESS WHEREOF**, the parties hereto have hereunto set their hands and seals the day and year first above written.

DAY AUTOMATION SYSTEMS, INC.

By: \_\_\_\_\_  
Name: Steve Heaslip  
Title: Energy Services Manager

CHARLOTTE VALLEY CENTRAL  
SCHOOL DISTRICT

By:  \_\_\_\_\_  
Name: Eric Whipple  
Title: District Superintendent

Charlotte Valley Central School District  
 Exhibit A – Payment Schedule

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- 1.1 **Project Price:** The project total cost to the Customer to provide the Work as described in Exhibit B, Scope of Services consists of cost shown. Customer shall pay \$1,066,999 (One million, sixty six thousand, nine hundred and ninety nine dollars) to Day Automation as listed in Table A.1.1 - ECM Work Payment Schedule.
- 1.2. **Project Financing:** The Customer intends to fund this project through a competitive financing agreement. Day will provide progress billing invoices to the Customer based on construction progress and as detailed in Table A.1.1 Payment Schedule below. The Customer shall be responsible for reviewing and approving the documents necessary to allow for timely disbursements. In the event that the Agreement becomes null and void as described in this paragraph and Customer has previously authorized Day to proceed with the Work, the Customer shall be obligated to reimburse Day either: (i) for the Work performed to date; or (ii) for the Work specifically authorized by the Customer.

**Table A.1.1 – ECM Work Payment Schedule**

Project Phase	Payments (\$)	Payments (%)	Schedule
Design - Mobilization- Audit	\$213,398	20%	Upon close of financing
Construction	Progress Billing	Progress Billing	Net 30 Days from invoice
<b>PROJECT TOTAL:</b>	<b>\$1,066,999</b>	<b>100%</b>	

**Table A.2 – Measurement and Verification Payment Schedule**

Date	Annual Payments (\$)
Annual Period 1	\$0
Annual Period 2	\$0
Annual Period 3	\$0
Annual Period 4-18	Services available at additional cost

**Table A.3 – Maintenance Services Payment Schedule**

Date	Annual Payments (\$)
Annual Period 1	\$0
Annual Period 2	\$0
Annual Period 3	\$0
Annual Period 4-18	Services available at additional cost

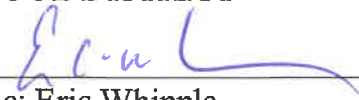
- 1.3. Measurement & Verification and Maintenance Services are included in this agreement as detailed in Exhibit F.
- 1.4. Incentive programs available for this project shall be identified and pursued on behalf of the District. Day Automation will provide completed applications to the District for review and signatures where required and provide an accounting of these incentives for review by the District.

**IN WITNESS WHEREOF**, the parties hereto have hereunto set their hands and seals the day and year first above written.

DAY AUTOMATION SYSTEMS, INC.

CHARLOTTE VALLEY CENTRAL  
SCHOOL DISTRICT

By: \_\_\_\_\_  
Name: Steve Heaslip  
Title: Energy Services Manager

By:  \_\_\_\_\_  
Name: Eric Whipple  
Title: Superintendent

**Article 1: Scope of Work**

1.1. Specific Elements: The Work shall include the following:

**1.1.1 Energy Conservation Measures Descriptions**

ECM 1.01 - LED Lighting Upgrade

*Scope of Work*

Lighting will be addressed in the Main Building and Bus Garage:

The following lighting improvements will be made:

- Bulb/driver replacement will be installed according to the lighting tables included in the Lighting Appendix for this energy audit and on the drawings for the accompanying contract.
- Outdoor fixtures not already upgraded to LED will be upgraded based on the plans and specifications associated with this contract.
- Screw-in and plug in incandescent and Compact Fluorescent bulbs CFLs will also be replaced with LED equivalent replacement bulbs based on the plans and specifications associated with this project.
- Existing lighting room occupancy sensors and switching to remain as currently installed. Occupancy sensors to be added to select spaces.
- Day Automation will install mockup rooms, maximum one per building, in the district to demonstrate the proposed installation and verify that new fixtures will meet current needs.
- See project drawings for lighting tables and details.

ECM 2.01 - Convert to Day Automation Controls

*Scope of Work*

The following work (summary) will be performed to convert the existing control system to Day Automation EcoStruxure, see project drawings for detailed conversion notes:

School Building Energy Performance Project:

- Upgrade Delta Controls to EcoStruxure
- New BAS workstation
- New BAS Server
- Provide new main Building Controllers
- Provide DDC controls for (2) Hot Water Boilers
- Provide DDC controls for (4) Hot Water Pumps.
- Provide DDC controls for (49) Heat Pumps

Provide DDC controls for (1) Energy Recovery Unit ERU-1

- Provide DDC controls for (3) existing lighting contactors
- Provide DDC controls for (4) Fin Tube in Stairwell
- Integrate existing BACnet controls for RTU and VRF system

Charlotte Valley Central School District  
Exhibit B – Scope of Services

ECM 2.02 - Demand Controlled Ventilation (DCV)

Scope of work:

The air handling units listed below will be controlled with a demand-controlled ventilation sequence:

Bldg	AHU ID	Service	Space type	Total CFM	Existing Average OA CFM	Area of Space & Subspaces (Az)	People Outdoor Air Rate (Rp)	Area Outdoor Air Rate (Ra)	Occupant Density	Zone Air Distribution Effectiveness (Ez)	Space Outdoor Air = Vbz (Design OA Airflow)	Projected Average OA CFM	Year Installed	Meets req'ts of year installed	Meets req'ts of 2020
				(CFM)	(CFM)	(SQFT)	(CFM/person)	(CFM/SQFT)	# people/1000 sqft		(CFM)	(CFM)			
MB	ERU-1	HS gym		17,600	17,600	6,919					4,600	1,254	2009	YES	YES
			Gym seating			2,758	7.5	0.06	150	1	3,268	891			
			Gym			4,161	20	0.18	7	1	1,332	363			

Day Automation will perform the following for the installation of demand-controlled ventilation:

- Install Day Automation equipment controllers as necessary for HVAC units.
- Programming in the control system to enable demand-controlled ventilation.
  - Sequences shall be as follows:
    - During morning warm-up mode, the unit shall be on 100% return air and the relief damper shall be commanded shut.
    - Minimum Outside Air Flow shall be set as follows:
    - When the unit is unoccupied the minimum air flow set point shall be 0%.
    - There shall be an event mode schedule which is separate from the unit occupancy schedule.
    - When the unit is in the occupied mode and event mode is off, the minimum outside air flow set point shall be set to the unit design minimum air flow percentage.
    - When the unit is in the occupied mode and event mode is on, the minimum outside air flow set point shall be set to the unit design DCV air flow percentage.
    - In the occupied mode the mixing dampers shall modulate in sequence to maintain the greater of the minimum outside air flow percentage and if economizer is enabled, the outside air flow percentage required for cooling.
    - The relief damper shall track the outside air damper linearly. As the outside air damper opens from the unit design non-DCV air flow percentage to 100% open the relief damper shall be commanded from 0% to 100% open.
    - If the mixed air drops below the low limit set point, the outside air dampers shall modulate closed.
    - During unoccupied or cooldown modes, the unit shall be on 100% return and the relief damper commanded shut air unless economizer is on and cooling is required.



Charlotte Valley Central School District  
Exhibit B – Scope of Services

ECM 2.04 - Optimum Start Sequence

*Scope of work:*

Controlled areas shall have the start/stop programming modified to enable optimum start. Please note the new occupied times for the programming in Section 5.2 of Exhibit E.

ECM 2.05/2.06 - Temperature Setback – Unoccupied

It is recommended to implement a District temperature control policy to help students and staff understand why the building temperature is controlled as it is.

- Reducing temperatures and maintaining even temperatures aids in energy use reduction.
- Even temperatures throughout the building(s) reduce personnel temperature sensitivity because they are not moving through temperature gradients (within the building).
- Daytime temperature setpoint will be setback to 71 degF.

ECM 4.01 Weatherization

*Scope of work:*


Building	Single Doors	Double Doors	Door Sweep	Double Door Sweep	Overhead Door	Roof/Wall Joint	Roof Top Exhaust Fans	Soffit	Window trim	Attic insul & Air seal
	(#)	(#)	(#)	(linear feet)	(#)	(linear feet)	(#)	(linear feet)	(linear feet)	(sqft)
A East	4	1	4	1	0	163	7	0	0	0
A West	0	3	0	3	0	333	2	0	0	720
B	2	6	2	6	1	56	7	96	43	0
C	1	3	1	3	1	237	9	0	0	0
Bus Garage	2	0	0	0	4	0	0	0	0	0

See project drawings for details and locations of work to be performed.

- 1.2 **Codes:** All applicable state and local building codes.
- 1.3 **Exclusions:**
  - 1.3.1 Any asbestos abatement and removal is entirely the responsibility of the owner. If hazardous materials are encountered during the implementation phase, DAY will immediately stop work and notify the owner of the possible hazardous material condition and location. DAY will then request that the owner remove and dispose of the hazardous materials prior to any continuation of work. Hazardous materials encountered during ongoing service phase of the project will remain the property and disposal responsibility of owner.
  - 1.3.2 Excluded: Hazardous material abatement or removal, such as mold or lead paint is not included in scope of work of this contract.
  - 1.3.3 Excluded: Work associated with the Fire Alarm System
  - 1.3.4 Excluded: Repair or replacement of defective mechanical, electrical or controls equipment, except the equipment described in the scope description (DAY will identify the location of defective equipment and notify the owner)
  - 1.3.5 Excluded: Repair or upgrades required to bring to Code any adjacent Systems—such as Walls, Partitions, Doors, Electrical and Mechanical not specified in the above scope of work.
- 1.4 Excluded: Resolution of existing design, service, and or distribution conditions known or unknown
- 1.5 **Drawings / Specifications:** Design drawings and specifications will be provided for the Energy Conservation Measures shown on project drawings in NYSED projects as listed in Exhibit C.
- 1.4 **As-built Documents:** As-built documents will be provided for all work included in this agreement in both hard copy and electronic format of Customer’s choosing.

**IN WITNESS WHEREOF**, the parties hereto have hereunto set their hands and seals the day and year first above written.

CHARLOTTE VALLEY CENTRAL  
SCHOOL DISTRICT

By:   
Name: Eric Whipple  
Title: Superintendent

DAY AUTOMATION  
SYSTEMS, INC.

By: \_\_\_\_\_  
Name: Steve Heaslip  
Title: Energy Services Manager

Charlotte Valley Central School District  
Exhibit C – Description of the Premises

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**Work to Be Included**

Work will be provided as set forth in the project design and specification documents as approved by NYSED for the Energy Conservation Measures in the buildings listed below in Table C.1

**Table C.1 – Included Buildings**


Building	SED Number
Main Building	12-04-01-04-0-001-022
Bus Garage	12-04-01-04-5-002-004

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals the day and year first above written.

DAY AUTOMATION SYSTEMS, INC.

CHARLOTTE VALLEY CENTRAL  
SCHOOL DISTRICT

By: \_\_\_\_\_  
Name: Steve Heaslip  
Title: Energy Services Manager

By:  \_\_\_\_\_  
Name: Eric Whipple  
Title: Superintendent


**SCHEDULE**

- A. The following milestone dates shall serve as the basis for construction and installation of the scope of work for this project. A master schedule will be developed at a general meeting with the Owner, Architect, and Construction Manager within 10 days of SED approval of the project. This master schedule will include the milestones listed below:
1. Complete all submittals within (30) days after award.
  2. Complete work as follows upon SED approval:
    - a. Start actual construction in accordance with the master schedule referenced above.
    - b. Pending SED approval, work required to be coordinated with capital project construction will be performed in accordance with the capital project construction schedule (if applicable).
    - c. Project Substantial Completion and Close-out as identified in the master schedule

DAY AUTOMATION SYSTEMS, INC.

By: \_\_\_\_\_  
Name: Steve Heaslip  
Title: Energy Services Manager

CHARLOTTE VALLEY CENTRAL  
SCHOOL DISTRICT

By:  \_\_\_\_\_  
Name: Eric Whipple  
Title: Superintendent

The following Articles and Tables are hereby included and made part of this Exhibit E:

Article 1: Summary of Articles and Total Guaranteed Savings

Article 1	Summary of Articles and Total Guaranteed Savings
Article 2	Measurement and Verification Options
Article 3	Performance Guarantee Period Responsibilities of Customer
Article 4	Performance Guarantee
Article 5	Measurement and Verification Plan
Article 6	Baseline Data
Article 7	Utility Rate Structures and Escalation Rates
Article 8	Contracted Baseline Data

This Exhibit E provides the methodology to be used to determine the Annual Realized Savings and the reconciliation of these calculated Savings with the Guaranteed Annual Savings for each Annual Period of the Performance Guarantee Period. The Scope of Services for the Measurement and Verification Program is provided in Article 1 of Exhibit F.

**Table 1.1 – Total Guaranteed Savings (Units)**

Annual Period	Electric Energy Savings (kWh)	Electric Demand Savings (kW)	Propane Savings (Gallons)
Annual Period 1	100,440	332	10,081

- 1.1 Only Annual Period 1 is shown as the energy/utility unit Savings will remain constant for each Annual Period of the Performance Guarantee Period as the Customer will operate the Facility in accordance with the Contracted Baseline identified in Article 8.

**Table 1.2 – Total Guaranteed Savings (Cost)**

Annual Period	Energy/Utility Savings	Operational Savings	Total Savings
Annual Period 1	\$31,750	\$27,625	\$59,375
Annual Period 2	\$32,385	\$28,454	\$60,839
Annual Period 3	\$33,033	\$29,307	\$62,340
Annual Period 4	\$33,694	\$30,187	\$63,880
Annual Period 5	\$34,368	\$31,092	\$65,460
Annual Period 6	\$35,055	\$32,025	\$67,080
Annual Period 7	\$35,756	\$32,986	\$68,742
Annual Period 8	\$36,471	\$33,975	\$70,446
Annual Period 9	\$37,201	\$34,995	\$72,195
Annual Period 10	\$37,945	\$36,044	\$73,989
Annual Period 11	\$38,703	\$37,126	\$75,829
Annual Period 12	\$39,478	\$38,239	\$77,717

Charlotte Valley Central School District  
 Exhibit E - Guaranty

Annual Period 13	\$40,267	\$39,387	\$79,654
Annual Period 14	\$41,072	\$40,568	\$81,641
Annual Period 15	\$41,894	\$41,785	\$83,679
Annual Period 16	\$42,732	\$43,039	\$85,771
Annual Period 17	\$43,586	\$44,330	\$87,916
Annual Period 18	\$44,458	\$45,660	\$90,118
<b>TOTALS</b>	<b>\$679,848</b>	<b>\$646,824</b>	<b>\$1,326,672</b>

- 1.2 Table 1.2 shows the Customer's guaranteed cost Savings for each Annual Period that are extrapolated from the guaranteed energy/utility unit Savings shown in Table 1.1 by multiplying the energy/utility Savings by the Baseline energy/utility rates including the Escalation Rates found in Article 7.
- 1.3 Day cannot and does not predict fluctuations in utility rates or the cost of energy. Therefore, the Customer and Day agree that the energy/utility cost Savings for each Annual Period will be calculated by multiplying the verified units of energy/utility Savings by the Annual Period's energy/utility rate and Escalation Rates and not the Annual Period's actual utility rate.
- 1.4 The determination of energy/utility Savings will follow current best practice, as defined in the International Performance Measurement and Verification Protocol (IPMVP), or the FEMP Guidelines where required, unless otherwise agreed to by the Parties.
- 1.5 The Performance Guarantee does not operate to guarantee the Savings per-ECM. Rather, the calculation of Savings is based on aggregate performance of all of the ECMs contained in the Project. The projected value of such aggregate performance is contained in Table 1.2 above representing the Total Guaranteed Savings as monetized.

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Article 2: Measurement and Verification Options

- 2.1 Guarantee Types. There are four guarantee options to measure and verify Savings: Option A – Retrofit-Isolation: Key Parameter Measurement, Option B – Retrofit-Isolation: All Parameter Measurement, Option C – Whole Facility, and Option D – Calibrated Simulation. These options are in accordance with the “International Performance Measurement and Verification Protocol ®” (October 2016) (IPMVP) which supersedes the “North American Energy Measurement and Verification Protocol” (March 1996) (NAEMVP).
- a. Option A – Retrofit-Isolation: Key Parameter Measurement. Savings are determined by field measurement of the key parameter(s), which define the energy consumption and demand of the ECMs affected system(s). Parameters not selected for measurement are estimated using historical data and engineer recommendations. Measurements are short-term, periodic, or continuous, and are taken at the component or system level for both the baseline and the retrofit equipment. The calculations for savings will be defined in the Measurement and Verification article of this Exhibit E.
  - b. Option B – Retrofit-Isolation: All Parameter Measurement. Savings are determined from analysis of baseline and reporting-period energy use or proxies of energy use. Savings are determined by field measurement of the energy consumption and demand and/or related independent or proxy variables of the ECM affected system. Measurement frequency ranges from short-term to continuous, depending on the expected variations in savings and length of the reporting period. (NOT USED)
  - c. Option C – Whole Facility. This option is based on continuous measurement of energy use (such as utility billing data) at the whole facility or sub-facility level during the baseline and post-retrofit periods. Savings are determined from analysis of baseline and reporting-period energy data. Regression analysis is conducted to correlate energy use with independent variables such as weather and occupancy. This requires a detailed inventory of all equipment included in the meter reading as well as equipment use patterns, and other factors affecting energy use. (NOT USED)
  - d. Option D – Calibrated Simulation. Savings are determined through a simulation of the energy use of the whole facility or sub-facility. The simulation aims to demonstrate and model actual projected energy performance. (NOT USED)
- 2.2 Table 2.1 below summarizes the first Annual Period’s Guaranteed Savings (See Article 1, Tables 1.1 and 1.2) utilizing the applicable Measurement and Verification Options as applied to the referenced ECMs and valued pursuant to the agreed upon Utility Rate Structure amounts identified in Article 7 hereof.

**Table 2.1 – Savings for First Annual Period by Option**

Energy Conservation Measure	Location	Energy/Utility Savings \$		Operational Savings \$	Total Savings \$
		Guarantee Options			
		A	Total		
		Retrofit Isolation: Key Parameter Measurement	Energy/Utility Savings		
1.01	Main Building	LED Lighting Upgrade	\$6,633	\$4,170	\$10,803
2.01	Main Building	Convert to Day Automation Controls	\$0	\$23,343	\$23,343
2.02	Main Building	Demand Controlled Ventilation	\$13,646	\$0	\$13,646
2.04	Main Building	Optimum Start Sequence	\$1,416	\$0	\$1,416
2.06	Main Building	Temperature setback-unoccupied	\$1,295	\$0	\$1,295
4.01	Main Building	Weatherization; RWI, weatherstripping, exh fan sealing	\$7,421	\$0	\$7,421
1.01	Bus Garage	LED Lighting Upgrade	\$320	\$112	\$432
2.01	Bus Garage	Convert to Day Automation Controls	\$0	\$0	\$0
4.01	Bus Garage	Weatherization; RWI, weatherstripping, exh fan sealing	\$1,019	\$0	\$1,019
<b>TOTAL</b>			<b>\$31,750</b>	<b>\$27,625</b>	<b>\$59,375</b>

2.3 Table 2.2 identifies the source of Operational Savings defined and quantified by the Parties. The Parties affirm that such amounts are Guaranteed Savings for purposes of calculating Annual Realized Savings and acknowledge that the Guaranteed Savings identified herein have been based on Customer's affirmation. Operational savings shall be measured or monitored during the performance guarantee period per NAEMVP Option A.



**Table 2.2 – Operational Savings (Cost)**

<b>Description</b>	<b>Annual Period 1 Cost Savings</b>	<b># of Annual Periods Savings are Applied</b>	<b>Annual Periods Savings Begin</b>
LED Lighting Upgrade	\$4,170	18	1
Convert to Day Automation Controls	\$23,343	18	1
LED Lighting Upgrade	\$112	18	1

- 2.4 DAY AUTOMATION has explained to the Customer and the Customer has satisfied itself as to how Operational Savings are incorporated into the Annual Realized Savings.
- 2.5 Escalation rate applied to the Annual Operational Savings is 3%.

**Article 3: Performance Guarantee Period Responsibilities of the Customer**

In addition to the Customer’s responsibilities under this Agreement, this Article details the responsibilities of the Customer in connection with the management and administration of the Performance Guarantee.

- 3.1 The Customer will provide a representative at each Facility to coordinate work and provide required data described below. Further the Customer will designate a primary person with authority to make decisions for the Customer regarding the Work and provide information sufficient to contact this person in the event of an emergency.
- 3.2 Upon request from Day, The Customer will make arrangements for 24-hour, 7 day a week access to the Work areas and make all reasonable provisions for Day to perform Work as necessary during these hours.
- 3.3 Permit Day to operate and control all building systems as necessary for performance of the Work.
- 3.4 The Customer shall promptly notify Day of all known Hazardous materials in the facilities and/or any conditions requiring special care that may affect the Work and provide necessary documentation for such materials or requirements.
- 3.5 The Customer will notify Day of safety programs or requirements, and other policies, plans, or programs required in the facilities where Work is to be performed.
- 3.6 The Customer will operate, service and maintain all Equipment according to the manufacturer’s recommendations including those set forth in the manufacturer’s operating manuals or instructions, as well as all requirements of Applicable Law or of authorities having jurisdiction. The Customer shall be responsible for furnishing all required servicing and parts necessary for the Equipment to operate as required to and in accordance with the requirements of the Agreement. Such Equipment shall be operated only in the specified operating environment, which shall be supplied by the Customer, including without limitation: (1) suitable electrical service, including clean, stable,

properly conditioned power, to all Equipment; (2) telephone lines, or other communication, capacity and connectivity as required by such Equipment; and (3) heat, light, air conditioning or other environmental controls, and other utilities in accordance with the specifications for the Equipment.

- 3.7 Promptly notify Day of any unusual operating conditions, hours of usage, system malfunctions, installed equipment or building alterations that may materially affect the Equipment or energy usage or any Services.
- 3.8 The Customer will provide Day with accurate Facility operating information as defined below and in the Contracted Baseline article of this Exhibit E during each Annual Period, within thirty (30) days of any Material Change that may increase or decrease energy usage.
- 3.9 If applicable, the Customer will provide Day with copies of utility bills within thirty (30) days of receipt by the Customer or provide access to utility vendor information to allow Day to include a utility bill analysis in the Annual Measurement and Verification Report. The utility bill analysis does not take the place of the Measurement and Verification Plan identified in Article 4 of this Exhibit E and is not used to measure the Project's performance. Utility electric, natural gas, and fuel oil accounts provided in Table 3.1.

**Table 3.1 – Utility Accounts**

<b>Building</b>	<b>Electric Provider</b>	<b>Electric Acct #</b>	<b>Heating Fuel Provider</b>	<b>Heating Fuel Acct #</b>	<b>Energy Cooperative of America</b>
Main Building	NYSEG	1001-2263-934	Bottini Fuel	1809039-1	N0100000188565
Bus Garage	NYSEG	Shared meter w/main bldg	Bottini Fuel	1809039-2	Shared meter
Kitchen	-	-	Bottini Fuel	1809039-3	-

- 3.10 If required for the Work, Customer will provide data remote access, through Day software package or otherwise, as Day reasonably requests. All charges related to data line installation, activation and communication services are the responsibility of the Customer.
- 3.11 If remote data access is unavailable, the Customer will provide Day with required trends from the Building Management System in digital format on a monthly basis. The trends will either be sent electronically via email or transferred to portable memory for use by Day. If the required trends are not supplied to Day within thirty (30) days, Day reserves the right to deem the savings associated with those ECMs requiring trends for savings verification achieved.

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**Article 4: Performance Guarantee**

- 4.1 The Annual Realized Savings generated during each Annual Period will be no less than the Guaranteed Annual Savings as shown in Tables 1.1 and 1.2 of this Exhibit E, subject to the limits in Section 4.8. The measurement and verification calculation methodology for determining the Savings is set forth in Article 5 of this Exhibit E.
- 4.2 Any future Escalation Rates to be applied to utility, energy or other costs are set forth in Table 7.1. Day and the Customer agree that the Baseline data set is a full and accurate reflection of the existing Facility, equipment, operation, business use and energy usage, and that such Baseline data will be the basis on which all future energy use will be compared in order to determine the Annual Realized Savings.
- 4.3 Day and the Customer agree that the Contracted Baseline fully described in herein will represent the new operating and/or equipment profile of the Facility resulting from the ECM implementation. The Performance Guarantee is dependent upon and is subject to the express condition that the Customer operates and maintains its Facilities within the Contracted Baseline parameters, as may be adjusted in accordance with the terms herein, during the entire term of the Performance Guarantee Period.
- 4.4 The Customer agrees to notify Day prior to or within thirty (30) days of Customer's knowledge of any Material Change in the Contracted Baseline parameters.
- 4.5 Within thirty (30) days of notice of a Material Change, Day's discovery of a Material Change and with prompt notice to Customer, Day will negotiate with the Customer an adjustment to the Measurement and Verification and the Performance Guarantee as a result of the Material Change
- 4.6 A Performance Guarantee Period savings reconciliation as identified in Section 4.1 will be performed at the end of each Annual Period as follows:
  - (a) Within ninety (90) days of the Guarantee Date, the Construction Period Savings shall be reconciled and applied to the calculation of the first Annual Period's Annual Realized Savings.
  - (b) At the conclusion of each Annual Period, Day will calculate the Annual Realized Savings and compare the calculated amount to the applicable Guaranteed Annual Savings amount.
  - (c) Where the Annual Realized Savings are less than the Guaranteed Annual Savings, a Savings Shortfall shall be recorded for the applicable Annual Period.
  - (d) A Savings Shortfall shall be paid by Day within sixty (60) days following the Customer's acceptance of the reconciliation and once paid Day shall have fulfilled its obligations under the Performance Guarantee for the applicable Annual Period.
- 4.6.1 As the mutual goal of the Parties is to maximize Savings, if Day can correct a Savings Shortfall through an operational improvement at no expense or material inconvenience to the Customer and without future operational expenses, and the Customer declines to allow such operational improvement, then any future Savings Shortfall that the improvement would have corrected will be negated by deeming the value of the Savings Shortfall as Savings achieved and adding the amount of same to the Annual Realized Savings calculations for each Annual Period thereafter.
- 4.7 The payments and credits based on Savings Shortfalls, if any, are the sole remedy of the Customer under this Performance Guarantee. Any payments made or to be made to the Customer under the

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terms of this performance guarantee shall not exceed the payment actually made by the Customer to Day for the aggregate of: the price as defined in Exhibit A Article 1 and, if applicable, the Customer's cost of financing the work.

- 4.8 The Customer represents that all existing equipment that is not installed by Day under this Agreement but is deemed necessary to achieve the Performance Guarantee, is in satisfactory working condition. Prior to the beginning of the Performance Guarantee Period, Day will have inspected all such existing equipment and reported any deficiencies to the Customer. To the extent that the deficiencies are not remedied by the Customer prior to the Guarantee Date, the adverse effect on the ability of the Project to attain the necessary Guaranteed Savings shall be factored into the Annual Measurement and Verification Report and, if necessary, the Performance Guarantee shall be adjusted accordingly.
- 4.9 If the Equipment or the existing equipment is altered or moved by any person (including the Customer) other than Day or a person authorized by Day, the Customer shall immediately notify Day in writing, and Day reserves the right to perform a reacceptance test on, or if necessary a re-commissioning of, the system at the Customer's expense in order to determine if a Material Change has occurred.
- 4.10 Day will have no liability or obligation to continue providing Services or any Guaranteed Savings under the Performance Guarantee in the event that the Customer fails to:
- (a) Authorize a re-acceptance test or re-commissioning that Day reasonably deems necessary in order to determine if a Material Change has occurred;
  - (b) Provide access to any Facility where Work is to be performed;
  - (c) Service and maintain all Equipment in accordance with the manufacturers' recommendations in order to prevent a Savings Shortfall; or,
  - (d) Provide Day with accurate Facility operating information as soon as such information becomes reasonably available to the Customer, including energy usage and cost, executed preventive maintenance and repair records, building or equipment additions, and occupancy levels during each Annual Period.
- 4.11 Unless expressly contrary to Applicable Law, should the Customer decide to discontinue the Annual Services defined in Exhibit F before the end of the Performance Guarantee Period, the Customer will give Day thirty (30) days prior written notice and will mutually reconcile the remaining contract value and services to be completed in the services agreement for that period.
- 4.12 Unless expressly contrary to Applicable Law, any disputes concerning the calculation of the Annual Realized Savings or changes to the Contracted Baseline that are not resolved by negotiation between the Parties within thirty (30) days of the notice of the dispute, will be resolved by a third-party professional engineering firm which is reasonably acceptable to both Day and the Customer. The determination of such firm will be final and binding upon Customer and Day. Day and the Customer will each be responsible for half of the fees of such firm.

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**Article 5: Measurement and Verification Plan**

The following information is applicable to this Agreement:

Article 5.1 General Overview

Article 5.2 Option A – Retrofit Isolation: Key Parameter Measurement

**5.1 General Overview –**

The purpose of the Measurement and Verification (M&V) Plan is to identify the methods, measurements, procedures and tools that will be used to verify the Savings for each ECM which has energy/utility Savings. Savings are determined by comparing prior usage, consumption or efficiencies (defined as the “Baseline”) against the post-ECM implementation usage, consumption or efficiencies. The Baseline usage, consumption or efficiencies are described in this Exhibit E, Article 6. The post-ECM implementation usage, consumption or efficiencies is defined as the Contracted Baseline and are described in this Exhibit E, Article 7.

**5.2 Option A – Retrofit Isolation: Key Parameter Measurement as defined in this Exhibit E Article 2 Item 2.1.**

ECM 1.01 - LED Lighting Upgrade

*Scope of Work*

Lighting will be addressed Main Building and Bus Garage:

Refer to Exhibit B for Scope of Work for this measure.

*Savings calculation methodology:*

Savings are based on reduced fixture wattage, added controls to reduce operating hours, and added lighting equipment to improve efficiencies.

Annual lighting kW savings =  $\sum \text{area} (\text{kW}_{\text{existing}} - \text{kW}_{\text{proposed}})$

Annual lighting kWhr savings =  $\sum \text{area} [(\text{kW}_{\text{existing}} - \text{kW}_{\text{proposed}}) * \text{run hours} + \text{kW}_{\text{proposed}} * \text{control hr reduction}]$

Thermal heating penalty Btu = Thermal penalty Therms =  $\sum \text{area} [(\text{kWhr}_{\text{existing hgt months}} * X_{\text{fluor}} * Y_{\text{fluor}} * 3412 \text{ Btu/kWhr}) - (\text{kWhr}_{\text{proposed hgt months}} * X_{\text{LED}} * Y_{\text{LED}} * 3412 \text{ Btu/kWhr})] * \%_{\text{SF heated}}$

Thermal cooling bonus Btu =  $\sum \text{area} [(\text{kWhr}_{\text{existing clg months}} * X_{\text{fluor}} * Y_{\text{fluor}} * 3412 \text{ Btu/kWhr}) - (\text{kWhr}_{\text{proposed clg months}} * X_{\text{LED}} * Y_{\text{LED}} * 3412 \text{ Btu/kWhr})] * \%_{\text{SF cooled}}$

Where:

$\text{kW}_{\text{existing}} = \sum (\text{existing fixture wattage per building}) / 1000$

$\text{kW}_{\text{proposed}} = \sum (\text{proposed fixture wattage per building}) / 1000$

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run hours = run hours for the given area  
 control hr reduction = the hour reduction due to controls specified for the given area  
 $kWhr_{existing\ htg\ months}$  = kWhr used by old lighting during the heating months  
 $kWhr_{proposed\ htg\ months}$  = kWhr used by new lighting during the heating months  
 $kWhr_{existing\ clg\ months}$  = kWhr used by old lighting during the cooling months  
 $kWhr_{proposed\ clg\ months}$  = kWhr used by new lighting during the cooling months  
 $X_{fluor}$  = constant = 73% of energy into fluorescent lights is re-emitted as heat  
 $Y_{fluor}$  = constant = 50% of lighting heat energy is recovered into the building  
 $X_{LED}$  = constant = 58% of energy into LED lights is re-emitted as heat  
 $Y_{LED}$  = constant = 50% of lighting heat energy is recovered into the building  
 $\%_{SF\ cooled\ or\ heated}$  = % square footage that is cooled or heated respectively

Thermal heating penalty and thermal cooling bonus for the lights in the Main Building have been converted to account for the different contributing sources of heating and cooling energy (boiler via reheat coils, ground wells via the heat pump water loop and electricity via the water to air heat pumps.

AREA	Contribution percentages						Efficiency by Source					
	VRF	VRF	VRF	WSH	WSH	WSH	VRF	VRF	VRF	WSH	WSH	WSH
	HH W	Electri c	RH C	HH W	Elect ric	RHC	HH W	Electri c	RHC	HH W	Electri c	RHC
A Wing West VRF	54.69 %	24.05 %	5.44 %	0.00 %	0.00 %	0.00 %	92.00 %	431.00 %	92.00 %	0.00 %	0.00% %	0.00 %
A Wing East VRF	54.69 %	24.05 %	5.44 %	0.00 %	0.00 %	0.00 %	92.00 %	431.00 %	92.00 %	0.00 %	0.00% %	0.00 %
B Wing WSHP	0.00 %	0.00% %	0.00 %	49.10 %	19.10 %	13.28 %	0.00 %	0.00% %	0.00 %	92.00 %	324.00 %	92.00 %
C Wing WSHP	0.00 %	0.00% %	0.00 %	49.10 %	19.10 %	13.28 %	0.00 %	0.00% %	0.00 %	92.00 %	324.00 %	92.00 %

Heating penalty equations

$$Btu_{VRF\ HHW\ HTG} = \Sigma Area (Btu_{HTG} * Cont_{VRF\ HHW} / Eff_{VRF\ HHW})$$

$$Btu_{VRF\ Elect\ HTG} = \Sigma Area (Btu_{HTG} * Cont_{VRF\ elect} / Eff_{VRF\ elect})$$

$$Btu_{VRF\ RHC\ HTG} = \Sigma Area (Btu_{HTG} * Cont_{VRF\ RHC} / Eff_{VRF\ RHC})$$

$$Btu_{WSHP\ HHW\ HTG} = \Sigma Area (Btu_{HTG} * Cont_{WSHP\ HHW} / Eff_{WSHP\ HHW})$$

$$Btu_{WSHP\ Elect\ HTG} = \Sigma Area (Btu_{HTG} * Cont_{WSHP\ elect} / Eff_{WSHP\ elect})$$

$$Btu_{WSHP\ RHC\ HTG} = \Sigma Area (Btu_{HTG} * Cont_{WSHP\ RHC} / Eff_{WSHP\ RHC})$$

Conversion to propane gallons and kWhr

$$Propane\ (gallons)\ penalty = - (Btu_{VRF\ HHW\ HTG} + Btu_{VRF\ RHC\ HTG} + Btu_{WSHP\ HHW\ HTG} + Btu_{HRU\ RHC\ HTG}) / 91600\ (Btu/gal)$$

$$kWhr\ penalty = - (Btu_{VRF\ Elect\ HTG} + Btu_{WSHP\ Elec\ HTG}) / 3412\ (Btu/kWhr)$$

Cooling reward equations

$$\text{Btu}_{\text{VRF HHW CLG}} = \Sigma \text{Area} (\text{Btu}_{\text{CLG}} * \text{Cont}_{\text{VRF HHW}} / \text{Eff}_{\text{VRF HHW}})$$

$$\text{Btu}_{\text{VRF Elect CLG}} = \Sigma \text{Area} (\text{Btu}_{\text{CLG}} * \text{Cont}_{\text{VRF elect}} / \text{Eff}_{\text{VRF elect}})$$

$$\text{Btu}_{\text{VRF RHC CLG}} = \Sigma \text{Area} (\text{Btu}_{\text{CLG}} * \text{Cont}_{\text{VRF RHC}} / \text{Eff}_{\text{VRF RHC}})$$

$$\text{Btu}_{\text{WSHP HHW CLG}} = \Sigma \text{Area} (\text{Btu}_{\text{CLG}} * \text{Cont}_{\text{WSHP HHW}} / \text{Eff}_{\text{WSHP HHW}})$$

$$\text{Btu}_{\text{WSHP Elect CLG}} = \Sigma \text{Area} (\text{Btu}_{\text{CLG}} * \text{Cont}_{\text{WSHP elect}} / \text{Eff}_{\text{WSHP elect}})$$

$$\text{Btu}_{\text{WSHP RHC CLG}} = \Sigma \text{Area} (\text{Btu}_{\text{CLG}} * \text{Cont}_{\text{WSHP RHC}} / \text{Eff}_{\text{WSHP RHC}})$$

Conversion to propane gallons and kWhr

$$\text{Propane (gallons) reward} = (\text{Btu}_{\text{VRF HHW CLG}} + \text{Btu}_{\text{VRF RHC CLG}} + \text{Btu}_{\text{WSHP HHW CLG}} + \text{Btu}_{\text{HRU RHC CLG}}) / 91600 (\text{Btu/gal})$$

$$\text{kWhr reward} = (\text{Btu}_{\text{VRF Elect CLG}} + \text{Btu}_{\text{WSHP Elec CLG}}) / 3412 (\text{Btu/kWhr})$$

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ECM 2.01 - Convert to Day Automation Controls

Scope of Work

Refer to Exhibit B for the Scope of Work for this measure.

ECM 2.02 - Demand Controlled Ventilation (DCV)

The air handling units listed below will be controlled with a demand-controlled ventilation sequence:

Bldg	AHU ID	Service	Space type	Total CFM (CFM)	Existing Average OA CFM (CFM)	Area of Space & Subspaces (Az) (SQFT)	People Outdoor Air Rate (Rp) (CFM/person)	Area Outdoor Air Rate (Ra) (CFM/SQFT)	Occupant Density # people/ 1000 sqft	Zone Air Distribution Effectiveness (Ez)	Space Outdoor Air = Vbz (Design OA Airflow) (CFM)	Projected Average OA CFM (CFM)	Year Installed	Meets req'ts of year installed	Meets req'ts of 2020
MB	ERU-1	HS gym		17,600	17,600	6,919					4,600	1,254	2009	YES	YES
			Gym seating			2,758	7.5	0.06	150	1	3,268	891			
			Gym			4,161	20	0.18	7	1	1,332	363			

Savings calculation methodology:

Savings are based on the reduced runtime for HVAC equipment and the reduced OA flow rates during warmup mode.

ERU-1:

Annual heating Btu savings =  $\Sigma (1.08 * (\text{OA cfm existing} - \text{OA cfm proposed}) * (\text{DAT} - \text{OAT BIN}) * \text{Hours of Operation}) \times (1 - \text{Heat Recovery Effectiveness, heating}) / \eta \text{ boiler}$

where:

1.08 Btu/ cfm-degF-hr = constant to convert CFM\* degF\*hrs to Btu

OA cfm existing = existing average OA CFM from table above

OA cfm proposed = projected average OA CFM

DAT = unit discharge air temperature setpoint

OAT BIN = bin outside air temperature (heating hours)

Hours of Operation = scheduled run hours

Heat Recovery Effectiveness, heating = % of thermal energy transferred from exhaust air to outside air in heating mode

$\eta$  boiler = boiler efficiency

Annual cooling kWh savings =  $\Sigma (1.08 * (\text{OA cfm existing} - \text{OA cfm proposed}) * (\text{OAT BIN} - \text{DAT}) * \text{Hours of Operation}) \times (1 - \text{Heat Recovery Effectiveness, cooling}) / 12,000 \text{ Btu/ ton-hr} * \text{kW/ ton cooling system}$

where:

1.08 Btu/ cfm-degF-hr = constant to convert CFM\* degF\*hrs to Btu

OA cfm existing = existing average OA CFM from table above

OA cfm proposed = projected average OA CFM

DAT = unit discharge air temperature setpoint

OAT BIN = bin outside air temperature (cooling hours)

Hours of Operation = scheduled run hours

Heat Recovery Effectiveness, cooling = % of thermal energy transferred from outside air to exhaust air in cooling mode

12,000 Btu/ ton-hr = constant to convert Ton-hr to Btu



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kW/ ton cooling system = cooling system kW/ Ton

ECM 2.04 - Optimum Start Sequence

*Scope of work:*

The following controlled areas shall have the start/stop programming modified to enable optimum start, please note the new occupied times for the programming:

Building: Main Building				Existing		Proposed	
Fan ID	Serving	Space Occupied Heating Setpoint	Space Unoccupied Heating Setpoint	Start Time	Stop Time	Start Time	Stop Time
FCU-1	187	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
FCU-2	186	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
FCU-3	183	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
FCU-4	179	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
FCU-5	175	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
FCU-6	174	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
FCU-7	176	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
FCU-8	178	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
FCU-9	184	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
FCU-10	185	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
FCU-11	168	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
FCU-12	168	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
FCU-13	169	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
FCU-14	170	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
FCU-17	165	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
FCU-18	166	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
FCU-19	167	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
FCU-20	167	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
HRU-1	1	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
HRU-2	2	71.0	65.0	4:18 AM	4:00 PM	6:27 AM	4:00 PM
HX6	1st & 2nd fl area B	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HX7	1st & 2nd fl area B	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HX8	1st & 2nd fl area B	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HX9	Science wing area D	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HX11	Classrooms area A	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HX12	Cafeteria area A	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HX13	Library area B	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HX15	Locker rooms area C	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP1	200	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP2	148	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP3	201	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP4	202	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM

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HP5	205	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP6	206	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP7	207	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP8	210	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP9	211	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP10	212	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP11	213	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP12	214	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP13	219	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP14	C201	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP15	C202	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP16	215	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP17	187	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP18	185	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP19	188	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP20	184	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP21	C115/118	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP22	183	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP23	179	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP24	178	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP25	176	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP26	175	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP27	174	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP28	168	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP29	167	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP30	169	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP31	166	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP32	170	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP33	165	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP34	C112	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP35	173	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP36	172	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP37	164	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP38	182	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP39	148	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP40	145	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP41	144	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP42	143	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP43	159	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP44	158/157	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP45	C101	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP46	100	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP47	101	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP48	102	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP49	105	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM

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HP50	118/119	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP51	151	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP52	C103	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP53	152	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP54	120	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP55	152 STOR	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP56	121	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP57	121	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP58	127	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP59	158	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP60	136	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP61	135	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP62	130	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP63	C106	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP64	C107	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP65	108	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP66	109	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP67	125/126 practice/storage	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP68	125/126 toilet	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP69	123	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP70	Jan closet	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP71	142	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP72	140	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP73	Kitchen	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP74	154	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP75	108	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP76	111	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP77	156	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP78	106/107	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP79	C100	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP80	C100	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP81	Kitchen	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP82	134	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP83	1330/1340	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP84	133	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP85	133	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP86	149	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP87	149	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP88	149	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP89	114	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP90	112	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP91	Cafeteria	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP92	Cafeteria	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP93	Cafeteria	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM

Charlotte Valley Central School District  
Exhibit E - Guaranty

HP94	Kitchen	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM
HP95	Cafeteria	71.0	65.0	6:00 AM	4:00 PM	6:27 AM	4:00 PM

Area	Contribution by source							Efficiency by source					
	% of total	VRF HHW to GSHP	VRF Electric	VRF RHC	WSHP HHW to GSHP	WSHP Electric	WSHP RHC	VRF HHW to GSHP	VRF Electric	VRF RHC	WSHP HHW to GSHP	WSHP Electric	WSHP RHC
A wing west VRF	24.49%	54.69%	24.05%	5.44%	0.00%	0.00%	0.00%	92.00%	431.00%	92.00%	0.00%	0.00%	0.00%
A wing east VRF	20.02%	54.69%	24.05%	5.44%	0.00%	0.00%	0.00%	92.00%	431.00%	92.00%	0.00%	0.00%	0.00%
B wing center 1st floor WSHP	9.84%	0.00%	0.00%	0.00%	49.10%	19.10%	13.28%	0.00%	0.00%	0.00%	92.00%	324.00%	92.00%
B wing center 2nd fl WSHP	31.71%	0.00%	0.00%	0.00%	49.10%	19.10%	13.28%	0.00%	0.00%	0.00%	92.00%	324.00%	92.00%
B wing east WSHP	13.96%	0.00%	0.00%	0.00%	49.10%	19.10%	13.28%	0.00%	0.00%	0.00%	92.00%	324.00%	92.00%

*Savings calculation methodology:*

Savings are based on.

$$\text{Annual Btu savings} = \Sigma 1.08 \cdot \text{OA}_{\text{cfm}} \cdot (\text{space setpoint} - \text{space setback temp}) \cdot (\text{w/u hours}) - \Sigma 1.08 \cdot \text{OA}_{\text{cfm}} \cdot \text{OA damper leak-by} \cdot (\text{space setpoint} - \text{space setback temp}) \cdot (\text{new w/u hours})$$

where:

- 1.08 = constant to convert CFM\*degF\*hrs to Btu
- OA<sub>cfm</sub> = outside air CFM for units from calculation
- space setpoint = 71 degF from calculation
- space setback temp = 65 degF from calculation
- w/u hours = existing runtime before scheduled occupancy
- OA damper leak-by = 5% from calculation
- new w/u hours = proposed runtime before scheduled occupancy

$$\text{Annual motor kWhr savings} = \text{motor kW} \cdot \text{reduction in run hours (from shorter w/u periods)}$$

where:

- motor kW = existing motor load from calculation
- reduction in run hours = existing runtime before scheduled occupancy - proposed runtime before scheduled occupancy

Thermal savings for these units have been converted to account for the different contributing sources of heating and cooling energy (boiler via reheat coils, ground wells via the heat pump water loop and electricity via the water to air heat pumps.

Table of heating contributions and efficiencies

Heating equations

$$\text{Btu}_{\text{VRF HHW HTG}} = \Sigma \text{Area} (\text{Area } \% * \text{Btu}_{\text{HTG}} * \text{Cont}_{\text{VRF HHW}} / \text{Eff}_{\text{VRF HHW}})$$

$$\text{Btu}_{\text{VRF Elect HTG}} = \Sigma \text{Area} (\text{Area } \% * \text{Btu}_{\text{HTG}} * \text{Cont}_{\text{VRF elect}} / \text{Eff}_{\text{VRF elect}})$$

$$\text{Btu}_{\text{VRF RHC HTG}} = \Sigma \text{Area} (\text{Area } \% * \text{Btu}_{\text{HTG}} * \text{Cont}_{\text{VRF RHC}} / \text{Eff}_{\text{VRF RHC}})$$

$$\text{Btu}_{\text{WSHP HHW HTG}} = \Sigma \text{Area} (\text{Area } \% * \text{Btu}_{\text{HTG}} * \text{Cont}_{\text{WSHP HHW}} / \text{Eff}_{\text{WSHP HHW}})$$

$$\text{Btu}_{\text{WSHP Elect HTG}} = \Sigma \text{Area} (\text{Area } \% * \text{Btu}_{\text{HTG}} * \text{Cont}_{\text{WSHP elect}} / \text{Eff}_{\text{WSHP elect}})$$

$$\text{Btu}_{\text{WSHP RHC HTG}} = \Sigma \text{Area} (\text{Area } \% * \text{Btu}_{\text{HTG}} * \text{Cont}_{\text{WSHP RHC}} / \text{Eff}_{\text{WSHP RHC}})$$

Conversion to propane gallons and kWhr

$$\text{Propane (gallons) Saved} = (\text{Btu}_{\text{VRF HHW HTG}} + \text{Btu}_{\text{VRF RHC HTG}} + \text{Btu}_{\text{WSHP HHW HTG}} + \text{Btu}_{\text{HRU RHC HTG}}) / 91600 \text{ (Btu/gal)}$$

$$\text{kWhr Saved} = (\text{Btu}_{\text{VRF Elect HTG}} + \text{Btu}_{\text{WSHP Elec HTG}}) / 3412 \text{ (Btu/kWhr)}$$

# Charlotte Valley Central School District Exhibit E - Guaranty

Charlotte Valley CSD

Optimum start Btu conversion

Due to the various heating sources used in this building it is necessary to break out the total savings by area, source and source efficiency

Heating Area	770 gallons saved using calc		Contribution source		Contribution percentages				Contribution efficiencies				
	UA value	% of total	VRF	WSHP	HHW to GSHP	Electric	RHC	Electric	HHW to GSHP	Electric	RHC	Electric	WSHP
A wing west VRF	3,241 Btu/degF/hr	24.49%	x		54.69%	24.05%	5.44%		92.00%	431.00%	92.00%		
A wing east VRF	2,650 Btu/degF/hr	20.02%	x		54.69%	24.05%	5.44%		92.00%	431.00%	92.00%		
B wing center 1st floor V	1,302 Btu/degF/hr	9.84%		x				49.10%				92.00%	324.00%
B wing center 2nd fl WSH	4,197 Btu/degF/hr	31.71%		x				49.10%				92.00%	324.00%
B wing east WSHP	1,848 Btu/degF/hr	13.96%		x				49.10%				92.00%	324.00%

total heat loss rate 13,238 Btu/degF/hr 100.00% See gshp and vrf analysis tab in equipment schedule workbook

Area	Btu by area (total gallons saved)*% of total area)	Btu associated with source			Btu Savings adjusted by source and efficiency		
		HHW to GSHP	Electric	RHC	HHW to GSHP	Electric	RHC
A wing west VRF	17,273,324	9,446,287	4,153,481	939,640	10,267,703	963,685	1,021,348
A wing east VRF	14,120,133	7,721,897	3,395,276	768,111	8,393,366	787,767	834,904
B wing center 1st floor V	6,939,698	3,407,492	1,325,136	921,750	3,703,795	408,992	1,001,902
B wing center 2nd fl WSH	22,367,017	10,982,527	4,270,983	2,970,850	11,937,529	1,318,205	3,229,184
B wing east WSHP	9,845,505	4,834,284	1,879,999	1,307,707	5,254,657	580,247	1,421,421

Heating Totals 39,557,051 4,056,895 7,506,759

Heating savings totals for all units

Actual	514 gallons propane
	1,190 kWhr
	4,941 kWhr

motor runtime savings only

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ECM 2.05/2.06 - Temperature Setback – Occupied/Unoccupied

*Savings calculation methodology:*

Savings are based on the decrease of heating required to maintain a lower room temperature during the heating season. Savings are also based on the decrease of cooling required during the cooling season.

$$\text{Annual Btu savings} = \text{annual existing Btu during occupied time} - \text{annual proposed Btu occupied time}$$
$$= \Sigma U * A * \Delta T_{\text{existing}} - \Sigma U * A * \Delta T_{\text{proposed}}$$

where;

U = overall heat transfer coefficient

A = area of roof, walls and windows

$\Delta T_{\text{existing}}$  = current space setpoint temperature – outside air temperature<sub>BIN</sub>

$\Delta T_{\text{proposed}}$  = proposed space setpoint temperature – outside air temperature<sub>BIN</sub>

Outside air temperature<sub>BIN</sub> = outside temperature during Bin hours of occupied heating

Thermal savings for these units have been converted to account for the different contributing sources of heating and cooling energy (boiler via reheat coils, ground wells via the heat pump water loop and electricity via the water to air heat pumps).

Charlotte Valley Central School District  
Exhibit E - Guaranty

Table of heating contributions and efficiencies

Area	Contribution by source							Efficiency by source					
	Area % of total	VRF HHW to GSHP	VRF Electric	VRF RHC	WSHP HHW to GSHP	WSHP Electric	WSHP RHC	VRF HHW to GSHP	VRF Electric	VRF RHC	WSHP HHW to GSHP	WSHP Electric	WSHP RHC
A wing west VRF	24.49%	54.69%	24.05%	5.44%	0.00%	0.00%	0.00%	92.00%	431.00%	92.00%	0.00%	0.00%	0.00%
A wing east VRF	20.02%	54.69%	24.05%	5.44%	0.00%	0.00%	0.00%	92.00%	431.00%	92.00%	0.00%	0.00%	0.00%
B wing center 1st floor WSHP	9.84%	0.00%	0.00%	0.00%	49.10%	19.10%	13.28%	0.00%	0.00%	0.00%	92.00%	324.00%	92.00%
B wing center 2nd fl WSHP	31.71%	0.00%	0.00%	0.00%	49.10%	19.10%	13.28%	0.00%	0.00%	0.00%	92.00%	324.00%	92.00%
B wing east WSHP	13.96%	0.00%	0.00%	0.00%	49.10%	19.10%	13.28%	0.00%	0.00%	0.00%	92.00%	324.00%	92.00%

Heating equations

$$\begin{aligned}
 \text{Btu}_{\text{VRF HHW HTG}} &= \sum \text{Area} (\text{Area } \% * \text{Btu}_{\text{HTG}} * \text{Cont}_{\text{VRF HHW}} / \text{Eff}_{\text{VRF HHW}}) \\
 \text{Btu}_{\text{VRF Elect HTG}} &= \sum \text{Area} (\text{Area } \% * \text{Btu}_{\text{HTG}} * \text{Cont}_{\text{VRF elect}} / \text{Eff}_{\text{VRF elect}}) \\
 \text{Btu}_{\text{VRF RHC HTG}} &= \sum \text{Area} (\text{Area } \% * \text{Btu}_{\text{HTG}} * \text{Cont}_{\text{VRF RHC}} / \text{Eff}_{\text{VRF RHC}}) \\
 \text{Btu}_{\text{WSHP HHW HTG}} &= \sum \text{Area} (\text{Area } \% * \text{Btu}_{\text{HTG}} * \text{Cont}_{\text{WSHP HHW}} / \text{Eff}_{\text{WSHP HHW}}) \\
 \text{Btu}_{\text{WSHP Elect HTG}} &= \sum \text{Area} (\text{Area } \% * \text{Btu}_{\text{HTG}} * \text{Cont}_{\text{WSHP elect}} / \text{Eff}_{\text{WSHP elect}}) \\
 \text{Btu}_{\text{WSHP RHC HTG}} &= \sum \text{Area} (\text{Area } \% * \text{Btu}_{\text{HTG}} * \text{Cont}_{\text{WSHP RHC}} / \text{Eff}_{\text{WSHP RHC}})
 \end{aligned}$$

Conversion to propane gallons and kWhr

$$\begin{aligned}
 \text{Propane (gallons) Saved} &= (\text{Btu}_{\text{VRF HHW HTG}} + \text{Btu}_{\text{VRF RHC HTG}} + \text{Btu}_{\text{WSHP HHW HTG}} + \text{Btu}_{\text{HRU RHC HTG}}) / 91600 \text{ (Btu/gal)} \\
 \text{kWhr Saved} &= (\text{Btu}_{\text{VRF Elect HTG}} + \text{Btu}_{\text{WSHP Elec HTG}}) / 3412 \text{ (Btu/kWhr)}
 \end{aligned}$$



Charlotte Valley Central School District  
Exhibit E - Guaranty

Table of cooling contributions and efficiencies

Area	% of total	Contribution by source						Efficiency by source					
		VRF HHW to GSHP	VRF Electric	VRF RHC	WSHP HHW to GSHP	WSHP Electric	WSHP RHC	VRF HHW to GSHP	VRF Electric	VRF RHC	WSHP HHW to GSHP	WSHP Electric	WSHP RHC
A wing west VRF	24.49%	0.00%	30.74%	0.00%	0.00%	0.00%	0.00%	0.00%	325.00%	0.00%	0.00%	0.00%	0.00%
A wing east VRF	20.02%	0.00%	30.74%	0.00%	0.00%	0.00%	0.00%	0.00%	325.00%	0.00%	0.00%	0.00%	0.00%
B wing center 1st floor WSHP	9.84%	0.00%	0.00%	0.00%	0.00%	26.83%	0.00%	0.00%	0.00%	0.00%	0.00%	373.00%	0.00%
B wing center 2nd fl WSHP	31.71%	0.00%	0.00%	0.00%	0.00%	26.83%	0.00%	0.00%	0.00%	0.00%	0.00%	373.00%	0.00%
B wing east WSHP	13.96%	0.00%	0.00%	0.00%	0.00%	26.83%	0.00%	0.00%	0.00%	0.00%	0.00%	373.00%	0.00%

Cooling equations

$$\begin{aligned} \text{Btu}_{\text{VRF HHW CLG}} &= \sum \text{Area} (\text{Area } \% * \text{Btu}_{\text{CLG}} * \text{Cont}_{\text{VRF HHW}} / \text{Eff}_{\text{VRF HHW}}) \\ \text{Btu}_{\text{VRF Elect CLG}} &= \sum \text{Area} (\text{Area } \% * \text{Btu}_{\text{CLG}} * \text{Cont}_{\text{VRF elect}} / \text{Eff}_{\text{VRF elect}}) \\ \text{Btu}_{\text{VRF RHC CLG}} &= \sum \text{Area} (\text{Area } \% * \text{Btu}_{\text{CLG}} * \text{Cont}_{\text{VRF RHC}} / \text{Eff}_{\text{VRF RHC}}) \\ \text{Btu}_{\text{WSHP HHW CLG}} &= \sum \text{Area} (\text{Area } \% * \text{Btu}_{\text{CLG}} * \text{Cont}_{\text{WSHP HHW}} / \text{Eff}_{\text{WSHP HHW}}) \\ \text{Btu}_{\text{WSHP Elect CLG}} &= \sum \text{Area} (\text{Area } \% * \text{Btu}_{\text{CLG}} * \text{Cont}_{\text{WSHP elect}} / \text{Eff}_{\text{WSHP elect}}) \\ \text{Btu}_{\text{WSHP RHC CLG}} &= \sum \text{Area} (\text{Area } \% * \text{Btu}_{\text{CLG}} * \text{Cont}_{\text{WSHP RHC}} / \text{Eff}_{\text{WSHP RHC}}) \end{aligned}$$

Conversion to propane gallons and kWhr:

$$\begin{aligned} \text{Propane (gallons) Saved} &= (\text{Btu}_{\text{VRF HHW CLG}} + \text{Btu}_{\text{VRF RHC CLG}} + \text{Btu}_{\text{WSHP HHW CLG}} + \text{Btu}_{\text{HRU RHC CLG}}) / 91600 \text{ (Btu/gal)} \\ \text{kWhr Saved} &= (\text{Btu}_{\text{VRF Elect CLG}} + \text{Btu}_{\text{WSHP Elec CLG}}) / 3412 \text{ (Btu/kWhr)} \end{aligned}$$

# Charlotte Valley Central School District Exhibit E - Guaranty

## Charlotte Valley CSD Temperature setback RTU conversion

Due to the various heating sources used in this building it is necessary to break out the total savings by area, source and source efficiency.

Area	UA values	Btu/deg/hr			Contribution source			Contribution efficiencies		
		1st floor	2nd floor	Direct fired	HHW to GSHP	Electric	RHC	HHW to GSHP	Electric	RHC
A wing west VRF	2,741	24.6%	x	x	5.70%	23.20%	5.44%	91.00%	431.00%	91.00%
B wing east VRF	1,890	20.02%	x	x	9.70%	23.20%	5.44%	91.00%	431.00%	91.00%
B wing center 1st floor WSHSP	1,302	11.84%	x	x	8.80%	30.60%	13.80%	92.00%	324.00%	92.00%
B wing center 2nd fl WSHSP	4,137	31.71%	x	x	8.80%	30.60%	13.80%	92.00%	324.00%	92.00%
B wing east WSHSP	1,848	13.96%	x	x	8.80%	30.60%	13.80%	92.00%	324.00%	92.00%

See ghp and vrf analysis tab in equipment schedule workbook

See equipment schedule workbook for all efficiencies

total heat loss rate 13,238 Btu/deg/hr 100.00%

Area	Btu by area (total)	gallons saved % of total area	Btu associated with source			Btu Savings adjusted by source and efficiency		
			HHW to GSHP	Electric	RHC	HHW to GSHP	Electric	RHC
A wing west VRF	50,174,185	4,866,856	11,840,411	2,729,476	5,290,104	2,700,791	2,966,821	
B wing east VRF	41,015,046	3,978,459	9,515,491	2,231,218	4,324,412	2,207,770	2,425,237	
B wing center 1st floor WSHSP	20,157,887	1,773,494	6,208,629	2,781,788	1,028,146	1,916,244	3,013,683	
B wing center 2nd fl WSHSP	64,869,943	5,717,355	20,010,742	8,965,852	6,314,516	6,176,155	5,745,491	
B wing east WSHSP	28,598,443	2,516,663	8,808,321	3,946,585	2,735,103	2,718,617	4,229,767	
<b>Totals</b>	<b>20,492,682</b>	<b>15,719,578</b>	<b>22,651,000</b>					

Heating savings totals for all units

Actual	4,869 gallons eq/yr
4,871 kWh	

## Cooling

Area	UA values	Btu/deg/hr			Contribution source			Contribution efficiencies		
		1st floor	2nd floor	Direct fired	HHW to GSHP	Electric	RHC	HHW to GSHP	Electric	RHC
A wing west VRF	2,741	24.6%	x	x	30.74%	30.74%		325.00%		
B wing east VRF	1,890	20.02%	x	x	30.74%	30.74%		325.00%		
B wing center 1st floor WSHSP	1,302	11.84%	x	x	26.63%	26.63%		373.00%		
B wing center 2nd fl WSHSP	4,137	31.71%	x	x	26.63%	26.63%		373.00%		
B wing east WSHSP	1,848	13.96%	x	x	26.63%	26.63%		373.00%		

total heat loss rate 13,238 Btu/deg/hr 100.00%

See ghp and vrf analysis tab in equipment schedule workbook

See equipment schedule workbook for all efficiencies

Cooling savings totals for all units

Actual	0 gallons propane
1,350 kWh	

ECM 4.01 Weatherization

Scope of work:

Building	Single Doors	Double Doors	Door Sweep	Double Door Sweep	Overhead Door	Roof/Wall Joint	Rooftop Exhaust Fans	Soffit	Window trim	Attic insul & Air seal
	(#)	(#)	(#)	(linear feet)	(#)	(linear feet)	(#)	(linear feet)	(linear feet)	(sqft)
A East	4	1	4	1	0	163	7	0	0	0
A West	0	3	0	3	0	333	2	0	0	720
B	2	6	2	6	1	56	7	96	43	0
C	1	3	1	3	1	237	9	0	0	0
Bus Garage	2	0	0	0	4	0	0	0	0	0

See project drawings for details and locations of work to be performed.

*Savings calculation methodology:*

*Bus Garage*

Annual Btu savings = annual existing Btu heat loss through crack area during all heating hours - annual existing Btu heat loss through crack area for exhaust fans during occupied heating hours

$$= (\Sigma(1.08 * cfm_{existing} * \Delta T_{existing} * \text{all heating hrs}) - \Sigma(1.08 * cfm_{existing\ exh\ fan} * \Delta T_{existing} * \text{occ heating hrs})) / \eta_{burner}$$

Where:

1.08 = constant to convert CFM\*degF\*hrs to Btu

Cfm = ft<sup>3</sup>/min for airflow through crack area

ΔT = space setpoint temperature – outside air bin temperature

All heating hours = bin hours of outside air temperature

Occ heating hours = bin hours of exhaust fan occupied hours only

η<sub>burner</sub> = burner efficiency

$$\text{Propane (gallons) Saved} = (\text{Bus Garage Annual Btu savings}) / 91600 \text{ (Btu/gal)}$$

*Main Building*

Attic Insulation Savings

Annual Btu savings = (annual existing Btu during occupied time - annual proposed Btu occupied time) +  
(annual existing Btu during unoccupied time - annual proposed Btu unoccupied time)

$$= \frac{(\sum U_{\text{existing}} * A * \Delta T_{\text{occupied}} - \sum U_{\text{proposed}} * A * \Delta T_{\text{occupied}})}{\sum U_{\text{proposed}} * A * \Delta T_{\text{unoccupied}}} + (\sum U_{\text{existing}} * A * \Delta T_{\text{unoccupied}} - \sum U_{\text{proposed}} * A * \Delta T_{\text{unoccupied}})$$

where;

$U_{\text{existing}}$  = overall heat transfer coefficient existing roof insulation

$U_{\text{proposed}}$  = overall heat transfer coefficient proposed roof insulation

A = area of roof

$\Delta T_{\text{occ}}$  = occupied space setpoint temperature – OAT<sub>BINOcc</sub>

$\Delta T_{\text{unocc}}$  = unoccupied space setpoint temperature – OAT<sub>BINUnocc</sub>

OAT<sub>BINOcc</sub> = outside temperature during Bin hours of occupied heating

OAT<sub>BINUnocc</sub> = outside temperature during Bin hours of unoccupied heating

$$\text{Propane (gallons) Saved} = \text{Annual Btu Savings} / 91600 \text{ (Btu/gal)}$$

Infiltration Savings

Annual Btu savings = annual existing Btu heat loss through crack area during all heating hours - annual existing Btu heat loss through crack area for exhaust fans during occupied heating hours

$$= \Sigma(1.08 * \text{cfm}_{\text{existing}} * \Delta T_{\text{existing}} * \text{all heating hrs}) - \Sigma(1.08 * \text{cfm}_{\text{existing exh fan}} * \Delta T_{\text{existing}} * \text{occ heating hrs})$$

Where:

1.08 = constant to convert CFM\*degF\*hrs to Btu

Cfm = ft<sup>3</sup>/min for airflow through crack area

$\Delta T$  = space setpoint temperature – outside air bin temperature

All heating hours = bin hours of outside air temperature

Occ heating hours = bin hours of exhaust fan occupied hours only

Thermal savings for these areas of infiltration have been converted to account for the different contributing sources of heating and cooling energy (boiler via reheat coils, ground wells via the heat pump water loop and electricity via the water to air heat pumps).

Charlotte Valley Central School District  
Exhibit E - Guaranty

AREA	Contribution percentages						Efficiency by Source					
	VRF	VRF	VRF	WSHP	WSHP	WSHP	VRF	VRF	VRF	WSHP	WSHP	WSHP
	HHW	Electric	RHC	HHW	Electric	RHC	HHW	Electric	RHC	HHW	Electric	RHC
A Wing West VRF	54.69%	24.05%	5.44%	0.00%	0.00%	0.00%	92.00%	431.00%	92.00%	0.00%	0.00%	0.00%
A Wing East VRF	54.69%	24.05%	5.44%	0.00%	0.00%	0.00%	92.00%	431.00%	92.00%	0.00%	0.00%	0.00%
B Wing WSHP	0.00%	0.00%	0.00%	49.10%	19.10%	13.28%	0.00%	0.00%	0.00%	92.00%	324.00%	92.00%
C Wing WSHP	0.00%	0.00%	0.00%	49.10%	19.10%	13.28%	0.00%	0.00%	0.00%	92.00%	324.00%	92.00%

Heating equations

$$\begin{aligned} \text{Btu}_{\text{VRF HHW HTG}} &= \Phi * \Sigma \text{Area (gap sft * Btu}_{\text{HTG}} * \text{Cont}_{\text{VRF HHW}} / \text{Eff}_{\text{VRF HHW}}) \\ \text{Btu}_{\text{VRF Elect HTG}} &= \Phi * \Sigma \text{Area (gap sft * Btu}_{\text{HTG}} * \text{Cont}_{\text{VRF elect}} / \text{Eff}_{\text{VRF elect}}) \\ \text{Btu}_{\text{VRF RHC HTG}} &= \Phi * \Sigma \text{Area (gap sft * Btu}_{\text{HTG}} * \text{Cont}_{\text{VRF RHC}} / \text{Eff}_{\text{VRF RHC}}) \\ \text{Btu}_{\text{WSHP HHW HTG}} &= \Phi * \Sigma \text{Area (gap sft * Btu}_{\text{HTG}} * \text{Cont}_{\text{WSHP HHW}} / \text{Eff}_{\text{WSHP HHW}}) \\ \text{Btu}_{\text{WSHP Elect HTG}} &= \Phi * \Sigma \text{Area (gap sft * Btu}_{\text{HTG}} * \text{Cont}_{\text{WSHP elect}} / \text{Eff}_{\text{WSHP elect}}) \\ \text{Btu}_{\text{WSHP RHC HTG}} &= \Phi * \Sigma \text{Area (gap sft * Btu}_{\text{HTG}} * \text{Cont}_{\text{WSHP RHC}} / \text{Eff}_{\text{WSHP RHC}}) \end{aligned}$$

Where:

$$\Phi = \text{Building Envelope ratio} = \text{Total Mbtu saved} / \text{total sqft sealed}$$

Conversion to propane gallons and kWhr

$$\begin{aligned} \text{Propane (gallons) Saved} &= (\text{Btu}_{\text{VRF HHW HTG}} + \text{Btu}_{\text{VRF RHC HTG}} + \text{Btu}_{\text{WSHP HHW HTG}} + \\ &\text{Btu}_{\text{HRU RHC HTG}}) / 91600 \text{ (Btu/gal)} \\ \text{kWhr Saved} &= (\text{Btu}_{\text{VRF Elect HTG}} + \text{Btu}_{\text{WSHP Elec HTG}}) / 3412 \text{ (Btu/kWhr)} \end{aligned}$$

**5.3 Option B – Retrofit Isolation: All Parameter Measurement – This is not used**

**5.4 Option C – Whole Building or Main Meter Comparison – This is not used**

Article 6: Baseline Data

6.1 The year(s) selected as the Baseline Period starts on July 2021 and ends on June 2022. Table 6.1 outlines the utility consumption that occurred during this Baseline Period. This Baseline Period’s Facility utility consumption will be used as the reference for comparing the Facility’s utility consumption during the Performance Guarantee Period in order to determine the Annual Realized Savings.

**Table 6.1 – Baseline Utility Consumption**

<b>Building</b>	<b>Building Size</b>	<b>Annual Electric Usage</b>	<b>Electric Cost</b>	<b>Annual Demand</b>	<b>Demand Cost</b>	<b>Annual Propane Usage</b>	<b>Gallons Cost</b>
	<b>(sqft)</b>	<b>(kWh)</b>	<b>(\$)</b>	<b>(kW)</b>	<b>(\$)</b>	<b>(gallons)</b>	<b>(\$)</b>
Main Building	93,375	905,184	\$49,242	2,445	\$26,528	43,208	\$97,218
Bus Garage	4,384	37,716	\$2,052	72	\$781	3,116	\$7,011
<b>Totals</b>		<b>942,900</b>	<b>\$51,294</b>	<b>2,517</b>	<b>\$27,309</b>	<b>46,324</b>	<b>\$104,229</b>

6.2 The operating practices during the Baseline Period determine the utility consumption shown in Table 6.1. This data indicates the operating characteristics that were in effect during the Baseline Period. The Guaranteed Savings provided under this Agreement are based on the efficiencies gained by implementing the Work and implementing the Contracted Baseline in Article 8 of this Exhibit E. Tables 6.2.1 and 6.2.2 outline the building Baseline operating hours and Baseline operating temperatures, respectively. The list below the tables outlines the Baseline operating parameters for specific equipment.

**Table 6.2.1 – Baseline Operating Hours  
 School Building**

<b>Day of Week</b>	<b>Occupied Run Hours</b>	<b>Unoccupied Run Hours</b>	<b>Occupied Start Times</b>	<b>Occupied Stop Time</b>
Monday	10	14	6:00 AM	4:00 PM
Tuesday	10	14	6:00 AM	4:00 PM
Wednesday	10	14	6:00 AM	4:00 PM
Thursday	10	14	6:00 AM	4:00 PM

Friday	10	14	6:00 AM	4:00 PM
Saturday	0	0	N/A	N/A
Sunday	0	0	N/A	N/A
Holiday	0	0	N/A	N/A

**Bus Garage**

Day of Week	Occupied Run Hours	Unoccupied Run Hours	Occupied Start Times	Occupied Stop Time
Monday	12	12	5:00 AM	5:00 PM
Tuesday	12	12	5:00 AM	5:00 PM
Wednesday	12	12	5:00 AM	5:00 PM
Thursday	12	12	5:00 AM	5:00 PM
Friday	12	12	5:00 AM	5:00 PM
Saturday	0	0	N/A	N/A
Sunday	0	0	N/A	N/A
Holiday	0	0	N/A	N/A

**Table 6.2.2 – Baseline Operating Temperatures**

Day of Week	Occupied Heating Temperatures	Unoccupied Heating Temperatures	Occupied Cooling Temperatures	Unoccupied Cooling Temperatures
Monday	71.5	70.6	72	75
Tuesday	71.5	70.6	72	75
Wednesday	71.5	70.6	72	75
Thursday	71.5	70.6	72	75
Friday	71.5	70.6	72	75
Saturday	N/A	70.6	N/A	N/A
Sunday	N/A	70.6	N/A	N/A
Holiday	N/A	70.6	N/A	N/A

**General Equipment Baseline Operating Parameters (unless specified otherwise in the Scope of Work and Services, Exhibit B, Article 1 or Exhibit E, Article 4). All hours are Monday through Friday.**

- Current lighting operating hours for individual areas are indicated in the project drawings
- Current operating times and daily run time during weekdays for specific HVAC units are listed in Table 6.2.3

**Table 6.2.3 – Baseline Operating Hours for Specific HVAC Units**

Location	Unit	Service	Occupied		Run Time per Day
			Start Time	Stop Time	
School	HX6	1st & 2nd fl area B	6am	4pm	10.0
School	HX7	1st & 2nd fl area B	6am	4pm	10.0
School	HX8	1st & 2nd fl area B	6am	4pm	10.0
School	HX9	Science wing area D	6am	4pm	10.0
School	HX11	Classrooms area A	6am	4pm	10.0
School	HX12	Cafeteria area A	6am	4pm	10.0
School	HX13	Library area B	6am	4pm	10.0
School	HX15	Locker rooms area C	6am	4pm	10.0
School	ERU1	Main gym	6am	4pm	10.0
School	ERU2	APR	6am	4pm	10.0
School	WTA heat pumps	Various	6am	4pm	10.0

6.3 Applicable codes - Federal, State, County or Municipal codes or regulations are applicable to the use and operation of the Facility. Day will maintain the current level of Facility compliance relative to applicable codes unless specifically outlined to the contrary below. Unless specifically set forth in the Scope of Work and Services, Exhibit B, nothing herein should be construed as to require Day to provide additional work or services in the event that the current applicable code or regulation is modified.



Article 7: Utility Rate Structures and Escalation Rates

7.1 Utility costs used for Savings calculations will be based on the utility rates and rate escalation percentages, as provided in the table(s) below. Each escalation rate will be applied annually to the utility rate.

**Table 7.1 – Utility Rate Structure and Escalation Rates**

<b>Location</b>	<b>Blended Electric Energy (\$/Blended kWh)</b>	<b>Incremental Electric Energy (\$/Incremental kWh)</b>	<b>Electric Demand (\$/kW)</b>	<b>Propane \$/gal</b>	<b>Rate Escalation</b>
Main Building	\$0.084	\$0.054	\$10.85	\$2.25	2%
Bus Garage	\$0.075	\$0.054	\$10.85	\$2.25	2%

**Article 8: Contracted Project Data**

8.1 The following tables detail the Facility operating parameters that are required to be implemented on the Guarantee Date or on such time as agreed upon by the Parties. This specific configuration of Facility operating parameters is the Contracted Project and failure of the Customer to maintain the Contracted Project may result in a Material Change which may require a modification of the Performance Guarantee pursuant to Article 4 of the Agreement. Tables 8.1.1 and 8.1.2 outline the building Contracted Baseline operating hours and Contracted Project operating temperatures, respectively. The list below the tables outlines the Contracted Project operating parameters for specific equipment.

**Table 8.1.1 – Contracted Project Operating Hours  
 School Building**

Day of Week	Occupied Run Hours	Unoccupied Run Hours	Occupied Start Times	Occupied Stop Time
Monday	9	15	7:00 AM	4:00 PM
Tuesday	9	15	7:00 AM	4:00 PM
Wednesday	9	15	7:00 AM	4:00 PM
Thursday	9	15	7:00 AM	4:00 PM
Friday	9	15	7:00 AM	4:00 PM
Saturday	0	0	N/A	N/A
Sunday	0	0	N/A	N/A
Holiday	0	0	N/A	N/A

**Bus Garage**

Day of Week	Occupied Run Hours	Unoccupied Run Hours	Occupied Start Times	Occupied Stop Time
Monday	12	12	5:00 AM	5:00 PM
Tuesday	12	12	5:00 AM	5:00 PM
Wednesday	12	12	5:00 AM	5:00 PM
Thursday	12	12	5:00 AM	5:00 PM
Friday	12	12	5:00 AM	5:00 PM
Saturday	0	0	N/A	N/A
Sunday	0	0	N/A	N/A
Holiday	0	0	N/A	N/A

**Table 8.1.2 – Contracted Project Operating Temperatures**

Day of Week	Occupied Heating Temperatures	Unoccupied Heating Temperatures	Occupied Cooling Temperatures	Unoccupied Cooling Temperatures
Monday	71	65	73	78
Tuesday	71	65	73	78
Wednesday	71	65	73	78
Thursday	71	65	73	78
Friday	71	65	73	78
Saturday	N/A	65	N/A	N/A
Sunday	N/A	65	N/A	N/A
Holiday	N/A	65	N/A	N/A

**General Equipment Contracted Project Operating Parameters (unless specified otherwise in the Scope of Work and Services, Exhibit B, Article 1 or Exhibit E, Article 6)**

- Post-retrofit lighting operating hours for individual areas are indicated in Post-retrofit A, Appendix 1-Lighting Retrofit Schedule
- Post-retrofit operating times and daily run time during weekdays for specific HVAC units are listed in Table 8.1.3

**Table 8.1.3 – Contracted Baseline Operating Hours for Specific HVAC Units**

Location	Unit	Service	Occupied		Run Time per Day	Event Run Time per Day
			Start Time	Stop Time		
School	HX6	1st & 2nd fl area B	7	16.0	9.0	NA
School	HX7	1st & 2nd fl area B	7	16.0	9.0	NA
School	HX8	1st & 2nd fl area B	7	16.0	9.0	NA
School	HX9	Science wing area D	7	16.0	9.0	NA
School	HX11	Classrooms area A	7	16.0	9.0	NA
School	HX12	Cafeteria area A	7	16.0	9.0	NA
School	HX13	Library area B	7	16.0	9.0	NA
School	HX15	Locker rooms area C	7	16.0	9.0	NA
School	ERU1	Main gym	7	16.0	9.0	120
School	ERU2	APR	7	16.0	9.0	NA
School	WTA heat pumps	Various	7	16.0	9.0	NA

This Exhibit E is attached to and made a part of the Agreement between Day and the Customer.

**IN WITNESS WHEREOF**, the parties hereto have hereunto set their hands and seals the day and year first above written.

DAY AUTOMATION SYSTEMS, INC.

CHARLOTTE VALLEY CENTRAL  
SCHOOL DISTRICT

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

Name: Steve Heaslip

Title: Energy Services Manager

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

Name: Eric Whipple

Title: Superintendent

**Scope of Services-Measurement and Verification Program (MVP)**

- 1.1 The MVP will provide the Customer with an Annual Performance Assurance Report within sixty (60) days of the end of each Annual Period.
- 1.2 Measurement and Verification Services are all labor activities, site visits, monitoring and analyses necessary to calculate the Annual Realized Savings achieved by the Project, and to prepare and present the Annual Performance Assurance Report for the respective Annual Period.
- 1.3 Each Annual Measurement and Verification Report shall include:

Post-installation measurement and verification (M&V) is conducted by Day to ensure that proper equipment and systems were installed, are operating correctly, and have the potential to generate the predicted savings. The verification is accomplished through commissioning and M&V activities as further detailed in Exhibit E of this agreement

Post-installation M&V activities specified in the M&V plan will include spot measurements, BMS trending and short-term metering. The results of the M&V activities are presented in a Post-Installation Report delivered by the Day before final project acceptance. The Post-Installation Report shall contain the following:

- 1. Overview of proposed energy and cost savings
- 2. Schedule for all M&V activities
- 3. Witnessing requirements and customer approval and sign-off requirements
- 4. Utility rates and the method used to calculate cost savings
- 5. O&M reporting responsibilities

At least annually, Day will verify the installed equipment and systems have been properly maintained, continue to operate correctly, and continue to have the potential to generate the predicted savings. The Day will ensure the M&V monitoring and reporting systems are working properly provide fine-tuning of measures throughout the year based on operational feedback and demonstrate the savings that are being achieved. The annual report shall contain the following for ECMs installed:

- 1. Details of baseline conditions and data collected
- 2. Documentation of all assumptions and sources of data
- 3. Details of engineering analysis performed
- 4. How energy savings will be calculated
- 5. Details of any Operations & Maintenance or other cost savings claimed
- 6. Details of proposed energy and cost savings

7. Details of post-installation verification activities, including inspections, measurements, analysis and customer project acceptance procedures
  8. Details of any anticipated routine adjustments to baseline or reporting period energy and/or adjustment parameters
- 
- 1.4 In the case of demolished or decommissioned buildings or removal of ECM equipment by the Customer, Day shall be informed in writing within 30 days regarding that part of the contract involving ECMs that are no longer in place or no longer functional. The M&V report shall reflect the changes brought about by ECMs no longer in place or no longer functional.
  - 1.5 The Measured and Verified Savings for the respective Annual Period, including supporting documentation required to complete the Measurement and Verification Plan outlined in Exhibit E of this Agreement.
  - 1.6 The Annual Realized Savings achieved by the Project shall be determined for each respective Annual Period.
  - 1.7 A comparison of the Annual Realized Savings and Guaranteed Annual Savings to determine whether there is a Savings Shortfall for the respective Annual Period, pursuant to Exhibit E of this agreement.

**Article 2: Scope of Services – Maintenance Services**

- 2.1 Preventative maintenance must be performed to maintain equipment in good condition and to ensure that efficiency is at an acceptable level so project savings targets are met. DAY AUTOMATION will work with the customer to develop a maintenance program that will ensure equipment is maintained and is in accordance with the costs identified in Exhibit A of this agreement. This may include customer performed actions in tandem with Day Automation performed actions.
- 2.2 Emergency Service – Our factory-certified technicians will address and work towards quick resolution of your service issues. In case of a building emergency, we maintain 24-hour service capabilities. Please call 1-800-836-0969 for all issues.
- 2.3 Training of On-Site Staff - Training for new equipment and upgrades installed during the construction phase of the EPC will be scheduled by the project manager for any personnel designated by the customer. This training will be on-site or in a Day Automation classroom depending on the training needed.

**IN WITNESS WHEREOF**, the parties hereto have hereunto set their hands and seals the day and year first above written.

DAY AUTOMATION SYSTEMS, INC.

CHARLOTTE VALLEY CENTRAL  
SCHOOL DISTRICT

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

Name: Steve Heaslip

Title: Energy Services Manager

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

Name: Eric Whipple

Title: Superintendent

Charlotte Valley Central School District  
Energy Services Performance Contract  
Exhibit G – Addendum No. 1

Day Automation Services, Inc. (“Day”) and Charlotte Valley Central School District (“Customer”) hereby agree that this Exhibit G – Addendum No. 1, modifies the Energy Services Performance Agreement between Day and Customer (“Agreement”) and is attached to and made a part of the Agreement. To the extent that any terms or conditions contained in the Agreement conflict with any terms or conditions contained in this Addendum No. 1, the terms and conditions of this Addendum No. 1 shall control. Day and Customer are sometimes referred to in this Exhibit individually as Party or collectively as Parties.

A. Executory Clauses

1. The Agreement incorporates by reference the provisions of 8 NYCRR 155.20 Energy performance contracts, including but not limited to the definitions set out at 8 NYCRR 155.20(b) and the provisions set out at 8 NYCRR 155.20(d). The Agreement shall be effective only to the extent of the funds appropriated or available for the purposes of the Agreement and no liability shall be incurred by Customer beyond the amount of such funds. Day hereby acknowledges and accepts that Customer has no obligation to request, appropriate or make available funds for the purpose of the Agreement.
2. Day acknowledges that under the applicable, governing provisions of 8 NYCRR 155.20, the Agreement requires the approval of the Commissioner of Education of the State of New York and it shall not be executory until approval of the said Commissioner is obtained.

B. Governing Laws, Statutory Compliance, Prevailing Wage and Workers Compensation

1. Day shall perform its obligations hereunder in compliance with any and all applicable federal, state, and local laws, rules, and regulations, including applicable licensing requirements.
2. Day covenants and agrees to comply in all respects with all federal, state and local laws and ordinances regarding services for municipal corporations including but not limited to Workers' Compensation and Employers' Liability Insurance, Affirmative Action, hours of employment, wages, and human rights.
3. Day covenants and agrees to comply in all respects with all New York State Education Department laws, ordinances, requirements and guidelines applicable to Contractors work on the project.



4. The Agreement shall be governed by and construed in accordance with the laws of the State of New York without regard to conflict of law principles. Any litigation or other proceeding arising under the Agreement shall be commenced in the New York State Supreme Court with jurisdiction over the Customer's location with venue in the County where the Customer is located.
5. Day will pay prevailing wages and benefits to the extent required by the laws of the State of New York.

C. Compliance with District Regulations

1. Day shall cause all persons performing work pursuant to the Agreement to comply with all instructions pertaining to conduct and building regulations issued by Customer. All such persons shall wear readily visible identification that is satisfactory to Customer. The Customer may promulgate and modify from time to time rules and regulations relating to conduct as the Customer, in its sole discretion, may determine, and Day shall cause all persons performing work to comply with them, including all rules and regulations related to limiting the spread of the COVID-19 virus.

D. Architect of Record for the Project

1. The design and specification of equipment and systems to be used in providing energy efficiency services will be provided by Hunt Architects & Engineers. Their contract costs for services as the Architect of Record for the project are included within the contract cost shown in this agreement. Day agrees to work cooperatively with Hunt Architects & Engineers, the project construction manager, and the Customer in coordinating this project.

E. Bonding Requirements

1. All surety bonds for the Project shall be issued by a qualified surety satisfactory to the Customer, that has an A.M. Best Rating of not less than "secured" or better and is authorized to conduct business in New York State. Day must furnish bonds covering faithful performance of its obligations under the Agreement and payment of obligations arising thereunder. Each bond must be maintained throughout the duration of the work of the Project. Day must deliver the required bonds prior to beginning any work at the site, but no later than seven days after execution of the Agreement on unmodified form, AIA Document A311 Performance Bond and Labor and Material Payment Bond. The Performance and Payment Bonds furnished by Contractor shall apply solely to the construction services identified in Article 1 of Exhibit B to the Agreement (the "Construction Work") and for a period of 12 months from the acceptance and final payment of the Construction Work. The Performance and Payment Bonds

shall not be applicable to any services (including guarantees) related to the Measurement and Verification Program and the Maintenance Service and Technical Support specified in Exhibits E and F or Exhibit A, Tables A.2 and A.3 or any other performance guarantee, efficiency guarantee, or any energy savings guarantees. The Amount of each Bond shall be One Hundred Percent (100%) of the Contract Price.

F. Time is of the Essence

1. **TIME IS OF THE ESSENCE IN THE COMMENCEMENT, PROSECUTION AND CONSTRUCTION OF THE WORK.** Day shall be responsible for all direct damages to Customer arising from any inexcusable delay by Day, its Subcontractors and suppliers, in performing or completing the Work in accordance with the time requirements of the Agreement. For purposes of this Agreement, delays resulting from supply chain issues and disruption shall not constitute an inexcusable delay.

G. Project Records

1. Day shall maintain complete and accurate records, accounts, and other documents related to the Agreement. These records must be maintained by Day for seven (7) years after final completion of the Work under the Agreement. The Customer and entities entitled to examine the Customer's records shall have access to Day's records for the project upon request.

H. Miscellaneous Provisions

1. Any change or modification to the Agreement will not be effective unless made in writing. Such written modification must specifically indicate that it is an amendment, change, or modifications, and must be signed by both Parties and approved by the New York State Commissioner of Education.
2. The failure of Day or the Customer to insist upon, or to delay enforcing the strict performance of the terms and conditions hereof, or any right or remedy, as provided herein, shall not constitute or be construed as a waiver or relinquishment of either Party's right to thereafter enforce the same in accordance with the Agreement in the event of a continuing or subsequent default on the part of Day or the Customer.


I. Construction and Installation Activities

1. Day agrees to coordinate its construction under the Agreement with other contractors and the project construction manager and solely with respect to its construction and installation of the items set out in the Agreement, agrees to be bound by the provisions of the project's General Conditions of the Contract for Construction, Construction Manager as Advisor Edition, A232-2019 as modified, and hereby incorporated by reference.

**IN WITNESS WHEREOF**, the Parties hereto have hereunto set their hands and seals the day and year first above written.

CHARLOTTE VALLEY CENTRAL  
SCHOOL DISTRICT

DAY AUTOMATION  
SYSTEMS, INC.

By:   
Name: Eric Whipple  
Title: District Superintendent

By: \_\_\_\_\_  
Name: Steve Heaslip  
Title: Energy Services Manager

