

## CONTRACT AMENDMENT TWO

This Contract Amendment Two ("Amendment Two") is made this 7 day of October 2020, by and between:

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

*And*

MIDDLE COUNTRY CENTRAL SCHOOL DISTRICT ("CUSTOMER")  
8 43<sup>RD</sup> STREET  
CENTEREACH, NY 11720

### RECITALS

**WHEREAS**, JCI and Customer are parties to a Performance Contract, dated December 14, 2017 (the "Performance Contract") and a Contract Amendment, dated June 27, 2019 ("Amendment One," and together with the Performance Contract, the "Agreement");

**WHEREAS**, JCI and Customer desire to amend the terms of the Agreement as set forth below; and

**NOW, THEREFORE**, in consideration of the mutual covenants and conditions contained herein, the parties agree as follows:

1. The Agreement shall be revised in accordance with the following:
  - a. **This Amendment Two will replace Amendment One in its entirety.**
  - b. **On Page 2 of the Contract, Section 2, Agreement Document Attachment 4 with the following line in its entirety:**  
  
Attachment 4 – Line by line for Middle Country Rev-H (7-8-2020)
  - c. **On Page 2 of the Contract, Section 3, ARCHITECT/ENGINEER OF RECORD remove the value \$893,225 and replace with the following:**  
  
**\$1,085,777**
  - d. **On Page 11 of the Agreement, replace Scope of Work (Table) with the following:**

ECM #	Proposed Measure	Centereach High School	Newfield High School	Dawnwood Middle School	Seiden Middle School	Bicycle Path Pre-K / Kindergarten Center	Eugene Auer Memorial Elementary	Hawkins Path Elementary	Holbrook Road Elementary	Jericho Elementary	New Lane Memorial Elementary	North Coleman Elementary	Oxhead Road Elementary	Stagecoach Elementary	Unity Drive Pre-K / Kindergarten Center	District Office	Modular Offices, Maint. Storage & Warehouse	Transportation Garage	Transportation Office
ECM 1	Lighting - Fixture Retrofit	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
ECM 2	Lighting - Exterior Lighting	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
ECM 3.1	Energy Management System - Temperature Setback		x		x						x								
ECM 3.2	Energy Management System - Optimal Start	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			
ECM 4	Heating Distribution System - Pipe and Valve Insulation	x	x	x	x	x	x	x	x		x		x	x	x				
ECM 5	Boiler - Replacements																		
ECM 6	Air Handling Unit Upgrade - Refurbishment	x								x				x					
ECM 7	Renewable Energy - Photovoltaic Electric Generation	x	x	x		x	x			x	x	x			x				
ECM 8	Chiller Replacement										x								
ECM 9	Cogeneration (Removed From Project)																		
ECM 10	Plug Load Controllers	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			
ECM 11	Unit Ventilators - Refurbishment		x		x														
ECM 12	Air Conditioning Compressor Controllers	x	x	x	x	x					x								
ECM 13	Transformers - Replacements					x													
ECM 14	Refrigeration Compressor Controllers	x	x	x	x	x		x			x		x						

**e. On page 26, replace the last paragraph with the following:**

Low water cut-off for water boiler(s):

- Boiler(s) to be furnished with U.L. labeled low water cut-off with ASME working pressure rating equal to the ASME rating of the relief valve.
- Do not use quick-connect fittings on boiler(s).
- Install cut-off according to manufacturer's instructions.
- Locate so burner shuts down if boiler water level falls below allowable safe waterline

**f. On pages 28 & 29 remove the scope under ECM 7: Renewable Energy – Photovoltaic Electric Generation in its entirety and replace with the following:**

Johnson Controls will furnish, install and commission a total of 4,582 kW roof-mounted and carport/canopy photovoltaic electrical generation systems as detailed in the table below that will interconnect with the existing electrical distribution system at the associated schools.

The following table identifies the PV sizes and installation type at each location in kW-DC:

Building	Roof Mounted	Carport / Canopy	Total
Centereach High School	1,054.00	892.00	1,946.00
Newfield High School	1,010.32	308.48	1,318.80
Dawnwood Middle School	394.00		394.00
Bicycle Path Pre-K / Kindergarten Center	46.00		46.00
Eugene Auer Memorial Elementary	178.80		178.80
Jericho Elementary	127.20		127.20
New Lane Memorial Elementary	324.00		324.00
North Coleman Elementary	162.40		162.40
Unity Drive Pre-K / Kindergarten Center	84.80		84.80
<b>TOTALS</b>	<b>3,381.52</b>	<b>1,200.48</b>	<b>4,582.00</b>

Installation includes the following specifications for new Roof Ballasted Systems:

- UL Certificate
- New wiring to meet the requirements of the 2014 National Electric Code ("NEC").
- Solar Module to be 72 cell 400 watt JA Solar or equal and as approved by Customer's Architect/Engineer and Johnson Controls.
- Inverters to be SMA or equal and as approved by Customer's Architect/Engineer and Johnson Controls.
- Balance of new system to meet 2014 NEC Code.
- Required Interconnection to building system located as per 2014 NEC Code lineside tap as determined by the utility(ies) having jurisdiction.
- Unirac RM, Ecofoot or equal self-ballasted racking system
- Furnish and install required ballast block as per design.
- One time training for 4 hours to the District
- District to support monitoring by supplying an IT drop to a gateway location and necessary IP addresses that the District will maintain for 18 years.
- Protective slip sheet to meet roofing warranty certifications

Installation includes the following specifications for Carport and Canopy Systems:

- Carport system to have a minimum height of 14 ft. in roadway areas
- Solar Modules to be 72 cell 400-watt JA Solar or equal and as approved by Customer's Architect/Engineer and Johnson Controls
- Solar Inverters to be SMA or JCI and Customer's Architect/Engineer approved equal.
- Solar equipment to be mounted at no less than 10 ft above grade.
- Conduit work up to 10 ft. above grade will be hard wall galvanized.
- Should any new exterior switchgear be required, a 6 ft lockable chain-link fence shall be installed around it with an access gate.
- New underground conduit to be PVC
- Work to conform to PSEG and regulatory or governmental agencies requirements. JCI is responsible for costs necessary to conform to these requirements.

- Carport/Canopy Racking system, including hardware and module mounting hardware to be engineered carport/canopy structure to support PV modules.
- New members and hardware shall be galvanized steel with Columns and Top Beams hot dipped to ASTM A123 and purlins pre-galvanized to a G140 minimum. Module hardware shall be stainless steel.
- New member connections shall be bolted. No on-site welding shall be required or undertaken without the prior written permission of the District and its Architect.
- Parking lot restoration in affected areas to be saw cut and hot patched to match existing surface conditions.
- Columns to be set directly on concrete piers with chemical anchors or wet set anchor bolts.
- Temporary fencing, barricades, or storage trailers necessary to secure site shall be provided
- Disposal of soil/spoil created from the foundation installation is included. JCI shall undertake necessary soil testing and properly dispose of soil at its cost and expense in accordance with all applicable laws, rules, regulations and codes in effect at the time of SED approval of the Amendment.
- Grounding hardware for modules and racking
- Module grounding to be per module manufacturer's installation instructions.
- Base design includes pre-punched holes in the purlin for wire management.
- Electrical Underwriters Certificate
- Electrical installation to be installed as per the NEC 2014 code, as amended and updated.
- Electrical conduit will be installed outside of concrete piers and/or baseplates.
- District to support monitoring by supplying an IT drop to a gateway location and all necessary IP addresses that the District will maintain for 18 years.

The district shall provide an internet connection for data monitoring at each school. In the event that any of the building roofs, parking lots are determined to be unsuitable for roof mounted, carport, canopy PV arrays, Johnson Controls will attempt to move the arrays or portions of the arrays to another location that is suitable at any of the other buildings outlined above, subject to all necessary review and approvals.

Johnson Controls shall install the new PV systems with existing roof manufacturer standards to maintain current and any new roof warranty(ies) as it relates to the solar panel installation. At impacted locations, existing structural steel, joists, roof decks, parking lots, walkways are anticipated to be adequate for solar panel installation. If during the design phase the architect / engineer of record, ECG Engineering, encounters structural issues, geo-tech issues, drainage issues, septic system issues with any of roofs, roof framing, parking lots and walkways, JCI shall relocate the problem areas of solar arrays to a different location in order to maintain the 4,582 kW DC of total system size. An adjustment to the guarantee will occur if the new location is on a different electric rate.

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

These PV systems will be net-metered and if production exceeds usage at individual buildings listed above, the excess production will be remote net-metered according to regulations of New York State and PSEG-LI in effect at the time of contract execution.

Power to the building will be temporarily shut down by the utility for up to four (4) hours during the tie-in. Coordination with the District will be required at the time of the tie-in.

**g. On page 37 remove the entire section A. Certain Definitions with the following:**

**A. Certain Definitions.**

For purposes of this Agreement, the following terms have the meanings set forth below:

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

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

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

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

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

**Guarantee Period** is eighteen (18) years or the useful of the equipment being installed pursuant to this agreement.

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

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

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

**Measured Project Benefits** are the utility savings and cost avoidance calculated in accordance with the methodologies set forth in Schedule 2 Exhibit 2 below.

**Project Benefits** are the Measured Project Benefits plus the operational and maintenance Project Benefits to be achieved for a particular period during the term of this Agreement.

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

- h. On page 39 under Exhibit 1: TOTAL PROJECT BENEFITS remove the section in its entirety and replace with the following:**

Subject to the terms and conditions of this Agreement JCI guarantees that Customer will achieve a total of \$24,335,415 in Measured Project Benefit (Utility Cost Avoidance Measurable Savings), \$2,019,942 in Operations and Maintenance Cost Avoidance, and \$349,084 in Energy Rebates during the term of this Agreement, for Total Guaranteed Project Benefits of \$26,704,441 as set forth in the Total Project Benefits Table below.

**Table 2.1.2: Total Project Benefits**

<b>Year</b>	<b>Utility Cost Avoidance* Measurable Savings</b>	<b>Operations &amp; Maintenance Cost Avoidance</b>	<b>Energy Rebate-Non Recurring Savings</b>	<b>Total Guaranteed Project Benefits</b>
1	\$1,136,515	\$112,219	349,084	\$1,597,818
2	\$1,159,245	\$112,219		\$1,271,464
3	\$1,182,430	\$112,219		\$1,294,649
4	\$1,206,079	\$112,219		\$1,318,298
5	\$1,230,200	\$112,219		\$1,342,419
6	\$1,254,804	\$112,219		\$1,367,023
7	\$1,279,901	\$112,219		\$1,392,120
8	\$1,305,499	\$112,219		\$1,417,718
9	\$1,331,609	\$112,219		\$1,443,828
10	\$1,358,241	\$112,219		\$1,470,460
11	\$1,385,406	\$112,219		\$1,497,625
12	\$1,413,114	\$112,219		\$1,525,333
13	\$1,441,376	\$112,219		\$1,553,595
14	\$1,470,203	\$112,219		\$1,582,422
15	\$1,499,607	\$112,219		\$1,611,826
16	\$1,529,600	\$112,219		\$1,641,819
17	\$1,560,192	\$112,219		\$1,672,411
18	\$1,591,395	\$112,219		\$1,703,614
<b>Totals</b>	<b>\$24,335,415</b>	<b>\$2,019,942</b>	<b>\$349,084</b>	<b>\$26,704,441</b>

\* Utility Cost Avoidance is a Measured Project Benefit. Utility Cost Avoidance figures in the table above are based on anticipated 2% increase in unit energy costs as set forth in the table in Exhibit 6.

- i. On top of page 42, delete the Table 2.2.1: Option A Measures in its entirety and replace with the following:**

ECM #	Facility Improvement Measure	M&V Option
ECM 1	Lighting - Fixture Retrofit	A
ECM 2	Lighting - Exterior Lighting	A
ECM 4	Heating Distribution System - Pipe and Valve Insulation	A
ECM 5	Boiler/Burner - Replacements	A
ECM 6	Air Handling Unit Upgrade - Replacement / Refurbishment	A
ECM 7	Renewable Energy- Photovoltaic Electric Generation	A
ECM 8	Chiller Replacement	A
ECM 9	Cogeneration (Removed From Project)	
ECM 10	Plug Load Controllers	A
ECM 11	Unit Ventilators - Refurbishment / Replacement	A
ECM 12	Air Conditioning Compressor Controllers	A
ECM 13	Transformers - Replacements	A
ECM 14	Refrigeration Compressor Controllers	A
	Operation & Maintenance	A

- j. On top of page 52, delete the Table 2.3: Measured Project Benefits Summary in its entirety and replace with the following:

ECM#	PROPOSED MEASURES	Electricity Savings			Thermal		Total Savings
		kW	kWh/yr	\$/yr	MMBtu/yr	\$/yr	\$/yr
ECM 1	Lighting - Fixture Retrofit	509	1,565,064	\$257,006	-1,770	-\$13,156	\$243,851
ECM 2	Lighting - Exterior Lighting	0	560,718	\$72,579	0	\$0	\$72,579
ECM 3.1	Energy Management System - Temperature Setback	0	4,132	\$516	1,404	\$10,423	\$10,939
ECM 3.2	Energy Management System - Optimal Start	0	0	\$0	3,622	\$26,711	\$26,711
ECM 4	Heating Distribution System - Pipe and Valve Insulation	0	0	\$0	1,067	\$7,613	\$7,613
ECM 5	Boiler/Burner - Replacements	0	0	\$0	72	\$802	\$802
ECM 6	Air Handling Unit Upgrade - Replacement / Refurbishment	0	0	\$0	582	\$4,410	\$4,410
ECM 7	Renewable Energy- Photovoltaic Electric Generation	0	6,002,420	\$733,344	0	\$0	\$733,344
ECM 8	Chiller Replacement	22	42,632	\$7,240	0	\$0	\$7,240
ECM 9	Cogeneration (Removed From Project)						
ECM 10	Plug Load Controllers	0	96,748	\$12,481	0	\$0	\$12,481
ECM 11	Unit Ventilators - Refurbishment / Replacement	0	0	\$0	386	\$2,733	\$2,733
ECM 12	Air Conditioning Compressor Controllers	0	55,472	\$6,968	0	\$0	\$6,968
ECM 13	Transformers - Replacements	4	34,455	\$4,981	0	\$0	\$4,981
ECM 14	Refrigeration Compressor Controllers	0	14,967	\$1,861	0	\$0	\$1,861
	<b>TOTALS</b>	<b>535</b>	<b>8,376,609</b>	<b>\$1,096,978</b>	<b>5,363</b>	<b>\$39,537</b>	<b>\$1,136,515</b>

- k. In the middle of page 52, delete Exhibit 4: Operational & Maintenance (O&M) & Rebate Project Benefits in its entirety and replace with the following:

**Operational and Maintenance Cost Avoidance:**

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

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

Lighting Operational Cost Avoidance is calculated by comparing the existing lamp and ballast average failure rate and replacement cost with the proposed project replacement lamp and ballast average failure rate and replacement cost. Measure operating hours are not expected to change. (\$96,219).

Boiler, Chiller, Air Handling Unit, and Unit Ventilators Cost Avoidance is calculated by comparing the cost of maintaining the existing equipment versus the newly installed and or refurbished units. The reduction in repairs of the new and refurbished equipment is deemed to be the cost avoidance. The average annual savings for all schools is determined to be (\$16,000)

**Total Operational Cost Avoidance: \$112,219**

The O&M savings are based on the scope of work as well as discussions with the customer. Customer agrees that the O&M Project Benefits are reasonable and supportable and that the installation of the Improvement Measures will enable Customer to take actions that will result in the achievement of such O&M Project Benefits. JCI guarantees that the O&M savings of \$112,219 will be achieved.

**Energy Rebates/Incentives:**

Rebates: \$349,084

**Total Rebates: \$349,084**

JCI will apply for utility company rebates programs at the time of application. JCI hereby guarantees the rebate amount and if the customer receives the rebate less than the guaranteed amount then JCI will pay the difference in rebates to the Customer. All rebates and incentives shall inure to the benefit of Customer. All rebates and/or incentives shall be payable to Customer. JCI shall be responsible for assuring that said rebates/incentives are distributed to Customer. JCI anticipates the rebates will be secured during the implementation period however due to the program structure some of the money may be procured during Year 1. No shortfall will be paid if the total rebates matches the guaranteed amount, regardless of when they are received.

- I. On page 58 remove Exhibit 8: measurement & verification services in its entirety and replace with the following:**

**Exhibit 8: MEASUREMENT & VERIFICATION SERVICES**

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

1. During the Installation Period, a JCI Performance Engineer will track Measured Project Benefits. JCI will report the Measured Project Benefits achieved during the Installation Period,



as well as any Non-Measured Project Benefits applicable to the Installation Period, to Customer within 60 days of the commencement of the Guarantee Period.

2. Within 60 days of each anniversary of the commencement of the M&V Services Period, JCI will provide Customer with an annual report containing:

- A. an executive overview of the project's performance and Project Benefits achieved to date;
- B. a summary analysis of the Measured Project Benefits accounting; and
- C. depending on the M&V Option, a detailed analysis of the Measured Project Benefits calculations.

3. During the M&V Services Period, a JCI Performance Engineer will monitor the on-going performance of the Improvement Measures, as specified in this Agreement, to determine whether anticipated Measured Project Benefits are being achieved. In this regard, the Performance Engineer will periodically assist Customer, on-site or remotely, with respect to the following activities:

- A. review of information furnished by Customer from the facility management system to confirm that control strategies are in place and functioning;
- B. advise Customer's designated personnel of any performance deficiencies based on such information;
- C. coordinate with Customer's designated personnel to address any performance deficiencies that affect the realization of Measured Project Benefits; and
- D. inform Customer of opportunities to further enhance project performance and of opportunities for the implementation of additional Improvement Measures.

4. For specified Improvement Measures utilizing an "Option A" M&V protocol, JCI will:

- A. conduct pre and post installation measurements required under this Agreement;
- B. confirm the building management system employs the control strategies and set points specified in this Agreement; and
- C. analyze actual as-built information and adjust the Baseline and/or Measured Project Benefits to conform to actual installation conditions (e.g., final lighting and water benefits calculations will be determined from the as-built information to reflect the actual mix of retrofits encountered during installation).

5. For specified Improvement Measures utilizing an "Option B" M&V protocol, JCI will:

- A. confirm that the appropriate metering and data points required to track the variables associated with the applicable Improvement Measures' benefits calculation formulas are established; and
- B. set up appropriate data capture systems (e.g., trend and totalization data on the facility management system) necessary to track and report Measured Project Benefits for the applicable Improvement Measure.
- C. Trend data records maintained in the ordinary course of system operation shall be used and relied upon by Johnson Controls to in connection with Project Benefit calculations. JCI will use commercially reasonable efforts to ensure the integrity of the data collected to calculate the required savings. In the event data are lost due to equipment failure, power failure or other interruption in data collection, transmission or storage, JCI will use reasonable engineering methods to estimate the impact of the lost data.

**m. On the bottom of page 59, line item # 11 remove the word "Guarantee Term" and replace with the following:**

Guarantee Period

- n. On top of page 60, remove line item # 13 in its entirety and replace with the following:

Promptly notifying JCI of any change in use or condition described in Exhibit 5 of Schedule 2 or any other matter that may impact the Assured Performance Guarantee;

- o. On top of page 61 in the first paragraph, remove the value \$18,757,716, and replace with the following:

\$22,801,318

- p. On top of page 61 in the third paragraph, remove the value \$5,627,315, and replace with the following:

\$6,840,395

- q. On top of page 61 in the fifth paragraph, remove the value \$893,225, and replace with the following:

\$1,085,777

- r. On the bottom of page 61 in the line item #3 M&V Services, remove the last two sentences in its entirety: "The District can request additional years of M&V Service beyond Year 3 before the end of that report year. The price for continued M&V Services beyond year 3 is as follows:"

- s. On the bottom of page 61 remove the table of M&V cost in its entirety.

2. Except as expressly provided in this Amendment Two, all other terms, conditions and provisions of the Agreement shall continue in full force and effect as provided therein.

3. In executing this Amendment Two, the parties acknowledge that they have the authority to enter into this Amendment Two, and that all necessary action has been taken to cause this Amendment Two to become legal, valid and binding.

IN WITNESS WHEREOF, JCI and Customer have entered into this Amendment Two effective as of the date first set forth above.

Agreed:

Middle Country Central School District

Johnson Controls, Inc.

BY: Robert Myers  
Superintendent of Schools  
name and title

BY: \_\_\_\_\_  
name and title

Oct 7, 2020  
date

\_\_\_\_\_  
date

(Attachment 4 – Line by line for Middle Country Rev-H (7-8-2020))

*Johnson Controls, Inc. Initials:* \_\_\_\_\_

*Customer Initials:* \_\_\_\_\_ 