CHAPPAQUA CENTRAL SCHOOL DISTRICT 66 ROARING BROOK ROAD P.O. BOX 21 CHAPPAQUA, NEW YORK 10514

The Board of Education of the Chappaqua Central School District, hereby invites submission of bids for:

CCSD BID # B2020-11:

Installation and Integration of NeedlePoint Bipolar Ionization in all HVAC Systems
Throughout the School District in all School District Buildings, Public Library and
School Buses

MAIN BID DOCUMENT

SITE VISIT:

A mandatory site visit to all nine (9) school district and school district related locations are required in order to participate in this bid. The list of locations are as follows:

- Douglas Grafflin Elementary School
- Roaring Brook Elementary School
- Westorchard Elementary School
- Robert E. Bell Middle School
- Seven Bridges Middle School
- Horace Greeley High School
- Education Center (Administration Building)
- Pole Barn (Maintenance Building)
- Chappaqua Public Library

Visit must be accompanied by an Operations and Maintenance representative in order for the bid to be valid. Please see enclosed site visitation sheet. Visitation sheet must be signed by both the vendor and the School District Operations & Maintenance representative and submitted as part of the sealed bid package. Visit must be scheduled between the hours of 7:00am & 2:00pm Monday through Thursday. Please call the School District Operations and Maintenance Department at (914) 238 – 7210, Ext. 1201 to schedule an appointment. If the bid submission does not include the signed proof of visitation form, the contractor will be disqualified from the bid process.

RESPONSIBILITY:

The vendor shall be held responsible for any damage to property, or for the injury to life or limb due to or caused by his work, or workers, or the work of its sub-contractors or their workers, or which may be caused by the use of improper or unsound materials, which may occur during the progress of this work.

SCOPE OF WORK:

Install Air Purification Equipment

This is a performance based project. Install sufficient NPBI equipment to result in a minimum continuous 1500-2000 ions/cc when measured at the working surfaces of all classrooms, common areas, and offices.

Furnish and install Needlepoint Bi-Polar Ionization (NPBI) air purification equipment on all HVAC equipment in all schools and district facilities.

HVAC systems shall include (but it not limited to) the following:

Rooftop HVAC Units H&V Units

Split-type AC systems (Ducted) Classroom Unit Unit-Ventilators

Ductless Split-Type AC Units ERV Units

Connect to power source as per manufacturer's guidelines.

Verify operation of equipment.

Total Cost of Main Project as well as Cost of Optional Project to Include labor and materials for all line and low voltage wiring as required to result in a complete turn-key project.

Total Cost of Main Project to Include:

List of All School District Buildings

Douglas Grafflin Elementary School
Roaring Brook Elementary School
Westorchard Elementary School
Robert E. Bell Middle School
Seven Bridges Middle School
Horace Greeley High School
Education Center (Administration Building)

Maintenance Building

Pole Barn

Total Cost of Optional Projects to include:

Optional Project 1. Chappaqua Public Library

Optional Project 2. School Buses and Vans located at Chappagua Transportation

CHAPPAQUA CENTRAL SCHOOL DISTRICT

CCSD BID # B2020-11:

INSTALLATION AND INTEGRATION OF NEEDLEPOINT BIPOLAR IONIZATION IN ALL HVAC SYSTEMS THROUGHOUT THE SCHOOL DISTRICT IN ALL SCHOOL DISTRICT BUILDINGS, PUBLIC LIBRARY AND SCHOOL BUSES

HOLD HARMLESS AGREEMENT

The undersigned hereby agrees to defend, indemnify, and save harmless the Chappaqua Central School District from and against any and all liability, loss, damages, claims for bodily injury and/or property damages, cost and expense, including counsel fees, to the extent permissible by law, that may occur or that may be alleged to have occurred in the course of the performance of this agreement by the contractor, whether such claims shall be made by an employee of the contractor or by a third party. The contractor covenants and agrees that he will pay all costs and expenses arising therefrom and in connection therewith, and if any judgment shall be rendered against the Owner, in any such litigation, the Contractor shall at this own expense satisfy and discharge the same.

By:	
(Sig	nature of Authorized Representative of Corporation)
Print Name & Title:	
Company Name:	
Date:	

SPECIFICATIONS

OVERVIEW

The successful contractor must provide skilled technicians with expertise involving all aspects of HVAC, Refrigeration, Pneumatic & Direct Digital Electronic Temperature Control Systems and to perform the necessary requirements needed to perform the main project as well as the optional project.

<u>SECTION I - AIR PURIFICATION SYSTEM (HVAC Equipment Below 2400 CFM)</u>

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

A. This section describes the design, performance and installation of an air purification system intended for use as part of another manufacturer's air handling unit or mounted on the duct.

1.2 REFERENCED CODES & STANDARDS

- A. The following codes and standards are referenced through out. The edition to be used is that currently enforced by the authority having jurisdiction (AHJ) or in absence of such direction that referenced by the current enforceable IBC code or as indicated by the contract documents, except where specifically referenced by this section of the specifications.
 - 1. ASHRAE Standards 62 & 52
 - National Electric Code NFPA 70
 - 3. UL 867 including ozone chamber test required as of December 21, 2007

1.3 RELATED WORK

- A. Testing, Adjusting and Balancing
- B. Facility Access and Protection
- C. Ductwork
- D. Filters
- E. Water and Refrigierant Piping
- F. Electrical Wiring
- G. Control Wiring

1.4 QUALITY & IP ASSURANCE

A. Basis of design is Global Plasma Solutions. American Ion shall be considered equal subject to meeting all specifications herein. All other manufacturers requesting prior

- approval must submit product drawings, specifications and test results specified in section 2.2 at least four weeks prior to bid date.
- B. The Air Purification System shall be a product of an established manufacturer within the USA.
- C. A qualified representative from the manufacturer shall be available to inspect the installation of the air purification system to ensure installation in accordance with manufacturer's recommendation.
- D. Technologies that do not address gas disassociation such as UV Lights, Powered Particulate Filters and/or polarized media filters shall not be considered. Unipolar ion generators shall not be acceptable. "Plasma" particulate filters shall not be acceptable.
- E. Projects designed using ASHRAE Standard 62, IAQ Procedure shall require the manufacturer to provide Indoor Air Quality calculations using the formulas within ASHRAE Standard 62.1-2007 to validate acceptable indoor air quality at the quantity of outside air scheduled with the technology submitted. The manufacturer shall provide independent test data on a previous installation performed within the last two years and in a similar application, that proves compliance to ASHRAE 62 and the accuracy of the calculations.
- F. The Air Purification System shall have been tested by UL or Intertek/ETL to prove conformance to UL 867-2007 including the ozone chamber testing and peak ozone test for electronic devices. Manufacturers that achieved UL 867 prior to December 21, 2007 and have not been tested in accordance with the newest UL 867 standard with the ozone amendment shall not be acceptable. All manufacturers shall submit their independent UL 867 test data with ozone results to the engineer during the submittal process. All manufacturers shall submit a copy with their quotation. Contractors shall not accept any proposal without the proper ozone testing documentation.
- G. The maximum allowable ozone concentration per the UL 867-2007 chamber test shall be 0.007 PPM. The maximum peak ozone concentration per the UL 867-2007 peak test as measured 2 inches away from the electronic air cleaner's output shall be no more than 0.0042 PPM. Manufacturers with ozone output exceeding these ozone values shall not be acceptable.

1.5 SUBMITTALS

- A. Product Data: Submit manufacturer's technical product data for ion generators including:
 - 1. Schedule of plasma generators indicating unit designation, number of each type required for each unit/application.
 - 2. Data sheet for each type of plasma generator, and accessory furnished; indicating construction, sizes, and mounting details.
 - 3. Performance data for each type of plasma device furnished.
 - 4. Indoor Air Quality calculations using the formulas within ASHRAE Standard 62.1-2007 to validate acceptable indoor air quality at the quantity of outside air scheduled (when projects are designed with outside air reduction).
 - 5. Product drawings detailing all physical, electrical and control requirements.
 - 6. Copy of UL 867 independent ozone test.
- B. Operating & Maintenance Data: Submit O&M data and recommended spare parts lists.

1.6 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver in factory fabricated shipping containers. Identify on outside of container type of product and location to be installed. Avoid crushing or bending.
- B. Store in original cartons and protect from weather and construction work traffic.
- C. Store indoors and in accordance with the manufacturers' recommendation for storage.

1.7 WARRANTY

A. Equipment shall be warranted by the manufacturer against defects in material and workmanship for a period of eighteen months after shipment or twelve months from owner acceptance, whichever occurs first. Labor to replace equipment under warranty shall be provided by the owner or installing contractor.

B.

PART 2 - PRODUCTS

2.1 GENERAL

- A. The air purification system(s) shall be of the size, type, arrangement and capacity indicated and required by the unit furnished and shall be of the manufacturer specified.
- B. Basis of Design: Global Plasma Solutions
- C. All other Suppliers of comparable products requesting prior approval shall:
 - 1. Submit for prior approval in accordance with the requirements of Section 15010.
 - In addition, manufacturers submitting for prior approval for Bi-Polar Ionization must as part of the prior approval request provide their ASHRAE 62.1-2007 calculations that prove conformance to the ASHRAE Standard with the reduction of outside air to the scheduled values. A letter on the manufacturer's letterhead requesting prior approval must accompany the request for prior approval stating their calculations are ASHRAE compliant. A third party validation study performed on a previous installation of the same application shall also be included.
 - 3. Submit independent test data from ETL or UL showing ozone levels produced during the UL 867 ozone chamber test. Manufacturers without this test data shall not be acceptable.

2.2 BI-POLAR IONIZATION DESIGN & PERFORMANCE CRITERIA

- A. Each piece of air handling equipment, so designated on the plans, details, equipment schedules and/or specifications shall contain a Plasma Generator with Bi-polar lonization output as described here within.
- B. The Bi-polar Ionization system shall be capable of:
 - 1. Effectively killing microorganisms downstream of the bi-polar ionization equipment (mold, bacteria, virus, etc.).
 - 2. Controlling gas phase contaminants generated from human occupants, building structure and furnishings.

- 3. Capable of reducing static space charges.
- 4. Increasing the interior ion levels, both positive and negative, to a minimum of 800 ions/cm³ measured 5 feet from the floor.
- 5. Self-cleaning requiring no maintenance or replacement parts.
- 6. Producing a minimum of 160M ions/cc.
- C. The bi-polar ionization system shall operate in a manner such that equal amounts of positive and negative ions are produced. Uni-polar ion devices shall not be acceptable.
 - 1. Air exchange rates may vary through the full operating range of a constant
 - volume or VAV system. The quantity of air exchange shall not be increased due to requirements of the air purification system.
 - 2. Velocity Profile: The air purification device shall not have maximum velocity profile.
- D. Humidity: Plasma Generators shall not require preheat protection when the relative humidity of the entering air exceeds 85%. Relative humidity from 0 100%, condensing, shall not cause damage, deterioration or dangerous conditions within the air purification system. Air purification system shall be capable of wash down duty.
- E. Equipment Requirements:
 - 1. Electrode Specifications (Bi-polar Ionization):
 - a. Each Plasma Generator with Bi-polar Ionization output shall include the required number of electrodes and power generators sized to the air handling equipment capacity. A minimum of one electrode pair per 2,400 CFM of air flow shall be provided. Bi-polar ionization tubes manufactured of glass and steel mesh shall not be acceptable due to replacement requirements, maintenance, performance output reduction over time, ozone production and corrosion.
 - b. Electrodes shall be energized when the main unit disconnect is turned on and the fan is operating. Electrodes shall be made from carbon fiber to prevent oxidation over time. Internal circuitry shall be provided to sense air flow across the electrode output. Ionization systems requiring the use of a mechanical air pressure switch to cycle the electrodes only when the fan is operating shall not be acceptable due to high failure rates and pressure sensitivity.
 - c. Electrode pair shall provide a minimum of 160 million ions per cubic centimeter as measured at 2 inches, both positive and negative ions, in equal quantities. Devices providing less than 160 million ions/cc per electrode pair shall not be acceptable.
 - d. Each Plasma Generator shall be provided with a self-cleaning system that is field programmable to change the number of days between the cleaning cycle. Systems without a no-maintenance, self-cleaning system shall not be acceptable.
 - e. Each electrode pair shall be designed with a banana style plug such that it can be field replaced, if necessary.
 - f. Each Plasma Generator shall be provided with an inline on/off switch, universal voltage input (24VAC to 240VAC or DC), magnets

for mounting to the fan inlet, replaceable carbon fiber emitters and a programmable self-cleaning system.

- F. Air Handler & Plenum Mounted Units (non-ductless mini-split units):
 - 1. Where so indicated on the plans and/or schedules Plasma Generator(s) shall be supplied and installed. The mechanical contractor shall mount the Plasma Generator and wire it to the AHU control power (24VAC) as instructed by the Air Purification Manufacturer's instructions or line voltage subject to power available. Each unit shall be designed with a molded casing, self-cleaning system, self-cleaning test button, power status LED and dry contacts to prove ion output is operating properly. The dry contacts shall close to prove the ion generator is working properly and may be daisy chained in series such that only one dry contact per AHU is required to interface to the BAS or the optional DDC controller. Dry contacts proving power has been applied in lieu of the ion output is actually operating, are not acceptable. Manufacturers providing multiple ion modules that have alarm status wired in parallel, and not in series, shall not be acceptable.

G. Ionization Requirements:

- 1. Plasma Generators with Bi-polar ionization output shall be capable of controlling gas phase contaminants and shall be provided for all equipment listed above.
 - a. The Bi-polar ionization system shall consist of Bi-Polar Plasma Generator and integral power supply. The Bi-polar system shall be installed where indicated on the plans or specified to be installed. The device shall be capable of being powered by 24VAC to 240VAC without the use of an external transformer. Ionization systems requiring isolation transformers shall not be acceptable.
 - Ionization Output: The ionization output shall be controlled such that an equal number of positive and negative ions are produced. Imbalanced levels shall not be acceptable.
 - c. Ionization output from each electrode shall be a minimum of 160 million ions/cc when tested at 2" from the ionization generator.
 - d. All manufacturers shall provide documentation by an independent NELAC accredited laboratory that proves the product has minimum kill rates for the following pathogens given the allotted time and in a space condition:
 - A. MRSA >96% in 30 minutes or less
 - B. E.coli > 99% in 15 minutes or less
 - C. TB > 69% in 60 minutes or less
 - D. C. diff >86% in 30 minutes or less

Manufacturers not providing the equivalent space kill rates shall not be acceptable. All manufactures requesting prior approval shall provide to the engineer independent test data from a NELEC accredited independent lab confirming kill rates and time meeting the minimum requirements stated in section 2.2 B, points 6A, 6B and 6C. Products tested only on Petri dishes to prove kill rates shall not be acceptable.

2. Ozone Generation:

- a. The operation of the electrodes or Bi-polar ionization units shall conform to UL 867-2007 with respect to ozone generation. There shall be no ozone generation during any operating condition, with or without airflow.
- J. Electrical Requirements:
 - 3. Wiring, conduit and junction boxes shall be installed within housing plenums in accordance with NEC NFPA 70. Plasma Generator shall accept an electrical service of 24VAC to 240VAC, universal 2 wire input, 1 phase, 50/60 Hz.

 The contractor shall coordinate electrical requirements with air purification

 manufacturer during submittals.
- K. Control Requirements:
 - All Plasma Generators shall have internal short circuit protection, overload protection, and automatic fault reset circuit breakers. Systems with manual fuses shall not be allowed.
 - Integral airflow sensing shall modulate the Plasma output as the airflow varies or stops. A mechanical airflow switch shall not be acceptable as a means to activate the Plasma device due to high failure rates and possible pressure reversal.
 - 6. The installing contractor shall mount and wire the Plasma device within the air handling unit specified or as shown or the plans. The contractor shall follow all manufacturer IOM instructions during installation.
 - 7. All Plasma devices shall have a means to interface with the BAS system. Dry contacts shall be provided to prove there are ions being produced. Systems providing indication that power is applied to the Plasma device, but not directly sensing the power at the ion output, shall not be acceptable.

PART 3 - EXECUTION

3.1 GENERAL

- A. The Contractor shall be responsible for maintaining all air systems until the owner accepts the building (Owner Acceptance).
- 3.2 ASSEMBLY & ERECTION: PLASMA GENERATOR WITH BI-POLAR IONIZATION
 - A. All equipment shall be assembled and installed in a workman like manner to the satisfaction of the owner, architect, and engineer.
 - B. Any material damaged by handling, water or moisture shall be replaced, by the mechanical contractor, at no cost to the owner.
 - C. All equipment shall be protected from dust and damage on a daily basis throughout construction.

3.3 TESTING

A. Provide the manufacturers recommended electrical tests.

3.4 COMMISSIONING & TRAINING

A. A manufacturer's authorized representative shall provide start-up supervision and training of owner's personnel in the proper operation and maintenance of all equipment.

SECTION II-AIR PURIFICATION SYSTEM (Below 4800 CFM)

PART 1 - GENERAL

1.8 DESCRIPTION OF WORK

A. This section describes the design, performance and installation of an air purification system intended for use as part of another manufacturer's air handling unit or mounted on the duct.

1.9 REFERENCED CODES & STANDARDS

- A. The following codes and standards are referenced throughout. The edition to be used is that currently enforced by the authority having jurisdiction (AHJ) or in absence of such direction that referenced by the current enforceable IBC code or as indicated by the contract documents, except where specifically referenced by this section of the specifications.
 - ASHRAE Standards 62 & 52
 - National Electric Code NFPA 70
 - 3. UL 867 including ozone chamber test required as of December 21, 2007

1.10 RELATED WORK

- A. Testing, Adjusting and Balancing
- B. Facility Access and Protection
- C. Ductwork
- D. Filters
- E. Water and Refrigerant Piping
- F. Electrical Wiring
- G. Control Wiring

1.11 QUALITY & IP ASSURANCE

- A. Basis of design is Global Plasma Solutions. American Ion shall be considered equal subject to meeting all specifications herein. All other manufacturers requesting prior approval must submit product drawings, specifications and test results specified in section 2.2 at least four weeks prior to bid date.
- B. The Air Purification System shall be a product of an established manufacturer within the LISA
- C. A qualified representative from the manufacturer shall be available to inspect the installation of the air purification system to ensure installation in accordance with manufacturer's recommendation.

- D. Technologies that do not address gas disassociation such as UV Lights, Powered Particulate Filters and/or polarized media filters shall not be considered. Unipolar ion generators shall not be acceptable. "Plasma" particulate filters shall not be acceptable.
- E. Projects designed using ASHRAE Standard 62, IAQ Procedure shall require the manufacturer to provide Indoor Air Quality calculations using the formulas within ASHRAE Standard 62.1-2007 to validate acceptable indoor air quality at the quantity of outside air scheduled with the technology submitted. The manufacturer shall provide independent test data on a previous installation performed within the last two years and in a similar application, that proves compliance to ASHRAE 62 and the accuracy of the calculations.
- F. The Air Purification System shall have been tested by UL or Intertek/ETL to prove conformance to UL 867-2007 including the ozone chamber testing and peak ozone test for electronic devices. Manufacturers that achieved UL 867 prior to December 21, 2007 and have not been tested in accordance with the newest UL 867 standard with the ozone amendment shall not be acceptable. All manufacturers shall submit their independent UL 867 test data with ozone results to the engineer during the submittal process. All manufacturers shall submit a copy with their quotation. Contractors shall not accept any proposal without the proper ozone testing documentation.
- G. The maximum allowable ozone concentration per the UL 867-2007 chamber test shall be 0.007 PPM. The maximum peak ozone concentration per the UL 867-2007 peak test as measured 2 inches away from the electronic air cleaner's output shall be no more than 0.0042 PPM. Manufacturers with ozone output exceeding these ozone values shall not be acceptable.

1.12 SUBMITTALS

- A. Product Data: Submit manufacturer's technical product data for ion generators including:
 - 1. Schedule of plasma generators indicating unit designation, number of each type required for each unit/application.
 - 2. Data sheet for each type of plasma generator, and accessory furnished; indicating construction, sizes, and mounting details.
 - 3. Performance data for each type of plasma device furnished.
 - 4. Indoor Air Quality calculations using the formulas within ASHRAE Standard 62.1-2007 to validate acceptable indoor air quality at the quantity of outside air scheduled (when projects are designed with outside air reduction).
 - 5. Product drawings detailing all physical, electrical and control requirements.
 - 6. Copy of UL 867 independent ozone test.
- B. Operating & Maintenance Data: Submit O&M data and recommended spare parts lists.

1.13 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver in factory fabricated shipping containers. Identify on outside of container type of product and location to be installed. Avoid crushing or bending.
- B. Store in original cartons and protect from weather and construction work traffic.
- C. Store indoors and in accordance with the manufacturers' recommendation for storage.

1.14 WARRANTY

A. Equipment shall be warranted by the manufacturer against defects in material and workmanship for a period of eighteen months after shipment or twelve months from owner acceptance, whichever occurs first. Labor to replace equipment under warranty shall be provided by the owner or installing contractor.

PART 2 - PRODUCTS

2.3 GENERAL

- A. The air purification system(s) shall be of the size, type, arrangement and capacity indicated and required by the unit furnished and shall be of the manufacturer specified.
- B. Basis of Design: Global Plasma Solutions
- C. All other Suppliers of comparable products requesting prior approval shall:
 - 1. Submit for prior approval in accordance with the requirements of Section 15010.
 - In addition, manufacturers submitting for prior approval for Bi-Polar lonization must as part of the prior approval request provide their ASHRAE 62.1-2007 calculations that prove conformance to the ASHRAE Standard with the reduction of outside air to the scheduled values. A letter on the manufacturer's letterhead requesting prior approval must accompany the request for prior approval stating their calculations are ASHRAE compliant. A third party validation study performed on a previous installation of the same application shall also be included.
 - 3. Submit independent test data from ETL or UL showing ozone levels produced during the UL 867 ozone chamber test. Manufacturers without this test data shall not be acceptable.

2.4 BI-POLAR IONIZATION DESIGN & PERFORMANCE CRITERIA

- A. Each piece of air handling equipment, so designated on the plans, details, equipment schedules and/or specifications shall contain a Plasma Generator with Bi-polar lonization output as described here within.
- B. The Bi-polar Ionization system shall be capable of:
 - 1. Effectively killing microorganisms downstream of the bi-polar ionization equipment (mold, bacteria, virus, etc.).
 - 2. Controlling gas phase contaminants generated from human occupants, building structure and furnishings.
 - Capable of reducing static space charges.
 - 4. Increasing the interior ion levels, both positive and negative, to a minimum of 800 ions/cm³ measured 5 feet from the floor.
 - 5. Self-cleaning requiring no maintenance or replacement parts.
 - 6. Producing a minimum of 200M ions/cc.
- G. The bi-polar ionization system shall operate in a manner such that equal amounts of positive and negative ions are produced. Uni-polar ion devices shall not be acceptable.

- a. Air exchange rates may vary through the full operating range of a constant volume or VAV system. The quantity of air exchange shall not be increased due to requirements of the air purification system.
- 2. Velocity Profile: The air purification device shall not have maximum velocity profile.
- H. Humidity: Plasma Generators shall not require preheat protection when the relative humidity of the entering air exceeds 85%. Relative humidity from 0 100%, condensing, shall not cause damage, deterioration or dangerous conditions within the air purification system. Air purification system shall be capable of wash down duty.
- I. Equipment Requirements:
 - 1. Electrode Specifications (Bi-polar Ionization):
 - a. Each Plasma Generator with Bi-polar Ionization output shall include the required number of electrodes and power generators sized to the air handling equipment capacity. A minimum of one electrode pair per 4,800 CFM of air flow shall be provided. Bi-polar ionization tubes manufactured of glass and steel mesh shall not be acceptable due to replacement requirements, maintenance, performance output reduction over time, ozone production and corrosion.
 - b. Electrodes shall be energized when the main unit disconnect is turned on and the fan is operating. Electrodes shall be made from carbon fiber to prevent oxidation over time. Internal circuitry shall be provided to sense air flow across the electrode output. Ionization systems requiring the use of a mechanical air pressure switch to cycle the electrodes only when the fan is operating shall not be acceptable due to high failure rates and pressure sensitivity.
 - c. Electrode pair shall provide a minimum of 200 million ions per cubic centimeter as measured at 2 inches, both positive and negative ions, in equal quantities. Devices providing less than 200 million ions/cc per electrode pair shall not be acceptable.
 - d. Each Plasma Generator shall be provided with a self-cleaning system that is field programmable to change the number of days between the cleaning cycle. Systems without a no-maintenance, self-cleaning system shall not be acceptable.
 - e. Each electrode pair shall be designed with a banana style plug such that it can be field replaced if necessary.
 - f. Each Plasma Generator shall be provided with an inline on/off switch, universal voltage input (24VAC to 240VAC or DC), magnets for mounting to the fan inlet, replaceable carbon fiber emitters and a programmable self-cleaning system.
- J. Air Handler & Plenum Mounted Units (non-ductless mini-split units):
 - 1. Where so indicated on the plans and/or schedules Plasma Generator(s) shall be supplied and installed. The mechanical contractor shall mount the Plasma Generator and wire it to the AHU control power (24VAC) as instructed by the Air Purification Manufacturer's instructions or line voltage

subject to power available. Each unit shall be designed with a molded casing, self-cleaning system, self-cleaning test button, power status LED and dry contacts to prove ion output is operating properly. The dry contacts shall close to prove the ion generator is working properly and may be daisy chained in series such that only one dry contact per AHU is required to interface to the BAS or the optional DDC controller. Dry contacts proving power has been applied in lieu of the ion output is actually operating, are not acceptable. Manufacturers providing multiple ion modules that have alarm status wired in parallel, and not in series, shall not be acceptable.

G. Ionization Requirements:

- 1. Plasma Generators with Bi-polar ionization output shall be capable of controlling gas phase contaminants and shall be provided for all equipment listed above.
 - a. The Bi-polar ionization system shall consist of Bi-Polar Plasma Generator and integral power supply. The Bi-polar system shall be installed where indicated on the plans or specified to be installed. The device shall be capable of being powered by 24VAC to 240VAC without the use of an external transformer. Ionization systems requiring isolation transformers shall not be acceptable.
 - b. Ionization Output: The ionization output shall be controlled such that an equal number of positive and negative ions are produced.

 Imbalanced levels shall not be acceptable.
 - c. Ionization output from each electrode shall be a minimum of 200 million ions/cc when tested at 2" from the ionization generator.
 - d. All manufacturers shall provide documentation by an independent NELAC accredited laboratory that proves the product has minimum kill rates for the following pathogens given the allotted time and in a space condition:
 - A. MRSA >96% in 30 minutes or less
 - B. E.coli > 99% in 15 minutes or less
 - C. TB > 69% in 60 minutes or less
 - D. C. diff >86% in 30 minutes or less

Manufacturers not providing the equivalent space kill rates shall not be acceptable. All manufactures requesting prior approval shall provide to the engineer independent test data from a NELEC accredited independent lab confirming kill rates and time meeting the minimum requirements stated in section 2.2 B, points 6A, 6B and 6C. Products tested only on Petri dishes to prove kill rates shall not be acceptable.

2. Ozone Generation:

- a. The operation of the electrodes or Bi-polar ionization units shall conform to UL 867-2007 with respect to ozone generation. There shall be no ozone generation during any operating condition, with or without airflow.
- J. Electrical Requirements:

3. Wiring, conduit and junction boxes shall be installed within housing plenums in accordance with NEC NFPA 70. Plasma Generator shall accept an electrical service of 24VAC to 240VAC, universal 2 wire input, 1 phase, 50/60 Hz. The contractor shall coordinate electrical requirements with air purification manufacturer during submittals.

K. Control Requirements:

- All Plasma Generators shall have internal short circuit protection, overload protection, and automatic fault reset circuit breakers. Systems with manual fuses shall not be allowed.
- Integral airflow sensing shall modulate the Plasma output as the airflow varies or stops. A mechanical airflow switch shall not be acceptable as a means to activate the Plasma device due to high failure rates and possible pressure reversal.
- 6. The installing contractor shall mount and wire the Plasma device within the air handling unit specified or as shown or the plans. The contractor shall follow all manufacturer IOM instructions during installation.
- 7. All Plasma devices shall have a means to interface with the BAS system. Dry contacts shall be provided to prove there are ions being produced. Systems providing indication that power is applied to the Plasma device, but not directly sensing the power at the ion output, shall not be acceptable.

PART 3 - EXECUTION

3.5 GENERAL

A. The Contractor shall be responsible for maintaining all air systems until the owner accepts the building (Owner Acceptance).

3.6 ASSEMBLY & ERECTION: PLASMA GENERATOR WITH BI-POLAR IONIZATION

- A. All equipment shall be assembled and installed in a workman like manner to the satisfaction of the owner, architect, and engineer.
- B. Any material damaged by handling, water or moisture shall be replaced, by the mechanical contractor, at no cost to the owner.
- C. All equipment shall be protected from dust and damage on a daily basis throughout construction.

3.7 TESTING

A. Provide the manufacturers recommended electrical tests.

3.8 COMMISSIONING & TRAINING

A. A manufacturer's authorized representative shall provide start-up supervision and training of owner's personnel in the proper operation and maintenance of all equipment.

SECTION III-AIR PURIFICATION SYSTEM

PART 1 - GENERAL

1.15 DESCRIPTION OF WORK

A. This section describes the design, performance and installation of an air purification system intended for use as part of another manufacturer's air handling unit or mounted on the duct.

1.16 REFERENCED CODES & STANDARDS

- A. The following codes and standards are referenced throughout. The edition to be used is that currently enforced by the authority having jurisdiction (AHJ) or in absence of such direction that referenced by the current enforceable IBC code or as indicated by the contract documents, except where specifically referenced by this section of the specifications.
 - 1. ASHRAE Standards 62 & 52
 - National Electric Code NFPA 70
 - 3. UL 867-2007 including ozone chamber test required as of December 21, 2007
 - 4. UL 2998 Environment No Ozone Certification
 - 5. The cold plasma equipment and power supply shall be UL listed.
 - 6. ASHRAE 62 now requires all electronic air cleaners to be UL 2998 certified as an ozone free device. Products without UL 2998 shall not be acceptable.

1.17 RELATED WORK

- A. Testing, Adjusting and Balancing
- B. Facility Access and Protection
- C. Ductwork
- D. Filters
- E. Water and Refrigerant Piping
- F. Electrical Wiring
- G. Control Wiring

1.18 QUALITY and IP ASSURANCE

- A. Basis of design is Global Plasma Solutions. All other manufacturers requesting prior approval must submit product drawings, specifications and test results specified in section 2.2 at least four weeks prior to bid date.
- B. The Air Purification System shall be a product of an established manufacturer within the USA. Direct Current (DC) Ion modules manufactured outside the USA and assembled in the USA on mounting plates or formed channels shall not be acceptable.
- C. A qualified representative from the manufacturer shall be available to inspect the installation of the air purification system to ensure installation in accordance with manufacturer's recommendation.
- D. Technologies that do not address gas disassociation such as UV Lights, Powered Particulate Filters and/or polarized media filters shall not be considered. Uni-

- polar ion generators shall not be acceptable. "Plasma" particulate filters shall not be acceptable. Any system containing titanium dioxide (Ti02), which has been listed by the CDC as a known carcinogen, shall not be acceptable.
- E. Projects designed using ASHRAE Standard 62, IAQ Procedure shall require the manufacturer to provide Indoor Air Quality calculations using the formulas within ASHRAE Standard 62.1-2019 to validate acceptable indoor air quality at the quantity of outside air scheduled with the technology submitted. The manufacturer shall provide independent test data on a previous installation performed within the last two years and in a similar application, that proves compliance to ASHRAE 62 and the accuracy of the calculations. The data shall be based on the manufacturer's use of the same make and model number as the equipment submitted on this project.
- F. The Air Purification Technology shall have been tested by UL to prove conformance to UL 867-2007 including the ozone chamber testing and peak ozone test for electronic devices. Manufacturers that achieved UL 867 prior to December 21, 2007 and have not been tested in accordance with the newest UL 867 standard with the ozone amendment shall not be acceptable. All manufacturers requesting prior approval shall submit their independent UL 867 test data with ozone results to the engineer for preliminary review and during the submittal process. All manufacturers shall submit a copy with their quotation. Contractors shall not accept any proposal without the proper ozone testing documentation.
- G. The maximum allowable ozone concentration per the UL 2998 chamber test shall be 5 PPB. Manufacturers with ozone output exceeding these ozone values shall not be acceptable.
- H. All manufacturers shall have their product tested to UL 2998 Environmental Standard for confirmation of no ozone with certificate available. The final report shall indicate the ozone levels and high voltage output the device's electrode(s) were operating during the test. Reports that do not include high voltage output during the UL 2998 testing shall not be acceptable.

1.19 SUBMITTALS

- A. Product Data: Submit manufacturer's technical product data for ion generators including:
 - 1. Schedule of plasma generators indicating unit designation, number of each type required for each unit/application.
 - 2. Data sheet for each type of plasma generator, and accessory furnished; indicating construction, sizes, and mounting details.
 - 3. Performance data for each type of plasma device furnished.
 - 4. Indoor Air Quality calculations using the formulas within ASHRAE Standard 62.1-2007 to validate acceptable indoor air quality at the quantity of outside air Scheduled (when projects are designed with outside air reduction).
 - 5. Product drawings detailing all physical, electrical and control requirements.
 - 6. Copy of UL 867 independent ozone test.
 - 7. Copy of UL 2998 conformance certificate.
 - 8. Statement on the manufacturer's letterhead stating that the technology contains

no titanium dioxide (Ti02).

B. Operating & Maintenance Data: Submit O&M data and recommended spare parts lists.

1.20 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver in factory fabricated shipping containers. Identify on outside of container type of product and location to be installed. Avoid crushing or bending.
- B. Store in original cartons and protect from weather and construction work traffic.
- C. Store indoors and in accordance with the manufacturers' recommendation for storage.

1.21 WARRANTY

A. Equipment shall be warranted by the manufacturer against defects in material and workmanship for a period of eighteen months after shipment or twelve months from owner acceptance, whichever occurs first. Labor to replace equipment under warranty shall be provided by the owner or installing contractor.

PART 2 - PRODUCTS

2.5 GENERAL

- A. The air purification system(s) shall be of the size, type, arrangement and capacity indicated and required by the unit furnished and shall be of the manufacturer specified.
- B. Basis of Design: Global Plasma Solutions
- C. All other Suppliers of comparable products requesting prior approval shall:
 - 1. Submit for prior approval four weeks in advance in accordance with the requirements of Section 15010.
 - 2. In addition, manufacturers submitting for prior approval for Bi-Polar lonization must as part of the prior approval request provide their ASHRAE 62.1-2019 calculations that prove conformance to the ASHRAE Standard with the reduction of outside air to the scheduled values. A letter on the manufacturer's letterhead requesting prior approval must accompany the request for prior approval stating their calculations are ASHRAE compliant. A third party validation study performed on a previous installation of the same application using the same make and model equipment shall also be included.
 - 3. Submit independent test data from UL showing ozone levels produced during the UL 867 ozone chamber test. Manufacturers without this test data shall not be acceptable.
 - 4. Submit UL 2998 Environmental Claim Certificate proving no ozone output.
 - 5. Submit pathogen testing per section 2.2.
 - 6. Submit at least two other end user references in the same application with contact phone number, email, equipment used and application for the equipment at that facility. Manufacturers not having the above references in similar applications using the same equipment models as proposed on the current project shall not be acceptable.

- 7. Ionization bars manufactured using DC output ionization modules shall not be permitted due to corrosion, ion short-circuiting, and intermittent coil coverage and shock hazard.
- 8. Ionization bars manufactured using ion modules not having epoxy coating all circuit boards and internal components shall not be acceptable.
- 9. Manufacturers submitting as an alternate shall include their DO-160 test results.
- 10. It is the responsibility of any alternate manufacturer and mechanical contractor proposing an alternate to the basis of design to confirm any proposed substituted product does not infringe on the intellectual property of the basis of design. The engineer and owner recognize the basis of design holds multiple patents and multiple patents are pending.

2.6 BI-POLAR IONIZATION DESIGN & PERFORMANCE CRITERIA

- A. Each piece of air handling equipment, so designated on the plans, details, equipment schedules and/or specifications shall contain a Plasma Generator with Bi-polar lonization output as described here within.
- B. The Bi-polar Ionization system shall be capable of:
 - 1. Effectively killing microorganisms downstream of the bi-polar ionization equipment (mold, bacteria, virus, etc.).
 - 2. Controlling gas phase contaminants generated from human occupants, building structure, furnishings and outside air contaminants.
 - 3. Capable of reducing static space charges.
 - 4. Effectively reducing space particle counts.
 - 5. When mounted to the air entering side of a cooling coil, keep the cooling coil free from pathogen and mold growth.
 - 6. All manufacturers shall provide documentation by an independent NELEC accredited laboratory that proves the product has minimum kill rates for the following pathogens given the allotted time and in a space condition:
 - A. MRSA >96% in 30 minutes or less
 - B. E.coli > 99% in 15 minutes or less
 - C. TB > 69% in 60 minutes or less
 - D. C. diff >86% in 30 minutes or less
 - E. Noro Virus -> 93.5% in 30 minutes or less
 - F. Legionella -> 99.7% in 30 minutes or less

Manufacturers not providing the equivalent space kill rates shall not be acceptable. All manufactures requesting prior approval shall provide to the engineer independent test data from a NELAP accredited independent lab confirming kill rates and time meeting the minimum requirements stated in section 2.2 B, points 6A, 6B and 6C. Products tested only on Petri dishes to prove kill rates shall not be acceptable. Products being sold under different trade names than those tested shall not be acceptable.

- 7. Capable of modular field assembly in six inch (150mm) sections.
- K. The bi-polar ionization system shall operate in a manner such that equal amounts of positive and negative ions are produced. Uni-polar ion devices shall

not be acceptable. Ionizers with positive and negative output (DC type) shall not be acceptable. All ionizers provided shall be AC type ionizers with one electrode pulsing between positive and negative.

- 1. Air exchange rates may vary through the full operating range of a constant Volume or VAV system. The quantity of air exchange shall not be increased due to requirements of the air purification system.
 - 2. Velocity Profile: The air purification device shall not have maximum velocity profile.
- L. Humidity: Plasma Generators shall not require preheat protection when the relative humidity of the entering air exceeds 85%. Relative humidity from 0 100%, condensing, shall not cause damage, deterioration or dangerous conditions within the air purification system. Air purification system shall be capable of wash down duty.
- M. Equipment Requirements:
 - 1. Electrode Specifications (Bi-polar Ionization):
 - a. Each alternating current (AC) Ionization Bar with Bi-polar Ionization output shall include a minimum of eighteen carbon fiber cluster ion needles per foot of coil face width shall be provided. The entire cooling coil width shall have equal distribution of ionization across the face. Systems without ion needles at least 0.50" (12.5mm) apart shall not be acceptable. The plasma electrode shall require no more than 1.0" (25mm) in the direction of airflow for mounting. All hardware required for mounting shall be provided by the air purification manufacturer except self-tapping screws for the power supply. Bi-polar ionization tubes manufactured of glass and steel mesh shall not be acceptable due to replacement requirements, maintenance, and performance output reduction over time, ozone production and corrosion.
 - b. Electrodes shall be provided in 6.0" (150mm) increments, epoxy filled for an IP55 rating and utilizing brass connection hardware that is recessed into the connection joint once fully engaged and assembled.
 - c. Electrodes shall be energized when the main unit disconnect is turned on
 - d. The ionization output shall be a minimum of 60 million ions/cc per inch of cooling coil width as measured 1 inch from the cold plasma needles.
 - e. Ionization bars shall be provided with magnet mounting kits to prevent penetration into cooling coils.
 - f. Ionization bars shall be constructed of UL 94VO and UL746C composite material.
 - g. If the ionization bars are mounted immediately downstream from a humidifier, protective rain covers shall be provided over the ionization bars by the installing contractor. The design of the cover shall be confirmed with the ionization manufacturer prior to installation.
- N. Air Handler Mounted Units:

- 1. Where so indicated on the plans and/or schedules Plasma Generator(s) shall be supplied and installed. The mechanical contractor shall mount the Plasma Generator and wire it to the remote mount power supply using the cables provided by the air purification manufacturer. A 24VAC, 115VAC or 208-230VAC circuit shall be provided to the plasma generator power supply panel. No more than 15 watts shall be required per power supply. Each power supply shall be capable of powering up to 6 ionization bars or a total of 50 linear feet of bar(s). Each plasma generator shall be designed with fiberglass housing, liquid tight flexible conduit and a high voltage quick connector.
- 2. Where the ionization bars are mounted downstream of steam humidifiers, the air handler manufacturer shall provide an angled hat section that will cover the ionization bars and deflect any direct condensation towards the floor and off the bars.

G. Plasma Requirements:

- 3. Plasma Generators with Bi-polar ionization output shall be capable of controlling gas phase contaminants and shall be provided for all equipment listed above.
 - a. The Bi-polar ionization system shall consist of Bi-Polar Plasma Generator and power supply. The Bi-polar system shall be installed where indicated on the plans or specified to be installed. The device shall be capable of being powered by 24VAC, 115VAC or 208-230VAC without the use of an external transformer. Ionization systems requiring isolation transformers shall not be acceptable.
 - b. Ionization Output: The ionization output shall be controlled such that an equal number of positive and negative ions are produced (AC Ionizers only are acceptable). Imbalanced levels shall not be acceptable.
 - c. Ionization output from each bar shall be a minimum of 120 million ions/cc per inch of bar when tested at 1" from the ionization bar. Bars with needles spaced further apart than 0.5" shall not be acceptable.
 - d. Each plasma electrode shall be made from an all fiberglass composite, UL 94V0 and UL 746C rated material for prevention of corrosion and electrical insulation.

4. Ozone Generation:

a. The operation of the electrodes or Bi-polar ionization units shall conform to UL 2998 as tested by UL proving no ozone output.

H. Electrical Requirements:

5. Wiring, conduit and junction boxes shall be installed within housing plenums in accordance with NEC NFPA 70. Plasma Generator shall accept an electrical service of 24VAC, 115 VAC or 208-230VAC, 1 phase, 50/60 Hz. The contractor shall coordinate electrical requirements with air purification manufacturer during submittals.

I. Control Requirements:

6. All Plasma Generators shall have internal short circuit protection, overload protection, and automatic fault reset. Systems requiring fuses shall not be acceptable.

- 7. The Plasma Generator power supply shall have internal circuitry to sense the ionization output and provide dry contact alarm status to the BMS as well as a local "Plasma On" indication light.
- 8. If scheduled, the ionization system shall be provided with a stand-alone, independent ion sensor designed for duct mounting to the ionization bar to monitor the ion output and report to the BAS system that the ion device is working properly. Ion systems provided without an independent ion sensor, shall not be permitted. The control voltage to power the ion sensor shall be 24VAC to 260VAC and draw no more than 150mA of current. The sensor shall provide at minimum, dry contact status to the BAS and optionally a BacNet or Lonworks interface as specified on the control drawings. If scheduled, manufacturers not providing a stand-alone ion sensor shall not be acceptable.
- 9. The installing contractor shall mount and wire the Plasma device within the air handling unit specified or as shown or the plans. The contractor shall follow all manufacturer IOM instructions during installation.
- 10. An optional fiberglass NEMA 4X panel with Plasma On/Off Indicator Light (interfaced with stand-alone ionization detector), Ionization Output On/Off Indicator Light and an On/Off Illuminated Switch shall be provided to house the power supply, if noted on the schedule.

PART 3 - EXECUTION

3.9 GENERAL

A. The Contractor shall be responsible for maintaining all air systems until the owner accepts the building (Owner Acceptance).

3.10 ASSEMBLY & ERECTION: PLASMA GENERATOR

- A. All equipment shall be assembled and installed in a workman like manner to the satisfaction of the owner, architect, and engineer.
- B. Any material damaged by handling, water or moisture shall be replaced, by the mechanical contractor, at no cost to the owner.
- C. All equipment shall be protected from dust and damage on a daily basis throughout construction.

3.11 TESTING

A. Provide the manufacturers recommended electrical tests.

3.12 COMMISSIONING & TRAINING

A. A manufacturer's authorized representative shall provide start-up supervision and training of owner's personnel in the proper operation and maintenance of all equipment.

CONTRACTOR'S INSURANCE:

COPIES OF THE CONTRACTOR'S CERTIFICATES OF INSURANCE SHALL BE SUBMITTED TO THE SCHOOL DISTRICT WITH THEIR BID SUBMISSION. CONTRACTOR ACKNOWLEDGES THAT FAILURE TO OBTAIN SUCH INSURANCE ON BEHALF OF CHAPPAQUA CENTRAL SCHOOL DISTRICT CONSTITUTES A MATERIAL BREACH OF CONTRACT AND SUBJECTS IT TO LIABILITY FOR DAMAGE INDEMNIFICATION AND ALL OTHER LEGAL REMEDIES AVAILABLE TO THE DISTRICT.

Contractor must provide thirty (30) days written notice of any cancellation

INSURANCE:

The contractor shall purchase and maintain the insurances listed herein during the life of the contract. This insurance must be purchased from a New York licensed, A.M. Best Rated "A" or "A+" carrier. The owner, the architect (if applicable), his consultants (if applicable) shall, with the exception of Worker's Compensation and Employers Liability Insurance, be named additional insured.

As part of the bid submission, the contractor and all sub-contractors shall submit to the Owner the following:

1. A Certificate of General Liability Insurance coverage as required by these documents. The standard Accord form of certificate of insurance or insurance carrier certificate will be accepted for employer's liability and statutory State Disability. The box labeled "Certificate Holder" which is located at the bottom left hand corner of the certificate must display the following address;

Chappaqua Central School District 66 Roaring Brook Rd. P.O. Box 21 Chappaqua, NY 10514

- 2. An Endorsement Indicating Additional Insured.
- 3. A Certificate of Worker's Compensation insurance coverage. The standard Accord form of certificate of insurance or insurance carrier certificate will be accepted.
- 4. An Insurance Certification form which is to be completed by both the contractor and the contractor's insurance representative.

All Certificates of Insurance must be signed by a licensed agent or authorized representative of the insurance carrier. A Broker's signature is not acceptable.

The certificates shall be issued to the Owner with a provision that in the event the policies are either cancelled or diminished, at least 30 days prior notice thereof shall be given to the Owner.

The successful bidder or sub-contractor shall not commence work under this contract until the successful bidder has obtained all insurance required under this section and the Owner has approved such insurances. The successful bidder shall require any subcontractor(s) to provide all of the requirements of this section before any work is to commence.

Further, Contractor shall require all Sub-contractors to carry similar insurance coverage's and limits of liability as set forth above and adjusted to the nature of the Sub-contractor's operations and submit name to Owner for approval prior to start of any work.

In the event Contractor fails to obtain the required certificates of insurance from Sub-contractors and a claim is made or suffered, the Contractor shall indemnify, defend and hold harmless the Owner, Architect (if applicable), Engineers (if applicable), Consultants (if applicable) and their agents or employees from any and all claims for which the required insurance would have provided coverage. This indemnity obligation is in addition to any other indemnity obligation provided in the contract.

Coverage's whether written on an occurrence or "claims made basis, shall be maintained without interruption from the date of commencement of the work until the date of final payment and termination of any coverage required to be maintained after final payment.

Contractor assumes all responsibility for the safety and keeping of all tools and equipment and any materials and products used to complete or perform the work. The contractor waives all rights against the owner, their employees and agents for any loss or damage to any such tools, equipment or any material or products used to complete or perform the work. The contractor shall require similar waivers in favor of the above named parties from all Subcontractors, agents and employees of any of them. The insurance required by this Article shall be written for not less than the following, or greater if required by governing laws:

 General Liability 	(Occurrence Form)
\$2,000,000	General Aggregate
1,000,000	Products/Complete Operations
1,000,000	Personal & Adv. Injury
1,000,000	Occurrence
50,000	Fire Damage
5,000	Medical Expense

Coverage to include Broad Form Property Damage, Contractual Liability, Independent Contractors and Personal Injury. No exclusion for XCU or hazards shall be endorsed to the Policy.

2. Auto Liability to cover all vehicles; or owned, hired, leased and non

owned vehicles.
\$1,000,000
Combined Single Limit or
500,000
Bodily Injury (per person)
Bodily Injury (per accident)
Froperty Damage
5,000
Medical Payments

3. Excess Liability: Insurance is to cover all stated insurance coverage's listed within this article:

\$10,000,000 Each Occurrence 10,000,000 Aggregate

10,000 Retention (Maximum)

4. Worker's Compensation

Statutory Part A Employees Liability Part B

\$500,000 Each Accident 1,000,000 Disease Policy Limit 500,000 Disease Each Employee

All limits carries in excess of the above amounts must be shown on the Certificate of Insurance, and all parties listed above must be <u>added as additional insured</u> for all limits so carried.

Coverage's regardless of policy form, shall be maintained without interruption from the date of commencement of the Work until the date of final payment and termination of any coverage required to be maintained after final payment.

HOLD HARMLESS:

The awarded contractor will be required to sign a "Hold Harmless" Agreement with the School District as included on page 9 with this document. Compliance with the foregoing requirement for insurance shall not relieve the Contractor from liability set forth under the Indemnity Agreement.

LAWS, ORDINANCES, CODES, ETC:

The contractor shall comply with all laws, codes, rules and regulations of the State, County and City applicable to the work to be performed at the site.

PERMITS:

Any and all permits lawfully required to prosecute the work and all approvals of work performed, required by authorities having jurisdiction, shall be obtained by the contractor who shall pay all lawful charges for same.

Workers shall be skilled in the trade in which employed and, where required, shall be licensed to perform the work by the authority having jurisdiction.

All work shall comply with codes, Local, State and National of all authorities having jurisdiction, including but not limited to National Electric Code, Plumbing Codes and OSHA regulations.

LABOR LAWS:

Particular attention is directed to the Labor Laws of the State of New York applicable to the employment of labor at the site, which laws form part of this contract. The minimum hourly rate of wages to be paid for labor employed at the site is as determined by the Industrial Commissioner of the State of New York.

SAFETY/OSHA REQUIREMENTS

In order to assure the safety and health of workers, the contractor must provide safety training to all of its employees in accordance with OSHA standards and apply those standards to all work associated with this contract. The contractor must further provide its employees with appropriate personal protective equipment in all operations where there is an exposure to hazardous conditions or when the need warrants the use of such equipment to reduce hazards to the employees. Chappaqua Central School District has the right to request written safety plans from the contractor at any time.

The bidder must have all their employees go through OSHA 10 hour training course. With bid, you must supply the district with proof that each service technician has completed the OSHA 10 hour training course.

PREVAILING WAGE RATES:

- 1. There shall be paid each employee engaged in work of the project under this contract, for the trade of occupation listed, not less than the wage rate set forth by New York State.
- 2. In accordance with the State statutes, any person or corporation that willfully pays, after entering into this contract, less that this established wage schedule, shall be guilty of a misdemeanor and upon conviction shall be punished for such first offense by a fine of five hundred (\$500.00) dollars, or by imprisonment. A second offense carries heavier penalties.
- 3. Article 8, Section 220 of the Labor Law, as amended, provides among other things, that it shall be the duty of the fiscal officer to make a determination of the schedule of wages paid to all laborers, workmen and mechanics employed on public works projects. The amount for supplements listed on the enclosed schedule does not necessarily include all types of prevailing supplements in the locality, and a future determination of the Industrial Commissioner may require the Contractor

to provide additional supplements.

- 4. The Contractor shall provide statutory benefit for disability benefits, unemployment insurance and social security.
- 5. The contractor shall provide the District with certified payrolls with all invoices.

EMPLOYEES:

The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the job any unfit person or anyone not skilled in the work covered by this contract. Employees are to cooperate with all interested parties in such a manner as not to interfere with or delay in any way the operation of the facility. The consuming of alcoholic beverages within the school building and/or anywhere else on the school property is prohibited.

PERMITS, LAWS AND REGULATIONS:

The Contractor shall comply with all laws, ordinances and rules and regulations which may govern the work as specified in this contract.

The Contractor shall secure and pay for any permits and licenses necessary for the execution of the work.

This agreement is limited. Applicable provisions of the New York State Obligations Law or other applicable statures limit this agreement.

SPECIAL CONDITIONS

SECURITY:

Sections 20 and 21 of the <u>General Conditions</u> are waived. No security is required.

CONTRACTOR'S RESPONSIBILITY:

Bidders, before submitting their bid, shall make a careful examination of the existing and specified area; take such measurements as they deem necessary; make their own estimates of the amount and character of the work to be done and of the difficulties and facilities attending its proper execution; include in their bid such sums as they deem proper and sufficient to cover the cost of every item of labor and materials necessarily involved or that can be reasonably inferred as required, necessary, essential or indispensable for the proper prosecution and completion of the contract, notwithstanding that every item is not specifically mentioned herein, and to cover the cost of the contingency not otherwise herein provided for. No claims for compensation for extra work due to ignorance on the part of the contractor of any existing condition will be considered or allowed.

PROVEN HVAC EXPERIENCE/REFEENCES/QUALIFICATIONS:

- 1. Bids will be accepted from reliable Prime Contractors who have the personnel, equipment and facilities (including service and parts departments) to provide all of the services described in this bid. Vendor must have 10 years of proven HVAC experiences in school districts, or school district and hospitals. This includes at least one principal in the firm. Received contract will only be awarded to a vendor that meets this requirement.
- 2. Bidders must include with their proposal, a minimum of five (5) references where the bidder provides similar services to the HVAC services described herein. References must include the name of the organization, contact name and telephone numbers.
- 3. Bidder must be a Honeywell Building Control Associate. The bidder must provide proof from Honeywell that they are an active Honeywell Partner. In addition, bidder must be an Authorized Building Controls Specialist (ABCS) or factory trained on the Johnson Controls line. The bidder must provide proof from Johnson Controls that they are a certified Johnson Controls Partner. Received contract will only be awarded to a vendor that meets this requirement.
- 4. At least one employee in the company must be a trained and certified technician to support a webs-ax product.
- 5. The successful vendor must be a Full-Service HVAC Contractor who can demonstrate a strong background in the installation, service and maintenance of commercial HVAC systems.

6. Sheet metal output shall be in accordance with the latest Sheet Metal and Air Conditioning Contractors National Association (SMACNA) standards.

PREVAILING WAGES:

All wages and supplements paid to laborers on this contract shall be in accordance with the New York State Department of Labor Prevailing Wage Schedule, specifically "General Construction Rates" for Westchester County. The schedule is available on the Department of Labor's web site at www.labor.ny.gov. Please specifically look under the PRC number for Westchester County.

• PRC # 2020007564

Bidder must show proof of certified payroll by submitting an old certified payroll to this bid. A sample of a weekly payroll from the New York State Dept. of Labor has been enclosed for. In addition, vendor must notarize and sign the enclosed Prevailing Rate Certification form. Failure to include this information with your bid may result in the bid's rejection.

CERTIFIED PAYROLL:

The District requires that certified payrolls be submitted with all invoices. A copy of an old certified payroll form must be included as part of the bid submission. Please see the enclosed sample an NYS Dept. of Labor Timesheet.

AWARD:

Award will based strictly on the total cost of the main project.

The School District endeavor to make an award within Forty-Five (45) days of the date of the bid opening and all bids shall remain firm during that time frame. The school District further reserves the right to make award following this period to any bidder who has not provided written notice to the school District that its bid has been withdrawn.

Award will be made to the lowest responsible bidder, as will best promote the public interest, taking into consideration the reliability of the bidder, the quality of the labor, materials, equipment or supplies to be furnished, their conformity with the specifications, the purpose for which required, and the terms of delivery.

The school District reserves the right to reject all bids, to reject any bid in whole or in part to waive technical defects, qualifications, irregularities and omissions if in its judgment the best interests of the School District will be served: and reject bids and to purchase on state or county contract as permitted by law if such items can be obtained on the same terms, conditions, specifications and at lower prices.

If two or more bidders submit identical bids as the price, the decision of the Board to award a contract to one such bidder will be final.

ADDITIONAL TERMS AND CONDITIONS: Please be sure to read the other terms and conditions of this bid shown on the preceding pages. BE SURE TO SIGN THE ATTACHED "NON-COLLUSIVE / BID PROPOSAL CERTIFICATIONS".

Note: In order to remain on our bid list, and automatically receive the next bid of this type, you must respond to this bid with either a bid or a written request to stay on our bid list.

The district reserves the right to terminate the agreement at any time for any reason with a 30 day written notice to contractor.

FINAL DECISIONS

The authorized district representative shall have the right to interpret the true meaning and intention of specifications, verbal or written; but should any controversies or disputes arise over such interpretations, his decision shall be binding and final.

PIGGYBACKING

Any school district, municipality or political subdivision of the State of New York may participate in this contract, upon written request to the Chappaqua Central School District, and authorization from the School District. Any such entity that wishes to "piggyback" on this bid shall be sorely responsible for submitting tax exemption information to the vendor/contractor and for paying for any goods and materials purchased. Any liability created as a result of purchases by other enumerated entities shall be the sole responsibility of such entity placing the order.

SUBMITTAL OF INVOICES

Certified payroll must be submitted with all invoices.

Contractor Reference Sheet

It is the intention of the District to obtain sufficient information regarding current projects of all bidders. We therefore require that all bidders list below at least five (5) references for similar Service agreements/contracts currently in progress or recently completed.

1.	Client:		
	Project Address:		
	Approximate \$ Value:		
	Date Started:	Completed:	
	Contact Name:	Telephone:	
2.	Client:		
	Project Address:		
	Approximate \$ Value:		
	Date Started:	Completed:	
	Contact Name:	Telephone:	
3.	Client:		
	Project Address:		
	Approximate \$ Value:		
	Date Started:	Completed:	
	Contact Name:	Telephone:	
4.	Client:		
	Project Address:		
	Approximate \$ Value:		
	Date Started:	Completed:	
	Contact Name:	Telephone:	
5.	Client:		
	Project Address:		
	Approximate \$ Value:		
	Date Started:	Completed:	
	Contact Name:	Telephone:	

CCSD BID # B2020-11:

INSTALLATION AND INTEGRATION OF NEEDLEPOINT BIPOLAR IONIZATION IN ALL HVAC SYSTEMS THROUGHOUT THE SCHOOL DISTRICT IN ALL SCHOOL DISTRICT BUILDINGS, PUBLIC LIBRARY AND SCHOOL BUSES

BID PROPOSAL FORM

COST OF MAIN PROJECT

Total Cost of Main Project Including All School District Buildings and Pole Barn (Maintenance Barn) in Accordance to the Scope of Work listed on Page 2 of the Main Bid Document as well as adherence to Sections I, II, and III as listed in "Overview" on Pages 4 to 23 on the Main Specification.:
COST OF OPTIONAL PROJECTS
1. Total Cost of Chappaqua Library in Accordance to the Scope of Work listed on Page 2 of the Main Bid Document as well as adherence to Sections I, II, and III as listed in "Overview" on Pages 4 to 23 on the Main Specification.:
2. Unit Cost School Buses and Unit Cost of Vans in Accordance to the Scope of Work listed on Page 2 of the Main Bid Document as well as adherence to Sections I, II, and III as listed in "Overview" on Pages 4 to 23 on the Main Specification.:
Per School Bus
Per Van
The contractor hereby agrees to perform all services as described in the specifications and further states that he/she meets or exceeds the mandatory qualifications as required in said bid.
I, (we) submit the following proposal to furnish all labor, material, equipment and transportation necessary and or required for the performance and completion in a workmanlike manner of all work in accordance with the specifications herein for a period of one (1) year
Firm Name:
Date of Bid:
Signature of Bidder:
Printed Name of Bidder:

Title of Bidder

BID SUBMISSION REQUIREMENTS

Sealed bids must include the following documents:

- 1) Completed Bid Proposal Form (Located on Page 32 of this main bid document)
- 2) Proof of Visitation signed by both vendor and school district representative.
- 3) Certificates of Insurance including General Liability, Endorsement indicating Additional Insured and Worker's Compensation as stated on pages 23, 24, and 25 of this main bid document.
- 4) Completed and signed Insurance Certification form as included in this bid.
- 5) Completed pages 7 and the pages which apply closest to the field of work for the Prevailing Wage Schedule provided by New York State, The schedule is available on the Dept. of Labor web site at www.labor.ny.gov. Please specifically look under PRC # 2020007564
- 6) Copy of an old certified payroll form to serve as proof of certified payroll as stated on page 29 of this main bid document.
- 7) Completed contractor reference sheet (located on page 31 of this main bid document).
- 8) <u>Proof that vendor has 10 years of proven HVAC experience in school districts, or school district and hospitals as listed on page 28 of this main bid document.</u>
- 9) Completed Hold Harmless Agreement (Located on Page 3 of this main bid document).
- 10) Proof that each service technician has completed the OSHA 10 hour training course as stated on page 26 of this main bid document.
- 11) Proof from Honeywell that vendor is an active Honeywell Partner as stated on page 29 of this main bid document.
- 12) Proof that vendor is an Authorized Building Controls Specialist (ABCS) or factory trained on the Johnson Controls line as stated on page 28 of this main bid document.
- 13) Proof from Johnson Controls that vendor is an active Johnson Controls Partner as stated on page 28 of this main bid document.
- 14) Completed, notarized & signed Prevailing Rate Certification form is included in this bid.
- 15) Completed and signed Bid Proposal Certification/Non Collusive sheet.

16) Completed, notarized & signed Bid Form and Specifications sheet located on the very last page of this bid.

Sealed envelope bids or digital bids will be received until **July 30th**, **2020 by no later than 2:00pm** at the Purchasing Office, Education Center, 66 Roaring Brook Road, Chappaqua, New York -at which time and place all bids will be opened and read publicly. Mailing address for sealed envelope bids: Chappaqua Central School District, 66 Roaring Brook Rd., P.O. Box 21, Chappaqua, New York 10514 (if using third party courier, use street address only). Digital bids are to be e-mailed to mittruik@ccsd.ws.

If further information is needed, call the Purchasing Office at 914 238-7200, Ext. 1013 or e-mail at mitrnik@ccsd.ws.

The Board of Education reserves the right to reject any and all bids which do not seem to be in the best interest of the School District and the right to exclude any portion of the bid when awarding the contract. A bidder may be disqualified from receiving awards if such bidder or anyone in his or her employ has previously failed to perform satisfactorily on connection with public bidding or contracts.

CHAPPAQUA CENTRAL SCHOOL DISTRICT 66 ROARING BROOK ROAD P.O. BOX 21 CHAPPAQUA, NEW YORK 10514

CCSD BID #B2020-11: INSTALLATION AND INTEGRATION OF NEEDLEPOINT BIPOLAR IONIZATION IN ALL HVAC SYSTEMS THROUGHOUT THE SCHOOL DISTRICT IN ALL SCHOOL DISTRICT BUILDINGS, PUBLIC LIBRARY AND SCHOOL BUSES

SEALED BID CHECKLIST

LIST OF REQUIRED ITEMS TO BE CHECKED OFF AND INCLUDED IN SEALED BID ENVELOPE

- 1) COMPLETED BID PROPOSAL FORM (LOCATED ON PAGE 32 OF MAIN BID DOCUMENT)
- 2) PROOF OF VISITATION FORM SIGNED BY BOTH VENDOR AND SCHOOL DISTRICT REPRESENTATIVE AS INLCUDED IN THIS BID.
- 3) CERTIFICATES OF INSURANCE INCLUDING GENERAL LIABILITY, ENDORSEMENT INDICATING ADDITIONAL INSURED AND WORKERS COMPENSATION AS STATED ON PAGES 23, 24, 25 AND 4 OF MAIN SPECIFICATION.
- 4) COMPLETED INSURANCE CERTIFICATION FORM AS INCLUDED IN THIS BID
- 5) PAGES 7 AND THE PAGES WHICH APPLY CLOSEST TO THE FIELD OF WORK FOR THE PREVIALING WAGE SCHEDULE PROVIDED BY NEW YORK STATE AS LISTED ON PAGE 29 OF THE MAIN BID DOCUMENT. THE SCHEDULE IS AVAILABLE ON THE DEPARTMENT OF LABOR'S WEB SITE AT www.labor.ny.gov . PLEASE SPECIFICALLY LOOK UNDER PRC # 2020007564 FOR WESTCHESTER COUNTY.
- 6) COPY OF AN OLD CERTIFED PAYROLL FORM TO SERVE AS PROOF OF CERTIFIED PAYROLL AS STATED ON PAGE 29 OF THE MAIN BID DOCUMENT.

- 7) COMPLETED CONTRACTOR REFERENCE SHEET (LOCATED ON PAGE 31 OF MAIN SPECIFICATION).
- 8) PROOF THAT VENDOR HAS <u>10 YEARS OF PROVEN HVAC</u>
 <u>EXPERIENCE IN SCHOOL DISTRICTS OR SCHOOL DISTRICT/HOSPITALS</u>
 AS LISTED IN ON PAGE 28 OF THE MAIN BID DOCUMENT.
- 9) COMPLETED HOLD HARMLESS AGREEMENT (LOCATED ON PAGE 3 OF THE MAIN SPECIFICATION).
- 10) PROOF THAT EACH SERVICE TECHNICIAN HAS COMPLETED THE OSHA 10 HOUR TRAINING COURSE AS STATED ON PAGE 26 OF THE MAIN MAIN BID DOCUMENT.
- 11) PROOF FROM HONEYWELL THAT VENDOR IS AN ACTIVE HONEYWELL PARTNER AS STATED ON PAGE 29 OF THE MAIN BID DOCUMENT.
- 12) PROOF THAT VENDOR IS AN AUTHORIZED BUILDING CONTROLS SPECIALIST (ABCS) OR FACTORY TRAINED ON THE JOHNSON CONTROLS LINE AS STATED ON PAGE 28 OF THE MAIN BID DOCUMENT.
- 13) PROOF FROM JOHNSON CONTROLS THAT VENDOR IS AN ACTIVE JOHNSON CONTROLS PARTNER AS STATED ON PAGE 28 OF THE MAIN BID DOCUMENT.
- 14) COMPLETED, NOTARIZED & SIGNED PREVAILING RATE CERTIFICATION FORM AS INCLUDED IN THIS BID.
- 15) COMPLETED AND SIGNED BID PROPOSAL/NON COLLUSIVE CERTIFICATION SHEET AS INCLUDED IN THIS BID.
- 16) COMPLETED, NOTARIZED & SIGNED BID FORM AND SPECIFICATIONS SHEET LOCATED ON THE VERY LAST PAGE OF THIS BID PACKET. THIS PAGE MUST BE NOTORIZEED OR BID WILL NOT BE ACCEPTED.

ALL ITEMS ON THIS LIST MUST BE SUBMITTED IN A
SEALED BID ENVELOPE OR DIGITAL SUBMISSION
OTHERWISE BID CANNOT BID ACCEPTED.

CHAPPAQUA CENTRAL SCHOOL DISTRICT PROOF OF VISITATION CCSD BID #B2020-11:

INSTALLATION AND INTEGRATION OF NEEDLEPOINT BIPOLAR IONIZATION IN ALL HVAC SYSTEMS THROUGHOUT THE SCHOOL DISTRICT IN ALL SCHOOL DISTRICT BUILDINGS, PUBLIC LIBRARY AND SCHOOL BUSES

I,	of	_ certify that I have
visited 1	nine (9) school district and school district relate	d locations as along
	with a school district representative on	
	Date	

- Douglas Grafflin Elementary School
- Roaring Brook Elementary School
- Westorchard Elementary School
- Robert E. Bell Middle School
- Seven Bridges Middle School
- Horace Greeley High School
- Education Center (Administration Building)
- Pole Barn (Maintenance Building)
- Chappaqua Public Library

Signature of Vendor Representative	
Printed name of Vendor Representative	
Signature of Chappaqua Central School Distri	ct Representative
Printed name of Chappaqua Central School D	istrict Representative

Chappaqua CSD Contract Information

P.O. Box 21: 66 Roaring Brook Road

Chappaqua, NY 10514

T	A
Incurance	Certification
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Bid or Project No. #	Name of Project:
award of this bid or project, and it is	t completed the form below in order to be considered for the is important that you complete the Bidder's Acknowledgment at a certificate of insurance must accompany your bid be considered.
such insurance to our insured in acc	equirements set forth in the bid and are capable of providing cordance with such requirements in the event the contract is ed our insured pays the appropriate premium.
Insurance Representative:	
Address:	
Are you an agent for the companies	s providing the coverage? Yes No
Date:	
	Insurance Representative
Bidder's Acknowledgment:	
I acknowledge that I have received the costs, if any, of procuring the re required in accordance with the bid	the insurance requirements of this bid and have considered equired insurance and will be able to supply the insurance d, if it is awarded. I understand that a certificate of insurance d if it is not, the Chappaqua CSD may reject my bid and rm Name:
Firm Name:	
Address:	
Date:	
	Bidder's Signature

WEEKLY PAYROLL

Department of Labor Bureau of Public Work

For Contractor's Optional Use. The use of this form meets payroll notification requirements; as stated on the Payroll Records Notification.

NAME OF CONTRACTOR	SUBCONTRACTOR	ACTOR 🗆	-	ADDRESS								
FEIN	FOR WEEK ENDING		1 1 1 1	PROJECT AND LOCATION					PROJECT	PROJECT OR CONTRACTOR NO.	ACTOR NO.	
(I) NAME, ADDRESS, AND	(2) NO. OF		St	4) DAY AND DATE	©	(6) RATE	(A) GROSS			(a) DEDUCTIONS		(9) NET WAGES
LAST 4 DIGITS OF SOCIAL SECURITY NUME OF EMPLOYEE		CLASSIFICATION	ъ Б		TOTAL	PAY	AMOUNT		WITH- HOLDING			-
			+	HOURS WORKED EACH DAY				FICA	xœ -	5	OTHER DEDUCTIONS	S.
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PW-12 (12-09)												

THIS CERTIFICATION MUST BE COMPLETED ON EACH WEEKLY PAYROLL FORM USED BY THE CONTRACTOR OR SUBCONTRACTOR

Date			
		(b) WHERE FRINGE BENEFITS ARE PAID IN CASH	ASH
(Name of signatory party)	(Title)	☐ - Each laborer, worker, or mechanic lister	- Each laborer, worker, or mechanic listed in the above-referenced payroll has been
do hereby state:		paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe	paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits
(1) That I pay or supervise the payment of the persons employed	loyed by	as listed in the contract, except as noted in Section 4(c) below.	in Section 4(c) below.
		(c) EXCEPTIONS	
(Contractor or Subcontractor)			
, that during the payroll period commencing on the	ommencing on the		
day of, 20 , and ending the day of	of		
all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said	eekiy wages earned, that no to or on behalf of said	EXCEPTION (CRAFT)	EXPLANATION
	from the full		
(Contractor or Subcontractor)			
weekly wages earned by any person and that no deductions have been made either directly or	ave been made either directly or		
indirectly from the full wages earned by any person, other than permissible deductions as defined in Articles 8 and 9 and described below:	n permissible deductions as		
(2) That any payrolls submitted for the above period are correct and complete; that the ware rates for lahorers workers or mechanics contained therein are not less than the	orrect and complete; that the		
applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer, worker or mechanic conform with the work he/she performed.	neorporated into the contract; that ir mechanic conform with the work		
· · · · · · · · · · · · · · · · · · ·		REMARKS:	and the same of th
(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.	e duly registered in a bona fide agency recognized by the Bureau abor, or if no such recognized renticeship and Training, United		
(4) That:	,		
(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS	O PLANS, FUNDS, OR PROGRAMS	SIGNATURE	
☐ - In addition to the basic hourly wage rates paid to each laborer, worker or mechanic listed	ach laborer, worker or mechanic listed		
in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the handledges, except as nated in South Alah	nge benefits as listed in the ite programs for the	THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE ARTICLES 8 AND 9.	AY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR

CHAPPAQUA CENTRAL SCHOOL DISTRICT 66 ROARING BROOK ROAD P.O. BOX 21 CHAPPAQUA, NEW YORK 10514

CCSD BID #B2020-11: INSTALLATION AND INTEGRATION OF NEEDLEPOINT BIPOLAR IONIZATION IN ALL HVAC SYSTEMS THROUGHOUT THE SCHOOL DISTRICT IN ALL SCHOOL DISTRICT BUILDINGS, PUBLIC LIBRARY AND SCHOOL BUSES

PREVAILING RATE CERTIFICATION

The bidder agrees to verify all rates with the New York State Department of Labor prior to submitting a proposal and prior to doing any work for the District as well as to establish which of the those workers involved in any part of a contract for the District are required by law to receive said rates.

The bidder certifies that all personnel working on any project or any part of any project under this contract will be paid the prevailing rate or above in accordance with the current New York State Labor Laws in effect during the course of the contract. This includes all owners, partners and other management and other employees as required.

Subscribed and sworn to before me	
This day of	
•	Signature of Bidder
	_
Notary Public	Type or Print name signed above

CHAPPAQUA CENTRAL SCHOOL DISTRICT CCSD BID # B2020-11

INSTALLATION AND INTEGRATION OF NEEDLEPOINT BIPOLAR IONIZATION IN ALL HVAC SYSTEMS THROUGHOUT THE SCHOOL DISTRICT IN ALL SCHOOL DISTRICT BUILDINGS, PUBLIC LIBRARY AND SCHOOL BUSES

GENERAL BID DOCUMENT

Bid documents must be submitted in a sealed envelope bearing the assigned Bid Number on the outsi	ide
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Bids are to be sent to:

Chappaqua Central School District 66 Roaring Brook Road P.O. Box 21 Chappaqua, New York 10514

Attention: Purchasing Office

Any questions regarding this bid should be directed to the Purchasing Office at (914) 238-7200, Ext. 1013 or e-mail at mitrnik@ccsd.ws.

NOTE: If you intend mailing your bid, please note that our address is a Post

Office Box, and mail is picked up once a day. It is therefore

recommended that you mail your bids early or deliver them by hand to:

Chappaqua Central School District
Education Center
66 Roaring Brook Road
Chappaqua, New York 10514

Board of Education

Chappaqua Central School District

P.O. Box 21, Chappaqua, New York 10514

INSTRUCTIONS TO BIDDERS:

- Sealed proposals for the furnishing and delivery, where called for, of the services and materials as required by
 the Board of Education of the Chappaqua Central School District, Chappaqua, New York, as set forth in the
 attached specifications prepared under the direction of said Board of Education, will be opened at the
 Purchasing Office, Education Center, 66 Roaring Brook Road, Chappaqua, New York on 07/30/2020 at 2:00
 pm (CCSD Bid # B2020-11).
- 2. The person, firm or corporation making such proposal shall submit it in a sealed envelope at the place and on or before the hour and day stated above, and the envelope shall be endorsed on the face thereof with the name of the person, firm or corporation making such proposal, the date of its presentation and title of the services, materials, equipment or supplies for which such proposal is made.
- 3. The bidder shall insert the price per stated unit and the extension against each item in the schedule hereto annexed, which he proposes to furnish and deliver. In the event of a discrepancy between the unit price and total price, the unit price will govern. The price inserted must be net and must include delivery charges. Computation must be made of the total amount of the bid for all items bid upon and the total shall be stated in the space provided at the end of the schedule.
- 4. No charge will be allowed for cases, boxes, carboys, bottles, etc., nor for freight expenses, expressage or cartage. No empty packages, cases, boxes, carboys, bottles, etc., will be returned to the bidder or contractor and none will be paid for by the Board of Education. Such empty cases, boxes etc., may be removed by the bidder or contractor at his own expense.
- 5. No charge will be allowed for federal, state or municipal sales and excise taxes, in that the Board of Education is exempt there from. The price bid shall be net and shall not include the amount of any such tax; exemption certificates, if required, will be furnished on forms provided by the bidder.
- 6. When a catalog reference follows the description of an item, such catalog reference is intended as a means of more fully describing the item in the shortest possible space and is to be regarded as part of the description of the item. All catalogs to which reference is made shall be available at the business office. The use of such catalogs is not intended to limit competition.
- 7. Items delivered by successful bidder must be equal in all respects to those referred to by catalog numbers. Bidder must submit samples upon request if bidding on items other than those referred to.
- 8. Each bidder must state that no member of the Board of Education, Chappaqua Central School District, Chappaqua, New York, nor any officer or employee thereof, is directly or indirectly interested in the proposal.
- 9. The Board of Education reserves the right to accept this bid by items or as a whole, or, in its discretion to waive technical formalities, or reject all bids and re-advertise in the manner provided by Section 103, or the general municipal law.

- 10. Delivery will be required to be made to the location indicated in the bid or to such place as indicated in the purchase order issued to the successful bidder. Unless otherwise noted in the main specification, deliveries shall be made between the hours of 9:00 AM and 4:00 Pm on weekdays other than Saturdays and holidays. All materials and supplies must be securely packed in uniform containers, adequately marked as to contents and delivered without damage or breakage in such units as are specified in the schedule.
- 11. These instructions are to be considered an integral part of all proposals.
- 12. Successful bidders shall furnish the Board of Education, prior to commencement of work, with certificate of Workers' Compensation and General Liability Insurance.

Board of Education Chappaqua Central School District P.O. Box 21 Chappaqua, New York 10514

Chappaqua Central School District Chappaqua, NY 10514

GENERAL CONDITIONS

(For the purchase of materials, supplies, equipment to be sent and delivered to the district as well as services to be performed for the district)

All invitations to bid issued by the above-named school district will bind bidders and successful bidders to the conditions and requirements set forth in these general conditions, and such conditions shall form an integral part of each purchase contract awarded by the school district.

DEFINITIONS

"School district"	•	Shall be the legal designation of the district.
"Notice to bidders"	•	A formal statement which, when issued by the school district, constitutes an invitation to bid on the materials, supplies, and equipment described by the specifications.
"Board"	•	The Board of Education of the school district.
"Bid"	•	An offer to furnish materials, supplies, and/or equipment in accordance with the invitation to bid, the general conditions, special instructions, and the specification.
"Bidder"	•	The form on which the bidder submits his bid.
"Contract"	•	A notice to the successful bidder by the issuance of a purchase order: also all documents relating to the transaction, including but not limited to, the bid offer of the successful bidder, notice to bidders, general information, general conditions, special instructions, specifications, notice of award, bid proposal certifications: also a formal document signed by the successful bidder and the school district representative.
"Successful bidder"	•	Any bidder to whom an award is made by the school district.
"Contractor"	•	Any bidder to whom a contract award is made by the Board of Education.
"Specification"	•	Description of materials, supplies, and/or equipment and the conditions for its purchase.

BIDS

- 1. The date, time, and place of bid opening will be given to the Notice of Bidders.
- 2. All bids must be submitted on bid offer forms and in accordance with instructions provided by the Board.
- 3. All bids received after the time stated in the Notice to Bidders may not be considered and will be returned unopened to the bidder. The bidder assumes the risk of any delay in the mail or in the handling of the mail by employees of the school district. Whether sent by mail or by means of personal delivery, the bidder assumes responsibility for having his bid deposited on time at the place specified.
- 4. All information required by Notice to Bidders, General Conditions, Specifications, and Bid Offer, in connection with each item against which a bid is submitted, must b given to constitute a regular bid.
- 5. The non-collusive bidding certification must be included with each bid as required by General Municipal Law, Section 103-d.
- 6. The submission of a bid will be construed to mean that the bidder is fully informed as to the extent and character of the supplies, materials, or equipment required and a representation that the bidder can furnish the supplies, materials, or equipment satisfactorily in complete compliance with the specifications.
- 7. No alteration, erasure, or addition is to be made in the typewritten or printed matter. Deviations from the specifications must be set forth in space provided in bid for this purpose.
- 8. Prices and information required should be typewritten for legibility. Illegible or vague bids may be rejected. All signatures must be written. Facsimile, printed, or typewritten signatures are not acceptable.
- 9. Sales to school district are not affected by any fair trade agreements. (General Business Law, Section 369-a, Sub.3).
- 10. No charge will be allowed for Federal, State, or municipal sales and excise taxes since the school district is exempt from such taxes. The price bid shall be net and shall not include the amount of any such tax.
- 11. In all specifications, the words, "or equal," are understood after each article giving manufacturer's name or catalog reference, or on any patented article. The decision of the school district as to whether an alternate or substitution is in fact "equal" shall be final. If bidding on items other than those specified, bidder must in every instance give the trade designation of the article, manufacturer's name, and detailed specifications of item he proposes to furnish. Otherwise, bid will be construed as submitted on the identical item as specified.
- 12. Bids on equipment must be on standard, new equipment, of latest model, and in current production, unless otherwise specified.
- 13. All regularly manufactured stock electrical items must bear the label of the Underwriters' Laboratories, Inc.
- 14. When bids are requested on a lump sum basis, bidder must bid on each item in the lump sum group. A bidder desiring to bid "no charge" on an item in a group must so indicate; otherwise bid for the group may be rejected.
- 15. All prices quoted must be "per unit" as specified; e.g., do not quote "per case" when "per dozen" is requested; otherwise bid may be rejected.

- 16. Bidder must insert the price per unit and the extensions against each item in his bid. In the event of a discrepancy between the unit price and the extension, the unit price will govern. Prices shall be extended in decimals, not fractions.
- 17. Prices shall be net, including transportation and delivery charges fully prepaid by the successful bidder to destination indicated in the instructions to bidders. If award is made on any other basis, transportation charges must be prepaid by the successful bidder and added to the invoice as a separate item. In any case, title shall not pass until items have been delivered and accepted.
- 18. All bids must be sealed. They must be submitted in envelopes furnished by the school district, if any. Otherwise, plain opaque envelopes may be used, clearly marked "BID." Also the date and time of the bid opening as indicated on the Notice to Bidders must appear on the envelope. Bids must not be attached to or enclosed in packages containing bid samples. Telegraphed bids may be considered at the discretion of the school district. Telephoned quotations or amendments will not be accepted at any time.
- 19. No interpretation of the meaning of the specifications or other contract document will be made to any bidder orally. Every request for such interpretation should be in writing, addressed to the school district, not later than five (5) days prior to the date fixed for the opening of bids. Notice of any and all such interpretations and any supplemental instructions will be sent to all bidders of record by the school district in the form of addenda to the specifications. All addenda so issued shall become a part of the contract documents.
- 20. If the supplies, materials, or equipment are to be delivered over an extended period of time, or if the specifications so state, then the successful bidder may be required to execute an agreement in relation to the performance of his contract, such agreement to be executed by the bidder within fifteen (15) days after notification to execute such contract. If the specifications so state, the successful bidder also may be required to furnish a performance bond equal to the full amount of the contract to guarantee the faithful performance of such contract. Such performance bond shall be maintained in full force and effect until the contract shall have been fully performed. The surety company furnishing such performance bond shall be authorized to do business in the State of New York and must be satisfactory to the school district. The performance bond shall be executed by the successful bidder at the time of the execution of the contract by the successful bidder and the Board.

SAMPLES

- 21. All specifications are minimum standards; and accepted bid samples do not supersede specification for quality unless bid sample is superior, in which case deliveries must be the same identity and quality as accepted bid sample.
- 22. The school district reserves the right to request a representative sample of the item quoted upon either prior to the award or before shipments are made. If the sample is not in accordance with the requirement of the specification, the school district may reject the bid; or, if award has been made, cancel the contract at the expense of the successful bidder.
- 23. Samples, when required, must be submitted strictly in accordance with instructions; otherwise, bid may not be considered. If samples are requested subsequent to bid opening, they shall be delivered as directed for bid to have consideration. Samples must be furnished free of charge and must be accompanied by descriptive memorandum invoices indicating if the bidder desires their return and specifying the address to which they are to be returned provided they have not been used or made useless by tests. Award samples may be held for

comparison with deliveries. The school district will not be responsible for any samples destroyed or mutilated by examination or testing. Samples shall be removed by the bidder at his expense. Samples not removed within fifteen (15) days after written notice to the bidder will be regarded as abandoned, and the school district shall have the right to dispose of them as its own property.

24. When a specification indicates that an item to be purchased is to be equal to a sample, such sample will be on display at a designated location in the school district. Failure on the part of the bidder to examine samples shall not entitle him to any relief from the conditions imposed in the proposal, specification, etc.

AWARD

- 25. Awards will be made to the lowest responsible bidder, as will best promote the public interest, taking into consideration the reliability of the bidder, the quality of the materials, equipment, or supplies to be furnished, their conformity with the specifications, the purposes for which required, and the terms of delivery.
- 26. The school district reserves the right to reject all bids. Also reserved is the right to reject, for cause, any bid in whole or in part; to waive technical defects; qualifications; irregularities; and omissions if in its judgment the best interests of the district will be served. Also reserved is the right to reject bids and to purchase items on state or county contracts if such items can be obtained on the same terms, conditions, specifications, and at a lower price.
- 27. The school district reserves the right to make awards within thirty (30) days after the date of the bid opening during which period bids may not be withdrawn unless the bidder distinctly states in his bid that acceptance thereof must be made within a shorter specified time.
- 28. Where a bidder is requested to submit a bid on individual items and also on a total sum or sums, the right is reserved to award contracts on individual items or on total sums, whichever is in the best interests of the school district.
- 29. If two or more bidders submit identical bids as to price, the decision or the Board to award a contract to one of such identical bidder shall be final. (General Municipal Law, Section 103, Sub.1).

CONTRACT

- 30. Each bid will be received with the understanding that the acceptance thereof in writing by the Board, to furnish any or all of the items described therein shall constitute a contract between the successful bidder and the school district. Contract shall bind the successful bidder on his part to furnish and deliver at the prices and in accordance with the conditions of his bid. Contract shall bind the school district on its part to order from such successful bidder and to pay for at the contract prices, all items ordered and delivered, within ten (10) percent over or under the award quantity, unless otherwise specified.
- 31. The placing in the mail of a notice of award or purchase order to a successful bidder, to the address given in his bid, will be considered sufficient notice of acceptance of contract.
- 32. If the successful bidder fails to deliver as ordered, or within the time specified, or within reasonable time as interpreted by the school district, or fails to make replacement of rejected articles, when so requested immediately or as directed by the school district, the school district may purchase from other sources to take the place of the item rejected or not delivered. The school district reserves the right to authorize immediate purchase from other sources against rejections on any contract when necessary. On all such purchases the

successful bidder agrees to reimburse the school district promptly for excess costs occasioned by such purchases. Should the cost be less, the successful bidder shall have no claim to the difference. Such purchases will be deducted from contract quantity.

- 33. A contract may be cancelled at the successful bidder's expense upon nonperformance of contract.
- 34. Cancellation of contract for any reason may result in removal of the successful bidder's name from mailing list for future proposals for an indeterminate period.
- 35. When materials, equipment, or supplies are rejected, they must be removed by the successful bidder from the premises of the school district within ten (10) days of notification. Rejected items left longer than ten (10) days will be regarded as abandoned, and the school district shall have the right to dispose of them as its own property.
- 36. No items are to be shipped or delivered until receipt of an official purchase order from the school district.
- 37. It is mutually understood and agreed that the successful bidder shall not assign, transfer, convey, sublet or otherwise dispose of the contract or his right, title, or interest therein, or his power to execute such contract, to any other person, company, or corporation, without the previous written consent of the school district.

INSTALLATION OF EQUIPMENT

- 38. The successful bidder shall clean up and remove all debris and rubbish resulting from his work from time to time as required or directed. Upon completion of the work the premises shall be left in a neat, unobstructed condition, and the buildings broom cleaned, and everything in perfect repair and order. Old materials are the property of the successful bidder unless otherwise specified.
- 39. Equipment, supplies, and materials shall be stored at the site only on the approval of the school district and at the successful bidder's risk. In general, such on-site storage should be avoided to prevent possible damage or loss of the materials.
- 40. Work shall be progressed so as to cause the least inconvenience to the school district and with proper consideration for the rights of other successful bidders or workmen. The successful bidder shall keep in touch with the entire operation and install his work promptly.
- 41. Bidders shall acquaint themselves with conditions to be found at the site and shall assume all responsibility for placing and installing the equipment in the locations required.
- 42. Equipment for trade-in shall be dismantled by the successful bidder and removed at his expense. The condition of the trade-in equipment at the time it is turned over to the successful bidder shall be the same as covered in the specifications, except as affected by normal wear and tear from use up to the time of trade-in. All equipment is represented simply "as is." Equipment is available for inspection at the delivery point listed for new equipment, unless otherwise specified.

GUARANTEES BY THE SUCCESSFUL BIDDER

- 43. The successful bidder guarantees:
 - a) His products against defective material or workmanship and to repair of any damages or marring occasioned in transit.
 - b) To furnish adequate protection from damage for all work and to repair damages of any kind for which he or his workmen are responsible, to the building or equipment, to his own work, or to the work of other successful bidders.
 - c) To carry adequate insurance to protect the school district from loss in case of accident, fire, theft, etc.
 - d) That all deliveries will be equal to the accepted bid sample.
 - e) That the equipment delivered is standard, new, latest model of regular stock product or as required by the specifications; also that no attachment or part has been substituted or applied contrary to manufacturer's recommendations and standard practice. Every unit delivered must be guaranteed against faulty material and workmanship for a period of at least one year from date of delivery. If during this period such faults develop, the successful bidder agrees to replace the unit or the part affected without cost to the school district. Any merchandise provided under the contract which is or becomes defective during the guarantee period shall be replaced by the successful bidder free of charge with the specific understanding that all replacements shall carry the same guarantee as the original equipment. The successful bidder shall make any such replacement immediately upon receiving notice from the school district.

DELIVERY OF SUPPLIES, EQUIPMENT AND MATERIALS

- 44. Delivery must be made in accordance with the instructions to bidders and specifications. If delivery instructions do not appear on order, it will be interpreted to mean prompt delivery. The decision of the school district as to reasonable compliance with delivery terms shall be final.
- 45. The school district will no accept any deliveries on Saturdays, Sundays, or legal holidays, except commodities required for daily consumption or where the delivery is for an emergency.
- 46. Items shall be securely and properly packed for shipment, storage, and stocking in shipping containers and according to accepted commercial practice, without extra charge for packing cases, baling, or sacks.
- 47. The successful bidder shall be responsible for delivery of items in good condition at point of destination. He shall file with the carrier all claims for breakage, imperfections, and other losses, which will be deducted from invoices. The receiving school district will note for the benefit of successful bidder when packages are not received in good condition.
- 48. Unless otherwise stated in the specifications, all items must be delivered into and placed at a point within the building as directed by the shipping instructions or the agent for the school district. The successful bidder will be required to furnish proof of delivery in every instance.

- 49. Unloading and placing of the equipment and furniture is the responsibility of the successful bidder, and the school district accepts no responsibility for unloading and placing of equipment. Any costs incurred due to the failure of the successful bidder to comply with this requirement will be charged to him. No help for unloading will be provided by the school district, and suppliers should notify their truckers accordingly.
- 50. All deliveries shall be accompanied by delivery tickets of packing slips. Ticket shall contain the following information for each item delivered:

Contract Number and/or Purchase Order Number

Name of Article

Item Number (if applicable)

Quantity

Name of the Successful Bidder

Carton shall be labeled with purchase order or contract number, successful bidder's name and general statement of contents. Failure to comply with this condition shall be considered sufficient reason for refusal to accept the goods

PERFORMANCE OF SERVICES RENDERED

- 51. Successful bidder to provide skilled, experienced, prompt service as requested
- 52. Proof of proper licensure and certification pursuant to this conflict shall be furnished to the School District.
- 53. The successful bidder shall comply with all laws, rules, ordinances and regulations and the regulations of the School District and all directives issued by the School District.
- 54. No smoking, consumption of alcoholic beverages, or use of illegal drugs will be permitted anywhere on School Grounds.
- 55. The successful bidder shall not have any contact or communication with any student.
- 56. Under this contract, sub contracting shall not be permitted without prior written approval by the School District.
- 57. Successful bidder shall have tools and equipment/materials necessary to perform the required work.
- 58. Each bidder must demonstrate that it is a responsible organization possessing adequate financial resources to accomplish the various services as described herein and that it has a satisfactory record of performance and integrity.
- 59. No travel time will be paid.
- 60. No vehicle use will be paid in the normal course of transporting approved materials to the job site.

61. The successful bidder is to comply with all Federal, State and Local regulations relating to certification and licensure, labor, including but not limited to minimum hour wage, working conditions, insurance and safety factors and child labor laws.

PAYMENTS

- 62. Payment for the used portion of an inferior delivery will be made by the school district on an adjusted price basis.
- 63. Payment will be made only after correct presentation of claim forms or invoices as may be required.
- 64. Payments of any claim shall not preclude the school district from making claim for adjustment on any item found not to have been in accordance with the contract specifications.

SAVING CLAUSE

65. The successful bidder shall not be held responsible for any losses resulting if the fulfillment of the terms of the contract shall be delayed or prevented by wars, acts of public enemies, strikes, fires, floods, acts of God, or for any other acts not within the control of the successful bidder and which by the exercise of reasonable diligence he is unable to prevent.

IRAN DIVESTMENT ACT

66. By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid, each party thereto certifies as to its own organization, under penalty of perjury, that to the best if its knowledge and belief that each bidder is not on the list created pursuant to paragraph (b) of subdivision 3 of section 165-a of the state finance law.

PIGGYBACKING

67. Any school district, municipality or political subdivision of the State of New York may participate in this contract, upon written request to the Chappaqua Central School District, and authorization from the School District. Any such entity that wishes to "piggyback" on this bid shall be sorely responsible for submitting tax exemption information to the vendor/contractor and for paying for any goods and materials purchased. Any liability created as a result of purchases by other enumerated entities shall be the sole responsibility of such entity placing the order.

NOTE: NONCOLLUSIVE BIDDING CERTIFICATION MUST BE SUBMITTED WITH EACH BID. THE ENCLOSED FORM, "BID PROPOSAL CERTIFICATION/NON COLLUSION," MEETS THIS REQUIREMENT.

CCSD BID # B2020-11 : INSTALLATION AND INTEGRATION OF NEEDLEPOINT BIPOLAR IONIZATION IN ALL HVAC SYSTEMS THROUGHOUT THE SCHOOL DISTRICT IN ALL SCHOOL DISTRICT BUILDINGS, PUBLIC LIBRARY AND SCHOOL BUSES

FIRM NAME	
BUSINESS ADDRESS	
TELEPHONE NUMBER	DATE OF BID

I. <u>General Bid Certification</u> – The bidder certifies that he/she will furnish, at the prices herein quoted, the material, equipment, and/or services as proposed on this bid.

II. Non-Collusive Bidding Certification

By submission of this bid proposal, the bidder certifies that he/she is complying with Section 103-d of the General Municipal Law as follows:

- 1. Statement of non-collusion in bids and proposals to political subdivision of the state. Every bid or proposal hereafter made to a political subdivision of the state or any public department, agency or official thereof where competitive bidding is required by statute, rule, regulation, or local law, for work or services performed or to be performed or goods sold or to be sold, shall contain the following statement subscribed by the bidder and affirmed by such bidder as true under the penalties of perjury: Non-collusive bidding certification.
- "(a) By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:
 - (1) The prices in this bid have been arrived at independently without collusion, consultation, communication or agreement for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor; and
 - (2) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly discussed by the bidder and will not knowingly be disclosed by the bidder prior to opening directly or indirectly, to any other bidder or to any competitor;
 - (3) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition."

"(b) A bid shall not be considered for award nor shall award be made where (a) (1), (2) and (3) above have not been complied with; provided, however, that if in any case the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefore. Where (a) (1), (2), and (3) above have not been complied with, the bid shall not be considered for award nor shall any award be made unless the head of the purchasing unit of the political subdivision, public department, agency or official thereof to which bid is made, or his designee, determines that such disclosure was not made for the purpose of restricting competition.

The fact that a bidder (a) has published price lists, rates, or tariffs covering items being procured, (b) has informed prospective customers of proposed or pending publication of new or revised price lists for such items, or (c) has sold the same items to other customers at the same prices being bid, does not constitute, without more, a disclosure within the meaning of subparagraph one (a).

2. Any bid hereafter made to any political subdivision of the state of any public department, agency or official thereof by a corporate bidder for work or services performed or to be performed or goods sold or to be sold, where competitive bidding is required by statute, rule, regulation, or local law, and where such bid contains the certification referred to in subdivision one of this section, shall be deemed to have been authorized by the board of directors of the bidder, and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of the certificate as to non-collusion as the act and deed of the corporation."

Authorized Signature		
Γitle		

BOARD OF EDUCATION CHAPPAQUA CENTRAL SCHOOL DISTRICT

P.O. Box 21, Chappaqua, New York, 10514

CCSD BID # B2020-11 : INSTALLATION AND INTEGRATION OF NEEDLEPOINT BIPOLAR IONIZATION IN ALL HVAC SYSTEMS THROUGHOUT THE SCHOOL DISTRICT IN ALL SCHOOL DISTRICT BUILDINGS, PUBLIC LIBRARY AND SCHOOL BUSES

NAME OF BIDD	ER
BUSINESS ADD	RESS
TELEPHONE NU	UMBER
The bidder above	mentioned declares and certifies:
First	That the said bidder is of lawful age and the only one interested in this bid and that no one other than said bidder has any interest herein.
Second	That this bid is made without any previous understanding, agreement or connection with any other person, firm or corporation making a bid for the same purpose, and is in all respects fair and
Third	That no member of the Board of Education of Chappaqua Central School District, Chappaqua, New York, nor any officer or employee or person whose salary is payable in whole or in part from the treasury of said Board of Education is directly or indirectly interested in this bid or in the supplies, materials, equipment, work or services to which it relates, or in any portion of the profits thereof.
Fourth	That said bidder has carefully examined the instructions to bidders, schedules and specifications prepared under the direction of the Board of Education, and will, if successful in this bid, furnish and deliver at the prices bid, and within the time stated, all the materials, supplies, apparatus, goods, wares, merchandise, service or labor for which this bid is made.
Fifth	That the prices quoted herein are net and exclusive of all federal, state and municipal sales and excise taxes.
Sixth	That the total number of items for which prices are quoted is as listed in the enclosed attachments and the total cost thereof is also listed in those same attachments.
the case may be, the award made to and agrees to pay such items shall be	failure of the undersigned bidder to perform within the time stated in the schedule or purchase order, as he bid deposit made with this bid, or such much thereof as shall be applicable to the unfilled amount of the undersigned, shall be retained by the Board of Education and the undersigned shall also be liable for the Board, on demand, the difference between the prices or prices bid and the price or prices for which e subsequently purchased, less the amount available to the undersigned bidder and no bid may be the expiration of 45 days.
Subscribed and sw	vorn to before me
This	day of Signature of Bidder

Type or Print name signed above

Notary Public