



Harford County

Public Schools

102 South Hickory Avenue
Bel Air Maryland 21014



U.S. COMMUNITIES™
GOVERNMENT PURCHASING ALLIANCE



**Purchasing Department
410-638-4082**

**RFP # 15-JLP-023
REQUEST FOR PROPOSALS**

FOR

**HVAC PRODUCTS, INSTALLATION, SERVICES AND RELATED PRODUCTS
AND SERVICES**

Proposals Due August 13, 2015 before 2:30 pm

**THIS SOLICITATION IS MADE ON BEHALF OF HARFORD COUNTY
PUBLIC SCHOOLS, MARYLAND AND OTHER GOVERNMENTAL
AGENCIES AND MADE AVAILABLE THROUGH THE U.S. COMMUNITIES
GOVERNMENT PURCHASING ALLIANCE.**

Bid Notification

Notice is hereby given that Harford County Public Schools (HCPS) (District) on behalf of itself and other government agencies and made available through the U.S. Communities Government Purchasing Alliance, will receive proposals for

RFP #15-JLP-023

HVAC PRODUCTS, INSTALLATION, SERVICES AND RELATED PRODUCTS AND SERVICES

Proposals must be received prior to **2:30 PM on August 13, 2015** in the District's Purchasing Department. Proposals must be sealed, prominently marked with the RFP number, title, due date, time, and name of vendor on outside of envelope.

Proposals should be delivered/mailed to:

Harford County Public Schools
Attention: Purchasing
102 South Hickory Ave.
Bel Air, MD 21014

RFP documents are available from the Harford County Public Schools website
<http://www.hcps.org/departments/BusinessServices/purchasing.aspx>

and from eMaryland Market Place, <https://emaryland.buyspeed.com/bsol/>

A Pre-Proposal meeting will be held June 29, 2015 at 1:00 PM at the North Harford Middle School in Room A-4. The address for North Harford Middle School is, 112 Pylesville Rd, Pylesville, MD 21132.

Refer any questions to the availability of documents to Sherry Ramsey Downen at (410) 809-6046 or email at sherry.ramseydownen@hcps.org

HCPS does not discriminate in the choice of suppliers and the award of bids/contracts based on race, sex, age, national origin, religion or disability.

Table of Contents

Notice to Vendors	2
Section 1 – General Information.....	5
Introduction.....	5
Calendar of Events.....	7
Contract Term	8
Pre-Proposal Conference.....	12
Section 2 - Scope of Work.....	13
Proposal Submission.....	13
Checklist of Required Information	18
Section 3 - Evaluation and Selection Process	19
Section 4 - Proposal Format.....	21
Section 5 - Harford County Public Schools Contract Agreement.....	23
Section 6 - U.S. Communities Overview.....	27
Supplier Qualifications	31
Supplier Worksheet	38
New Supplier Implementation Timeline.....	39
Supplier Information Required	41
Attachment 1 – Signature Sheet	49
Attachment 2 – Anti-Bribery and Debarment Affidavit.....	50
Attachment 3 - Master Intergovernmental Cooperative Purchasing Agreement.....	51
Attachment 4 - U.S. Communities Administration Agreement.....	53
Attachment 5 - State Notice Addendum	67
Attachment 6 - FEMA Standard Terms and Conditions Addendum.....	86
Attachment 7 - Community Development Block Grant Addendum	88
Attachment 8 - Price Project and Scenario Descriptions.....	89
Project 1: North Harford Middle School Chiller Replacement	90
MBE Instructions and Goals.....	95
MBE Attachments A – H (A and B MUST be returned with your proposal)	97-106
Project 2: Packaged Rooftop Air Conditioner	107
Project 3: Indoor Air Handling Unit	114
Project 4: Air Cooled Scroll Chiller.....	118

Table of Contents Cont'd

Project 5: Centrifugal Water Chiller	122
Project 6: Unit Ventilator	127
Attachment 9 - Cost Proposal Forms/Bid Forms	131
Cost Proposal Form/Bid Form Price Project 1, NHMS	138
Signature Page	144

Note: Items in **bold** must be returned with your proposal.



HARFORD COUNTY PUBLIC SCHOOLS

**Purchasing Department
102 South Hickory Avenue
Bel Air, Maryland 21014
Telephone: 410.638.4082**

**Request for Proposal
HVAC Products, Installation, Services and Related Products and Services**

Section 1- General Information

A. Introduction

It is the intent of this RFP to solicit sealed proposals from qualified business entities to provide and install a Chiller at the Harford County Public Schools North Harford Middle School, and also provide comprehensive HVAC Products, Installation, Services and Related Products and Services on a national level. This contract will allow government agencies to purchase the products and services defined herein, in indefinite quantities on an as-needed basis.

The method of procurement will be a competitive negotiation via a Request for Proposal (RFP) which may include the submission of best and final offers.

Price will not be the sole determinant for the award. As defined by the American Bar Association Model Procurement Code, Competitive Sealed Proposals (RFP) will be evaluated based upon criteria formulated around best value which may include among other criteria: price, quality, performance, references, financial information and the ability to successfully market to states, local governments, school districts, higher education institutions and other government agencies and nonprofit organizations.

B. Background

This solicitation is being administered by Harford County Public Schools for those public entities that elect to access the Master Agreement through the U.S. Communities Government Purchasing Alliance.

The Harford County Public Schools System (HCPS) is the seventh largest of the 24 Maryland School Systems. HCPS has 54 schools and a total enrollment of approximately 39,000 students.

C. Procurement Administrator

Jeff LaPorta, CPPB, Supervisor of Purchasing, will administer the solicitation process and will be the point of contact for purposes of this Request for Proposal. All questions and inquiries should be emailed to Jeff.LaPorta@hcps.org. All questions should be received no later than July 3, 2015 at 2:30 pm eastern time. Responses to questions will be addressed in the form of a formal Addendum. Responses will not be made to telephone, faxed or mailed inquiries.

D. Proposal Submission

Three (3) original hard copies and eight (8) flash drive copies of the technical proposal, and two (2) original hard copies and two (2) flash drives of the cost proposal shall be submitted to, or hand delivered to Harford County Public Schools, 102 S. Hickory Ave. Bel Air Maryland 21014 to the attention of the Purchasing Department no later than August 13, 2015, 2:30PM. Proposals must be submitted in envelopes or other mailing containers showing the RFP number, firm's name and address, and the proposal due date on the outside. Late proposals will not be accepted and will be returned unopened. A Register of Proposals will be prepared at the closing time.

Additionally, if you label any information in your technical proposal as proprietary or confidential, you must submit one redacted copy, in electronic version, of the technical. See Section I, page 6 for details.

E. Proposal Acceptance

Proposals including prices must remain valid for a period of not less than one hundred, twenty (120) days to allow for evaluation, School Board approval and Contract execution. Harford County Public Schools reserves the right to accept or reject any or all proposals, waive informalities and select the most favorable proposal that will serve its best interest as well as the best interest of those participating governmental entities.

F. Calendar of Events (Subject to Change)

Event	Date
Issue RFP	June 11, 2015
Pre-Proposal Conference (not mandatory)	June 29, 2015 – 1:00 pm
Questions due	July 3, 2015 – 3:30pm
Addendum Issued	July 15, 2015
RFP due date	August 13, 2015 – 2:30pm
Evaluations/Negotiations/Interview	September 1-3, 2015
Awardee Notified	September 10, 2015
Board Approval	September 21, 2015
Tentative Contract Start Date	October 1, 2015

G. Incurring RFP Preparation Cost

Harford County Public Schools accepts no responsibility for any expense incurred in the proposal preparation, on-site presentation, mailings etc.

H. Insurance Requirements

Insurance requirements are contained in General Requirements, attached herewith. The Contractor must have in force and will maintain insurance, not less than the amounts specified. These insurance requirement are only specific to purchases made to HCPS and do not apply to other entities who use this agreement. Individual public entities may have their own specific insurance requirements.

I. Confidential Information

Redacted versions of technical trade secrets or proprietary information submitted in response to this solicitation must be clearly labeled as “Confidential” and may not be disclosed unless required under the appropriate freedom of information statute. Proposers must clearly identify the data or other materials to be protected and state the reasons why protection is necessary. If awarded, the RFP and all related documents and proposal submissions will become part of the contract award.

PUBLIC INFORMATION ACT - A redacted copy of your bid submission in electronic PDF format (or similar) shall be submitted with your Offering. A redacted copy is considered to be edited, modified, or otherwise revised from which confidential, sensitive and proprietary information has been removed. The redacted copy shall be for your Technical Proposal only.

This redacted copy will be used to respond to Freedom of Information Act request(s) in accordance with the law, the Maryland Public Information Act, Section 10-611 et seq. of the State Government Article of the Annotated Code of Maryland. HCPS reserves the right to modify the redacted copy within its authority under the law. If a redacted copy is not provided, HCPS will assume that all information provided is public information that will be used to respond to any request under this Act.

J. Contract Term

The term of the contract will be for three years following the contract award date with the option to renew for two additional two year periods.

K. Pricing

Labor rates should be based on regional and national rates. The Awarded Supplier may submit requests for labor rate increases on an annual basis, sixty (60) days prior to the anniversary contract date. Price increase requests are not automatic and must be approved by the Supervisor of Purchasing for the Lead Agency (Harford County Public Schools).

The pricing structure, or percent discount for product pricing will remain fixed for the term of the contract.

Supplier agrees to offer all future product and service introductions at similar pricing as that offered through this solicitation and contract.

L. Permits and Licenses

The Contractor is responsible for obtaining any necessary licenses and permits, and for complying with any applicable Federal, State, and municipal laws, codes, and regulations, in connection with the prosecution of the work without additional expense. The Contractor is similarly responsible for all damages to persons or property that occurs as a result of their fault or negligence. The Contractor shall take proper safety and health precautions to protect the work, the workers, the public, and the property of others. The Contractor is also responsible for all materials delivered and work performed until completion and acceptance of the entire construction work, except for any completed unit of construction previously accepted.

M. Drug, Tobacco and Alcohol

All HCPS properties are “drug, tobacco and alcohol free zones” as designated by Local and State laws. Neither the Contractor or their employees (or subcontractors) are permitted to have any drugs, tobacco or alcohol products on

HCPS property. Use of such items on HCPS property may result in termination of the contract.

N. Illegal Immigrant and Child Labor

The use of illegal immigrant labor and/or illegal child labor to fulfill contracts solicited by HCPS is in violation of the law and is strictly prohibited. Contractors and subcontractors must verify employment eligibility of workers in order to assure that they are not violating any Federal, State or Local laws regarding illegal or child labor laws.

O. Employment of Child Sex Offenders

Maryland Law requires certain child sex offenders to register with the State and with the local law enforcement agency in the county in which they will reside, work and/or attend school. Section 11-722(c) & (D) of the Criminal Procedure Article of the Annotated code of Maryland states, *“A person who enters into a contract with a County Board of Education or a non-public school may not knowingly employ an individual to work at a school if the individual is a registrant. A person who violates this section is guilty of a misdemeanor and on conviction is subject to imprisonment not exceeding five years or a fine not exceeding \$5,000 or both.”*

If a child sex offender, as determined by the definitions contained in the Criminal Law Article of the Annotated Code of Maryland, is employed by the Contractor, the Contractor is prohibited from assigning that employee to perform management, delivery, installation, repair, construction or any other type of services on any Harford County Public School property, including the project property. Violation of this provision may result in Termination for Cause as defined in the Amendments to the General Conditions, Article 14.2.1.2.

P. Criminal Background Check/Photo Identification Badge/Fingerprinting

It is the responsibility of the Offeror to make certain that its employees, agents, volunteers, and Contractors who may have contact with students are in compliance with Title 5, Subtitle 5, Part VI, of the Family Law Article of the Maryland Code. The Offeror shall comply with the Criminal Procedure Article of Annotated Code of Maryland Section 11-722. The Offeror shall utilize the same screening services for criminal backgrounds as used by the Board in order that the Board can have consistency with all those individuals permitted to work in schools and with children. Therefore, the Offeror shall require that all employees providing services to students be screened via the Criminal Justice Information Service (CJIS) and NCIC. All related costs shall be borne by the Contractor.

Each Contractor shall screen their work-forces to ensure that a registered sex offender does not perform work at HCPS and also ensure that a subcontractor and

independent contractor conducts screening of its personnel who may work at a school. The term “work force” is intended to refer to all of the Contractor’s direct employees and subcontractors and/or independent contractors it uses to perform the work. Violation of this provision may cause HCPS to take action against the Contractor up to and including termination of the Contract. HCPS reserves the right, in its sole discretion, to reject or require the removal of any person proposed for placement based on the person’s criminal background check.

Q. Labor and Rates of Pay

The Awarded Offeror agrees that it shall abide by all applicable provisions of Federal and State law and regulation pertaining to workplace conditions, child labor and that all employees will be treated with dignity and respect.

The Awarded Offeror agrees to comply with all applicable Federal and State law and regulation relating to payment of wages.

R. Termination for Cause

If the Contractor fails to fulfill its obligations under this contract properly and on time, or otherwise violates any provision of the contract, Harford County Public Schools may terminate the contract by written notice to the Contractor. HCPS can affirmatively collect damages which may result from the Contractor’s breach.

S. Disputes

Except as otherwise provided in these contractual documents, any claim, dispute, or other matter in question shall be referred to the Harford County Public Schools Director of Purchasing, who shall decide the issue and provide a written response to the Contractor. The decision of the Supervisor of Purchasing shall be final and conclusive.

The contract shall be governed by the laws of the State of Maryland and nothing in this contract shall be interpreted to preclude the parties seeking any and all remedies provided by law. All protests must be in writing and submitted to the Supervisor of Purchasing. Prior to dispute resolution through the appropriate legal means, i.e. adjudicated by the appropriate Courts, the parties will participate in Alternative Dispute Resolution (ADR), in an attempt to resolve the dispute in accordance with the commercial Rules of the American Arbitration Association in effect at the time. All disputes shall be decided by a single arbitrator. All costs associated with ADR will be borne by the awarded contractor.

T. Billing and Payment

Unless otherwise instructed, the preferred method of (order) and payment is by credit card. Please advise in your Technical Proposal if payment via credit card is not acceptable.

Any unacceptable payment options must be clearly articulated in the technical submission.

U. Multi-Agency Procurement

Harford County Public Schools assumes no authority, liability, or obligation, on behalf of any other public or non-public entity that may use any contract resulting from this Request for Proposal. All purchases and payment transactions will be made directly between the Contractor and the requesting entity. Any exceptions to this requirement must be specifically noted in the proposal response.

V. About This Document

This document is a Request for Proposal (RFP). It differs from a Request for Bid/Quotation in that Harford County Public Schools is seeking a solution, as described in the cover page and in the following sections, not a bid/quotation meeting firm specifications for the lowest price. As such, the lowest prices proposed may not guarantee an award recommendation. As defined in the American Bar Association Model Procurement Code, Competitive Sealed Proposals will be evaluated based upon criteria formulated around the most important features and best value of a product or service, of which quality, testing, references, and availability or capability, may be overriding factors, and price may not be determinative in the issuance of a contract or award. The proposal evaluation criteria should be viewed as standards that measure how well a contractors' approach meets the desired requirements and needs of Harford County Public Schools and U.S. Communities. Those criteria that will be used and considered in evaluation for award are set forth in this document.

No negotiations, decisions, or actions shall be initiated by any proposers as a result of any verbal discussion with any Harford County Public Schools member or U.S. Communities staff prior to the opening of proposals in responses to this document. RFP Offerors shall make no contacts – either written or verbal – with any individual other than the individual identified herein during the period beginning with the issuance of this RFP through approval of award. Any attempt by a supplier/proposer to influence a member or members of the aforementioned may be grounds to disqualify the proposal from the proposer from further consideration.

If awarded, this RFP document in its entirety including attachments, appendices and addenda will become part of the Contract. Harford County Public Schools reserves the right to reject any or all proposals at any time and make necessary

arrangements to contract for the services or work described and proposed in the manner most feasible and applicable when in its best interest to do so.

W. Award

This may result in award to one, or more than one vendor. Harford County Public Schools reserves the right to award to one vendor for the specific North Harford Middle School chiller and installation, and award to another vendor for the award of supplier for national supply and services.

X. Anti-discrimination

It is the policy of the Harford County Public Schools that in connection with all work performed under Purchasing Contracts there shall be no discrimination against any prospective or active employee engaged in the work because of sexual orientation, physical and mental disability, medical conditions, marital status, age, pregnancy, veteran status, gender, race, color, ancestry, national origin, sex, or religious creed. Therefore, the Vendor agrees to comply with applicable Federal and State laws.

Y. Multiple Proposals

Multiple proposals from a firm, partnership, corporation or association under the same or different names are subject to rejection unless specifically permitted in the solicitation. Reasonable grounds for believing that an Offeror is interested in more than one proposal for the work contemplated may result in rejection of all proposals in which the Offeror is interested.

Z. Pre-Proposal Conference

A pre-proposal conference will be held on June 29, 2015, beginning at 1:00 PM EST. The location will be at the North Harford Middle School, 112 Pylesville Road, Pylesville, MD 21132, Room A-4.

Section 2- Scope of Work

Outcome

The expected outcome of this proposal is to enter into a contractual relationship with a business partner(s) who will provide a comprehensive selection of HVAC products and solutions, including complete turn-key services.

Suppliers are to propose the broadest possible selection of HVAC EQUIPMENT, INSTALLATION, SERVICES AND RELATED PRODUCTS AND SERVICES. This solicitation is to provide Participating Public Agencies with products, services and turn-key solutions to meet their various needs. Therefore, the Suppliers should have demonstrated experience in providing the Products and Services as defined in this RFP, including but not limited to:

1. **HVAC Products:** This includes, but is not limited to, Chillers: air-cooled chillers, water-cooled chillers, compressor chillers, ancillary chiller water plant equipment and absorption liquid chillers; unitary systems that combine heating, cooling and fan sections: rooftop systems, split systems, self-contained systems and water source heat pumps; air handling systems: performance air handlers, blower coil air handlers, make-up air gas heating systems, air handler options and air cleaning options; terminal devices: unit heaters, unit ventilators, fan coil units, ventilation fans and variable air volume; ductless variable refrigerant volume units; dedicated outdoor air systems; replacement coils; parts and aftermarket products and any other HVAC products offered by Supplier.
2. **Installation and Services:** This includes, but is not limited to, any installation of new equipment, maintenance of existing systems, upgrading of existing infrastructure, turn-key services and any other installation and services offered by Supplier.
3. **Related Products and Services:** This includes, but is not limited to, HVAC equipment controls, thermostats, sensors, design and analysis tools, commissioning, building management, enterprise management, rental and lease services, financial services and any other related products and services offered by Supplier.

Proposal Submission

This RFP requires a two-part submission process. Separate technical and price proposals are to be submitted in sealed envelopes on the date and time stipulated. Three (3) original and eight (8) flash drive copies of the technical copies shall be submitted or hand delivered. Two (2) original and two (2) flash drive copies of the cost proposal shall be submitted.

The proposal due date is August 13, 2015 at 2:30PM. Late proposals will not be accepted and will be returned unopened. A Register of Proposals will be prepared at the closing time and will be available for inspection.

Definitions

Definitions as used herein:

- A. The term “solicitation” used in this document means this Request for Proposal (RFP).
- B. The term “offer” and “proposal” are used synonymously and mean a response to this solicitation.
- C. The terms “offeror”, “proposer”, “supplier” and “contractor” are synonymous and refer to the entity/business/individual that submits a response to this solicitation.
- D. Harford County Public Schools, Maryland may be referred to as “HCPS”.
- E. U.S. Communities is a non-profit that assists Participating Public Agencies in reducing the cost of purchased goods through strategic sourcing that combines the volumes and the purchasing power of public agencies nationwide.
- F. Participating Public Agency (PPA) is any state, county, city, special district, local government, school district, private K-12 school, technical or vocational school, higher education institution (including community colleges, colleges and universities, both public and private), other government agency or nonprofit organization that elects to use one or more U.S. Communities contracts.

Labor Wage Classification Definitions

Definitions as used herein for establishing labor rates.

LABOR WAGE CLASSIFICATION DEFINITIONS	
Architect	Professional licensed designer providing Architectural drawings.
Asbestos Worker	Worker who removes and disposes of asbestos materials.
Boilermaker	Worker who assembles boilers, tanks, vats and pressure vessels. The duties of the boilermaker include welding, acetylene burning, riveting, caulking, rigging, fitting up, grounding, reaming and impact machine operating.

Carpenter	Worker who builds wood structures or structures of any material which has replaced wood. Includes rough and finish carpentry, hardware and trim.
Carpet/Floor Installer	Worker who installs carpet and/or floor coverings and vinyl tile.
Commissioning Agent	Agent who ensures proper installation and operation of technical building systems.
Concrete Finisher	Worker who floats, trowels and finishes concrete.
Data Communications / Telecommunications Installer	Worker who installs data/telephone and television cable and associated equipment and accessories.
Delivery Personnel	Worker who can deliver materials to other HVAC personnel as well as work as a second man on jobs if necessary.
Drafting	Worker who provides detail engineering drawings utilizing CADD type documents.
Drywall/Ceiling Installer	Worker who installs metal framed walls and ceilings, drywall coverings, ceiling grids and ceilings.
Duct Cleaner	Worker who cleans air conveyance systems using compressed air tools and mechanical agitation devices to dislodge dirt and other contaminants from the ductwork and other HVAC components.
Electrician	Skilled craftsman who installs or repairs electrical wiring and devices. Includes fire alarm systems and HVAC electrical controls.
Elevator Mechanic	Craftsman skilled in the installation and maintenance of elevators.
Engineering Designer	Professional licensed engineer who lays out HVAC, plumbing, electrical, structural or civil systems.
Fire Proofing Installer	Worker who sprays or applies fire proofing materials.
Geothermal Well Field Labor	Worker who lays coiled pipe and tests and connects to HVAC equipment in earthen trench.
Glazier	Worker who installs glass, glazing and glass framing.
Heavy Equipment Operator	Equipment operator that operates the following, including but not limited to, all Cat tractors, all derrick-powered, all power operated cranes, back-hoe, back filler, power operated shovel, winch truck, all trenching machines.
HVAC Building Automation Technician	Worker who is capable of working on low temperature refrigeration equipment as well as small commercial equipment under 60 tons.
HVAC Commercial A/C Technician	Worker who is capable of working on large commercial up to 3000 tons.
HVAC Light Commercial	Worker who is capable of working on small commercial up to 25 tons.
HVAC Duct Installer	Worker who installs ductwork. Assists with some equipment installation.

HVAC Field Supervisor	Worker who monitors quality as well as provide technical support to all other HVAC technician skill levels.
HVAC Filter Technician	Worker who changes filters in all types of HVAC equipment as well as minor maintenance on light commercial equipment such as changing worn belts.
HVAC Helper	Worker who can assist a commercial or refrigeration technician as well as perform minor analysis and repairs on equipment under 30 tons.
HVAC Refrigeration Technician	Worker who is capable of working on low temperature refrigeration equipment as well as small commercial equipment under 60 tons.
Insulator	Worker who applies, sprays or installs insulation.
Iron Worker	Skilled craftsman who erects structural steel framing and installs structural concrete rebar.
Laborer/Helper	Worker qualified for only unskilled or semi-skilled work, including but not limited to, lifting, carrying materials and tools, hauling, digging, clean-up.
Lather/Plasterer	Worker who installs metal framing and lath. Worker who applies plaster to lathing & installs associated accessories
Light Equipment Operator	Includes, but is not limited to, operation of air compressors, truck crane driver, flex plane, building elevator, form grader, concrete mixer (less than 14cf), conveyer.
Mason, Bricklayer	Craftsman who works with masonry products, stone, brick, block or any material substituting for those materials and accessories.
Metal Building Assembler	Worker who assembles pre-made metal buildings.
Millwright	Mechanic specializing in the installation of heavy machinery, conveyance, wrenches, dock levelers, hydraulic lifts and align pumps.
Painer/Wall Covering Installer	Worker who prepares wall surfaces & applies paint and/or wall covering, tape and bedding.
Pipefitter	Trained worker who installs piping systems, chilled water piping and hot water (boiler) piping, pneumatic tubing controls, chillers, boilers and associated mechanical equipment.
Plumber	Skilled craftsman who installs domestic hot & cold water piping, waste piping, storm system piping, water closets, sinks, urinals, and related work.
Project Engineer	Worker who monitors the engineering documents as well as provide technical support regarding the engineering plans and specifications as designed by the Professional Engineer. Worker is responsible for maintaining project status and reports.

Project Manager	Worker who monitors quality as well as provide technical support to all other HVAC technician skill levels and is responsible for maintaining project status and reports.
Project Administrator	Worker who provides administrative support to all technician skill levels and is responsible for all administrative functions of the project such as billings, contracts, work orders, legal requirements, purchase orders, sales tax certificates as well as proper record keeping.
Rofer	Worker who installs roofing materials, Bitumen (asphalt and coal tar) felts, flashings, all types roofing membranes & associated products.
Sheet Metal Worker	Worker who installs sheet metal products. Roof metal, flashings and curbs, ductwork, mechanical equipment and associated metals.
Sprinkler Fitter	Worker who installs fire sprinkler systems and fire protection equipment.
Terrazzo Worker	Craftsman who places and finishes Terrazzo.
Tile Setter	Worker who prepares wall and/or floor surfaces & applies ceramic tiles to these surfaces.
Waterproofer/Caulker	Worker who applies water proofing material to buildings. Products include sealant, caulk, sheet membrane, liquid membranes, sprayed, rolled or brushed.
Test and Balance Technician	Certified technician per AABC or NEBB standards trained to perform water and air balance. Also provides sound and vibration testing and preparing of certified reports.
Infrared Technician	Worker who utilizes infared photography to determine location of thermal heat losses.
Water Treatment Technician	Certified technician who is trained to evaluate analytical test results on boiler system water, condenser water, and chill water samples and to make appropriate recommendations regarding residual levels, cycles, and feed rates.

Specific Information Requested From All Proposal Submitters

Harford County Public Schools may make such investigations deemed necessary to determine the ability of the Offeror to furnish the necessary requirements described herein. The Offeror shall furnish, to Harford County Public Schools, all data and information requested in order to determine the Offerors ability to perform under this RFP. Harford County Public Schools reserves the right to reject any offer if the evidence submitted by, or investigation of, such Offeror

fails to satisfy Harford County Public Schools that such Offeror is qualified to carry out the obligations of the contract.

The following is a checklist of required information:

#	Item	Complete
1	3 Original Technical Proposals, 8 flash drives (pg 6)	
2	2 Original Price Proposals, 2 flash drives (pg 6)	
3	HCPS Contract Agreement (pg 23)	
4	Supplier Qualification Worksheet (pg 38)	
5	Supplier Information (pg 41-48)	
6	Submission Signature Sheet (pg 49)	
7	HCPS Anti-Bribery – Debarment Attestation (pg 50)	
8	U.S. Communities Administration Agreement - Signed Unaltered (pg 53-65)	
9	MBE Attachment A (pg97-98)	
10	MBE Attachment B (pg 99)	
11	Cost Proposal Forms (pg 131)	
12	Cost Proposal Form for North Harford Middle School (pg 138)	
13	Signature Page (pg 144)	

Section 3- Evaluation and Selection Process

The evaluation criteria are set forth below and are intended to be the basis by which each proposal shall be evaluated. This is a two-step evaluation process. Technical Proposals and Price Proposals shall be submitted separately and labeled accordingly. Each proposal will be assigned an adjectival rating score as described below.

The Supervisor of Purchasing of Harford County Public Schools along with U.S. Communities has selected a committee of qualified personnel to review and evaluate proposals submitted (evaluation committee). The Supervisor of Purchasing will recommend the award of the contract as determined by the evaluation committee after taking into consideration all of the evaluation criteria. The Supervisor of Purchasing will award a contract only to the Offeror/s determined responsive and responsible, and representing the best value to Harford County Public Schools and Participating Agencies based on a final evaluation of both the technical and price proposals.

HCPS reserves the right to reject any and all proposals and/or to waive any minor informalities.

Harford County Public Schools reserves the right to terminate negotiation when, in its judgment, negotiations have reached an impasse. The successful Offeror will be required to execute a contract with Harford County Public Schools and the contract will include all of the provisions of this RFP, including conditions, attachments and addenda issued. Unsuccessful Offerors may request a debriefing meeting concerning the selection process. The debriefing will occur after contract award.

Evaluation Criteria Definitions:

- A. Discussion: Oral or written communications including negotiations between the Harford County Public Schools and an Offeror that involves information essential for determining the acceptability of the proposal or to cure identified defects in the proposal.
- B. Clarification: Communication with an Offeror for the sole purpose of eliminating minor irregularities, informalities, or apparent clerical mistakes in the proposal. Unlike discussion, clarification does not give the Offeror an opportunity to revise or modify its proposal, except to the extent that correction of apparent clerical mistakes results in revision.
- C. Deficiencies: Any defects in the proposal which preclude acceptance. Involves any part of the Offeror's proposal which would not satisfy the minimum requirements established in this solicitation. It may also include failure to provide information and questionable technical or management approaches.

- D. Weakness: Aspect of or omission from an Offeror's proposal that includes ambiguities and conflicts within the proposal, lack of complete descriptions, errors in interpretation, omissions of essential information, inadequate information that prevent the evaluators from knowing the intent of the proposal.
- E. Strengths: Elements of the proposal that meet or exceed the outcomes identified and may provide additional benefits beyond what is specified.

Adjectival Ratings:

- A. Outstanding (9-10): Exceeds evaluation standards in a beneficial way and meets the outcomes identified and contains strengths and no weaknesses or deficiencies. The proposal submitted is innovative, comprehensive and complete in all details and meets or exceeds performance standards.
- B. Excellent (7-8): Exceeds evaluation standards in a beneficial way and meets the outcomes identified. Comprehensive and complete and has no significant weaknesses. May be lacking some of the strengths but generally meets performance standards.
- C. Acceptable (4-5-6): Meets outcomes and performance standards and may contain weaknesses which are not significant and may be correctable.
- D. Marginal (1-2-3): Fails to meet evaluation standards. Lacks essential information to support the proposal. Does not contain the outcomes and contains significant weaknesses.
- E. Unacceptable (0): Fails to meet minimum evaluation standards and the deficiencies and weaknesses are uncorrectable. Demonstrated a lack of understanding of requirements or omissions of major areas.

Section 4 – Proposal Format

Technical Proposal Format

Your Technical Proposal should be organized with tabs delineating the separation of sections. Your Technical Proposal should include all of the required items listed in the checklist on page 15.

Cost Proposal Criteria

The Offeror must submit the cost proposal, in the form of the Bid Form, in a separate sealed envelope, clearly marked, fully supported by cost and pricing data adequate to establish the reasonableness of the proposed fees.

All pricing submitted in the Bid Form must be inclusive of all fees and service/shipping charges.

When award is made, the successful Supplier shall furnish current catalogs and/or price lists which shall become a part of the contract. The Supplier's name and address shall appear on all catalogs and price lists. Where the price list shows more than one column of prices, Supplier shall clearly mark the column which represents the discounted pricing to Participating Public Agencies.

For evaluation purposes, Offeror must submit specific pricing for the Sample Price Scenarios outlined in Attachment 8. Pricing must be reflective of, and based on the pricing structure submitted on the Bid Form.

All prices are FOB destination.

Alternative Costing Method: If a project requires products and services that are not covered on the Bid Form or if a product or service is required that is more appropriate to be custom designed and manufactured to meet an individual project site's conditions and/or provided for a unique application or project, the Contractor may use the alternative costing method as follows:

The Contractor will be required to:

Obtain three (3) written cost proposals from local providers:

- Use the most advantageous cost proposal;
- Apply the U.S. Communities discount as submitted on the Bid Form; and
- All products and services falling under this category must be submitted in advance and approved by the Participating Public Agency prior to being included in any quote or proposal from the Supplier

Offeror shall be responsible for compliance with any federal, state or local prevailing wage laws.

Price/Discounts must remain firm and will include all charges that may be incurred in fulfilling requirements.

Invoices will be audited on a random basis along with the necessary supporting documentation. Billing errors will be promptly adjusted.

Section 5 – Harford County Schools Purchase Agreement

MASTER PURCHASE AGREEMENT:

By and Between:

HARFORD COUNTY PUBLIC SCHOOLS, MARYLAND

102 S. Hickory Ave.

Bel Air, MD 21014

and

THIS MASTER PURCHASE AGREEMENT made and entered into this, ____ day of _____, 2015, by and between Harford County Public Schools, Maryland (hereinafter referred to as “School District”, “HCPS” or “District”), and

_____, a corporation authorized to conduct business in the State of Maryland (hereinafter referred to as “Supplier”)

This agreement is made on behalf of Harford County Public Schools, Maryland and other participating governmental agencies, through the U.S. Communities Government Purchasing Alliance.

WITNESSETH:

WHEREAS, pursuant to the District, Supplier has submitted a proposal to provide a master agreement for a National Award covering the following: HVAC products, installation, services and related products and services in accordance with the scope, terms and conditions of Request for Proposal, RFP 15-JLP-023, addenda, amendments, appendices, and related correspondence. The Request for Proposal is incorporated in its entirety and included as part of this agreement.

WHEREAS, HCPS desires to engage Supplier to perform said services; and

WHEREAS, HCPS and Supplier desire to state terms and conditions under which Supplier will provide said services to Harford County Public Schools (Lead Agency) and participating public agencies who have registered with U.S. Communities.

NOW, THEREFORE, in consideration of the mutual covenants, condition and promises contained herein, the parties have to agree to as follows:

- A. Services.** Supplier will provide HVAC products, installation, services and related products and services as detailed in the referenced RFP to HCPS, which is attached hereto and incorporated herein as a part of this Master Purchase Agreement.

- B. Purchase Order.** Purchase order shall mean any authorized written, electronic, telephone or fax order sent or made by HCPS pursuant hereto, including but not limited to, written purchase orders, faxed purchase orders, and orders in such other form and/ or mode of transmission as HCPS and Supplier may from time to time agree including purchases made via procurement credit card.
- C. Term.** The initial term of this Master Purchase agreement shall be three (3) years from October 1, 2015 (or the date of HCPS Board approval) through September 30, 2018. This Master Purchasing Agreement may then be renewed by mutual written agreement of the parties for two (2) additional, two (2) year periods.
- D. Compensation.** HCPS agrees to pay, and Supplier agrees to accept as compensation for the products provided pursuant to this Master Purchasing Agreement , the following:
- a. The price proposal set forth in the final RFP response and all related Amendments
- E. Invoicing.** Supplier agrees to invoice HCPS as deliveries are completed or charge purchases to an authorized HCPS Visa credit card. Invoices shall be delivered to HCPS accounts payable. Each invoice shall include- as applicable- the following data: Item Number, Purchase Order Number, Item Description, Quantity Purchased, Unit Price, Extended price and Delivery location. All purchase orders will be invoiced separately. Each invoice submitted by Supplier shall be paid by HCPS within thirty (30) days after approval. The Supplier has agreed to accept payment via a procurement credit card (i.e. Visa, MasterCard, etc.) which is the preferred method of payment.
- F. Insurance.** Supplier shall maintain at its own cost and expense (and shall cause any Subcontractor to maintain) insurance policies in form and substance acceptable to HCPS as detailed in the Request for Proposal.
- G. Termination of Contract.** This contract may be terminated for cause as per the General Requirements of the RFP, Section 1, L, page 7.
- H. Notification.** Notices under this Master Purchase Agreement shall be addressed as follows:

Jeff LaPorta, Supervisor of Purchasing
Harford County Public Schools
102 S. Hickory Avenue
Bel Air, MD 21014

The effective date of any notice under this Master Purchasing Agreement shall be the date of the recipient by the addressee. The failure of either party to give notice of default, or to strictly enforce or insist upon compliance with any of the terms or conditions of this Master Purchase Agreement, or the granting of an extension of time for performance shall not constitute the permanent waiver of any term or condition of this Master Purchasing Agreement. This Master Purchasing Agreement and each of its provisions shall remain at all times in full force effect until modified by the parties in writing.

- I. Governing Law.** This contract shall be interpreted under and governed by the laws of the State of Maryland. Disputes will be settled as per the stipulations contained within the Request for Proposal.
- J. Incorporation of Appendices.** All provisions of Appendices and Amendments are hereby incorporated herein and made a part of this Master Purchase Agreement. In the event of any apparent conflict between any provisions set forth in the main body of the Master Purchasing Agreement and in any provision set forth in the Appendices and Amendments the provisions shall be interpreted, to the extent possible, as if they do not conflict. In the event that such an interpretation is not possible, the provisions set forth in the main body of this Master Purchase Agreement shall control.
- K. Entire Master Purchase Agreement.** This Master Purchase Agreement including the entire RFP solicitation and the Appendices attached hereto contain all the terms and conditions agreed upon by both parties. No other understandings, oral or otherwise, regarding the subject matter of this Master Purchasing Agreement shall be deemed to exist or to bind any of the parties hereto. Not contained herein shall not be binding on either party, nor of any force or effect. Any Best and Final Offer and applicable Amendments are also included and become part of the Master Agreement.
- L. Participating Public Agencies.** Supplier agrees to extend the same terms, covenants and conditions available to HCPS under this Master Purchasing Agreement to other government agencies (“Participating Public Agencies”) that, in their discretion, desire to access this Master Purchasing Agreement in accordance with all terms and conditions contained herein or attached hereto. Each participating Public Agency will be exclusively responsible and deal directly with Supplier on matters relating to ordering, delivery, inspection, acceptance, invoicing and payment for products and services in accordance with the terms and conditions of this Master Purchasing Agreement. Any disputes between a Participating Public Agency and Supplier will be resolved directly between them in accordance with and governed by the laws of the State in which the Participating Public agency exists.

**IN WITNESS WHEREOF, THE PARTIES HAVE EXECUTED THIS
AGREEMENT IN THE YEAR AND DAY AS NOTED:
HARFORD COUNTY PUBLIC SCHOOLS, MARYLAND**

by _____
Superintendent of Schools **Date**

by _____
Board of Education President **Date**

by _____
Supervisor of Purchasing **Date**

SUPPLIER:

by _____
General Manager **Date**

Section 6 – U.S. Communities Information

Master Agreement

Harford County Public Schools (herein “Lead Public Agency”) on behalf of itself and all states, local governments, school districts, and higher education institutions in the United States of America, and other government agencies and nonprofit organizations (herein “Participating Public Agencies”) is soliciting proposals from qualified suppliers to enter into a Master Agreement for a complete line of HVAC Equipment, Installation, Services and Related Products and Services (herein “Products and Services”).

ALL PRODUCTS OFFERED MUST BE NEW, UNUSED, LATEST DESIGN AND TECHNOLOGY UNLESS OTHERWISE SPECIFIED.

Objectives

- A. Provide and install a Chiller at the Harford County Public Schools, North
- B. Provide a comprehensive competitively solicited Master Agreement offering Products and Services to Participating Public Agencies;
- C. Establish the Master Agreement as a Supplier’s primary offering to Participating Public Agencies;
- D. Achieve cost savings for Suppliers and Participating Public Agencies through a single competitive solicitation process that eliminates the need for multiple bids or proposals;
- E. Combine the volumes of Participating Public Agencies to achieve cost effective pricing;
- F. Reduce the administrative and overhead costs of Suppliers and Participating Public Agencies through state of the art ordering and delivery systems;
- G. Provide Participating Public Agencies with environmentally responsible products and services.

U.S. Communities

U.S. Communities Government Purchasing Alliance (herein “U.S. Communities”) assists Participating Public Agencies to reduce the cost of purchased goods through strategic sourcing that combines the volumes and the purchasing power of public agencies nationwide. This is accomplished through an award of competitively solicited contracts for high quality products and services by large and well recognized public agencies (herein “Lead Public Agencies”). The contracts provide for use by not only the respective Lead Public Agency, but also by other Participating Public Agencies.

National Sponsors

U.S. Communities is jointly sponsored by the National Association of Counties (NACo), the National League of Cities (NLC), the Association of School Business Officials International (ASBO), and the United States Conference of Mayors (USCM) (herein “National Sponsors”).

Advisory Board

The U.S. Communities Advisory Board is made up of key government purchasing officials from across the United States.

Each Advisory Board Member is expected to actively participate in product bids and selection, participate in policy direction, and share expertise and purchasing innovations.

Current U.S. Communities Advisory Board Members

Auburn University, AL	Hennepin County, MN
City and County of Denver, CO	Los Angeles County, CA
City of Chicago, IL	Maricopa County, AZ
City of Houston, TX	Miami-Dade County, FL
City of Kansas City, MO	Nassau BOCES, NY
City of Los Angeles, CA	North Carolina State University, NC
City of San Antonio, TX	Ocean City, NJ
City of Seattle, WA	Onondaga County, NY
Cobb County, GA	Port of Portland, OR
Denver Public Schools, CO	Prince William County Schools, VA
Emory University, GA	Salem-Keizer School District, OR
Fairfax County, VA	San Diego Unified School District, CA
Fresno Unified School District, CA	State of Iowa
Great Valley School District, PA	The School District of Collier County, FL
Harford County Public Schools, MD	

Participating Public Agencies

Today more than 55,000 public agencies utilize U.S. Communities contracts and suppliers to procure over \$1.8 Billion Dollars in products and services annually. Each month more than 500 new public agencies register to participate. The continuing rapid growth of public agency participation is fueled by the program's proven track record of providing public agencies unparalleled value.

The Supplier(s) must communicate directly with any Participating Public Agency concerning the placement of orders, issuance of the purchase order, contractual disputes, invoicing, and payment.

Harford County Public Schools is acting as "Contracting Agent" for the Participating Public Agencies and shall **not** be held liable for any costs, damages, expenses, fees, liabilities, etc. incurred by any other Participating Public Agency.

Each Participating Public Agency enters into a Master Intergovernmental Cooperative Purchasing Agreement (MICPA) outlining the terms and conditions that allow access to the Lead Public Agencies' Master Agreements. Under the terms of the MICPA, the procurement by the Participating Public Agency shall be construed to be in accordance with, and governed by, the laws of the state in which the Participating Public Agency resides. A copy of the MICPA is attached as Attachment 3.

Estimated Volume

The estimated dollar volume of Products and Services purchased under the proposed Master Agreement is \$150 Million Dollars annually. This estimate is based on the anticipated volume of the Lead Public Agency, the U.S. Communities Advisory Board members, and current sales within the U.S. Communities program. While there is no minimum quantity of products required to be purchased under the proposed Master Agreement, Harford County Public Schools and the U.S. Communities Advisory Board Members are committed to utilizing the Master Agreement. The Advisory Board members shall determine if the Master Agreement is of value to their agency, and will promote the Master Agreement among other public agencies nationwide and internationally. The Advisory Board in 2014 purchased more than \$168 Million Dollars of products and services from existing U.S. Communities contracts.

Marketing Support

U. S. Communities provides marketing support for each Supplier's products through the following:

- National Sponsors as referenced above.
- State Associations of Counties, Schools and Municipal Leagues.
- Administrative and marketing personnel that directly promote the U.S. Communities Suppliers to Participating Public Agencies through public agency meetings, direct mail, email, online and print advertising, social media, articles, and exhibiting and presenting at national and local trade shows.
- U.S. Communities provides Suppliers government sales training, and a host of online marketing and sales management tools to effectively increase sales through U.S. Communities.

Marketplace

U.S. Communities has developed an online Marketplace, which gives Participating Public

Agencies the ability to purchase from many U.S. Communities contracts directly from our website. The Marketplace makes it easier for Participating Public Agencies to access many contracts through a single login and place orders using a procurement card, credit card or purchase order. Suppliers have the ability to add their products to the Marketplace at no cost.

Multiple Awards

Multiple awards may be issued as a result of the solicitation. Multiple Awards will ensure that any ensuing Master Agreements fulfill current and future requirements of the diverse and large number of Participating Public Agencies as well as Harford County Public Schools.

Harford County Public Schools reserves the right to award to one supplier for the specific North Harford Middle School chiller replacement, and another (or the same) supplier as the U.S. Communities national on-call supplier.

Evaluation of Proposals

Proposals will be evaluated by the Lead Public Agency in accordance with, and subject to, the relevant statutes, ordinances, rules and regulations that govern its procurement practices.

U.S. Communities Advisory Board members and other Participating Public Agencies will assist the Lead Public Agency in evaluating proposals. The Supplier(s) that respond(s) affirmatively meets the requirements of this Request for Proposal and provides the best overall value will be eligible for a contract award. U.S. Communities reserves the right to make available or not make available Master Agreements awarded by a Lead Public Agency to Participating Public Agencies.

SUPPLIER QUALIFICATIONS

SUPPLIERS

Commitments

U.S. Communities views the relationship with an awarded Supplier as an opportunity to provide maximum benefit to both the Participating Public Agencies and to the Supplier.

The successful foundation of the partnership requires commitments from both U.S. Communities and the Supplier. U.S. Communities requires the Supplier to make the four commitments set forth below (Corporate, Pricing, Economy, Sales) to ensure that Supplier is providing the highest level of public benefit to Participating Public Agencies:

(a) Corporate Commitment.

(i) The pricing, terms and conditions of the Master Agreement shall, at all times, be Supplier's primary contractual offering of Products and Services to Public Agencies. All of Supplier's direct and indirect marketing and sales efforts to Public Agencies shall demonstrate that the Master Agreement is Supplier's primary offering and not just one of Supplier's contract options.

(ii) Supplier's sales force (including inside, direct and/or authorized dealers, distributors and representatives) shall always present the Master Agreement when marketing Products or Services to Public Agencies.

(iii) Supplier shall advise all Public Agencies that are existing customers of Supplier as to the pricing and other value offered through the Master Agreement.

(iv) Upon authorization by a Public Agency, Supplier shall transition such Public Agency to the pricing, terms and conditions of the Master Agreement.

(v) Supplier shall ensure that the U.S. Communities program and the Master Agreement are actively supported by Supplier's senior executive management.

(vi) Supplier shall provide a national/senior management level representative with the authority and responsibility to ensure that the Supplier's Commitments are maintained at all times. Supplier shall also designate a lead referral contact person who shall be responsible for receiving communications from U.S. Communities concerning new Participating Public Agency registrations and for ensuring

timely follow-up by Supplier's staff to requests for contact from Participating Public Agencies. Supplier shall also provide the personnel necessary to implement and support a supplier-based internet web page dedicated to Supplier's U.S. Communities program and linked to U.S. Communities' website and shall implement and support such web page.

(vii) Supplier shall demonstrate in its procurement solicitation response and throughout the term of the Master Agreement that national/senior management fully supports the U.S. Communities program and its commitments and requirements. National/Senior management is defined as the executive(s) with companywide authority.

(viii) Where Supplier has an existing contract for Products and Services with a state, Supplier shall notify the state of the Master Agreement and transition the state to the pricing, terms and conditions of the Master Agreement upon the state's request. Regardless of whether the state decides to transition to the Master Agreement, Supplier shall primarily offer the Master Agreement to all Public Agencies located within the state.

(b) **Pricing Commitment.**

(i) Supplier represents to U.S. Communities that the pricing offered under the Master Agreement is the lowest overall available pricing (net to purchaser) on Products and Services that it offers to Public Agencies. Supplier's pricing shall be evaluated on either an overall project basis or the Public Agency's actual usage for more frequently purchased Products and Services.

(ii) **Contracts Offering Lower Prices.** If a pre-existing contract and/or a Public Agency's unique buying pattern provide one or more Public Agencies a lower price than that offered under the Master Agreement, Supplier shall match that lower pricing under the Master Agreement and inform the eligible Public Agencies that the lower pricing is available under the Master Agreement. If an eligible Public Agency requests to be transitioned to the Master Agreement, Supplier shall do so and report the Public Agency's purchases made under the Master Agreement going forward. The price match only applies to the eligible Public Agencies. Below are three examples of Supplier's obligation to match the pricing under Supplier's contracts offering lower prices.

(A) Supplier holds a state contract with lower pricing that is available to all Public Agencies within the state. Supplier would be required to match the lower state pricing under the Master Agreement and make it available to all Public Agencies within the state.

(B) Supplier holds a regional cooperative contract with lower pricing that is available only to the ten cooperative members. Supplier

would be required to match the lower cooperative pricing under the Master Agreement and make it available to the ten cooperative members.

(C) Supplier holds a contract with an individual Public Agency. The Public Agency contract does not contain any cooperative language and therefore other Public Agencies are not eligible to utilize the contract. Supplier would be required to match the lower pricing under the Master Agreement and make it available only to the individual Public Agency.

(iii) Deviating Buying Patterns. Occasionally U.S. Communities and Supplier may interact with a Public Agency that has a buying pattern or terms and conditions that considerably deviate from the normal Public Agency buying pattern and terms and conditions, and causes Supplier's pricing under the Master Agreement to be higher than an alternative contract held by Supplier. This could be created by a unique end-user preference or requirements. In the event that this situation occurs, Supplier may address the issue by lowering the price under the Master Agreement on the item(s) causing the large deviation for that Public Agency. Supplier would not be required to lower the price for other Public Agencies.

(iv) Supplier's Options in Responding to a Third Party Procurement Solicitation. While it is the objective of U.S. Communities to encourage Public Agencies to piggyback on to the Master Agreement rather than issue their own procurement solicitations, U.S. Communities recognizes that for various reasons some Public Agencies will issue their own solicitations. The following options are available to Supplier when responding to a Public Agency solicitation:

(A) Supplier may opt not to respond to the procurement solicitation. Supplier may make the Master Agreement available to the Public Agency as a comparison to its solicitation responses.

(B) Supplier may respond with the pricing, terms and conditions of the Master Agreement. If Supplier is awarded the contract, the sales would be reported as sales under the Master Agreement.

(C) If competitive conditions require pricing lower than the standard Master Agreement pricing, Supplier may submit lower pricing through the Master Agreement. If Supplier is awarded the contract, the sales would be reported as sales under the Master Agreement. Supplier would not be required to extend the lower price to other Public Agencies.

(D) Supplier may respond to the procurement solicitation with pricing that is higher (net to buyer) than the pricing offered under the Master Agreement. If awarded a contract, Supplier shall still be bound by all obligations set forth in this Section 3.3, including, without limitation, the requirement to continue to advise the awarding Public Agency of the pricing, terms and conditions of the Master Agreement.

(E) Supplier may respond to the procurement solicitation with pricing that is higher (net to buyer) than the pricing offered under the Master Agreement and if an alternative response is permitted, Supplier may offer the pricing under the Master Agreement as an alternative for consideration.

(c) **Economy Commitment.** Supplier shall demonstrate the benefits, including the pricing advantage, of the Master Agreement over alternative options, including competitive solicitation pricing and shall proactively offer the terms and pricing under the Master Agreement to Public Agencies as a more effective alternative to the cost and time associated with such alternate bids and solicitations.

(d) **Sales Commitment.** Supplier shall market the Master Agreement through Supplier's sales force or dealer network that is properly trained, engaged and committed to offering the Master Agreement as Supplier's primary offering to Public Agencies. Supplier's sales force compensation and incentives shall be greater than or equal to the compensation and incentives earned under other contracts to Public Agencies.

(i) **Supplier Sales.** Supplier shall be responsible for proactive direct sales of Supplier's Products and Services to Public Agencies and the timely follow-up to sales leads identified by U.S. Communities. Use of product catalogs, targeted advertising, direct mail and other sales initiatives are encouraged. All of Supplier's sales materials targeted towards Public Agencies shall include the U.S. Communities logo. U.S. Communities hereby grants to Supplier, during the term of this Agreement, a non-exclusive, revocable, non-transferable, license to use the U.S. Communities name, trademark, and logo solely to perform its obligations under this Agreement, and for no other purpose. Any goodwill, rights, or benefits derived from Supplier's use of the U.S. Communities name, trademark, or logo shall inure to the benefit of U.S. Communities. U.S. Communities shall provide Supplier with its logo and the standards to be employed in the use of the logo. During the term of the Agreement, the Supplier shall provide U.S. Communities with its logo and the standards to be employed in the use of the logo for purposes of reproducing and using Supplier's name and logo in connection with the advertising, marketing and promotion of the Master Agreement to Public Agencies. Supplier shall assist U.S. Communities by providing camera-ready logos and by participating in related trade shows and conferences. At a minimum, Supplier's sales initiatives shall communicate that (i) the Master Agreement was competitively solicited by the Lead Public Agency, (ii) the Master Agreement provides the best government pricing, (iii) there is no cost to Participating Public Agencies, and (iv) the Master Agreement is a non-exclusive contract.

(ii) **Branding and Logo Compliance.** Supplier shall be responsible for complying with the U.S. Communities branding and logo standards and guidelines. Prior to use by Supplier, all U.S. Communities related marketing material must be submitted to U.S. Communities for review and approval.

(iii) Sales Force Training. Supplier shall train its national sales force on the Master Agreement and U.S. Communities program. U.S. Communities shall be available to train regional or district managers and generally assist with the education of sales personnel.

(iv) Participating Public Agency Access. Supplier shall establish the following communication links to facilitate customer access and communication:

- (A) A dedicated U.S. Communities internet web-based homepage containing:
 - (1) U.S. Communities standard logo with Founding Co-Sponsors logos;
 - (2) Copy of original procurement solicitation;
 - (3) Copy of Master Agreement including any amendments;
 - (4) Summary of Products and Services pricing;
 - (5) Electronic link to U.S. Communities' online registration page; and
 - (6) Other promotional material as requested by U.S. Communities.
- (B) A dedicated toll-free national hotline for inquiries regarding U.S. Communities.
- (C) A dedicated email address for general inquiries in the following format: uscommunities@(name of supplier).com.

(v) Electronic Registration. Supplier shall be responsible for ensuring that each Public Agency has completed U.S. Communities' online registration process prior to processing the Public Agency's first sales order.

(vi) Supplier's Performance Review. Upon request by U.S. Communities, Supplier shall participate in a performance review meeting with U.S. Communities to evaluate Supplier's performance of the covenants set forth in this Agreement.

(vii) Supplier Content. Supplier may, from time to time, provide certain graphics, media, and other content to U.S. Communities (collectively "Supplier Content") for use on U.S. Communities websites and for general marketing and publicity purposes. During the term of the Agreement, Supplier hereby grants to U.S. Communities and its affiliates a non-exclusive, worldwide, free, transferrable, license to reproduce, modify, distribute, publically perform, publically display, and use Supplier Content in connection with U.S. Communities websites and for general marketing and

publicity purposes, with the right to sublicense each and every such right. Supplier warrants that: (a) Supplier is the owner of or otherwise has the unrestricted right to grant the rights in and to Supplier Content as contemplated hereunder; and (b) the use of Supplier Content and any other materials or services provided to U.S. Communities as contemplated hereunder will not violate, infringe, or misappropriate the intellectual property rights or other rights of any third party.

U.S. Communities Administration Agreement Information

The Agreement outlines the Supplier's general duties and responsibilities in implementing the U.S. Communities contract.

The Supplier is required to execute the U.S. Communities Administration Agreement unaltered (attached hereto as Attachment 4) and submit with the supplier's proposal without exception or alteration. Failure to do so will result in disqualification.

SUPPLIER WORKSHEET FOR NATIONAL PROGRAM CONSIDERATION

Suppliers are required to meet specific qualifications. Please respond in the spaces provided after each qualification statement below:

- A. State if pricing for all Products/Services offered will be the most competitive pricing offered by your organization to Participating Public Agencies nationally.
YES____ NO____
- B. Does your company have the ability to provide service to any Participating Public Agencies in the contiguous 48 states, and the ability to deliver service in Alaska and Hawaii?
YES____ NO____
- C. Does your company have a national sales force, dealer network or distributor with the ability to call on Participating Public Agencies in at least 35 U.S. states?
YES____ NO____
- D. Did your company have sales greater than \$100 million last year in the United States?
YES____ NO____
- E. Does your company have existing capacity to provide electronic and ecommerce ordering and billing?
YES____ NO____
- F. Will your company assign a dedicated Senior Management level Account Manager to support the resulting U.S. Communities program contract?
YES____ NO____
- G. Does your company agree to respond to all agency referrals from U.S. Communities within 2 business days?
YES____ NO____
- H. Does your company maintain records of your overall Participating Public Agencies' sales that you can and will share with U.S. Communities to monitor program implementation progress?
YES____ NO____
- I. Will your company commit to the following program implementation schedule?
YES____ NO____
- J. Will the U.S. Communities program contract be your lead public offering to Participating Public Agencies?
YES____ NO____

Submitted by: _____

(Printed Name)

(Signature)

(Title)

(Date)

New Supplier Implementation Checklist		Target Completion After Award
1. First Conference Call		One Week
Initial Kick Off Call to discuss expectations Establish initial contact people & roles/responsibilities Supplier Log-In Credentials established		
2. Executed Legal Documents		One Week
U.S. Communities Admin Agreement Lead Public Agency Agreement signed		
3. Program Contact Requirements		One Week
Supplier contacts communicated to U.S. Communities Staff Dedicated email Dedicated toll free number Dedicated fax number		
4. Second Conference Call		Two Weeks
Set Contract Launch Date & Outline Kick Off Plan Establish WebEx Training Dates Review Contract Commitments Complete Supplier Set Up Form Complete User Account and User ID Form Identify Dates for Senior Management Meeting		
5. Marketing Kick Off Call		Two Weeks
Overview of Marketing Requirements Establish Timeline for Marketing Deliverables Set Weekly Marketing Call		
6. Initial NAM & Staff Training Meetings		Three Weeks
Discuss expectations, roles & responsibilities Introduce and review web-based tools Review process & expectations of Lead Referral contact with NAM & identified LRC		
7. Senior Management Meeting		Four Weeks
Implementation Process Progress Report U.S. Communities & Vendor Organizational Overview Supplier Manager to review & further discuss commitments		
8. Review Top Joint Target Opportunities		Five Weeks
Top 10 Local Contracts		

Review top U.S. Communities PPA's	
9. Web Development	
Initiate IT contact	Two Weeks
Initiate E-Commerce Conversation	Two Weeks
Product Upload to U.S. Communities site	Five Weeks
10. Sales Training & Roll Out	
Program Manager briefing - Coordinate with NAM	Five Weeks
Initial remote WebEx training for all sales - Coordinate with NAM	Four Weeks
Initiate contact with Advisory Board (AB) members	Six Weeks
Determine PM & Local Metro teams strategy sessions	Six Weeks

SUPPLIER INFORMATION

Please respond to the following requests for information about your company:

Background

1. Provide a transmittal letter including the name of Offeror's company, address, telephone number, website address, primary contact person with email address.
2. Provide a detailed narrative that describes the strengths of the company and its understanding of the scope of work statement. Include a brief history and description of your company and a description of relevant past performance and experience with regards to contracts of similar scale, scope and complexity.

National Commitments

Offer shall provide a written narrative of its understanding and acceptance of the requirements in Supplier Qualifications on pages 28-33.

Company

1. Provide the total number and location of sales persons employed by your company in the United States.

Example:

NUMBER OF SALES REPRESENTATIVES	CITY	STATE
13	Phoenix	AZ
6	Tucson	AZ
10	Los Angeles	CA
12	San Francisco	CA
6	San Diego	CA
5	Sacramento	CA
3	Fresno	CA
	Etc.	Etc.
Total: 366		

2. Describe how the above sales persons would be utilized in selling this contract, including the time commitment each sales person will devote to selling this contract.
3. Provide the total number and location of service/installation technicians and engineering positions employed by your company in the United States.

4. Provide the company annual sales for 2012, 2013 and 2014 in the United States; Sales reporting should be segmented into the following categories:

SUPPLIER ANNUAL SALES IN THE UNITED STATE FOR 2012, 2013, AND 2014			
Segment	2012 Sales	2013 Sales	2014 Sales
Cities			
Counties			
K-12 (Pubic/Private)			
Higher Education (Public/Private)			
States			
Other Public Sector and Nonprofits			
Federal			
Private Sector			
Total Supplier Sales			

5. Provide annual sales for 2012, 2013 and 2014 in the United States for the proposed Products and/or Services; Sales reporting should be segmented into the following categories:

SUPPLIER ANNUAL SALES IN THE UNITED STATE FOR 2012, 2013, AND 2014			
Segment	2012 Sales	2013 Sales	2014 Sales
Cities			
Counties			
K-12 (Pubic/Private)			
Higher Education (Public/Private)			
States			
Other Public Sector and Nonprofits			
Federal			
Private Sector			
Total Supplier Sales			

6. Provide a description of your company's relevant market and your position within it.
7. Submit your current Federal Identification Number and latest Dun & Bradstreet report.
8. Provide a list with contact information of your company's ten largest public agency customers.

Distribution

1. Describe how your company proposes to distribute the Products and Services nationwide.
2. Identify all other companies that will be involved in processing, handling or shipping the Product to the end user.
3. State the effectiveness of the proposed distribution in providing the lowest cost to the end user.
4. Provide the number, size and location of your company's distribution facilities, warehouses and retail network as applicable.
5. Provide the number and location of support centers (if applicable).
6. Describe your company's customer service department staffing levels, hours of operation and other relevant details.
7. If applicable, describe your company's ability to do business with manufacturer/dealer/distribution organizations that are either small or MWBE businesses as defined by the Small Business Administration.
 - a. If applicable, describe other ways your company can be sensitive to a Participating Public Agency's desire to utilize local and/or MWBE companies, such as number of local employees and offices in a particular geographic area, companies your firm is using that may be local (i.e. local delivery truck company), your company's diversity of owner employees, etc.
 - b. If applicable, provide details on any products or services being offered by your company where the manufacturer or service provider is either a small or MWBE business as defined by the Small Business Administration. Provide product/service name, company name and small/MWBE designation.

Marketing

1. Outline your company's plan for marketing the Products and Services to state and local government agencies nationwide.
2. Explain how your company will educate its national sales force about the Master Agreement.
3. Explain how your company will market and transition the Master Agreement into the primary offering to Participating Public Agencies.

4. Explain how your company plans to market the Master Agreement to existing government customers and transition these customers to the Master Agreement. Please provide the amount of purchases of existing public agency clients that your company will transition to the U.S. Communities contract for the initial three years of the contract in the following format within your proposal.
 - a. \$_____.00 will be transitioned in year one.
 - b. \$_____.00 will be transitioned in year two.
 - c. \$_____.00 will be transitioned in year three.

National Staffing Plan

1. A staffing plan is required which describes the Offeror's proposed staff distribution to implement and manage this contract throughout the term of the contract. At a minimum, this plan should include the following:
 - a. Identify the key personnel who will lead and support the implementation period of the contract outlined in Section 6, New Supplier Implementation Checklist, along with the amount of time to be devoted to implementation;
 - b. Identify the key personnel who are to be engaged in this contract throughout the term of the contract and their relationship to the contracting organization;
 - c. Provide a chart that shows 1) the time commitment of each professional staff member that will be devoted to the contract, 2) each member's role in maintaining and growing the contract; and 3) a timeline of each member's involvement throughout the contract.
2. Submit the resumes of the below personnel:
 - a. The person your company proposes to serve as the National Accounts Manager,
 - b. Each person that will be dedicated full time to U.S. Communities account management, and
 - c. Key executive personnel that will be supporting the program.

Products, Services and Solutions

The primary objective is for each Supplier to provide its complete product and service offerings so that Participating Public Agencies may order a range of products and services as appropriate for their needs.

1. Describe in detail the depth of product your company provides.

- a. Provide a description of the Products, including all related components and parts to be provided by the major product category set forth in the General Definition of Products and/or Services in Section 2 of the RFP.
 - b. Provide catalog or brochure type information as applicable.
 - c. Provide a matrix breaking out product information on all products, options, accessories such as product type, capacity range, standard warranty information, extended warranty information, estimated lead time/delivery time, etc.
 - d. Provide all necessary technical information relating to operation of equipment and systems, along with list of spare parts recommended by manufacturers with part numbers needed to maintain and efficiently run the systems and equipment.
2. Describe in detail the depth of services your company provides.
- a. Provide a detailed description of the Services, including training, start-up and commissioning services, installation, maintenance, turn-key services, repair services, rentals, leases, equipment upgrades and any other services provided by your company as set forth in the General Definition of Products and/or Services in Section 2 of the RFP.
 - b. Identify the manufacturer products/brands your company can service and support.
 - c. Stipulate the minimum work crew that will be made available at all times ensuring timely and effective project completion. A project foreman, fluent in English, must be onsite during all construction activities and have authority to act on behalf of the Contractor. East site work crew must have at least one journeyman assigned.
 - d. Describe how your company selects sub-contractors for service and/or installation and how you ensure customer satisfaction related to the sub-contractors.
 - e. Describe your company's process for submitting a test and balance report for each piece of equipment installed, including items that will be covered in the test and balance report.
 - f. Describe your company's process for delivering a comprehensive commission plan at least two weeks prior to start-up, including details of what will be covered in the plan.

- g. Describe your company's scope of work for preventative maintenance work.
 - h. Describe and define all scenarios in which additional charges would apply outside of routine preventive maintenance.
 - i. Describe your methodologies for assisting Participating Public Agencies with recommendations on repairs and upgrades from defining the repair/upgrade through the completion of work.
 - j. Describe your company's process for notifying a Participating Public Agency when personnel are going to be in a facility, your arrival and departure time and the work performed. How do you handle requirements for sign-off of work prior to leaving facility?
3. Describe your company's ability to provide temporary cooling/chiller units.
 4. Describe any related products or services your company offers as outlined in Section 2 Scope of Work, General Definition of Products and Services.
 5. Describe your company's record keeping system for work performed.
 6. Describe your ability to provide online access to records.
 7. State any options for expediting delivery of product.
 8. State backorder policy. Do you fill or kill order and require Participating Public Agency to reorder if item is backordered?
 9. State restocking fees and procedures for returning products, if applicable.
 10. Describe any special programs that your company offers that will improve customers' ability to access Products and Services, on-time delivery or other innovative strategies.
 11. Describe the capacity of your company to broaden the scope of the contract and keep the product and service offerings current and ensure that latest products, standards and technology for HVAC Products, Installation, Services and Related Products and Services.

Quality

1. Describe your company's safety policy and/or program, including how the policy is communicated to employees, whether the employees are evaluated on safety, and if any employees are dedicated to safety.

2. Describe your company's quality control processes.
3. Describe your problem escalation process.
4. How are customer complaints measured and categorized? What processes are in place to know that a problem has been resolved?
5. Describe your company's post-installation support and warranty specifics. Include both product and installation warranty information.
6. Describe the process for replacement or repair of defective products and warranty related issues.
7. Describe how your company evaluates and determines unit repair versus unit replacement.

Administration

1. Describe your company's capacity to employ telephone, ecommerce, etc., with a specific proposal for processing orders under the Master Agreement.
2. State which forms of ordering allow the use of a procurement card and the accepted banking (credit card) affiliation.
3. Describe the process for ordering when supply of a unit and installation is involved, specifically addressing whether one purchase order is required for the entire project, or if separate purchase orders are required for ordering the product and securing installation services.
4. Describe your company's internal management system for processing orders from point of customer contact through delivery and billing. Please state if you use a single system or platform for all phases of ordering, processing, delivery and billing.
5. Describe any existing multi-state cooperative purchasing programs, including the entity's name(s), contact person(s), contact information and annual volume.
6. Describe the capacity of your company to report monthly sales under the Master Agreement by Participating Public Agency within each U.S. state.
7. Describe the capacity of your company to provide management reports, i.e. commodity histories, procurement card histories, green spend, etc. for each Participating Public Agency.

8. Please provide any suggested improvements and alternatives for doing business with your company that will make this arrangement more cost effective for your company and Participating Public Agencies.

Environmental

1. Provide a brief description of any company environmental initiatives, including your company's environmental strategy, your investment in being an environmentally preferable product leader, and any resources dedicated to your environmental strategy.
2. Describe your company's process for defining green products or sustainable processes.
3. Describe your product's recyclability. Describe any buy back or take back options offered. Describe your company's efforts to reduce or reuse packaging and minimize environmental footprint in the shipping process.

Financial Statements

The Supplier shall include an audited income statement and balance sheet from the two (2) most recent reporting periods in its proposal.

Additional Information

Please use this opportunity to describe any/all other features, advantages and benefits of your organization that you feel will provide additional value and benefit to a Participating Public Agency.

**Attachment 1 - Signature Sheet, which must be completed and included in the
Technical Proposal submission.**

SUBMISSION SIGNATURE SHEET

I/We agree to provide the services in accordance with the accompanying specifications and all conditions, provisions, attachments and any addenda to this RFP.

_____ Company	_____ Authorized Representative (please print)
_____ Address	_____ Signature
_____ Address, continued	_____ Title
_____	_____ Telephone Number
_____ Federal Tax I.D. Number	_____ E-Mail Address of Firm's Representative

Acknowledgement of Addenda

I/We acknowledge receipt of the following Addenda:

No. _____, Dated _____

No. _____, Dated _____

No. _____, Dated _____

HARFORD COUNTY PUBLIC SCHOOLS

Barbara Canavan, Superintendent

102 South Hickory Avenue, Bel Air, MD 21014

**CERTIFICATION REGARDING U.S. GOVERNMENT
DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION**

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 34 CFR, part 85, Section 85.510, Participants' responsibilities. The regulations were published as Part VII of the May 26, 1988, Federal Register (pages 19160-19211).

- (1) The prospective participant certifies, by submission of this proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

 Name and Title of Authorized Agency/Organization Representative

 Signature

 Date

 Agency/Organization

Above certification instituted by the U. S. Department of Education for all grantees and subgrantees as of fiscal year 1990.

ANTI-BRIBERY AFFIDAVIT

I HEREBY CERTIFY that:

1. I am the _____ and the duly authorized representative of the firm of _____ whose address is _____, and that I possess the legal authority to make this affidavit on behalf of myself and the firm for which I am acting.
2. Except as described in paragraph 3 below, neither I, nor to the best of my knowledge, the above firm, nor any of its officers, directors or partners, or any of its employees directly involved in obtaining contracts with the state or any county, bi-county, or multi-county agency, or subdivision of the State have been convicted of, or have pleaded nolo contendere to a charge of, or have during the course of an official investigation or other proceeding admitted in writing or under oath acts or omissions committed after July 1, 1977, which constitute bribery, attempted bribery, or conspiracy to bribe under the provisions of Article 27 of the Annotated Code of Maryland or under the laws of any state or federal government.
3. (State "none" or, as appropriate, list any conviction, plea, or admission described in paragraph 2 above, with the date; court, official, or administrative body; and the sentence or disposition, if any. _____)

I acknowledge that this affidavit is to be furnished to the requesting agency, to the Secretary of Budget and Fiscal Planning of Maryland, and where appropriate, to the Board of Public Works and the Attorney General under '16-202, S.F. of the Annotated Code of Maryland. I acknowledge that, if the representations set forth in this affidavit are not true and correct, the State may terminate any contract awarded and take any other appropriate action. I further acknowledge that I am executing this affidavit in compliance with '16-203, S.F. of the Annotated Code of Maryland, which provides that certain persons who have been convicted of or have admitted to bribery, attempted bribery, or conspiracy to bribe may be disqualified, either by operation of law or after a hearing, from entering into contracts with the State or any of its agencies or subdivisions.

I do solemnly declare and affirm under the penalties of perjury that the contents of this affidavit are true and correct.

 Signature

 Witness

 Date

410.638.4080

 Purchasing Agent: Jeffrey LaPorta

Attachment 3 – Master Intergovernmental Cooperative Purchasing Agreement (MICPA)

This agreement is made between certain government agencies that execute a Lead Public Agency Certificate (“Lead Public Agencies”) to be appended and made a part hereof and other government agencies (“Participating Public Agencies”) that agree to the terms and conditions hereof through the U.S. Communities registration and made a part hereof.

RECITALS

WHEREAS, after a competitive solicitation and selection process by Lead Public Agencies, a number of Suppliers have entered into Master Agreements to provide a variety of goods, products and services based on national and international volumes (herein “Products and Services”);

WHEREAS, Master Agreements are made available by Lead Public Agencies through U.S. Communities and provide that Participating Public Agencies may purchase Products and Services on the same terms, conditions and pricing as the Lead Public Agency, subject to any applicable local purchasing ordinances and the laws of the State of purchase;

WHEREAS, the parties desire to comply with the requirements and formalities of the Intergovernmental Cooperation Act as may be applicable to the laws of the State of purchase;

WHEREAS, the parties hereto desire to conserve resources and reduce procurement cost;

WHEREAS, the parties hereto desire to improve the efficiency, effectiveness and economy of the procurement of necessary Products and Services;

NOW, THEREFORE, in consideration of the mutual promises contained in this agreement, and of the mutual benefits to result, the parties agree as follows:

1. That each party will facilitate the cooperative procurement of Products and Services.
2. That the procurement of Products and Services subject to this agreement shall be conducted in accordance with and subject to the relevant statutes, ordinances, rules and regulations that govern each party’s procurement practices.
3. That the cooperative use of solicitations obtained by a party to this agreement shall be in accordance with the terms and conditions of the solicitation, except as modification of those terms and conditions is otherwise allowed or required by applicable law.
4. That the Lead Public Agencies will make available, upon reasonable request and subject to convenience, information which may assist in improving the effectiveness,

efficiency and economy of Participating Public Agencies procurement of Products and Services

5. That a procuring party will make timely payments to the Supplier for Products and Services received in accordance with the terms and conditions of the procurement. Payment, inspections and acceptance of Products and Services ordered by the procuring party shall be the exclusive obligation of such procuring party. Disputes between procuring party and Supplier are to be resolved in accord with the law and venue rules of the State of purchase.
6. The procuring party shall not use this agreement as a method for obtaining additional concessions or reduced prices for similar products or services.
7. The procuring party shall be responsible for the ordering of Products and Services under this agreement. A non-procuring party shall not be liable in any fashion for any violation by a procuring party, and the procuring party shall hold non-procuring party harmless from any liability that may arise from action or inaction of the procuring party.
8. The exercise of any rights or remedies by the procuring party shall be the exclusive obligation of such procuring party.
9. This agreement shall remain in effect until termination by a party giving 30 days written notice to U.S. Communities at 2999 Oak Road, Suite 710, Walnut Creek, CA 94597.
10. This agreement shall take effect after execution of the Lead Public Agency Certificate or Participating Public Agency Registration, as applicable.

Attachment 4 – Administration Agreement

This ADMINISTRATION AGREEMENT (“Agreement”) is made as of _____, by and between U.S. COMMUNITIES GOVERNMENT PURCHASING ALLIANCE (“U.S. Communities”) and _____ (“Supplier”).

RECITALS

WHEREAS, _____ (“Lead Public Agency”) has entered into a certain Master Agreement dated as of even date herewith, referenced as Agreement No. _____, by and between Lead Public Agency and Supplier (as amended from time to time in accordance with the terms thereof, the “Master Agreement”) for the purchase of _____ (the “Products and Services”);

WHEREAS, the Master Agreement provides that any state, county, city, special district, local government, school district, private K-12 school, technical or vocational school, higher education institution (including community colleges, colleges and universities, both public and private), other government agency or nonprofit organization (each a “Public Agency” and collectively, “Public Agencies”) may purchase Products and Services at the prices indicated in the Master Agreement upon prior registration with U.S. Communities, in which case the Public Agency becomes a “Participating Public Agency”;

WHEREAS, U.S. Communities has the administrative and legal capacity to administer purchases under the Master Agreement to Participating Public Agencies;

WHEREAS, U.S. Communities serves as the administrative agent for Lead Public Agency and other lead public agencies in connection with other master agreements offered by U.S. Communities;

WHEREAS, Lead Public Agency desires U.S. Communities to proceed with administration of the Master Agreement on the same basis as other master agreements;

WHEREAS, “U.S. Communities Government Purchasing Alliance” is a trade name licensed by U.S. Communities Purchasing & Finance Agency; and

WHEREAS, U.S. Communities and Supplier desire to enter into this Agreement to make available the Master Agreement to Participating Public Agencies.

NOW, THEREFORE, in consideration of the payments to be made hereunder and the mutual covenants contained in this Agreement, U.S. Communities and Supplier hereby agree as follows:

ARTICLE I

GENERAL TERMS AND CONDITIONS

1.1 The Master Agreement, attached hereto as Exhibit A and incorporated herein by reference as though fully set forth herein, and the terms and conditions contained therein shall apply to this Agreement except as expressly changed or modified by this Agreement.

1.2 U.S. Communities shall be afforded all of the rights, privileges and indemnifications afforded to Lead Public Agency under the Master Agreement, and such rights, privileges and indemnifications shall accrue and apply with equal effect to U.S. Communities under this Agreement including, without limitation, Supplier's obligation to provide insurance and certain indemnifications to Lead Public Agency.

1.3 Supplier shall perform all duties, responsibilities and obligations required under the Master Agreement in the time and manner specified by the Master Agreement.

1.4 U.S. Communities shall perform all of its duties, responsibilities and obligations as administrator of purchases under the Master Agreement as set forth herein, and Supplier acknowledges that U.S. Communities shall act in the capacity of administrator of purchases under the Master Agreement.

1.5 With respect to any purchases made by Lead Public Agency or any Participating Public Agency pursuant to the Master Agreement, U.S. Communities (a) shall not be construed as a dealer, re-marketer, representative, partner, or agent of any type of Supplier, Lead Public Agency or such Participating Public Agency, (b) shall not be obligated, liable or responsible (i) for any orders made by Lead Public Agency, any Participating Public Agency or any employee of Lead Public Agency or a Participating Public Agency under the Master Agreement, or (ii) for any payments required to be made with respect to such order, and (c) shall not be obligated, liable or responsible for any failure by a Participating Public Agency to (i) comply with procedures or requirements of applicable law, or (ii) obtain the due authorization and approval necessary to purchase under the Master Agreement. U.S. Communities makes no representations or guaranties with respect to any minimum purchases required to be made by Lead Public Agency, any Participating Public Agency, or any employee of Lead Public Agency or a Participating Public Agency under this Agreement or the Master Agreement.

ARTICLE II

TERM OF AGREEMENT

2.1 This Agreement is effective as of _____ and shall terminate upon termination of the Master Agreement or any earlier termination in accordance with the terms of this Agreement, provided, however, that the obligation to pay all amounts owed by Supplier to U.S. Communities through the termination of this Agreement and all indemnifications afforded by Supplier to U.S. Communities shall survive the term of this Agreement.

ARTICLE III

REPRESENTATIONS AND COVENANTS

3.1 U.S. Communities views the relationship with Supplier as an opportunity to provide benefits to both Public Agencies and Supplier. The successful foundation of the relationship requires certain representations and covenants from both U.S. Communities and Supplier.

3.2 U.S. Communities' Representations and Covenants.

(a) Marketing. U.S. Communities shall proactively market the Master Agreement to Public Agencies using resources such as a network of major sponsors including the National League of Cities (NLC), National Association of Counties (NACo), United States Conference of Mayors (USCM), and the Association of School Business Officials (ASBO) (collectively, the "Founding Co-Sponsors") and individual state-level sponsors. In addition, the U.S. Communities staff shall enhance Supplier's marketing efforts through meetings with Public Agencies, participation in key events and tradeshow and by providing online tools to Supplier's sales force.

(b) Training and Knowledge Management Support. U.S. Communities shall provide support for the education, training and engagement of Supplier's sales force as provided herein. Through its staff (each, a "Program Manager" and collectively, the "Program Managers"), U.S. Communities shall conduct training sessions with Supplier and shall conduct calls jointly with Supplier to Public Agencies. U.S. Communities shall also provide Supplier with access to U.S. Communities' private intranet website which provides presentations, documents and information to assist Supplier's sales force in effectively promoting the Master Agreement.

3.3 Supplier's Representations and Covenants. Supplier hereby represents and covenants as follows in order to ensure that Supplier is providing the highest level of public benefit to Participating Public Agencies (such representations and covenants are sometimes referred to as "Supplier's Commitments" and are comprised of the Corporate Commitment, Pricing Commitment, Economy Commitment and Sales Commitment):

(a) Corporate Commitment.

(i) The pricing, terms and conditions of the Master Agreement shall, at all times, be Supplier's primary contractual offering of Products and Services to Public Agencies. All of Supplier's direct and indirect marketing and sales efforts to Public Agencies shall demonstrate that the Master Agreement is Supplier's primary offering and not just one of Supplier's contract options.

(ii) Supplier's sales force (including inside, direct and/or authorized dealers, distributors and representatives) shall always present the Master Agreement when marketing Products or Services to Public Agencies.

(iii) Supplier shall advise all Public Agencies that are existing customers of Supplier as to the pricing and other value offered through the Master Agreement.

(iv) Upon authorization by a Public Agency, Supplier shall transition such Public Agency to the pricing, terms and conditions of the Master Agreement.

(v) Supplier shall ensure that the U.S. Communities program and the Master Agreement are actively supported by Supplier's senior executive management.

(vi) Supplier shall provide a national/senior management level representative with the authority and responsibility to ensure that the Supplier's Commitments are maintained at all times. Supplier shall also designate a lead referral contact person who shall be responsible for receiving communications from U.S. Communities concerning new Participating Public Agency registrations and for ensuring timely follow-up by Supplier's staff to requests for contact from Participating Public Agencies. Supplier shall also provide the personnel necessary to implement and support a supplier-based internet web page dedicated to Supplier's U.S. Communities program and linked to U.S. Communities' website and shall implement and support such web page.

(vii) Supplier shall demonstrate in its procurement solicitation response and throughout the term of the Master Agreement that national/senior management fully supports the U.S. Communities program and its commitments and requirements. National/Senior management is defined as the executive(s) with companywide authority.

(viii) Where Supplier has an existing contract for Products and Services with a state, Supplier shall notify the state of the Master Agreement and transition the state to the pricing, terms and conditions of the Master Agreement upon the state's request. Regardless of whether the state decides to transition to the Master Agreement, Supplier shall primarily offer the Master Agreement to all Public Agencies located within the state.

(b) **Pricing Commitment.**

(i) Supplier represents to U.S. Communities that the pricing offered under the Master Agreement is the lowest overall available pricing (net to purchaser) on Products and Services that it offers to Public Agencies. Supplier's pricing shall be evaluated on either an overall project basis or the Public Agency's actual usage for more frequently purchased Products and Services.

(ii) **Contracts Offering Lower Prices.** If a pre-existing contract and/or a Public Agency's unique buying pattern provide one or more Public Agencies a lower price than that offered under the Master Agreement, Supplier shall match that lower pricing under the Master Agreement and inform the eligible Public Agencies that the lower pricing is available under the Master Agreement. If an eligible Public Agency requests to be transitioned to the Master Agreement, Supplier shall do so and report the Public Agency's purchases made under the Master Agreement going forward. The price match only applies to the eligible Public Agencies. Below are three examples of Supplier's obligation to match the pricing under Supplier's contracts offering lower prices.

(A) Supplier holds a state contract with lower pricing that is available to all Public Agencies within the state. Supplier would be required to match the lower state pricing under the Master Agreement and make it available to all Public Agencies within the state.

(B) Supplier holds a regional cooperative contract with lower pricing that is available only to the ten cooperative members. Supplier would be required to match the lower cooperative pricing under the Master Agreement and make it available to the ten cooperative members.

(C) Supplier holds a contract with an individual Public Agency. The Public Agency contract does not contain any cooperative language and therefore other Public Agencies are not eligible to utilize the contract. Supplier would be required to match the lower pricing under the Master Agreement and make it available only to the individual Public Agency.

(iii) Deviating Buying Patterns. Occasionally U.S. Communities and Supplier may interact with a Public Agency that has a buying pattern or terms and conditions that considerably deviate from the normal Public Agency buying pattern and terms and conditions, and causes Supplier's pricing under the Master Agreement to be higher than an alternative contract held by Supplier. This could be created by a unique end-user preference or requirements. In the event that this situation occurs, Supplier may address the issue by lowering the price under the Master Agreement on the item(s) causing the large deviation for that Public Agency. Supplier would not be required to lower the price for other Public Agencies.

(iv) Supplier's Options in Responding to a Third Party Procurement Solicitation. While it is the objective of U.S. Communities to encourage Public Agencies to piggyback on to the Master Agreement rather than issue their own procurement solicitations, U.S. Communities recognizes that for various reasons some Public Agencies will issue their own solicitations. The following options are available to Supplier when responding to a Public Agency solicitation:

(A) Supplier may opt not to respond to the procurement solicitation. Supplier may make the Master Agreement available to the Public Agency as a comparison to its solicitation responses.

(B) Supplier may respond with the pricing, terms and conditions of the Master Agreement. If Supplier is awarded the contract, the sales would be reported as sales under the Master Agreement.

(C) If competitive conditions require pricing lower than the standard Master Agreement pricing, Supplier may submit lower pricing through the Master Agreement. If Supplier is awarded the contract, the sales would be reported as sales under the Master Agreement. Supplier would not be required to extend the lower price to other Public Agencies.

(D) Supplier may respond to the procurement solicitation with pricing that is higher (net to buyer) than the pricing offered under the Master Agreement. If awarded a contract, Supplier shall still be bound by all obligations set forth in this Section 3.3, including, without limitation, the requirement to continue to advise the awarding Public Agency of the pricing, terms and conditions of the Master Agreement.

(E) Supplier may respond to the procurement solicitation with pricing that is higher (net to buyer) than the pricing offered under the Master Agreement and if an alternative response is permitted, Supplier may offer the pricing under the Master Agreement as an alternative for consideration.

(c) **Economy Commitment.** Supplier shall demonstrate the benefits, including the pricing advantage, of the Master Agreement over alternative options, including competitive solicitation pricing and shall proactively offer the terms and pricing under the Master Agreement to Public Agencies as a more effective alternative to the cost and time associated with such alternate bids and solicitations.

(d) **Sales Commitment.** Supplier shall market the Master Agreement through Supplier's sales force or dealer network that is properly trained, engaged and committed to offering the Master Agreement as Supplier's primary offering to Public Agencies. Supplier's sales force compensation and incentives shall be greater than or equal to the compensation and incentives earned under other contracts to Public Agencies.

(i) **Supplier Sales.** Supplier shall be responsible for proactive direct sales of Supplier's Products and Services to Public Agencies and the timely follow-up to sales leads identified by U.S. Communities. Use of product catalogs, targeted advertising, direct mail and other sales initiatives are encouraged. All of Supplier's sales materials targeted towards Public Agencies shall include the U.S. Communities logo. U.S. Communities hereby grants to Supplier, during the term of this Agreement, a non-exclusive, revocable, non-transferable, license to use the U.S. Communities name, trademark, and logo solely to perform its obligations under this Agreement, and for no other purpose. Any goodwill, rights, or benefits derived from Supplier's use of the U.S. Communities name, trademark, or logo shall inure to the benefit of U.S. Communities. U.S. Communities shall provide Supplier with its logo and the standards to be employed in the use of the logo. During the term of the Agreement, the Supplier shall provide U.S. Communities with its logo and the standards to be employed in the use of the logo for purposes of reproducing and using Supplier's name and logo in connection with the advertising, marketing and promotion of the Master Agreement to Public Agencies. Supplier shall assist U.S. Communities by providing camera-ready logos and by participating in related trade shows and conferences. At a minimum, Supplier's sales initiatives shall communicate that (i) the Master Agreement was competitively solicited by the Lead Public Agency, (ii) the Master Agreement provides the best government pricing, (iii) there is no cost to Participating Public Agencies, and (iv) the Master Agreement is a non-exclusive contract.

(ii) **Branding and Logo Compliance.** Supplier shall be responsible for complying with the U.S. Communities branding and logo standards and guidelines. Prior to use

by Supplier, all U.S. Communities related marketing material must be submitted to U.S. Communities for review and approval.

(iii) Sales Force Training. Supplier shall train its national sales force on the Master Agreement and U.S. Communities program. U.S. Communities shall be available to train regional or district managers and generally assist with the education of sales personnel.

(iv) Participating Public Agency Access. Supplier shall establish the following communication links to facilitate customer access and communication:

- (A) A dedicated U.S. Communities internet web-based homepage containing:
 - (1) U.S. Communities standard logo with Founding Co-Sponsors logos;
 - (2) Copy of original procurement solicitation;
 - (3) Copy of Master Agreement including any amendments;
 - (4) Summary of Products and Services pricing;
 - (5) Electronic link to U.S. Communities' online registration page; and
 - (6) Other promotional material as requested by U.S. Communities.
- (B) A dedicated toll-free national hotline for inquiries regarding U.S. Communities.
- (C) A dedicated email address for general inquiries in the following format: uscommunities@(name of supplier).com.

(v) Electronic Registration. Supplier shall be responsible for ensuring that each Public Agency has completed U.S. Communities' online registration process prior to processing the Public Agency's first sales order.

(vi) Supplier's Performance Review. Upon request by U.S. Communities, Supplier shall participate in a performance review meeting with U.S. Communities to evaluate Supplier's performance of the covenants set forth in this Agreement.

(vii) Supplier Content. Supplier may, from time to time, provide certain graphics, media, and other content to U.S. Communities (collectively "Supplier Content") for use on U.S. Communities websites and for general marketing and publicity purposes. During the term of the Agreement, Supplier hereby grants to U.S. Communities and its affiliates a non-exclusive, worldwide, free, transferrable, license to reproduce, modify, distribute, publically perform, publically display, and use Supplier Content in connection with U.S. Communities websites and for general marketing and publicity purposes, with the right to sublicense each and

every such right. Supplier warrants that: (a) Supplier is the owner of or otherwise has the unrestricted right to grant the rights in and to Supplier Content as contemplated hereunder; and (b) the use of Supplier Content and any other materials or services provided to U.S. Communities as contemplated hereunder will not violate, infringe, or misappropriate the intellectual property rights or other rights of any third party

3.4 **Breach of Supplier's Representations and Covenants.** The representations and covenants set forth in this Agreement are the foundation of the relationship between U.S. Communities and Supplier. If Supplier is found to be in violation of, or non-compliance with, one or more of the representations and covenants set forth in this Agreement, Supplier shall have ninety (90) days from the notice of default to cure such violation or non-compliance and, if Supplier fails to cure such violation or non-compliance within such notice period, it shall be deemed a cause for immediate termination of the Master Agreement at Lead Public Agency's sole discretion or this Agreement at U.S. Communities' sole discretion.

3.5 **Indemnity.** Supplier hereby agrees to indemnify and defend U.S. Communities, and its parent companies, subsidiaries, affiliates, shareholders, member, manager, officers, directors, employees, agents, and representatives from and against any and all claims, costs, proceedings, demands, losses, damages, and expenses (including, without limitation, reasonable attorney's fees and legal costs) of any kind or nature, arising from or relating to, any actual or alleged breach of any of Supplier's representations, warranties, or covenants in this Agreement.

ARTICLE IV

PRICING AUDITS

4.1 Supplier shall, at Supplier's sole expense, maintain an accounting of all purchases made by Lead Public Agency and Participating Public Agencies under the Master Agreement. U.S. Communities and Lead Public Agency each reserve the right to audit the accounting for a period of three (3) years from the time such purchases are made. This audit right shall survive termination of this Agreement for a period of one (1) year from the effective date of termination. U.S. Communities shall have the authority to conduct random audits of Supplier's pricing that is offered to Participating Public Agencies at U.S. Communities' sole cost and expense. Notwithstanding the foregoing, in the event that U.S. Communities is made aware of any pricing being offered to three (3) or more Participating Public Agencies that is materially inconsistent with the pricing under the Master Agreement, U.S. Communities shall have the ability to conduct a reasonable audit of Supplier's pricing at Supplier's sole cost and expense during regular business hours upon reasonable notice. U.S. Communities may conduct the audit internally or may engage a third-party auditing firm on a non-contingent basis. Supplier shall solely be responsible for the cost of the audit up to the first \$50,000 and U.S. Communities and Supplier shall each be responsible for fifty percent (50%) of the audit costs that exceed \$50,000. In the event of an audit, the requested materials shall be provided in the format and at the location where kept in the ordinary course of business by Supplier.

ARTICLE V

FEES & REPORTING

5.1 **Administrative Fees.** Supplier shall pay to U.S. Communities a monthly administrative fee based upon the total sales price of all purchases shipped and billed pursuant to the Master Agreement, excluding taxes, in the amount of two percent (2%) of aggregate purchases made during each calendar month (individually and collectively, “Administrative Fees”). Supplier’s annual sales shall be measured on a calendar year basis. All Administrative Fees shall be payable in U.S. Dollars and shall be made by wire to U.S. Communities, or its designee or trustee as may be directed in writing by U.S. Communities. Administrative Fees shall be due and payable within thirty (30) days of the end of each calendar month for purchases shipped and billed during such calendar month. U.S. Communities agrees to pay to Lead Public Agency five percent (5%) of all Administrative Fees received from Supplier to help offset Lead Public Agency’s costs incurred in connection with managing the Master Agreement nationally.

5.2 **Sales Reports.** Within thirty (30) days of the end of each calendar month, Supplier shall deliver to U.S. Communities an electronic accounting report, in the format prescribed by Exhibit B, attached hereto, summarizing all purchases made under the Master Agreement during such calendar month (“Sales Report”). All purchases indicated in the Sales Report shall be denominated in U.S. Dollars. All purchases shipped and billed pursuant to the Master Agreement for the applicable calendar month shall be included in the Sales Report. U.S. Communities reserves the right upon reasonable advance notice to Supplier to change the prescribed report format to accommodate the distribution of the Administrative Fees to its program sponsors and state associations.

(a) Monthly Sales Reports shall include all sales reporting under the Master Agreement, and a breakout of Environmental Preferable (Green) sales reporting. Supplier must make reasonable attempts at filling in all required information and contact U.S. Communities with a plan to correct any deficiencies of data field population.

(b) Submitted reports shall be verified by U.S. Communities against its registration database. Any data that is inconsistent with the registration database shall be changed prior to processing.

5.3 **Exception Reporting/Sales Reports Audits.** U.S. Communities or its designee may, at its sole discretion, compare Supplier’s Sales Reports with Participating Public Agency records or other sales analysis performed by Participating Public Agencies, sponsors, advisory board members or U.S. Communities staff. If there is a material discrepancy between the Sales Report and such records or sales analysis as determined by U.S. Communities, U.S. Communities shall notify Supplier in writing and Supplier shall have thirty (30) days from the date of such notice to resolve the discrepancy to U.S. Communities’ reasonable satisfaction. Upon resolution of the discrepancy, Supplier shall remit payment to U.S. Communities’ trustee within fifteen (15) calendar days. Any questions regarding an exception report should be directed to U.S. Communities in writing to reporting@uscommunities.org. If Supplier does not resolve the discrepancy to U.S. Communities’ reasonable satisfaction within thirty (30) days, U.S. Communities shall have the right to engage outside services to conduct an independent

audit of Supplier's reports. Supplier shall solely be responsible for the cost of the audit up to the first \$50,000 and U.S. Communities and Supplier shall each be responsible for fifty percent (50%) of the audit costs that exceed \$50,000.

5.4 Online Reporting. Within sixty (60) days of the end of each calendar quarter, U.S. Communities shall provide online reporting to Supplier containing Supplier's sales reporting for such calendar quarter. Supplier shall contact U.S. Communities within fifteen (15) days of receiving notification of the online reporting and report to U.S. Communities any concerns or disputes regarding the reports, including but not limited to concerns regarding the following:

Report Name	Follow up with U.S. Communities
5 Qtr Drop Sales Analysis	Financial & Reporting Manager
Zero States Sales Report	Program Manager
Registered Agency Without Sales Report	Program Manager

Supplier shall have access to the above reports through the U.S. Communities intranet website. The following additional reports are also available to Supplier and are useful in resolving reporting issues and enabling Supplier to better manage its Master Agreement:

- (i) Agency Sales by Population/Enrollment Report
- (ii) Hot Prospect Sales Report
- (iii) New Lead Sales Report
- (iv) State Comparison Sales Report
- (v) Advisory Board Usage Report
- (vi) Various Agency Type Comparison Reports
- (vii) Sales Report Builder

5.5 Supplier's Failure to Provide Reports or Pay Administrative Fees. Failure to provide a Sales Report or pay Administrative Fees within the time and in the manner specified herein shall be regarded as a material breach under this Agreement and if not cured within thirty (30) days of written notice to Supplier, shall be deemed a cause for termination of the Master Agreement at Lead Public Agency's sole discretion or this Agreement at U.S. Communities' sole discretion. All Administrative Fees not paid within thirty (30) days of the end of the previous calendar month shall bear interest at the rate of one and one-half percent (1.5%) per month until paid in full.

ARTICLE VI

MISCELLANEOUS

6.1 Entire Agreement. This Agreement supersedes any and all other agreements, either oral or in writing, between the parties hereto with respect to the subject matter hereof, and no other agreement, statement, or promise relating to the subject matter of this Agreement which is not contained herein shall be valid or binding.

6.2 Attorney's Fees. If any action at law or in equity is brought to enforce or interpret the provisions of this Agreement, the prevailing party shall be entitled to reasonable attorney's fees and costs in addition to any other relief to which such party may be entitled.

6.3 Assignment.

(a) Supplier. Neither this Agreement nor any rights or obligations hereunder shall be assignable by Supplier without prior written consent of U.S. Communities, and any assignment without such consent shall be void.

(b) U.S. Communities. This Agreement and any rights or obligations hereunder may be assigned by U.S. Communities in U.S. Communities' sole discretion, to an existing or newly established legal entity that has the authority and capacity to perform U.S. Communities' obligations hereunder.

6.4 Notices. All reports, notices or other communications given hereunder shall be delivered by first-class mail, postage prepaid, or overnight delivery requiring signature on receipt to the addresses as set forth below. U.S. Communities may, by written notice delivered to Supplier, designate any different address to which subsequent reports, notices or other communications shall be sent.

U.S. Communities:	U.S. Communities 2999 Oak Road, Suite 710 Walnut Creek, California 94597 Attn: Program Manager Administration
Supplier:	_____ _____ _____ _____ Attn: U.S. Communities Program Manager

6.5 Severability. If any provision of this Agreement shall be deemed to be, or shall in fact be, illegal, inoperative or unenforceable, the same shall not affect any other provision or provisions herein contained or render the same invalid, inoperative or unenforceable to any extent whatever.

6.6 Waiver. Any failure of a party to enforce, for any period of time, any of the provisions under this Agreement shall not be construed as a waiver of such provisions or of the right of said party thereafter to enforce each and every provision under this Agreement.

6.7 Counterparts. This Agreement may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

6.8 Modifications. This Agreement may not be effectively amended, changed, modified, altered or terminated without the prior written consent of the parties hereto.

6.9 Governing Law; Arbitration. This Agreement will be governed by and interpreted in accordance with the laws of the State of California without regard to any conflict of laws principles. Any dispute, claim, or controversy arising out of or relating to this Agreement or the breach, termination, enforcement, interpretation or validity thereof, including the determination of the scope or applicability of this dispute resolution clause, shall be determined by arbitration in Walnut Creek, California, before one (1) arbitrator. The arbitration shall be administered by JAMS pursuant to its Comprehensive Arbitration Rules and Procedures. Judgment on the award may be entered in any court having jurisdiction. This clause shall not preclude parties from seeking provisional remedies in aid of arbitration from a court of appropriate jurisdiction. The prevailing party will be entitled to recover its reasonable attorneys' fees and arbitration costs from the other party. The arbitration award shall be final and binding. Each party commits that prior to commencement of arbitration proceedings, the parties shall submit the dispute to JAMS for mediation. The parties will cooperate with JAMS and with one another in selecting a mediator from JAMS panel of neutrals, and in promptly scheduling the mediation proceedings. The parties covenant that they will participate in the mediation in good faith, and that they will share equally in its costs. The mediation will be conducted by each party designating a duly authorized officer or other representative to represent the party with the authority to bind the party, and that the parties agree to exchange informally such information as is reasonably necessary and relevant to the issues being mediated. All offers, promises, conduct, and statements, whether oral or written, made in the course of the mediation by any of the parties, their agents, employees, experts, and attorneys, and by the mediator or any JAMS employees, are confidential, privileged, and inadmissible for any purpose, including impeachment, in any arbitration or other proceeding involving the parties, provided that evidence that is otherwise admissible or discoverable shall not be rendered inadmissible or non-discoverable as a result of its use in the mediation. If the dispute is not resolved within thirty (30) days from the date of the submission of the dispute to mediation (or such later date as the parties may mutually agree in writing), the administration of the arbitration shall proceed. The mediation may continue, if the parties so agree, after the appointment of the arbitrator. Unless otherwise agreed by the parties, the mediator shall be disqualified from serving as arbitrator in the case. The pendency of a mediation shall not preclude a party from seeking provisional remedies in aid of the arbitration from a court of appropriate jurisdiction, and the parties agree not to defend against any application for provisional relief on the ground that a mediation is pending.

6.10 Successors and Assigns. This Agreement shall inure to the benefit of and shall be binding upon U.S. Communities, Supplier and any successor and assign thereto; subject, however, to the limitations contained herein.

[Remainder of Page Intentionally Left Blank – Signatures Follow]

IN WITNESS WHEREOF, U.S. Communities has caused this Agreement to be executed in its name and Supplier has caused this Agreement to be executed in its name, all as of the date first written above.

U.S. Communities:

U.S. COMMUNITIES GOVERNMENT PURCHASING ALLIANCE

By _____

Name: _____

Title: _____

Supplier:

By _____

Name: _____

Title: _____

SALES REPORT FORMAT

Appendix B - US (Data Format)

Sales Report Template														
TIN	Supplier ID	Account No.	Agency Name	Dept Name	Address	City	State	Zip	Agency Type	Year	Qtr	Month	Amount	
956000735	160	89518997	CITY OF LA/MGMT EMPL SVCS	Purchasing	555 RAMREZ ST STE 312	LOS ANGELES	CA	90012	20	2012	2	5	1525.50	
956000222	160	34868035	LOS ANGELES COUNTY	Facilities	350 S FIGUEROA ST STE 700	LOS ANGELES	CA	90071	30	2012	2	5	1603.64	
956000735	160	89496461	CITY OF LA/ENVIRON AFFAIR	Purchasing	555 RAMREZ ST STE 312	LOS ANGELES	CA	90012	20	2012	2	5	1625.05	
956000735	160	89374835	CITY OF LA/COMMUNITY DEV	Purchasing	555 RAMREZ ST STE 312	LOS ANGELES	CA	90012	20	2012	2	5	45090.79	
066002010	160	328NA0001053	GROTON TOWN OF PUBLIC WORKS	Water	123 A St.	GROTON	CT	06340	20	2012	2	5	318.00	
066001854	160	328NA0001051	GROTON CITY OF	Administration	123 A St.	GROTON	CT	06340	20	2012	2	5	212.00	
SALES REPORT DATA FORMAT														
Column Name	Required	Data Type	Length	Example	Comment									
TIN	Optional	Text	9	956000735	No Dash, Do not omit leading zero.									
Supplier ID	Yes	Number	3	111	See Supplier ID Table Below									
Account No.	Optional	Text	25 max		Depends on supplier account no.									
Agency Name	Yes	Text	255 max	Los Angeles County										
Dept Name	Optional	Text	255 max	Purchasing Dept										
Address	Yes	Text	255 max											
City	Yes	Text	255 max	Los Angeles	Must be a valid City name									
State	Yes	Text	2	CA										
Zip	Yes	Text	5	90071	No Dash, Do not omit leading zero, Valid zip code									
Agency Type	Yes	Number	2	30	See Agency Type Table Below									
Year	Yes	Number	4	2010										
Qtr	Yes	Number	1	4										
Month	Yes	Number	2	12										
Amount	Yes	Number	variable	45090.79	Two digit decimal point, no \$ sign or commas									
Agency Type Table														
Agency Type ID	Agency Type Description													
10	K-12													
11	Community College													
12	College and University													
20	City													
21	City Special District													
22	Consolidated City/County													
30	County													
31	County Special District													
40	Federal													
41	Crown Corporations													
50	Housing Authority													
80	State Agency													
81	Independent Special District													
82	Non-Profit													
84	Other													

Attachment 5 – State Notice Addendum

Pursuant to certain state notice provisions the following public agencies and political subdivisions of the referenced public agencies are eligible to access the contract award made pursuant to this solicitation. Public agencies and political subdivisions are hereby given notice of the foregoing request for proposal for purposes of complying with the procedural requirements of said statutes:

Nationwide:

http://www.usa.gov/Agencies/Local_Government/Cities.shtml

Other states:

State of Oregon, State of Hawaii, State of Washington

State: HI

Account Type: HI Counties, Cities, Colleges

Hawaii County
Honolulu County
Kauai County
Maui County
Kalawao County
Aiea
Anahola
Barbers Point N A S
Camp H M Smith
Captain Cook
Eleele
Ewa Beach
Fort Shafter
Haiku
Hakalau
Haleiwa
Hana
Hanalei
Hanamaulu
Hanapepe
Hauula
Hawaii National Park
Hawaiian Ocean View

Hawi
Hickam AFB
Hilo
Holualoa
Honaunau
Honokaa
Honolulu
Honomu
Hoolehua
Kaaawa
Kahuku
Kahului
Kailua
Kailua Kona
Kalaheo
Kalaupapa
Kamuela
Kaneohe
Kapaa
Kapaau
Kapolei
Kaumakani
Kaunakakai
Kawela Bay
Keaau
Kealakekua
Kealia

Keauhou
Kekaha
Kihei
Kilauea
Koloa
Kualapuu
Kula
Kunia
Kurtistown
Lahaina
Laie
Lanai City
Laupahoehoe
Lawai
Lihue
M C B H Kaneohe Bay
Makawao
Makaweli
Maunaloa
Mililani
Mountain View
Naalehu
Ninole
Ocean View
Ookala
Paauhau
Paauiilo
Pahala
Pahoa
Paia
Papaaloa
Papaikou
Pearl City
Pearl Harbor

Pepeekeo
Princeville
Pukalani
Puunene
Schofield Barracks
Tripler Army Medical Center
Volvano
Wahiawa
Waialua
Waianae
Waikoloa
Wailuku
Waimanalo
Waimea
Waipahu
Wake Island
Wheeler Army Airfield
Brigham Young University - Hawaii
Chaminade University of Honolulu
Hawaii Business College
Hawaii Pacific University
Hawaii Technology Institute
Heald College - Honolulu
Remington College - Honolulu Campus
University of Phoenix - Hawaii Campus
Hawaii Community College
Honolulu Community College
Kapiolani Community College
Kauai Community College
Leeward Community College
Maui Community College
University of Hawaii at Hilo
University of Hawaii at Manoa
Windward Community College

State: HI

Account Type: K-12

Malama Honua Public Charter School
ST JOHN THE BAPTIST
Waimanalo Elementary and Intermediate School
Kailua High School
PACIFIC BUDDHIST ACADEMY
HAWAII TECHNOLOGY ACADEMY
CONGREGATION OF CHRISTIAN BROTHERS OF HAWAII, INC.
MARYKNOLL SCHOOL
ISLAND SCHOOL
STATE OF HAWAII, DEPT. OF EDUCATION
KE KULA O S. M. KAMAKAU
KAMEHAMEHA SCHOOLS
HANAHAU`OLI SCHOOL
EMMANUAL LUTHERAN SCHOOL
School Lunch Program
Our Savior Lutheran School

Account Type: County

BOARD OF WATER SUPPLY
MAUI COUNTY COUNCIL
Kauai County Council
Honolulu Fire Department
COUNTY OF MAUI

Account Type: Non-Profit (68 records)

Lanai Community Health Center
Maui High Band Booster Club
Naalehu Assembly of God
outrigger canoe club
One Kalakaua
Native Hawaiian Hospitality Association
St. Theresa School
Hawaii Peace and Justice
Kauai Youth Basketball Association
NA HALE O MAUI
LEEWARD HABITAT FOR HUMANITY
WAIANAE COMMUNITY OUTREACH

NA LEI ALOHA FOUNDATION
HAWAII FAMILY LAW CLINIC DBA ALA KUOLA

BUILDING INDUSTRY ASSOCIATION OF HAWAII

UNIVERSITY OF HAWAII FEDERAL CREDIT UNION
LANAKILA REHABILITATION CENTER INC.
POLYNESIAN CULTURAL CENTER
CTR FOR CULTURAL AND TECH INTERCHNG BETW EAST AND WEST
BISHOP MUSEUM
ALCOHOLIC REHABILITATION SVS OF HI INC DBA HINA MAUKA
ASSOCIATION OF OWNERS OF KUKUI PLAZA
MAUI ECONOMIC DEVELOPMENT BOARD
NETWORK ENTERPRISES, INC.
HONOLULU HABITAT FOR HUMANITY
ALOHACARE
ORI ANUENUE HALE, INC.
IUPAT, DISTRICT COUNCIL 50
GOODWILL INDUSTRIES OF HAWAII, INC.
HAROLD K.L. CASTLE FOUNDATION
MAUI ECONOMIC OPPORTUNITY, INC.
EAH, INC.
PARTNERS IN DEVELOPMENT FOUNDATION
HABITAT FOR HUMANITY MAUI
W. M. KECK OBSERVATORY
HAWAII EMPLOYERS COUNCIL
HAWAII STATE FCU
MAUI COUNTY FCU
PUNAHOU SCHOOL
YMCA OF HONOLULU
EASTER SEALS HAWAII
AMERICAN LUNG ASSOCIATION
Hawaii Area Committee
READ TO ME INTERNATIONAL FOUNDATION
MAUI FAMILY YMCA
WAILUKU FEDERAL CREDIT UNION
ST. THERESA CHURCH
HALE MAHAOLU
West Maui Community Federal Credit Union

Hawaii Island Humane Society
 Kama'aina Care Inc
 International Archaeological Research
 Institute, Inc.
 Community Empowerment Resources
 Tutu and Me Traveling Preschool
 First United Methodist Church
 AOA Royal Capitol Plaza
 Kumpang Lanai
 Child and Family Service
 MARINE SURF WAIKIKI, INC.
 Hawaii Health Connector
 Hawaii Carpenters Market Recovery Program
 Fund
 Puu Heleakala Community Association
 Saint Louis School
 Kailua Racquet Club, Ltd.
 Homewise Inc.
 Hawaii Baptist Academy
 Kroc Center Hawaii
 Kupu

Account Type: College and University

University of the Nations
 ARGOSY UNIVERSITY
 HAWAII PACIFIC UNIVERSITY
 UNIVERSITY OF HAWAII AT MANOA
 RESEARCH CORPORATION OF THE UNIVERSITY
 OF HAWAII
 BRIGHAM YOUNG UNIVERSITY - HAWAII
 University Clinical Research and Association
 CHAMINADE UNIVERSITY OF HONOLULU

Account Type: Other

Hawaii Information Consortium
 Leeward Community Church
 E Malama In Keiki O Lanai
 Keawala'i Congregational Church
 Lanai Community Hospital
 Angels at Play Preschool & Kindergarten
 Queen Emma Gardens AOA

Account Type: Community College

Honolulu Community College
 COLLEGE OF THE MARSHALL ISLANDS

Account Type: State Agency

DOT Airports Division Hilo International Airport

Judiciary - State of Hawaii
 ADMIN. SERVICES OFFICE
 SOH- JUDICIARY CONTRACTS AND PURCH
 STATE DEPARTMENT OF DEFENSE
 HAWAII CHILD SUPPORT ENFORCEMENT
 AGENCY
 HAWAII HEALTH SYSTEMS CORPORATION
 HAWAII AGRICULTURE RESEARCH CENTER
 STATE OF HAWAII
 Third Judicial Circuit - State of Hawaii

Account Type: Consolidated City/County

CITY AND COUNTY OF HONOLULU
 Lanai Youth Center

Account Type: Federal

US Navy
 Defense Information System Agency

State: OR

Account Type: K-12

VALLEY CATHOLIC SCHL
 CROOK COUNTY SCHOOL DISTRICT
 CORBETT SCHL DIST #39
 Bethel School District #52
 St. Therese Parish/School
 Portland YouthBuilders
 Wallowa County ESD
 Fern Ridge School District 28J
 Knova Learning
 New Horizon Christian School
 MOLALLA RIVER ACADEMY
 HIGH DESERT EDUCATION SERVICE DISTRICT
 SOUTHWEST CHARTER SCHOOL
 WHITEAKER MONTESSORI SCHOOL
 CASCADES ACADEMY OF CENTRAL OREGON
 NEAH-KAH-NIE DISTRICT NO.56
 INTER MOUNTAIN ESD
 STANFIELD SCHOOL DISTRICT
 LA GRANDE SCHOOL DISTRICT

CASCADE SCHOOL DISTRICT
 DUFUR SCHOOL DISTRICT NO.29
 hillsboro school district
 GASTON SCHOOL DISTRICT 511J
 BEAVERTON SCHOOL DISTRICT
 COUNTY OF YAMHILL SCHOOL DISTRICT 29
 WILLAMINA SCHOOL DISTRICT
 MCMINNVILLE SCHOOL DISTRICT NO.40
 Sheridan School District 48J
 THE CATLIN GABEL SCHOOL
 NORTH WASCO CTY SCHOOL DISTRICT 21 -
 CHENOWITH
 CENTRAL CATHOLIC HIGH SCHOOL
 CANYONVILLE CHRISTIAN ACADEMY
 OUR LADY OF THE LAKE SCHOOL
 NYSSA SCHOOL DISTRICT NO. 26
 ARLINGTON SCHOOL DISTRICT NO. 3
 LIVINGSTONE ADVENTIST ACADEMY
 Santiam Canyon SD 129J
 WEST HILLS COMMUNITY CHURCH
 BANKS SCHOOL DISTRICT
 WILLAMETTE EDUCATION SERVICE DISTRICT
 BAKER COUNTY SCHOOL DIST. 16J - MALHEUR
 ESD
 HARNEY EDUCATION SERVICE DISTRICT
 GREATER ALBANY PUBLIC SCHOOL DISTRICT
 LAKE OSWEGO SCHOOL DISTRICT 7J
 SOUTHERN OREGON EDUCATION SERVICE
 DISTRICT
 SILVER FALLS SCHOOL DISTRICT
 St Helens School District
 DAYTON SCHOOL DISTRICT NO.8
 Amity School District 4-J
 SCAPPOOSE SCHOOL DISTRICT 1J
 REEDSPORT SCHOOL DISTRICT
 FOREST GROVE SCHOOL DISTRICT
 DAVID DOUGLAS SCHOOL DISTRICT
 LOWELL SCHOOL DISTRICT NO.71
 TIGARD-TUALATIN SCHOOL DISTRICT
 SHERWOOD SCHOOL DISTRICT 88J
 RAINIER SCHOOL DISTRICT
 NORTH CLACKAMAS SCHOOL DISTRICT
 MONROE SCHOOL DISTRICT NO.1J
 CHILDPEACE MONTESSORI
 HEAD START OF LANE COUNTY

HARNEY COUNTY SCHOOL DIST. NO.3
 NESTUCCA VALLEY SCHOOL DISTRICT NO.101

 ARCHBISHOP FRANCIS NORBERT BLANCHET
 SCHOOL
 LEBANON COMMUNITY SCHOOLS NO.9
 MT.SCOTT LEARNING CENTERS
 SEVEN PEAKS SCHOOL
 DE LA SALLE N CATHOLIC HS
 MULTISENSORY LEARNING ACADEMY
 MITCH CHARTER SCHOOL
 REALMS CHARTER SCHOOL
 BAKER SCHOOL DISTRICT 5-J
 PHILOMATH SCHOOL DISTRICT
 CLACKAMAS EDUCATION SERVICE DISTRICT
 CANBY SCHOOL DISTRICT
 OREGON TRAIL SCHOOL DISTRICT NO.46
 WEST LINN WILSONVILLE SCHOOL DISTRICT
 MOLALLA RIVER SCHOOL DISTRICT NO.35
 ESTACADA SCHOOL DISTRICT NO.108
 GLADSTONE SCHOOL DISTRICT
 ASTORIA SCHOOL DISTRICT 1C
 SEASIDE SCHOOL DISTRICT 10
 NORTHWEST REGIONAL EDUCATION SERVICE
 DISTRICT
 VERNONIA SCHOOL DISTRICT 47J
 SOUTH COAST EDUCATION SERVICE DISTRICT

 COOS BAY SCHOOL DISTRICT NO.9
 COOS BAY SCHOOL DISTRICT
 NORTH BEND SCHOOL DISTRICT 13
 COQUILLE SCHOOL DISTRICT 8
 MYRTLE POINT SCHOOL DISTRICT NO.41
 BANDON SCHOOL DISTRICT
 BROOKING HARBOR SCHOOL DISTRICT NO.17-
 C
 REDMOND SCHOOL DISTRICT
 DESCHUTES COUNTY SD NO.6 - SISTERS SD
 DOUGLAS EDUCATION SERVICE DISTRICT
 ROSEBURG PUBLIC SCHOOLS
 GLIDE SCHOOL DISTRICT NO.12
 SOUTH UMPQUA SCHOOL DISTRICT #19
 YONCALLA SCHOOL DISTRICT NO.32
 ELKTON SCHOOL DISTRICT NO.34
 DOUGLAS COUNTY SCHOOL DISTRICT 116

HOOD RIVER COUNTY SCHOOL DISTRICT
 PHOENIX-TALENT SCHOOL DISTRICT NO.4
 CENTRAL POINT SCHOOL DISTRICT NO. 6
 JACKSON CO SCHOOL DIST NO.9
 ROGUE RIVER SCHOOL DISTRICT NO.35
 MEDFORD SCHOOL DISTRICT 549C
 CULVER SCHOOL DISTRICT NO.
 JEFFERSON COUNTY SCHOOL DISTRICT 509-J
 GRANTS PASS SCHOOL DISTRICT 7
 LOST RIVER JR/SR HIGH SCHOOL
 KLAMATH FALLS CITY SCHOOLS
 LANE COUNTY SCHOOL DISTRICT 4J
 SPRINGFIELD SCHOOL DISTRICT NO.19
 CRESWELL SCHOOL DISTRICT
 SOUTH LANE SCHOOL DISTRICT 45J3
 LANE COUNTY SCHOOL DISTRICT 69
 SIUSLAW SCHOOL DISTRICT
 SWEET HOME SCHOOL DISTRICT NO.55
 LINN CO. SCHOOL DIST. 95C - SCIO SD
 ONTARIO MIDDLE SCHOOL
 GERVAIS SCHOOL DIST. #1
 NORTH SANTIAM SCHOOL DISTRICT 29J
 JEFFERSON SCHOOL DISTRICT
 SALEM-KEIZER PUBLIC SCHOOLS
 MT. ANGEL SCHOOL DISTRICT NO.91
 MARION COUNTY SCHOOL DISTRICT 103 -
 WASHINGTON ES
 MORROW COUNTY SCHOOL DISTRICT
 MULTNOMAH EDUCATION SERVICE DISTRICT

GRESHAM-BARLOW SCHOOL DISTRICT
 DALLAS SCHOOL DISTRICT NO. 2
 CENTRAL SCHOOL DISTRICT 13J
 St. Mary Catholic School
 CROSSROADS CHRISTIAN SCHOOL
 ST. ANTHONY SCHOOL
 HERITAGE CHRISTIAN SCHOOL
 BEND-LA PINE SCHOOL DISTRICT
 GLENDALE SCHOOL DISTRICT
 LINCOLN COUNTY SCHOOL DISTRICT
 PORTLAND PUBLIC SCHOOLS
 REYNOLDS SCHOOL DISTRICT
 CENTENNIAL SCHOOL DISTRICT
 NOBEL LEARNING COMMUNITIES
 St. Stephen's Academy

Salem-Keizer 24J
 McKay High School
 Pine Eagle Charter School
 Waldo Middle School
 hermiston school district
 Clear Creek Middle School
 Marist High School
 Victory Academy
 Vale School District No. 84
 St. Mary School
 Junction City High School
 Three Rivers School District
 Fern Ridge School District
 JESUIT HIGH SCHL EXEC OFC
 LASALLE HIGH SCHOOL
 Southwest Christian School
 Willamette Christian School
 Westside Christian High School
 CS LEWIS ACADEMY
 Portland America School
 Forest Hills Lutheran School
 Mosier Community School
 Koreducators Lep High
 Warrenton Hammond School District
 Sutherlin School District
 Malheur Elementary School District
 Ontario School District
 Parkrose School District 3
 Riverdale School District 51J
 Tillamook School District
 Madeleine School
 Union School District
 Helix School District
 Corvallis School District 509J
 Falls City School District #57
 Portland Christian Schools
 LUCKIAMUTE VALLEY CHARTER SCHOOLS
 Deer Creek Elementary School
 Yamhill Carlton School District
 HARRISBURG SCHL DIST
 CENTRAL CURRY SCHL DIST#1
 BNAI BRITH CAMP
 OREGON FOOD BANK
 ABIQUA SCHL
 Salem keizar school district

Athena Weston School District 29RJ
 Imbler School District #11
 monument school
 St. Paul School District
 St Paul Parish School
 EagleRidge High School
 Northwest Academy
 Sunny Wolf Charter School
 MCKENZIE SCHOOL DISTRICT 068
 L'Etoile French Immersion School
 LA GRANDE SCHOOL DISTRICT 001
 Marist Catholic High School
 Elgin school dist.
 PLEASANT HILL SCH DIST #1
 Ukiah School District 80R
 North Powder Charter School
 French American School
 Mastery Learning Institute
 North Lake School District 14
 Early College High School

Account Type: County

GILLIAM COUNTY OREGON
 HOUSING AUTHORITY OF CLACKAMAS COUNTY

UMATILLA COUNTY, OREGON
 MULTNOMAH LAW LIBRARY
 clackamas county
 CLATSOP COUNTY
 COLUMBIA COUNTY, OREGON
 coos county
 CROOK COUNTY ROAD DEPARTMENT
 CURRY COUNTY OREGON
 DESCHUTES COUNTY
 GILLIAM COUNTY
 GRANT COUNTY, OREGON
 HARNEY COUNTY SHERIFFS OFFICE
 HOOD RIVER COUNTY
 jackson county
 josephine county
 klamath county
 LANE COUNTY
 LINN COUNTY
 MARION COUNTY , SALEM, OREGON
 MULTNOMAH COUNTY

SHERMAN COUNTY
 WASCO COUNTY
 YAMHILL COUNTY
 WALLOWA COUNTY
 ASSOCIATION OF OREGON COUNTIES
 NAMI LANE COUNTY
 BENTON COUNTY
 DOUGLAS COUNTY
 JEFFERSON COUNTY
 LAKE COUNTY
 LINCOLN COUNTY
 POLK COUNTY
 UNION COUNTY
 WASHINGTON COUNTY
 MORROW COUNTY
 NORCOR Juvenile Detention
 Tillamook County Estuary
 Job Council
 BAKER CNTY GOVT
 TILLAMOOK CNTY
 Wheeler County
 Lane County Sheriff's Office
 Clackamas County Juvenile Dept

Account Type: Non-Profit

Tamarack Aquatic Center
 Seven Feathers Casino
 St Paul Baptist Church
 Long Tom Watershed Council
 San Martin Deporres Catholic Church
 Portland Parks Foundation
 Cedar Hills Baptist Church
 Unitarian Universalist Church in Eugene
 Emmanuel Bible Church
 Mt Emily Safe Center
 Salem First Presbyterian Church
 Rolling Hills Baptist Church
 Baker Elks
 Gates Community Church of Christ
 PIP Corps LLC
 Turtle Ridge Wildlife Center
 Grande Ronde Model Watershed Foundation
 Western Environmental Law Center
 Mercy Flights, Inc.

HHoly Trinity Greek Orthodox Cathedral
 MECOP Inc.
 Beaverton Christians Church
 Oregon Humanities
 St. Pius X School
 Community Connection of Northeast Oregon,
 Inc.
 Living Opportunities, Inc.
 Coos Art Museum
 OETC
 Blanchet House of Hospitality
 Merchants Exchange of Portland, Oregon
 Coalition for a Livable Future
 Central Oregon Visitors Association
 Soroptimist International of Gold Beach, OR
 Real Life Christian Church
 Delphian School
 AVON
 EPUD-Emerald People's Utility District
 Human Solutions, Inc.
 The Wallace Medical Concern
 Boys & Girls Club of Salem, Marion & Polk
 Counties
 The Ross Ragland Theater and Cultural Center

 Cascade Health Solutions
 Umpqua Community Health Center
 ALZHEIMERS NETWORK OF OREGON
 NATIONAL WILD TURKEY FEDERATION
 TILLAMOOK ESTUARIES PARTNERSHIP
 LIFEWORKS NW
 COLLEGE HOUSING NORTHWEST
 PARALYZED VETERANS OF AMERICA
 Independent Development Enterprise Alliance

 MID-WILLAMETTE VALLEY COMMUNITY
 ACTION AGENCY, INC
 HALFWAY HOUSE SERVICES, INC.
 REDMOND PROFICIENCY ACADEMY
 OHSU FOUNDATION
 SHELTERCARE
 PRINGLE CREEK SUSTAINABLE LIVING CENTER

 PACIFIC INSTITUTES FOR RESEARCH
 Mental Health for Children, Inc.

The Dreaming Zebra Foundation
 LAUREL HILL CENTER
 THE OREGON COMMUNITY FOUNDATION
 OCHIN
 WE CARE OREGON
 SE WORKS
 ENTERPRISE FOR EMPLOYMENT AND
 EDUCATION
 OMNIMEDIX INSTITUTE
 PORTLAND BUSINESS ALLIANCE
 GATEWAY TO COLLEGE NATIONAL NETWORK

 FOUNDATIONS FOR A BETTER OREGON
 GOAL ONE COALITION
 ATHENA LIBRARY FRIENDS ASSOCIATION
 Coastal Family Health Center
 CENTER FOR COMMUNITY CHANGE
 STAND FOR CHILDREN
 ST. VINCENT DEPAUL OF LANE COUNTY
 EAST SIDE FOURSQUARE CHURCH
 CORVALLIS MOUNTAIN RESCUE UNIT
 InventSuccess
 SHERIDAN JAPANESE SCHOOL FOUNDATION
 The Blosser Center for Dyslexia Resources
 MOSAIC CHURCH
 HOUSING AUTHORITY OF LINCOLN COUNTY
 RENEWABLE NORTHWEST PROJECT
 INTERNATIONAL SUSTAINABLE DEVELOPMENT
 FOUNDATION
 CONSERVATION BIOLOGY INSTITUTE
 THE NATIONAL ASSOCIATION OF CREDIT
 MANAGEMENT-OREGON, INC.
 BLACHLY LANE ELECTRIC COOPERATIVE
 MORNING STAR MISSIONARY BAPTIST
 CHURCH
 NORTHWEST FOOD PROCESSORS
 ASSOCIATION
 INDEPENDENT INSURANCE AGENTS AND
 BROKERS OF OREGON
 OREGON EDUCATION ASSOCIATION
 HEARING AND SPEECH INSTITUTE INC
 SALEM ELECTRIC
 MORRISON CHILD AND FAMILY SERVICES
 JUNIOR ACHIEVEMENT
 CENTRAL BIBLE CHURCH

MID COLUMBIA MEDICAL CENTER-GREAT 'N
SMALL
TRILLIUM FAMILY SERVICES, INC.
YWCA SALEM
PORTLAND ART MUSEUM
SAINT JAMES CATHOLIC CHURCH
SOUTHERN OREGON HUMANE SOCIETY
VOLUNTEERS OF AMERICA OREGON
CENTRAL DOUGLAS COUNTY FAMILY YMCA
METROPOLITAN FAMILY SERVICE
OREGON MUSUEM OF SCIENCE AND INDUSTRY

FIRST UNITARIAN CHURCH
ST. ANTHONY CHURCH
Good Shepherd Medical Center
Salem Academy
GEN CONF OF SDA CHURCH WESTERN OR
PORTLAND ADVENTIST ACADEMY
ST VINCENT DE PAUL
OUTSIDE IN
UNITED CEREBRAL PALSY OF OR AND SW WA

WILLAMETTE VIEW INC.
PORTLAND HABILITATION CENTER, INC.
OREGON STATE UNIVERSITY ALUMNI
ASSOCIATION
Rose Villa
NORTHWEST LINE JOINT APPRENTICESHIP &
TRAINING COMMITTEE
BOYS AND GIRLS CLUBS OF PORTLAND
METROPOLITAN AREA
Oregon Research Institute
WILLAMETTE LUTHERAN HOMES, INC
LANE MEMORIAL BLOOD BANK
PORTLAND JEWISH ACADEMY
LANECO FEDERAL CREDIT UNION
GRANT PARK CHURCH
ST. MARYS OF MEDFORD, INC.
US CONFERENCE OF MENONNITE BRETHREN
CHURCHES
FAITHFUL SAVIOR MINISTRIES
OREGON CITY CHURCH OF THE NAZARENE
OREGON COAST COMMUNITY ACTION
EDUCATION NORTHWEST
COMMUNITY ACTION TEAM, INC.

EUGENE SYMPHONY ASSOCIATION, INC.
STAR OF HOPE ACTIVITY CENTER INC.
SPARC ENTERPRISES
SOUTHERN OREGON CHILD AND FAMILY
COUNCIL, INC.
SALEM ALLIANCE CHURCH
Lane Council of Governments
FORD FAMILY FOUNDATION
TRAILS CLUB
NEWBERG FRIENDS CHURCH
WOODBURN AREA CHAMBER OF COMMERCE

CONTEMPORARY CRAFTS MUSEUM AND
GALLERY
CITY BIBLE CHURCH
OREGON LIONS SIGHT & HEARING
FOUNDATION
PORTLAND WOMENS CRISIS LINE
THE SALVATION ARMY - CASCADE DIVISION
WILLAMETTE FAMILY
WHITE BIRD CLINIC
GOODWILL INDUSTRIES OF LANE AND SOUTH
COAST COUNTIES
PLANNED PARENTHOOD OF SOUTHWESTERN
OREGON
HOUSING NORTHWEST
OREGON ENVIRONMENTAL COUNCIL
MEALS ON WHEELS PEOPLE, INC.
FAITH CENTER
Bob Belloni Ranch, Inc.
GOOD SHEPHERD COMMUNITIES
SACRED HEART CATHOLIC DAUGHTERS
HELP NOW! ADVOCACY CENTER
TENAS ILLAHEE CHILDCARE CENTER
SUNRISE ENTERPRISES
LOOKING GLASS YOUTH AND FAMILY SERVICES

SERENITY LANE
EAST HILL CHURCH
LA GRANDE UNITED METHODIST CHURCH
COAST REHABILITATION SERVICES
Edwards Center Inc
ALVORD-TAYLOR INDEPENDENT LIVING
SERVICES
NEW HOPE COMMUNITY CHURCH

KLAMATH HOUSING AUTHORITY
 QUADRIPLIGICS UNITED AGAINST
 DEPENDENCY, INC.
 SPONSORS, INC.
 COLUMBIA COMMUNITY MENTAL HEALTH
 ADDICTIONS RECOVERY CENTER, INC
 METRO HOME SAFETY REPAIR PROGRAM
 OREGON SUPPORTED LIVING PROGRAM
 SOUTH COAST HOSPICE, INC.
 ALLFOURONE/CRESTVIEW CONFERENCE CTR.

 The International School
 REBUILDING TOGETHER - PORTLAND INC.
 PENDLETON ACADEMIES
 PACIFIC FISHERY MANAGEMENT COUNCIL
 DOGS FOR THE DEAF, INC.
 PUBLIC DEFENDER SERVICES OF LANE COUNTY,
 INC.
 EMMAUS CHRISTIAN SCHOOL
 DELIGHT VALLEY CHURCH OF CHRIST
 SAINT CATHERINE OF SIENA CHURCH
 PORT CITY DEVELOPMENT CENTER
 VIRGINIA GARCIA MEMORIAL HEALTH CENTER

 CENTRAL CITY CONCERN
 CANBY FOURSQUARE CHURCH
 EMERALD PUD
 VERMONT HILLS FAMILY LIFE CENTER
 BENTON HOSPICE SERVICE
 INTERNATIONAL SOCIETY FOR TECHNOLOGY IN
 EDUCATION
 COMMUNITY CANCER CENTER
 OPEN MEADOW ALTERNATIVE SCHOOLS, INC.

 CASCADIA BEHAVIORAL HEALTHCARE
 WILD SALMON CENTER
 BROAD BASE PROGRAMS INC.
 SUNNYSIDE FOURSQUARE CHURCH
 TRAINING EMPLOYMENT CONSORTIUM
 RELEVANT LIFE CHURCH
 211INFO
 SONRISE CHURCH
 LIVING WAY FELLOWSHIP
 Women's Safety & Resource Center
 SEXUAL ASSAULT RESOURCE CENTER

IRCO
 NORTHWEST YOUTH CORPS
 TILLAMOOK CNTY WOMENS CRISIS CENTER
 SECURITY FIRST CHILD DEVELOPMENT CENTER

 CLASSROOM LAW PROJECT
 YOUTH GUIDANCE ASSOC.
 PREGNANCY RESOUCCE CENTERS OF GRETER
 PORTLAND
 ELMIRA CHURCH OF CHRIST
 JASPER MOUNTAIN
 ACUMENTRA HEALTH
 WORKSYSTEMS INC
 COVENANT CHRISTIAN HOOD RIVER
 OREGON DONOR PROGRAM
 NAMI OREGON
 OLIVET BAPTIST CHURCH
 SILVERTON AREA COMMUNITY AID
 CONFEDERATED TRIBES OF GRAND RONDE
 NEIGHBORIMPACT
 CATHOLIC COMMUNITY SERVICES
 NEW AVENUES FOR YOUTH INC
 LA CLINICA DEL CARINO FAMILY HEALTH CARE
 CENTER
 DECISION SCIENCE RESEARCH INSTITUTE, INC.

 WESTERN STATES CENTER
 HIV ALLIANCE, INC
 PARTNERSHIPS IN COMMUNITY LIVING, INC.

 FANCONI ANEMIA RESEARCH FUND INC.
 BLIND ENTERPRISES OF OREGON
 OREGON BALLET THEATRE
 SMART
 All God's Children International
 FARMWORKER HOUSING DEV CORP
 UMPQUA COMMUNITY DEVELOPMENT
 CORPORATION
 REGIONAL ARTS AND CULTURE COUNCIL
 THE EARLY EDUCATION PROGRAM, INC.
 MACDONALD CENTER
 EVERGREEN AVIATION MUSEUM AND CAP.
 MICHAEL KING.
 SELF ENHANCEMENT INC.
 FRIENDS OF THE CHILDREN

SOUTH LANE FAMILY NURSERY DBA FAMILY
RELIEF NURSE
COMMUNITY VETERINARY CENTER
PORTLAND SCHOOLS FOUNDATION
SUSTAINABLE NORTHWEST
OREGON DEATH WITH DIGNITY
BIRCH COMMUNITY SERVICES, INC.
BAY AREA FIRST STEP, INC.
OSLC COMMUNITY PROGRAMS
EN AVANT, INC.
ASHLAND COMMUNITY HOSPITAL
NORTHWEST ENERGY EFFICIENCY ALLIANCE
BONNEVILLE ENVIRONMENTAL FOUNDATION

SUMMIT VIEW COVENANT CHURCH
SALMON-SAFE INC.
BETHEL CHURCH OF GOD
PROVIDENCE HOOD RIVER MEMORIAL
HOSPITAL
SAINT ANDREW NATIVITY SCHOOL
BARLOW YOUTH FOOTBALL
SPOTLIGHT THEATRE OF PLEASANT HILL
FAMILIES FIRST OF GRANT COUNTY, INC.
TOUCHSTONE PARENT ORGANIZATION
CANCER CARE RESOURCES
CASCADIA REGION GREEN BUILDING COUNCIL

SHERMAN DEVELOPMENT LEAGUE, INC.
SCIENCEWORKS
WORD OF LIFE COMMUNITY CHURCH
SOCIAL VENTURE PARTNERS PORTLAND
OREGON PROGRESS FORUM
CENTER FOR RESEARCH TO PRACTICE
WESTERN RIVERS CONSERVANCY
UNITED WAY OF THE COLUMBIA WILLAMETTE

EUGENE BALLET COMPANY
EAST WEST MINISTRIES INTERNATIONAL
SISKIYOU INITIATIVE
EDUCATIONAL POLICY IMPROVEMENT CENTER

North Pacific District of Foursquare Churches

CATHOLIC CHARITIES
FIRST CHURCH OF THE NAZARENE

WESTSIDE BAPTIST CHURCH
Housing Development Center
Little Promises Children's Program
UNION GOSPEL MISSION
GRACE BAPTIST CHURCH
COMMUNITY ACTION ORGANIZATION
OUTSIDE IN
MAKING MEMORIES BREAST CANCER
FOUNDATION, INC.
ELAW
COMMUNITY HEALTH CENTER, INC
Greater Portland INC
Boys & Girls Club of Corvallis
Southeast Uplift Neighborhood Coalition
First United Presbyterian Church
PDX Wildlife
Jackson-Josephine 4-C Council
North Coast Family Fellowship
Childsworld Learning Center
New Artists Performing Arts Productions, Inc.

Relief Nursery
Viking Sal Senior Center
Boys and Girls Club of the rogue valley
DrupalCon Inc., DBA Drupal Association
Albany Partnership for Housing and
Community Development
Hermiston Christian Center & School
Dress for Success Oregon
Beaverton Rock Creek Foursquare Church
St Paul Catholic Church
St Mary's Catholic School and Parish
Polk Soil and Water Conservation District
Street Ministry
La Grande Church of the Nazarene
Spruce Villa, Inc.
House of Prayer for All Nations
Sacred Heart Catholic Church
African American Health Coaliton, Inc.
Happy Canyon Company
Village Home Education Resource Center
Monet's Children's Circle
Cascade Housing Association
Dayspring Fellowship
Northwest Habitat Institute

Winding Waters Medical Clinic
 First Baptist Church
 The Nature Conservancy, Willamette Valley
 Field Office
 Serenity Lane Health Services
 Portland Community Reinvestment Initiatives,
 Inc.
 GeerCrest Farm & Historical Society
 College United Methodist Church
 NEDCO
 Salem Evangelical Church
 Daystar Education, Inc.
 Oregon Social Learning Center
 Pain Society of Oregon
 environmental law alliance worldwide
 Community in Action
 Safe Harbors
 FIRST CHRISTIAN CHURCH
 Pacific Classical Ballet
 Depaul Industries
 African American Health Coalition
 Jesus Prayer Book
 Coalition Of Community Health
 River Network
 CCI Enterprises Inc
 Oregon Nurses Association
 GOODWILL INDUSTRIES OF THE COLUMBIA
 WILLAMETTE
 Mount Angel Abbey
 YMCA OF ASHLAND
 YMCA OF COLUMBIA-WILLAMETTE
 ASSOCIATION SERVICES
 Multnomah Law Library
 Friends Of Tryon Creek State P
 Ontrack Inc.
 Calvin Presbyterian Church
 HOLT INTL CHILD
 St John The Baptist Catholic
 Portland Foursquare Church
 Portland Christian Center
 Church Extension Plan
 Occu Afghanistan Relief Effort
 EUGENE FAMILY YMCA
 Christ The King Parish and School
 Newberg Christian Church

First United Methodist Church
 Zion Lutheran Church
 Southwest Bible Church
 Community Works Inc
 Masonic Lodge Pearl 66
 Molalla Nazarene Church
 Transition Projects, Inc
 St Michaels Episcopal Church
 Saint Johns Catholic Church
 Access Inc
 Community Learning Center
 Old Mill Center for Children and Families
 Sunny Oaks Inc
 Hospice Center Bend La Pine
 Westside Foursquare Church
 Relief Nursery Inc
 Morning Star Community Church
 MULTNOMAH DEFENDERS INC
 Providence Health System
 Holy Trinity Catholic Church
 Holy Redeemer Catholic Church
 Alliance Bible Church
 Mid Columbia Childrens Council
 HUMANE SOCIETY OF REDMOND
 Our Redeemer Lutheran Church
 Kbps Public Radio
 Skyball Salem Keizer Youth Bas
 Open Technology Center
 Grace Chapel
 CHILDREN'S MUSEUM 2ND
 Solid Rock
 West Chehalem Friends Church
 Guide Dogs For The Blind
 Aldersgate Camps and Retreats
 St. Katherine's Catholic Church
 The Alliance NW of the Christian & Missionary
 Alliance
 Bags of Love
 Grand View Baptist Church
 Green Electronics Council
 Scottish Rite
 Western Wood Products Association
 THE NEXT DOOR
 NATIONAL PSORIASIS FOUNDATION
 NEW BEGINNINGS CHRISTIAN CENTER

HIGHLAND UNITED CHURCH OF CHRIST
OREGON REPERTORY SINGERS
HIGHLAND HAVEN
FAIR SHARE RESEARCH AND EDUCATION FUND

Oregon Satsang Society, Inc., A chartered
Affiliate of ECKANKAR , ECKA
First Baptist Church of Enterprise
The Canby Center
Instituto de Cultura y Arte In Xochitl In Cuicatl

OSLC COMMUNITY PROGRAMS OCP
Oregon Nikkei Endowment
Eastern Oregon Alcoholism Foundation
Grantmakers for Education
The Spiral Gallery
The ALS Association Oregon and SW
Washington Chapter
Children's Relief Nursery
Home Builders
World of Speed
Energy Trust of Oregon
Oregon Psychoanalytic Center
Store to Door
Depaul Industries
North Coast Christian Church
Union County Economic Development Corp.
Camelto Theatre Company
Camp Fire Columbia
TAKE III OUTREACH
Rolling Hills Community Church
Summa Institute
Amani Center
Billy Webb Elks lodge #1050
Sandy Seventh-day Adventist Church
Muddy Creek Charter School
A FAMILY FOR EVERY CHILD
1000 FRIENDS OF OREGON
NONPROFIT ASSOCIATION OF OREGON
FAMILY CARE INC
MEDICAL TEAMS INTL
Clean Slate Canine Rescue & Rehabilitation
St. Martins Episcopal church
Food for Lane County

columbia gorge discovery center and museum

NAMI of Washington County
The Dalles Art Association
Temple Beth Israel
Willamette Leadership Academy/Pioneer
Youth Corps Of Oregon
Rose Haven
Sexual Assault Support Services
Rural Development Initiatives
YMCA of Marion and Polk Counties
Faith Christian Fellowship
Fund For Christian Charity
Deer Meadow Assisted Living
Umpqua Basin Water Association
The Church of Christ of Latter Day Saints
300 Main Inc
Southwestern Oregon Public Defender
Services, Inc.
Albertina Kerr Centers
Dufur Christian Church
St. Matthew Catholic School
Serendipity Center Inc
Northwest Family Services
Network Charter School
Ride Connecton
Parenting Now!
USO Northwest
Norkenzie Christian Church
Center for Family Development
West Salem Foursquare Church
Mount Pisgah Arboretum
Lower Columbia Estuary Partnership
Oasis Shelter Home
Nehalem Bay House
p:ear
Health Share of Oregon
St. Peter Catholic Church
Mid Willamette Valley Community Action
A Hope For Autism Foundation
Breast Friends
SEPTL Southeast Portland Tool Library
National Christian Community Foundation
Legal Aid Services of Oregon LITC
Willamette Valley Babe Ruth

Center For Continuous Improvement
 SEIU Local 49
 Emerald Media Group
 Trillium Sprigs
 Youth Dynamics
 Ashland Art Center
 Apostolic Church of Jesus Christ
 DOUGLAS FOREST PROTECTIVE
 Oregon Lyme Disease Network
 Ecotrust
 SPECIAL MOBILITY SERVICES
 Historical Outreach Foundation
 Teras Interventions and Counseling Inc
 Salem Area Chamber of Commerce
 First Congregational Chrch
 OREGON STATE FAIR
 Ronald McDonald House Charities of Oregon &
 Southwest Washington
 Center for Human Development
 Bridges to Change
 DePaul Treatment Centers, Inc.
 Mission Increase Foundation
 Curry Public Transit Inc
 THREE RIVERS CASINO
 Brookings Harbor Christian School
 Yamhill Community Care Organization
 Portland Japanese Garden
 The Madeleine Parish
 The Tucker-Maxon Oral School
 Southwest Neighborhoods, Inc
 Wallowa Valley Center For Wellness
 KIDS INTERVENTION AND DIAGNOSTIC CENTER

Portland Yacht Club
 League of Women Voters
 United Way of Lane County
 Unithed Way
 Portland Oregon Visitors Association
 Southern Oregon Project Hope
 Our United Villages
 Samaritan Health Services Inc.
 Kilchis House
 Calvary Assembly of God
 Grace Lutheran School
 Western Mennonite School

OEA CHOICE TRUST
 American Tinnitus Association
 Oregon Coast Aquarium, Inc.
 Unitus Community Credit Union
 St John the Baptist Greek Orthodox Church
 COLUMBIA PACIFIC ECONOMIC DEVELOPMENT
 DISTRICT OF OREGON
 Oregon Rural Electric Cooperative Association

THE MILL CASINO

Account Type: College and University

Oregon State University
 Treasure Valley Community College
 Univiersity of Oregon
 OREGON UNIVERSITY SYSTEM
 WESTERN STATES CHIROPRACTIC COLLEGE
 GEORGE FOX UNIVERSITY
 LEWIS AND CLARK COLLEGE
 PACIFIC UNIVERSITY
 REED COLLEGE
 WILLAMETTE UNIVERSITY
 LINFIELD COLLEGE
 MULTNOMAH BIBLE COLLEGE
 NORTHWEST CHRISTIAN COLLEGE
 NATIONAL COLLEGE OF NATURAL MEDICINE
 BLUE MOUNTAIN COMMUNITY COLLEGE
 PORTLAND STATE UNIV.
 CLACKAMAS COMMUNITY COLLEGE
 MARYLHURST UNIVERSITY
 OREGON HEALTH AND SCIENCE UNIVERSITY
 BIRTHINGWAY COLLEGE OF MIDWIFERY
 pacific u
 UNIVERSITY OF OREGON
 CONCORDIA UNIV
 Marylhurst University
 Corban College
 Portland Actors Conservatory
 University Of Oregon Athletics Department
 Ecola Bible School
 Beta Omega Alumnae
 Oregon Institute of Technology
 EASTERN OREGON UNIVERSITY

Account Type: Other

Clackamas River Water Providers
 eickhoff dev co inc
 The Klamath Tribe
 Life Flight Network LLC
 COVENANT RETIREMENT COMMUNITIES
 PENTAGON FEDERAL CREDIT UNION
 SAIF CORPORATION
 GREATER HILLSBORO AREA CHAMBER OF
 COMMERCE
 LANE ELECTRIC COOPERATIVE
 USAGENCIES CREDIT UNION
 DOUGLAS ELECTRIC COOPERATIVE, INC.
 ROGUE FEDERAL CREDIT UNION
 PACIFIC CASCADE FEDERAL CREDIT UNION
 LOCAL GOVERNMENT PERSONNEL INSTITUTE

 GRANTS PASS MANAGEMENT SERVICES, DBA

 SPIRIT WIRELESS
 Kartini Clinic
 OFFICE OF PUBLIC DEFENSE SERVICES
 Clatskanie People's Utility District
 Ricoh USA
 Heartfelt Obstetrics & Gynecology
 Coquille Economic Development Corporation

 Cintas
 CITY/COUNTY INSURANCE SERVICE
 COMMUNITY CYCLING CENTER
 Shangri La
 Portland Impact
 Eagle Fern Camp
 KLAMATH FAMILY HEAD START
 RIVER CITY DANCERS
 Oregon Permit Technical Association
 KEIZER EAGLES AERIE 3895
 Pgma/Cathie Bourne
 Sunrise Water
 Burns Paiute Tribe
 Oregon Public Broadcasting
 La Grande Family Practice
 SELCO Community Credit Union
 Sphere MD
 sunrise water authority
 OREGON JUDICIAL DEPARTMENT

Confederated Tribes of Warm Springs
 Halsey-Shedd Fire District
 Nez Perce Tribe
 Obsidian Urgent Care, P.C.
 First Presbyterian Church of La Grande
 CONFLUENCE ENVIRONMENTAL CENTE
 A&I Benefit Plan Administrators, Inc.
 crescent grove cemetery

Account Type: City Special District

Molalla Rural Fire Protection District
 MONMOUTH - INDEPENDENCE NETWORK
 MALIN COMMUNITY PARK AND RECREATION
 DISTRICT
 TILLAMOOK PEOPLES UTILITY DISTRICT
 GLADSTONE POLICE DEPARTMENT
 GOLD BEACH POLICE DEPARTMENT
 THE NEWPORT PARK AND RECREATION
 CENTER
 RIVERGROVE WATER DISTRICT
 WEST VALLEY HOUSING AUTHORITY
 TUALATIN VALLEY FIRE & RESCUE
 GASTON RURAL FIRE DEPARTMENT
 CITY COUNTY INSURANCE SERVICES
 METRO
 SUNSET EMPIRE PARK AND RECREATION
 SPRINGFIELD UTILITY BOARD
 Tillamook Urban Renewal Agency
 Netarts Water District
 City of Nehalem
 Boardman Rural Fire Protection District

Account Type: Independent Special District

Silverton Fire District
 Lewis and Clark Rural Fire Protection District

 Rainbow Water District
 Illinois Valley Fire District
 PORT OF TILLAMOOK BAY
 TRI-COUNTY HEALTH CARE SAFETY NET
 ENTERPRISE
 METROPOLITAN EXPOSITION-RECREATION
 COMMISSION

REGIONAL AUTOMATED INFORMATION NETWORK
 OAK LODGE WATER DISTRICT
 THE PORT OF PORTLAND
 WILLAMALANE PARK AND RECREATION DISTRICT
 TUALATIN VALLEY WATER DISTRICT
 UNION SOIL & WATER CONSERVATION DISTRICT
 LANE EDUCATION SERVICE DISTRICT
 TUALATIN HILLS PARK AND RECREATION DISTRICT
 PORT OF SIUSLAW
 CHEHALEM PARK AND RECREATION DISTRICT

 PORT OF ST HELENS
 LANE TRANSIT DISTRICT
 CENTRAL OREGON INTERGOVERNMENTAL COUNCIL
 HOODLAND FIRE DISTRICT NO.74
 MID COLUMBIA COUNCIL OF GOVERNMENTS

 WEST MULTNOMAH SOIL AND WATER CONSERVATION DISTRICT
 SALEM AREA MASS TRANSIT DISTRICT
 Banks Fire District #13
 KLAMATH COUNTY 9-1-1
 GLENDALE RURAL FIRE DISTRICT
 COLUMBIA 911 COMMUNICATIONS DISTRICT

 CLACKAMAS RIVER WATER
 NW POWER POOL
 Lowell Rural Fire Protection District
 TriMet Transit
 Estacada Rural Fire District
 Keizer Fire District
 State Accident Insurance Fund Corporation
 Bend Metro Park & Recreation District
 Port of Hood River
 La Pine Park & Recreation District
 Siuslaw Public Library District
 Columbia River Fire & Rescue
 Fern Ridge Library District
 Seal Rock Water District
 Rockwood Water P.U.D.

Tillamook Fire District
 Tillamook County Transportation Dist
 Central Lincoln People's Utility District
 Jefferson Park and Recreation

Account Type: City

City of Monmouth / Public Works
 McMinnville Police Department
 Brookings Fire / Rescue
 City of Veneta
 CITY OF DAMASCUS
 Hermiston Fire & Emergency Svcs
 CEDAR MILL COMMUNITY LIBRARY
 CITY OF LAKE OSWEGO
 EUGENE WATER & ELECTRIC BOARD
 LEAGUE OF OREGON CITIES
 CITY OF SANDY
 CITY OF ASTORIA OREGON
 CITY OF BEAVERTON
 CITY OF BOARDMAN
 CITY OF CANBY
 CITY OF CANYONVILLE
 CITY OF CENTRAL POINT POLICE DEPARTMENT

 CITY OF CLATSKANIE
 CITY OF CONDON
 CITY OF COOS BAY
 CITY OF CORVALLIS
 CITY OF CRESWELL
 CITY OF ECHO
 CITY OF ESTACADA
 CITY OF EUGENE
 CITY OF FAIRVIEW
 CITY OF GEARHART
 CITY OF GOLD HILL
 CITY OF GRANTS PASS
 CITY OF GRESHAM
 CITY OF HILLSBORO
 CITY OF HOOD RIVER
 CITY OF JOHN DAY
 CITY OF KLAMATH FALLS
 CITY OF LA GRANDE
 CITY OF MALIN
 CITY OF MCMINNVILLE
 CITY OF HALSEY

CITY OF MEDFORD
CITY OF MILL CITY
CITY OF MILWAUKIE
CITY OF MORO
CITY OF MOSIER
CITY OF NEWBERG
CITY OF OREGON CITY
CITY OF PILOT ROCK
CITY OF POWERS
RAINIER POLICE DEPARTMENT
CITY OF REEDSPORT
CITY OF RIDDLE
CITY OF SCAPPOOSE
CITY OF SEASIDE
CITY OF SILVERTON
CITY OF STAYTON
City of Troutdale
CITY OF TUALATIN, OREGON
CITY OF WARRENTON
CITY OF WEST LINN/PARKS
CITY OF WOODBURN
CITY OF TIGARD, OREGON
CITY OF AUMSVILLE
CITY OF PORT ORFORD
CITY OF EAGLE POINT
CITY OF WOOD VILLAGE
St. Helens, City of
CITY OF WINSTON
CITY OF COBURG
CITY OF NORTH PLAINS
CITY OF GERVAIS
CITY OF YACHATS
FLORENCE AREA CHAMBER OF COMMERCE
PORTLAND DEVELOPMENT COMMISSION
CITY OF CANNON BEACH OR
CITY OF ST. PAUL
CITY OF ADAIR VILLAGE
CITY OF WILSONVILLE
CITY OF HAPPY VALLEY
CITY OF SHADY COVE
CITY OF LAKESIDE
CITY OF MILLERSBURG
CITY OF GATES
KEIZER POLICE DEPARTMENT
CITY OF DUNDEE

CITY OF AURORA
THE CITY OF NEWPORT
CITY OF ALBANY
CITY OF ASHLAND
CITY OF LEBANON
CITY OF PORTLAND
CITY OF SALEM
CITY OF SPRINGFIELD
CITY OF BURNS
CITY OF COTTAGE GROVE
CITY OF DALLAS
CITY OF FALLS CITY
CITY OF PHOENIX
CITY OF PRAIRIE CITY
CITY OF REDMOND
CITY OF SHERWOOD
City of junction city
City of Florence
City of Dayton
City of Monmouth
City of Philomath
City of Sheridan
Seaside Public Library
City of Yoncalla
La Grande Police Department
Cove City Hall
NW PORTLAND INDIAN HEALTH BOARD
Portland Patrol Services
City Of Bend
City Of Coquille
City Of Molalla
ROCKWOOD WATER PEOPLE'S UTILITY
DISTRICT
City of St. Helens
City of North Powder
City of Cornelius, OR
Toledo Police Department
City of Independence
City of Baker City
McMinnville Water & Light
City of Pendleton Parks & Recreation
CITY OF SWEETHOME
CITY OF THE DALLES
CLACKAMAS FIRE DIST#1
DESCHUTES PUBLIC LIBRARY

City of Ontario
 City of Corvallis Parks and Recreation
 North Lincoln Fire & Rescue #1
 City of Harrisburg
 Gladstone Public Library
 Seaside Fire & Rescue
 City of Union
 City of Richland
 CITY OF LINCOLN CITY
 City of Donald
 City of Milton-Freewater
 CITY OF SCIO
 City of Forest Grove
 City Govrnment
 City of Mt. Angel
 Albany Police Department

Account Type: County Special District

Umatilla Electric Cooperative
 WATER ENVIRONMENT SERVICES
 Netarts-Oceanside RFPD
 UIUC
 Rogue River Fire District
 Aurora Rural Fire District
 Tillamook County Emergency Communications District
 Southern Coos Hospital
 Oregon Cascades West Council of Governments
 MULTONAH COUNTY DRAINAGE DISTRICT #1

PORT OF BANDON
 OR INT'L PORT OF COOS BAY
 MID-COLUMBIA CENTER FOR LIVING
 DESCHUTES COUNTY RFPD NO.2
 YOUNGS RIVER LEWIS AND CLARK WATER DISTRICT
 PACIFIC STATES MARINE FISHERIES COMMISSION
 HOUSING AUTHORITY AND COMMUNITY SERVICES AGENCY
 CENTRAL OREGON IRRIGATION DISTRICT
 MARION COUNTY FIRE DISTRICT #1
 COLUMBIA RIVER PUD
 SANDY FIRE DISTRICT NO. 72

BAY AREA HOSPITAL DISTRICT
 NEAH KAH NIE WATER DISTRICT
 PORT OF UMPQUA
 EAST MULTNOMAH SOIL AND WATER CONSERVANCY
 Benton Soil & Water Conservation District
 DESCHUTES PUBLIC LIBRARY SYSTEM
 North Douglas County Fire & EMS
 Crooked River Ranch Rural Fire Protection District
 PARROTT CREEK CHILD & FAM
 South Lane County Fire And Rescue

Account Type: Community College

CENTRAL OREGON COMMUNITY COLLEGE
 LANE COMMUNITY COLLEGE
 MT. HOOD COMMUNITY COLLEGE
 LINN-BENTON COMMUNITY COLLEGE
 SOUTHWESTERN OREGON COMMUNITY COLLEGE
 PORTLAND COMMUNITY COLLEGE
 CHEMEKETA COMMUNITY COLLEGE
 COLUMBIA GORGE COMMUNITY COLLEGE
 TILLAMOOK BAY COMMUNITY COLLEGE
 KLAMATH COMMUNITY COLLEGE DISTRICT
 Oregon Coast Community College
 Clatsop Community College
 North Portland Bible College

Account Type: State Agency

Oregon Forest Resources Institute
 Office of the Ong Term Care Ombudsman
 Oregon State Lottery
 OREGON TOURISM COMMISSION
 OREGON STATE POLICE
 OFFICE OF THE STATE TREASURER
 OREGON DEPT. OF EDUCATION
 SEIU LOCAL 503, OPEU
 OREGON DEPARTMENT OF FORESTRY
 OREGON STATE DEPT OF CORRECTIONS
 OREGON CHILD DEVELOPMENT COALITION
 OFFICE OF MEDICAL ASSISTANCE PROGRAMS

 OREGON OFFICE OF ENERGY
 OREGON STATE BOARD OF NURSING

BOARD OF MEDICAL EXAMINERS
OREGON LOTTERY
OREGON BOARD OF ARCHITECTS
SANTIAM CANYON COMMUNICATION CENTER

OREGON DEPT OF TRANSPORTATION
OREGON TRAVEL INFORMATION COUNCIL
OREGON DEPARTMENT OF EDUCATION
OREGON DEPT. OF CORRECTIONS
DEPARTMENT OF ADMINISTRATIVE SERVICES

Oregon Tradeswomen
Oregon Convention Center
OREGON SCHL BRDS ASSOCIAT
CARE OREGON
Central Oregon Home Health and Hos
Oregon Health Care Quality Cor
OREGON DEPARTMENT OF HUMAN SERVICES

Training & Employment
BIENESTAR, INC.
State of Oregon - Department of
Administrative Services
Aging and People with Disabilities
Procurement Services/DAS
STATE OF OREGON

City of Astoria Fire Department
Columbia Gorge ESD

Account Type: Consolidated City/County

City of Carlton
City of Pendleton Convention Center

Account Type: Federal

US FISH AND WILDLIFE SERVICE
Bonneville Power Administration
Oregon Army National Guard
USDA Forest Service
Yellowhawk Tribal Health Center
ANGELL JOB CORPS

Account Type: Housing Authority

Coquille Indian Housing Authority
HOUSING AUTHORITY OF PORTLAND
NORTH BEND CITY- COOS/URRY HOUSING
AUTHORITY
MARION COUNTY HOUSING AUTHORITY
HOUSING AUTHORITY OF THE CITY OF SALEM

Housing Authority of Yamhill County
The Housing Authority of the County of
Umatilla

Attachment 6 – FEMA Standard Terms and Conditions Addendum for Contracts and Grants

If any purchase made under the Master Agreement is funded in whole or in part by Federal Emergency Management Agency (“FEMA”) grants, Contractor shall comply with all federal laws and regulations applicable to the receipt of FEMA grants, including, but not limited to the contractual procedures set forth in Title 44 of the Code of Federal Regulations, Part 13 (“44 CFR 13”).

In addition, Contractor agrees to the following specific provisions:

1. Pursuant to 44 CFR 13.36(i)(1), District is entitled to exercise all administrative, contractual, or other remedies permitted by law to enforce Contractor’s compliance with the terms of this Master Agreement, including but not limited to those remedies set forth at 44 CFR 13.43.
2. Pursuant to 44 CFR 13.36(i)(2), District may terminate the Master Agreement for cause or convenience in accordance with the procedures set forth in the Master Agreement and those provided by 44 CFR 13.44.
3. Pursuant to 44 CFR 13.36(i)(3)-(6)(12), and (13), Contractor shall comply with the following federal laws:
 - a. Executive Order 11246 of September 24, 1965, entitled “Equal Employment Opportunity,” as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor (“DOL”) regulations (41 CFR Ch. 60);
 - b. Copeland “Anti-Kickback” Act (18 U.S.C. 874), as supplemented in DOL regulations (29 CFR Part 3);
 - c. Davis-Bacon Act (40 U.S.C. 276a-276a-7) as supplemented by DOL regulations (29 CFR Part 5);
 - d. Section 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330) as supplemented by DOL regulations (29 CFR Part 5);
 - e. Section 306 of the Clean Air Act (42 U.S.C. 1857(h), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15); and
 - f. Mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L. 94-163, 89 Stat. 871).

4. Pursuant to 44 CFR 13.36(i)(7), Contractor shall comply with FEMA requirements and regulations pertaining to reporting, including but not limited to those set forth at 44 CFR 40 and 41.
5. Pursuant to 44 CFR 13.36(i)(8), Contractor agrees to the following provisions regarding patents:
 - a. All rights to inventions and/or discoveries that arise or are developed, in the course of or under this Agreement, shall belong to the District and be disposed of in accordance with District policy. The District, at its own discretion, may file for patents in connection with all rights to any such inventions and/or discoveries.
6. Pursuant to 44 CFR 13.36(i)(9), Contractor agrees to the following provisions, regarding copyrights:
 - a. If this Agreement results in any copyrightable material or inventions, in accordance with 44 CFR 13.34, FEMA reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, for Federal Government purposes:
 - (1) The copyright in any work developed under a grant or contract; and
 - (2) Any rights of copyright to which a grantee or a contractor purchases ownership with grant support.
7. Pursuant to 44 CFR 13.36(i)(10), Contractor shall maintain any books, documents, papers, and records of the Contractor which are directly pertinent to this Master Agreement. At any time during normal business hours and as often as District deems necessary, Contractor shall permit District, FEMA, the Comptroller General of United States, or any of their duly authorized representatives to inspect and photocopy such records for the purpose of making audit, examination, excerpts, and transcriptions.
8. Pursuant to 44 CFR 13.36(i)(11), Contractor shall retain all required records for three years after FEMA or District makes final payments and all other pending matters are closed. In addition, Contractor shall comply with record retention requirements set forth in 44 CFR 13.42.

Attachment 7 – Community Development Block Grant Addendum

Purchases made under this contract may be partially or fully funded with federal grant funds. Funding for this work may include Federal Funding sources, including Community Development Block Grant (CDBG) funds from the U.S. Department of Housing and Urban Development. When such funding is provided, Contractor shall comply with all terms, conditions and requirements enumerated by the grant funding source, as well as requirements of the State statutes for which the contract is utilized, whichever is the more restrictive requirement. When using Federal Funding, Contractor shall comply with all wage and latest reporting provisions of the Federal Davis-Bacon Act. HUD-4010 Labor Provisions also applies to this contract.

Attachment 8 – Price Scenarios

Price Scenario and Project Summary:

No.	Product and/or Service	Location
Project To Be Completed		
1	Chiller-Actual supply and installation	North Harford Middle School, Pylesville, MD
Scenario's For Pricing		
2	Provide packaged rooftop air conditioner and installation	Chicago, IL, city limits
3	Provide indoor air handling unit	Buffalo, NY, metro area
4	Provide air cooled scroll chiller, installation and maintenance for two (2) years	Jacksonville, FL, metro area
5	Provide centrifugal water chiller, installation and maintenance for two (2) years	Dallas, TX, metro area
6	Provide Unit ventilator and installation	Los Angeles, CA, city limits

Pricing Project # 1

North Harford Middle School Chiller Replacement Harford County Public Schools

1.1 GENERAL:

- a. This technical specification is for the installation of two (2) air-cooled, 280 nominal tons, rotary screw chillers for North Harford Middle School.
- b. The contractor shall include all cost associated with coordinating the installation including the various sub-contractors, shipping, taxes, warrantee, start-up and training.
- c. The contractor is responsible for securing all required permits, and furnishing all the engineering, drawings, calculations, etc. as required by the local and county building and inspection authorities.
- d. The contractor is responsible for furnishing all the engineering submittals, drawings, calculations, HVAC load modeling as required by the local electrical utility for Delmarva Power's C & I Energy Savers rebate program.

PART 2 - PRODUCTS

2.1 AIR-COOLED SCREW COMPRESSOR CHILLER

A. General: Section includes design, performance criteria, refrigerants, controls, and installation requirements for air-cooled semi hermetic rotary screw compressor chiller. The successful Contractor shall coordinate, receive, store, rig, and install the chiller per the manufacturer's recommendations. The Contractor shall also coordinate with the chiller manufacturer for the start-up, and training as part of the chiller replacement project.

1. References: Comply with applicable Standards/Codes of ARI 550/590, ANSI/ASHRAE 15, ETL, cETL, NEC, and OSHA as adopted by the State. Units shall meet the minimum efficiency standards of ASHRAE Standard 90.1-2010 or the latest adopted version, and other applicable codes adopted by Harford County and/or the State.
2. Submittals: Submit shop drawings and product data with the Bid (2 Copies) in accordance with the specifications. Submittals shall include the following:
 - a. Dimensioned plan and elevation view drawings, required clearances, and location of all field connections.
 - b. Summary shall indicate quality and quantity of each required utility – water and electricity.
 - c. Single-line schematic drawing of the field power hook-up requirements, indicating all items that are furnished.
 - d. Schematic diagram of control system indicating points for field interface/connection. Diagram shall fully delineate field and factory wiring.
 - f. Certification of factory-run test of chiller unit signed by company officer.
 - g. Sound Power and Sound Pressure Level Data in decibels
 - h. BACnet Testing Lab (BTL) Certification or BACnet Protocol Implementation Conformance Statement.
4. Quality Assurance:
 - a. Qualifications: Equipment manufacturer must specialize in the manufacture of the products specified and have minimum five years experience with the type of equipment and refrigerant offered.
 - b. Regulatory Requirements: Comply with the codes and standards specified herein:
 - AHRI 550/590
 - AHRI 70 – Sound Rating
 - ANSI/ASHRAE – 15 Safety Code for Mechanical Refrigeration
 - ANSI/NFPA – 70 National Electric Code
 - ASHRAE 90.1 – 2010 or latest adopted version
 - ASME Section VIII Boiler and pressure vessel code

OSHA

- c. Chiller manufacturer's plant must be ISO 9001 Registered.
5. Delivery Date/Project Address: The chiller shall be delivered to the project site around mid to late October 2015 after the end of the cooling season. Delivery dates shall be coordinated with HCPS and North Harford Middle School. The address is North Harford Middle School, 112 Pylesville Rd, Pylesville, MD 21132.
6. Substantial Completion and Start-up: The project shall be substantially complete by April 1, 2016, and ready for start-up around April 15, 2016 based on cooling weather requirements.
7. Existing Site Conditions: Contractors are required to visit the project site to review the existing conditions, chilled water piping lay out, and electrical equipment requirements and connections. The existing chiller enclosure dimensions are approximately 41' long x 34'-4" wide, wall height is 10'-6". The two existing chiller pads are approximately 31' L x 9'-6" W and 6' apart side by side. The Contractor is responsible for field verifying all dimensions for the equipment layout.
8. Delivery and Handling: Chillers shall be delivered to the job site or the mechanical contractor's yard completely assembled and charged with refrigerant and oil by the manufacturer. Comply with the manufacturer's instructions for rigging and handling equipment. Provide protective coverings for all components that could be damaged during shipping. All open ended piping shall be fitted with plastic or equivalent enclosures.
9. Warranty: The refrigeration equipment manufacturer's warranty shall be for a period of one (1) year from date of chiller start up. The contractor shall provide an additional extended warranty for one year. The warranty shall provide for repair or replacement due to failure by material and workmanship that prove defective within the 2 year period, including refrigerant, parts, and labor. The compressor(s) parts shall be warranted for a minimum of five (5) years.
10. Maintenance: Maintenance of the chillers shall be the responsibility of the contractor and performed in accordance with the Manufacturer's instructions during the two year warrantee period. During the first cooling season the contractor/manufacturer shall perform two on-site inspections and furnish HCPS a report describing the condition of the major components of the chiller, with any issues to be addressed and recommended corrective actions. Site visits shall be coordinated with HCPS Facilities Management.

B. Products

1. Acceptable Manufacturers:
The selection is based on Daikin Applied Model AWS 280 CDH VFD (basis of design), JCI/York International YVAA, Trane RTAE or Carrier 30XA will be acceptable as long as the selection of the chiller by the contractor/manufacturer meets the performance requirements, physical requirements, electrical and mechanical requirements specified herein.
2. Unit Description: Furnish, install and commission two (2) factory-charged air-cooled semi hermetic screw compressor packaged chillers as specified. The chiller shall consist of compressor sets (two or three compressors), VFD for each compressor, direct expansion evaporator, air-cooled condenser section, R-134A refrigerant, microprocessor-based control system and all components necessary for controlled unit operation. Each chiller shall be factory run-tested with water to verify operation. Operating controls and refrigerant charge shall be checked for proper operation and optimum performance. Any deviation shall be remedied prior to shipment and the unit retested, if necessary, to confirm repairs or adjustments. Provide certification of factory run tests signed by company officer.
3. Design Requirements:
 - a. General: Provide a complete screw compressor packaged chiller as specified herein. The unit shall be in accordance with the standards referenced in Section 2.1.A.1 and any local codes in effect.
 - b. Performance: EER at full load minimum = 10.2, IPLV Minimum= 15.5. The chiller shall be capable of stable operation to a minimum of 20 percent of full load without hot gas bypass. Performance shall be in accordance with AHRI Standard 550/590.

- c. Acoustics: Sound power levels for the unit shall not exceed A-weighted rating of 101 dBA and sound pressure levels shall not exceed A-weighted rating of 73 dBA . Provide both sound pressure and sound power data in decibels as per the table below. Test shall be in accordance with AHRI Standard 370.

Sound Data	Total dBA	for octave-band center frequencies (Hz)							
		63	125	250	500	1k	2k	4k	8k
Chiller									

Manufacturer shall provide compressor blankets and low noise condenser fans to meet the noise requirements if required.

- d. Design Chilled water supply temperature @ 525 gpm, LWT=42 degrees F, EWT: 55 degrees F based on 95 degrees ambient air. 260 tons net per chiller.
- e. Max. Pressure drop through evaporator shall be 34 ft. Chilled water pump selection will be affected if pressure drop exceeds 34 ft. Contractor is responsible for proper pump selection and all related changes to accommodate higher pressure drops.
4. Chiller Components:
- a. Compressors: The compressors shall be sealed semi-hermetic, rotary screw type. Compressors shall be furnished with vibration isolation pads Compressor Motors shall be high torque, two pole semi-hermetic, squirrel cage induction type with inherent thermal protection on all three phases and cooled by suction gas. Design working pressure of compressor shall be a minimum of 350 psig. Each compressor shall be equipped with a VFD to provide compressor speed control as a function of the cooling load. The VFD shall provide for controlled motor acceleration and deceleration as well as protection against electronic thermal overload, over/under current, stalled motor, phase loss, current imbalance. The VFD shall provide a minimum 94 % power factor at all load points or alternatively be furnished with power factor correction capacitors. VFDs shall be equipped with EMI filters to combat harmonics.
- b. Evaporator: The evaporator shall be direct expansion, high efficiency counter-flow heat transfer type with water flowing in the baffled shell side and refrigerant flowing through the tubes and low pressure drops. The evaporator shall have a carbon steel shell and seamless high efficiency copper tubes rolled into a carbon steel tube sheet. The top and bottom of the evaporator shall have 3/8-inch (10 mm) vent and drain plugs. The evaporator shall have an electric resistance immersion heater and be insulated with 1 1/2-inch (38 mm) thick flexible elastomeric cellular sheet insulation and have a K factor of at least 0.26 at 75 deg F (23 deg C), protecting against water freeze-to ambient air temperatures of -20 deg F (-29 deg C). A fluid thermostat shall control the heater. The water side working pressure shall be minimum 150 psig, refrigerant side working pressure shall be a minimum 235 psig. Each evaporator shall be designed, constructed, inspected, and stamped according to the requirements of the ASME Section VIII Boiler and Pressure Vessel Code. Contractor to verify left hand or right hand, front and rear piping connections on the evaporator with respect to the existing chilled water piping. Contractor is responsible for all required new chilled water piping to make the necessary connections. New chilled water piping to match the existing chilled water black steel piping, diameter and thickness. Pipe insulation/thickness for chilled water piping to match existing and suitable for exterior installation. Existing butterfly shut off valves may be reused if suitable.
- c. Condenser: The condenser coils shall consist of 3/8 inch (10mm) seamless copper tubes mechanically bonded into aluminum plate-type fins. The fins shall have full drawn collars to completely cover the tubes. A sub-cooling coil shall be an integral part of the main condenser coil. Coils shall be designed for minimum 350 psig working pressure. Condenser fans shall be single piece molded composite material to provide low noise levels, arranged for vertical air discharge and individually driven by direct-drive fan motors. They shall be equipped with a heavy-gauge PVC

coated fan guard. Fan motors shall be TEAO, three-phase, direct-drive, 850 rpm. Each fan section shall be partitioned to avoid cross circulation.

- d. Refrigerant Circuit: Each of the refrigerant circuits shall be independent of each other, with at least one compressor per circuit, include a replaceable refrigerant filter-drier, sight glass with moisture indicator, liquid line shutoff valve (no exceptions), electronic expansion valve, and insulated suction line shutoff valve.
- e. Power and Electrical requirements: Provide single point power connection to the chiller, 3 PH/4W/460 V.
- e. Construction: Unit casing and all structural members and rails shall be fabricated of steel and painted to meet ASTM B117, 500-hour salt spray test. Provide protective and decorative louvers for upper section of the unit, covering the coils and unit end. Provide neoprene in shear vibration isolation pads for field installation.
- f. Control System: A NEMA Type 3A weatherproof control panel shall contain the field power connection points, control interlock terminals, and unit control system. Hinged access doors shall be lockable. Barrier panels are required to protect against accidental contact with line voltage when accessing the control system. Power and starting components shall include factory circuit breaker of fan motors and control circuit, individual contactors for each fan motor, solid-state compressor three-phase motor overload protection, inherent fan motor overload protection and unit power blocks for connection to remote, contractor-supplied, disconnect switches. Provide single-point connection to a non-fused disconnect switch. A 10.0 amp 115 V convenience outlet shall be mounted inside the control panel.
- g. An advanced DDC microprocessor unit controller with a 4-line by 20-character liquid crystal display provides the operating and protection functions. The controller shall take pre-emptive limiting action in case of high discharge pressure or low evaporator pressure, loss of water flow, loss of refrigerant and freeze protection, phase loss and voltage protection. The controller shall contain the following features as a minimum:
 - 1) The following features and functions shall be included:
 - a) A multi- key input pad conveniently mounted on the unit controller. Default language and units of measure shall be English and I-P respectively. Messages shall be in plain English. Coded messages, LED indicators and LED displays are not acceptable.
 - b) Separate control section and password protection for critical parameters.
 - c) Remote reset of chilled water temperature using a 4-20mA signal or BACnet interface.
 - d) Soft-load operation, protecting the compressor by preventing full-load operation during the initial chilled fluid pull-down period.
 - e) BAS communication flexibility through modular plug-in BACnet. MS/TP Master (Clause 9) to integrate with the Johnson Controls Energy Management System.
 - f) Non-volatile program memory allowing auto-restart after a power failure.
 - g) Recording of safety shutdowns, including date-and-time stamp, system temperatures and pressures. A minimum of six previous occurrences shall be maintained in a revolving memory.
 - h) Start-to-start and stop-to-start cycle timers, providing minimum compressor off time while maximizing motor protection.
 - i) Lead-lag compressor staging for part-load operation by manual selection or automatically by circuit run hours.
 - j) Discharge pressure control through intelligent cycling of condenser fans to maximize efficiency.
 - k) Pro-active compressor unloading when selected operating parameters exceed design settings, such as high discharge pressure or low evaporator pressure.
 - l) Diagnostic monitoring of unit operation, providing a pre-alarm signal in advance of a potential shutdown, allowing time for corrective action.

5. Building Automation System (BAS) Interface

Factory mounted DDC controller(s) shall support operation on a BACnet® network to integrate with the Johnson Controls Energy Management System BACnet MS/TP master (Clause 9). The information communicated between the BAS and the factory-mounted unit controllers shall include the reading

and writing of data to allow unit monitoring, control and alarm notification as specified.

All communication shall be via standard BACnet objects. Proprietary BACnet objects shall not be allowed. BACnet communications shall conform to the BACnet protocol (ANSI/ASHRAE 135). A BACnet Protocol Implementation Conformance Statement (PICS) shall be provided along with the unit submittal.

6. Options and Accessories: The following options are to be included:

- a.. Ground fault protection.
- b. Factory-mounted thermal flow switch.
- c. Elastomeric isolators

C. Installation

1. Install in strict accordance with manufacturer's requirements, shop drawings, and contract documents.
2. Adjust and level chillers in alignment on existing chiller pads. Verify existing chilled water pipe sizing, and connection/header locations for new chillers. Coordinate chillers physical size/location with the existing chiller enclosure.
3. Coordinate electrical installation with electrical contractor. Verify electrical power requirements, wire/conduit and overcurrent protection sizes.
4. Coordinate existing controls with controls contractor.
5. Install a cleanable, field-supplied 20 (0.125") mesh Y type 304 SS strainer with a blow down valve in the chilled water line at the evaporator inlet to remove debris and other impurities before they get to the evaporator during initial system fill.
6. Field installed pressure and temperature gauges on supply and return chilled water lines.
7. Care shall be exercised when welding pipe or flanges to the evaporator to prevent any slag from entering the vessel. Provide all appurtenances required to insure a fully operational and functional chiller.

D. Start-Up

1. Provide Factory authorized testing and starting of machine, and instruct the Owner (4 hours minimum) in its proper operation and maintenance. Coordinate start up/instruction with HCPS Facilities Management.

END OF NHMS SPECIFICATIONS

MBE requirements apply only to the Harford County Public Schools North Harford Middle School Chiller project.

The Overall certified MBE subcontract participation goal is 8%.

The subgoals are 0%.

MBE instructions and required documents are on the following pages.

MINORITY BUSINESS ENTERPRISE PROCEDURES
FOR
PUBLIC SCHOOL CONSTRUCTION PROJECTS

HARFORD COUNTY PUBLIC SCHOOLS

MINORITY BUSINESS ENTERPRISE PROCEDURES FOR PUBLIC SCHOOL CONSTRUCTION PROJECTS

1.0 IMPLEMENTING PROCEDURES – OVER \$50,000

For construction projects estimated to cost in excess of \$50,000, the following procedures will be utilized:

1. All advertisements, solicitations, and solicitation documents shall include the following statements:
 - a. “Certified Minority Business Enterprises are encouraged to respond to this solicitation notice.”
 - b. “The contractor or supplier who provides materials, supplies, equipment and/or services for this construction project shall attempt to achieve the specific overall MBE goal of ____ percent established for this project. All prime contractors, including certified MBE firms, when submitting bids or proposals as general or prime contractors, are required to attempt to achieve this goal from certified MBE firms.”
 - c. If subgoals have been established for this project then one of the following should be included:
 - 1) “The subgoals established for this project are ____ percent from African American-owned businesses and 0 percent from ~~woman~~ Asian American-owned businesses.”
 - 2) “The subgoal established for this project is ____ percent from African American-owned businesses.”
 - 3) “The subgoal established for this project is ____ percent from ~~woman~~ Asian American-owned businesses.”

2.0 ALL SOLICITATION DOCUMENTS SHALL INCLUDE THE FOLLOWING:

1. Each bid or offer submitted, including a submittal from a certified MBE in response to this solicitation, shall be accompanied by a completed Attachment A – Certified MBE Utilization and Fair Solicitation Affidavit and a completed Attachment B – MBE Participation Schedule. These two attachments must be accurate and consistent with each other.
 - a. Attachment A and Attachment B shall be submitted with the sealed bid price or proposal at a place, date and time specified in the solicitation document. Refer back to the General Terms and Conditions, section 41.0 Minority Business Enterprise Participation. Omitting these attachments will result a bid to be deemed non-responsive.

**CERTIFIED MINORITY BUSINESS ENTERPRISE
UTILIZATION AND FAIR SOLICITATION AFFIDAVIT**

NOTE: You must include this document with your bid or offer. If you do not submit the form with your bid or offer, the procurement officer shall deem your bid non-responsive or your offer not reasonably susceptible of being selected for award.

* * * * *

Part I.

I acknowledge the:

- Overall certified MBE subcontract participation goal of ____ %.
- The subgoals, if applicable, of:
 - 0 % for certified African American-owned businesses and
 - 0 % for certified ~~women~~ **Asian American**-owned businesses.

I have made a good-faith effort to achieve this goal. If awarded the contract, I will continue to attempt to increase MBE participation during the project.

Part II.

Check ONE Box

NOTE: FAILURE TO CHECK ONE OF BOXES 1, 2, or 3 BELOW WILL RENDER A BID NON-RESPONSIVE OR AN OFFER NOT REASONABLY SUSCEPTIBLE OF BEING SELECTED FOR AWARD

NOTE: INCONSISTENCY BETWEEN THE ASSERTIONS ON THIS FORM AND THE INFORMATION PROVIDED ON THE *MBE PARTICIPATION SCHEDULE* (ATTACHMENT B) MAY RENDER A BID NON-RESPONSIVE OR AN OFFER NOT REASONABLY SUSCEPTIBLE OF BEING SELECTED FOR AWARD

- 1 ☐ I have met the overall MBE goal and MBE subgoals for this project. I submit with this Affidavit [Attachment A] the *MBE Participation Schedule* [Attachment B], which details how I will reach that goal.

or

- 2 ☐ After having made a good-faith effort to achieve the overall MBE goal and MBE subgoals for this project, I can achieve partial success only. I submit with this Affidavit [Attachment A] the *MBE Participation Schedule* [Attachment B], which details the MBE participation I have achieved.

I request a partial waiver as follows:

- Waiver of overall MBE subcontract participation goal: ____ %
- Waiver of MBE subcontract participation subgoals, if applicable:
 - ____ % for certified African American-owned businesses and
 - ____ % for certified ~~women~~ **Asian American**-owned businesses.

Within 10 days of being informed that I am the apparent awardee, I will submit *MBE Waiver Documentation* [Attachment F] (with supporting documentation).

or

- 3 ☐ After having made a good faith effort to achieve the overall MBE goal and MBE subgoals for this project, I am unable to achieve any portion of the goal or subgoals. I submit with this Affidavit [Attachment A] the *MBE Participation Schedule* [Attachment B].

I request a full waiver.

Within 10 days of being informed that I am the apparent awardee, I will submit *MBE Waiver Documentation* [Attachment F] (with supporting documentation).

Part III.

I understand that if I am the apparent awardee or conditional awardee, I must submit **within 10 working days** after receiving notice of the potential award or within 10 days after the date of conditional award – whichever is earlier – the:

- *Outreach Efforts Compliance Statement* (Attachment C)
- *Subcontractor Project Participation Statement* (Attachment D)
- *Minority Subcontractors Unavailability Certificate* (Attachment E) (if applicable)
- Any other documentation the Procurement Officer requires to ascertain my responsibility in connection with the MBE participation goal and subgoals

I acknowledge that if I fail to timely return complete documents, the Procurement Officer may determine that I am not responsible and therefore not eligible for contract award. If the contract has been awarded, the award is voidable.

I acknowledge that the MBE subcontractors/suppliers listed in the *MBE Participation Schedule* and any additional MBE subcontractor/suppliers identified in the *Subcontractor Project Participation Statement* will be used to accomplish the percentage of MBE participation that I intend to achieve.

In the solicitation of subcontract quotations or offers, MBE subcontractors were provided the same information and amount of time to respond as were non-MBE subcontractors.

The solicitation process was conducted in such a manner so as to not place MBE subcontractors at a competitive disadvantage to non-MBE subcontractors.

I solemnly affirm under the penalties of perjury that this Affidavit is true to the best of my knowledge, information, and belief.

Bidder/Offeror Name

Address

Address (continued)

Affiant Signature

Printed Name & Title

Date

September 2008

Attachment B MBE PARTICIPATION SCHEDULE

This document must be included with the bid or offer. If the bidder or offeror fails to submit this form with the bid or offer as required, the procurement officer shall deem the bid non-responsive or shall determine that the offer is not reasonably susceptible of being selected for award.

1. Prime Contractor's Name	2. Prime Contractor's Address and Telephone Number
3. Project/School Name	4. Project/School Location
5. LEA and PSC No.	6. Base Bid Amount \$ _____
7a. Minority Firm Name	Minority Firm Address
Minority Firm Telephone Number _____ Minority Firm Fax Number _____ MDOT Certification Number _____	Minority Group Type <input type="checkbox"/> (African American) <input type="checkbox"/> (Women) <input type="checkbox"/> (Asian) <input type="checkbox"/> (Hispanic) <input type="checkbox"/> (American Indian) <input type="checkbox"/> (Disabled)
Work to be Performed and Subcontract Dollar Amount	Percent of Total Contract
7b. Minority Firm Name	Minority Firm Address
Minority Firm Telephone Number _____ Minority Firm Fax Number _____ MDOT Certification Number _____	Minority Group Type <input type="checkbox"/> (African American) <input type="checkbox"/> (Women) <input type="checkbox"/> (Asian) <input type="checkbox"/> (Hispanic) <input type="checkbox"/> (American Indian) <input type="checkbox"/> (Disabled)
Subcontract Dollar Amount	Percent of Total Contract
7c. Minority Firm Name	Minority Firm Address
Minority Firm Telephone Number _____ Minority Firm Fax Number _____ MDOT Certification Number _____	Minority Group Type <input type="checkbox"/> (African American) <input type="checkbox"/> (Women) <input type="checkbox"/> (Asian) <input type="checkbox"/> (Hispanic) <input type="checkbox"/> (American Indian) <input type="checkbox"/> (Disabled)
Subcontract Dollar Amount	Percent of Total Contract
8. MBE Total Dollar Amount	9. Total MBE Percent of Entire Contract
10. Form Prepared by : Name _____ Title _____ Date _____	11. Reviewed and Accepted by Harford County Board of Education MBE Liaison <div style="text-align: center;">Name _____</div> <div style="text-align: center;">Title _____</div> <div style="text-align: center;">Date _____</div>

Total MBE Participation:	_____ %	\$ _____
Total African-American MBE Participation:	_____ %	\$ _____
Total Woman-Owned Asian-American MBE Participation:	_____ %	\$ _____
Total Other Participation:	_____ %	\$ _____

September 2008

Attachment C

OUTREACH EFFORTS COMPLIANCE STATEMENT

In conjunction with the bid or offer submitted in response to Harford County Public Schools for the _____ project, PSC # 12.034.13, I state the following:
(name)

- 1) Bidder/Offeror identified opportunities to subcontract in these specific work categories:
- 2) Attached to this form are copies of written solicitations (with bidding instructions) used to solicit certified MBEs for these subcontract opportunities.
- 3) Bidder/Offeror made the following attempts to contact personally the solicited MBEs:
- 4) ☐ Bidder/Offeror assisted MBEs to fulfill or to seek waiver of bonding Requirements (Described Efforts)
☐ This project does not involve bonding requirements.
- 5) ☐ Bidder/Offeror did/did not attend the pre-bid conference
☐ No pre-bid conference was held.

Bidder/Offeror Name

By: _____

Address

Name, Title

Date

Attachment D

MINORITY BUSINESS ENTERPRISES SUBCONTRACTOR PROJECT
PARTICIPATION STATEMENT

PROJECT/ SCHOOL NAME: _____

PROJECT/ SCHOOL LOCATION: _____

LEA: _____

NAME OF PRIME CONTRACTOR: _____

NAME OF MBE SUBCONTRACTOR: _____

MDOT Certification Number

1. Work/Services to be performed by MBE Subcontractor: _____

2. Subcontract Amount: \$ _____

3. Bonds - Amount and type required of Subcontractor if any: _____

4. MBE Anticipated or Actual Commencement Date: _____ Completion Date: _____

5. This MBE subcontract represents the following percentage of the total contract cost: _____

6. This is an African American Firm: Yes _____ No _____

7. This is a ~~Women Owned Business~~ Asian-American Firm: Yes _____ No _____

8. This is an Asian, **Women Owned**, American Indian, Hispanic or Disabled Firm: Yes _____ No _____

(Circle One)

The undersigned subcontractor and prime contractor will enter into a contract for the work/service indicated above upon the prime contractor's execution of a contract for the above referenced project with the _____ Board of Education. The undersigned subcontractor is a MDOT certified Minority Business Enterprise. The terms and conditions stated above are consistent with our agreements.

Signature of Subcontractor: _____

Signature of Subcontractor

Date: _____

The term and conditions stated above are consistent with our agreements.

Signature of Prime Contractor: _____

Date: _____

Attachment E

MINORITY SUBCONTRACTOR UNAVAILABILITY CERTIFICATE

1. It is hereby certified that the firm of _____
(Name of Minority firm)
located at _____
(Number) (Street)

(City) (State) (Zip)
was offered an opportunity to bid on the _____ school project
in _____ County by _____
(Name of Prime Contractor's Firm)

2. The _____ (Minority Firm), is either unavailable for the work/service or
unable to prepare a bid for this project for the following reason(s):

Signature of Minority Firm's MBE Representative Title Date

MDOT Certification # Telephone #

3. To be completed by the prime contractor if Section 2 of this form is not completed by the minority firm.

To the best of my knowledge and belief, said Certified Minority Business Enterprise is either unavailable for the work/service
for this project, is unable to prepare a bid, or did not respond to a request for a price proposal and has not completed the
above portion of this submittal.

Signature of Prime Contractor Title Date

Attachment F

MBE WAIVER DOCUMENTATION

Project Name: _____

PSC No. _____

Base Contract Amount \$ _____

Plus Accepted Alternates _____

Equals Total Contract Amount \$ _____

I have previously requested that a waiver be granted to the overall MBE goal for this project of ____ percent, with a minimum of ____ percent from certified African American-owned businesses, a minimum of ____ percent from certified ~~women~~ Asian-owned businesses, and the balance from all certified minority business enterprises, if applicable. This would include the total dollar value of all materials, supplies, equipment, and services, including construction services directly or indirectly, from Minority Business Enterprises (MBE) which are currently certified by the Maryland Department of Transportation (MDOT).

I _____, hereby certify that my position is
(Name of Company Representative)

_____, and I am the duly authorized representative of
(Position Title)

_____.
(Company Name)

I further certify that I have submitted a *Schedule for Participation of Certified Minority Business Enterprises* which reflects the percentage and dollar value of certified Minority Business Enterprise participation which my company expects to achieve for this contract. Therefore, the request for the waiver is as follows:

Summary MBE Participation Schedule from Attachment B

Minority Group	MBE GOAL		Actual MBE Dollar Participation		Request For Waiver	
	Percent of Total Contract	Dollar Value of Total Contract*	Dollar Value	Percent of Total Contract	Dollar Value	Percent of Total Contract
a. Sub Goal African American						
b. Sub Goal Women Asian-American						
c. Other * in Sub Goal group a/b above						
TOTALS						

* with accepted/rejected alternates

To support this request for a waiver, I include the following information as attachments which I certify to be true to the best of my knowledge.

1. A detailed statement of the efforts made by the contractor to identify and select portions of the work proposed to be performed by subcontractors in order to increase the likelihood of achieving the stated goal;
2. A detailed statement of the efforts made by the contractor prior to and up to 10 days before the bid opening to solicit minority business enterprises through written notices that describe the categories of work for which subcontracting is being solicited, the type of work to be performed, and specific instructions on how to submit a bid;
3. A detailed statement of the contractor's efforts to make personal contact with MBE firms identified for Item 2. above;
4. A record of the name, address, telephone number, and dates contacted for each MBE identified under items 2. and 3. above;
5. A description of the information provided to MBE's regarding the plans, specifications and the anticipated time schedule for portions of the work to be performed;
6. Information on activities to assist minority business enterprises to fulfill bonding requirements, or to obtain a waiver of these requirements;
7. Information on activities to publicize contracting opportunities to minority business enterprises, attendance at pre-bid meetings, or other meetings scheduled by the MBE Liaison or designated representative;
8. As to each MBE that placed a subcontract quotation or offer which the apparent low bidder or successful offeror considers not to be acceptable, a detailed statement of reasons for this conclusion; and
9. A list of minority subcontractors found to be unavailable. This shall be accompanied by a Minority Subcontractor Unavailability Certificate signed by the minority business enterprise or from the apparent low bidder or successful offeror indicating that the minority business did not provide the written certification.

Signature _____ Date _____
(Company Representative Name)

Sworn and subscribed before me this _____ day.

of _____ in the year _____ Notary Public _____

Reviewed and accepted by the Harford County Board of Education MBE Liaison.

Signature _____ Date _____
(MBE Liaison)

MBE Request For Waiver Master Form (July 2002)

Attachment G

IAC/PSCP Form 306.4

CERTIFIED MINORITY BUSINESS ENTERPRISE PARTICIPATION STANDARD MONTHLY CONTRACTOR'S REQUISITION FOR PAYMENT PAGE 3 of 16

LEA: _____ DATE: _____

FACILITY NAME: _____ PSC NO: _____

SCOPE OF WORK: _____ REQ NO: _____

Name of MBE Sub-Contractor	MDOT Certification Number and Classification	TOTAL MBE Contract Amount	Amount to be Paid THIS Requisition	TOTAL Paid to Date	MBE has Received FINAL Payment?	If amount paid is LESS than TOTAL MBE Contract Amount, EXPLAIN VARIANCE
TOTAL:		\$ -	\$ -	\$ -		

MDOT Certification Number and Classification can be located at <http://mbe.state.md.us/directory/>

MBE Classification:

African American = AA	African American/Women = AAW
Hispanic American = H	Hispanic American/Women = HW
Native American = N	Native American/Women = NW
Asian American = A	Asian American/Women = AW
Women = W	

I certify that the figures and information presented above represent accurate and true statements that timely payments have been and will be made to suppliers and subcontractors on this project as requisitioned payments are received, and in accordance with our contracts.

_____ Name of Contractor Firm	_____ Authorized Contractor Signature/Date
_____	_____

Contractor Federal Tax ID #

Contractor MBE Classification # (if applicable)

Name of LEA MBE Liaison (Printed)

Signature of LEA MBE Liaison/Date

Attachment H

IAC/PSCP FORM 306.6

CLOSE-OUT COST SUMMARY

LEA: _____

DATE: _____

SCHOOL NAME: _____

PSC # : _____

	<u>Public School Construction</u>			<u>Local and Other</u>		
Allocation:	_____			_____		
Cash Disbursements:	_____			_____		

	Approved Contracts	Expenditures	Balance	Approved Contracts	Expenditures	Total Expenditures
Construction			\$0			.
A/E			\$0			\$0
Related Costs			\$0			\$0
Total	\$0	\$0	\$0	\$0	\$0	\$0

I hereby certify that the data shown hereon is correct and request this project be closed.

Signature of LEA Representative

FOR STATE USE ONLY

ADJUSTMENTS:

Allocation: _____

Cash: _____

Initials	
Date	

AUDIT COMMENTS:

Initials	
Date	

Pricing Scenario # 2

Provide Packaged Rooftop Air Conditioner and Installation Location of Project: Chicago, IL, City Limits

Description

PART 1: GENERAL

- 1.01 Section Includes:
 - A. Packaged rooftop air conditioners
- 1.02 References
 - A. ARI 340/360 - Unitary Large Equipment
 - B. IBC 2000 – International Building Code
 - C. National Electrical Code.
- 1.03 Operation and Maintenance Data
 - A. Installation: Install product according to manufacturer's installation instructions during normal business hours
 - B. Maintenance Data: Provide instructions for maintenance and service
- 1.04 Qualifications
 - A. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum five years documented experience, who issues complete catalog data on total product.
 - B. Startup must be done by trained personnel experienced with rooftop equipment.
 - C. Do not operate units for any purpose, temporary or permanent, until ductwork is clean, filters and remote controls are in place, bearings lubricated, and manufacturer's installation instructions have been followed.

PART 2: PRODUCTS

- 2.01 General Description
 - A. Furnish a Packaged Heating and Cooling Unit. Unit performance and electrical characteristics shall be per Part 3: Performance.
 - B. The complete unit shall be ETL/CETL listed
 - C. Each unit shall be specifically designed for outdoor rooftop application and include a weatherproof cabinet. Each unit shall be completely factory assembled and shipped in one piece. Packaged units shall be shipped fully charged with Refrigerant 410A and oil.
 - D. The unit shall undergo a complete factory run test prior to shipment. The factory test shall include final balancing of the supply fan assemblies, a refrigeration circuit run test, a unit control system operations checkout, a unit refrigerant leak test and a final unit inspection.
 - E. All units shall have decals and tags to indicate caution areas and aid unit service. Unit nameplates shall be fixed to the main control panel door. Electrical wiring diagrams shall be attached to the control panels. Installation, operating and maintenance bulletins and start-up forms shall be supplied with each unit.
 - F. Performance: All scheduled capacities and face areas are minimum accepted values. All scheduled amps, kW, and HP are maximum accepted values that allow scheduled capacity to be met.
 - G. Warranty: The manufacturer shall provide 12-month manufacturer's standard parts only warranty. Defective parts shall be repaired or replaced during the warranty period at no charge. The warranty period shall commence at startup or six months after shipment, whichever occurs first.
- 2.02 Cabinet, Casing, and Frame
 - A. Panel construction shall be double-wall construction for all doors, side panels and ceiling panels. All floor panels shall have a solid galvanized steel inner liner on the air stream side of the unit to protect insulation during service and maintenance. Insulation shall be a minimum of 1" thick with an R-value of 4.0, and shall be neoprene coated glass fiber. Panel design shall include no exposed insulation edges. Unit cabinet shall be designed to operate at total static pressures up to 5.0 inches w.g.
 - B. Exterior surfaces shall be constructed of pre-painted galvanized steel for aesthetics and long term durability. Paint finish to include a base primer with a high quality, polyester resin topcoat of a neutral beige color. Finished panel surfaces to

withstand a minimum 750-hour salt spray test without blistering or peeling in accordance with ASTM B117 standard for salt spray resistance when the sample is scribed with an X and sample edges are not protected.

- C. Service doors shall be provided on both sides of the mixing box, filter and DX coil sections.. An access door shall also be provided to the fan section, heat section and control box in order to provide user access to unit components. All service access doors shall be mounted on multiple, stainless steel hinges and shall be secured by a latch system. Removable service panels secured by multiple mechanical fasteners are not acceptable.
- D. The unit base shall overhang the roof curb for positive water runoff and shall seat on the roof curb gasket to provide a positive, weather tight seal. Lifting brackets shall be provided on the unit base to accept cable or chain hooks for rigging the equipment.

2.03 Supply Fan

- A. Supply fan shall be a non-overloading, single width, single inlet (SWSI) airfoil centrifugal fan. The fan blade design shall be a double blade with the airfoil geometry, a backward inclined blade fan wheel design will not be acceptable. The fan wheel shall be Class II construction with fan blades welded to the back plate and end rim. The supply fan shall be mounted using solid-steel shafts and wheel hubs with mating keyways
- B. The fan assembly shall have fixed pitched drives with a minimum of two belts. The drives shall be selected with a minimum diameter of 4 inches and a 1.2 service factor. The belts shall be of the grip-notch design.
- C. All fan assemblies shall be statically and dynamically balanced at the factory, including a final trim balance, prior to shipment. All fan assemblies shall employ solid steel fan shafts. Heavy-duty pillow block type, self-aligning, grease lubricated ball bearings shall be used. Bearings shall be sized to provide a L-50 life at 250,000 hours. The entire fan assembly shall be isolated from the fan bulkhead with a flexible collar and mounted on 1" spring isolators.
- D. Fan motors shall be heavy-duty 1800 rpm open drip-proof (ODP) type with grease lubricated ball bearings. Motors shall be premium efficiency. Motors shall be mounted on an adjustable base that provides for proper alignment and belt tension adjustment. Motors shall be suitable for use with a variable frequency drive.
- E. The supply fan shall be capable of airflow modulation from 30% to 100% of the scheduled designed airflow. The fan shall not operate in a state of surge at any point within the modulation range.

2.04 Variable Air Volume Control

- A. An electronic variable frequency drive shall be provided for the supply air fan. Each drive shall be factory installed out of the air stream in a conditioned cabinet. Drives shall meet UL Standard 95-5V. The completed unit assembly shall be listed by a recognized safety agency, such as ETL. Drives are to be accessible through a hinged door assembly. Mounting arrangements that expose drives to high temperature unfiltered ambient air are not acceptable.
- B. The unit manufacturer shall install all power and control wiring.
- C. The supply air fan drive output shall be controlled by the factory installed main unit control system and drive status and operating speed shall be monitored and displayed at the main unit control panel.

2.05 Electrical

- A. Unit wiring shall comply with NEC requirements and with all applicable UL standards. All electrical components shall be UL recognized where applicable. All wiring and electrical components provided with the unit shall be number and color-coded and labeled according to the electrical diagram provided for easy identification. The unit shall be provided with a factory wired weatherproof control panel. Unit shall have a single point power terminal block for main power connection. A terminal board shall be provided for low voltage control wiring. Branch short circuit protection, 115-volt control circuit transformer and fuse, system switches, and a high temperature sensor shall also be provided with the unit. Each compressor and condenser fan motor shall be furnished with contactors and inherent thermal overload protection. Supply fan motors shall have contactors and external overload protection. Knockouts shall be provided in the bottom of the main control panels for field wiring entrance. A GFI receptacle shall be unit mounted. The receptacle shall require a field power connection independent from the unit's main power block and / or disconnect..
- B. The unit's short circuit resistance rating [SCCR] shall be 10,000 amps.

2.06 Heating and Cooling Sections

- A. The direct expansion (DX) coil section shall be installed in a draw through configuration, upstream of the supply air fan. The coil section shall be complete with a factory piped cooling coil and an ASHRAE 62.1 compliant double sloped stainless steel drain pan with a minimum depth of 2.3" on the connection side.
- B. Direct expansion (DX) cooling coils shall be fabricated of seamless high efficiency copper tubing that is mechanically expanded into high efficiency aluminum plate fins. Coils shall be a multi-row, staggered tube design with a minimum of 3 rows and a maximum of 12 fins per inch. All units shall have two independent refrigerant circuits and shall use an

interlaced coil circuiting that keeps the full coil face active at all load conditions. All coils shall be factory leak tested with high pressure air under water.

- C. A positively sloped drain pan shall be provided with the cooling coil. The slope of the drain pan shall be in two directions and comply with ASHRAE Standard 62.1. The drain pan shall have a minimum slope of 1/8" per foot to provide positive draining. The drain pan shall extend beyond the leaving side of the coil. The drain pan construction shall be a stainless steel design. The drain pan shall be connected to a threaded drain connection extending through the unit base. Drain pan shall be removable from the side of the unit without the removal of the cooling coil.

2.07 Filters

- A. Unit shall be provided with a draw-through filter section. The filter rack shall be designed to accept a 2" prefilter and a 4" final filter. The unit design shall have a hinged access door for the filter section. The manufacturer shall ship the rooftop unit with 2" MERV 8 construction filters. The contractor shall furnish and install, at building occupancy, the final set of filters per the contract documents.

2.08 Outdoor / Return Air Section

- A. Damper blades shall be gasketed with side seals to provide an air leakage rate of no more than 1.5 cfm / square foot of damper area at 1" differential pressure. Leakage rate to be tested in accordance with AMCA Standard 500. Damper blades shall be operated from multiple sets of linkages mounted on the leaving face of the dampers.
- B. Unit shall be provided with an outdoor air economizer section. The 0 to 100% outside air economizer section shall include outdoor, return, and exhaust air dampers. The outdoor air hood shall be factory installed and constructed from galvanized steel finished with the same durable paint finish as the main unit. The hood shall include moisture eliminator filters to drain water away from the entering air stream. The outside and return air dampers shall be sized to handle 100% of the supply air volume. The dampers shall be opposed blade design. Damper blades shall be gasketed and also have side seals to provide an air leakage rate of 4 cfm / square foot of damper area at 1" differential pressure per ASHRAE 90.1 Energy Standard. Leakage rate to be tested in accordance with AMCA Standard 500. A barometric exhaust damper shall be provided to exhaust air out of the back of the unit. A bird screen shall be provided to prevent infiltration of rain and foreign materials. Exhaust damper blades shall be lined with vinyl gasketing on contact edges. Control of the dampers shall be by a factory installed direct coupled actuator. Damper actuator shall be of the modulating, spring return type. An adjustable dry bulb control shall be provided to sense the dry-bulb temperature of the outdoor air stream to determine if outdoor air is suitable for "free" cooling. If outdoor air is suitable for "free" cooling, the outdoor air dampers shall modulate in response to the unit's temperature control system.

2.09 Condensing Section

- A. Condenser coils shall be an all aluminum design, and mounted on polymer brackets, to minimize di-electric corrosion. The aluminum tube shall be a micro channel design with high efficiency aluminum fins. Fins shall be brazed to the tubing for a direct bond. Each condenser coil shall be factory leak tested with high-pressure air under water. Condenser coils shall be protected from incidental contact to coil fins by a coil guard. Coil guard shall be constructed of cross wire welded steel with PVC coating
- B. Condenser fans shall be direct drive, axial type designed for low tip speed and vertical air discharge. Condenser fan rpm shall be 1140 rpm maximum. Fan blades shall be constructed of steel and riveted to a steel center hub. Condenser fan motors shall be heavy-duty, inherently protected, three-phase, non-reversing type with permanently lubricated ball bearing and integral rain shield.
- C. Each circuit shall have fan cycling of at least one condenser fan to maintain positive head pressure. An ambient thermostat shall prevent the refrigeration system from operating below 0° F.
- D. Condenser coils shall be recessed and protected from hail damage as an integral part of the unit design. Hail guards shall be provided on all units with vertical mounted condenser coils.
- E. Each unit shall have multiple, heavy-duty scroll compressors. Each compressor shall be complete with gauge ports, crankcase heater, sight-glass, anti-slug protection, motor overload protection and a time delay to prevent short cycling and simultaneous starting of compressors following a power failure. Compressors shall be isolated with resilient rubber isolators to decrease noise transmission
- F. Each unit shall have two independent refrigeration circuits for redundancy. Each circuit shall be complete with a low pressure control, filter-drier, liquid moisture indicator/sight-glass, thermal expansion valve, and a manual reset high pressure safety switch. The thermal expansion valve shall be capable of modulation from 100% to 25% of its rated capacity. Sight-glasses shall be accessible for viewing without disrupting unit operation. Each circuit shall be dehydrated and factory charged with Refrigerant 410A and oil.

- G. Option for sizes 20-50 - Each unit shall have at least 4 compressor stages of cooling capacity control for better part load control as required by ASHRAE 90.1-2013.

2.10 Roof Curb

- A. A prefabricated 14-gauge galvanized steel, mounting curb shall be provided for field assembly on the roof decking prior to unit shipment. The roof curb shall be a full perimeter type with complete perimeter support of the air handling section and condensing section. The curb shall be a minimum of 14" high and include a nominal 2" x 4" wood nailing strip. Gasket shall be provided for field mounting between the unit base and roof curb.

2.11 Controls

- A. Provide a complete integrated microprocessor based Direct Digital Control (DDC) system to control all unit functions including temperature control, scheduling, monitoring, unit safety protection, including compressor minimum run and minimum off times, and diagnostics. This system shall consist of all required temperature sensors, pressure sensors, controller and keypad/display operator interface. All MCBs and sensors shall be factory mounted, wired and tested.
- B. The stand-alone DDC controllers shall not be dependent on communications with any on-site or remote PC or master control panel for proper unit operation. The microprocessor shall maintain existing set points and operate stand alone if the unit loses either direct connect or network communications. The microprocessor memory shall be protected from voltage fluctuations as well as any extended power failures. All factory and user set schedules and control points shall be maintained in nonvolatile memory. No settings shall be lost, even during extended power shutdowns.
- C. The DDC control system shall permit starting and stopping of the unit locally or remotely. The control system shall be capable of providing a remote alarm indication. The unit control system shall provide for outside air damper actuation, emergency shutdown, remote heat enable/disable, remote cool enable/disable, heat indication, cool indication, and fan operation.
- D. All digital inputs and outputs shall be protected against damage from transients or incorrect voltages. All field wiring shall be terminated at a separate, clearly marked terminal strip.
- E. The DDC controller shall have a built-in time schedule. The schedule shall be programmable from the unit keypad interface. The schedule shall be maintained in nonvolatile memory to insure that it is not lost during a power failure. There shall be one start/stop per day and a separate holiday schedule. The controller shall accept up to sixteen holidays each with up to a 5-day duration. Each unit shall also have the ability to accept a time schedule via BAS network communications.
- F. The keypad interface shall allow convenient navigation and access to all control functions. The unit keypad/display character format shall be 4 lines x 20 characters. All control settings shall be password protected against unauthorized changes. For ease of service, the display format shall be English language readout. Coded formats with look-up tables will not be accepted. The user interaction with the display shall provide the following information as a minimum:
 - 1. Return air temperature
 - 2. Discharge air temperature
 - 3. Outdoor air temperature
 - 4. Space air temp
 - 5. Dirty filter indication
 - 6. Airflow verification
 - 7. Cooling status
 - 8. Control temperature (Changeover)
 - 9. VAV box output status
 - 10. Cooling status/capacity
 - 11. Unit status
 - 12. All time schedules
 - 13. Active alarms w/time and date
 - 14. Previous alarms with time and date
 - 15. Optimal start
 - 16. System operating hours
 - a. Fan
 - b. Exhaust fan
 - c. Cooling
 - d. Individual compressor
 - e. Heating
 - f. Economizer

- g. Tenant override
- G. The user interaction with the keypad shall provide the following setpoints as a minimum:
 - 1. Controls mode
 - a. Off manual
 - b. Auto
 - c. Heat/cool
 - d. Cool only
 - e. Heat only
 - f. Fan only
 - 2. Occupancy mode
 - a. Auto
 - b. Occupied
 - c. Unoccupied
 - d. Tenant override
 - 3. Unit operation changeover control
 - a. Return air temperature
 - b. Space temperature
 - c. Network signal
 - 4. Cooling and heating change-over temperature with deadband
 - 5. Cooling discharge air temperature (DAT)
 - 6. Supply reset options
 - a. Return air temperature
 - b. Outdoor air temperature
 - c. Space temperature
 - d. Airflow (VAV)
 - e. Network signal
 - f. External (0-10 vdc)
 - g. External (0-20mA)
 - 7. Temperature alarm limits
 - a. High supply air temperature
 - b. Low supply air temperature
 - c. High return air temperature
 - 8. Lockout control for compressors
 - 9. Compressor interstage timers
 - 10. Night setback and setup space temperature
 - 11. Building static pressure
 - 12. Economizer changeover
 - a. Enthalpy
 - b. Drybulb temperature
 - 13. Current time and date
 - 14. Tenant override time
 - 15. Occupied/unoccupied time schedule
 - 16. One event schedule
 - 17. Holiday dates and duration
 - 18. Service mode
 - a. Timers normal (all time delays normal)
 - b. Timers fast (all time delays 20 sec)
- H. If the unit is to be programmed with a night setback or setup function, an optional space sensor shall be provided. Space sensors shall be available to support field selectable features. Sensor options shall include:
 - 1. Zone sensor with tenant override switch
 - 2. Zone sensor with tenant override switch plus heating and cooling set point adjustment. (Space Comfort Control systems only)
- I. To increase the efficiency of the cooling system the DDC controller shall include a discharge air temperature reset program for part load operating conditions. The discharge air temperature shall be controlled between a minimum and a maximum discharge air temperature (DAT) based on one of the following inputs:
 - 1. Airflow

2. Outside air temperature
3. Space Temperature
4. Return air temperature
5. External signal of 1-5 VDC
6. External signal of 0-20 mA
7. Network signal

PART 3: PERFORMANCE

Unit		
	Electrical	
	Voltage	460/60/3
	MCA (A)	65.8
	MROPD (A)	80
	Efficiency	
	EER / SEER	10.3
	Supply Fan	
	Airflow (CFM)	12000
	ESP (inH ₂ O)	0.5
	TSP (inH ₂ O)	1.3
	Altitude	0
	Motor Size (HP)	7.5 HP
	Filters	
	Face Area (ft²)	32
	Efficiency	30% MERV 8
Cooling	EAT	
	EDB (°F)	80
	EWB (°F)	67
	LAT	
	LDB (°F)	58.6
	LWB (°F)	57.7
	Total Capacity (Btu/hr)	355349
	Sensible Capacity (Btu/hr)	281395
	Ambient	
	DB (°F)	95

	Compressor	
	Stages	5 steps
	Qty	3
	Compressor Power (kW)	26.4
	Refrigerant	R410A

END OF SECTION

Pricing Scenario # 3

Provide Indoor Air Handling Unit

Location of Project: Buffalo, NY, metro area

PART 1: GENERAL

- 1.01 Section Includes
 - A. Indoor Air Handling Unit
- 1.02 References
 - A. AHRI 410 - Forced-Circulation Air-Cooling and Air-Heating Coils.
 - B. AHRI 430 - Central-Station Air-Handling Units.
 - C. NFPA 70 - National Electrical Code.
 - D. SMACNA - HVAC Duct Construction Standards - Metal and Flexible.
 - E. UL 1995 - Standard for Heating and Cooling Equipment.
- 1.03 Operation and Maintenance Data
 - A. Installation Data: Provide installation instructions and operating manual
 - B. Maintenance Data: Provide instructions for maintenance and service
- 1.04 Qualifications
 - A. Manufacturer: Company specializing in manufacturing Air Handler products specified in this section must show a minimum five years documented experience and complete catalog data on total product.
- 1.05 Safety Agency Listed & Certification
 - A. Air handling units shall be cETLus safety listed to conform with UL Standard 1995 and CAN/CSA Standard C22.2 No. 236. Units shall be accepted for use in New York City by the Department of Building, MEA 342-99-E.
 - B. Air handler furnished with double width, double inlet (DWDI) fans and/or plenum fans where applicable, shall be certified in accordance with the central station air handling unit certification program, which is based on AHRI Standard 430. (NOTE: Above does not apply to fan array)
 - C. Air handling unit water heating & cooling coils shall be certified in accordance with the forced circulation air cooling and air heating coils certification program, which is based on AHRI Standard 410.

PART 2: PRODUCTS

- 2.01 General Description
 - A. Performance: Conform to AHRI 430. See schedules on prints. (NOTE: above does not apply to fan array)
 - B. Acoustics: Sound power levels (dB) for the unit shall not exceed the specified levels shown on the unit schedule. The manufacturer shall provide the necessary sound treatment to meet these levels if required.
- 2.02 Unit Construction
 - A. Fabricate unit with heavy gauge channel posts and panels secured with mechanical fasteners. All panels, access doors, and ship sections shall be sealed with permanently applied bulb-type gasket. AHUs with gasketing shipped loose shall be inspected by a factory representative at assembly to ensure proper assembly. Panels shall be individually removable without removing adjacent panels for ease of service.
 - B. Panels and access doors shall be double wall 2-inch nominal thick injected with foam insulation with a total R-value of at least R-13. The inner and outer liner shall be constructed of galvanized steel.
 - C. Outdoor units shall have painted exterior of galvanized steel with a 1000 hour salt spray rating. Units shall also include hoods over all air inlets and outlets to the AHU. A pitched roof with standing seams shall be provided.
 - D. Deflection of any panel shall not exceed L/240 at design static pressure at the panel midpoint.
 - E. As selected fan curves shall be used to calculate the static pressures for all operating points in the AHU to determine the maximum possible +/- pressures in all sections. Maximum +/- static pressures shall be used to ensure that proper cabinet construction is provided, and that the fan will not over pressurize the cabinet at worst case design conditions.
 - F. The cabinet construction shall be capable of providing leakage rates of less than 0.5 CFM/ft² up to +5" static pressure, and ASHRAE standard 111 Class 6 (0.20 CFM/ ft²) down to -6" static pressure. For AHUs with sections that exceed

these static pressures, high pressure construction shall provide leak rates not exceeding ASHRAE standard 111 class 6 (0.23 CFM/ ft2) at +/- 8" static pressure

- G. Module to module field assembly shall be accomplished with an overlapping, full perimeter internal splice joint that is sealed with bulb type gasketing on both mating modules to minimize on-site labor and meet indoor air quality standards. Air handlers with field applied gasketing shall be field pressure tested to ensure proper gasket installation.
- H. Access doors shall be flush mounted to cabinetry, with minimum of two stainless steel piano-type hinges, latch and full size handle assembly. Access doors shall swing outward for unit sections under negative pressure. Access doors on positive pressure sections, shall have a secondary latch to relieve pressure and prevent injury upon access.
- I. A formed galvanized steel base rail shall be provided by the unit manufacturer for structural rigidity and condensate trapping..
- J. Construct drain pans from stainless steel with cross break and double sloping pitch to drain connection. Provide drain pans under cooling coil and humidifier sections. Drain connection centerline shall be a minimum of 3" above the base rail to aid in proper condensate trapping. Drain connections that protrude through the base rail shall add extra rail height to provide proper for trapping without core drilling the floor.
- K. There must be a full nominal 2" panel of insulation under drain pan to prevent sweating. Units that do not have this shall have insulation added to a minimum 2" thickness. Units will not sweat when exposed to interior air temperatures down to 50°F, and exterior room conditions up to 70% relative humidity.
- L. Drain pan to be able to support the weight of service people up to 300 lb that will need to be in the section for maintenance. If drain pan will not meet these requirements, properly sized service grating shall be provided over the drain top of the drain pan and tack welded the AHU structure down to provide service support.

2.03 Fan Assemblies

- A. Maximum fan RPM shall be below first critical fan speed. Fan assemblies shall be dynamically balanced by the manufacturer on all three planes. A copy of the balance report shall be available on request. Provide access to motor and fan assembly through hinged access door.
- B. Fan and motor shall be mounted internally on a steel base. Motor shall be factory mounted. Provide access to motor, drive, and bearings through hinged access door. Fan and motor assembly shall be mounted on 2" deflection spring vibration type isolators inside cabinetry.

2.04 Bearings, Shafts, and Drives

- A. Shafts shall be solid, hot rolled steel, ground and polished, keyed to shaft, and protectively coated with lubricating oil. Hollow shafts are not acceptable.
- B. The fan wheel shall be direct coupled to the motor shaft or belt drive and listed on the schedule. The wheel width shall be determined by motor speed and fan performance characteristics.

2.05 Electrical

- A. Fan motors Open Drip Proof, premium efficiency (meets or exceeds EPA requirements), RPM and voltage as listed on the schedule.
- B. Air handler(s) shall be ETL and ETL-Canada listed by Intertek Testing Services, Inc. Units shall conform to bi-national standard ANSI/UL Standard 1995/CSA Standard C22.2 No. 236.
- C. Air handler manufacturer shall provide, mount and wire variable speed drive with electrical characteristics as shown on manufacturer's data sheets.

2.06 Cooling and Heating Coils

- A. Acceptable water cooling, water heating, steam, and refrigerant coils shall be certified in accordance with AHRI Standard 410 and bear the AHRI label. Coils exceeding the scope of the manufacturer's certification and/or the range of AHRI's standard rating conditions will be considered provided the manufacturer is a current member of the AHRI Forced Circulation Air-Cooling and Air-Heating Coils certification programs and that the coils have been rated in accordance with AHRI Standard 410.
- B. Provide access to coil(s) for service and cleaning. Unit shall be provided with coil connections that extend a minimum of 5" beyond unit casing for ease of installation. Drain and vent connections shall be provided exterior to unit casing. Coils shall be removable through side and/or top panels of unit without the need to remove and disassemble the entire section from the unit.
- C. Water heating and cooling coil shall be provided as shown on schedule. Coil fins shall have a minimum thickness of 0.0075 inch aluminum. Tubes shall be mechanically expanded into the fins to provide a continuous compression bond over the finned length for maximum heat transfer.

1. Coil tubes shall be 5/8 inch OD seamless copper. Tubes to have minimum 0.020 inch nominal wall thickness.
2. Coil connections shall be carbon steel, NPT threaded connection. Vent and drain fittings shall be furnished on the connections, exterior to the air handler.
3. Coil casing shall be a formed channel frame of galvanized steel.

2.07 Filters

- A. Furnish filter section with 2-inch pleated MERV 8 filter.
- B. Provide side loading and removal of filters.
- C. Filter Minihelic gauge(s) shall be factory installed. One gauge shall be supplied per filter bank.

2.08 Additional Sections

- A. Access doors shall be provided for access between components. Minimum access door size shall be 20" unless noted on schedules.
- B. Plenum section shall be provided and properly sized for inlet and/or discharge air flow (between 600 and 1500 feet per minute). The plenum shall provide single or multiple openings as shown on drawings and project schedule.
- C. Mixing box section shall be provided with outside air and return air openings with or parallel blade low leak airfoil damper blades. Dampers shall be galvanized steel airfoil blades, fully gasketed and have continuous vinyl seals between damper blades in a galvanized steel frame. Dampers shall have stainless steel jamb seals.
- D. Damper Leakage: Leakage rate shall be less than two tenths of one percent leakage at 2 inches static pressure differential. Leakage rate tested in accordance with AMCA Standard 500.
- E. Energy recovery wheel shall be constructed of corrugated synthetic fibrous media, with a desiccant intimately bound and uniformly and permanently dispersed throughout the matrix structure of the media. Wheel Seals: The wheel seals shall be full contact nylon brush seals or equivalent. Bypass and recirculation dampers shall be furnished as shown on unit schedule and drawings. Certification: The wheel shall be AHRI certified by the wheel supplier to AHRI Standard 1060 and must bear the AHRI certification stamp.

PART 3: PERFORMANCE

Supply Fan	Fan	Type			Direct Drive Plenum	
		Qty			1	
		Class			2	
		Airflow (CFM)			18000	
		RPM			1951	
		BHP			19.47	
		E.S.P. (inH ₂ O)			2	
		T.S.P. (inH ₂ O)			3.7	
	Motor	Voltage			460/60/3	
		Power (HP)			20	
		RPM			1750	
		Control			None	
Combination Coil	Cooling	Sensible Capacity (Btu/hr)			510183	
		Type			Standard	
		Total Capacity (Btu/hr)			740543	
		EAT-DB °F			80	
		EAT-WB °F			67	

		LAT-DB °F			54.1	
		LAT-WB °F			53.6	
		F.V. (ft/min)			466	
		A.P.D. (inH2O)			1.26	
		Suct. Temp. °F			N/A	
		EWT °F			45	
		LWT °F			55.3	
		Flow Rate (GPM)			144.1	
		W.P.D. (ftH2O)			16	
		Rows			6	
		FPI			8	
	Heating	Total Capacity (Btu/hr)			1015708	
		Type			1 & 2 rows	
		EAT-DB °F			40	
		LAT-DB °F			91.6	
		F.V. (ft/min)			480	
		EWT °F			160	
		LWT °F			139.4	
		Flow Rate (GPM)			98.4	
		W.P.D. (ftH2O)			7.3	
		Steam PD (psi)			N/A	
		Rows			2	
		FPI			12	
Mixing Box	Filter				Flat panel	
	Type				Pleated (MERV 8)	
	Clean PD (inH2O)				0.29	
	Dirty PD (inH2O)				1	
	Mean PD (inH2O)				0.64	

END OF SECTION

Pricing Scenario # 4

Provide Air Cooled Scroll Chiller, Installation and Maintenance for two (2) years

Location of Project: Jacksonville, FL, metro area

Description

PART 1: 1. GENERAL

- 1.01 Summary
 - A. Section includes design, performance criteria, refrigerants and controls requirements for air-cooled scroll compressor chillers.
- 1.02 References
 - A. Comply with applicable Standards/Codes of AHRI 550/590, ANSI/ASHRAE 15, ETL, cETL, NEC, and OSHA as adopted by the State.
 - B. Units shall meet the efficiency standards of ASHRAE Standard 90.1, 2013 and FEMP standard 2012.
- 1.03 Operation and Maintenance Data
 - A. Installation: Install product according to manufacturer's installation instructions over weekend
 - B. Maintenance: Maintain and service product according to manufacturer's recommendations for a period of two (2) years
- 1.04 Submittals
 - A. Submittals shall include the following:
 - 1. Certification of factory-run test of packaged chiller unit signed by company officer.
 - 2. Installation and operating manuals.
- 1.05 Quality Assurance
 - A. Qualifications: Equipment manufacturer must specialize in the manufacture of the products specified and have five years experience with the type of equipment and refrigerant offered.
 - B. Regulatory Requirements: Comply with the codes and standards specified.
 - C. Chiller manufacturer plant must be ISO Registered.
- 1.06 Delivery and Handling
 - A. Chiller shall be delivered to the job site completely assembled and charged with refrigerant and oil by the manufacturer.
 - B. Comply with the manufacturer's instructions for rigging and handling equipment.
- 1.07 Warranty
 - A. Standard Warranty (Domestic): The refrigeration equipment manufacturer's standard guarantee shall be for a period of one year from date of equipment start-up but not more than 18 months from shipment. The guarantee shall provide for repair or replacement due to failure by material and workmanship that prove defective within the above period, excluding refrigerant.
 - B. 1st Year Labor Warranty: None included

PART 2: PRODUCTS

- 2.01 Unit Description
 - A. Provide a factory-assembled, factory-charged air-cooled scroll compressor packaged chillers in the quantity specified. Each chiller shall consist of hermetic tandem or trio scroll compressor sets (total four compressors), brazed plate evaporator, air-cooled condenser section, microprocessor-based control system and all components necessary for controlled unit operation.
 - B. Each chiller shall be factory functionally-tested to verify operation. Operating controls and refrigerant charge shall be checked for proper operation and optimum performance.
- 2.02 Design Requirements

- A. Flow Range: The chiller shall have the ability to support variable flow range down to 40% of nominal design (based on AHRI conditions).
- B. Operating Range: The chiller shall have the ability to control leaving chilled fluid temperature from 15F to 65F
- C. General: Provide a complete scroll compressor packaged chiller as specified herein and as shown on the drawings. The unit shall be in accordance with the standards referenced in section 1.02 and any local codes in effect.
- D. Performance: Refer to the schedule of performance on the drawings. The chiller shall be capable of stable operation to a minimum percentage of full load (without hot gas bypass) of 25%. Performance shall be in accordance with AHRI Standard 550/590.
- E. Acoustics: Sound pressure levels for the unit shall not exceed the following specified levels. All manufacturers shall provide the necessary sound treatment (parts and labor) to meet these levels if required. Sound data shall be provided with the quotation. Data shall be in accordance with AHRI Standard 370.

Sound Pressure (at 30 feet)											
63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	Overall dBA	75% Load dBA	50% Load dBA	25% Load dBA
Sound Power											
63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	Overall dBA	75% Load dBA	50% Load dBA	25% Load dBA

2.03 Chiller Components

- A. Compressor
 - 1. The compressors shall be sealed hermetic, scroll type with crankcase oil heater and suction strainer. The compressor motor shall be refrigerant gas cooled, high torque, hermetic induction type, two-pole, with inherent thermal protection on all three phases and shall be mounted on RIS vibration isolator pads. The compressors shall be equipped with an internal module providing compressor protection and communication capability.
- B. Evaporator
 - 1. The evaporator shall be a compact, high efficiency, dual circuit, brazed plate-to-plate type heat exchanger consisting of parallel stainless steel plates
 - 2. The evaporator shall be protected with an electric resistance heater (heat trace tape) and insulated with 3/4" (19mm) thick closed-cell polyurethane insulation. This combination shall provide freeze protection down to -20°F (-29°C) ambient air temperature.
 - 3. The water-side working pressure shall be a minimum of 653 psig (4502 kPa). Vent and drain connections shall be provided in the inlet and outlet chilled water piping by the installing contractor. Evaporators shall be designed and constructed according to, and listed by, Underwriters Laboratories (UL).
- C. Condenser
 - 1. Condenser fans shall be propeller type arranged for vertical air discharge and individually driven by direct-drive fan motors. The fans shall be equipped with a heavy-gauge vinyl-coated fan guard. Fan motors shall be TEAO type with permanently lubricated ball bearings, inherent overload protection, three-phase, direct-drive, 1140 rpm. Each fan section shall be partitioned to avoid cross circulation.
 - 2. Coil shall be all aluminum alloy microchannel design and shall have a series of flat tubes containing multiple, parallel flow microchannels layered between the refrigerant manifolds. Coils shall consist of a two-pass arrangement. Each condenser coil shall be factory leak tested with high-pressure air under water. Coils shall withstand 1000+ hour acidified synthetic sea water fog (SWAAT) test (ASTM G85-02) at 120°F (49°C) with 0% fin loss and develop no leaks.
- D. Refrigerant Circuit
 - 1. Each of the two refrigerant circuits shall include a refrigerant filter-drier, sight glass with moisture indicator, liquid line solenoid valve (no exceptions), expansion valve, and insulated suction line.
- E. Construction
 - 1. Unit casing and all structural members and rails shall be fabricated of pre-painted or galvanized steel to meet ASTM B117, 500-hour salt spray test.
 - 2. Upper condenser coil section of unit shall have protective, 12 GA, PVC-coated, wire grille guards.

F. Control System

1. A centrally located weatherproof control panel shall contain the field power connection points, control interlock terminals, and control system. Power and starting components shall include factory circuit breaker for fan motors and control circuit, individual contactors for each fan motor, solid-state compressor three-phase motor overload protection, and inherent fan motor overload protection. Hinged access doors shall be lockable. Barrier panels or separate enclosures are required to protect against accidental contact with line voltage when accessing the control system.
2. Shall include optional single-point connection to a non-fused disconnect switch with through-the-door handle and compressor circuit breakers.

G. Unit Controller

1. An advanced DDC microprocessor unit controller with a 5-line by 22-character liquid crystal display provides the operating and protection functions. The controller shall take preemptive limiting action in case of high discharge pressure or low evaporator pressure. The controller shall contain the following features as a minimum:
2. The unit shall be protected in two ways: (1) by alarms that shut the unit down and require manual reset to restore unit operation and (2) by limit alarms that reduce unit operation in response to some out-of-limit condition. Shut down alarms shall activate an alarm signal.
3. Shutdown Alarms
 - a. No evaporator water flow (auto-restart)
 - b. Sensor failures
 - c. Low evaporator pressure
 - d. Evaporator freeze protection
 - e. High condenser pressure
 - f. Outside ambient temperature (auto-restart)
 - g. Motor protection system
4. Limit Alarms
 - a. Condenser pressure stage down, unloads unit at high discharge pressures.
 - b. Low ambient lockout, shuts off unit at low ambient temperatures.
 - c. Low evaporator pressure hold, holds stage #1 until pressure rises.
 - d. Low evaporator pressure unload, shuts off one compressor.
5. Unit Enable Section
 - a. Enables unit operation from either local keypad, digital input, or BAS
6. Unit Mode Selection
 - a. Selects standard cooling, ice, glycol, or test operation mode
7. Analog Inputs:
 - a. Reset of leaving water temperature, 4-20 mA\
 - b. Current Limit
8. Digital Inputs
 - a. Unit off switch
 - b. Remote start/stop
 - c. Flow switch
 - d. Ice mode switch, converts operation and setpoints for ice production
 - e. Motor protection
9. Digital Outputs
 - a. Shutdown alarm; field wired, activates on an alarm condition, off when alarm is cleared
 - b. Evaporator pump; field wired, starts pump when unit is set to start
10. Condenser fan control - The unit controller shall provide control of condenser fans based on compressor discharge pressure.
11. Building Automation System (BAS) Interface
 - a. Factory mounted DDC controller(s) shall support operation on a BACnet®, Modbus® or LONMARK ® network via one of the data link / physical layers listed below as specified by the successful Building Automation System (BAS) supplier.
 - b. BACnet MS/TP master (Clause 9)
 - c. The information communicated between the BAS and the factory mounted unit controllers shall include the reading and writing of data to allow unit monitoring, control and alarm notification as specified in the unit sequence of operation and the unit points list.

- d. All communication from the chiller unit controller as specified in the points list shall be via standard BACnet objects. Proprietary BACnet objects shall not be allowed. BACnet communications shall conform to the BACnet protocol (ANSI/ASHRAE135-2001). A BACnet Protocol Implementation Conformance Statement (PICS) shall be provided along with the unit submittal.

PART 3: PERFORMANCE

Cooling Capacity 65.1 tons
Max full load kWt/input 1.2

Evaporator
LWT.....44 DEG F
EWT.....54 DEG F
Max WPD.....17.4 Ft
FF.....0.0001

Condenser
Ambient Temp.....95 DEG F
Elevation.....Sea Level

Electrical.....460/3/60 V/Ph/Hz

END OF SECTION

Pricing Scenario # 5

Provide Centrifugal Water Chillers, installation and maintenance for two (2) years

Location: Dallas, TX, metro area

PART 1: GENERAL

1.01 Summary

- A. Section includes design, performance criteria, refrigerants and controls for water-cooled magnetic bearing two stage centrifugal chillers.

- a. AHRI 550/590
- b. AHRI 575
- c. NEC
- d. ANSI/ASHRAE 15
- e. OSHA as adopted by the State
- f. ETL
- g. ASME Section VIII

1.02 References

- A. Comply with the following codes and standards:

1.03 Operation and Maintenance Data

- A. Installation: Install product according to manufacturer's installation instructions over weekend
- B. Maintenance: Maintain and service product according to manufacturer's recommendations for a period of two (2) years

1.04 Submittals

- A. Submittals shall include the following:
 - 1. Manufacturer's certified performance data at full load plus IPLV or NPLV.
 - 2. Installation and Operating Manuals.

1.05 Quality Assurance

- A. Regulatory Requirements: Comply with the codes and standards in Section 1.02.
- B. Chiller manufacturer must be ISO Certified.
- C. The chiller shall be tested to job conditions at the manufacturer's plant.

1.06 Delivery and Handling

- A. Chillers shall be delivered to the job site completely assembled and charged with refrigerant R134a and be shipped on skids with a weather resistant cover.
- B. Comply with the manufacturer's instructions for rigging and transporting units. Leave protective covers in place until installation.

1.07 Warranty

- A. The chiller manufacturer's standard warranty shall cover parts and labor costs for the repair or replacement of defects in material or workmanship, and include refrigerant for the entire unit, for a period of one year from equipment startup or 18 months from shipment, whichever occurs first, and also include an additional extended warranty for four years on the entire unit including refrigerant coverage. Warranty support shall be provided by company direct or factory authorized service permanently located near the job site.

PART 2: PRODUCTS

2.01 Unit Description

- A. Provide and install as shown on the plans a factory assembled, charged, and tested water-cooled packaged centrifugal chiller. Chillers shall have no more than two oil-free, magnetic bearing, semi-hermetic centrifugal compressors (no exceptions). Each compressor shall have an integrated variable-frequency drive operating in concert with inlet guide vanes for optimized full and part load efficiency. On two-compressor units, the evaporator and condenser refrigerant sides and the expansion valve shall be common and the chiller shall be capable of running on one compressor with the other compressor or any of its auxiliaries inoperable or removed.
- B. To ensure quick and trouble free start up and commissioning, each chiller shall pass a full battery of factory tests. These tests will include the verification of operating and compressor controls to ensure full unit functionality and manufacturing integrity. Any deviation from stringent factory quality standards shall be remedied prior to shipment.

2.02 Design Requirements

- A. General: Provide a complete water-cooled, semi-hermetic oil-free centrifugal compressor water chiller as specified herein. The unit shall be provided according to standards indicated in Section 1.02. In general, unit shall consist of one or two magnetic bearing, completely oil-free centrifugal compressors, refrigerant, condenser and evaporator, and control systems including integrated variable frequency drive, operating controls and equipment protection controls. Chillers shall be charged with refrigerant HFC-134a. If manufacturer offers a chiller using any HCFC refrigerant that is subject to phase out by the Montreal Protocol or the U.S. Clean Air Act, manufacturer shall provide, in writing, documentation signed by an officer of the company assuring refrigerant availability and price schedule for a 20-year period.
- B. The entire chiller system, including all pressure vessels, shall remain above atmospheric pressure during all operating conditions and during shut down to ensure that non-condensables and moisture do not contaminate the refrigerant and chiller system. If any portion of the chiller system is below atmospheric pressure during either operation or shut down, the manufacturer shall include, at no charge:
 - 1. Purge System
 - a. A complete purge system capable of removing non-condensables and moisture during operation and shut-down. The system shall consist of an air cooled condensing unit, purge condensing tank, pumpout compressor, and control system.
 - b. A dedicated condensing unit shall be provided with the purge system to provide a cooling source whether or not the chiller is running. The condensing unit shall provide a low purge coil temperature to result in a maximum loss of 0.1 pounds of refrigerant per pound of purged air.
 - c. The purge system shall be connected to a 100% reclaim device.
 - d. A 20-year purge maintenance agreement that provides parts, labor, and all preventative maintenance required by the manufacturer's operating and maintenance instructions.
 - 2. Annual Oil/Refrigerant Analysis
 - a. The manufacturer shall also include at no charge for a period of 20 years an annual oil and refrigerant analysis report to identify chiller contamination due to vacuum leaks.
 - b. If the analysis identifies water, acid, or other contaminant levels higher than specified by the manufacturer, the oil and/or refrigerant must be replaced or returned to the manufacturer's original specification at no cost to the owner.
 - 3. Shell Pressurization System
 - a. The manufacturer shall include a factory-installed and wired system that will enable service personnel to readily elevate the vessel pressure during shutdown to facilitate leak testing.
 - b. A shell pressurization system shall be provided to keep air out of the chiller when the unit is not in service. An electric blanket or hot water circulation system are both acceptable.
- C. Performance: Refer to chiller performance rating.
- D. Acoustics: Sound pressure for the unit shall not exceed the following specified levels. Provide the necessary acoustic treatment to chiller as required. Sound data shall be measured in dB according to AHRI Standard 575 and shall include overall dBA.

Octave Band								Overall (dBA)
63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	
							75% Load	
							50% Load	
							25% Load	

□

2.03 Chiller Components

A. Compressors:

- The unit shall utilize magnetic bearing, oil-free, semi-hermetic centrifugal compressors. The levitated shaft position shall be digitally controlled and shall be monitored by X-axis position sensor, Y-axis position sensor, and Z-axis position sensor. The compressor drive train shall be capable of coming to a controlled, safe stop in the event of a power failure by diverting stored power to the magnetic bearing controls system.
- The motor shall be of the semi-hermetic type, of sufficient size to efficiently fulfill compressor horsepower requirements. It shall be liquid refrigerant cooled with internal thermal sensing devices in the stator windings. The motor shall be compatible with variable frequency drive operation.
- If unit contains an atmospheric shaft seal, the manufacturer shall provide the following at no additional charge:
 - 20 year warranty and all preventive maintenance required to maintain the shaft seal including appropriate disposal of all oil lost through the shaft seal. Such disposal shall be done in a manner consistent with all Federal, state, and local laws pertaining to disposal and documentation of appropriate disposal shall be provided.
 - Replacement and re-charging on a semi-annual basis, or more often if required, of all oil lost through the shaft seal.
 - 20 year refrigerant replacement warranty for any loss of refrigerant that can be directly attributable to the failure of the atmospheric shaft seal.
- If the compressor drive motor is an open design the chiller manufacturer shall provide at no additional charge a self contained air conditioning system in the mechanical space sized to handle the maximum heat output the open drive motor. The energy required to operate this air conditioning system shall be added to the chiller power at all rating points for energy evaluation purposes.
- If the compressor drive motor uses any form of antifriction bearings (roller, ball, etc) the chiller manufacturer shall provide the following at no additional charge:
 - A 20 year motor bearing warranty and all preventative maintenance, including lubrication, required to maintain the bearings as specified in the manufacturer's operating and maintenance instructions
 - At start up a three axis vibration analysis and written report which establishes a baseline of motor bearing condition.
 - An annual three axis vibration analysis and written report to indicate the trend of bearing wear.
- The chiller shall be equipped with an integrated Variable Frequency Drive (VFD) to automatically regulate compressor speed in response to cooling load and the compressor pressure lift requirement. Movable inlet guide vanes and variable compressor speed acting together, shall provide unloading. The chiller controls shall coordinate compressor speed and guide vane position to optimize chiller efficiency.
- Each compressor circuit shall be equipped with a 5% rated line reactor to help protect against incoming power surges and help reduce harmonic distortion.
- The unit shall have a minimum of a 0.90 power factor at compressor full load.

B. Evaporator and Condenser:

- The evaporator and condenser shall be separate vessels of the shell-and-tube type, designed, constructed, tested and stamped according to the requirements of the ASME Code, Section VIII. Regardless of the operating pressure, the refrigerant side of each vessel will bear the ASME stamp indicating compliance with the code and indicating a test pressure of 1.1 times the working pressure, but not less than 100 psig. The tubes shall be individually replaceable and secured to the intermediate supports without rolling or expanding to facilitate replacement if required.
- The evaporator shall be flooded type with 0.025 in. wall copper internally and externally enhanced tubes rolled into carbon steel tubesheets. The water side shall be designed for a minimum of 150 psig. The refrigerant side shall be designed for a minimum of 200 psi. Provide intermediate tube supports at a maximum of 18 inch spacing. The heads shall be carbon steel and the tubesheets shall be carbon steel. Water connections shall be grooved suitable for

- Victaulic couplings. The evaporator shall have dished heads with valved drain and vent connections. The evaporator shall have left-hand connections when looking at the unit control panel.
3. The condenser shall have 0.025 in. wall copper internally and externally enhanced tubes rolled into carbon steel. Water connections shall be grooved suitable for Victaulic couplings. The water side shall be designed for a minimum of 150 psig and the refrigerant side shall be designed for a minimum of 200 psi. Provide intermediate tube supports at a maximum of 18 inch spacing. The condenser shall have dished heads with valved drain and vent connections. The heads shall be carbon steel and the tubesheets shall be carbon steel. The condenser shall have left-hand connections when looking at the unit control panel.
 4. If a negative pressure refrigerant is utilized, a separate ASME Code storage vessel shall be provided during servicing to hold the full unit refrigerant charge of the largest unit being furnished.
 5. An electronic expansion valve shall control refrigerant flow to the evaporator. Fixed orifice devices or float controls with hot gas bypass are not acceptable because of inefficient control at low load conditions. The liquid line shall have moisture indicating sight glass.
 6. Re-seating type spring loaded pressure relief valves according to ASHRAE-15 safety code shall be furnished. The evaporator shall be provided with single or multiple valves. The condenser shall be provided with dual relief valves equipped with a transfer valve so one relief valve can be removed for testing or replacement without loss of refrigerant or removal of refrigerant from the condenser. Rupture disks are not acceptable. If rupture disks are required on negative pressure units to prevent air and moisture ingress, then factory mounted spring loaded pressure relief valves shall be provided in series with the rupture disks to contain the remaining refrigerant in the event of vessel over-pressurization. The space between the rupture disk and the relief valve shall include a suitable telltale indicator integrated into the chiller control system to alert the operator that a potential safety issue exists in the pressure relief system.
 7. The evaporator vessel, including water heads, suction line, and any other component or part of a component subject to condensing moisture shall be insulated with UL recognized 3/4 inch closed cell insulation. All joints and seams shall be carefully sealed to form a vapor barrier.
 8. Provide factory-mounted and wired, thermal-dispersion water flow switches on each vessel to prevent unit operation with no or low water flow. Paddle and pressure differential type switches are not acceptable due to high rates of failure and false indications from these types of flow indicators.
- C. Long Term Reliability:
1. All compressor/motor designs that require oil to lubricate their respective roller/ball bearing system must denote exactly how many gallons of oil are required for safe operation. The manufacturer must then provide the engineer and owner with a real world energy analysis showing the energy degradation over time due to oil contamination of heat transfer surfaces. This average efficiency degradation over the life of the chiller shall be no less than 10%.
 2. Chillers containing oil shall include a 10 year parts and labor warranty on all oil system components including:
 - a. Pumps
 - b. Starter
 - c. Piping
 - d. Tank
 - e. Heater
 - f. Cooler
 - g. Controls
 - h. Valves
 3. Manufacturer shall be responsible for covering all costs associated with annual oil and oil filter changes plus oil analysis as required
- D. Vibration Isolation
1. Provide neoprene waffle-type vibration isolators for each corner of the unit.
- E. Power Connections
1. Power connection shall be single point to a factory-mounted disconnect switch.
- F. Chiller Control
1. The unit shall have a microprocessor-based control system consisting of a 15-inch VGA touch-screen operator interface and a unit controller.
 2. The touch-screen shall display the unit operating parameters, accept setpoint changes (multi-level password protected) and be capable of resetting faults and alarms. The following parameters shall be displayed on the home screen and also as trend curves on the trend screen:
 - a. Entering and leaving chilled water temperatures
 - b. Entering and leaving condenser water temperatures

- c. Evaporator saturated refrigerant pressure
 - d. Condenser saturated refrigerant pressure
 - e. Percent of 100% speed (per compressor)
 - f. % of rated load amps for entire unit
3. In addition to the trended items above, all other important real-time operating parameters shall also be shown on the touch-screen. These items shall be displayed on a chiller graphic showing each component. At a minimum, the following critical areas must be monitored:
 - a. Compressor actual speed, maximum speed, percent speed
 - b. Liquid line temperature
 - c. Chilled water setpoint
 - d. Compressor and unit state and input and output digital and analog values
4. A fault history shall be displayed using an easy to decipher, color coded set of messages that are date and time stamped. Time interval scale shall be user selectable as 20 mins, 2 hours, or 8 hours. The alarm history shall be downloadable from the unit's USB port. An operating and maintenance manual specific for the unit shall be viewable on the screen.
5. All setpoints shall be viewable and changeable (multi-level password protected) on the touch screen and include setpoint description and range of set values.
6. Automatic corrective action to reduce unnecessary cycling shall be accomplished through preemptive control of low evaporator or high discharge pressure conditions to keep the unit operating through abnormal transient conditions.
7. Chiller plant optimization software for multiple chillers shall be provided including automatic control of: at least two (2) chillers, evaporator and condenser pumps (primary and standby), up to 3 stages of cooling tower fan cycling control and a tower modulating bypass valve or cooling tower fan variable frequency drives.
8. The factory supplied VFD and controls should include the following:
 - a. High short circuit panel rating of 35kA with a matching circuit breaker
 - b. Phase loss protection
 - c. Under/over voltage protection
9. Energy saving software logic shall at a minimum offer the following
 - a. User programmable compressor soft loading
 - b. Chilled water reset
 - c. Demand limit control
 - d. Staging options lead lag between multiple compressors on a single chiller or on multiple chillers
 - e. Plotting of historic trends for optimizing efficiency

PART 3: PERFORMANCE

Cooling Capacity.....	500 tons
Max full load kW/ton.....	0.53
Max IPLV kW/ton	0.31
Evaporator:	
EnT/Lvg Temp.....	54/44 °F
Flow Rate.....	1200 GPM
Max WPD.....	20 ft.
FF.....	0.00010 hr-sq ft-deg F/BTU
Condenser	
Ent/LWT Temp.....	85/95 °F
Flow Rate.....	1500 GPM
Max WPD.....	20 Ft.
FF... ..	0.00025 hr-sq ft-deg F/BTU
Electrical.....	460/60/3

END OF SECTION

Pricing Scenario # 6

Provide Unit Ventilator and installation
Location: Los Angeles, CA, metro area

Description

PART 1: GENERAL

- 1.01 References
 - A. Comply with the following codes and standards:
- 1.02 Operation and Maintenance Data
 - A. Installation: Install product according to manufacturer's installation instructions during normal hours
 - B. Maintenance: Provide instructions for maintenance and service
- 1.03 Submittals
 - A. Submittals shall include the following:
 - 1. Installation and Operating Manuals.
- 1.04 Quality Assurance
 - A. Ventilator manufacturer must be ISO Certified.
 - B. The ventilator shall be tested to job conditions at the manufacturer's plant.
- 1.05 Warranty
 - A. The ventilator manufacturer's standard warranty shall cover parts and labor costs for the repair or replacement of defects in material or workmanship, and include refrigerant for the entire unit, for a period of one year from equipment startup or 18 months from shipment, whichever occurs first, and also include an additional extended warranty for four years on the entire unit including refrigerant coverage. Warranty support shall be provided by company direct or factory authorized service permanently located near the job site.
- 1.06 Maintenance
 - A. Maintenance shall be the responsibility of the owner and performed in accordance with the manufacturer's instructions.

PART 2: PRODUCTS

- 1. Unit Construction

All internal sheet metal parts must be made of galvanized steel to inhibit corrosion. The entire frame must be welded construction to provide strength and rigidity. Hidden reinforced top panel support shall be integral with the frame and support the fan assembly. Frames assembled with sheet metal fasteners shall not be acceptable. Unit shall be of a draw-thru design. Blow-thru design is not acceptable. Unit shall have a built-in metal wire raceway from one end compartment to the other.
- 2. Cabinets

Exterior cabinet panels shall be constructed of heavy-gauge steel. All sheet metal panels must be cleaned and phosphatized, then painted electrostatically with an oven baked environmentally friendly thermosetting urethane powder finish.
- 3. Floor Units

Floor mounted units shall have an integral pipe tunnel for convenient crossover of piping or electrical wiring in accordance with local and National Electric Codes (N.E.C.). The front surface shall consist of three separate, removable panels easily handled by one person. Control compartment must be accessible without removing the entire front panel. Unit top shall have two access doors (one at each end) for access to motor and bearings. Unit discharge grille shall be welded continuous bar type with round edged steel bars placed for a 10° vertical deflection. A 1/4" painted galvanized mesh shall be furnished and located beneath discharge grille. Unit top surface shall be supplied with a textured non-glare paint surface that resists scuffing and hides fingerprints. Units shall come with front adjustable leg levelers. End panels shall ship separately, individually wrapped in plastic and boxed to prevent damage during construction.

4. Room Air Fans and Motor

The unit fan and motor assembly shall be of a modular construction so that it is removable from the top for service, maintenance and access to the coil section for cleaning. The motor and fan assembly shall be low speed design to assure maximum quietness and efficiency. Fans shall be double inlet, forward curved centrifugal type with offset aerodynamic blades. Assembly shall be statically and dynamically balanced. Fan housings shall be steel construction, incorporating logarithmic expansion for quieter operation. Fan shaft shall be 1-1/4" diameter hollow steel with 1-1/4" end bearing. Fan and motor assembly shall be direct drive type. Motor speed shall be controlled by factory mounted multi-tap transformer for High-Medium-Low-Off speeds. Fan/coil arrangement shall be draw-thru design for uniform coil face velocity and discharge air temperature. Motors shall be 115/60/1 NEMA permanent split capacitor (PSC), plug-in type designed specifically for unit ventilator operation. Motors shall be located out of the airstream and have an internal thermal overload device (auto reset). Fan motors and controls shall have each hot line protected by factory installed cartridge type fuse(s). Motors shall have sleeve type bearings and require oiling no more than once annually. Units shall have shaft bearing located out of the air stream. Bearings in the airstream are not acceptable.

5. Face and Bypass Damper

Each unit shall be provided with a factory-installed face and bypass damper, constructed of aluminum. The long sealing surfaces of the damper shall seal positively against stops fitted with extruded EPDM rubber seals. Face and bypass damper stops not fitted with seals shall not be acceptable. The damper ends shall have blended mohair seals glued along the ends for a positive seal. Plastic clip-on brush end seals will not be acceptable. The unit design shall incorporate the face and bypass damper to prevent coil surface wiping and be before the fan in a draw through configuration. Face and bypass damper positioned in the direct discharge of the room fan is not acceptable. The face and bypass damper shall be arranged so a dead air space results between the coil and the damper in a full bypass condition to minimize heat pick up.

6. Outdoor and Room Air Dampers

Each unit shall be provided with separate room air and outdoor air dampers. The room air damper shall be constructed of aluminum using metal-forming techniques to resist twisting and shall be counterbalanced against back pressure. Outdoor air damper shall be two-piece double-wall construction with 1/2" thick, 1.5 lbs. density fiberglass insulation encapsulated between welded 20 ga. galvanized steel blades for rigidity and to inhibit corrosion, and have additional insulation on the exterior surfaces of the damper blade and on the ends of the outdoor air chamber. Dampers shall be fitted with mohair seals along all the sealing edges. Dampers shall use turned-metal principle on long closing ends with no metal-to-metal contact. No plastic or rubber gaskets shall be acceptable. Damper bearings shall be made of nylon or other material which does not require lubrication.

7. Drain Pan

All units shall have a drain pan constructed of corrosion-resistant composite material and shall be insulated. A drain outlet shall be provided on both ends of the pan. The drain hand of connection shall be easily field-reversed to the opposite end. The drain pan shall be able to be sloped in either direction for proper condensate removal. Drain shall be provided with an optional secondary, overflow drain connection on both ends of the pan.

8. Agency Listing

Unit ventilators shall be listed by Underwriters Laboratories Inc. (U.L.) for the United States and Canada. Unit ventilation rate to be certified and tested per Air Conditioning, Heating and Refrigeration Institute (AHRI) standard 840. All units with chilled water coils shall be AHRI certified for performance. Motors shall conform to the latest applicable requirements of NEMA, IEEE, ANSI, and NEC standards.

9. Coils

All hydronic coils shall be constructed with copper tubes and mechanically bonded aluminum corrugated plate fins. All coils shall have aluminum individual unshared fin surfaces. An air brake shall exist between coils. Water coils shall be furnished with a threaded drain plug at the lowest point. A manual air vent shall be provided at the high point of the coil.

10. Filters

Filter shall be one-piece design located to provide filtration of the outdoor air/return air mixture to assure even dust loading and balanced airflow in lieu of separate filters for outdoor air and return. Throwaway filter shall be factory furnished initially installed in all units.

11. Temperature Controls

Each unit ventilator shall be furnished with a factory installed and wired, microprocessor based DDC Unit Ventilator Controller (UVC), by the manufacturer of the unit ventilator, which is pre-programmed, factory pretested prior to shipment and capable of complete, standalone unit control, master-slave arrangement or incorporation into a building-wide network using an optional plug-in communication module. The UVC shall be preprogrammed with the application code required to operate the unit using

ASHRAE Cycle II. The unit control system shall include all required temperature sensors, input/output boards, main microprocessor modules, Local User Interface (referred to as LUI) Touch Pad with Digital LED Display, wiring, 24 volt power and direct coupled damper actuators. The UVC shall support up to 6 analog inputs, 12 binary inputs, and 9 binary outputs plus additional I/O points of 4 analog inputs and 8 binary outputs.

12. Network System

The unit control system shall perform all unit control functions, unit diagnostics and safeties. The unit shall operate in the standalone or network capable mode of operation. Field furnished and installed controls shall not be allowed. When network capable, network communication modules shall be factory installed, tested and able to communicate via plug-in communication modules that connect directly to the UVC using:

- a. LonMark Space Comfort Control that supports the LonMark SCC profile number 8500-10 allowing LonWorks network communication capability to the UVC.

Controls shall allow monitoring and adjustment from a portable IBM compatible PC using the applicable software. When using this PC and software, the unit shall be capable of reacting to commands for changes in control sequence and set points.

13. Room Temperature Sensor and Tenant Override Options Unit Mounted

All units shall come equipped with a factory mounted room temperature sensor located in a sampling chamber (front, center panel) where room air is continuously drawn through for fast response to temperature changes in the room. When using a remote wall-mounted temperature sensor the ability shall exist to simply disconnect the unit-mounted temperature sensor using the provided quick disconnect plug. Tenant override switch shall be factory mounted next to the Local User Interface (LUI) Touch Pad to provide a momentary contact closure that causes the unit to enter the "tenant override" operating mode for a set time period (adjustable) of 120 minutes. The room temperature sensor and override switch shall be an optional wall mounted temperature sensor, with integral tenant override capability

14. Wall Mounted Sensor with Tenant Override

A thermistor type temperature sensor with integral tenant override and status LED shall be furnished with the unit ventilators.

- a. Remote wall mounted sensor with tenant override

15. External Signal Connections

The unit shall have three (3) multi-pin External Signal Connection Plugs factory provided and pre-wired with short wire whips that is capped for field wiring of:

- a. Remote Wall Mounted Temperature Sensor.

16. Performance

Voltage	115/60/1
Min Circuit Amps	3.88
Max Fuse Amps	15
Airflow (CFM)	979
ESP (inH ₂ O)	0
Fan Speed	High
Motor Power (HP)	0.25
<u>Cooling Coil</u>	
Coil Rows	3
EAT - EDB (°F)	80
EAT - EWB (°F)	67
LDB (°F)	59.1
LWB (°F)	56.3
Fluid Type	No Glycol
EWT	45
LWT	55
Flow Rate (gpm)	6.5
WPD (ft H ₂ O)	7.53

Total Capacity Btu/hr)	32,502
Sensible Capacity Btu/hr)	22,158
<u>Heating Coil</u>	
Coil Rows	2
EAT - EDB (°F)	70
LAT - LDB (°F)	116.9
Fluid Type	No Glycol
EWT (°F)	180
LWT (°F)	140.2
Flow Rate (gpm)	2.5
WPD (ft H ₂ O)	1.34
Total Capacity Btu/hr)	49,773

END OF SECTION

Attachment 9 – Cost Proposals / Pricing Forms

Bid Forms and Price Proposal sheets are provided for you. It is not mandatory to submit your cost proposals on these forms. You must however include the same, requested information. A discount percentage, or structure must be clearly delineated.

Pricing for each scenario must be complete, showing all products offered for that scenario, the list price, the discount amount and the final net price for each scenario. Total costs, including a detailed list of all labor categories applicable to each scenario must also be shown and totaled.

BID FORM/PRICE SHEET (CONT'D)
SECTION B
Labor Rates

Normal business hours are defined as: _____

Overtime hours are defined as: _____

Holiday hours are defined as: _____

Using the below format,
 Offeror shall provide labor rates by geographic areas, regions, zones or other means for pricing nationally. (for all that are applicable)

Item	Labor Classification	Hourly Rate		
		Normal Business Hours	Overtime	Holiday
1	Architect			
2	Asbestos worker			
3	Boilermaker			
4	Concrete finishers			
5	Delivery personnel			
6	Drafting			
7	Drywall and ceiling installers			
8	Electricians			
9	Engineering design			
10	Geothermal well field labor			
11	Heavy equipment operators			
12	HVAC commercial A/C technician			
13	HVAC light commercial			
14	HVAC helper			
15	HVAC field supervisor			

BID FORM/PRICE SHEET (CONT'D)				
SECTION B				
<i>Labor Rates (Cont'd)</i>				
		Hourly Rate		
Item	Labor Classification	Normal Business Hours	Overtime	Holiday
16	HVAC refrigeration technician			
17	HVAC duct installer			
18	HVAC filter technician			
19	HVAC building automation technician			
20	Infrared technician			
21	Insulators			
22	Laborers			
23	Light equipment operators			
24	Metal building assembler			
25	Millwrights			
26	Operating engineer			
27	Painters, wall covering installers			
28	Pipefitters			
29	Plasterers			
30	Plumbers			
31	Project manager			
32	Project administrator			
33	Project engineering			
34	Roofers			
35	Sheet metal workers			
36	Test and balance technician			
37	Tile setters			
38	Waterproofers, caulkers			
39	Water treatment technician			
	<i>Use additional space as necessary to add any additional labor categories.</i>			

BID FORM/PRICE SHEET (CONT'D)	
SECTION C <i>Additional Costs</i>	
INSTRUCTIONS:	
<p><u>Offeror shall utilize net product prices and labor rates listed in Sections A and B of this Bid Form/Price Sheet to determine cost for installation of new equipment, maintenance of existing systems, upgrading of existing infrastructures, turn-key services and any other installation and services offered.</u> If there are other elements that should also be taken into consideration, Offeror shall list these elements below and any associated pricing.</p>	
Any Additional Pricing Elements for Installation, Maintenance, Upgrades and Turn-Key Services	Cost
<i>List any other elements to be taken into consideration for installation, maintenance, upgrades and turn-key services</i>	

The remainder of this page is intentionally left blank.

137

BID FORM/PRICE SHEET (CONT'D)	
SECTION E <i>Additional Discounts</i>	
Insert additional lines as necessary.	
ADDITIONAL DISCOUNTS/INCENTIVES	COST
Additional Discounts for volume (i.e. price breaks for multiple products/services, etc.)	
	\$
	\$
	\$
	\$
Any additional pricing incentives, discounts or rebates such as for large volume purchases and services, total spend, etc.	
	\$
	\$
	\$
	\$
Any additional pricing discounts for the purchase of products and services for groups of Participating Public Agencies in a local geographic area that desire to combine requirements, i.e. local city, county, school district, housing authority, transit authority, etc.	
	\$
	\$
	\$
	\$

The remainder of this page is intentionally left blank.

BID FORM/PRICE SHEET (CONT'D)			
SECTION F <i>Pricing Project #1</i>			
Use the below format for pricing Rotary Screw Chillers Location: North Harford Middle School, Pylesville, MD			
Detail all applicable product costs from Section A of this Bid Form	List Price	% Discount off List Price	Net Price
Use additional space as necessary			
Total Product Price			
Detail all applicable labor classifications used from Section B of this Bid Form	Labor Rate	Hours Needed	Total Labor Cost Per Classification
Use additional space as necessary			
Total Labor Price			
Total Cost (Product/Labor) for Scenario			
Note any exceptions to the Specifications			
Use additional space as necessary			

BID FORM/PRICE SHEET (CONT'D)			
SECTION F			
<i>Pricing Scenario #2</i>			
Use the below format for pricing packaged rooftop air conditioner and installation. Location: Chicago, IL, city limits			
Detail all applicable product costs from Section A of this Bid Form	List Price	% Discount off List Price	Net Price
Use additional space as necessary			
Total Product Price			
Detail all applicable labor classifications used from Section B of this Bid Form	Labor Rate	Hours Needed	Total Labor Cost Per Classification
Use additional space as necessary			
Total Labor Price			
Total Cost (Product/Labor) for Scenario			
Note any exceptions to the Specifications			
Use additional space as necessary			

BID FORM/PRICE SHEET (CONT'D)			
SECTION F			
<i>Pricing Scenario #3</i>			
Use the below format for pricing indoor air handling unit. Location: Portland, OR, metro area			
Detail all applicable product costs from Section A of this Bid Form	List Price	% Discount off List Price	Net Price
Use additional space as necessary			
Total Product Price			
Detail all applicable labor classifications used from Section B of this Bid Form	Labor Rate	Hours Needed	Total Labor Cost Per Classification
Use additional space as necessary			
Total Labor Price			
Total Cost (Product/Labor) for Scenario			
Note any exceptions to the Specifications			
Use additional space as necessary			

BID FORM/PRICE SHEET (CONT'D)			
SECTION F			
<i>Pricing Scenario #4</i>			
Use the below format for pricing air cooled scroll chiller, installation and maintenance for two years. Location: Jacksonville, FL, metro area			
Detail all applicable product costs from Section A of this Bid Form	List Price	% Discount off List Price	Net Price
Use additional space as necessary			
Total Product Price			
Detail all applicable labor classifications used from Section B of this Bid Form	Labor Rate	Hours Needed	Total Labor Cost Per Classification
Use additional space as necessary			
Total Labor Price			
Total Cost (Product/Labor) for Scenario			
Note any exceptions to the Specifications			
Use additional space as necessary			

BID FORM/PRICE SHEET (CONT'D)			
SECTION F			
<i>Pricing Scenario #5</i>			
Use the below format for pricing centrifugal water chiller, installation and maintenance for two years.			
Location: Dallas, TX, metro area			
Detail all applicable product costs from Section A of this Bid Form	List Price	% Discount off List Price	Net Price
Use additional space as necessary			
Total Product Price			
Detail all applicable labor classifications used from Section B of this Bid Form	Labor Rate	Hours Needed	Total Labor Cost Per Classification
Use additional space as necessary			
Total Labor Price			
Total Cost (Product/Labor) for Scenario			
Note any exceptions to the Specifications			
Use additional space as necessary			

BID FORM/PRICE SHEET (CONT'D)			
SECTION F <i>Pricing Scenario #6</i>			
Use the below format for pricing unit ventilator and installation. Location: Los Angeles, CA, city limits			
Detail all applicable product costs from Section A of this Bid Form	List Price	% Discount off List Price	Net Price
Use additional space as necessary			
Total Product Price			
Detail all applicable labor classifications used from Section B of this Bid Form	Labor Rate	Hours Needed	Total Labor Cost Per Classification
Use additional space as necessary			
Total Labor Price			
Total Cost (Product/Labor) for Scenario			
Note any exceptions to the Specifications			
Use additional space as necessary			

BID FORM/PRICE SHEET (CONT'D)

Signature Page

Signature

Company

Name (Print or type)

Email

The remainder of this page is intentionally left blank.