

# INVITATION TO BID

State of Ohio  
Department of Administrative Services  
General Services Division  
Office of Procurement Services

The Original Signed Bid must be submitted to the Office of Procurement Services to receive consideration for award.		BIDDER NAME	
BID NUMBER <b>OT902813</b>	OPENING DATE (1:00 p.m.) <b>December 12, 2012</b>	STREET ADDRESS <input type="checkbox"/> Check if remit address is different and list on separate sheet	
General Services Division Office of Procurement Services 4200 Surface Road Columbus, OH 43228-1395		CITY	STATE ZIP
Attn: Bid Desk		COUNTY	MBE/EDGE CERTIFICATE NUMBER
REQ./INDEX NO. <b>DPS031</b>		TELEPHONE NO. ( )	TOLL FREE NO. 1 - ( )
BID NOTICE DATE <b>11/23/12</b>	CONTACT PERSON		FAX NO. ( )
CONTRACTOR'S E-MAIL ADDRESS			
SELECT YOUR PREFERRED METHOD OF RECEIVING PURCHASE ORDERS AND ENTER THE E-MAIL OR FAX NUMBER INFORMATION (ONLY SELECT ONE METHOD)			
<input type="checkbox"/> E-Mail		<input type="checkbox"/> Fax	
In addition to the standard terms for payment, the payment terms for state agency(ies) will be 2%, 10 Days, Net 30 Days unless otherwise stated in the following space. If no discount is offered, bidder should circle "Net 30 Days". _____%, _____ Days, Net 30 Days			
PARTICIPATING AGENCY(IES): DEPARTMENT OF PUBLIC SAFETY, DIVISIONS AS LISTED HEREIN			
<p><u>THE DEPARTMENT OF ADMINISTRATIVE SERVICES, OFFICE OF PROCUREMENT SERVICES, IS SOLICITING BIDS FOR:</u></p> <p><b>HVAC MAINTENANCE FOR ODPS COLUMBUS METRO AREA</b> Site Visits available: See page 3</p> <p><u>TERM OF CONTRACT:</u> This Invitation to Bid is to establish a requirements contract to procure the described supplies or services on behalf of the above participating agency(ies). The agency(ies) may place orders against the Contract beginning <u>01/01/13</u> or upon the date when DAS signs the Contract, whichever is later in time. The Contract will expire <u>01/31/15</u> unless DAS terminates the Contract based upon reasons set forth in Article I-C of the Standard Contract Terms and Conditions. No agencies may place purchase orders against the Contract beyond the expiration date unless DAS renews the Contract by amendment. The Contractor may begin performance under the Contract only upon receipt of a valid order from a participating state agency.</p> <p><u>INSTRUCTIONS TO BIDDERS AND CONTRACT TERMS AND CONDITIONS</u>, Revised 09/2012, are a part of this Invitation to Bid. Copies may be downloaded by clicking on this link: <a href="#">Instructions: Terms and Conditions for Bidding, Standard Contract Terms and Conditions, and Supplemental Contract Terms and Conditions.</a> All prior versions of Instructions to Bidders, Contract Terms and Conditions are null and void.</p> <p>By submitting this Invitation to Bid, the Contractor certifies that Contractor has truthfully disclosed the location(s) where all services are to be performed; the location(s) where all applicable State contract data is to be maintained or made available; and the principal location of business for the Contractor and all subcontractors. The Contractor further certifies and acknowledges that Contractor will not change the country of the location(s) where services are performed and will not change the country of the location(s) where data is maintained or made available without prior written consent of the State.</p> <p>Any questions or clarifications regarding this Invitation to Bid should be directed to the Office of Procurement Services through the Internet at <a href="http://www.procure.ohio.gov/">www.procure.ohio.gov/</a>. All questions should be submitted a minimum of five (5) working days prior to the bid opening date.</p>			
PRINTED/TYPED SIGNATURE		AUTHORIZED SIGNATURE (ORIGINAL SIGNATURE ONLY) (Please sign in blue ink)	DATE

The original signed Bid must be submitted to the Office of Procurement Services by 1:00 o'clock p.m., on the above listed opening date to receive consideration for award. It is requested that the Bidder not sign their bid in black ink. Bidder certifies, by signature affixed to its bid, that the information provided by it in its bid including the certified statements, is accurate and complete. Bidder declares to have read and understood and agrees to be bound by all of the instructions, terms, conditions and specifications of this Invitation to Bid and agrees to fulfill the requirements of any awarded contract at the prices bid.

## REQUIRED CERTIFICATION FOR BIDDING

Those bidders claiming preference for Domestic Source End Products and/or the Ohio preference, pursuant to Revised Code Sections 125.09 and 125.11 and Administrative Code Section 123:5-1-06 must complete the following information. Bidders who qualify as an "Ohio" bidder (offer an Ohio product or who have significant Ohio economic presence) or who qualify as a Border State bidder are eligible to receive a five percent (5%) preference over non-Ohio/Border state bidders. The state reserves the right to clarify any information during the evaluation process. **BIDDERS MUST COMPLETE THIS CERTIFICATION TO RECEIVE THE PREFERENCE.**

### A. DOMESTIC PREFERENCE (BUY AMERICA): [Not applicable to "Excepted Products"]

1. Where is each product/services being offered mined, raised, grown, produced or manufactured?  
 United States: \_\_\_\_\_(State)     Canada     Mexico    (Go to B-1)  
 Other: (Specify Country) \_\_\_\_\_ (Go to A-2)
2. End product is manufactured outside the United States and at least 50% of the cost of its components are produced, mined, raised, grown or manufactured within the United States. The cost of components may include transportation costs to the place of manufacture and, in the case of components of foreign origin, duty whether or not a duty free entry certificate is issued.  
 Yes (Go to Section B-1)     No (Go to Section A-3)
3. The Bidder hereby certifies that each end product, except the products listed below, is a domestic source end product as defined in the Buy America Act and that components of unknown origin have been considered to have been mined, produced, grown or manufactured outside the United States.  
  
\_\_\_\_\_ (Item) \_\_\_\_\_ (Country) of  
Origin)  
  
\_\_\_\_\_ (Item) \_\_\_\_\_ (Country) of  
Origin)

A domestic end source product is deemed to be excessively priced if it exceeds the cost of the foreign product by more than 6%. Pursuant to FAR, Part 25, the state of Ohio does not acquire supplies or services that cannot be imported lawfully into the United States. The contractor, their subcontractor(s) and any agent of the contractor or subcontractor must not acquire any supplies or services originating from sources within, or that were located in or transported from or through Cuba, Iran, Iraq, Libya, North Korea, Sudan Territory of Afghanistan controlled by the Taliban, or Serbia (excluding the territory of Kosovo).



### B. OHIO PREFERENCE (BUY OHIO):

1. The products/services being offered are raised, grown, produced, mined or manufactured in Ohio.  
 Yes (Go to C)     No (Go to B-2)
2. Bidder has significant economic presence within the state of Ohio.  
 Yes (Answer a, b, c, d below)     No (Go to B-3)
  - a) Bidder has paid the required taxes due the state of Ohio     Yes     No
  - b) Bidder is registered with the Ohio Secretary of State  
 Yes (Charter/Registration No.: \_\_\_\_\_)     No  
Questions regarding registration should be directed to (614) 466-3910 or visit their web site at:  
<http://www.sos.state.oh.us/>
  - c) Bidder has ten or more employees based in Ohio or border state.     Yes     No (Go to B-2d)
  - d) Bidder has seventy-five percent or more employees based in Ohio or border state.  
 Yes     No (Go to B-3)
3. Border state bidder:  
 Yes (Specify which state then go to B-2c):  KY     MI     NY     PA     IN     No (Go to B-4)
4. Border state bidder: mined products mined in respective border state  
 Yes     No     Not Applicable

### C. E.D.G.E. DESIGNATION

Bidder is certified E.D.G.E. business     Yes     No

For information on E.D.G.E. designation, please visit the DAS Equal Opportunity Division website at: <http://www.das.ohio.gov/Divisions/EqualOpportunity/tabid/80/Default.aspx>

## SPECIAL CONTRACT TERMS AND CONDITIONS

**DELIVERY AND ACCEPTANCE** Services will be performed as set forth in the Contract and in accordance with paragraphs S-8, S-9, and S-10 of the SUPPLEMENTAL CONTRACT TERMS AND CONDITIONS. The location of performance will be noted on the purchase order issued by the participating agency. Payment for services rendered will occur upon the inspection and written confirmation by the ordering agency that the services provided conform to the requirements set forth in the Contract. Unless otherwise provided in the Contract, payment shall be conclusive except as regards to latent defects, fraud, or such gross mistakes as amount to fraud.

**MATERIAL SAFETY DATA SHEET** The Contractor shall provide a Material Safety Data Sheet (MSDS) for any hazardous chemical that he brings onto the facility property for the performance of this contract. The MSDS shall verify the Contractor's compliance with [Occupational Safety & Health Administration \(OSHA\)'s Hazard Communications 1910.1200](#). The MSDS shall be given to the facility contact person prior to use of the hazardous chemical on the facility property.

**BUSINESS REFERENCES** All bidders should submit with his/her bid, a list of at least three (3) companies and/or organizations with which they have had recent (within two [2] years) Heating, Ventilation, & Air Conditioning (HVAC) service contracts. This list shall include the name and phone number of a contact person who will be familiar with the bidder's job performance. The state may verify the bidder's experience based upon the list of business references submitted and any other sources which the state deems appropriate.

**CONTRACT AWARD** The contract will be awarded to the lowest responsive and responsible bidder by low lot total. Failure to bid all items may result in the bidder being deemed not responsive.

**EVALUATION** Bids will be evaluated in accordance with Article I-17 of the "Instructions to Bidders". In addition, the state will take the product of the monthly cost and the number of months in a year (twelve) to arrive at an annual cost for the Preventive Maintenance (PM) and Repair. Labor rates will be calculated by taking the product of the Estimated Usage figure and the Bid Price Per Hour. Additionally, the State will calculate the sum total of \$1000 Replacement Parts and Components and Mark-up (product of estimated parts usage and mark-up percentage).

**USAGE REPORTS** Every twelve (12) months the Contractor must submit a report (on CD) indicating sales generated by this contract. The report shall list usage by customer, by line item, showing the quantities/dollars generated by this contract. The report shall be forwarded to the Office of Procurement Services, 4200 Surface Road, Columbus, OH 43228-1395, Attn: Lauren Brown.

**FIXED-PRICE WITH IN-SERVICE COST ADJUSTMENTS** The Contractor agrees to adjust the total annual charges for any decrease/increase in the number of HVAC units to be serviced due to resident program changes and/or building destruction/construction programs for the duration of the Contract. All adjustments will be in accordance with the Contract.

**SITE VISIT:** Site visits will be held on the following days:

- 11/07/12 - Alum Creek Facility (ACF)
- 11/08/12 - Emergency Management Agency (EMA)
- 11/09/12 - Ohio State Highway Patrol (OSHP) Training Academy

Prior to submitting their bid response, the bidder should visit the agency they are bidding in order to survey the facility(s) and to become familiar with the requirements of the bid. The site visit will commence promptly at 9:00 a.m., barring an unforeseen circumstance that results in a delay of the site visit. Attendance will be taken. Once a contract is awarded, failure of the bidder to have requested a site visit to become familiar with the facility and requirements of the bid will be insufficient reason to support any request to be released from the contract.

Please contact Christy Lochbaum (ODPS-MAU Analyst) at (614) 466-3073 or [Christina.lochbaum@dps.state.oh.us](mailto:Christina.lochbaum@dps.state.oh.us) during regular business hours to schedule an appointment and make arrangements for authorization to enter the facility.

SPECIAL CONTRACT TERMS AND CONDITIONS (Cont'd.)

**FIXED-PRICE WITH WAGE ADJUSTMENTS:** No price adjustment will be granted during the first twelve (12) months duration of the contract. Thereafter, should changes be approved to the Federal Minimum Wage Rates, Federal Mandatory Health Care Programs, Workers' Compensation and/or Unemployment Insurance rates and/or transportation costs, the Contractor may petition DAS to increase the contract price(s). If approved by DAS, the Contractor will only be entitled to the exact amount of the increase as approved in the respective program. DAS will not agree to any increase that is retroactive to the start date of the Contract or is within the above stated time period that prices may not be adjusted. The Contractor must give DAS a minimum of thirty-(30) calendar days notice prior to the effective date of the increase. The petition must be accompanied by documentary evidence to fully support the request (e.g. Federal Minimum Wage Scales, tariff schedules, etc.). If approved the increase will become effective on the date set forth in the request and will remain in effect for the duration of the Contract. Approval of said increase is at the sole discretion of DAS. No petition for increase will be considered for adjustments that occurred prior to the effective date of the Contract.

**COMPLIANCE TO RECOMMENDED INDUSTRY STANDARDS** The Contractor will provide all services, repair parts, replacement parts, equipment and/or system recommendations with the focus of compliance to recommended industry standards, and/or other governing standards, i.e. American Society of Heating, Refrigeration, and Air-Conditioning Engineers ([ASHRAE](#)) Standards which dictate or make recommendation pertinent to the HVAC industry; Environmental Protection Agency (EPA) for proper certification; OSHA for Hazmat/Hazcom <http://www.osha.gov/dsg/hazcom/index.html> and special work safety requirements; Department of Transportation (DOT) <http://fast.faa.gov/archive/v0109/realestate/space/docs/s-att-a.doc> for refrigerants; Americans with Disabilities Act (ADA) [ADA Standards for Accessible Design](#) for device placement, etc.

**SPECIFICATION QUESTIONS** Information regarding submission of questions and clarifications for this Bid is provided on page one (1) of the Bid. Through the indicated inquiry closure date, Bidders may visit the Procurement Services website to post Bid related questions at < <http://procure.ohio.gov/proc/index.asp>>. Answers to all Bidder questions will be posted on the Procurement Services website and linked to the bid number. Bidders can make his/her own inquiry and/or review all inquiry questions/responses from the same website page from which the bid document is downloaded. The State will make every effort to respond to website inquires within forty-eight (48) hours of receipt. The State will not respond to any verbal or written questions received through any other medium. No prospective Bidder shall respond to any verbal instructions or changes to this Bid. Only Bid communications, issued by the Department of Administrative Services, Office of Procurement Services, in a public, published format, will be considered valid.

**BACKGROUND CHECKS** A complete and thorough background check, at the ODPS' expense, will be performed on all persons employed by the Contractor for this contract. An extensive investigation will be conducted by the OSHP prior to assignment of Contractor staff to the contract locations.

1. Criteria for personnel record checks: Background checks will be performed to determine if current or potential employees of the Contractor have any type of convictions in the following areas:
  - a) Any record of violence, domestic or otherwise;
  - b) Drug-related convictions,
  - c) Theft.
2. Those Contractor employees or potential Contractor employees with felony convictions or other criminal records, unless specifically approved by the ODPS, will not be permitted to be employed at the contract locations.

**TRAVEL** Travel is limited to Columbus Metropolitan area (see Section I, Item B for locations) . The Contractor is required to pay for travel and incidentals (i.e., mileage, lodging, meals) if needed.

SPECIAL CONTRACT TERMS AND CONDITIONS (Cont'd.)

NOTICE ON THE USE OF SOCIAL SECURITY NUMBERS AS FEDERAL TAX IDENTIFICATION NUMBERS

The Department of Administrative Services (Department) requires vendors and contractors wishing to do business with the State to provide their Federal Taxpayer Identification Number to the Department. The Department does this so that it can perform statutorily required "responsibility" analyses on those vendors and contractors doing business with the State and, under limited circumstances, for tax reporting purposes. If you are a vendor or contractor using your Social Security Number as your Federal Taxpayer Identification Number, please be aware that the information you submit is a public record, and the Department may be compelled by Ohio law to release Federal Taxpayer Identification Numbers as a public record. If you do not want to have your Social Security Number potentially disclosed as a Federal Taxpayer Identification Number, the Department encourages you to use a separate Employer Identification Number (EIN) obtained from the United States Internal Revenue Service's to serve as your Federal Taxpayer Identification Number.

EXPENDITURE OF PUBLIC FUNDS ON OFFSHORE SERVICES The Contractor affirms to have read and understands [Executive Order 2011-12K](#) and shall abide by those requirements in the performance of this Contract. Notwithstanding any other terms of this Contract, the State reserves the right to recover any funds paid for services the Contractor performs outside of the United States for which it did not receive a waiver. The State does not waive any other rights and remedies provided the State in this Contract.

The bidder must complete the attached Contractor/Subcontractor Affirmation and Disclosure form attachment to abide with Executive Order 2011-12K, affirming no services of the Contractor or its subcontractors under this Contract will be performed outside the United States. During the performance of this Contract, the Contractor must not change the location(s) of the country where the services are performed, change the location(s) of the country where the data are maintained, or made available unless a duly signed waiver from the State has been attained to perform the services outside the United States.

BID AUTOMOBILE LIABILITY CHECKLIST

Contractor will indicate, by checking the appropriate box(es) below, which mode of transportation will apply to this contract.

- Bidder/Broker ("The Contractor") or their Sub Contractor will make delivery or be performing services using a vehicle that is owned, leased or rented. Provide Certificate of Insurance documenting automobile liability with a Combined Single Limit of \$500,000.00. **(This number may be increased as necessary.)**
- Goods/Services will be delivered via common carrier.
- No employee or representative of the contractor will have cause to be on state property to make deliveries or to perform services.

SPECIAL CONTRACT TERMS AND CONDITIONS (Cont'd.)

DISCLOSURE OF SERVICE PROVIDERS (See Standard Contract Terms and Conditions, Section [Roman Numeral] V. General Provisions:, Paragraph G.)

Bidders seeking to enter into a service contract shall disclose the following:

a) Principal location of business for the contractor (Name/City/State/Country)

---

b) Principal location of all subcontractors (Name/City/State/Country)

---

---

---

c) Location where services will be performed (Name/City/State/Country)

---

---

---

d) Location where any State data, applicable to the Contract, will be maintained or made available (Name/City/State/Country)

---

---

---

By the signature affixed to Page 1 of this Bid, Bidder hereby certifies that the above information is true and accurate. The Bidder agrees that no changes will be made to this list of subcontractors or locations where work will be performed or data will be stored without prior written approval of DAS. Any attempt by the Bidder/Contractor to change or otherwise alter subcontractors, locations where services will be performed or locations where data will be stored, without prior written approval of DAS, will be deemed as a default. If a default should occur, DAS will seek all legal remedies as set forth in the Terms and Conditions which may include immediate cancellation of the Contract. Failure to complete this page may deem your bid not responsive.

## SPECIFICATIONS

### I. GENERAL OVERVIEW

#### A. Purpose:

The Ohio Department Administrative Services (ODAS), Office of State Purchasing, is seeking bids to provide services for Heating, Ventilation, and Air Conditioning (HVAC) maintenance and support including installation of equipment, repair and other support services at three (3) locations for the Ohio Department of Public Safety (ODPS) as described in this Invitation to Bid (ITB). The initial contract term will be twenty-four (24) months, with the possible renewal of an additional twenty-four (24) months, subject to mutual agreement and contingent upon the discretionary decision of the Ohio General Assembly to appropriate funds for this Contract in the new biennium.

#### B. Locations:

This solicitation is limited to the ODPS facilities within the Columbus metropolitan area; specifically:

1. ODPS buildings at 1583 Alum Creek Drive (ODPS Alum Creek Facility[ACF])
2. Emergency Management Agency (EMA) at 2855 West Dublin-Granville Road.
3. The Ohio State Highway Patrol (OSHP) Training Academy at 740 East 17<sup>th</sup> Avenue.

#### C. Objectives:

The State's objective is to acquire quality HVAC professional support services to facilitate the effective operation of the facilities listed above in Section I, Item B.

### II. SCOPE

#### A. To provide all labor, tools, equipment, incidentals and supervision required in the performance of meeting the HVAC needs that may be required by the ODPS.

It is imperative that the bidder awarded a contract be capable of fielding more than one maintenance and support team simultaneously. Planning will, of course, alleviate many anomalies that may occur among known tasks that have to be accomplished. However, it is impossible to ascertain beforehand the exact nature of a task that may occur, thus, the skill set(s) that might be required for a particular team to accommodate a given task.

In light of the above reality, the bidder awarded this contract for this HVAC maintenance and support initiative must have sufficient personnel, to field three (3) teams simultaneously, two (2) of which may be assigned to similar tasks.

Specific duties and tasks will be assigned to the Contractor on an on-going basis throughout the term of the contract as defined by, and communicated by the ODPS Facility/Project Manager as listed below:

#### **ODPS/ACF**

1583 Alum Creek Drive  
Columbus Ohio 43209

Mr. Michael VanSuch  
(614) 995-1995  
[mvansuch@dps.state.oh.us](mailto:mvansuch@dps.state.oh.us)

#### **OSHP Training Academy**

740 East 17<sup>th</sup> Avenue  
Columbus, Ohio 43211

S/Lt. Richard Zwayer  
(614) 466-4896  
[RLZwayer@dps.state.oh.us](mailto:RLZwayer@dps.state.oh.us)

#### **EMA**

2855 West Dublin-Granville Road  
Columbus Ohio 43235

Mr. Stephen Rosner  
(614) 889-7166  
[srosner@dps.state.oh.us](mailto:srosner@dps.state.oh.us)

SPECIFICATIONS (cont.'d)

B. For this solicitation the Contractor will provide the following services:

1. Project Management [on a task by task basis]
2. Site Survey [as required] includes evaluations
3. Disconnect Services
4. Relocation Services
5. Installation Services
6. PM Services
7. Software Migration, Upgrade, and Configuration [for only those units containing embedded software]
8. Trouble shooting, fault assessment, replacement assessment [including control systems]
9. Repair of HVAC equipment
10. Component and Parts Replacement
11. System Parts and Replacement
12. Emergency Service
13. Maintenance Scheduling
14. Repair and Replacement Labor
15. Maintenance Supplies
16. Test and Inspect Labor
17. Air Filter Service
18. Refrigerant Management Program
19. Automatic Temperature Control Service
20. Indoor Air Quality
21. Seasonal Start Ups
22. HVAC system compliance recommendations
23. Warranty Repair Service and Maintenance

III. GENERAL REQUIREMENTS: These are service requirements that apply to all three (3) locations.

- A. The ODPS wants the option of choosing repair or replacement of the equipment shown in Appendices A, B and C. The decision to repair or replace will be at the option of the Facility/Project Manager on a one-for-one equipment item basis. If the decision is to replace an item which has deteriorated or become inoperable, the Facility/Project Manager will authorize the Contractor to purchase replacement equipment. Upon completion of installation of the new equipment, the Contractor will invoice the ODPS at his cost for the equipment replaced. The ODPS will then reimburse the Contractor for that equipment. The State agrees to pay the Contractor at cost plus mark-up for the replacement equipment and may request a copy of the invoice from the Contractor's supplier for documentation. Prior to purchasing any replacement equipment, the Contractor must submit specification data for review and approval by the ODPS.
- B. Test and Inspect: Visually inspect and test equipment to determine its operating condition and efficiency. Travel is limited to Columbus Metropolitan area. Typical activities include:
  1. Testing for: excessive vibration, motor winding resistances, refrigerant charge, fan Revolutions Per Minute (RPM), refrigerant oil (acid), water condition, flue gas analysis, safety controls, combustion and draft, crankcase heaters, control system(s), air quality, etc.
  2. Inspecting for: worn, failed or doubtful parts, mountings, drive couplings, oil level, rotation, boot, flame composition and shape, pilot and igniter, steam, water, oil and/or refrigerant leaks, etc.
  3. Warranty Repair Service and Maintenance: The offeror will be responsible for all warranty work performed. The ODPS will be responsible for identifying and providing current and future equipment that is under warranty prior to warranty service. Warranties include all parts and equipment manufacturers stated warranties and all warranties that the manufacturer provides above parts and equipment manufacturers stated warranties.
- C. PM: Clean, align, calibrate, tighten, adjust, lubricate and paint equipment. These activities are intended to extend equipment life and assure proper operating condition and efficiency. Bidder's forms for reporting the completion of PM shall be acceptable to both parties. Typical activities include those PM activities recommended by the individual equipment manufacturer. Travel is limited to Columbus Metropolitan area.

SPECIFICATIONS (cont.'d)

- D. Full Service: In addition to the PM checks and services, the Contractor will provide all parts necessary to repair the unit as part of the contract price.
- E. Parts: All parts used for Full Service and Partial Service will be Original Equipment Manufacturer (OEM) or equivalent per the manufacturer and/or the manufacturer's recommended alternative.
- F. Cleaning: coil surfaces, fan impellers and blades, electrical contacts, burner orifices, passages and nozzles, pilot and igniter, cooling tower baffles, basin, sump, and float; chiller, condenser and boiler tubes, etc.
- G. Aligning: belt drives, drive couplings, air fins, etc.
- H. Calibrating: safety controls, temperature and pressure controls, etc.
- I. Tightening: electrical connections, mounting bolts, pipe clamps, refrigerant piping fittings, damper sections, etc.
- J. Adjusting: belt tension, refrigerant charge, super heat, fan RPM, water chemical feed and feed rate, burner fuel/air ratios, gas pressure, set point of controls and limits, compressor cylinder un-loaders, damper close-off; sump floats, etc.
- K. Lubricating: motors, fan and damper bearings, valve stems, damper linkages, fan vane linkages, etc.
- L. Painting for corrosion control, as directed by scheduling system and on an as-needed basis.
- M. Troubleshooting and Fault Assessment: trace inconsistent system parameters and document fault with resolution.
  - 1. Repair and Replace: Repair or remove and replace broken, worn and/or doubtful components and or parts. This activity is inclusive of control systems/subsystems for HVAC Equipment. This activity includes the services and supplies listed below..
  - 2. Trouble Calls: Services for unscheduled work resulting from abnormal conditions.
  - 3. Emergency Request/Work: The Contractor will respond to all requests for emergency service in four (4) hours or less. Response continuity is for seven (7) days a week; twenty-four (24) hours a day; three hundred sixty-five (365) days per year. A twenty-four (24) hour emergency answering service for dispatching is required. In the event the Contractor cannot respond, they must provide an approved sub-contractor that can provide the required services within the above timeframe. Prior to the award of the contract, the Contractor must supply the sub-contractor for approval. Approved sub-contractors must adhere to the same requirements for licenses and insurances as the Contractor.
  - 4. Components, Parts, and Supplies: The costs of components, parts, and supplies required to keep the equipment operating properly and efficiently.
- N. Agreement Specific Overview Requirements: These are requirements that apply to all three (3) locations unless specifically denoted as non-applicable or changed for that location.
  - 1. Items agreement encompasses: Agreement covers all moveable and non-moveable parts (i.e. compressors, motors, coils, piping, heat exchangers, refrigerant leaks, refrigerant and disposal, control systems/subsystems, etc.)
  - 2. Items agreement does not encompass: Will not cover poor system design (i.e. relating to such oversights as not enough diffusers, ductwork or unit sized improperly, site remodeling of areas, etc.)
  - 3. Travel: Travel to and from each facility is the bidder's responsibility. It is noted that all facilities relating to this acquisition are located in the Columbus, Ohio metropolitan area.
  - 4. Labor Rate: Submission of no less than (NLT) three (3) labor rates required.
    - One (1) basic labor rate
    - One (1) overtime labor rate
    - One (1) emergency labor rate (Covers all repair and/or replacement labor for emergency calls.)

SPECIFICATIONS (cont.'d)

5. Invoices shall be detailed to show a breakdown of labor hours and parts used. Contractor must provide a copy of the itemized invoice from his/her supplier of parts or equipment for documentation.
6. Equipment Obsolescent: Equipment that is less than eight (8) years old will normally be repaired as indicated above. However, the equipment will be assessed as to the labor and replacement parts costs associated with repair. This assessment is particularly pertinent for equipment that has or is beginning to have frequent repairs. The appropriate ODPS Facility Services Chief will consult with the Contractor and make a decision with respect to equipment replacement.
7. Seasonal Start-Up Costs: Seasonal start-up costs for equipment listed for each facility will be the responsibility of the Contractor. Contractor will also be responsible for all material, labor, freight, and handling fees for any and all repairs to units at seasonal start-up time.
8. Indoor Air Quality (IAQ): Testing four (4) times per year. To check for Carbon Dioxide (CO<sub>2</sub>) levels, temperature, humidity, small and large particles, radon, ozone, total volatile organic compounds, mold, and pollen. Reports to include graphs, charts, date, times and locations of areas tested, and recommendations on problem resolution. An IAQ log must be provided and maintained on-site by the Contractor.
9. Filters: All HVAC filters to be replaced six (6) times per year. Dates and times to be determined by coordination between the Contractor and the Facility/Project Manager for the State. The ODPS will provide all filters except for those used on the OSHP Training Academy Firing Range. Please refer to Appendix C "Firing Range Filter Replacement Specifics" for filter specifications.

Range Filter Bags: 2.5-mil 55-60 Gallon Clear Trash Liners, Linear Low Density are to be provided by the Contractor for the OSHP Training Academy Firing Range.

10. Following completing of each inspection, the Contractor's team shall review with the ODPS Facility/Project Manager, or his/her designee, the details of the work just completed and inform them of the condition of the systems, and any recommendations for necessary repairs or improvements to the system. The Contractor's team shall provide a written "field" report detailing this information prior to leaving the facility.
  11. Within two (2) weeks following an inspection, the Contractor shall file a formal written report, with the ODPS Facility/Project Manager, or his/her designee.
  12. Contractor will provide company "identifier" items (badges, uniforms, shirts, etc.) for personnel working at the facility.
- O. Special Requirements: Alum Creek Facility (ACF).
1. Facility normal business hours; 8:00am – 5:00pm Monday through Friday. During this contract, the Contractor's normal business hours must coincide with ODPS hours.
  2. A specific prior-scheduled window will be required to gain access to the Ohio State Patrol and Investigative Unit Crime Labs and other evidence storage areas.
  3. Contractor must first report to Facility services office room 704A to "sign in" and obtain a Contractor badge, prior to performing work. Contractor will also "sign-out" at same location and surrender badge.
  4. Contractor will have access to the ODPS scissored lift when working on units (must be site certified-certification to be provided by the ODPS at its expense).
  5. For HVAC belt replacement, must use "Raw Edge, Cogged, which are oil and heat resistant and static conducting. Approved belt brands will be Dayton, Browning, Goodyear, Gates, and Dayco. Belts to be furnished by Contractor.
  6. Contractor will be responsible for annual cleaning of louver screens on motorized louvers.

SPECIFICATIONS (cont.'d)

7. Direct Digital Controls (DDC) – The Contractor will provide full service for DDC system(s). This will include providing repair services as necessary and the ability to make changes in the DDC software regarding the equipment data (additions, deletions, revisions, etc.) as requested by the ODPS. All the above will be completed using existing DDC equipment, at the ACF.

The system in place at ACF is “Tridium” manufactured by:

Tridium, Inc.  
3951 Westerre Parkway  
Suite 350  
Richmond, VA 23233

Service for the Invensys (controllers) and all other ancillary equipment associated with the DDC will be the responsibility of the Contractor.

8. Full Service (as denoted in Appendix A) – Full Service will include all scheduled PM. This will also include any repairs that are necessary, along with material and labor costs.
  9. Partial Service (as denoted in Appendix A) – Partial Service repairs to include all scheduled PM. The ODPS is responsible for the cost of repairs, which will include all material and labor at current contract rates.
  10. ACF Site Facility/Project Manager or designee will make the decision as to the approval of Overtime and Emergency labor prior to requesting Contractor response services.
  11. Known values for IAQ testing: 301,415 square feet (SF), normal occupancy rate, 340.
  12. Prior to scheduling any PM's at ACF, Contractor will provide two (2) day notice to the ACF Facility/Project Manager.
  13. Contractor will be responsible for the annual testing and certification of seven (7) Chemical Fume Hoods located in the Highway Patrol Investigative Unit Crime Labs, in accordance with Associated Air Balance Council (AABC) standards [Associated Air Balance Council: Section 230593](#) – see Chemical Fume Hood information (Appendix A).
  14. Contractor must be able to provide all services as indicated in this contract for ACF.
- P. Special Requirements: OHIO EMA Facility.
1. Facility normal business hours; 7:30am-4:00pm Monday through Friday. During this contract, the Contractor's normal business hours must coincide with ODPS hours.
  2. Contractor must first report to Facility front desk to “sign in” and obtain a Contractor badge prior to performing work.
  3. Full Service – Full Service will include all scheduled PM. This will also include any repairs that are necessary, along with material and labor costs.
  - 4.. Forklift, platform lift with operator will be supplied by the Ohio EMA.
  5. For HVAC belt replacement, belts will be furnished by the Ohio EMA.
  6. Air filters will be furnished and replaced by the Ohio EMA personnel.
  7. Contractor responsible for cleaning louver screens on motorized louvers.
  8. Ohio EMA will maintain the authority to initiate and conduct emergency repairs. (NOTE: The Contractor may be called as set forth in Section III, Item M. 3.; however, if the EMA center is “Manned” and in operation for a State Emergency, the Contractor crews may find EMA personnel trying to alleviate the problem when they arrive).

Specifications (cont.'d)

9. Known values for IAQ testing: 84,000 SF, normal occupancy rate, 240.

Q. Special Requirements: OSHP Training Academy.

1. Facility normal business hours; 8:00am-5:00pm Monday through Friday. During this contract, the Contractor's normal business hours must coincide with ODPS hours.
2. Contractor must call one (1) day before coming to the Academy.
3. Contractor must enter building through front door, report to the Building Maintenance Supervisor, sign in and obtain a Contractor badge, prior to performing any work.
4. For HVAC belt replacement, must use "Raw Edge, Cogged, which are oil and heat resistant and static conducting". Approved belt brands will be Dayton, Browning, Goodyear, Gates, and Dayco.
5. Contractor must use "pleated air filters" in lieu of the fiberglass filters. Contractor must provide and use at least 2.5-mil 55-60 gallon clear trash liners (linear low density) for placement of the contaminated Range filters. The liners (bags) should be sealed before removal from the roof. A plastic twist-tie or plastic wire-tie is adequate to seal the bags. Contractor's disposable protective clothing (coveralls, gloves, etc.) may also be placed into the bags. The Contractor must place the sealed bags into the roll-off container which will be placed on-site by the Disposal Contractor.
6. Contractor must schedule PM and planned repairs to Firing Range at least one (1) week in advance. All work on the Range must be done on Saturday.
7. Contractor will comply with all applicable local, State, and/or Federal laws, regulations or requirements during the removal and storage of lead-laden filters. Cartridge filters for dust units contain DIATOMITE and will have to be disposed of properly per EPA guidelines.
8. Full Service – In addition to PM checks and services, the Contractor will refer any repair activity to the Facility/Project Manager. Any repairs equal to, or less than \$1000, and all emergency repairs will receive immediate attention/response. All other repair requests will be addressed by the Facility/Project Manager on a priority basis.
9. Known values for IAQ testing: 150,000 SF, normal occupancy rate, 350. Values are subject to change due to new construction at the OSHP Training Academy.

R. Service Provision Equipment Identification and Location.

The ODPS reserves the right to update or remove equipment on the inventory listed in Appendix A, B, and . At the time of an update to equipment, the ODPS Facility Project/Manager will provide the Contractor with the equipment type, brand, and the specifications. In addition, the HVAC equipment at the specified facilities may be moved to other areas of the same facility.

1. ACF: The HVAC equipment to be serviced in accordance with the above specifications at the ACF are listed and identified in Appendix "A".
2. EMA: The HVAC equipment to be serviced in accordance with the above specifications at the Ohio Emergency Agency are listed and identified in Appendix "B".
3. OSHP Training Academy: The HVAC equipment to be serviced in accordance with the above specifications at the Ohio State Patrol Training Academy are listed and identified in Appendix "C".
4. Exemplary Equipment Maintenance Checks: Appendix "D" is provided to give some insight into the nature and detail of Equipment Maintenance upkeep. It does not cover all equipment addressed in Appendices "A" thru "C". It is provided herein solely as examples of the type of maintenance activity required.

PRICE SCHEDULE

<b>ALUM CREEK FACILITY (ACF)</b>			
ITEM CODE NO.			
SERVICE	PER MONTH COST	BID PRICE	
PM and Repair	For PM for Equipment shown In Appendix A. Include any costs that may be incurred under special requirements (section III. L., 1-7)	\$	/MO
<b>OHIO EMERGENCY MANAGEMENT AGENCY (EMA)</b>			
ITEM CODE NO.			
SERVICE	PER MONTH COST	BID PRICE	
PM and Repair	For PM and Repair for Equipment shown In Appendix B. Include any costs that may be incurred under special requirements (section III. M.).	\$	/MO
<b>OHIO STATE HIGHWAY PATROL (OSHP) TRAINING ACADEMY</b>			
ITEM CODE NO.			
SERVICE	PER MONTH COST	BID PRICE	
PM and Repair	For PM and Repair for Equipment shown in Appendix C. Include any costs that may be incurred under special requirements (section III. N.).	\$	/MO
<b>FOR PARTIAL SERVICE LOCATION(S):</b>			
DESCRIPTION	LABOR TYPE	ESTIMATED USAGE	BID PRICE
Labor Rate	ITEM CODE NO. Straight Time	200 hours	\$ /HR
Labor Rate	ITEM CODE NO. Overtime	100 hours	\$ /HR
Labor Rate	ITEM CODE NO. Emergency Labor Rate	25 hours	\$ /HR
Cost-Plus Markup	ITEM CODE NO. Replacement Parts and Components Mark-up Percentage	\$1000	%

For evaluation purposes only, a figure of 200 hours will be used for Straight Time hours for each year; 100 Overtime hours for each year; 25 Emergency Labor hours for each year; and \$1000 of Replacement Parts

**SITE VISIT:** Site visits will be held on the following days:

- 11/07/12 - Alum Creek Facility (ACF)
- 11/08/12 - Emergency Management Agency (EMA)
- 11/09/12 - Ohio State Highway Patrol (OSHP) Training Academy

Prior to submitting their bid response, the bidder should visit the agency they are bidding in order to survey the facility(s) and to become familiar with the requirements of the bid. The site visit will commence promptly at 9:00 a.m., barring an unforeseen circumstance that results in a delay of the site visit. Attendance will be taken. Once a contract is awarded, failure of the bidder to have requested a site visit to become familiar with the facility and requirements of the bid will be insufficient reason to support any request to be released from the contract.

Please contact Christy Lochbaum (ODPS-MAU Analyst) at (614) 466-3073 or [Christina.lochbaum@dps.state.oh.us](mailto:Christina.lochbaum@dps.state.oh.us) during regular business hours to schedule an appointment and make arrangements for authorization to enter the facility.

Appendix A

HVAC EQUIPMENT TO BE SERVICED (ALUM CREEK)						
ODPS IDENTIFIER	EQUIPMENT	MANUFACTURER	SERIAL NO.	CONDENSER SN	TYPE SERVICE	SIZE/ADDITIONAL COMMENT
RTU1	Rooftop Unit	Trane	R36101408D	N/A	Full	25 Ton
RTU2	Rooftop Unit	Trane	R46102908D	N/A	Full	12.5 Ton
RTU3	Rooftop Unit	Trane	413100072L	N/A	Full	4 Ton
RTU4	Rooftop Unit	Trane	S241433OD	N/A	Full	8 Ton
RTU4A	Rooftop Unit	Trane	412101560L	N/A	Full	4 Ton
RTU5a	Rooftop Unit	Trane	351101018D	N/A	Full	12.5 Ton
RTU5b	Rooftop Unit	Trane	407100913D	N/A	Full	12.5 Ton
RTU6	Rooftop Unit	Trane	219100521L	N/A	Full	5 Ton
RTU7	Rooftop Unit	Trane	412101596L	N/A	Full	7.5 Ton
RTU8	Rooftop Unit	Trane	412101616L	N/A	Full	5 Ton
RTU9	Rooftop Unit	Trane	40914U11H	N/A	Full	2.5 Ton
RTU10	Rooftop Unit	Trane	4091MR01H	N/A	Full	2.5 Ton
MAU1	AHU-Make-Up Air	Engineered Air	DK-3751-MAU1	N/A	Full	Central Install/Fleet Mgt
MAU2 (Aaon Unit)	DH Main Unit (Packaged)	Aaon	93AKGU3	N/A	Full	50 ton [480V 3PH] Outside
DH1	Duct Heater	Aaon	NOT AVAILABLE	N/A	Partial	Inline Heaters [480V 3PH 24V]
DH2	Duct Heater	Aaon	NOT AVAILABLE	N/A	Partial	Inline Heaters [480V 3PH 24V]
DH3	Duct Heater	Aaon	NOT AVAILABLE	N/A	Partial	Inline Heaters [480V 3PH 24V]
DH4	Duct Heater	Aaon	NOT AVAILABLE	N/A	Partial	Inline Heaters [480V 3PH 24V]
DH5	Duct Heater	Aaon	NOT AVAILABLE	N/A	Partial	Inline Heaters [480V 3PH 24V]
DH6	Duct Heater	Aaon	NOT AVAILABLE	N/A	Partial	Inline Heaters [480V 3PH 24V]
DH7	Duct Heater	Aaon	NOT AVAILABLE	N/A	Partial	Inline Heaters [480V 3PH 24V]
DH8	Duct Heater	Aaon	NOT AVAILABLE	N/A	Partial	Inline Heaters [480V 3PH 24V]
DH9	Duct Heater	Aaon	NOT AVAILABLE	N/A	Partial	Inline Heaters [480V 3PH 24V]
DH10	Duct Heater	Aaon	NOT AVAILABLE	N/A	Partial	Inline Heaters [480V 3PH 24V]
DH11	Duct Heater	Aaon	NOT AVAILABLE	N/A	Partial	Inline Heaters [480V 3PH 24V]
DH12	Duct Heater	Aaon	NOT AVAILABLE	N/A	Partial	Inline Heaters [480V 3PH 24V]

## Appendix A (cont.'d)

HVAC EQUIPMENT TO BE SERVICED (ALUM CREEK)						
ODPS IDENTIFIER	EQUIPMENT	MANUFACTURER	SERIAL NO.	CONDENSER SN	TYPE SERVICE	SIZE/ADDITIONAL COMMENT
HVAC1**	Split-System	Trane/American Standard	12B02618T	12162MF94F	Full	3 Ton Unit
HVAC2	Split-System	Lennox/Trane	5883F05440	Z055J8TBF	Full	3 Ton - Mezz Lobby
HVAC3	Split-System	Lennox/Trane	442876H11	R313YJB3F	Full	4 Ton - Distribution Services
HVAC4	Split-System	Lennox/Lennox	6397M 10121	5897L 40028	Full	2.5 Ton - Maintenance Shop
HVAC5	Split-System	Trane/Trane	544159XIG	Z062PBLBF	Full	POST 98
AHU1	Package	Trane	M4710255BD	NOT AVAILABLE	Full	12.5 Ton - Outside on Grade
AHU-1A	Split-System	Trane/Trane	3222R4S2V	31820AW3F	Full	Print Shop
AHU2	Split-System	Trane/Trane	M474NHM5H	M471K96AH	Full	12.5 Ton - Print Shop
AHU-2A	Split System	York	AOM5423777 A)E6372839	WOD6205172	Full	
AHU4	Split-System	MagicAir/Trane	970823548	M397ULIBF	Full	3 Ton - Liquor Lab
AHU5	Split-System	MagicAir/Trane	971132845	M473PCHAF	Full	2 Ton - Crime Lab
AHU6	Split-System	MagicAir/Trane	970720253	M391UF5BF	Full	3 Ton - Crime Lab
AHU7	Split-System	MagicAir/Trane	970823549	M463PAMBF	Full	2.5 Ton - Crime Lab
AHU8	Split-System	Lennox/Lennox	NOT AVAILABLE	5697J03781	Full	Tailor Shop
AHU8A	Split-System	Trane/Trane	M474HIW6H	M47325BAH	Full	Investigative Unit
AHU9	Split-System	Lennox/Lennox	5486D04999	5698A02678	Full	Tailor Shop
AHU10	Split-System	Lennox/Lennox	5485H01045	5698A01282	Full	Tailor Shop
AHU11	Split-System	Lennox/York	NOT AVAILABLE	NON6305250	Full	Breakroom
AHU12	Split-System	Lennox/York	5372E00342	W0L5159902	Full	Insertor Unit
UH-1	Unit Heaters	Lennox	5369C	N/A	Partial	Record Retention
UH-2	Unit Heaters	Lennox	5610D01337	N/A	Partial	Record Retention
UH-3	Unit Heaters	Lennox	5881L04142	N/A	Partial	Record Retention
UH-4	Unit Heaters	Lennox	NOT AVAILABLE	N/A	Partial	
UH-5	Unit Heaters	Lennox	6397M03848	N/A	Partial	Front of Distribution
UH-6	Unit Heaters	Lennox	6398C 08438	N/A	Partial	Front of Distribution
UH-7	Unit Heaters	Lennox	6397M03856	N/A	Partial	By Shipping Office
UH-8	Unit Heaters	Lennox	639M03839	N/A	Partial	Receiving by Dumpster
UH-9	Unit Heaters	Lennox	A01B10538	N/A	Partial	Dock Area

\*\* Equipment is currently under warranty.

Appendix A (cont.'d)

HVAC EQUIPMENT TO BE SERVICED (ALUM CREEK)						
ODPS IDENTIFIER	EQUIPMENT	MANUFACTURER	SERIAL NO.	CONDENSER SN	TYPE SERVICE	SIZE/ADDITIONAL COMMENT
UH-10	Unit Heaters	Reznor	BDB79X7N01180X	N/A	Partial	Tire Room
UH-11	Unit Heaters	Lennox	55969C	N/A	Partial	
UH-12	Unit Heaters	Lennox	6000A36352	N/A	Partial	
UH-13	Unit Heaters	Lennox	6397M03852	N/A	Partial	Record Retention
UH-14	Unit Heaters	Reznor	6397M03854	N/A	Partial	Furniture Storage
UH-15	Unit Heaters	Reznor	6397M03838	N/A	Partial	Furniture Storage
UH-16	Unit Heaters	Modine	6397M03850	N/A	Partial	By Pit
UH-17	Unit Heaters	Lennox	6397M03853	N/A	Partial	Salvage
UH-18	Unit Heaters	Lennox	6397M03855	N/A	Partial	Salvage/Shipping
UH-19	Unit Heaters	Dayton	Q9453399	N/A	Partial	Shipping Doors
UH-20	Unit Heaters	Task Master	LN42564-001	N/A	Partial	Blue Title
UH-21	Unit Heaters	Lennox	6397M038836	N/A	Partial	I.T. Cage
UH-22	Unit Heaters	Reznor	NOT AVAILABLE	N/A	Partial	Vault
UH-23	Unit Heaters	Lennox	6397M03849	N/A	Partial	Record Retention by Exit Door
UH-24	Unit Heaters	Lennox	6000A36350	N/A	Partial	Receiving by Exit Door
UH-25	Unit Heaters	Lennox	6397M03871	N/A	Partial	Hall by Evidence Door
UH-26	Unit Heaters	Lennox	6397M03835	N/A	Partial	Pod Area
UH-27	Unit Heaters	Lennox	6397M03866	N/A	Partial	Special Response Team
UH-28	Unit Heaters	Lennox	6397M03872	N/A	Partial	Special Response Team
UH-29	Unit Heaters	Reznor	AP131K7N52440	N/A	Partial	Investigative Unit Evidence Facility
UH-30	Unit Heaters	Reznor	AP131K7N52447	N/A	Partial	Blue Title
UH-31	Unit Heaters	Modine	15012010590	N/A	Partial	Vehicle Inspection
UH-32	Unit Heaters	Lennox	5886D03499	N/A	Partial	Central Install.
UH-33	Unit Heaters	Lennox	6397K 18058	N/A	Partial	Salt Area
UH-34	Unit Heaters	Modine	05101014797-6609	N/A	Partial	Maintenance Shop
UH-35	Unit Heaters	Modine	0510104797-7174	N/A	Partial	Maintenance Shop

Appendix A (cont.'d)

<b>HVAC EQUIPMENT TO BE SERVICED (ALUM CREEK)</b>						
<b>ODPS IDENTIFIER</b>	<b>EQUIPMENT</b>	<b>MANUFACTURER</b>	<b>SERIAL NO.</b>	<b>CONDENSER SN</b>	<b>TYPE SERVICE</b>	<b>SIZE/ADDITIONAL COMMENT</b>
UH-36	Unit Heaters	Modine	051014797-6608	N/A	Partial	Investigative Unit Evidence Facility
UH-37	Unit Heater	Q-Mark	05101014797-7133	N/A	Partial	Hall Outside Taylor Shop
UH 38	Unit Heater	Q-Mark	MUH108	N/A	Partial	Pump House
UH 39	Unit Heater	Q-Mark	MUH0321	N/A	Partial	Pump House
WU-1 M103	Window Air Unit	Carrier	209B43045	N/A	Partial	Room M103
WU-2	Window Air Unit	Frigidaire	KK8511 119637	N/A	Partial	Room M801
WU-3	Window Air Unit	Frigidaire	3096X53785	EK61007021	Partial	Room 809
WU-4	Wall Mount Roof Unit	Trane	N/A	N/A	Partial	RM 116 Split System
L-1	Motorized Louvers	Invensys	N/A	N/A	Partial	Special Response Team
L-2	Motorized Louvers	Invensys	N/A	N/A	Partial	Special Response Team
L-3	Motorized Louvers	Invensys	N/A	N/A	Partial	Special Response Team
L-4	Motorized Louvers	Invensys	N/A	N/A	Partial	Liq Evidence
L-5	Motorized Louvers	Invensys	N/A	N/A	Partial	Liq Evidence
L-6	Motorized Louvers	Invensys	N/A	N/A	Partial	Liq Evidence
L-7	Motorized Louvers	Invensys	N/A	N/A	Partial	Central Install/Fleet
L-8	Motorized Louvers	Invensys	N/A	N/A	Partial	Central Install/Fleet
L-9	Motorized Louvers	Invensys	N/A	N/A	Partial	Leased Area
L-10	Motorized Louvers	Invensys	N/A	N/A	Partial	Leased Area
L-11	Motorized Louvers	Invensys	N/A	N/A	Partial	Leased Area
EF1	Exhaust Fan	Dayton	NOT AVAILABLE	N/A	Partial	Bathrooms Lower Roof
EF2	Exhaust Fan	Dayton	NOT AVAILABLE	N/A	Partial	Reinstatement Bathrooms
EF3	Exhaust Fan	Dayton	NOT AVAILABLE	N/A	Partial	Front Break Room Bathroom
EF4	Exhaust Fan	Dayton	NOT AVAILABLE	N/A	Partial	Front Mezz
EF7	Exhaust Fan	Hurricane	NOT AVAILABLE	N/A	Partial	Area 302
EF8	Exhaust Fan	Hurricane	NOT AVAILABLE	N/A	Partial	Area 302
EF9	Exhaust Fan	Hurricane	NOT AVAILABLE	N/A	Partial	Area 302
EF10	Exhaust Fan	Hurricane	NOT AVAILABLE	N/A	Partial	Area 302

Appendix A (cont.'d)

HVAC EQUIPMENT TO BE SERVICED (ALUM CREEK)						
ODPS IDENTIFIER	EQUIPMENT	MANUFACTURER	SERIAL NO.	CONDENSER SN	TYPE SERVICE	SIZE/ADDITIONAL COMMENT
EF11	Exhaust Fan	Hurricane	NOT AVAILABLE	N/A	Partial	Area 302
EF12	Exhaust Fan	Hurricane	NOT AVAILABLE	N/A	Partial	Area 302
EF13	Exhaust Fan	Hurricane	NOT AVAILABLE	N/A	Partial	Area 410
EF14	Exhaust Fan	Hurricane	NOT AVAILABLE	N/A	Partial	Area 410
EF15	Exhaust Fan	Hurricane	NOT AVAILABLE	N/A	Partial	Area 410
EF16	Exhaust Fan	Hurricane	NOT AVAILABLE	N/A	Partial	Area 410
EF17	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	Area 410
EF18	Exhaust Fan	Hurricane	NOT AVAILABLE	N/A	Partial	Area 410
EF19	Exhaust Fan	Hurricane	NOT AVAILABLE	N/A	Partial	Area 410
EF20	Exhaust Fan	Loren Cook	0284-2	N/A	Partial	Central Install/Fleet
EF21	Exhaust Fan	Loren Cook	2150 6	N/A	Partial	Central Install/Fleet
EF22	Exhaust Fan	Loren Cook	0284-2	N/A	Partial	Central Install/Fleet
EF23	Exhaust Fan	Centre Master	04C149101	N/A	Partial	Central Install/Fleet
EF24	Exhaust Fan	Loren Cook	0284-2	N/A	Partial	Central Install/Fleet
EF25	Exhaust Fan	Loren Cook	NOT AVAILABLE	N/A	Partial	Central Install/Fleet
EF26	Exhaust Fan	Loren Cook	NOT AVAILABLE	N/A	Partial	Central Install/Fleet
EF27	Exhaust Fan	Centre Master	NOT AVAILABLE	N/A	Partial	
EF28	Exhaust Fan	Centre Master	NOT AVAILABLE	N/A	Partial	
EF29	Exhaust Fan	Dayton	NOT AVAILABLE	N/A	Partial	OSHP Crime Lab
EF30	Exhaust Fan	Green Hack	NOT AVAILABLE	N/A	Partial	Blue Title
EF31	Exhaust Fan	Dayton	NOT AVAILABLE	N/A	Partial	
EF32	Exhaust Fan	Green Hack	97K15935	N/A	Partial	Maintenance Shop
EF33	Exhaust Fan	Penn Zeyphr	314438	N/A	Partial	Records Retention
EF34	Exhaust Fan	Zephyrct	3K1438	N/A	Partial	Records Retention
EF35	Exhaust Fan	Loren Cook	NOT AVAILABLE	N/A	Partial	Records Retention
EF36	Exhaust Fan	Loren Cook	NOT AVAILABLE	N/A	Partial	Records Retention
EF37	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	Investigative Unit

Appendix A (cont.'d)

HVAC EQUIPMENT TO BE SERVICED (ALUM CREEK)						
ODPS IDENTIFIER	EQUIPMENT	MANUFACTURER	SERIAL NO.	CONDENSER SN	TYPE SERVICE	SIZE/ADDITIONAL COMMENT
EF38	Exhaust Fan	Dayton	NOT AVAILABLE	N/A	Partial	Liq. Lab
EF39	Exhaust Fan	Loren Cook	NOT AVAILABLE	N/A	Partial	Investigative Unit
EF40	Exhaust Fan	Loren Cook	NOT AVAILABLE	N/A	Partial	Vault Area Metal Roof
EF41	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	Fork Battery Charging Area
EF42	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	Blue Title S. Garage
EF43	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	Blue Title Break Room
EF44	Exhaust Fan	DSP Monoxivent Co.	NOT AVAILABLE	N/A	Partial	Car Exhaust Reel Inside Central Install
EF45	Exhaust Fan	DSP Monoxivent Co.	NOT AVAILABLE	N/A	Partial	Car Exhaust Reel Inside Central Install
EF46	Exhaust Fan	DSP Monoxivent Co.	NOT AVAILABLE	N/A	Partial	Car Exhaust Reel Inside Central Install
EF47	Exhaust Fan	DSP Monoxivent Co.	NOT AVAILABLE	N/A	Partial	Car Exhaust Reel Inside Central Install
EF48	Exhaust Fan	DSP Monoxivent Co.	NOT AVAILABLE	N/A	Partial	Car Exhaust Reel Inside Central Install
EF49	Exhaust Fan	DSP Monoxivent Co.	NOT AVAILABLE	N/A	Partial	Car Exhaust Reel Inside Central Install
EF50	Exhaust Fan	DSP Monoxivent Co.	NOT AVAILABLE	N/A	Partial	Car Exhaust Reel Inside Central Install
EF51	Exhaust Fan	DSP Monoxivent Co.	NOT AVAILABLE	N/A	Partial	Car Exhaust Reel Inside Central Install
EF52	Exhaust Fan	DSP Monoxivent Co.	NOT AVAILABLE	N/A	Partial	Car Exhaust Reel Inside Central Install
EF53	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	Central Install Bathroom's (inside)
EF54	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	Central Install Bathroom's (inside)
EF55	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	OSP Crime Lab Bathroom Rm
EF56	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	OHP Lab Vent Hood Motor
EF57	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	OHP Lab Vent Hood Motor
EF58	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	OHP Lab Vent Hood Motor
EF59	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	OHP Lab Vent Hood Motor
EF60	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	OHP Lab Vent Hood Motor
EF61	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	OHP Lab Vent Hood Motor

## Appendix A (cont.'d)

<b>HVAC EQUIPMENT TO BE SERVICED (ALUM CREEK)</b>						
<b>ODPS IDENTIFIER</b>	<b>EQUIPMENT</b>	<b>MANUFACTURER</b>	<b>SERIAL NO.</b>	<b>CONDENSER SN</b>	<b>TYPE SERVICE</b>	<b>SIZE/ADDITIONAL COMMENT</b>
EF62	Exhaust Fan	Loren Cook	NOT AVAILABLE	N/A	Partial	Central Install/Fleet Side Wall Vents
EF63	Exhaust Fan	Loren Cook	NOT AVAILABLE	N/A	Partial	Central Install/Fleet Side Wall Vents
EF64	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	Front Mezz Bathrooms
EF65	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	Front Mezz Bathrooms
EF66	Exhaust Fan	Unknown	NOT AVAILALBE	N/A	Partial	Shipping Dock Bathrooms
EF67	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	Shipping Dock Bathrooms
EF68	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	Blue Title Customer Restroom
EF69	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	Blue Title Customer Restroom
EF70	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	Blue Title Employee Restroom
EF71	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	Back Mezz Locker Rm Restroom
EF72	Exhaust Fan	Unknown	NOT AVAILABLE	N/A	Partial	Back Mezz Locker Rm Restroom

<b>FILTERS:</b>		
<b>TYPE</b>	<b>QUANTITY</b>	<b>SIZE</b>
FP-100	1	16X20
FP-100	2	20X22
FP-100	1	25X36
Pleated	8	15X20X2
Pleated	4	16X25X2
Pleated	8	20X20X2
Pleated	20	20X25X2
Pleated	12	20X25X4
Pleated	8	20X30X1
Pleated (above ceiling)	12	16X20X1
Pleated	4	16X25X1
Pleated (above ceiling)	10	16X25X1
Pleated (above ceiling)	4	16X25X2
Pleated (above ceiling)	4	20X20X1
Pleated (above ceiling)	5	20X25X1

Appendix A (cont.'d)

<b>ALUM CREEK FACILITY CHEMICAL FUME HOODS REQUIRING ANNUAL INSPECTION AND CERTIFICATION</b>				
<b>OSPS IDENTIFIER</b>	<b>EQUIPMENT</b>	<b>MANUFACTURER</b>	<b>MODEL</b>	<b>LOCATION (ROOM NO.)</b>
Chemical Fume Hood	Exhaust Fan	Labconco	7280000-301565	531
Chemical Fume Hood	Exhaust Fan	Labconco	4880300-301469	507
Chemical Fume Hood	Exhaust Fan	Labconco	4880300-301470	507
Chemical Fume Hood	Exhaust Fan	Labconco	4880300-301471G	501
Chemical Fume Hood	Exhaust Fan	Labconco	4880300-3013733	501
Chemical Fume Hood	Exhaust Fan	Labconco	4880300-301472	505
Chemical Fume Hood	Exhaust Fan	Labconco	4880300-301369G	505

The remainder of this page is intentionally left blank.

Appendix B

**HVAC EQUIPMENT TO BE SERVICED  
FOR  
OHIO EMERGENCY MANAGEMENT AGENCY**

<b>EQUIPMENT/MANUFACTURER</b>	<b>MODEL NO.</b>	<b>LOCATION</b>	<b>CONDENSER SERIAL NO.</b>	<b>QTY</b>
Greenheck Fan (EF-6)	OOCUE-130	Roof	N/A	1
Greenheck 1.5 HP Fan (EF-3)	O OBSQ-140	Air Handler RM	N/A	1
Greenheck 7.5 HP Fan (RF-3)	OOTCF-36	Air Handler RM	N/A	1
Greenheck 1 HP Fan (EF-2)	O OBSQ-180	Air Handler RM	N/A	1
Greenheck 3.3 HP Fan (EF-1)	O OBSQ-240	Air Handler RM	N/A	1
Greenheck Fan (EF-5)	OOSPBE-CA-364	Radio Maint. Garage	N/A	1
Greenheck Fan (EF-7)	SWB-13-30	Radio Maint. Garage	N/A	1
Temtrol 2 HP Fan (MAU-1)	WF-BS-MBP7S	Boiler Room	N/A	1
Trane 40 HP Supply Unit (AHU-1)	CLCH-1M-15A	Air Handler Room	ZP385KCE-TWD-951	1
Trane 25 HP Supply Unit (AHU-2)	CLCH-1M-15	Air Handler Room	ZP385KCE-TWD-951	1
Trane 25 HP Supply Unit (AHU-3)	CLCH-1M-15A	Air Handler Room	ZP385KCE-TWD-951	1
Trane 20 HP Supply Unit (AHU-4)	CLCH-1M-15A	Air Handler Room	ZP385KCE-TWD-951	1
Trane Condenser Units	CAUC-D10	Outside North Side	ZP385KCE-TWD-251	2
Trane Propeller Unit Heaters	UH-1M-2C	Radio Maint. Garage	N/A	6
Trane Propeller Unit Heaters	UH-1M-3C	Mechanical Rooms	N/A	7
Clever Brooks Boilers	FLX	Boiler Room	N/A	2
Bell & Gosset 5 HP Pumps	1510	Boiler Room	N/A	2
Bell & Gosset 7.5 HP Pumps	1510	Chiller Room	N/A	2
A.O. Smith Water Heater	BTP-140-140	Boiler Room	N/A	1
A.O. Smith Water Heater	COBT-140-140	Boiler Room	N/A	1
Air Compressor Products	ACP-C4S-312DP3	Chiller Room	N/A	1
Bell & Gosset Pump	LR-158	Boiler Room	N/A	1
Viking Fuel Transfer Pumps	Series 400 Type 56	Boiler Room	N/A	2
Kellog Air Compressor	B332UB	Radio Maint. Garage	N/A	1
DriSteen	VLC-63-3	Air Handler RM	N/A	3
Satefa DCS Control System	N/A	Air Handler RM	N/A	3
Hastings Gas Furnace	RHVA400	Radio Maint. Garage	N/A	1
Backflow Prevention Assemblies	Various	Boiler/Fan RMs	N/A	4
Unit Heaters	UHSA018S8DAAA	Ceiling	N/A	41
York Condenser Units	YAAA0120SE46XAASDTXAT XBLexx44xxxxxxxxxxxxxx	Outside North	N/A	2
Liebert Challenger 3000	B0212C-ASEI	Phone Room	N/A	1
Liebert System 3	FH 200C-AAM	Data Room	N/A	1
Dynamatic Adjustable Frequency Drive	AF-151002-0480	Air Handler RM	N/A	1
Trane Variable Frequency Drive TRI Series VFD	176Z8888	Air Handler RM	N/A	2

Appendix B

**HVAC EQUIPMENT TO BE SERVICED  
FOR  
OHIO EMERGENCY MANAGEMENT AGENCY**

<b>EQUIPMENT/MANUFACTURER</b>	<b>MODEL NO.</b>	<b>LOCATION</b>	<b>CONDENSER SERIAL NO.</b>	<b>QTY</b>
Intellapass Integrated Drive Bypass	V5025411A-N0000	Air Handler RM	N/A	2
Yaskawa Integrated Drive Bypass	E7CVBO27	Air Handler RM	N/A	1
Spectrum Control System	DWGS 93703	Air Handler RM	N/A	4
Tramont Day Tank	2000 Plus ECM	Boiler Room	N/A	1
Baldor .33 HP Pump	CL1301	Boiler Room	N/A	1
Bell & Gosset UM Expansion Tank	11-4092	Boiler Room	N/A	1
Bell & Gosset Expansion Tank	B-300	Boiler Room	N/A	1
Marathon Electric Motor 10 HP	2VN215TTDR7026HT	Air Handler Room	N/A	1
Emerson Electric Motor 7.5 HP	R341	Air Handler Room	N/A	1

The remainder of this page is intentionally left blank.

Appendix C

**HVAC EQUIPMENT TO BE SERVICED  
FOR  
OHIO STATE HIGHWAY PATROL TRAINING ACADEMY**

<b>BOILERS:</b>			
<b>MANUFACTURER</b>	<b>MODEL NO.</b>	<b>LOCATION</b>	<b>INSTALLED DATE</b>
Cleaver-Brooks	FLX-350	Main Boiler RM	1-95
Cleaver-Brooks	FLX-350	Main Boiler RM	1-95
Falcon-Pack (STEAM)	FP-10	Main Boiler RM	12-94
Bryan (Dom. Water)	CL120-WT-FDG	Main Boiler RM	12-94
Prox (59 HP)	NOT AVAILABLE	NOT AVAILABLE	1972
Lochinvar	EWN200PM	Range Mech. RM	2000
Raypak	133-4001 Type H	West Dorm Mech. RM	NOT AVAILABLE
Raypak	133-4001 Type H	West Dorm Mech. RM	NOT AVAILABLE
Raypak	H20962	North Dorm Mech. RM	2010
Raypak	H20962	North Dorm Mech. RM	2010
Buderus	Logano G334	Health & Fitness	2012

<b>HVAC SPLIT &amp; PACKAGE SYSTEMS:</b>			
<b>MANUFACTURER</b>	<b>MODEL NO.</b>	<b>LOCATION</b>	<b>INSTALLED DATE</b>
Carrier	39M	Simulators	8-05
Trane	RAUC-C156	Health & Fitness	1986
Trane	PCCB-M-1A	East Admin. Office	9-90
Reznor	HRPB-150	Locker Room	8-96
Trane	YCD120C3LA	Classroom A	2000
Trane	YCD060C3LA	Classroom B	2000
Trane	YCD060C3LA	Recruitment	2000
Engineered Air	FWB-224/DJ-40-0	Classroom 10	2000
Engineered Air	FWB-354/DJE-100-KM0	Range Office	2000
Trane	TCD181C30C	West Admin. Office	2002
Carrier	48HJD008	Classroom C	2002
Carrier	48HJE009	Classroom D	2002
Carrier	48HJD012	Classroom E	2002
Carrier	48HJE009	Classroom F	2002
American Standard	Air Handler	Cafeteria	1965
Trane	Air Handler	Kitchen	1995
Trane	Air Handler	O.S.P.C.	1995
American Standard	Air Handler	S. Gym	1965
American Standard	Air Handler	Heritage Hall	1965
Carrier	Air Handler	W. Dormitory	2002
Carrier	Air Handler	N. Dormitory	2002
American Standard	Air Handler	Training Tank	1965
American Standard	Air Handler	N. Gym	1965

<b>SCREW CHILLER:</b>			
<b>MANUFACTURER</b>	<b>MODEL NO.</b>	<b>LOCATION</b>	<b>INSTALLED DATE</b>
Carrier	23-XL R-22	Chiller Building	1993

Appendix C (cont.'d)

**AIR COMPRESSORS & REFRIGERATED DRYERS:**

MANUFACTURER	MODEL NO.	LOCATION	INSTALLED DATE
Curtis Twin Compressor	8DH60	Main Mech. RM	1995
Johnson Cntrl Ref Dryer	A-4210-1	Main Mech. RM	1995
Speedaire Compressor	5Z697A	W. Dorm Boiler RM	2005
Hankison Ref. Dryer	HPR5-10-115	W. Dorm Boiler RM	2005
Johnson Cntrl Compressor	QR-25	N. Dorm Boiler RM	1972
Johnson Cntrl Ref. Dryer	A-42	N. Dorm Boiler RM	1972
Gardner Denver Duplex Compressor	HR5D-12	Firing Range Debris RM	2000
Van Air Ref. Dryer	RAD-50	Firing Range Debris RM	2000
Hankison Ref. Dryer	HPR5-10-115	N. Dorm Boiler RM	2011
Powerx	AD0071A4	N. Dorm Mech. RM	2011

**STORAGE TANKS:**

MANUFACTURER	MODEL NO.	LOCATION	INSTALLED DATE
Lochinvar	NOT AVAILABLE	Main Mech. RM	2011
Lochinvar	NOT AVAILABLE	Main Mech. RM	2011
Lochinvar	NOT AVAILABLE	Main Mech. RM	2011
Lochinvar	NOT AVAILABLE	Main Mech. RM	2011

**WATER HEATERS:**

MANUFACTURER	MODEL NO.	LOCATION	INSTALLED DATE
Raypak	WH10182	West Dorm Mech. RM	NOT AVAILABLE
Raypak	WH10182	West Dorm Mech. RM	NOT AVAILABLE
Raypak	H3182	North Dorm Mech. RM	NOT AVAILABLE
Raypak	H3182	North Dorm Mech. RM	NOT AVAILABLE

**PUMPS [In-Line]:**

MANUFACTURER	MOTOR NO.	MODEL NO.	LOCATION	INSTALLED DATE
Bell & Gosset	NOT AVAILABLE	NOT AVAILABLE	Main Mech. RM	NOT AVAILABLE
Bell & Gosset	EAL56A11057F	60	Main Mech. RM	NOT AVAILABLE
Bell & Gosset	DUM48TMD175B	60	Main Mech. RM	NOT AVAILABLE
Bell & Gosset	F052A	60	Main Mech. RM	NOT AVAILABLE
Bell & Gosset	NOT AVAILABLE	NOT AVAILABLE	Main Mech. RM	NOT AVAILABLE
Bell & Gosset	805316	NOT AVAILABLE	Main Mech. RM	NOT AVAILABLE
Bell & Gosset	M74794	NOT AVAILABLE	Main Mech. RM	NOT AVAILABLE
Bell & Gosset	BQF56A17060E	60	Mech. RM 4	NOT AVAILABLE
Bell & Gosset	DVH48T17D17B	60	Mech. RM 4	NOT AVAILABLE
Armstrong	NOT AVAILABLE	LS-45	Range Mech. RM	NOT AVAILABLE
Armstrong	S25BF	NOT AVAILABLE	West Dorm Mech. RM	NOT AVAILABLE
Bell & Gosset	NOT AVAILABLE	60	West Dorm Mech. RM	NOT AVAILABLE
Bell & Gosset	HQH56B17D11009A	60	Training Tank	NOT AVAILABLE
Bell & Gosset	CQM56A17D57F	60	Training Tank	NOT AVAILABLE
Bell & Gosset	EVN48T17D175B	60	Training Tank	NOT AVAILABLE
Bell & Gosset	NOT AVAILABLE	NOT AVAILABLE	North Dorm Mech. RM	NOT AVAILABLE
Bell & Gosset	NOT AVAILABLE	NOT AVAILABLE	North Dorm Mech. RM	NOT AVAILABLE
Armstrong	816141-001	60	Health & Fitness	NOT AVAILABLE
Bell & Gosset	NOT AVAILABLE	60	Health & Fitness	NOT AVAILABLE

Appendix C (cont.'d)

<b>PUMPS [Pedestal]:</b>			
<b>MANUFACTURER</b>	<b>MODEL NO.</b>	<b>LOCATION</b>	<b>INSTALLED DATE</b>
Weinman	2 ½ KH	Main Boiler RM	1995
Weinman	4 AC	Main Boiler RM	1995
Bell & Gosset	1 ¼ AC	Notebook Storage RM	1995
Bell & Gosset	1 ½ BC	W. Dorm Boiler RM	1995
Bell & Gosset	2 AC	W. Dorm Boiler RM	1995
Bell & Gosset	2 AC	N. Dorm Boiler RM	1995
Bell & Gosset	1 ½ BC	N. Dorm Boiler RM	1995
Weinman	4L2	Chiller Building	Unknown
Weinman	4L1	Chiller Building	Unknown

**HVAC EQUIPMENT TO BE SERVICED  
FOR  
THE OHIO STATE HIGHWAY PATROL TRAINING ACADEMY  
“FIRING RANGE”**

<b>UNITS:</b>				
<b>MANUFACTURER</b>	<b>MODEL NO.</b>	<b>QUANTITY</b>	<b>LOCATION</b>	<b>INSTALLED DATE</b>
Twin City Circ. Fan	365TSL	2	Firing Range Roof	2000
Twin City Strip Fan	270BCV	2	Firing Range Roof	2000
Sterling Heated Makeup Air	RT80A	2	Firing Range Roof	2000
McQuay 40 ton AC units	ALP-041	2	Firing Range Roof	2000
Sterling Gas unit heaters	TF200	2	Above Firing Range Stalls	2000

<b>FIRING RANGE FILTER REPLACEMENT SPECIFICS:</b>			
<b>QUANTITY</b>	<b>SIZE</b>	<b>TYPE</b>	<b>FREQUENCY</b>
60	24"x24"x2"	American Air Pleated 300X or equal	Quarterly
24	24"x24"x11 ½ "	American Air#550-493-001 or equal	Semi-annually
12	24"x24"x11 ½ "	American Air#331-946-148 or equal	Semi-annually
12	13.84+9.48+26	EO4192American Air Cartridge Part #2441319-000 Dust collector or equal	Semi-annually

<b>EXHAUST FANS:</b>				
<b>MANUFACTURER</b>	<b>MODEL NO.</b>	<b>LOCATION</b>	<b>SERVES</b>	<b>INSTALLED</b>
American Standard	N/A*	Above Walk-in Refrigerator	Kitchen/Cafe Restrooms	1965
American Standard	N/A*	Dishroom Ceiling	Dishwasher	NA
American Standard	N/A*	Kitchen Exhaust Hood	Hood	1965
American Standard	N/A*	Kitchen Above Ice Machine	Dishroom	NA
American Standard	N/A*	Training Tank Basement	Gym Restrooms	1965
American Standard	N/A*	Training Tank Basement	Training Tank	1965
American Standard	N/A*	Special Response Team Vault	Special Response Team Vault	1965
Greenheck	BSQ-80	Lobby Custodial Closet	Lobby Restrooms	2002
Greenheck	SFB-10	W. Dorm 2 <sup>nd</sup> FL. Dry Closet	South Restrooms	2002
Greenheck	SFB-10	W. Dorm 2 <sup>nd</sup> FL. Wet Closet	North Restrooms	2002
Greenheck	SFB-10	N. Dorm 2 <sup>nd</sup> FL. Dry Closet	West Restrooms	2002
Greenheck	SFB-10	N. Dorm 2 <sup>nd</sup> FL. Wet Closet	East Restrooms	2002
NOT AVAILABLE	N/A*	Bus Garage	Health & Fitness	1986
NOT AVAILABLE	N/A*	Mat Room	Mat Room	2000
Cook	ACRU-B	Range Roof	Parts Room	2000
Cook	ACRU-B	Range Roof	Locker Room	2000
Cook	ACRU-B	Range Roof	Vault	2000
Cook	ACRU-B	Range Roof	Control Room	2000
Cook	ACRU-B	Range Roof	Restrooms	2000

Appendix C (cont.'d)

**Required services for Carrier 23XL R-22 Screw Chiller**

*Note: Chiller scheduled to be replaced in the spring of 2013*

<b>Task and Actions</b>	<b>Frequency</b>
Routine Operating Inspection	5 times per year
Check General Machine Operation	5 times per year
Check Control, Power and Piping	5 times per year
Check Refrigerant Charge	5 times per year
Check Safety/Operating Controls	5 times per year
Check Starter Wiring and Contacts	5 times per year
Check Gauges/Indicator Lights	5 times per year
Log CWH/Brine In Temperature	5 times per year
Log CHW/Brine Out Temperature	5 times per year
Log CHW/Brine Flow Delta P	5 times per year
Log CHW/Brine Pump Delta P	5 times per year
Log Cooler Refrigerant Temperature	5 times per year
Log Cooler Pressure	5 times per year
Log Cooler Leaving Temperature Difference	5 times per year
Log Condenser Water In Temperature	5 times per year
Log Condenser Water Out Temperature	5 times per year
Log Condenser Water Flow Delta P	5 times per year
Log Condenser Water Pump Delta P	5 times per year
Log Condenser Refrigerant Temperature	5 times per year
Log Condensing Pressure	5 times per year
Log Rotor Inlet Temperature	5 times per year
Log Condenser Leaving Temperature Difference	5 times per year
Log Oil Level	5 times per year
Log Oil Filter Differential Pressure	5 times per year
Log Oil Sump Pressure	5 times per year
Check Approaches Through Calculation	5 times per year
Test for Leaks Using Leak Detector	5 times per year
Lubricate Equipment	5 times per year
Stop Equipment	5 times per year
Cleanup Work Station	5 times per year
Report to Owner, Advise and Obtain Signature	5 times per year

**Repair Services for Carrier 23XL R-22 Screw Chiller**

<b>Task and Actions</b>	<b>Frequency</b>
Repair Services Coverage	As Required
Minor Repair During Scheduled Visit (Labor)	As Required
Minor Material During Scheduled Visit	As Required
Emergency Calls	As Required
Refrigerant Leak Repairs (Labor)	As Required
Refrigerant Leak Repair: 100% Refrigerant	As Required
Major Repair (Labor)	As Required
Major Repair (Material)	As Required
Refrigerant Side Tubes (Labor)	As Required
Refrigerant Side Tubes (Material)	As Required

Appendix D

**AIR HANDLING UNITS**

<b>ANNUAL MAINTENANCE – Once a Year, Including the Following</b>
Inspect Coil
Inspect Drain Pan and Drain Line
Inspect Fan Wheels
Inspect Drive Sheaves
Check Belt Alignment and Tension
Lubricate as Required
Check Bearing and Motor Mounting
Check Motor Operating Voltage and Amperages
Check Motor Starters and Contractor, or VFD
Check Inlet Vanes (Where Applicable) and Dampers; Adjust if Necessary

<b>SCHEDULED PM –Three (3) Inspection(s) During Operating Season, Including the Following</b>
Check Belt Tension
Lubricate as Required
Check Bearing and Motor Mounting
Check any Excessive Vibration or Noise and Advise if Repair is Required.

**PUMP MAINTENANCE**

<b>SEASONAL START-UP</b>
Lubricate Pump Bearings per Manufacturer's Recommendations
Lubricate Motor Bearings per Manufacturer's Recommendations
Tighten all Nuts and Bolts. Check Motor Mounts and Vibration Pads. Replace and Adjust as Required)
Visually Check Pump Alignment and Coupling
Check Motor Operating Conditions
Inspect Electrical Connections
Check and Clean Strainers and Check Hand Valves
Inspect Mechanical Seals or Pump Packing and Adjust as Required

<b>SCHEDULED PM –Three (3) Inspection(s) during operating season, including</b>
Lubricate Pump Bearings per Manufacturer's Recommendations
Lubricate Motor Bearings per Manufacturer's Recommendations
Check Suction and Discharge Pressures
Check Packing of Mechanical Seal and Adjust as Necessary
Check Motor Voltage and Amperage
Record Pump Pressures

**PNEUMATIC TEMPERATURE CONTROLS**

<b>SEMI-ANNUAL INSPECTIONS- An Inspection Will Be Performed During the Heating Season and During the Cooling Season and Will Include:</b>
Calibrate Major System Controls
Check System-Operating Sequences
Clean Control Panels (Wipe Panel Surfaces with Clean Rag and Blow Dust Out of Cabinets with Compressed Air or Vacuum)
Check Operating Conditions of Duct System Smoke Detectors (Voltage Check or Smoke Check via Sampling Chamber) and Adjust Sensitivity as Required
Check Damper Operation for Misalignment, Binding and Shutoff: Provide Labor to Correct as Necessary
Check Controls Air Pressure at Each System and Record the Pressure Levels and Location of Lowest Main Air Pressure
Adjust Main Air PRV at Compressed Air System if Necessary
Clean Sampling Chamber of Duct Mounted Smoke Detectors, Per Manufacturer's Recommendation, Once Per Year Where Applicable

Appendix D (cont.'d)

<b>SCHEDULED PM – Two (2) Inspection(s) During the Operating Seasons Will Be Made to Include the Following:</b>
Visually Check Control Valve for Leak
Visually Check Dampers and Linkages and Oil as Required
Check Time Clock Settings and Day/Night Thermostat Set Points
Inspect Changeover Control Stations and Record Mode System it is in at the Time of Inspection. Correct as Necessary
Record Outside Air Temperature and Ambient Conditions in a Pre-Selected Spot Identified in Contract Documents
Check Compressor Run Time Versus Off Time for Three Operating Cycles and Record the Average Results
Open Compressor Tank Drain Valve and Bleed Off Any Water Accumulated in the Tank
Record Gauge Reading for Compressor Air Pressure and Final System Air Pressure. Adjust Pressure-Reducing Valves if Necessary
Check Compressor Belts, Oil Level, Safety Valves and General Operating Conditions of the Air Compressor
Clean Compressor Tank, Compressor, Pressure Reducing Station and Alter-Filter with Damp Clean Rag
Check Refrigerant After Cooler for Proper Operation
Visually Check Air Filter and Oil Indicators, If Available, for Contamination. (Note: Throwing Oil Indicators Are Available for Installation in the Compressed Air System for Many Compressor Equipment(s) Some Allow Installation Before and Aft of PRV Station)

**BOILER MAINTENANCE**

<b>ANNUAL PRESEASON MAINTENANCE</b>
Secure and Drain Boiler, as Required
Open Fire Side and Water Side for Cleaning and Inspection, as Required
Check Heating Surfaces and Water Side for: Corrosion, Pitting Blisters, Bulges and Soot
Inspect Refractory
Clean or Replace Water Column Sight Glass, if Required
Disassemble, Clean and Inspect Low Water Cutoff Control(s)
Reassemble, Clean and Inspect Low Water Cutoff Control(s)
Check Blow Down Valve Packing and Lubricate as Required
Refill Boiler
Perform Hydrostatic Test (If Required by Insurance or State Regulation)
Clean or Replace Fuel Filters as Applicable
Replace Fuel Nozzles
Clean Burner Fan Wheel and Air Dampers
Clean Flame Safeguard Scanner
Clean and Adjust Ignition Electrodes
Check All Burner Linkage for Excessive Water
Tighten All Linkage Set Screws
Lubricate Motor and Shaft Bearings, as Applicable
Check Gas Valves Against Leakage (Where Test Cocks are Provided)
Clean Contacts in Program Timer
Check Operation of Flame Safeguard Control
Check Operation of Modulating Motor
Perform Pilot Turn Down Test
Check Operation of Low Water Cutoff and Feed Control(s)
Check Settings and Test All Operating and Limit Controls. Perform Bubble Test on Gas Valves and Regulators
Disassemble and Clean Pressure Relief Valve

<b>SEASONAL START-UP</b>
Check Fuel Supply
Check Auxiliary Equipment Operation
Inspect Burner Boiler and Controls Prior to Set Up
Start Burner and Check Operating Controls. Test Safety Controls and Pressure Relief Valve
Perform Combustion Test and Adjust Burner for Maximum Efficiency
Log All Operating Conditions
Review Operating Procedures and Owner's Log with Boiler Operator

Appendix D (cont.'d)

<b>SCHEDULED PM –Three (3) Time(s) Per Year During the Operation, These Inspections and Adjustments Will Be Made:</b>
Review Owner's Log. Log All Operating Conditions
Inspect Boiler and Burner; Make Adjustments as Required
Test Low Water Cutoff and Pressure Relief Valve
Blow Down and Test Low Water Cutoff and Feed Control(s)
Check for Water Steam and Fuel Leaks
Check Sequence and Operation of Flame Safeguard Control
Check Setting and Test Operating and Limit Controls
Check Operation of Modulating Motor
Blow Down Gauge Cocks and Try Cocks to Confirm Glass Water Level
Check and Test Boiler Blowdown Valve
Lubricate Motor and Shaft Bearings (as required)
Check Customers Log with Operator and Discuss Operation of Boiler

<b>ADDITIONS AND EXCEPTIONS</b>
Water Treatment Corrosion Inhibitors for Hot Water Loop, Quarterly Visit

**UNIT HEATERS/MAKE-UP AIR UNITS**

<b>ANNUAL INSPECTION – Once a year including the following:</b>
Check Electrical Wiring and Electrical Components for Proper Operation and Condition
Verify Unit Thermostat Controller Operates Properly
Inspect Fan Wheels or Blades
Inspect Shaft and Motor Bearings
Verify Proper Pulley Alignment, If Applicable
Inspect Belts
Lubricate Motor Control Contactors, Motors and Bearings
Check External Interlocks for Proper Operation
Inspect Unit Cabinet for Proper Integrity
Place System in Operation and Measure Temperature Rise Throughout Unit
<b>Gas Heat Option:</b>
Check Operation of Gas Train Components
Check Burner Sequence of Operation
Check Combustion Blower Assembly and Clean if Required
Check Combustion Efficiency (If Possible)
Inspect Heat Exchanger
Inspect Flame Condition
Verify Integrity of the Flue System
<b>Electric Heat Option:</b>
Inspect Electrical Connections and Motor Control Contactors
Check and Verify Operation of Operating and Safety Controls
Verify Operation of Heating Elements
Measure Voltage and Amp Draw of Heating Elements
<b>Hot Water/Steam Heat Option:</b>
Inspect Control Valves and Traps
Check and Verify Operation of Operating and Safety Controls
Verify Operation of Heating Coils

Appendix D (cont.'d)

<b>SCHEDULED PM –Three (3) Inspection(s) During the Operating Season, Including the Following:</b>
Clean Heat Exchanger and Inspect
Lubricate Fan Drive and Moving Parts
Check/Adjust Control Circuit and Safety Circuit
Start-up System and Check Performance
Calibrate Temperature Control
Adjust Burner Efficiency (Gas Only)

**ROTARY/SCROLL COMPRESSOR CHILLERS INSPECTION COVERAGE**

<b>ANNUAL WINTER MAINTENANCE –Once a Year; Including the Following:</b>
Check Oil Filter and Pressure Change
Leak Test Machine
Check and Calibrate Safety Controls, as Applicable
Check Condition of Contacts for Wear, Pitting, etc.
Meg Compressor Motor
Tighten Motor Terminals and Control Panel Terminals
Visually Inspect Condenser Tubes
Report to Operator

<b>SCHEDULED PM –Three (3) Inspection(s) During the Operating Season, Including the Following:</b>
Check Operating and Safety Controls. Record Settings per ASHRAE Guideline 3
Complete Operating Log of Temperature, Pressures, Voltages and Amperages
Check Operation of Control Circuit
Check Operation of Motor and Starter
Check Oil Level and Refrigerant Charge
Check Customer's Log with Operator, Discuss Operation of Machine Generally
Report to Operator

<b>ADDITIONS AND EXCEPTIONS</b>
Clean Condenser Coils Once Per Year
Water Treatment Corrosion Inhibitors for Cold Water Loop, Quarterly Visit

**SUPPLY, RETURN AND EXHAUST FANS**

<b>ANNUAL WINTER MAINTENANCE – Once a Year, Including the Following:</b>
Check Electrical Wiring and Electrical Components for Proper Operation
Check Operation of the Control Circuit
Inspect Fan Wheel or Blades
Inspect Shaft and Motor Bearings
Verify Proper Pulley Alignment
Inspect Belts and Replace as Required
Verify Proper Belt Tension
Lubricate All Motors and Bearings
Measure Motor Voltage and Amperage
Lubricate Associated Dampers and Linkages
Verify Integrity of Housing and Connections
Provide a Written Report of Work Completed and Indicate All Detected Deficiencies

<b>SCHEDULED PM – Three (3) Inspections Per Year, Including the Following:</b>
Check Operation of the Unit
Check Operation of the Control Circuit
Perform Routine Maintenance as Required, Including Performing Necessary Lubrication
Inspect Belts for Proper Condition and Alignment Within Pulleys
Provide a Written Report of Work Completed and Indicate All Detected Deficiencies

<b>ADDITIONS AND EXCEPTIONS</b>
---------------------------------

This Coverage Does Not Include Cleaning or Removal of Grease from Ductwork
--

**ELECTRIC/ELECTRONIC CONTROLS SYSTEMS**

<b>SEMI-ANNUAL INSPECTIONS- An Inspection Shall Be Performed During the Heating Season and During the Cooling Season and Will Include:</b>
--

Calibrate Major System Controls
---------------------------------

Check System Operating Sequences
----------------------------------

Clean Control Panels. (Wipe Panel Surfaces with Cleaning Rag and Blow Dust Out of Cabinets with Compressed Air or Vacuum)
---

Check Operating Conditions of Duct System Smoke Detectors (Voltage Check or Smoke Check Via Sampling Chamber) and Adjust Sensitivity as Required.
---

Check Damper Operation for Misalignment, Binding, and Shutoff: Provide Labor to Correct as Necessary
--

Measure and Record Primary and Secondary Voltages of the System Transformer or Power Supply on Primary Control System
---

Clean Sampling Chamber of Duct Mounted Smoke Detectors, Per Manufacturer's Recommendation, Once a Year Where Applicable
---

<b>SCHEDULED PM – Two (2) Inspection(s) During the Operating Season Will Be Made to Include the Following:</b>
--

Visually Check Control Valve for Leak
---------------------------------------

Visually Check Dampers and Linkages and Oil as Required
---

Check Time Clock Settings and Day/Night Thermostat Set Points
---

Inspect Changeover Control Stations and Record the Mode System it is in at Time of Inspection. Correct as Necessary
---

Record Outside Air Temperature and Ambient Conditions in a Pre-Selected Spot Identified in Contract Documents
---

Check Primary System Power Supply Input and Output Voltage and Record Reading (Only Required for Major Systems Where One Control Transformer or Power Supply Feeds the Entire System.)
--

The remainder of this page is intentionally left blank.