

# CONTRACT

THIS AGREEMENT is made on the 17th day of July, 2017, between the CITY OF ANN ARBOR, a Michigan Municipal Corporation, 301 East Huron Street, Ann Arbor, Michigan 48104 ("City"), and Pleune Services Company ("Contractor") a Michigan Corporation with its address at 750 Himes Drive, Grand Rapids, MI 49548.

Based upon the mutual promises below, the Contractor and the City agree as follows:

## ARTICLE I - Scope of Work

The Contractor agrees to furnish all of the materials, equipment and labor necessary; and to abide by all the duties and responsibilities applicable to it for the provision of HVAC and Chiller Preventative and Corrective Maintenance RFP 17-08, in accordance with the requirements and provisions of the following documents, including all written modifications incorporated into any of the documents, which are incorporated as part of this Contract:

Non-discrimination and Living Wage Declaration of Compliance Forms (if applicable)	General Conditions
Vendor Conflict of Interest Form	Standard Specifications
Bid Forms	Detailed Specifications
Contract and Exhibits	Addenda
Bonds	

## ARTICLE II - Definitions

Administering Service Area/Unit means **Public Services Area, Water Treatment Services Unit**

Project means **RFP 17-08: HVAC and Chiller Preventative and Corrective Maintenance**

## ARTICLE III - Duration

The term of this agreement shall be 1 year commencing on July 18, 2017, unless terminated breach or as provided for in this agreement.

The parties agree that this contract may be renewed, at the sole option of the City, for up to four additional one-year periods under the same terms and conditions for the amount specified in the accepted fee proposal from RFP 17-08. Should the City elect to exercise its option to renew this Agreement, the City Administrator, acting personally or through the Contract Administrator, will provide notice of its intent to renew in the following manner: 1) no less than sixty (60) days prior to the termination date of the original term of the Agreement, for the first one-year renewal period and 2) no less than sixty (60) days prior to the termination date of the first, second, and renewal term of the Agreement, for the second, third and fourth one-year renewal period.

## ARTICLE IV - Compensation

- A. Payment shall be made monthly following receipt of invoices submitted by Contractor and approved by the Contract Administrator.
- B. Contractor's compensation shall be based on Fee Proposal included in the Request. "HVAC and Chiller Preventative and Corrective Maintenance" RFP 17-08 which are attached as Exhibit A. It is understood and agreed between the parties that the

compensation stated in Exhibit B is inclusive of any and all remuneration to which the Contractor may be entitled.

- C. Contractor shall keep complete records of time spent and materials used in providing contract services so that the Administering Service Area/Unit may verify invoices submitted by the Contractor. Records shall be made available to the City upon request.

#### **ARTICLE V - Assignment**

This Contract may not be assigned or subcontracted any portion of any right or obligation under this contract without the written consent of the City. Notwithstanding any consent by the City to any assignment, Contractor shall at all times remain bound to all warranties, certifications, indemnifications, promises and performances, however described, as are required of it under this contract unless specifically released from the requirement, in writing, by the City.

#### **ARTICLE VI - Choice of Law**

This Contract shall be construed, governed, and enforced in accordance with the laws of the State of Michigan. By executing this agreement, the Contractor and the City agree to venue in a court of appropriate jurisdiction sitting within Washtenaw County for purposes of any action arising under this Contract. The parties stipulate that the venue referenced in this Contract is for convenience and waive any claim of non-convenience.

Whenever possible, each provision of the Contract will be interpreted in a manner as to be effective and valid under applicable law. The prohibition or invalidity, under applicable law, of any provision will not invalidate the remainder of the Contract.

#### **ARTICLE VII - Relationship of the Parties**

The parties of the Contract agree that it is not a Contract of employment but is a Contract to accomplish a specific result. Contractor is an independent Contractor performing services for the City. Nothing contained in this Contract shall be deemed to constitute any other relationship between the City and the Contractor.

Contractor certifies that it has no personal or financial interest in the project other than the compensation it is to receive under the Contract. Contractor certifies that it is not, and shall not become, overdue or in default to the City for any Contract, debt, or any other obligation to the City including real or personal property taxes. City shall have the right to set off any such debt against compensation awarded for services under this agreement.

#### **ARTICLE VIII - Notice**

All notices given under this Contract shall be in writing, and shall be by personal delivery or by certified mail with return receipt requested to the parties at their respective addresses as specified in the Contract Documents or other address the Contractor may specify in writing. Notice will be deemed given on the date when one of the following first occur: (1) the date of actual receipt; or (2) three days after mailing certified U.S. mail.

**ARTICLE IX - Indemnification**

To the fullest extent permitted by law, Contractor shall indemnify, defend and hold harmless the City, its officers, employees and agents harmless from all suits, claims, judgments and expenses including attorney’s fees resulting or alleged to result, in whole or in part, from any act or omission, which is in any way connected or associated with this Contract, by the Contractor or anyone acting on the Contractor’s behalf under this Contract. Contractor shall not be responsible to indemnify the City for losses or damages caused by or resulting from the City’s sole negligence. The provisions of this Article shall survive the expiration or earlier termination of this contract for any reason.

**ARTICLE X - Entire Agreement**

This Contract represents the entire understanding between the City and the Contractor and it supersedes all prior representations, negotiations, agreements, or understandings whether written or oral. Neither party has relied on any prior representations in entering into this Contract. No terms or conditions of either party’s invoice, purchase order or other administrative document shall modify the terms and conditions of this Contract, regardless of the other party’s failure to object to such form. This Contract shall be binding on and shall inure to the benefit of the parties to this Contract and their permitted successors and permitted assigns and nothing in this Contract, express or implied, is intended to or shall confer on any other person or entity any legal or equitable right, benefit, or remedy of any nature whatsoever under or by reason of this Contract. This Contract may be altered, amended or modified only by written amendment signed by the City and the Contractor.

**FOR CONTRACTOR**

By \_\_\_\_\_

Its: \_\_\_\_\_

**FOR THE CITY OF ANN ARBOR**

By \_\_\_\_\_  
Christopher Taylor, Mayor

By \_\_\_\_\_  
Jacqueline Beaudry, City Clerk

**Approved as to substance**

By \_\_\_\_\_  
Howard S. Lazarus, City Administrator

By \_\_\_\_\_  
Craig Hupy, Public Services Area  
Administrator

**Approved as to form and content**

\_\_\_\_\_  
Stephen K. Postema, City Attorney



## **Exhibit A- SCOPE OF SERVICES**

### **I. OVERVIEW:**

The contractor will provide labor and materials to perform the following preventative maintenance tasks:

- 1) Conduct two (2) preventive maintenance visits per year on all equipment identified in Tables 1 & 2.
- 2) Perform preventive maintenance in accordance with manufacturer recommendations, equipment run-hours, application demands, and environmental factors using technicians that have experience working on the identified equipment.
- 3) Identify defects, failed or doubtful components, water or oil leaks, refrigerant leaks, flue gas leaks, excessive vibration, noisy or improper operation.
- 4) Inform City of Ann Arbor of preventive maintenance progress, inspection findings and applicable maintenance and repair options.
- 5) Recommend cost-effective repairs, applicable retrofit options and equipment replacement alternatives.
- 6) Develop checklists and work summaries to be submitted to the City upon completion of preventive maintenance visits that document the work completed as summarized in this scope of work.

Corrective maintenance will also be within the scope of the agreement with authorization from the maintenance supervisor or contact administrator.

### **II. AIR HANDLING UNIT(S):**

**The following work shall be performed on all preventative maintenance visits:**

- 1) Check and grease bearings and locking collars where present.
- 2) Confirm fan wheel is properly aligned, tight on shaft and freely moving.
- 3) Confirm sheaves are properly aligned and tight on shaft.
- 4) Check fan base isolators and thrust restraints for proper adjustment. **Note:** Do not remove bolts from isolators.
- 5) Inspect belts for proper adjustment, replace if necessary.
- 6) Check fan alignment with unit discharge. Adjust if needed.
- 7) Inspect fan bearings for proper lubrication.
- 8) Energize power to the unit.
- 9) Verify correct voltage, phase and cycles.
- 10) Energize fan motor(s). Observe fan(s) for smooth operation.
- 11) Check motor name plate Full Load Amp rating.
- 12) Check current draw of each leg of each motor.
- 13) Inspect VFD if applicable for proper operation, refer to manufacturers start up guide.
- 14) Check doors and latches for air leaks.
- 15) Check for obvious audible leaks.
- 16) Apply steam to cold coils slowly to prevent damage.

**a) Seasonal Preventative Maintenance (Shutdown Period Preventative Maintenance):**

The following tasks shall be performed once each year during a shutdown period in order to properly evaluate the equipment status and prepare the units for the next season:

- 1) Checking the spring isolators for proper tension.
- 2) Verifying that flexible duct connections are intact.
- 3) Checking fan motor amps and volts with fan running.
- 4) Checking fan operation for excessive vibration.
- 5) Cleaning starter contacts and checking for wear, burning, pitting, and signs of overheating.
- 6) Checking belts for wear, cracks and tension.
- 7) Checking pulley grooves for smooth wear.
- 8) Removing fan guards for cleaning and inspecting fan blades.
- 9) Verifying grease line connections.
- 10) Verifying the tightness of motor mounts.
- 11) Observing bearing movement and rotation and inspecting bearings for condition.
- 12) Inspecting and lubricating fan and motor bearings.
- 13) Checking drain pans and drain lines for dirt and sludge buildup.
- 14) Checking insulation.
- 15) Inspecting air filters. Cleaning, replacing and supplying pre-filters and box filters will be the responsibility of the City of Ann Arbor.
- 16) Checking variable inlet vanes for mechanical integrity.
- 17) Checking the cleanliness of water or steam coils and cleaning (if applicable).
- 18) Checking the operation of drains.
- 19) Winterizing water coil when required.

**b) For Heating Equipment (pre-winter, September/October):**

- 1) Checking amperage and voltage of each electric heating stage.
- 2) Checking tightness of connections and fuse condition.
- 3) Checking gas-fired pilot and flame condition and operation.
- 4) Checking the condition of gas valves, burners, and thermocouples.
- 5) Checking the condition of the heat exchanger and the flue.
- 6) Checking the inlet screens for cleanliness and blockage.
- 7) Inspecting exhaust fan motor amps and volts.
- 8) Inspecting exhaust fan belt tension.
- 9) Checking humidifier sprays, grids, and pans for scale buildup and plugging.
- 10) Inspecting and adjusting the steam pan float valve.

**c) A/C Condenser (air cooled) (pre-summer- March/April)**

- 1) Check compressor motor voltage, amperage and sensor condition.
- 2) Check liquid filters (if applicable). Note any oil leakage.
- 3) Inspect control panel SST Control set point/actual, electrical terminals and relay timers.
- 4) Check pressure gauges including discharge pressure, oil pressure, HP cut out set point, lights and ambient temperature.
- 5) Check motor starter contacts, linkage and terminals.
- 6) Check compressor oil level; replace oil, and filters when applicable.
- 7) Inspect oil eductor filter dryer. Replace filter dryer when applicable.
- 8) Check float switch, heater and thermostat.
- 9) Inspect return solenoid valve and drain down solenoid valve.
- 10) Check auxiliary oil pump seal and motor (if equipped).
- 11) Check for acid condition of oil.
- 12) Inspect insulation condition associated with chiller and piping.
- 13) Inspect & document condition of condenser fins/tubes before and after cleaning.
- 14) Document type of condenser fin/tube cleaning – i.e. brush / acid.
- 15) Document sight glass compressor cooler and float chamber.
- 16) Check refrigerant charge.
- 17) Inspect visually for refrigerant leaks.
- 18) Meggaring and recording motor winding resistance.
- 19) Checking the oil level in the compressor; adding oil as required; and conducting an oil acidity test.
- 20) Correcting leaks and adding refrigerant as required (invoiced separately).
- 21) Changing the filter dryer.
- 22) Checking the crankcase heater for proper operation.
- 23) Tightening the power wiring on contactors and in the motor terminal box.
- 24) Cleaning all contactors and recommending replacement, if required.
- 25) Checking all relays, operating controls and safeties.
- 26) Checking and calibrating all controls, safeties, unloaders, and external interlocks.
- 27) Checking the suction and discharge compressor valves.

#### **d) Operating Season Inspections:**

The following inspection items ensure the units are operating reliably and efficiently during the cooling or heating season:

- 1) Checking for general condition and operation.
- 2) Logging operation conditions and identifying inconsistencies.
- 3) Adjusting operating controls if required.
- 4) Checking for proper oil level and refrigerant charge.
- 5) Checking the oil temperature and crankcase heater.
- 6) Inspecting starter, relays, and controls.
- 7) Inspecting the air cooled condenser fans, and motor operation.
- 8) Removing debris from inside and around the unit.
- 9) Reviewing operating procedures and the owner's log with the operator.

**Table 1: Air-Handling Units: Requiring Bi-Annual Maintenance**

<b>Description</b>	<b>Location</b>	<b>Make</b>	<b>Model</b>	<b>Serial</b>	<b>Tasks</b>
<b>AIR HANDLING UNIT AHU-A1</b>	4W Mezzanine - Condensing unit 1 on 4th floor roof	Carrier	39LA1031BA12 21L	1995T6655 1	a,b,c,d
<b>AIR HANDLING UNIT AHU A2</b>	4W Mezzanine - Condensing unit 2 on 4th floor roof	Carrier	39LA1031BA12 21L	1995T6655 2	a,b,c,d
<b>AIR HANDLING UNIT AHU A3</b>	4W Mezzanine - Condensing unit 3 on 4th floor roof	Carrier	39LA1031BA12 21L	1995T6655 3	a,b,c,d
<b>AIR HANDLING UNIT AHU A4</b>	4W Mezzaning - Condensing unit 4 on 4th floor roof	Carrier	39LA1031BA12 21L	1995T6655 4	a,b,c,d
<b>AIR HANDLING UNIT AHU A5</b>	Admin Building Roof, above Control Room	York	YCMSR1F2C1F	TFDM- M004680	a,b,c,d
<b>AIR HANDLING UNIT AHU-A6</b>	Admin Building Roof, includes heat exch and Exhaust Fan A3	York		TFDM- M004690	a,b,c,d
<b>AIR HANDLING UNIT AHU A7</b>	Admin Building Roof, above Main Lab, serves Admin Area	Carrier	48TCED12A2A 6	1695G3077 5	a,b,c,d
<b>AHU-A8 WILLET ROOM</b>	4E Filter Press Building, in the Willett Press Pump Room	EJWing Co	SAS-(I)-120 HRT	0009018	a,b,d
<b>AMMONIA BUILDING AHU AM1</b>	Outside the Ammonia Building	Hastings	RHFA-100-V	48085	a,b,d
<b>FURNACE AHU-F1</b>	Filter Gallery Roof above Filter # 19	Hastings			a,b,d
<b>FURNACE AHU-F2</b>	Filter Gallery, inside above Filter # 1	Sterling	QVBC		a,b,d
<b>AIR HANDLING UNIT AHU O1</b>	Ozone Building Roof	Carrier	48HJE004-631	159562077 2	a,b,d
<b>AIR HANDLING UNIT AHU O2</b>	Ozone Building Roof	Hastings	RHVB-600-V	48088-1	a,b,d
<b>AIR HANDLING UNIT AHU O3</b>	Ozone Building Roof	Hastings	RHVB-600-V	48088-2	a,b,d
<b>AIR HANDLING UNIT AHU O4</b>	Ozone Building Roof	McQuay	MSP020AS06		a,b,c,d



### **III. OZONE TRANE CHILLERS**

#### **a) Ozone Trane Liquid Rotary Chiller**

The following work is to be performed during the Start-up, mid-season inspection and checkout three (3) times per year:

- 1) General Assembly
  - a) Repair minor leaks as required (e.g. valve packing, flare nuts).
- 2) Controls and Safeties
  - a) Inspect the control panel for cleanliness.
  - b) Inspect wiring and connections for tightness and signs of overheating and discoloration.
  - c) Verify all settings in the electronic control panel.
  - d) Test the operation of the chilled water pump and condenser water pump starter auxiliary contacts.
  - e) Verify the setting of the current control device.
- 3) Lubrication System
  - a) Test oil for acid content, and discoloration. Make recommendations to the customer based on the results of the test.
- 4) Motor and Starter
  - a) Clean the starter and cabinet.
  - b) Inspect wiring and connections for tightness and signs of overheating and discoloration.
  - c) Check condition of the contacts for wear and pitting.
  - d) Check contactors for free and smooth operation.
  - e) Check the mechanical linkages for wear, security and clearances.
  - f) Check tightness of motor terminal connections.
  - g) Meg the motor and record readings.
  - h) Verify the operation of the electrical interlocks.
  - i) Measure voltage and record. Voltage should be nominal voltage  $\pm 10$  percent.

#### **b) Start-Up Procedure- 2 times per year:**

- 1) Verify the operation of the oil heater.
- 2) Verify full water systems including the cooling tower, the condenser, and the evaporator.
- 3) Verify clean cooling tower and strainers.
- 4) Start the condenser water pump, the chilled water pump, and the cooling tower fan(s).
- 5) Test all flow-proving devices on the chilled water and the condenser water circuits.
- 6) Verify flow rates through the condenser and the evaporator.
- 7) Start the chiller.
- 8) Verify the starter operation, amperage, and voltage.
- 9) Verify the operation of all timing devices.
- 10) Check the set point and sensitivity of the chilled water temperature control device - verify the operation.
- 11) Verify the operation of the condenser water temperature control device.
- 12) Check the refrigerant charge per Trane specifications.

- 13) Log the operating conditions after the system has stabilized.
- 14) Review operating procedures with operating personnel.
- 15) Provide a written report of completed work, operating log, and indicate any uncorrected deficiencies detected.

**c) Mid-Season Running Inspection (1 time per year)**

- 1) Check the general operation of the unit.
- 2) Log the operating temperatures, pressures, voltages, and amperages.
- 3) Check the operation of the control circuit.
- 4) Check the operation of the motor and starter.
- 5) Analyze the recorded data. Compare the data to the original design conditions.
- 6) Review operating procedures with operating personnel.
- 7) Provide a written report of completed work, operating log, and indicate any uncorrected deficiencies detected.

**IV. Ozone Trane Air Cooled Scroll Chillers**

- a) The following work is to be performed during the Start-up and mid-season inspection two (2) times per year:
  - 2) General Assembly
  - 3) Inspect for leaks and report results.
  - 4) Repair minor leaks as required (e.g. valve packing, flare nuts).
  - 5) Visually inspect condenser coils for cleanliness.
    - i) Lubricate the condenser fan bearings, if applicable.
  - 6) Controls and Safeties
  - 7) Inspect the control for cleanliness.
  - 8) Inspect wiring and connections for tightness and signs of overheating and discoloration.
  - 9) Verify the working condition of all indicator/alarm lights, if applicable.
    - i) Test the low evaporator pressure safety device. Calibrate and record setting.
  - 10) Lubrication System
  - 11) Check oil level in the compressor(s).
  - 12) Test oil for acid content and discoloration. Make recommendations to the customer based on the results of the test.
    - i) Verify the operation of the oil heater.
  - 13) Motor and Starter
  - 14) Clean the starter and cabinet.
  - 15) Inspect wiring and connections for tightness and signs of overheating and discoloration.
  - 16) Check the condition of the contacts for wear and pitting.
  - 17) Check the contactors for free and smooth operation.
  - 18) Check the tightness of the motor terminal connections.
  - 19) Meg the motor(s) and record readings.
  - 20) Verify the operation of the electrical interlocks.
    - i) Measure voltage and record. Voltage should be nominal voltage  $\pm 10\%$ .

## **b) Start-Up Procedure**

- 1) Verify the operation of the oil heater(s), if applicable.
- 2) Start the unit.
- 3) Verify the starter operation.
- 4) Verify smooth operation of the compressors and fans.
- 5) Verify the operation of all timing devices.
- 6) Check the set point and sensitivity of the discharge temperature control device.
- 7) Verify the operation.
- 8) Verify the operation of the condenser fan control device(s).
- 9) Verify the operation of the low ambient dampers, if applicable.
- 10) Check the superheat and sub cooling of the refrigerant circuit(s).
- 11) Verify full refrigerant circuit(s). Check sight glasses, if applicable.
- 12) Test the operation of the high condenser pressure safety device. Calibrate and record setting, if applicable.
- 13) Log the operating conditions of the unit after the system has stabilized.
- 14) Review operating procedures with operating personnel.
- 15) Provide a written report of the completed work, operating log, and indicate any uncorrected deficiencies detected.
- 16) Record settings on controller, if applicable.

## **c) Mid-Season Running Inspection (1 time per year)** Check the general condition of the unit.

- 21) Check the operation of the control circuit.
- 22) Check the operation of the motor(s) and starter(s).
- 23) Log the operating conditions after the system has stabilized.
- 24) Analyze the recorded data. Compare the data to the original design conditions.
- 25) Review operating procedures with operating personnel.
- 26) Provide a written report of completed work, operating log, and indicate any uncorrected deficiencies detected.

## **V. Condenser Cleaning**

The following work is to be performed during the Start-up and mid-season inspection two (2) times per year:

### **a) Air Cooled Condensers (1-10 Tons) CDS-220A**

- 1) Clean air-cooled condenser, using pressurized water.

**Table 2: Ozone Chillers to be serviced for start-up, mid-season and checkout**

<b>Description</b>	<b>Location</b>	<b>Make</b>	<b>Model</b>	<b>Serial</b>	<b>Tasks</b>
<b>180 Ton Chiller</b>	Ozone Building Upper Level East Unit	Trane	RTHB180	U95F08235	All
<b>Trane Chiller Condensing Unit</b>	Outside Ozone Building by Basin 4	Trane	CAUCC60	C99D05520M	All associated

## II. QUESTIONS AND RESPONSES

The following Questions have been received by the City. Responses are being provided in accordance with the terms of the RFP. Respondents are directed to take note in its review of the documents of the following questions and City responses as they affect work or details in other areas not specifically referenced here.

Question 1: Is the condenser coil cleaning included for table 1 equipment or just table 2 equipment (it is only stated in the Trane chiller tasking on page 15)?

Response 1: We want coils cleaned on all air conditioning condensers. There are 9 air handlers with condensers and a Trane chiller condenser.

Question 2: Can you provide the sign in sheet for the pre-bid meeting?

Response 2: Yes, see attached hereto.

Respondents are responsible for any conclusions that they may draw from the information contained in the Addendum.

### III. OZONE TRANE CHILLERS

#### **Ozone Trane Liquid Rotary Chiller (180 ton)**

The following work is to be performed during the Start-up, mid-season inspection and checkout three (3) times per year:

##### **a) Start Up- 1-per year**

- 1) General Assembly
  - a) Repair minor leaks as required (e.g. valve packing, flare nuts).
- 2) Controls and Safeties
  - a) Inspect the control panel for cleanliness.
  - b) Inspect wiring and connections for tightness and signs of overheating and discoloration.
  - c) Verify all settings in the electronic control panel.
  - d) Test the operation of the chilled water pump and condenser water pump starter auxiliary contacts.
  - e) Verify the setting of the current control device.
- 3) Lubrication System
  - a) Test oil for acid content, and discoloration. Make recommendations to the customer based on the results of the test.
- 4) Motor and Starter
  - a) Clean the starter and cabinet.
  - b) Inspect wiring and connections for tightness and signs of overheating and discoloration.
  - c) Check condition of the contacts for wear and pitting.
  - d) Check contactors for free and smooth operation.
  - e) Check the mechanical linkages for wear, security and clearances.
  - f) Check tightness of motor terminal connections.
  - g) Meg the motor and record readings.
  - h) Verify the operation of the electrical interlocks.
  - i) Measure voltage and record. Voltage should be nominal voltage  $\pm 10$  percent.

##### **b) Mid-season - 1 per year:**

- 1) Verify the operation of the oil heater.
- 2) Verify full water systems including the cooling tower, the condenser, and the evaporator.
- 3) Verify clean cooling tower and strainers.
- 4) Start the condenser water pump, the chilled water pump, and the cooling tower fan(s).
- 5) Test all flow-proving devices on the chilled water and the condenser water circuits.
- 6) Verify flow rates through the condenser and the evaporator.
- 7) Start the chiller.
- 8) Verify the starter operation, amperage, and voltage.
- 9) Verify the operation of all timing devices.
- 10) Check the set point and sensitivity of the chilled water temperature control device - verify the operation.
- 11) Verify the operation of the condenser water temperature control device.
- 12) Check the refrigerant charge per Trane specifications.

- 13) Log the operating conditions after the system has stabilized.
- 14) Review operating procedures with operating personnel.
- 15) Provide a written report of completed work, operating log, and indicate any uncorrected deficiencies detected.

**c) Check-out - 1 per year**

- 1) Check the general operation of the unit.
- 2) Log the operating temperatures, pressures, voltages, and amperages.
- 3) Check the operation of the control circuit.
- 4) Check the operation of the motor and starter.
- 5) Analyze the recorded data. Compare the data to the original design conditions.
- 6) Review operating procedures with operating personnel.
- 7) Provide a written report of completed work, operating log, and indicate any uncorrected deficiencies detected.

**IV. Ozone Trane Air Cooled Scroll Chillers (60 ton)**

- a) The following work is to be performed during the Start-up and mid-season inspection three (3) times per year:

- 2) General Assembly
- 3) Inspect for leaks and report results.
- 4) Repair minor leaks as required (e.g. valve packing, flare nuts).
- 5) Visually inspect condenser coils for cleanliness.
  - i) Lubricate the condenser fan bearings, if applicable.
- 6) Controls and Safeties
- 7) Inspect the control for cleanliness.
- 8) Inspect wiring and connections for tightness and signs of overheating and discoloration.
- 9) Verify the working condition of all indicator/alarm lights, if applicable.
  - i) Test the low evaporator pressure safety device. Calibrate and record setting.
- 10) Lubrication System
- 11) Check oil level in the compressor(s).
- 12) Test oil for acid content and discoloration. Make recommendations to the customer based on the results of the test.
  - i) Verify the operation of the oil heater.
- 13) Motor and Starter
- 14) Clean the starter and cabinet.
- 15) Inspect wiring and connections for tightness and signs of overheating and discoloration.
- 16) Check the condition of the contacts for wear and pitting.
- 17) Check the contactors for free and smooth operation.
- 18) Check the tightness of the motor terminal connections.
- 19) Meg the motor(s) and record readings.
- 20) Verify the operation of the electrical interlocks.
  - i) Measure voltage and record. Voltage should be nominal voltage  $\pm 10\%$ .

## **b) Mid-Season**

- 1) Verify the operation of the oil heater(s), if applicable.
- 2) Start the unit.
- 3) Verify the starter operation.
- 4) Verify smooth operation of the compressors and fans.
- 5) Verify the operation of all timing devices.
- 6) Check the set point and sensitivity of the discharge temperature control device.
- 7) Verify the operation.
- 8) Verify the operation of the condenser fan control device(s).
- 9) Verify the operation of the low ambient dampers, if applicable.
- 10) Check the superheat and sub cooling of the refrigerant circuit(s).
- 11) Verify full refrigerant circuit(s). Check sight glasses, if applicable.
- 12) Test the operation of the high condenser pressure safety device. Calibrate and record setting, if applicable.
- 13) Log the operating conditions of the unit after the system has stabilized.
- 14) Review operating procedures with operating personnel.
- 15) Provide a written report of the completed work, operating log, and indicate any uncorrected deficiencies detected.
- 16) Record settings on controller, if applicable.

## **c) Check-out Inspection (1 time per year)**

Check the general condition of the unit.

- 1) Check the operation of the control circuit.
- 2) Check the operation of the motor(s) and starter(s).
- 3) Log the operating conditions after the system has stabilized.
- 4) Analyze the recorded data. Compare the data to the original design conditions.
- 5) Review operating procedures with operating personnel.
- 6) Provide a written report of completed work, operating log, and indicate any uncorrected deficiencies detected.

## **V. Condenser Cleaning**

The following work is to be performed during the Start-up and mid-season inspection two (2) times per year:

### **a) Air Cooled Condensers (1-10 Tons) CDS-220A**

- 1) Clean air-cooled condenser, using pressurized water.



**Table 2: Ozone Chillers to be serviced for start-up, mid-season and checkout**

<b>Description</b>	<b>Location</b>	<b>Make</b>	<b>Model</b>	<b>Serial</b>	<b>Tasks</b>
<b>180 Ton Chiller</b>	Ozone Building Upper Level East Unit	Trane	RTHB180	U95F08235	All
<b>Trane Chiller Condensing Unit</b>	Outside Ozone Building by Basin 4 Serves 60 ton chiller	Trane	CAUCC60	C99D05520M	All associated
<b>60 Ton Chiller</b>	Ozone Building Upper Level West Unit	Trane	RTHB60	Unknown	All

**EXHIBIT B  
COMPENSATION**

General

Contractor shall be paid for those Services performed pursuant to this Agreement inclusive of all reimbursable expenses (if applicable), in accordance with the terms and conditions herein. The Compensation Schedule below/attached states nature and amount of compensation the Contractor may charge the City:

**Fee Proposal Form**

ITEM	Total Cost
<b>(a) Total Project Cost</b>	Year 1 (July 1, 2017 – June 30, 2018) \$ <u>5,550.00</u>
	Year 2 (July 1, 2018 – June 30, 2019) \$ <u>5,550.00</u>
	Year 3 (July 1, 2019 – June 30, 2020) \$ <u>5,550.00</u>
	Year 4 (July 1, 2020 – June 30, 2021) \$ <u>5,827.50</u>
	Year 5 (July 1, 2021 – June 30, 2022) \$ <u>5,827.50</u>

General

Contractor shall be paid for those Services performed pursuant to this Agreement inclusive of all reimbursable expenses (if applicable), in accordance with the terms and conditions herein.

**Repairs**

The Compensation Schedule below/attached states nature and amount of compensation the Contractor may charge the City for repairs outside of the Bi-Annual Maintenance amounts: Rates include all overhead costs, travel time, service vehicles and all necessary equipment. Rates do not include any material that may be required.

Rate Type	Definition - REPAIRS	Rate per hour per technician	Other rates (describe)
Regular Time	“Regular time” is defined as: eight (8) hours’ work between the hours of 7 am and 4:30pm Monday through Friday	\$ 94.00	\$ 43.00 truck charge planned to service calls (not maintenance)
Overtime Hourly Rate	“Overtime” is defined as 4:30pm to 10:00 p.m. Monday through Friday	\$ 141.00	Same as above
Weekend Hourly Rate	“Weekend” is defined as a) 8:00am to 4:30 pm on Saturday b) 12:00 am to 7:59 am on Saturday and 4:31 pm Saturday to 11:50pm on Sunday	A) \$ 141.00 B) \$ 141.00	A) Same as above B)
Holiday Hourly Rate	“Holiday” is defined as: Any hours worked on New Year’s Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving and Christmas Day	\$ 141.00	Same as above

**EXHIBIT C  
INSURANCE REQUIREMENTS**

Effective the date of this Agreement, and continuing without interruption during the term of this Agreement, Contractor shall provide certificates of insurance to the City on behalf of itself, and when requested any subcontractor(s). The certificates of insurance and required endorsements shall meet the following minimum requirements.

- A. The Contractor shall have insurance that meets the following minimum requirements:
1. Worker's Compensation Insurance in accordance with all applicable state and federal statutes. Further, Employers Liability Coverage shall be obtained in the following minimum amounts:  
  
Bodily Injury by Accident - \$500,000 each accident  
Bodily Injury by Disease - \$500,000 each employee  
Bodily Injury by Disease - \$500,000 each policy limit
  2. Commercial General Liability Insurance equivalent to, as a minimum, Insurance Services Office form CG 00 01 07 98 or current equivalent. The City of Ann Arbor shall be an additional insured. There shall be no added exclusions or limiting endorsements which diminish the City's protections as an additional insured under the policy. Further, the following minimum limits of liability are required:  
  
\$1,000,000 Each occurrence as respect Bodily Injury Liability or Property Damage Liability, or both combined  
\$2,000,000 Per Job General Aggregate  
\$1,000,000 Personal and Advertising Injury
  3. Motor Vehicle Liability Insurance, including Michigan No-Fault Coverages, equivalent to, as a minimum, Insurance Services Office form CA 00 01 07 97 or current equivalent. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles. The City of Ann Arbor shall be an additional insured. There shall be no added exclusions or limiting endorsements which diminish the City's protections as an additional insured under the policy. Further, the limits of liability shall be \$1,000,000 for each occurrence as respects Bodily Injury Liability or Property Damage Liability, or both combined.
- B. Insurance required under A.2 and A.3 above shall be considered primary as respects any other valid or collectible insurance that the City may possess, including any self-insured retentions the City may have; and any other insurance the City does possess shall be considered excess insurance only and shall not be required to contribute with this insurance. Further, the Contractor agrees to waive any right of recovery by its insurer against the City.

- C. Insurance companies and policy forms are subject to approval of the City Attorney, which approval shall not be unreasonably withheld. Documentation must provide and demonstrate an unconditional 30 day written notice of cancellation in favor of the City of Ann Arbor. Further, the documentation must explicitly state the following: (a) the policy number; name of insurance company; name and address of the agent or authorized representative; name and address of insured; project name; policy expiration date; and specific coverage amounts; (b) any deductibles or self-insured retentions which shall be approved by the City, in its sole discretion; (c) that the policy conforms to the requirements specified. Contractor shall furnish the City with satisfactory certificates of insurance and endorsements prior to commencement of any work. Upon request, the Contractor shall provide within 30 days a copy of the policy(ies) to the City. If any of the above coverages expire by their terms during the term of this contract, the Contractor shall deliver proof of renewal and/or new policies to the Administering Service Area/Unit at least ten days prior to the expiration date.