Heating • Air Conditioning
Energy Management
CA Lic# 812232

Proposal Date:	5/26/16	Quote Number:	09-1325-5

Customer Name:	The City of Emeryville	Service Location:	Childrens Center
Address:	1333 Park Ave	Address:	1220 53rd Street
City, State, Zip:	Emeryville, CA 94608	City, State, Zip:	Emeryville, CA 94608
Phone:	(510) 508-9895	Phone:	(707) 280-3596
Attn:	Rich Cunningham	Contact:	Jody Clark

AGREEMENT FOR PERIODIC MAINTENANCE SERVICE

The maintenance is to consist of lubrication and necessary inspection as described in the Specifications for Periodic Maintenance (Attachment 'A'). The maintenance will be performed by a trained HVAC technician as outlined in page 2 of this agreement. **General Maintenance Tasks** to include the following:

- Check in with Customer upon arrival.
- Check and report any unusual noise or vibrations and repair if minor.
- Check general operation and condition of equipment.
- Maintain cleanliness of equipment.
- Report all work performed on both in-house log sheet and signed work orders.
- Notify customer of services or materials required to maintain systems in proper operating condition.
- Check out with customer when leaving the premises.

As a preventive maintenance customer you are entitled to the following services:

Dispatching Service: We are available 24 hours a day, 7 days a week.

Response Time: We make every effort to provide a (2) hour response time on emergency requirements during normal business hours (Monday through Friday, 8 am to 5 pm) and a (4) hour response time during non business hours and holidays.

Workmanship Guarantee: Any work performed by Matrix HG, Inc. is guaranteed to be free from defects in workmanship for a period of 30 days for labor and 90 days for parts. Labor and material repair cost for defective work will be at our expense.

Service Frequency:
☐Monthly ☐Bi-Monthly ☑Quarterly ☐Tri-Annually ☐Semi-Annually ☐Annually

Comments:

The owner agrees to pay: $ 8288 Per year, to be invoiced at: $ 2072 Quarterly

Presented By:	Matrix HG, Inc.	Accepted By:	
Signed:	Cameron Edwards	Signed:	
Name:	Cameron Edwards	Name:	
Title:	Service Estimator	Title:	
Date:	6/8/15	Date:	

Customer Signature is Acceptance of Terms and Conditions. If date of commencement is not completed by customer, maintenance schedule will begin the first of the month following date of acceptance

Heating • Air Conditioning
Energy Management
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Proposal Date: 5/26/16 Quote Number: 09-1325-5

SCOPE OF SERVICES

EQUIPMENT SERVICED - OPERATING INSPECTIONS

- ☐ Heat Pumps
- ☑ Rooftop Package Units
- ☐ Stand Alone Indoor AC Units
- ☐ Air Handlers
- ☐ Fan Coils
- ☐ Central Station Units
- ☐ Condensing Units
- ☑ Boilers/Hot Water Heaters
- ☑ Furnaces
- ☐ Water Pumps
- ☐ Cooling Towers
- ☐ Supply, Return & Exhaust Fans
- ☐ Pneumatic / Electric Controls
- ☐ Variable Frequency Drives
- ☐ Reciprocating Air/Water-Cooled Compressors/Chillers
- ☐ Helical-Rotary Chillers
- ☐ Centrifugal Chillers

EQUIPMENT SERVICED - ANNUAL INSPECTIONS

- ☐ Boilers (includes water side)
- ☐ Boilers (excludes water side)
- ☐ Cooling Towers
- ☐ Centrifugal Chillers
- ☐ Helical-Rotary Chillers
- ☐ Chiller: Condenser Tube Brushing

EQUIPMENT SERVICED – COMMENTS:

AIR FILTERS

☑ Provided and replaced by Matrix HG, Inc.
☐ Provided by customer and replaced by Matrix HG, Inc.

Type:	☐ Disposable	☑ High Efficiency	☐ Bag Type	☐ Charcoal Type
Frequency:	☐ Monthly	☐ Monthly	☐ Monthly	☐ Monthly
	☐ Bi-Monthly	☐ Bi-Monthly	☐ Bi-Monthly	☐ Bi-Monthly
	☐ Quarterly	☑ Quarterly	☐ Quarterly	☐ Quarterly
	☐ Tri-Annually	☐ Tri-Annually	☐ Tri-Annually	☐ Tri-Annually
	☐ Semi-Annually	☐ Semi-Annually	☐ Semi-Annually	☐ Semi-Annually
	☐ Annually	☐ Annually	☐ Annually	☐ Annually

☐ Not included in contract ☐ Comments:

BELTS

Matrix HG, Inc. will inspect condition and replace when necessary as:

☐ Included in contract price ☑ Extra to contract price

WATER TREATMENT

Matrix HG, Inc. will inspect the chemical feed system serving the cooling tower, boiler, and/or water cooled condensing units and will add chemicals when necessary as:

☐ Included in contract price ☑ Extra to contract price ☐ Not required for this contract

CHEMICAL COIL CLEANING

Matrix HG, Inc. will chemically clean the condenser and/or evaporator coils annually as described below:

☐ Condenser Coils	☐ Evaporator coils
☑ Extra to contract price	☑ Extra to contract price
☐ Included in contract price	☐ Included in contract price

Corporate Office:
115 Mason Circle, Suite B
Concord, CA 94520
PH: (925) 459-9200 • FX: (925) 459-9220

North Bay Office:
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Novato, CA 94949
PH: (707) 586-9200 • FX: (415) 382-9301

Heating • Air Conditioning
Energy Management
CA Lic# 812232

Proposal Date: 5/26/16 Quote Number: 09-1325-5

TERMS AND CONDITIONS

TERMS

This Agreement shall run from year-to-year; however, it may be cancelled or amended by either party upon thirty (30) days' written notice and is subject to the annual revision of prices.

No other Agreement expressed or implied oral or written, shall limit or qualify the terms of this Agreement unless evidenced by an additional written Agreement signed by both parties.

A delinquent charge of 1.5% per month will be applied on any past due amounts. In the event collections action is taken, the Customer shall be obligated for collection costs including reasonable attorney's fees and court costs.

This proposal is subject to credit approval by the Matrix HG Accounting Department.

Service Shall Commence: _____ Customer Initials: _____

To be Completed by Customer

CONDITIONS

All maintenance work will be scheduled by MATRIX HG, INC. at its discretion.
If a request for service or additional maintenance is made by Customer, Customer will be charged at standard labor rate per hour during normal working hours (8:00 – 4:30 p.m. Monday through Friday) and standard premium rate per hour for overtime, plus transportation charges and expenses.

Customer agrees to pay for any parts required under this Agreement other that those specifically included under Periodic Maintenance Service. The standard Company guarantee shall apply to all replacements parts. No warranty is made for loss refrigerant.

Customer shall provide effective air filter service and water treatment service if not included as Optional Maintenance Functions under this agreement.

It is further understood that reasonable access will be provided to equipment. Any modifications necessary to provide access to equipment will be at Customer's expense.

MATRIX HG, Inc. will not be responsible for alterations, additions, adjustments or repairs by others.

MATRIX HG, Inc. is not responsible for loss of business, food spoilage, delays or repairs caused or necessitated by damage due to freezing, flooding, fire, willful abuse, accidents, unusual weather exposure, strikes, lock-outs, acts of God or acts of Government.

Cost of corrections in the design or installation of equipment will be at Customer's expense.

MATRIX HG, Inc. is not responsible for labor, material and/or equipment required, or recommended by insurance companies, governmental agencies or codes, or union regulations.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **HEAT PUMPS**

Check cooling operation.
Check heating operation.
Check condenser surface, report on condition.
Check evaporator surface, report on condition.
Inspect condensate pan and drain trap if accessible. Blow out trap if cleanout is provided. Check supply fan or blower.
Check condenser fans.
Lubricate all accessible bearings as required.
Inspect and adjust drive belts, as needed. Inspect pulleys for wear.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors and safeties.
Make sure all panels are securely installed.
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check economizer operation, if applicable.
Check duct connections.
Check reversing valve operation
Check defrost controls and operation.

☑ **ROOF TOP PACKAGE UNITS**

Check cooling operation.
Check heating operation.
Check condenser surface, report on condition.
Check evaporator surface, report on condition.
Check supply fan or blower.
Check condenser fans.
Lubricate all accessible bearings as required.
Inspect and adjust drive belts, as needed. Inspect pulleys for wear.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors and safeties.
Make sure all panels are securely installed.
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check economizer operation, if applicable.
Check pilot igniter operation.
Check heat exchanger, visually.
Check safety controls.
Check vent motor.
Inspect fan wheel(s), if accessible.
Inspect fan unit mountings.
Inspect and clean drain pan if accessible. Blow out drain trap if cleanout is provided.
Inspect all exterior panels for correct installation and fit.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **STAND ALONE INDOOR AIR CONDITIONING UNIT**

Check cooler operation.
Brush coil surfaces as needed.
Check evaporator surface, report on condition.
Check supply fan.
Check condenser fans, if applicable.
Check condenser pump, if applicable.
Lubricate all accessible bearings, as required.
Inspect and adjust drive belts, as needed. Inspect pulleys for wear.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors, and safeties.
Make sure all panels are securely installed.
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check condensate pans if accessible. Blow out drain trap if cleanout is provided.
Check reheat/humidifier assembly for proper operation.
Check flow switch if applicable.

☐ **AIR HANDLERS/FAN COIL UNITS**

Inspect fan unit mountings.
Inspect drive belts and adjust as required. Inspect fan pulleys for wear.
Inspect and clean condensate pan and drain trap if accessible. Blow out trap if cleanout is provided.
Check evaporator surface, report on condition.
Check supply fan or blower. Lube bearings when accessible, as required.
Check voltage, amperage and electrical connections.
Make sure all panels are securely installed
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check duct connections.

☐ **FAN-POWERED VAV BOXES**

Replace air filters as per contract.
Test operations of controls, actuators, etc. Inspect contactors and relays.
Lubricate motor bearings as required.
Inspect fan wheels for cleanliness. Report on condition.
Inspect mounting bushings for wear.
Check and tighten electrical connections. Check voltages and amperages.

☐ **CENTRAL-STATION UNITS**

Lube bearings - as required.
Inspect fan wheel(s), if accessible
Inspect fan unit mountings.
Inspect unit flex connectors.
Inspect drive belts and adjust as required. Inspect fan pulleys for wear.
Inspect starters, contactors and controls.
Inspect condensate pan and drain trap if accessible. Blow out trap if cleanout is provided.
Check voltage, amperages and electrical connections.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **CONDENSING UNITS**

Check cooling and heating operation.
Check condenser surface, report on condition.
Check condenser fans.
Lubricate all accessible bearings as required.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors and safeties.
Make sure all panels are securely installed.
Visually check system for signs of leaks and piping integrity.
Check safety controls.

☑ **BOILERS - HOT WATER/STEAM - OPERATING INSPECTION**

Blow down boiler.
Check the auto-feeder.
Check the feeder strainer, clean if necessary.
Check and clean the gauge glass.
Check the low water device. Blow down as needed.
Inspect the pilot operation and safety controls.
Inspect the main burner condition and operation.
Check boiler time clock if applicable.
Check the safety relief valve.
Visually inspect boiler room piping.
Inspect water make-up and PRV.
Check boiler temperature and pressure.
Inspect the gas valves.
Inspect the flue and stack condition.
Log boiler service record.

☑ **FURNACES**

Check operation.
Visually inspect accessible areas of heat exchanger. Report on condition.
Check burners - clean if necessary.
Check controls and safeties.
Check filters - change as per contract.
Check blower motor.
Lubricate blower and motor.
Check and clean pilot and igniters.
Check accessible flue stack and cap.

☐ **WATER PUMPS**

Lubricate bearings as required.
Check reservoir oil level, add oil as required.
Check for water leaks.
Inspect pump coupling for wear and alignment.
Check mountings.
Check pump operating pressures as required.
Check for abnormal vibration or noise.
Check motor starter and tighten electrical connections.
Check voltages and amperages.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **COOLING TOWERS - OPERATING INSPECTION**
Check fan and motor bearings, lubricate as necessary.
Check belt tension and adjust if necessary.
Check and clean sump strainer screen.
Check spray distribution system.
Check spray eliminators for biological growth and rust.
Check operating water level in the pan and adjust float valve if required.
Check bleed-off rate and adjust if necessary.
Check fans and air inlet screens and remove any dirt or debris.

☐ **SUPPLY, RETURN, AND EXHAUST FANS**
Lube bearings - as required.
Inspect fan wheel(s), if accessible
Inspect fan unit mountings.
Inspect unit flex connectors.
Inspect drive belts and adjust as required.
Inspect fan pulleys for wear.
Inspect and clean drain pan if accessible and applicable.
Check motor starters and electrical connections.
Check voltages and amperages.

☐ **RECIPROCATING WATER/AIR-COOLED COMPRESSOR/CHILLERS–OPERATING INSPECTION**
Check oil level.
Check refrigerant charge.
Check operation.
Visually inspect for refrigerant leaks, check integrity of accessible refrigerant coils and lines.
Visually inspect integrity of accessible piping.
Log pressures, amperages, and temperatures.
Check operation of high and low pressure controls.
Check operation of safety controls.
Make adjustments as needed.

☐ **HELICAL-ROTARY CHILLERS - OPERATING INSPECTION**
Visually inspect starters and electrical connections.
Start chiller and monitor operation.
Check starter operations.
Check operating voltages and motor amperages.
Check the operation of the oil sump heaters and oil cooler circuit as applicable.
Check refrigerant and oil levels.
Log operating conditions and set point parameters.

☐ **CENTRIFUGAL CHILLERS - OPERATING INSPECTION**
Test purge operation.
Visually inspect starters and electrical connections.
Check oil sump heaters and oil cooler as applicable.
Start chiller and monitor operation.
Check starter operations and timing devices.
Check operating voltages and motor amperages.
Check refrigerant and oil levels.
Log operating conditions and set point parameters.

ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **ELECTRIC CONTROLS**
Check economizer damper system, lube as necessary.
Check static pressure relief damper operation and adjust.
Inspect electrical connections. Tighten as required.

☐ **PNEUMATIC CONTROLS**
Check economizer damper system, lube as necessary.
Check static pressure relief damper operation.
Check system temperature and pressure controls.

☐ **AIR COMPRESSORS**
Check operating cycle
Inspect belts and pulleys, adjust belts as needed.
Check oil level.
Check all air intake and main air filters at air station.
Test relief valve in low pressure line.
Test relief valve for high pressure tank.
Inspect motor starter contacts.
Check and tighten electrical connections. Check voltages and amperages.

☐ **REFRIGERATED AIR DRYER/AIR FILTRATION STATION**
Check refrigeration unit.
Check condenser coil, clean as required.
Check operating temperature, adjust as necessary.
Check automatic drain unit, clean as required.
Check electrical connections.

☐ **VARIABLE FREQUENCY DRIVES (VFD'S)**
Inspect field electrical connections.
Inspect internal cooling fans.
Inspect and clean internal air filters and inlet grills.
Check system operation.
Verify proper ventilation and operating temperatures.
Verify proper operation of set point controller and set points.
Verify proper operation of control input transmitter.
Verify proper sequencing of digital/analog outputs.
Measure voltage and amperage.
Test manual bypass option for proper operation.

☐ **BOILERS - ANNUAL INSPECTION**
Inspect feed water strainers and clean as needed.
Test operation of low water safety controls (float assemblies inspected only if waterside is opened).
Check boiler circulating pump. Lubricate bearings if applicable.
Check expansion and sight glass.
Test operation of operating and high limit controls, flow switches, safety controls, gas valves, etc.
Check accuracy of controls, thermometers and gauges.
Blow down the boiler and low water controls.
Perform visual inspection of external areas of heat exchange surfaces. Blow out with compressed air. Report on condition if severely sooted.
Inspect burners and refractory. Clean burners as required.

ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **BOILERS - ANNUAL INSPECTION (Continued)**

Inspect and clean or replace combustion air filters as applicable.
Inspect combustion and stack fan wheels for cleanliness. Clean as needed. Inspect flue stack condition and for obstructions.
Check condition of pilot assemblies and/or hot surface igniters. Clean pilot orifices as required. Measure HSI resistances and amperages. Measure flame signal and adjust for optimal flame detection.
Check and tighten electrical connections.
Start boiler and test operation.
Check gas, draft and air pressures as required per boiler manufacturer's specifications.
Perform combustion analysis.

☐ **HELICAL ROTARY/RECIPROCATING CHILLER ANNUAL**

Obtain an oil sample for laboratory oil analysis. Report to follow.
Remove condenser end plate and inspect tubes if applicable (additional cost if not included in contract).
Inspect air cooled condenser and condenser fan assemblies if applicable.
Leak test refrigerant and oil circuits.
Visually inspect chiller waterside for leaks.
Check the operation of the lubrication and oil recovery system as applicable.
Check oil filter(s) pressure drop. Report findings.
Check the operation of the oil sump heaters and oil cooler circuit as applicable.
Check, calibrate and set all safety and operating controls.
Megohm test compressor motor.
Inspect motor starter contacts. Inspect VFD.
Inspect and tighten electrical connections.
Start chiller and monitor operation.
check starter operations.
Check operating voltages and motor amperages.
Check refrigerant and oil levels.
Log operating conditions and set point parameters.

☐ **CENTRIFUGAL CHILLERS - ANNUAL INSPECTION**

Obtain an oil sample for laboratory oil analysis. Report to follow.
Change oil and oil filter (additional cost if not included in contract).
Service purge unit and test operations as applicable.
Remove condenser end plate and inspect tubes (additional cost if not included).
Mechanically clean condenser tubes (additional cost if not included).
Pressurize chiller (if necessary) and leak test refrigerant and oil circuits.
Visually inspect chiller waterside for leaks.
Replace refrigerant filter/drier cores as necessary.
Check the operation of the lubrication and oil recovery system as applicable.
Check the operation of the oil sump heaters and oil cooler circuit as applicable.
Lubricate vane shaft seals and linkages as necessary.
Check, calibrate and set all safety and operating controls.
Megohm test compressor and oil pump motor windings.
Inspect motor starter contacts/VFD, inspect and tighten electrical connections.
Start chiller and monitor operation.
Check starter operations, overloads and timing devices.
Check operating voltages and motor amperages.
Check refrigerant and oil levels, log operating conditions and set point parameters.

ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **COOLING TOWERS - ANNUAL INSPECTION**

Inspect and clean as necessary:

Sumps, spray nozzles and distribution system, strainers, heat transfer surfaces and mist eliminators.

Inspect interior surfaces for excessive corrosion and deterioration.

Inspect make up water system; valves, controls, etc. Check and adjust water level in sump if necessary.

Mechanical equipment inspections:

Inspect belts, bearings and sheaves. Tighten set screws on locking collars if applicable.

Adjust belt tension if necessary and check drive alignment.

Lubricate fan shaft bearings and motor adjustment bolts.

Check oil levels in gearboxes and split bearings if applicable.

Check the general condition of the fan blades or wheels as needed.

Electrical inspections:

Megger motors.

Check motor voltage, amperage and current.

Inspect starter contacts and/or variable frequency drives. Check and tighten high voltage electrical connections.

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Proposal Date:	5/26/16	Quote Number:	09-1325-2

Customer Name:	The City of Emeryville	Service Location:	Civic Center
Address:	1333 Park Ave	Address:	1333 Park Ave
City, State, Zip:	Emeryville, CA 94608	City, State, Zip:	Emeryville, CA 94608
Phone:	(510) 508-9895	Phone:	(707) 280-3596
Attn:	Rich Cunningham	Contact:	Jody Clark

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Service Frequency:
☐Monthly ☐Bi-Monthly ☑Quarterly ☐Tri-Annually ☐Semi-Annually ☐Annually

Comments:

The owner agrees to pay: $ 9392 Per year, to be invoiced at: $ 2348 Quarterly

Presented By:	Matrix HG, Inc.	Accepted By:	
Signed:	Cameron Edwards	Signed:	
Name:	Cameron Edwards	Name:	
Title:	Service Estimator	Title:	
Date:	5/26/16	Date:	

Customer Signature is Acceptance of Terms and Conditions. If date of commencement is not completed by customer, maintenance schedule will begin the first of the month following date of acceptance

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☐ Provided by customer and replaced by Matrix HG, Inc.

Type:	☐ Disposable	☑ High Efficiency	☐ Bag Type	☐ Charcoal Type
Frequency:	☐ Monthly	☐ Monthly	☐ Monthly	☐ Monthly
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MATRIX HG, Inc. is not responsible for loss of business, food spoilage, delays or repairs caused or necessitated by damage due to freezing, flooding, fire, willful abuse, accidents, unusual weather exposure, strikes, lock-outs, acts of God or acts of Government.

Cost of corrections in the design or installation of equipment will be at Customer's expense.

MATRIX HG, Inc. is not responsible for labor, material and/or equipment required, or recommended by insurance companies, governmental agencies or codes, or union regulations.

Heating • Air Conditioning
Energy Management
CA Lic# 812232

ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **HEAT PUMPS**

Check cooling operation.
Check heating operation.
Check condenser surface, report on condition.
Check evaporator surface, report on condition.
Inspect condensate pan and drain trap if accessible. Blow out trap if cleanout is provided. Check supply fan or blower.
Check condenser fans.
Lubricate all accessible bearings as required.
Inspect and adjust drive belts, as needed. Inspect pulleys for wear.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors and safeties.
Make sure all panels are securely installed.
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check economizer operation, if applicable.
Check duct connections.
Check reversing valve operation
Check defrost controls and operation.

☑ **ROOF TOP PACKAGE UNITS**

Check cooling operation.
Check heating operation.
Check condenser surface, report on condition.
Check evaporator surface, report on condition.
Check supply fan or blower.
Check condenser fans.
Lubricate all accessible bearings as required.
Inspect and adjust drive belts, as needed. Inspect pulleys for wear.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors and safeties.
Make sure all panels are securely installed.
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check economizer operation, if applicable.
Check pilot igniter operation.
Check heat exchanger, visually.
Check safety controls.
Check vent motor.
Inspect fan wheel(s), if accessible.
Inspect fan unit mountings.
Inspect and clean drain pan if accessible. Blow out drain trap if cleanout is provided.
Inspect all exterior panels for correct installation and fit.

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Heating • Air Conditioning
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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **STAND ALONE INDOOR AIR CONDITIONING UNIT**

Check cooler operation.
Brush coil surfaces as needed.
Check evaporator surface, report on condition.
Check supply fan.
Check condenser fans, if applicable.
Check condenser pump, if applicable.
Lubricate all accessible bearings, as required.
Inspect and adjust drive belts, as needed. Inspect pulleys for wear.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors, and safeties.
Make sure all panels are securely installed.
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check condensate pans if accessible. Blow out drain trap if cleanout is provided.
Check reheat/humidifier assembly for proper operation.
Check flow switch if applicable.

☑ **AIR HANDLERS/FAN COIL UNITS**

Inspect fan unit mountings.
Inspect drive belts and adjust as required. Inspect fan pulleys for wear.
Inspect and clean condensate pan and drain trap if accessible. Blow out trap if cleanout is provided.
Check evaporator surface, report on condition.
Check supply fan or blower. Lube bearings when accessible, as required.
Check voltage, amperage and electrical connections.
Make sure all panels are securely installed
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check duct connections.

☐ **FAN-POWERED VAV BOXES**

Replace air filters as per contract.
Test operations of controls, actuators, etc. Inspect contactors and relays.
Lubricate motor bearings as required.
Inspect fan wheels for cleanliness. Report on condition.
Inspect mounting bushings for wear.
Check and tighten electrical connections. Check voltages and amperages.

☐ **CENTRAL-STATION UNITS**

Lube bearings - as required.
Inspect fan wheel(s), if accessible
Inspect fan unit mountings.
Inspect unit flex connectors.
Inspect drive belts and adjust as required. Inspect fan pulleys for wear.
Inspect starters, contactors and controls.
Inspect condensate pan and drain trap if accessible. Blow out trap if cleanout is provided.
Check voltage, amperages and electrical connections.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☑ **CONDENSING UNITS**

Check cooling and heating operation.
Check condenser surface, report on condition.
Check condenser fans.
Lubricate all accessible bearings as required.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors and safeties.
Make sure all panels are securely installed.
Visually check system for signs of leaks and piping integrity.
Check safety controls.

☑ **BOILERS - HOT WATER/STEAM - OPERATING INSPECTION**

Blow down boiler.
Check the auto-feeder.
Check the feeder strainer, clean if necessary.
Check and clean the gauge glass.
Check the low water device. Blow down as needed.
Inspect the pilot operation and safety controls.
Inspect the main burner condition and operation.
Check boiler time clock if applicable.
Check the safety relief valve.
Visually inspect boiler room piping.
Inspect water make-up and PRV.
Check boiler temperature and pressure.
Inspect the gas valves.
Inspect the flue and stack condition.
Log boiler service record.

☐ **FURNACES**

Check operation.
Visually inspect accessible areas of heat exchanger. Report on condition.
Check burners - clean if necessary.
Check controls and safeties.
Check filters - change as per contract.
Check blower motor.
Lubricate blower and motor.
Check and clean pilot and igniters.
Check accessible flue stack and cap.

☑ **WATER PUMPS**

Lubricate bearings as required.
Check reservoir oil level, add oil as required.
Check for water leaks.
Inspect pump coupling for wear and alignment.
Check mountings.
Check pump operating pressures as required.
Check for abnormal vibration or noise.
Check motor starter and tighten electrical connections.
Check voltages and amperages.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **COOLING TOWERS - OPERATING INSPECTION**
Check fan and motor bearings, lubricate as necessary.
Check belt tension and adjust if necessary.
Check and clean sump strainer screen.
Check spray distribution system.
Check spray eliminators for biological growth and rust.
Check operating water level in the pan and adjust float valve if required.
Check bleed-off rate and adjust if necessary.
Check fans and air inlet screens and remove any dirt or debris.

☐ **SUPPLY, RETURN, AND EXHAUST FANS**
Lube bearings - as required.
Inspect fan wheel(s), if accessible
Inspect fan unit mountings.
Inspect unit flex connectors.
Inspect drive belts and adjust as required.
Inspect fan pulleys for wear.
Inspect and clean drain pan if accessible and applicable.
Check motor starters and electrical connections.
Check voltages and amperages.

☐ **RECIPROCATING WATER/AIR-COOLED COMPRESSOR/CHILLERS–OPERATING INSPECTION**
Check oil level.
Check refrigerant charge.
Check operation.
Visually inspect for refrigerant leaks, check integrity of accessible refrigerant coils and lines.
Visually inspect integrity of accessible piping.
Log pressures, amperages, and temperatures.
Check operation of high and low pressure controls.
Check operation of safety controls.
Make adjustments as needed.

☐ **HELICAL-ROTARY CHILLERS - OPERATING INSPECTION**
Visually inspect starters and electrical connections.
Start chiller and monitor operation.
Check starter operations.
Check operating voltages and motor amperages.
Check the operation of the oil sump heaters and oil cooler circuit as applicable.
Check refrigerant and oil levels.
Log operating conditions and set point parameters.

☐ **CENTRIFUGAL CHILLERS - OPERATING INSPECTION**
Test purge operation.
Visually inspect starters and electrical connections.
Check oil sump heaters and oil cooler as applicable.
Start chiller and monitor operation.
Check starter operations and timing devices.
Check operating voltages and motor amperages.
Check refrigerant and oil levels.
Log operating conditions and set point parameters.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **ELECTRIC CONTROLS**
Check economizer damper system, lube as necessary.
Check static pressure relief damper operation and adjust.
Inspect electrical connections. Tighten as required.

☐ **PNEUMATIC CONTROLS**
Check economizer damper system, lube as necessary.
Check static pressure relief damper operation.
Check system temperature and pressure controls.

☐ **AIR COMPRESSORS**
Check operating cycle
Inspect belts and pulleys, adjust belts as needed.
Check oil level.
Check all air intake and main air filters at air station.
Test relief valve in low pressure line.
Test relief valve for high pressure tank.
Inspect motor starter contacts.
Check and tighten electrical connections. Check voltages and amperages.

☐ **REFRIGERATED AIR DRYER/AIR FILTRATION STATION**
Check refrigeration unit.
Check condenser coil, clean as required.
Check operating temperature, adjust as necessary.
Check automatic drain unit, clean as required.
Check electrical connections.

☐ **VARIABLE FREQUENCY DRIVES (VFD'S)**
Inspect field electrical connections.
Inspect internal cooling fans.
Inspect and clean internal air filters and inlet grills.
Check system operation.
Verify proper ventilation and operating temperatures.
Verify proper operation of set point controller and set points.
Verify proper operation of control input transmitter.
Verify proper sequencing of digital/analog outputs.
Measure voltage and amperage.
Test manual bypass option for proper operation.

☑ **BOILERS - ANNUAL INSPECTION**
Inspect feed water strainers and clean as needed.
Test operation of low water safety controls (float assemblies inspected only if waterside is opened).
Check boiler circulating pump. Lubricate bearings if applicable.
Check expansion and sight glass.
Test operation of operating and high limit controls, flow switches, safety controls, gas valves, etc.
Check accuracy of controls, thermometers and gauges.
Blow down the boiler and low water controls.
Perform visual inspection of external areas of heat exchange surfaces. Blow out with compressed air. Report on condition if severely sooted.
Inspect burners and refractory. Clean burners as required.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☑ **BOILERS - ANNUAL INSPECTION (Continued)**

Inspect and clean or replace combustion air filters as applicable.
Inspect combustion and stack fan wheels for cleanliness. Clean as needed. Inspect flue stack condition and for obstructions.
Check condition of pilot assemblies and/or hot surface igniters. Clean pilot orifices as required. Measure HSI resistances and amperages. Measure flame signal and adjust for optimal flame detection.
Check and tighten electrical connections.
Start boiler and test operation.
Check gas, draft and air pressures as required per boiler manufacturer's specifications.
Perform combustion analysis.

☐ **HELICAL ROTARY/RECIPROCATING CHILLER ANNUAL**

Obtain an oil sample for laboratory oil analysis. Report to follow.
Remove condenser end plate and inspect tubes if applicable (additional cost if not included in contract).
Inspect air cooled condenser and condenser fan assemblies if applicable.
Leak test refrigerant and oil circuits.
Visually inspect chiller waterside for leaks.
Check the operation of the lubrication and oil recovery system as applicable.
Check oil filter(s) pressure drop. Report findings.
Check the operation of the oil sump heaters and oil cooler circuit as applicable.
Check, calibrate and set all safety and operating controls.
Megohm test compressor motor.
Inspect motor starter contacts. Inspect VFD.
Inspect and tighten electrical connections.
Start chiller and monitor operation.
check starter operations.
Check operating voltages and motor amperages.
Check refrigerant and oil levels.
Log operating conditions and set point parameters.

☐ **CENTRIFUGAL CHILLERS - ANNUAL INSPECTION**

Obtain an oil sample for laboratory oil analysis. Report to follow.
Change oil and oil filter (additional cost if not included in contract).
Service purge unit and test operations as applicable.
Remove condenser end plate and inspect tubes (additional cost if not included).
Mechanically clean condenser tubes (additional cost if not included).
Pressurize chiller (if necessary) and leak test refrigerant and oil circuits.
Visually inspect chiller waterside for leaks.
Replace refrigerant filter/drier cores as necessary.
Check the operation of the lubrication and oil recovery system as applicable.
Check the operation of the oil sump heaters and oil cooler circuit as applicable.
Lubricate vane shaft seals and linkages as necessary.
Check, calibrate and set all safety and operating controls.
Megohm test compressor and oil pump motor windings.
Inspect motor starter contacts/VFD, inspect and tighten electrical connections.
Start chiller and monitor operation.
Check starter operations, overloads and timing devices.
Check operating voltages and motor amperages.
Check refrigerant and oil levels, log operating conditions and set point parameters.

ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **COOLING TOWERS - ANNUAL INSPECTION**

Inspect and clean as necessary:

Sumps, spray nozzles and distribution system, strainers, heat transfer surfaces and mist eliminators.

Inspect interior surfaces for excessive corrosion and deterioration.

Inspect make up water system; valves, controls, etc. Check and adjust water level in sump if necessary.

Mechanical equipment inspections:

Inspect belts, bearings and sheaves. Tighten set screws on locking collars if applicable.

Adjust belt tension if necessary and check drive alignment.

Lubricate fan shaft bearings and motor adjustment bolts.

Check oil levels in gearboxes and split bearings if applicable.

Check the general condition of the fan blades or wheels as needed.

Electrical inspections:

Megger motors.

Check motor voltage, amperage and current.

Inspect starter contacts and/or variable frequency drives. Check and tighten high voltage electrical connections.

Heating • Air Conditioning
Energy Management
CA Lic# 812232

Proposal Date:	5/26/16	Quote Number:	09-1325-1

Customer Name:	The City of Emeryville	Service Location:	Fire Station #34
Address:	1333 Park Ave	Address:	2333 Powell Street
City, State, Zip:	Emeryville, CA 94608	City, State, Zip:	Emeryville, CA 94608
Phone:	(510) 508-9895	Phone:	(707) 280-3596
Attn:	Rich Cunningham	Contact:	Jody Clark

AGREEMENT FOR PERIODIC MAINTENANCE SERVICE

The maintenance is to consist of lubrication and necessary inspection as described in the Specifications for Periodic Maintenance (Attachment 'A'). The maintenance will be performed by a trained HVAC technician as outlined in page 2 of this agreement. **General Maintenance Tasks** to include the following:

- Check in with Customer upon arrival.
- Check and report any unusual noise or vibrations and repair if minor.
- Check general operation and condition of equipment.
- Maintain cleanliness of equipment.
- Report all work performed on both in-house log sheet and signed work orders.
- Notify customer of services or materials required to maintain systems in proper operating condition.
- Check out with customer when leaving the premises.

As a preventive maintenance customer you are entitled to the following services:

Dispatching Service: We are available 24 hours a day, 7 days a week.

Response Time: We make every effort to provide a (2) hour response time on emergency requirements during normal business hours (Monday through Friday, 8 am to 5 pm) and a (4) hour response time during non business hours and holidays.

Workmanship Guarantee: Any work performed by Matrix HG, Inc. is guaranteed to be free from defects in workmanship for a period of 30 days for labor and 90 days for parts. Labor and material repair cost for defective work will be at our expense.

Service Frequency:
☐Monthly ☐Bi-Monthly ☑Quarterly ☐Tri-Annually ☐Semi-Annually ☐Annually

Comments:

The owner agrees to pay: $ 3,988 Per year, to be invoiced at: $ 997 Quarterly

Presented By:	Matrix HG, Inc.	Accepted By:	
Signed:	Cameron Edwards	Signed:	
Name:	Cameron Edwards	Name:	
Title:	Service Estimator	Title:	
Date:	5/26/16	Date:	

Customer Signature is Acceptance of Terms and Conditions. If date of commencement is not completed by customer, maintenance schedule will begin the first of the month following date of acceptance

Heating • Air Conditioning
Energy Management
CA Lic# 812232

Proposal Date: 5/26/16 Quote Number: 09-1325-1

SCOPE OF SERVICES

EQUIPMENT SERVICED - OPERATING INSPECTIONS

- ☐ Heat Pumps
- ☑ Rooftop Package Units
- ☐ Stand Alone Indoor AC Units
- ☐ Air Handlers
- ☐ Fan Coils
- ☐ Central Station Units
- ☐ Condensing Units
- ☐ Boilers/Hot Water Heaters
- ☐ Furnaces
- ☐ Water Pumps
- ☐ Cooling Towers
- ☐ Supply, Return & Exhaust Fans
- ☐ Pneumatic / Electric Controls
- ☐ Variable Frequency Drives
- ☐ Reciprocating Air/Water-Cooled Compressors/Chillers
- ☐ Helical-Rotary Chillers
- ☐ Centrifugal Chillers

EQUIPMENT SERVICED - ANNUAL INSPECTIONS

- ☐ Boilers (includes water side)
- ☐ Boilers (excludes water side)
- ☐ Cooling Towers
- ☐ Centrifugal Chillers
- ☐ Helical-Rotary Chillers
- ☐ Chiller: Condenser Tube Brushing

EQUIPMENT SERVICED – COMMENTS:

AIR FILTERS

- ☑ Provided and replaced by Matrix HG, Inc.
- ☐ Provided by customer and replaced by Matrix HG, Inc.

Type:	☐ Disposable	☑ High Efficiency	☐ Bag Type	☐ Charcoal Type
Frequency:	☐ Monthly	☐ Monthly	☐ Monthly	☐ Monthly
	☐ Bi-Monthly	☐ Bi-Monthly	☐ Bi-Monthly	☐ Bi-Monthly
	☐ Quarterly	☑ Quarterly	☐ Quarterly	☐ Quarterly
	☐ Tri-Annually	☐ Tri-Annually	☐ Tri-Annually	☐ Tri-Annually
	☐ Semi-Annually	☐ Semi-Annually	☐ Semi-Annually	☐ Semi-Annually
	☐ Annually	☐ Annually	☐ Annually	☐ Annually

☐ Not included in contract ☐ Comments:

BELTS

Matrix HG, Inc. will inspect condition and replace when necessary as:

☐ Included in contract price ☑ Extra to contract price

WATER TREATMENT

Matrix HG, Inc. will inspect the chemical feed system serving the cooling tower, boiler, and/or water cooled condensing units and will add chemicals when necessary as:

☐ Included in contract price ☑ Extra to contract price ☐ Not required for this contract

CHEMICAL COIL CLEANING

Matrix HG, Inc. will chemically clean the condenser and/or evaporator coils annually as described below:

☐ Condenser Coils	☐ Evaporator coils
☑ Extra to contract price	☑ Extra to contract price
☐ Included in contract price	☐ Included in contract price

Heating • Air Conditioning
Energy Management
CA Lic# 812232

Proposal Date: 5/26/16 Quote Number: 09-1325-1

TERMS AND CONDITIONS

TERMS

This Agreement shall run from year-to-year; however, it may be cancelled or amended by either party upon thirty (30) days' written notice and is subject to the annual revision of prices.

No other Agreement expressed or implied oral or written, shall limit or qualify the terms of this Agreement unless evidenced by an additional written Agreement signed by both parties.

A delinquent charge of 1.5% per month will be applied on any past due amounts. In the event collections action is taken, the Customer shall be obligated for collection costs including reasonable attorney's fees and court costs.

This proposal is subject to credit approval by the Matrix HG Accounting Department.

Service Shall Commence: _____ Customer Initials: _____

To be Completed by Customer

CONDITIONS

All maintenance work will be scheduled by MATRIX HG, INC. at its discretion.
If a request for service or additional maintenance is made by Customer, Customer will be charged at standard labor rate per hour during normal working hours (8:00 – 4:30 p.m. Monday through Friday) and standard premium rate per hour for overtime, plus transportation charges and expenses.

Customer agrees to pay for any parts required under this Agreement other that those specifically included under Periodic Maintenance Service. The standard Company guarantee shall apply to all replacements parts. No warranty is made for loss refrigerant.

Customer shall provide effective air filter service and water treatment service if not included as Optional Maintenance Functions under this agreement.

It is further understood that reasonable access will be provided to equipment. Any modifications necessary to provide access to equipment will be at Customer's expense.

MATRIX HG, Inc. will not be responsible for alterations, additions, adjustments or repairs by others.

MATRIX HG, Inc. is not responsible for loss of business, food spoilage, delays or repairs caused or necessitated by damage due to freezing, flooding, fire, willful abuse, accidents, unusual weather exposure, strikes, lock-outs, acts of God or acts of Government.

Cost of corrections in the design or installation of equipment will be at Customer's expense.

MATRIX HG, Inc. is not responsible for labor, material and/or equipment required, or recommended by insurance companies, governmental agencies or codes, or union regulations.

Heating • Air Conditioning
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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **HEAT PUMPS**

Check cooling operation.
Check heating operation.
Check condenser surface, report on condition.
Check evaporator surface, report on condition.
Inspect condensate pan and drain trap if accessible. Blow out trap if cleanout is provided. Check supply fan or blower.
Check condenser fans.
Lubricate all accessible bearings as required.
Inspect and adjust drive belts, as needed. Inspect pulleys for wear.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors and safeties.
Make sure all panels are securely installed.
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check economizer operation, if applicable.
Check duct connections.
Check reversing valve operation
Check defrost controls and operation.

☑ **ROOF TOP PACKAGE UNITS**

Check cooling operation.
Check heating operation.
Check condenser surface, report on condition.
Check evaporator surface, report on condition.
Check supply fan or blower.
Check condenser fans.
Lubricate all accessible bearings as required.
Inspect and adjust drive belts, as needed. Inspect pulleys for wear.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors and safeties.
Make sure all panels are securely installed.
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check economizer operation, if applicable.
Check pilot igniter operation.
Check heat exchanger, visually.
Check safety controls.
Check vent motor.
Inspect fan wheel(s), if accessible.
Inspect fan unit mountings.
Inspect and clean drain pan if accessible. Blow out drain trap if cleanout is provided.
Inspect all exterior panels for correct installation and fit.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **STAND ALONE INDOOR AIR CONDITIONING UNIT**

Check cooler operation.
Brush coil surfaces as needed.
Check evaporator surface, report on condition.
Check supply fan.
Check condenser fans, if applicable.
Check condenser pump, if applicable.
Lubricate all accessible bearings, as required.
Inspect and adjust drive belts, as needed. Inspect pulleys for wear.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors, and safeties.
Make sure all panels are securely installed.
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check condensate pans if accessible. Blow out drain trap if cleanout is provided.
Check reheat/humidifier assembly for proper operation.
Check flow switch if applicable.

☐ **AIR HANDLERS/FAN COIL UNITS**

Inspect fan unit mountings.
Inspect drive belts and adjust as required. Inspect fan pulleys for wear.
Inspect and clean condensate pan and drain trap if accessible. Blow out trap if cleanout is provided.
Check evaporator surface, report on condition.
Check supply fan or blower. Lube bearings when accessible, as required.
Check voltage, amperage and electrical connections.
Make sure all panels are securely installed
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check duct connections.

☐ **FAN-POWERED VAV BOXES**

Replace air filters as per contract.
Test operations of controls, actuators, etc. Inspect contactors and relays.
Lubricate motor bearings as required.
Inspect fan wheels for cleanliness. Report on condition.
Inspect mounting bushings for wear.
Check and tighten electrical connections. Check voltages and amperages.

☐ **CENTRAL-STATION UNITS**

Lube bearings - as required.
Inspect fan wheel(s), if accessible
Inspect fan unit mountings.
Inspect unit flex connectors.
Inspect drive belts and adjust as required. Inspect fan pulleys for wear.
Inspect starters, contactors and controls.
Inspect condensate pan and drain trap if accessible. Blow out trap if cleanout is provided.
Check voltage, amperages and electrical connections.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **CONDENSING UNITS**

Check cooling and heating operation.
Check condenser surface, report on condition.
Check condenser fans.
Lubricate all accessible bearings as required.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors and safeties.
Make sure all panels are securely installed.
Visually check system for signs of leaks and piping integrity.
Check safety controls.

☐ **BOILERS - HOT WATER/STEAM - OPERATING INSPECTION**

Blow down boiler.
Check the auto-feeder.
Check the feeder strainer, clean if necessary.
Check and clean the gauge glass.
Check the low water device. Blow down as needed.
Inspect the pilot operation and safety controls.
Inspect the main burner condition and operation.
Check boiler time clock if applicable.
Check the safety relief valve.
Visually inspect boiler room piping.
Inspect water make-up and PRV.
Check boiler temperature and pressure.
Inspect the gas valves.
Inspect the flue and stack condition.
Log boiler service record.

☐ **FURNACES**

Check operation.
Visually inspect accessible areas of heat exchanger. Report on condition.
Check burners - clean if necessary.
Check controls and safeties.
Check filters - change as per contract.
Check blower motor.
Lubricate blower and motor.
Check and clean pilot and igniters.
Check accessible flue stack and cap.

☐ **WATER PUMPS**

Lubricate bearings as required.
Check reservoir oil level, add oil as required.
Check for water leaks.
Inspect pump coupling for wear and alignment.
Check mountings.
Check pump operating pressures as required.
Check for abnormal vibration or noise.
Check motor starter and tighten electrical connections.
Check voltages and amperages.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **COOLING TOWERS - OPERATING INSPECTION**
Check fan and motor bearings, lubricate as necessary.
Check belt tension and adjust if necessary.
Check and clean sump strainer screen.
Check spray distribution system.
Check spray eliminators for biological growth and rust.
Check operating water level in the pan and adjust float valve if required.
Check bleed-off rate and adjust if necessary.
Check fans and air inlet screens and remove any dirt or debris.

☐ **SUPPLY, RETURN, AND EXHAUST FANS**
Lube bearings - as required.
Inspect fan wheel(s), if accessible
Inspect fan unit mountings.
Inspect unit flex connectors.
Inspect drive belts and adjust as required.
Inspect fan pulleys for wear.
Inspect and clean drain pan if accessible and applicable.
Check motor starters and electrical connections.
Check voltages and amperages.

☐ **RECIPROCATING WATER/AIR-COOLED COMPRESSOR/CHILLERS–OPERATING INSPECTION**
Check oil level.
Check refrigerant charge.
Check operation.
Visually inspect for refrigerant leaks, check integrity of accessible refrigerant coils and lines.
Visually inspect integrity of accessible piping.
Log pressures, amperages, and temperatures.
Check operation of high and low pressure controls.
Check operation of safety controls.
Make adjustments as needed.

☐ **HELICAL-ROTARY CHILLERS - OPERATING INSPECTION**
Visually inspect starters and electrical connections.
Start chiller and monitor operation.
Check starter operations.
Check operating voltages and motor amperages.
Check the operation of the oil sump heaters and oil cooler circuit as applicable.
Check refrigerant and oil levels.
Log operating conditions and set point parameters.

☐ **CENTRIFUGAL CHILLERS - OPERATING INSPECTION**
Test purge operation.
Visually inspect starters and electrical connections.
Check oil sump heaters and oil cooler as applicable.
Start chiller and monitor operation.
Check starter operations and timing devices.
Check operating voltages and motor amperages.
Check refrigerant and oil levels.
Log operating conditions and set point parameters.

ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **ELECTRIC CONTROLS**
Check economizer damper system, lube as necessary.
Check static pressure relief damper operation and adjust.
Inspect electrical connections. Tighten as required.

☐ **PNEUMATIC CONTROLS**
Check economizer damper system, lube as necessary.
Check static pressure relief damper operation.
Check system temperature and pressure controls.

☐ **AIR COMPRESSORS**
Check operating cycle
Inspect belts and pulleys, adjust belts as needed.
Check oil level.
Check all air intake and main air filters at air station.
Test relief valve in low pressure line.
Test relief valve for high pressure tank.
Inspect motor starter contacts.
Check and tighten electrical connections. Check voltages and amperages.

☐ **REFRIGERATED AIR DRYER/AIR FILTRATION STATION**
Check refrigeration unit.
Check condenser coil, clean as required.
Check operating temperature, adjust as necessary.
Check automatic drain unit, clean as required.
Check electrical connections.

☐ **VARIABLE FREQUENCY DRIVES (VFD'S)**
Inspect field electrical connections.
Inspect internal cooling fans.
Inspect and clean internal air filters and inlet grills.
Check system operation.
Verify proper ventilation and operating temperatures.
Verify proper operation of set point controller and set points.
Verify proper operation of control input transmitter.
Verify proper sequencing of digital/analog outputs.
Measure voltage and amperage.
Test manual bypass option for proper operation.

☐ **BOILERS - ANNUAL INSPECTION**
Inspect feed water strainers and clean as needed.
Test operation of low water safety controls (float assemblies inspected only if waterside is opened).
Check boiler circulating pump. Lubricate bearings if applicable.
Check expansion and sight glass.
Test operation of operating and high limit controls, flow switches, safety controls, gas valves, etc.
Check accuracy of controls, thermometers and gauges.
Blow down the boiler and low water controls.
Perform visual inspection of external areas of heat exchange surfaces. Blow out with compressed air. Report on condition if severely sooted.
Inspect burners and refractory. Clean burners as required.

ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **BOILERS - ANNUAL INSPECTION (Continued)**

Inspect and clean or replace combustion air filters as applicable.
Inspect combustion and stack fan wheels for cleanliness. Clean as needed. Inspect flue stack condition and for obstructions.
Check condition of pilot assemblies and/or hot surface igniters. Clean pilot orifices as required. Measure HSI resistances and amperages. Measure flame signal and adjust for optimal flame detection.
Check and tighten electrical connections.
Start boiler and test operation.
Check gas, draft and air pressures as required per boiler manufacturer's specifications.
Perform combustion analysis.

☐ **HELICAL ROTARY/RECIPROCATING CHILLER ANNUAL**

Obtain an oil sample for laboratory oil analysis. Report to follow.
Remove condenser end plate and inspect tubes if applicable (additional cost if not included in contract).
Inspect air cooled condenser and condenser fan assemblies if applicable.
Leak test refrigerant and oil circuits.
Visually inspect chiller waterside for leaks.
Check the operation of the lubrication and oil recovery system as applicable.
Check oil filter(s) pressure drop. Report findings.
Check the operation of the oil sump heaters and oil cooler circuit as applicable.
Check, calibrate and set all safety and operating controls.
Megohm test compressor motor.
Inspect motor starter contacts. Inspect VFD.
Inspect and tighten electrical connections.
Start chiller and monitor operation.
check starter operations.
Check operating voltages and motor amperages.
Check refrigerant and oil levels.
Log operating conditions and set point parameters.

☐ **CENTRIFUGAL CHILLERS - ANNUAL INSPECTION**

Obtain an oil sample for laboratory oil analysis. Report to follow.
Change oil and oil filter (additional cost if not included in contract).
Service purge unit and test operations as applicable.
Remove condenser end plate and inspect tubes (additional cost if not included).
Mechanically clean condenser tubes (additional cost if not included).
Pressurize chiller (if necessary) and leak test refrigerant and oil circuits.
Visually inspect chiller waterside for leaks.
Replace refrigerant filter/drier cores as necessary.
Check the operation of the lubrication and oil recovery system as applicable.
Check the operation of the oil sump heaters and oil cooler circuit as applicable.
Lubricate vane shaft seals and linkages as necessary.
Check, calibrate and set all safety and operating controls.
Megohm test compressor and oil pump motor windings.
Inspect motor starter contacts/VFD, inspect and tighten electrical connections.
Start chiller and monitor operation.
Check starter operations, overloads and timing devices.
Check operating voltages and motor amperages.
Check refrigerant and oil levels, log operating conditions and set point parameters.

ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **COOLING TOWERS - ANNUAL INSPECTION**

Inspect and clean as necessary:

Sumps, spray nozzles and distribution system, strainers, heat transfer surfaces and mist eliminators.

Inspect interior surfaces for excessive corrosion and deterioration.

Inspect make up water system; valves, controls, etc. Check and adjust water level in sump if necessary.

Mechanical equipment inspections:

Inspect belts, bearings and sheaves. Tighten set screws on locking collars if applicable.

Adjust belt tension if necessary and check drive alignment.

Lubricate fan shaft bearings and motor adjustment bolts.

Check oil levels in gearboxes and split bearings if applicable.

Check the general condition of the fan blades or wheels as needed.

Electrical inspections:

Megger motors.

Check motor voltage, amperage and current.

Inspect starter contacts and/or variable frequency drives. Check and tighten high voltage electrical connections.

Heating • Air Conditioning
Energy Management
CA Lic# 812232

Proposal Date:	5/26/16	Quote Number:	09-1325-6

Customer Name:	The City of Emeryville	Service Location:	Fire Station #35
Address:	1333 Park Ave	Address:	6303 Hollis
City, State, Zip:	Emeryville, CA 94608	City, State, Zip:	Emeryville, CA 94608
Phone:	(510) 508-9895	Phone:	(707) 280-3596
Attn:	Rich Cunningham	Contact:	Jody Clark

AGREEMENT FOR PERIODIC MAINTENANCE SERVICE

The maintenance is to consist of lubrication and necessary inspection as described in the Specifications for Periodic Maintenance (Attachment 'A'). The maintenance will be performed by a trained HVAC technician as outlined in page 2 of this agreement. **General Maintenance Tasks** to include the following:

- Check in with Customer upon arrival.
- Check and report any unusual noise or vibrations and repair if minor.
- Check general operation and condition of equipment.
- Maintain cleanliness of equipment.
- Report all work performed on both in-house log sheet and signed work orders.
- Notify customer of services or materials required to maintain systems in proper operating condition.
- Check out with customer when leaving the premises.

As a preventive maintenance customer you are entitled to the following services:

Dispatching Service: We are available 24 hours a day, 7 days a week.

Response Time: We make every effort to provide a (2) hour response time on emergency requirements during normal business hours (Monday through Friday, 8 am to 5 pm) and a (4) hour response time during non business hours and holidays.

Workmanship Guarantee: Any work performed by Matrix HG, Inc. is guaranteed to be free from defects in workmanship for a period of 30 days for labor and 90 days for parts. Labor and material repair cost for defective work will be at our expense.

Service Frequency:
☐Monthly ☐Bi-Monthly ☑Quarterly ☐Tri-Annually ☐Semi-Annually ☐Annually

Comments:

The owner agrees to pay: $ 5,504 Per year, to be invoiced at: $ 1,376 Quarterly

Presented By:	Matrix HG, Inc.	Accepted By:	
Signed:	Cameron Edwards	Signed:	
Name:	Cameron Edwards	Name:	
Title:	Service Estimator	Title:	
Date:	5/26/16	Date:	

Customer Signature is Acceptance of Terms and Conditions. If date of commencement is not completed by customer, maintenance schedule will begin the first of the month following date of acceptance

Heating • Air Conditioning
Energy Management
CA Lic# 812232

Proposal Date: 5/26/16 Quote Number: 09-1325-6

SCOPE OF SERVICES

EQUIPMENT SERVICED - OPERATING INSPECTIONS

- ☐ Heat Pumps
- ☑ Rooftop Package Units
- ☐ Stand Alone Indoor AC Units
- ☐ Air Handlers
- ☐ Fan Coils
- ☐ Central Station Units
- ☐ Condensing Units
- ☐ Boilers/Hot Water Heaters
- ☑ Furnaces
- ☐ Water Pumps
- ☐ Cooling Towers
- ☐ Supply, Return & Exhaust Fans
- ☐ Pneumatic / Electric Controls
- ☐ Variable Frequency Drives
- ☐ Reciprocating Air/Water-Cooled Compressors/Chillers
- ☐ Helical-Rotary Chillers
- ☐ Centrifugal Chillers

EQUIPMENT SERVICED - ANNUAL INSPECTIONS

- ☐ Boilers (includes water side)
- ☐ Boilers (excludes water side)
- ☐ Cooling Towers
- ☐ Centrifugal Chillers
- ☐ Helical-Rotary Chillers
- ☐ Chiller: Condenser Tube Brushing

EQUIPMENT SERVICED – COMMENTS:

AIR FILTERS

- ☑ Provided and replaced by Matrix HG, Inc.
- ☐ Provided by customer and replaced by Matrix HG, Inc.

Type:	☐ Disposable	☑ High Efficiency	☐ Bag Type	☐ Charcoal Type
Frequency:	☐ Monthly	☐ Monthly	☐ Monthly	☐ Monthly
	☐ Bi-Monthly	☐ Bi-Monthly	☐ Bi-Monthly	☐ Bi-Monthly
	☐ Quarterly	☑ Quarterly	☐ Quarterly	☐ Quarterly
	☐ Tri-Annually	☐ Tri-Annually	☐ Tri-Annually	☐ Tri-Annually
	☐ Semi-Annually	☐ Semi-Annually	☐ Semi-Annually	☐ Semi-Annually
	☐ Annually	☐ Annually	☐ Annually	☐ Annually

☐ Not included in contract ☐ Comments:

BELTS

Matrix HG, Inc. will inspect condition and replace when necessary as:

☐ Included in contract price ☑ Extra to contract price

WATER TREATMENT

Matrix HG, Inc. will inspect the chemical feed system serving the cooling tower, boiler, and/or water cooled condensing units and will add chemicals when necessary as:

☐ Included in contract price ☑ Extra to contract price ☐ Not required for this contract

CHEMICAL COIL CLEANING

Matrix HG, Inc. will chemically clean the condenser and/or evaporator coils annually as described below:

☐ Condenser Coils	☐ Evaporator coils
☑ Extra to contract price	☑ Extra to contract price
☐ Included in contract price	☐ Included in contract price

Corporate Office:
115 Mason Circle, Suite B
Concord, CA 94520
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North Bay Office:
27 Pamaron Way, Suite E & F
Novato, CA 94949
PH: (707) 586-9200 • FX: (415) 382-9301

Heating • Air Conditioning
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Proposal Date: 5/26/16 Quote Number: 09-1325-6

TERMS AND CONDITIONS

TERMS

This Agreement shall run from year-to-year; however, it may be cancelled or amended by either party upon thirty (30) days' written notice and is subject to the annual revision of prices.

No other Agreement expressed or implied oral or written, shall limit or qualify the terms of this Agreement unless evidenced by an additional written Agreement signed by both parties.

A delinquent charge of 1.5% per month will be applied on any past due amounts. In the event collections action is taken, the Customer shall be obligated for collection costs including reasonable attorney's fees and court costs.

This proposal is subject to credit approval by the Matrix HG Accounting Department.

Service Shall Commence: _____ Customer Initials: _____

To be Completed by Customer

CONDITIONS

All maintenance work will be scheduled by MATRIX HG, INC. at its discretion.
If a request for service or additional maintenance is made by Customer, Customer will be charged at standard labor rate per hour during normal working hours (8:00 – 4:30 p.m. Monday through Friday) and standard premium rate per hour for overtime, plus transportation charges and expenses.

Customer agrees to pay for any parts required under this Agreement other that those specifically included under Periodic Maintenance Service. The standard Company guarantee shall apply to all replacements parts. No warranty is made for loss refrigerant.

Customer shall provide effective air filter service and water treatment service if not included as Optional Maintenance Functions under this agreement.

It is further understood that reasonable access will be provided to equipment. Any modifications necessary to provide access to equipment will be at Customer's expense.

MATRIX HG, Inc. will not be responsible for alterations, additions, adjustments or repairs by others.

MATRIX HG, Inc. is not responsible for loss of business, food spoilage, delays or repairs caused or necessitated by damage due to freezing, flooding, fire, willful abuse, accidents, unusual weather exposure, strikes, lock-outs, acts of God or acts of Government.

Cost of corrections in the design or installation of equipment will be at Customer's expense.

MATRIX HG, Inc. is not responsible for labor, material and/or equipment required, or recommended by insurance companies, governmental agencies or codes, or union regulations.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **HEAT PUMPS**

Check cooling operation.
Check heating operation.
Check condenser surface, report on condition.
Check evaporator surface, report on condition.
Inspect condensate pan and drain trap if accessible. Blow out trap if cleanout is provided. Check supply fan or blower.
Check condenser fans.
Lubricate all accessible bearings as required.
Inspect and adjust drive belts, as needed. Inspect pulleys for wear.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors and safeties.
Make sure all panels are securely installed.
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check economizer operation, if applicable.
Check duct connections.
Check reversing valve operation
Check defrost controls and operation.

☑ **ROOF TOP PACKAGE UNITS**

Check cooling operation.
Check heating operation.
Check condenser surface, report on condition.
Check evaporator surface, report on condition.
Check supply fan or blower.
Check condenser fans.
Lubricate all accessible bearings as required.
Inspect and adjust drive belts, as needed. Inspect pulleys for wear.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors and safeties.
Make sure all panels are securely installed.
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check economizer operation, if applicable.
Check pilot igniter operation.
Check heat exchanger, visually.
Check safety controls.
Check vent motor.
Inspect fan wheel(s), if accessible.
Inspect fan unit mountings.
Inspect and clean drain pan if accessible. Blow out drain trap if cleanout is provided.
Inspect all exterior panels for correct installation and fit.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **STAND ALONE INDOOR AIR CONDITIONING UNIT**

Check cooler operation.
Brush coil surfaces as needed.
Check evaporator surface, report on condition.
Check supply fan.
Check condenser fans, if applicable.
Check condenser pump, if applicable.
Lubricate all accessible bearings, as required.
Inspect and adjust drive belts, as needed. Inspect pulleys for wear.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors, and safeties.
Make sure all panels are securely installed.
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check condensate pans if accessible. Blow out drain trap if cleanout is provided.
Check reheat/humidifier assembly for proper operation.
Check flow switch if applicable.

☐ **AIR HANDLERS/FAN COIL UNITS**

Inspect fan unit mountings.
Inspect drive belts and adjust as required. Inspect fan pulleys for wear.
Inspect and clean condensate pan and drain trap if accessible. Blow out trap if cleanout is provided.
Check evaporator surface, report on condition.
Check supply fan or blower. Lube bearings when accessible, as required.
Check voltage, amperage and electrical connections.
Make sure all panels are securely installed
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check duct connections.

☐ **FAN-POWERED VAV BOXES**

Replace air filters as per contract.
Test operations of controls, actuators, etc. Inspect contactors and relays.
Lubricate motor bearings as required.
Inspect fan wheels for cleanliness. Report on condition.
Inspect mounting bushings for wear.
Check and tighten electrical connections. Check voltages and amperages.

☐ **CENTRAL-STATION UNITS**

Lube bearings - as required.
Inspect fan wheel(s), if accessible
Inspect fan unit mountings.
Inspect unit flex connectors.
Inspect drive belts and adjust as required. Inspect fan pulleys for wear.
Inspect starters, contactors and controls.
Inspect condensate pan and drain trap if accessible. Blow out trap if cleanout is provided.
Check voltage, amperages and electrical connections.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **CONDENSING UNITS**

Check cooling and heating operation.
Check condenser surface, report on condition.
Check condenser fans.
Lubricate all accessible bearings as required.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors and safeties.
Make sure all panels are securely installed.
Visually check system for signs of leaks and piping integrity.
Check safety controls.

☐ **BOILERS - HOT WATER/STEAM - OPERATING INSPECTION**

Blow down boiler.
Check the auto-feeder.
Check the feeder strainer, clean if necessary.
Check and clean the gauge glass.
Check the low water device. Blow down as needed.
Inspect the pilot operation and safety controls.
Inspect the main burner condition and operation.
Check boiler time clock if applicable.
Check the safety relief valve.
Visually inspect boiler room piping.
Inspect water make-up and PRV.
Check boiler temperature and pressure.
Inspect the gas valves.
Inspect the flue and stack condition.
Log boiler service record.

☑ **FURNACES**

Check operation.
Visually inspect accessible areas of heat exchanger. Report on condition.
Check burners - clean if necessary.
Check controls and safeties.
Check filters - change as per contract.
Check blower motor.
Lubricate blower and motor.
Check and clean pilot and igniters.
Check accessible flue stack and cap.

☐ **WATER PUMPS**

Lubricate bearings as required.
Check reservoir oil level, add oil as required.
Check for water leaks.
Inspect pump coupling for wear and alignment.
Check mountings.
Check pump operating pressures as required.
Check for abnormal vibration or noise.
Check motor starter and tighten electrical connections.
Check voltages and amperages.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **COOLING TOWERS - OPERATING INSPECTION**
Check fan and motor bearings, lubricate as necessary.
Check belt tension and adjust if necessary.
Check and clean sump strainer screen.
Check spray distribution system.
Check spray eliminators for biological growth and rust.
Check operating water level in the pan and adjust float valve if required.
Check bleed-off rate and adjust if necessary.
Check fans and air inlet screens and remove any dirt or debris.

☐ **SUPPLY, RETURN, AND EXHAUST FANS**
Lube bearings - as required.
Inspect fan wheel(s), if accessible
Inspect fan unit mountings.
Inspect unit flex connectors.
Inspect drive belts and adjust as required.
Inspect fan pulleys for wear.
Inspect and clean drain pan if accessible and applicable.
Check motor starters and electrical connections.
Check voltages and amperages.

☐ **RECIPROCATING WATER/AIR-COOLED COMPRESSOR/CHILLERS–OPERATING INSPECTION**
Check oil level.
Check refrigerant charge.
Check operation.
Visually inspect for refrigerant leaks, check integrity of accessible refrigerant coils and lines.
Visually inspect integrity of accessible piping.
Log pressures, amperages, and temperatures.
Check operation of high and low pressure controls.
Check operation of safety controls.
Make adjustments as needed.

☐ **HELICAL-ROTARY CHILLERS - OPERATING INSPECTION**
Visually inspect starters and electrical connections.
Start chiller and monitor operation.
Check starter operations.
Check operating voltages and motor amperages.
Check the operation of the oil sump heaters and oil cooler circuit as applicable.
Check refrigerant and oil levels.
Log operating conditions and set point parameters.

☐ **CENTRIFUGAL CHILLERS - OPERATING INSPECTION**
Test purge operation.
Visually inspect starters and electrical connections.
Check oil sump heaters and oil cooler as applicable.
Start chiller and monitor operation.
Check starter operations and timing devices.
Check operating voltages and motor amperages.
Check refrigerant and oil levels.
Log operating conditions and set point parameters.

ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **ELECTRIC CONTROLS**
Check economizer damper system, lube as necessary.
Check static pressure relief damper operation and adjust.
Inspect electrical connections. Tighten as required.

☐ **PNEUMATIC CONTROLS**
Check economizer damper system, lube as necessary.
Check static pressure relief damper operation.
Check system temperature and pressure controls.

☐ **AIR COMPRESSORS**
Check operating cycle
Inspect belts and pulleys, adjust belts as needed.
Check oil level.
Check all air intake and main air filters at air station.
Test relief valve in low pressure line.
Test relief valve for high pressure tank.
Inspect motor starter contacts.
Check and tighten electrical connections. Check voltages and amperages.

☐ **REFRIGERATED AIR DRYER/AIR FILTRATION STATION**
Check refrigeration unit.
Check condenser coil, clean as required.
Check operating temperature, adjust as necessary.
Check automatic drain unit, clean as required.
Check electrical connections.

☐ **VARIABLE FREQUENCY DRIVES (VFD'S)**
Inspect field electrical connections.
Inspect internal cooling fans.
Inspect and clean internal air filters and inlet grills.
Check system operation.
Verify proper ventilation and operating temperatures.
Verify proper operation of set point controller and set points.
Verify proper operation of control input transmitter.
Verify proper sequencing of digital/analog outputs.
Measure voltage and amperage.
Test manual bypass option for proper operation.

☐ **BOILERS - ANNUAL INSPECTION**
Inspect feed water strainers and clean as needed.
Test operation of low water safety controls (float assemblies inspected only if waterside is opened).
Check boiler circulating pump. Lubricate bearings if applicable.
Check expansion and sight glass.
Test operation of operating and high limit controls, flow switches, safety controls, gas valves, etc.
Check accuracy of controls, thermometers and gauges.
Blow down the boiler and low water controls.
Perform visual inspection of external areas of heat exchange surfaces. Blow out with compressed air. Report on condition if severely sooted.
Inspect burners and refractory. Clean burners as required.

ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **BOILERS - ANNUAL INSPECTION (Continued)**

Inspect and clean or replace combustion air filters as applicable.
Inspect combustion and stack fan wheels for cleanliness. Clean as needed. Inspect flue stack condition and for obstructions.
Check condition of pilot assemblies and/or hot surface igniters. Clean pilot orifices as required. Measure HSI resistances and amperages. Measure flame signal and adjust for optimal flame detection.
Check and tighten electrical connections.
Start boiler and test operation.
Check gas, draft and air pressures as required per boiler manufacturer's specifications.
Perform combustion analysis.

☐ **HELICAL ROTARY/RECIPROCATING CHILLER ANNUAL**

Obtain an oil sample for laboratory oil analysis. Report to follow.
Remove condenser end plate and inspect tubes if applicable (additional cost if not included in contract).
Inspect air cooled condenser and condenser fan assemblies if applicable.
Leak test refrigerant and oil circuits.
Visually inspect chiller waterside for leaks.
Check the operation of the lubrication and oil recovery system as applicable.
Check oil filter(s) pressure drop. Report findings.
Check the operation of the oil sump heaters and oil cooler circuit as applicable.
Check, calibrate and set all safety and operating controls.
Megohm test compressor motor.
Inspect motor starter contacts. Inspect VFD.
Inspect and tighten electrical connections.
Start chiller and monitor operation.
check starter operations.
Check operating voltages and motor amperages.
Check refrigerant and oil levels.
Log operating conditions and set point parameters.

☐ **CENTRIFUGAL CHILLERS - ANNUAL INSPECTION**

Obtain an oil sample for laboratory oil analysis. Report to follow.
Change oil and oil filter (additional cost if not included in contract).
Service purge unit and test operations as applicable.
Remove condenser end plate and inspect tubes (additional cost if not included).
Mechanically clean condenser tubes (additional cost if not included).
Pressurize chiller (if necessary) and leak test refrigerant and oil circuits.
Visually inspect chiller waterside for leaks.
Replace refrigerant filter/drier cores as necessary.
Check the operation of the lubrication and oil recovery system as applicable.
Check the operation of the oil sump heaters and oil cooler circuit as applicable.
Lubricate vane shaft seals and linkages as necessary.
Check, calibrate and set all safety and operating controls.
Megohm test compressor and oil pump motor windings.
Inspect motor starter contacts/VFD, inspect and tighten electrical connections.
Start chiller and monitor operation.
Check starter operations, overloads and timing devices.
Check operating voltages and motor amperages.
Check refrigerant and oil levels, log operating conditions and set point parameters.

ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **COOLING TOWERS - ANNUAL INSPECTION**

Inspect and clean as necessary:

Sumps, spray nozzles and distribution system, strainers, heat transfer surfaces and mist eliminators.

Inspect interior surfaces for excessive corrosion and deterioration.

Inspect make up water system; valves, controls, etc. Check and adjust water level in sump if necessary.

Mechanical equipment inspections:

Inspect belts, bearings and sheaves. Tighten set screws on locking collars if applicable.

Adjust belt tension if necessary and check drive alignment.

Lubricate fan shaft bearings and motor adjustment bolts.

Check oil levels in gearboxes and split bearings if applicable.

Check the general condition of the fan blades or wheels as needed.

Electrical inspections:

Megger motors.

Check motor voltage, amperage and current.

Inspect starter contacts and/or variable frequency drives. Check and tighten high voltage electrical connections.

Heating • Air Conditioning
Energy Management
CA Lic# 812232

Proposal Date:	5/26/16	Quote Number:	09-1325-8

Customer Name:	The City of Emeryville	Service Location:	Police Station
Address:	1333 Park Ave	Address:	3310 Powell Street
City, State, Zip:	Emeryville, CA 94608	City, State, Zip:	Emeryville, CA 94608
Phone:	(510) 508-9895	Phone:	(707) 280-3596
Attn:	Rich Cunningham	Contact:	Jody Clark

AGREEMENT FOR PERIODIC MAINTENANCE SERVICE

The maintenance is to consist of lubrication and necessary inspection as described in the Specifications for Periodic Maintenance (Attachment 'A'). The maintenance will be performed by a trained HVAC technician as outlined in page 2 of this agreement. **General Maintenance Tasks** to include the following:

- Check in with Customer upon arrival.
- Check and report any unusual noise or vibrations and repair if minor.
- Check general operation and condition of equipment.
- Maintain cleanliness of equipment.
- Report all work performed on both in-house log sheet and signed work orders.
- Notify customer of services or materials required to maintain systems in proper operating condition.
- Check out with customer when leaving the premises.

As a preventive maintenance customer you are entitled to the following services:

Dispatching Service: We are available 24 hours a day, 7 days a week.

Response Time: We make every effort to provide a (2) hour response time on emergency requirements during normal business hours (Monday through Friday, 8 am to 5 pm) and a (4) hour response time during non business hours and holidays.

Workmanship Guarantee: Any work performed by Matrix HG, Inc. is guaranteed to be free from defects in workmanship for a period of 30 days for labor and 90 days for parts. Labor and material repair cost for defective work will be at our expense.

Service Frequency:
☐Monthly ☐Bi-Monthly ☑Quarterly ☐Tri-Annually ☐Semi-Annually ☐Annually

Comments:

The owner agrees to pay: $ 7,716 Per year, to be invoiced at: $ 1,929 Quarterly

Presented By:	Matrix HG, Inc.	Accepted By:	
Signed:	Cameron Edwards	Signed:	
Name:	Cameron Edwards	Name:	
Title:	Service Estimator	Title:	
Date:	5/26/16	Date:	

Customer Signature is Acceptance of Terms and Conditions. If date of commencement is not completed by customer, maintenance schedule will begin the first of the month following date of acceptance

Corporate Office:
115 Mason Circle, Suite B
Concord, CA 94520
PH: (925) 459-9200 • FX: (925) 459-9220

North Bay Office:
27 Pamaron Way, Suite E & F
Novato, CA 94949
PH: (707) 586-9200 • FX: (415) 382-9301

Heating • Air Conditioning
Energy Management
CA Lic# 812232

Proposal Date: 5/26/16 Quote Number: 09-1325-8

SCOPE OF SERVICES

EQUIPMENT SERVICED - OPERATING INSPECTIONS

- ☐ Heat Pumps
- ☐ Rooftop Package Units
- ☐ Stand Alone Indoor AC Units
- ☑ Air Handlers
- ☐ Fan Coils
- ☐ Central Station Units
- ☐ Condensing Units
- ☐ Boilers/Hot Water Heaters
- ☐ Furnaces
- ☐ Water Pumps
- ☐ Cooling Towers
- ☐ Supply, Return & Exhaust Fans
- ☐ Pneumatic / Electric Controls
- ☐ Variable Frequency Drives
- ☐ Reciprocating Air/Water-Cooled Compressors/Chillers
- ☐ Helical-Rotary Chillers
- ☐ Centrifugal Chillers

EQUIPMENT SERVICED - ANNUAL INSPECTIONS

- ☐ Boilers (includes water side)
- ☐ Boilers (excludes water side)
- ☐ Cooling Towers
- ☐ Centrifugal Chillers
- ☐ Helical-Rotary Chillers
- ☐ Chiller: Condenser Tube Brushing

EQUIPMENT SERVICED – COMMENTS:

AIR FILTERS

☑ Provided and replaced by Matrix HG, Inc.
☐ Provided by customer and replaced by Matrix HG, Inc.

Type:	☐ Disposable	☑ High Efficiency	☐ Bag Type	☐ Charcoal Type
Frequency:	☐ Monthly	☐ Monthly	☐ Monthly	☐ Monthly
	☐ Bi-Monthly	☐ Bi-Monthly	☐ Bi-Monthly	☐ Bi-Monthly
	☐ Quarterly	☑ Quarterly	☐ Quarterly	☐ Quarterly
	☐ Tri-Annually	☐ Tri-Annually	☐ Tri-Annually	☐ Tri-Annually
	☐ Semi-Annually	☐ Semi-Annually	☐ Semi-Annually	☐ Semi-Annually
	☐ Annually	☐ Annually	☐ Annually	☐ Annually

☐ Not included in contract ☐ Comments:

BELTS

Matrix HG, Inc. will inspect condition and replace when necessary as:

☐ Included in contract price ☑ Extra to contract price

WATER TREATMENT

Matrix HG, Inc. will inspect the chemical feed system serving the cooling tower, boiler, and/or water cooled condensing units and will add chemicals when necessary as:

☐ Included in contract price ☑ Extra to contract price ☐ Not required for this contract

CHEMICAL COIL CLEANING

Matrix HG, Inc. will chemically clean the condenser and/or evaporator coils annually as described below:

☐ Condenser Coils	☐ Evaporator coils
☑ Extra to contract price	☑ Extra to contract price
☐ Included in contract price	☐ Included in contract price

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Heating • Air Conditioning
Energy Management
CA Lic# 812232

Proposal Date: 5/26/16 Quote Number: 09-1325-8

TERMS AND CONDITIONS

TERMS

This Agreement shall run from year-to-year; however, it may be cancelled or amended by either party upon thirty (30) days' written notice and is subject to the annual revision of prices.

No other Agreement expressed or implied oral or written, shall limit or qualify the terms of this Agreement unless evidenced by an additional written Agreement signed by both parties.

A delinquent charge of 1.5% per month will be applied on any past due amounts. In the event collections action is taken, the Customer shall be obligated for collection costs including reasonable attorney's fees and court costs.

This proposal is subject to credit approval by the Matrix HG Accounting Department.

Service Shall Commence: _____ Customer Initials: _____

To be Completed by Customer

CONDITIONS

All maintenance work will be scheduled by MATRIX HG, INC. at its discretion.
If a request for service or additional maintenance is made by Customer, Customer will be charged at standard labor rate per hour during normal working hours (8:00 – 4:30 p.m. Monday through Friday) and standard premium rate per hour for overtime, plus transportation charges and expenses.

Customer agrees to pay for any parts required under this Agreement other that those specifically included under Periodic Maintenance Service. The standard Company guarantee shall apply to all replacements parts. No warranty is made for loss refrigerant.

Customer shall provide effective air filter service and water treatment service if not included as Optional Maintenance Functions under this agreement.

It is further understood that reasonable access will be provided to equipment. Any modifications necessary to provide access to equipment will be at Customer's expense.

MATRIX HG, Inc. will not be responsible for alterations, additions, adjustments or repairs by others.

MATRIX HG, Inc. is not responsible for loss of business, food spoilage, delays or repairs caused or necessitated by damage due to freezing, flooding, fire, willful abuse, accidents, unusual weather exposure, strikes, lock-outs, acts of God or acts of Government.

Cost of corrections in the design or installation of equipment will be at Customer's expense.

MATRIX HG, Inc. is not responsible for labor, material and/or equipment required, or recommended by insurance companies, governmental agencies or codes, or union regulations.

Heating • Air Conditioning
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CA Lic# 812232

ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **HEAT PUMPS**

Check cooling operation.
Check heating operation.
Check condenser surface, report on condition.
Check evaporator surface, report on condition.
Inspect condensate pan and drain trap if accessible. Blow out trap if cleanout is provided. Check supply fan or blower.
Check condenser fans.
Lubricate all accessible bearings as required.
Inspect and adjust drive belts, as needed. Inspect pulleys for wear.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors and safeties.
Make sure all panels are securely installed.
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check economizer operation, if applicable.
Check duct connections.
Check reversing valve operation
Check defrost controls and operation.

☑ **ROOF TOP PACKAGE UNITS**

Check cooling operation.
Check heating operation.
Check condenser surface, report on condition.
Check evaporator surface, report on condition.
Check supply fan or blower.
Check condenser fans.
Lubricate all accessible bearings as required.
Inspect and adjust drive belts, as needed. Inspect pulleys for wear.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors and safeties.
Make sure all panels are securely installed.
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check economizer operation, if applicable.
Check pilot igniter operation.
Check heat exchanger, visually.
Check safety controls.
Check vent motor.
Inspect fan wheel(s), if accessible.
Inspect fan unit mountings.
Inspect and clean drain pan if accessible. Blow out drain trap if cleanout is provided.
Inspect all exterior panels for correct installation and fit.

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Heating • Air Conditioning
Energy Management
CA Lic# 812232

ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **STAND ALONE INDOOR AIR CONDITIONING UNIT**

Check cooler operation.
Brush coil surfaces as needed.
Check evaporator surface, report on condition.
Check supply fan.
Check condenser fans, if applicable.
Check condenser pump, if applicable.
Lubricate all accessible bearings, as required.
Inspect and adjust drive belts, as needed. Inspect pulleys for wear.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors, and safeties.
Make sure all panels are securely installed.
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check condensate pans if accessible. Blow out drain trap if cleanout is provided.
Check reheat/humidifier assembly for proper operation.
Check flow switch if applicable.

☐ **AIR HANDLERS/FAN COIL UNITS**

Inspect fan unit mountings.
Inspect drive belts and adjust as required. Inspect fan pulleys for wear.
Inspect and clean condensate pan and drain trap if accessible. Blow out trap if cleanout is provided.
Check evaporator surface, report on condition.
Check supply fan or blower. Lube bearings when accessible, as required.
Check voltage, amperage and electrical connections.
Make sure all panels are securely installed
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check duct connections.

☐ **FAN-POWERED VAV BOXES**

Replace air filters as per contract.
Test operations of controls, actuators, etc. Inspect contactors and relays.
Lubricate motor bearings as required.
Inspect fan wheels for cleanliness. Report on condition.
Inspect mounting bushings for wear.
Check and tighten electrical connections. Check voltages and amperages.

☐ **CENTRAL-STATION UNITS**

Lube bearings - as required.
Inspect fan wheel(s), if accessible
Inspect fan unit mountings.
Inspect unit flex connectors.
Inspect drive belts and adjust as required. Inspect fan pulleys for wear.
Inspect starters, contactors and controls.
Inspect condensate pan and drain trap if accessible. Blow out trap if cleanout is provided.
Check voltage, amperages and electrical connections.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **CONDENSING UNITS**

Check cooling and heating operation.
Check condenser surface, report on condition.
Check condenser fans.
Lubricate all accessible bearings as required.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors and safeties.
Make sure all panels are securely installed.
Visually check system for signs of leaks and piping integrity.
Check safety controls.

☐ **BOILERS - HOT WATER/STEAM - OPERATING INSPECTION**

Blow down boiler.
Check the auto-feeder.
Check the feeder strainer, clean if necessary.
Check and clean the gauge glass.
Check the low water device. Blow down as needed.
Inspect the pilot operation and safety controls.
Inspect the main burner condition and operation.
Check boiler time clock if applicable.
Check the safety relief valve.
Visually inspect boiler room piping.
Inspect water make-up and PRV.
Check boiler temperature and pressure.
Inspect the gas valves.
Inspect the flue and stack condition.
Log boiler service record.

☐ **FURNACES**

Check operation.
Visually inspect accessible areas of heat exchanger. Report on condition.
Check burners - clean if necessary.
Check controls and safeties.
Check filters - change as per contract.
Check blower motor.
Lubricate blower and motor.
Check and clean pilot and igniters.
Check accessible flue stack and cap.

☐ **WATER PUMPS**

Lubricate bearings as required.
Check reservoir oil level, add oil as required.
Check for water leaks.
Inspect pump coupling for wear and alignment.
Check mountings.
Check pump operating pressures as required.
Check for abnormal vibration or noise.
Check motor starter and tighten electrical connections.
Check voltages and amperages.

Heating • Air Conditioning
Energy Management
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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **COOLING TOWERS - OPERATING INSPECTION**
Check fan and motor bearings, lubricate as necessary.
Check belt tension and adjust if necessary.
Check and clean sump strainer screen.
Check spray distribution system.
Check spray eliminators for biological growth and rust.
Check operating water level in the pan and adjust float valve if required.
Check bleed-off rate and adjust if necessary.
Check fans and air inlet screens and remove any dirt or debris.

☐ **SUPPLY, RETURN, AND EXHAUST FANS**
Lube bearings - as required.
Inspect fan wheel(s), if accessible
Inspect fan unit mountings.
Inspect unit flex connectors.
Inspect drive belts and adjust as required.
Inspect fan pulleys for wear.
Inspect and clean drain pan if accessible and applicable.
Check motor starters and electrical connections.
Check voltages and amperages.

☐ **RECIPROCATING WATER/AIR-COOLED COMPRESSOR/CHILLERS–OPERATING INSPECTION**
Check oil level.
Check refrigerant charge.
Check operation.
Visually inspect for refrigerant leaks, check integrity of accessible refrigerant coils and lines.
Visually inspect integrity of accessible piping.
Log pressures, amperages, and temperatures.
Check operation of high and low pressure controls.
Check operation of safety controls.
Make adjustments as needed.

☐ **HELICAL-ROTARY CHILLERS - OPERATING INSPECTION**
Visually inspect starters and electrical connections.
Start chiller and monitor operation.
Check starter operations.
Check operating voltages and motor amperages.
Check the operation of the oil sump heaters and oil cooler circuit as applicable.
Check refrigerant and oil levels.
Log operating conditions and set point parameters.

☐ **CENTRIFUGAL CHILLERS - OPERATING INSPECTION**
Test purge operation.
Visually inspect starters and electrical connections.
Check oil sump heaters and oil cooler as applicable.
Start chiller and monitor operation.
Check starter operations and timing devices.
Check operating voltages and motor amperages.
Check refrigerant and oil levels.
Log operating conditions and set point parameters.

ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **ELECTRIC CONTROLS**
Check economizer damper system, lube as necessary.
Check static pressure relief damper operation and adjust.
Inspect electrical connections. Tighten as required.

☐ **PNEUMATIC CONTROLS**
Check economizer damper system, lube as necessary.
Check static pressure relief damper operation.
Check system temperature and pressure controls.

☐ **AIR COMPRESSORS**
Check operating cycle
Inspect belts and pulleys, adjust belts as needed.
Check oil level.
Check all air intake and main air filters at air station.
Test relief valve in low pressure line.
Test relief valve for high pressure tank.
Inspect motor starter contacts.
Check and tighten electrical connections. Check voltages and amperages.

☐ **REFRIGERATED AIR DRYER/AIR FILTRATION STATION**
Check refrigeration unit.
Check condenser coil, clean as required.
Check operating temperature, adjust as necessary.
Check automatic drain unit, clean as required.
Check electrical connections.

☐ **VARIABLE FREQUENCY DRIVES (VFD'S)**
Inspect field electrical connections.
Inspect internal cooling fans.
Inspect and clean internal air filters and inlet grills.
Check system operation.
Verify proper ventilation and operating temperatures.
Verify proper operation of set point controller and set points.
Verify proper operation of control input transmitter.
Verify proper sequencing of digital/analog outputs.
Measure voltage and amperage.
Test manual bypass option for proper operation.

☐ **BOILERS - ANNUAL INSPECTION**
Inspect feed water strainers and clean as needed.
Test operation of low water safety controls (float assemblies inspected only if waterside is opened).
Check boiler circulating pump. Lubricate bearings if applicable.
Check expansion and sight glass.
Test operation of operating and high limit controls, flow switches, safety controls, gas valves, etc.
Check accuracy of controls, thermometers and gauges.
Blow down the boiler and low water controls.
Perform visual inspection of external areas of heat exchange surfaces. Blow out with compressed air. Report on condition if severely sooted.
Inspect burners and refractory. Clean burners as required.

ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **BOILERS - ANNUAL INSPECTION (Continued)**

Inspect and clean or replace combustion air filters as applicable.
Inspect combustion and stack fan wheels for cleanliness. Clean as needed. Inspect flue stack condition and for obstructions.
Check condition of pilot assemblies and/or hot surface igniters. Clean pilot orifices as required. Measure HSI resistances and amperages. Measure flame signal and adjust for optimal flame detection.
Check and tighten electrical connections.
Start boiler and test operation.
Check gas, draft and air pressures as required per boiler manufacturer's specifications.
Perform combustion analysis.

☐ **HELICAL ROTARY/RECIPROCATING CHILLER ANNUAL**

Obtain an oil sample for laboratory oil analysis. Report to follow.
Remove condenser end plate and inspect tubes if applicable (additional cost if not included in contract).
Inspect air cooled condenser and condenser fan assemblies if applicable.
Leak test refrigerant and oil circuits.
Visually inspect chiller waterside for leaks.
Check the operation of the lubrication and oil recovery system as applicable.
Check oil filter(s) pressure drop. Report findings.
Check the operation of the oil sump heaters and oil cooler circuit as applicable.
Check, calibrate and set all safety and operating controls.
Megohm test compressor motor.
Inspect motor starter contacts. Inspect VFD.
Inspect and tighten electrical connections.
Start chiller and monitor operation.
check starter operations.
Check operating voltages and motor amperages.
Check refrigerant and oil levels.
Log operating conditions and set point parameters.

☐ **CENTRIFUGAL CHILLERS - ANNUAL INSPECTION**

Obtain an oil sample for laboratory oil analysis. Report to follow.
Change oil and oil filter (additional cost if not included in contract).
Service purge unit and test operations as applicable.
Remove condenser end plate and inspect tubes (additional cost if not included).
Mechanically clean condenser tubes (additional cost if not included).
Pressurize chiller (if necessary) and leak test refrigerant and oil circuits.
Visually inspect chiller waterside for leaks.
Replace refrigerant filter/drier cores as necessary.
Check the operation of the lubrication and oil recovery system as applicable.
Check the operation of the oil sump heaters and oil cooler circuit as applicable.
Lubricate vane shaft seals and linkages as necessary.
Check, calibrate and set all safety and operating controls.
Megohm test compressor and oil pump motor windings.
Inspect motor starter contacts/VFD, inspect and tighten electrical connections.
Start chiller and monitor operation.
Check starter operations, overloads and timing devices.
Check operating voltages and motor amperages.
Check refrigerant and oil levels, log operating conditions and set point parameters.

ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **COOLING TOWERS - ANNUAL INSPECTION**

Inspect and clean as necessary:

Sumps, spray nozzles and distribution system, strainers, heat transfer surfaces and mist eliminators.

Inspect interior surfaces for excessive corrosion and deterioration.

Inspect make up water system; valves, controls, etc. Check and adjust water level in sump if necessary.

Mechanical equipment inspections:

Inspect belts, bearings and sheaves. Tighten set screws on locking collars if applicable.

Adjust belt tension if necessary and check drive alignment.

Lubricate fan shaft bearings and motor adjustment bolts.

Check oil levels in gearboxes and split bearings if applicable.

Check the general condition of the fan blades or wheels as needed.

Electrical inspections:

Megger motors.

Check motor voltage, amperage and current.

Inspect starter contacts and/or variable frequency drives. Check and tighten high voltage electrical connections.

Heating • Air Conditioning
Energy Management
CA Lic# 812232

Proposal Date:	5/26/16	Quote Number:	09-1325-4

Customer Name:	The City of Emeryville	Service Location:	Senior Center
Address:	1333 Park Ave	Address:	4321 Salem Street
City, State, Zip:	Emeryville, CA 94608	City, State, Zip:	Emeryville, CA 94608
Phone:	(510) 508-9895	Phone:	(707) 280-3596
Attn:	Rich Cunningham	Contact:	Jody Clark

AGREEMENT FOR PERIODIC MAINTENANCE SERVICE

The maintenance is to consist of lubrication and necessary inspection as described in the Specifications for Periodic Maintenance (Attachment 'A'). The maintenance will be performed by a trained HVAC technician as outlined in page 2 of this agreement. **General Maintenance Tasks** to include the following:

- Check in with Customer upon arrival.
- Check and report any unusual noise or vibrations and repair if minor.
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- Maintain cleanliness of equipment.
- Report all work performed on both in-house log sheet and signed work orders.
- Notify customer of services or materials required to maintain systems in proper operating condition.
- Check out with customer when leaving the premises.

As a preventive maintenance customer you are entitled to the following services:

Dispatching Service: We are available 24 hours a day, 7 days a week.

Response Time: We make every effort to provide a (2) hour response time on emergency requirements during normal business hours (Monday through Friday, 8 am to 5 pm) and a (4) hour response time during non business hours and holidays.

Workmanship Guarantee: Any work performed by Matrix HG, Inc. is guaranteed to be free from defects in workmanship for a period of 30 days for labor and 90 days for parts. Labor and material repair cost for defective work will be at our expense.

Service Frequency:
☐Monthly ☐Bi-Monthly ☑Quarterly ☐Tri-Annually ☐Semi-Annually ☐Annually

Comments: Tis is for the Boiler Only because we do not know what units are being installed

The owner agrees to pay: $ 1480 Per year, to be invoiced at: $ 370 Quarterly

Presented By:	Matrix HG, Inc.	Accepted By:	
Signed:	Cameron Edwards	Signed:	
Name:	Cameron Edwards	Name:	
Title:	Service Estimator	Title:	
Date:	5/26/16	Date:	

Customer Signature is Acceptance of Terms and Conditions. If date of commencement is not completed by customer, maintenance schedule will begin the first of the month following date of acceptance

Heating • Air Conditioning
Energy Management
CA Lic# 812232

Proposal Date: 5/26/16 Quote Number: 09-1325-4

SCOPE OF SERVICES

EQUIPMENT SERVICED - OPERATING INSPECTIONS

- ☐ Heat Pumps
- ☐ Air Handlers
- ☐ Condensing Units
- ☐ Water Pumps
- ☐ Pneumatic / Electric Controls
- ☐ Reciprocating Air/Water-Cooled Compressors/Chillers
- ☐ Centrifugal Chillers
- ☐ Rooftop Package Units
- ☐ Fan Coils
- ☑ Boilers/Hot Water Heaters
- ☐ Cooling Towers
- ☐ Stand Alone Indoor AC Units
- ☐ Central Station Units
- ☐ Furnaces
- ☐ Supply, Return & Exhaust Fans
- ☐ Variable Frequency Drives
- ☐ Helical-Rotary Chillers

EQUIPMENT SERVICED - ANNUAL INSPECTIONS

- ☑ Boilers (includes water side)
- ☐ Boilers (excludes water side)
- ☐ Cooling Towers
- ☐ Centrifugal Chillers
- ☐ Helical-Rotary Chillers
- ☐ Chiller: Condenser Tube Brushing

EQUIPMENT SERVICED – COMMENTS:

AIR FILTERS

☑ Provided and replaced by Matrix HG, Inc.
☐ Provided by customer and replaced by Matrix HG, Inc.

Type:	☐ Disposable	☑ High Efficiency	☐ Bag Type	☐ Charcoal Type
Frequency:	☐ Monthly	☐ Monthly	☐ Monthly	☐ Monthly
	☐ Bi-Monthly	☐ Bi-Monthly	☐ Bi-Monthly	☐ Bi-Monthly
	☐ Quarterly	☑ Quarterly	☐ Quarterly	☐ Quarterly
	☐ Tri-Annually	☐ Tri-Annually	☐ Tri-Annually	☐ Tri-Annually
	☐ Semi-Annually	☐ Semi-Annually	☐ Semi-Annually	☐ Semi-Annually
	☐ Annually	☐ Annually	☐ Annually	☐ Annually

☐ Not included in contract ☐ Comments:

BELTS

Matrix HG, Inc. will inspect condition and replace when necessary as:

☐ Included in contract price ☑ Extra to contract price

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Matrix HG, Inc. will inspect the chemical feed system serving the cooling tower, boiler, and/or water cooled condensing units and will add chemicals when necessary as:

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Matrix HG, Inc. will chemically clean the condenser and/or evaporator coils annually as described below:

☐ Condenser Coils	☐ Evaporator coils
☑ Extra to contract price	☑ Extra to contract price
☐ Included in contract price	☐ Included in contract price

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Heating • Air Conditioning
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Proposal Date: 5/26/16 Quote Number: 09-1325-4

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A delinquent charge of 1.5% per month will be applied on any past due amounts. In the event collections action is taken, the Customer shall be obligated for collection costs including reasonable attorney's fees and court costs.

This proposal is subject to credit approval by the Matrix HG Accounting Department.

Service Shall Commence: _____ Customer Initials: _____

To be Completed by Customer

CONDITIONS

All maintenance work will be scheduled by MATRIX HG, INC. at its discretion.
If a request for service or additional maintenance is made by Customer, Customer will be charged at standard labor rate per hour during normal working hours (8:00 – 4:30 p.m. Monday through Friday) and standard premium rate per hour for overtime, plus transportation charges and expenses.

Customer agrees to pay for any parts required under this Agreement other that those specifically included under Periodic Maintenance Service. The standard Company guarantee shall apply to all replacements parts. No warranty is made for loss refrigerant.

Customer shall provide effective air filter service and water treatment service if not included as Optional Maintenance Functions under this agreement.

It is further understood that reasonable access will be provided to equipment. Any modifications necessary to provide access to equipment will be at Customer's expense.

MATRIX HG, Inc. will not be responsible for alterations, additions, adjustments or repairs by others.

MATRIX HG, Inc. is not responsible for loss of business, food spoilage, delays or repairs caused or necessitated by damage due to freezing, flooding, fire, willful abuse, accidents, unusual weather exposure, strikes, lock-outs, acts of God or acts of Government.

Cost of corrections in the design or installation of equipment will be at Customer's expense.

MATRIX HG, Inc. is not responsible for labor, material and/or equipment required, or recommended by insurance companies, governmental agencies or codes, or union regulations.

Heating • Air Conditioning
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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **HEAT PUMPS**

Check cooling operation.
Check heating operation.
Check condenser surface, report on condition.
Check evaporator surface, report on condition.
Inspect condensate pan and drain trap if accessible. Blow out trap if cleanout is provided. Check supply fan or blower.
Check condenser fans.
Lubricate all accessible bearings as required.
Inspect and adjust drive belts, as needed. Inspect pulleys for wear.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors and safeties.
Make sure all panels are securely installed.
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check economizer operation, if applicable.
Check duct connections.
Check reversing valve operation
Check defrost controls and operation.

☐ **ROOF TOP PACKAGE UNITS**

Check cooling operation.
Check heating operation.
Check condenser surface, report on condition.
Check evaporator surface, report on condition.
Check supply fan or blower.
Check condenser fans.
Lubricate all accessible bearings as required.
Inspect and adjust drive belts, as needed. Inspect pulleys for wear.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors and safeties.
Make sure all panels are securely installed.
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check economizer operation, if applicable.
Check pilot igniter operation.
Check heat exchanger, visually.
Check safety controls.
Check vent motor.
Inspect fan wheel(s), if accessible.
Inspect fan unit mountings.
Inspect and clean drain pan if accessible. Blow out drain trap if cleanout is provided.
Inspect all exterior panels for correct installation and fit.

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Concord, CA 94520
PH: (925) 459-9200 • FX: (925) 459-9220

North Bay Office:
27 Pamaron Way, Suite E & F
Novato, CA 94949
PH: (707) 586-9200 • FX: (415) 382-9301

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **STAND ALONE INDOOR AIR CONDITIONING UNIT**

Check cooler operation.
Brush coil surfaces as needed.
Check evaporator surface, report on condition.
Check supply fan.
Check condenser fans, if applicable.
Check condenser pump, if applicable.
Lubricate all accessible bearings, as required.
Inspect and adjust drive belts, as needed. Inspect pulleys for wear.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors, and safeties.
Make sure all panels are securely installed.
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check condensate pans if accessible. Blow out drain trap if cleanout is provided.
Check reheat/humidifier assembly for proper operation.
Check flow switch if applicable.

☐ **AIR HANDLERS/FAN COIL UNITS**

Inspect fan unit mountings.
Inspect drive belts and adjust as required. Inspect fan pulleys for wear.
Inspect and clean condensate pan and drain trap if accessible. Blow out trap if cleanout is provided.
Check evaporator surface, report on condition.
Check supply fan or blower. Lube bearings when accessible, as required.
Check voltage, amperage and electrical connections.
Make sure all panels are securely installed
Check return and supply air temperature.
Check filters, clean or replace as per contract.
Visually check system for signs of leaks and piping integrity.
Check duct connections.

☐ **FAN-POWERED VAV BOXES**

Replace air filters as per contract.
Test operations of controls, actuators, etc. Inspect contactors and relays.
Lubricate motor bearings as required.
Inspect fan wheels for cleanliness. Report on condition.
Inspect mounting bushings for wear.
Check and tighten electrical connections. Check voltages and amperages.

☐ **CENTRAL-STATION UNITS**

Lube bearings - as required.
Inspect fan wheel(s), if accessible
Inspect fan unit mountings.
Inspect unit flex connectors.
Inspect drive belts and adjust as required. Inspect fan pulleys for wear.
Inspect starters, contactors and controls.
Inspect condensate pan and drain trap if accessible. Blow out trap if cleanout is provided.
Check voltage, amperages and electrical connections.

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SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **CONDENSING UNITS**

Check cooling and heating operation.
Check condenser surface, report on condition.
Check condenser fans.
Lubricate all accessible bearings as required.
Check refrigerant charge.
Check voltage, amperage and electrical connections.
Check crankcase heater for proper operation.
Check controls, contactors and safeties.
Make sure all panels are securely installed.
Visually check system for signs of leaks and piping integrity.
Check safety controls.

☑ **BOILERS - HOT WATER/STEAM - OPERATING INSPECTION**

Blow down boiler.
Check the auto-feeder.
Check the feeder strainer, clean if necessary.
Check and clean the gauge glass.
Check the low water device. Blow down as needed.
Inspect the pilot operation and safety controls.
Inspect the main burner condition and operation.
Check boiler time clock if applicable.
Check the safety relief valve.
Visually inspect boiler room piping.
Inspect water make-up and PRV.
Check boiler temperature and pressure.
Inspect the gas valves.
Inspect the flue and stack condition.
Log boiler service record.

☐ **FURNACES**

Check operation.
Visually inspect accessible areas of heat exchanger. Report on condition.
Check burners - clean if necessary.
Check controls and safeties.
Check filters - change as per contract.
Check blower motor.
Lubricate blower and motor.
Check and clean pilot and igniters.
Check accessible flue stack and cap.

☐ **WATER PUMPS**

Lubricate bearings as required.
Check reservoir oil level, add oil as required.
Check for water leaks.
Inspect pump coupling for wear and alignment.
Check mountings.
Check pump operating pressures as required.
Check for abnormal vibration or noise.
Check motor starter and tighten electrical connections.
Check voltages and amperages.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **COOLING TOWERS - OPERATING INSPECTION**
Check fan and motor bearings, lubricate as necessary.
Check belt tension and adjust if necessary.
Check and clean sump strainer screen.
Check spray distribution system.
Check spray eliminators for biological growth and rust.
Check operating water level in the pan and adjust float valve if required.
Check bleed-off rate and adjust if necessary.
Check fans and air inlet screens and remove any dirt or debris.

☐ **SUPPLY, RETURN, AND EXHAUST FANS**
Lube bearings - as required.
Inspect fan wheel(s), if accessible
Inspect fan unit mountings.
Inspect unit flex connectors.
Inspect drive belts and adjust as required.
Inspect fan pulleys for wear.
Inspect and clean drain pan if accessible and applicable.
Check motor starters and electrical connections.
Check voltages and amperages.

☐ **RECIPROCATING WATER/AIR-COOLED COMPRESSOR/CHILLERS–OPERATING INSPECTION**
Check oil level.
Check refrigerant charge.
Check operation.
Visually inspect for refrigerant leaks, check integrity of accessible refrigerant coils and lines.
Visually inspect integrity of accessible piping.
Log pressures, amperages, and temperatures.
Check operation of high and low pressure controls.
Check operation of safety controls.
Make adjustments as needed.

☐ **HELICAL-ROTARY CHILLERS - OPERATING INSPECTION**
Visually inspect starters and electrical connections.
Start chiller and monitor operation.
Check starter operations.
Check operating voltages and motor amperages.
Check the operation of the oil sump heaters and oil cooler circuit as applicable.
Check refrigerant and oil levels.
Log operating conditions and set point parameters.

☐ **CENTRIFUGAL CHILLERS - OPERATING INSPECTION**
Test purge operation.
Visually inspect starters and electrical connections.
Check oil sump heaters and oil cooler as applicable.
Start chiller and monitor operation.
Check starter operations and timing devices.
Check operating voltages and motor amperages.
Check refrigerant and oil levels.
Log operating conditions and set point parameters.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **ELECTRIC CONTROLS**
Check economizer damper system, lube as necessary.
Check static pressure relief damper operation and adjust.
Inspect electrical connections. Tighten as required.

☐ **PNEUMATIC CONTROLS**
Check economizer damper system, lube as necessary.
Check static pressure relief damper operation.
Check system temperature and pressure controls.

☐ **AIR COMPRESSORS**
Check operating cycle
Inspect belts and pulleys, adjust belts as needed.
Check oil level.
Check all air intake and main air filters at air station.
Test relief valve in low pressure line.
Test relief valve for high pressure tank.
Inspect motor starter contacts.
Check and tighten electrical connections. Check voltages and amperages.

☐ **REFRIGERATED AIR DRYER/AIR FILTRATION STATION**
Check refrigeration unit.
Check condenser coil, clean as required.
Check operating temperature, adjust as necessary.
Check automatic drain unit, clean as required.
Check electrical connections.

☐ **VARIABLE FREQUENCY DRIVES (VFD'S)**
Inspect field electrical connections.
Inspect internal cooling fans.
Inspect and clean internal air filters and inlet grills.
Check system operation.
Verify proper ventilation and operating temperatures.
Verify proper operation of set point controller and set points.
Verify proper operation of control input transmitter.
Verify proper sequencing of digital/analog outputs.
Measure voltage and amperage.
Test manual bypass option for proper operation.

☑ **BOILERS - ANNUAL INSPECTION**
Inspect feed water strainers and clean as needed.
Test operation of low water safety controls (float assemblies inspected only if waterside is opened).
Check boiler circulating pump. Lubricate bearings if applicable.
Check expansion and sight glass.
Test operation of operating and high limit controls, flow switches, safety controls, gas valves, etc.
Check accuracy of controls, thermometers and gauges.
Blow down the boiler and low water controls.
Perform visual inspection of external areas of heat exchange surfaces. Blow out with compressed air. Report on condition if severely sooted.
Inspect burners and refractory. Clean burners as required.

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ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☑ **BOILERS - ANNUAL INSPECTION (Continued)**

Inspect and clean or replace combustion air filters as applicable.
Inspect combustion and stack fan wheels for cleanliness. Clean as needed. Inspect flue stack condition and for obstructions.
Check condition of pilot assemblies and/or hot surface igniters. Clean pilot orifices as required. Measure HSI resistances and amperages. Measure flame signal and adjust for optimal flame detection.
Check and tighten electrical connections.
Start boiler and test operation.
Check gas, draft and air pressures as required per boiler manufacturer's specifications.
Perform combustion analysis.

☐ **HELICAL ROTARY/RECIPROCATING CHILLER ANNUAL**

Obtain an oil sample for laboratory oil analysis. Report to follow.
Remove condenser end plate and inspect tubes if applicable (additional cost if not included in contract).
Inspect air cooled condenser and condenser fan assemblies if applicable.
Leak test refrigerant and oil circuits.
Visually inspect chiller waterside for leaks.
Check the operation of the lubrication and oil recovery system as applicable.
Check oil filter(s) pressure drop. Report findings.
Check the operation of the oil sump heaters and oil cooler circuit as applicable.
Check, calibrate and set all safety and operating controls.
Megohm test compressor motor.
Inspect motor starter contacts. Inspect VFD.
Inspect and tighten electrical connections.
Start chiller and monitor operation.
check starter operations.
Check operating voltages and motor amperages.
Check refrigerant and oil levels.
Log operating conditions and set point parameters.

☐ **CENTRIFUGAL CHILLERS - ANNUAL INSPECTION**

Obtain an oil sample for laboratory oil analysis. Report to follow.
Change oil and oil filter (additional cost if not included in contract).
Service purge unit and test operations as applicable.
Remove condenser end plate and inspect tubes (additional cost if not included).
Mechanically clean condenser tubes (additional cost if not included).
Pressurize chiller (if necessary) and leak test refrigerant and oil circuits.
Visually inspect chiller waterside for leaks.
Replace refrigerant filter/drier cores as necessary.
Check the operation of the lubrication and oil recovery system as applicable.
Check the operation of the oil sump heaters and oil cooler circuit as applicable.
Lubricate vane shaft seals and linkages as necessary.
Check, calibrate and set all safety and operating controls.
Megohm test compressor and oil pump motor windings.
Inspect motor starter contacts/VFD, inspect and tighten electrical connections.
Start chiller and monitor operation.
Check starter operations, overloads and timing devices.
Check operating voltages and motor amperages.
Check refrigerant and oil levels, log operating conditions and set point parameters.

ATTACHMENT 'A'
SPECIFICATIONS FOR PERIODIC MAINTENANCE

☐ **COOLING TOWERS - ANNUAL INSPECTION**

Inspect and clean as necessary:

Sumps, spray nozzles and distribution system, strainers, heat transfer surfaces and mist eliminators.

Inspect interior surfaces for excessive corrosion and deterioration.

Inspect make up water system; valves, controls, etc. Check and adjust water level in sump if necessary.

Mechanical equipment inspections:

Inspect belts, bearings and sheaves. Tighten set screws on locking collars if applicable.

Adjust belt tension if necessary and check drive alignment.

Lubricate fan shaft bearings and motor adjustment bolts.

Check oil levels in gearboxes and split bearings if applicable.

Check the general condition of the fan blades or wheels as needed.

Electrical inspections:

Megger motors.

Check motor voltage, amperage and current.

Inspect starter contacts and/or variable frequency drives. Check and tighten high voltage electrical connections.