

**ATTACHMENT P.4**

**SCOPE OF WORK**

**FOR**

**MAINTENANCE SERVICES**



# SCOPE OF WORK

## MAINTENANCE SERVICES

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### 1. OVERVIEW

The Contractor shall provide all labor, supervision, materials, supplies, tools, transportation and equipment to perform preventative maintenance and task order services at VRE facilities. See **ATTACHMENT P.12 – OVERVIEW OF VRE FACILITIES.**

### 2. HEATING, VENTILATING AND AIR CONDITIONING (HVAC) UNITS

#### 2.1 PREVENTATIVE MAINTENANCE TASKS

A. HVAC units shall be serviced by the Contractor quarterly per the manufacturer's specifications, but not less than twice annually, and shall include the following tasks:

1. Install gauges and check operating pressures.
2. Check voltage and amperage for all motors.
3. Check the air temperature drop across the evaporator.
4. Check the refrigerant level, charge if necessary, and identify any possible leaks.
5. Check evaporator superheat.
6. Lubricate all moving parts.
7. Check high and low pressure switch cut-out.
8. Check electrical lock-out circuits.
9. Inspect starting contactor contacts.
10. Inspect all wiring and connections.



11. Check and clean condensate drain.
12. Check and adjust drive belts.
13. Change filters including high performance pleated/electrostatic where applicable.
14. Check the operation of ultra violetlights and replace if needed.
15. Inspect for air leaks in the HVAC unit and duct work.
16. Check dampers and adjust as needed.
17. Check the operation of the low ambient temperature control during the fall/winter season.
18. Check the crankcase heater during the fall/winter season.

## **2.2 HVAC UNITS TO BE SERVICED**

HVAC units requiring preventative maintenance service by the Contractor are located at the following VRE facilities and are identified by manufacturer and model number.

### **A. VRE King Street Headquarters - nine (9) units**

1. condenser - Carrier model no. 38YCC024/362E20693  
air handler - York model no. N2AHD10A06A/MERS233021
2. condenser - York model no. EF1D0485250/ECGM074909  
air handler - York model no. N2AH10A06A/MERS059907
3. condenser - Trane model no. 4TWX4060B1000AA/G084WWE2F  
air handler - York model no. GFD048H21A/EEGS144704
4. condenser - York model no. (Unknown)  
air handler - Trane model no. 4TEE3F65A1000AB/6192W031V
5. condenser - York model no. H2RA030506A/EDGM130696  
air handler - Carrier model no. FB4ANF024/3502A66507
6. condenser - Carrier model no. 38TRA060350/1505E32337  
air handler - Unknown



7. condenser - Carrier model no. 38YCC042520/4298E05614  
air handler - Carrier model no. FB4ANF042/4297A11200
8. condenser - Trane model no.2TWA0060A3000AB/54847042F  
air handler - Carrier model no. FB4ANF042/2104A81366
9. condenser - Trane model no. 2TWA0060A3000AB/5482PED2F  
air handler - Carrier model no.  
FV4BNB006000AAAA/0806A72009

**B. Woodbridge Station (Retail Space) - two (2) units**

1. condenser - American Standard model no. TWH0428140A0  
air handler - American Standard model no. TTD748B100A0
2. condenser -Trane model no. 2TWR1030A1000AB  
air handler – American Standard model no. E51351046

**C. Quantico Station - three (3) units**

1. rooftop package – Trane model no.  
THC120A4RKA1HF1B0AB2B0A1D
2. condenser – Trane model no.TWE048C140C0  
air handler – Trane model no. 2TTA0048A3000AA
3. Through-the-wall air conditioning unit

**D. Fredericksburg VRE Office – three (3) units**

1. condenser – Trane model no. 4TWX4018B1000AA  
air handler – Trane model no.4TEP3F18A1000AA
2. condenser- Trane model no. 4TWX50361000AA  
air handler - Trane model no. 4TEP3F36A1000AA
3. condenser - Trane model no. 4TWX4018A1000AB  
air handler – Trane model no. 4TEP3F18A1000AA

**E. Manassas Parking Garage - one (1) unit**

1. Wall Mounted 18,000 BTU Unit  
Engineering Sophistication System model no. 18 CL / 18RLQ



### **3. FIRE EXTINGUISHERS**

#### **3.1 PREVENTATIVE MAINTENANCE TASKS**

- A. Fire extinguishers shall be serviced, inspected and certified by the Contractor annually.
- B. Repairs and replacement of fire extinguishers shall be completed on a task order basis only.
- C. Annual preventative servicing of fire extinguishers shall include the following tasks:
  - 1. Inspect extinguisher for breaks or dents.
  - 2. Confirm the gauge on the extinguisher is full and working properly.
  - 3. Verify that the fire extinguisher housing is secure.
  - 4. Complete the certification tag information and secure the tag to the extinguisher.

#### **3.2 LOCATION AND TYPE OF EXTINGUISHER TO BE SERVICED**

- A. The Contractor shall perform preventative maintenance service on fire extinguishers located at the following VRE facilities:
  - 1. VRE King Street Headquarters - ten (10), 5 pound extinguishers
  - 2. Franconia / Springfield Station (East Machine Room) - one (1), 5 pound extinguisher
  - 3. Woodbridge Station (Retail Space) - two (2), 5 pound extinguishers
  - 4. Woodbridge Parking Garage - fourteen (14), 5 pound extinguishers
  - 5. Woodbridge Station (Machine Room) - one (1), 5 pound extinguisher
  - 6. Woodbridge Station (Storage Area) - one (1), 5 pound extinguisher



7. Rippon Station (Machine Room) - one (1), 5 pound extinguisher
8. Quantico Station - four (4), 5 pound extinguishers
9. Fredericksburg VRE Office - six (6), 5 pound extinguishers
10. Manassas Parking Garage - ten (10), 10 pound extinguishers

#### **4. PEST CONTROL**

##### **4.1 PREVENTATIVE MAINTENANCE TASKS**

- A. Pest control services shall be performed monthly by a licensed pesticide contractor during non-VRE service hours.
- B. Bait traps shall be provided by the Contractor and hidden from view and access to the general public.
- C. Poisoned rodents shall be properly disposed of off-site.

##### **4.2 FACILITIES TO BE SERVICED**

- A. The Contractor shall perform pest control services at the following VRE facilities:
  1. Woodbridge Station (retail space and garage);
  2. Quantico Station (waiting room and restrooms);
  3. L'Enfant Station; and
  4. Fredericksburg VRE Office.

#### **5. MOSQUITO TREATMENT**

Mosquito treatment shall be provided at the Rippon Station and must be performed monthly during breeding season, for up to nine (9) months a year, by a licensed pesticide applicator.



## 6. EMERGENCY GENERATORS

### 6.1 PREVENTATIVE MAINTENANCE TASKS

- A. Emergency generators shall be serviced quarterly by a qualified, licensed contractor.
- B. Repairs, replacement and refueling of generators shall be completed on a task order basis only.
- C. The Contractor shall perform quarterly servicing in accordance with the manufacturer's specifications, and at a minimum, shall include the following tasks:
  - 1. Check battery voltage.
  - 2. Check water level and water condition.
  - 3. Check and replace as necessary, the oil, air and fuel filters.
  - 4. Open normal source breaker at ATS.
  - 5. Verify the generator starts, ATS transfers to emergency, and power to the load is restored.
  - 6. Allow the generator to run for thirty (30) minutes and note any preceived problems.
  - 7. Check gauges and meters and record the readings, including the fuel level.
  - 8. Close normal source breaker at ATS.
  - 9. Verify the ATS transfers to normal.
  - 10. Verify proper generator shut down.
  - 11. Submit a quarterly report to VRE that summarizes gauge and meter readings, fuel level, and other problems detected.



## **6.2 TYPE OF EQUIPMENT**

- A. The Contractor shall perform preventative maintenance services on the following emergency generators located at VRE facilities:
1. VRE King Street Headquarters  
Olympian 126 KW, Diesel model no. D125P1
  2. Woodbridge Parking Garage  
Kohler 20 KW, Diesel model no. 20 ROZJ-71
  3. Fredericksburg VRE Office  
Olympian 60 KW, Diesel model no. LT15
  4. Manassas Parking Garage  
Onan 85 KW, Natural Gas model no. 85.0GGHG
  5. Rippon Station  
Generator model no. 76JDD2.AL

## **7. ELEVATORS**

### **7.1 GENERAL REQUIREMENTS**

- A. Elevator servicing shall be performed by a licensed elevator contractor.
- B. Preventative maintenance services shall be performed twice annually during VRE off peak operating hours between 9:00 A.M. and 2:00 P.M. EST., Monday through Friday, excluding VRE holidays.

### **7.2 PREVENTIVE MAINTENANCE TASKS**

- A. The Contractor shall clean elevator machine, including the pump, valves, and motor.
- B. The Contractor shall maintain the following elements:
1. **CONTROLLERS:** including relays, contacts, coils, timers, printed circuit boards, microprocessor boards, controller wiring, travel cable wiring, hoistway wiring, fuses/fuse holders, and timers /time-clocks.



2. **SELECTOR:** including electrical or mechanical drive components, cams, contacts, relays, resistors, leads, transformers, and solid-state components.
3. **FIXTURES:** including car and hall button stations, master indicator control panels, all signal fixtures including contacts, buttons, key switches, locks, lamps, and sockets.
4. **MACHINE MOTOR:** including gears, bearings, brakes and related parts, brushes, windings, commutators, rotating equipment, contacts, coils, and resistors for motor circuits, V-belts, sheaves and wiring.
5. **PUMP:** including sheaves, screens, filters, hoses, and any other parts thereof.
6. **VALVES:** complete, including relief valve, leveling valves, check valve, strainers, springs, gaskets, and any other parts thereof.
7. **JACK UNIT:** including plunger, guide bearing, packing and packing gland.
8. **GOVERNOR:** including sheave, bearings, shafts, contacts and governor jaws.
9. **CAR:** including power door operator, door protective devices, car door operator, hangers, car door contact, load weighing equipment, car safety devices, car guide shoes, and sub flooring.
10. **ACCESSORY EQUIPMENT:** all accessory elevator equipment, including equipment installed prior to the commencement of this Contract.
11. **HOISTWAY:** including deflector sheave, secondary sheaves, buffers, governor tension assemblies, limit switches, compensating sheave assemblies, compensating chain or cables, traveling cables, hoist way and machine room wiring, hoist way door interlocks, hoistway door hangers and gibs and auxiliary closer. Also included shall be the quarterly (or more frequent, if required) brush down and vacuum of the hoistway, divider beams, door hangers, car top and bottom, doorsills (beyond opening) and pit.



- C. The Contractor shall keep the guide rails properly lubricated, except where roller guides are used, and when necessary to renew guide shoe inserts, or roller guides when used, to promote smooth and quiet operation.
- D. The Contractor shall renew the wire ropes as often as necessary to maintain an adequate factor of safety and equalize the tension on all hoisting ropes.
- E. The Contractor shall ride the elevator to ensure floor levels, door operation and checking all fixture lamps (replacing when needed).
- F. The Contractor shall furnish lubricants compounded to specifications and selected to give the best performance and proper level. Lubricate pumps, pump motors, couplings, valve control equipment, guides or guide rollers, interlocks, automatic door operator and its linkage parts.
- G. All other maintenance features or practices not cited above which are considered routine [in accordance with American Society of Mechanical Engineers (ASME) Part X, A17.1 and 1996 Boca Property Maintenance Code, Section PM-603.3] in elevator maintenance in general.

### **7.3 TESTING AND INSPECTIONS**

- A. Elevators shall be inspected weekly along with associated machinery in accordance with the elevator manufacturer's recommendations and shall include the applicable preventative maintenance tasks included herein.
- B. The Contractor shall perform weekly inspections, maintenance, repairs, and equipment adjustment services. The Contractor shall proceed to examine, adjust, lubricate and, if conditions warrant as determined by the Contractor, repair or replace parts.
- C. Equipment testing shall be performed by the Contractor as required by the jurisdiction in which the elevator is located.
- D. Periodic testing shall be performed in accordance with ASME A17.1 and 1996 Boca Property Maintenance Code, Section PM-603.3 to ensure that elevators meet safety and maintenance requirements. A qualified elevator inspection service shall be used by the Contractor.
- E. Required tests or inspections that remove an elevator from normal operation shall be scheduled and coordinated with VRE. Any repairs or adjustments which are necessary in order to complete a test and return an elevator to service shall be performed at no additional cost to VRE.



- F. All applicable tests shall be completed by the Contractor on a timely basis and recorded on the Department of Labor and Industry's Elevator Test Log Form, which shall be kept in the machine room at each station. The test results and a written report describing any needed repairs shall be forwarded to VRE within three (3) business days of testing.
- G. The Contractor shall apply tags to equipment when applicable.

#### **7.4 CALLBACK SERVICE**

- A. Callback service shall be defined as a service call to correct any elevator problem or condition that requires the Contractor to provide service prior to the next scheduled preventative maintenance service.
- B. Incidental charges associated with this service, including but not limited to, parking fees, toll charges, tickets, mileage, etc shall be incurred by the Contractor at no additional charge to VRE.

#### **7.5 EMERGENCY ON-CALL SERVICE**

- A. The Contractor shall provide emergency on-call service twenty-four (24) hours, seven (7) days a week as needed to maintain elevator operation and to respond to elevator outages and elevator emergencies.
- B. A qualified repairperson shall arrive on-site within one (1) hour of notification. The Contractor will receive notification from a VRE representative or by an elevator cab phone.



## 7.6 DESCRIPTION OF ELEVATORS

<p><b>A. <u>VRE Franconia/Springfield/Metro Station</u></b></p> <p style="text-align: center;"><b>Elevator Car #1 – 7099 Barry Road, Springfield, VA 22150</b></p> <p style="text-align: center;"><b>Elevator Car #2 - 6880 Frontier Drive, Springfield, VA 22150</b></p>				
Elevator Car No.	Make	Capacity (lbs.)	Year Installed	Number of Stops
1	Cemco	3500	1994	2
2	Cemco	3500	1994	3
<p><b>B. <u>VRE Woodbridge Station</u></b></p> <p style="text-align: center;"><b>1040 Express Way, Woodbridge, VA 22191</b></p>				
Elevator Car No.	Make	Capacity (lbs.)	Year Installed	Number of Stops
1	Dover	3500	1991	5
<p><b>C. <u>VRE Rippon Station</u></b></p> <p style="text-align: center;"><b>15511 Farm Creek Drive, Woodbridge, VA 22191</b></p>				
Elevator Car No.	Make	Capacity (lbs.)	Year Installed	Number of Stops
1	Dover	3500	1991	2
<p><b>D. <u>VRE Manassas Station</u></b></p> <p style="text-align: center;"><b>9102 Prince William Street, Manassas, VA 20110</b></p>				
Elevator Car No.	Make	Capacity (lbs.)	Year Installed	Number of Stops
1	Schindler	3500	2008	5
2	Schindler	3500	2008	5



**8. EXCLUSIONS**

Unless issued under a Task Order, the following items are not included in this scope of work, and therefore, are not part of this Contract:

- A. Maintenance of VRE yards;
- B. Washington Union Station;
- C. Manassas Old Town Depot building and associated platform;
- D. Alexandria Old Town Depot building and associated platform;
- E. Burke Centre Station parking garage elevators, generator, HVAC, fire extinguishers and lighting;
- F. Quantico Station west platform; and
- G. Fredericksburg Station west platform and elevators.

