

SCOPE OF WORK

INTENT

The intent of this specification is to establish an annual requirements contract for elevator maintenance, repair, and annual inspections of City of Arlington elevators listed herein. The successful bidder shall provide routine maintenance, corrective repair and emergency service, as well as annual inspections to all the listed elevators and lifts.

The Awarded Vendor shall supply trained, qualified, and technically skilled employees who have a State of Texas license to provide services and/or inspection.

- In addition to a copy of the State of Texas Elevator License(s) submitted, a copy of the Inspector's current QEI-1 (Qualified Elevator Inspector) Certification issued through the American Society of Mechanical Engineers (ASME) will also be required.

Awarded vendor shall maintain a comfortable elevator ride with smooth acceleration, retardation, and soft stops. Door operation shall be quiet and positive with smooth checking when traveling.

APPLICABLE CODES AND COMPLIANCE

Unless noted otherwise, all work and inspections shall strictly adhere to:

- Administrative Rules of the ***Texas Department of Licensing and Regulation 16 Texas Administrative Code, Chapter 74, Elevators, Escalators, and related equipment***, in accordance with the following standards, terms, and conditions.

MINIMUM PREVENTIVE MAINTENANCE FREQUENCY AND TASK

The following preventive maintenance frequency and task lists are not inclusive of all required maintenance points for the variety of equipment available throughout the elevator industry. These maintenance frequency and task lists are designed to be examples of the preventive maintenance quality level required by this SPECIFICATION. The Contractor is required to submit specific preventive maintenance frequency and task lists for each type of equipment prior to commencement of contract.

1. **Geared & Gearless**

Each Visit:

- Ride each elevator and observe performance, leveling, floor stops, door opening and closing operation and noise.
- Test safety edges, photo eyes, detectors, door open buttons, and alarm bell.
- Check for proper car and car button operation and all indicator illuminations and lantern operations.

Monthly:

- Clean and inspect machine, controller, selector, motor, motor generator/SCR and governor.
- Clean and inspect car top, operating switches, door operator and controls, car door hangers, gibs, detectors, and/or photo eyes and safety edges. Lubricate and adjust door operator and door accessory equipment.

- Clean and inspect hoist way door hangers, interlocks, linkage, pickup assembly, door gibs, non-vision wing and hoist way switches.
- Clean and inspect governor tension sheave, car and counterweight buffers and compensating sheave assembly. Clean pit and check safety plank and travel cable loops.
- Clean machine room, check communicators and brushes, clean and adjust controller and selector contacts and relays.
- Check car and hall fixture lamps, leveling and floor stops, alarm bell and emergency stop and inspect travel cable.

Quarterly:

- Inspect rope and shackles, car and counterweight guides, TM and slow down switches, adjust and lubricate as required and check emergency light.
- Check and adjust brake. Inspect and lubricate pivot pins.
- Clean and adjust controller and selector components including contacts relays and timers. Check transformers and rectifiers. Vacuum or brush all controller and selector switches.
- Check complete safety circuit.
- Check selector cables and/or tapes. Lubricate selector drive worm. Inspect selector drive.
- Clean, inspect and lubricate governor linkage.
- Inspect, rotate and equalize hoist cables. Inspect cable shackle and fastenings.
- Check adjustment of roller/slide car and counterweight guides. Check bearings/liners and fastenings.
- Inspect TM, slow down, leveling and/or limit switches.
- Clean and inspect all car and hoist way door contacts and interlocks.
- Check door closing force. Check car and hoist way hanger rollers and adjust up thrust.
- Inspect door operator bearings and cams.
- Clean and inspect governor tail sheave, compensating sheaves, compensation ropes and hitches and/or compensating ropes and hitches and/or compensating, chains, guides, and hitches.
- Clean and inspect car and counterweight buffers. Check buffer oil level and operation.

Semi Annual:

- Check control and main line fuses, voltage readings, motor and motor generator wire connections, overloads, armature clearance and brake cores.
- Check motor overload devices, resistor, and resistance connections.

- Check car safety mechanism and governor rope hitch.

Annual:

- Drop Brake shoes, clean lubricate and adjust. Flush and replace worm gear oil.
- Check all controller and selector terminals. Check and clean all fuse holders.
- Check car frame, overhead, car counterweight sheaves, sills, and pit.
- Annual lubrication of motor, motor generator, and machine bearings, deflector, compound and compensating sheaves and governor tension sheave bearings. Check all fasteners.
- Annual car safety test. Clean, inspect and lubricate governor and safety mechanisms. Check buffer oil level.
- Adjust motor control and perform logic systems operation check.
- Clean hoist way and hoist way equipment including guide rails, counterweights, hoist way door hangers, interlocks, closers, headers, and related devices. Check all fastenings on guide rails, brackets, and entrances. Check all traveling cables.

Five Year:

- Perform full load governor, and safety and buffer test

2. Hydraulic passenger and service

Each Visit:

- Ride each elevator and observe performance, leveling, floor stops, door opening and closing operation, and noise.
- Test safety edges, photo eyes, detectors, Door open buttons, and alarm bell.
- Check for proper car and hail button operation and all indicator illuminations and lantern operations.
- Check for leaks in power unit, hydraulic control valve silencer, sound couplings and oil line.

Monthly:

- Clean and inspect power unit, controller, and motor. Check drive belt tension and condition.
- Check leaks and oil level in power unit. Clean power unit oil drip pan.
- Clean and inspect car top, operating switches, door operator, and controls, car door hangers, gibs, detectors and/or photo eyes and safety edges. Lubricate and adjust door operator and door accessory equipment.
- Clean and inspect hoist way door hangers, interlocks, linkage, pickup assembly, door gibs, non-vision wing and hoist way switches.
- Clean and inspect hydraulic plunger, seals, and packing. Check jack oil drip container.
- Check guide rail lubrication drip containers in pit.

Quarterly:

- Check motor and pump sheave alignment. Check motor and pump fastenings.
- Adjust hydraulic control valve. Clean hydraulic control valve strainers. Check hydraulic control valve locking nuts, adjustment screws and mounting fastenings.
- Clean and adjust controller components including relays and timers. Check transformers and rectifiers. Vacuum or brush all controller parts.
- Check out complete safety circuit.
- Check adjustment of roller/slide car guides. Check bearings/liners and fastenings.
- Inspect TM, slowdown, leveling and/or limit switches.
- Clean and inspect all car and hoist way door contacts and interlocks.
- Check door closing force. Check car and hoist way hanger rollers and adjust up thrusts.
- Inspect door operator bearings and cams.

Semi Annual:

- Check control and main line fuses, voltage readings and motor wire connections.
- Check motor overload devices, resistor/resistance connections and starters, contactors and contacts.

Annual:

- Check all controller terminals. Check and clean all fuse holders.
- Check car frame sills and pit.
- Annual hydraulic pressure test. Check relief valve seal and tag valve with current test information, date test was performed and performing company name.

REPAIR SERVICES

Examples of these repairs include, but are not limited to, failure of elevators to operate, failure to level properly, failure of door mechanisms to function correctly and other operations that would cause the elevator to be taken out of service.

- The agreement includes service calls, during regular working hours of regular working days of Monday through Friday, 8:00 a.m. through 5:00 p.m., for repairs to elevator systems that render the elevator inoperable or unsafe for service. All work shall be bid based on regular working hours on regular working days.
- The bid shall include emergency call-back maintenance during regular working hours during regular working days. *This is not a separate rate during normal working hours.*
- Revamping of signal fixtures shall be covered under regular service time only.
- Use of lubricants shall conform to the elevator manufacturer's specifications.

PERFORMANCE REQUIREMENTS

The contractor shall submit monthly reports for each elevator/lift. The Contractor shall submit to City written performance reports at the end of each 6-month period. The Contractor shall submit, when applicable, any written recommendations related to safety issues, new attachments etc. Contractors' supervisory personnel shall be always

available to report to and confer with City. Contractor shall submit to the City such records as may be identified in this Specification or such other records and reports as City may require.

Contractor shall have a Supervisor regularly conduct a field audit of the performance of Contractor's field personnel. Contractor shall semi-annually survey all equipment covered by this Contract to conform compliance to the requirements of the Contract.

On all elevator shutdowns involving passenger entrapments, a comprehensive report shall be prepared and submitted to the City/ within 24 hours of the entrapment. The report shall include building location where released, cause of entrapment and corrective action taken by the Contractor.

YEARLY INSPECTIONS

Included in the contract shall be the annual inspection, as required by the Texas Department of Licensing and Regulations. All inspection must comply with the most current requirements at the time and date of inspection. Contractor must provide current copy of license issued to Inspector by the Texas Department of Licensing and Regulations prior to annual inspection.

1. Inspection procedures:

- A. The inspector must inspect all equipment for compliance with the applicable ASME Safety Codes or ASCE Standards as adopted in §74.100.
- B. Inspectors must use the most current published edition of ASME A17.2, and the "Guide for Inspection of Elevators, Escalators, and Moving Walks" to conduct inspections and witness tests for compliance with the ASME Safety Codes or ASCE Standards adopted in §74.100.
- C. The inspector shall report to the Contract Administrator before beginning any inspections.
- D. The inspector shall not perform any of the tests.

2. Forms:

- A. The inspector must use current State approved forms for reporting inspections. The forms shall be filled out completely, and comply with all rules, regulations, and law.
- B. The inspector must list all ASME Code violations by code number and code edition for each unit inspected and include a written description of the violation on the State's approved form. If the ASME Code refers to another code, the inspector must list both code numbers and include a written description of the violation.

3. Inspector's Equipment:

- A. All test tags and decals must conform to no less than the State of Texas Licensing and Regulation requirements, including but not limited to:
- B. Verifying that a contractor's test tag(s) is/are placed on the equipment in conformance with the ASME Safety Codes or ASCE Standards adopted in §74.100,
- C. Follow all current State tagging requirements at time of inspection, including but not limited to, all devices and adjustments required to be sealed by the adopted standard shall be sealed with wire rope and lead seal by the inspector witnessing the tests(s). Once a device or adjustment has been so sealed, there shall be no need to replace the seal unless it is broken for whatever reason. If broken, an inspector shall witness the test and provide a seal in accordance with the State's rules, regulations, and laws prior to the unit being returned to service,

- D. Verify and affix the required identification decal issued by the State, to the upper right-hand corner of the control panel. The decal shall remain on the control panel for the life of the equipment. There shall be no additional decal will be affixed to equipment that has a current State decal displayed,
- E. The replacement of a new decal being required on a unit of equipment, due to loss or destruction of the decal, the inspector must report the equipment's location, old decal number, and new decal number to the Department within ten calendar days of placing the new decal number upon the equipment, and
- F. All correspondence and inspection reports shall reference the decal number and Department building ID number, as reflected on the Certificate of Compliance.

SIGNING

No elevators are to be removed from service, except in cases of hazard to life, and/or extensive equipment damage without prior approval by Contract Administrator. When an elevator is out of service for any reason, the Awarded Vendor shall place signage at all floor entrances to that elevator indicating that the elevator is out of service.

Placement of signage will be mandatory. Signage should be legible and well defined as to the elevator being out of service.

RESPONSE TIME

Contractor shall respond to calls for repair service within two (2) hours of the receipt of the call. If unable to provide this level of response, vendor shall state in the operation plan the minimum time achievable. Bid price for each location shall include labor costs and response time.

OVERTIME

A separate hourly rate shall be quoted for after-hours emergency services. Normal business hours are Monday – Friday 8am-5pm. All work performed outside these hours shall be billed as overtime rates or an emergency call if necessary

REPORTING

A Service Report must accompany every Invoice issued for each individual location. If a Service Report is not included with invoice at time of billing, that invoice will not be paid until a Service Report is provided.

LOCATIONS

See attached "Exhibit A".