



Appendix A – Maintenance Specification by MHI Consulting

Comments:

This RFP is for the maintenance of the equipment, which may consist of two (2) resident mechanics, one specializing in elevator maintenance and the second in escalator maintenance. The building, Pennsylvania Convention Center, an ASM Global Managed Facility, reserves the right to award this contract in whole to one (1) contractor or in part to two (2) separate contractors. The Contractor is strongly urged to review all site conditions very carefully. The Contractor must read and review all of the project specifications very carefully to fully understand the scope of work. No compensation shall be allowed for failure to fully and correctly understand the scope of work and related expenditure.

If any Pre-Maintenance Items are identified, they must be submitted with your proposal and completed within sixty (60) days of signing the Contract.

The Owner / Representative of the property is:

Pennsylvania Convention Center Authority, an ASM Global Managed Facility
1101 Arch Street
Philadelphia, PA 19107

The Consultant for this project is:

MHI Consulting LLC
PO Box 151
Danboro, PA 18916
732-403-7441
info@mhi-consulting.com



FULL SERVICE MAINTENANCE CONTRACT SPECIFICATIONS

_____ Elevator Corporation/Company (hereinafter referred to as Contractor) shall furnish services to Pennsylvania Convention Center Authority, an ASM Global Managed Facility (hereinafter referred to as the Owner) on the following elevator and escalator equipment at: 1101 Arch St, Philadelphia PA 19107.

DEFINITIONS AND TERMS

The definitions and terms outlined below are used throughout this Contract and to avoid undue repetition, the terms, whenever they occur in this Contract or any exhibits or attachments forming a part of this Contract, shall be construed as follows:

1. The term "Owner", "Owners Representative," or "Client," or references of similar import, as used herein, refers to Pennsylvania Convention Center Authority, an ASM Global Managed Facility.
2. Paragraph headings are for convenience only, do not limit the subject(s) of the paragraphs, and are not to be considered in their interpretation.
3. The term "Elevator Contractor, "Contractor," or "Vendor," as used herein, refers to _____. Additionally, it refers to any persons, partners, firm, corporation or officer(s) of such companies agreeing with the "Owner" to furnish qualified labor and materials for the execution of the services and maintenance work described herein.
4. The term "Subcontractor," as used herein, refers to any persons, partners, firm, or corporation having materials and/or labor for the execution of the work herein described.
5. The term "Consultant," as used herein, refers to MHI Consulting LLC.
6. The term "Agreement," "Contract," or "Contract Documents," as used herein, consists of this specific document and any alternates, addenda, or substitutions as may be referenced under exhibits or riders approved by the parties for the final execution of the Agreement.
7. The term "Work" means all goods, items, articles, materiel, apparatus, equipment, labor, work, services, and operations of the Contractor specified, listed, mentioned, scheduled, or reasonably inferable from the Contract Documents.
8. "ANSI/ASME A 17.1" shall mean the American Society of Mechanical Engineers Safety Code for Elevators and Escalators.



9. "ANSI/ASME A17.2" shall mean the American Society of Mechanical Engineers Safety Code Inspectors Manual for Elevators and Escalators as modified under chapter K3.
10. "Building" shall mean Pennsylvania Convention Center, 1101 Arch St, Philadelphia, PA 19107

DESCRIPTION OF ELEVATOR EQUIPMENT

Twenty-three (23) Elevators & two (2) Lift Stations

Note: Throughout this Contract, the terms elevator and escalator refer to the units covered under this contract's terms. Therefore, if this agreement covers units other than elevators and escalators, the terms elevator and escalator used in this Contract and any attachments hereto shall include the other units.

The entire elevator equipment shall be maintained as described per the following detailed terms:

1. Trained employees of the Contractor will use all reasonable care to keep the elevators in proper adjustment and safe operating conditions per all codes and regulations.
2. Systematic examinations, adjustments, cleaning, and lubrication of all machinery, machinery spaces, hoistways, and pits. The Contractor shall include in his/her proposal two (2) hours per month for each passenger elevator and three (3) hours per month for each freight elevator that is to be dedicated to routine Preventative Maintenance. Minor adjustments included, however, repairs are to be scheduled through a separate team supplied by the Contractor.
3. Contractor shall maintain all parts of the elevators consisting of, but not limited to, machines, brakes, sheaves, bearings, cables, hoist motors, motor generators and/or SCR drives, brushes, controllers, selectors, worm gears, thrust bearings, brake magnet coils or brake motors, brake shoes, windings, rotating elements, contact coils, resistance for operating and motor circuits, guide shoes, wiring, traveling cables, governors, tension frame, safeties, magnet frames, leveling devices, cams, all car and hoistway door equipment including hanger, gibs, closures, locks, arms, tracks and guides, door operating devices and door motors, car lights, pushbuttons, indicators, hall lanterns and all other elevators signal scheduling, solid-state and/or computer devices, and accessory equipment. Pumps, motors, pistons and jack assemblies, valves, mufflers, exposed piping, contact coils,



resistance for operating and motor circuits, guide shoes, wiring, traveling cables, and safeties.

4. All work, including regular examinations and repairs per this Contract, is to be made during the regular business hours of said Contractor unless otherwise agreed to and specified. The Contractor shall provide immediate emergency service for all elevators.
5. It is mutually agreed that the Contractor shall not be under any obligation, hereunder, to make any repairs or replacements, except those incidentals to the regular operation of the machinery. Under this Contract, the Contractor is not required to make repairs or replacements necessary because of malicious damage or fire resulting from causes beyond the Contractor's control. All repairs, if necessitated by this paragraph, will be performed at a fee not exceeding the standard rate in effect when the service is performed.
6. It is mutually agreed that the Elevator Contractor shall make any and all repairs or replacements required due to the Elevator Contractor's improper repair, negligence, or willful acts or omissions. The Contractor shall also be responsible for any and all costs incurred by the Owner due to a breakdown due to negligence, defective material, or defective workmanship by Contractor.

EMERGENCY CALL BACK SERVICE

Provide emergency call-back service twenty-four (24) hours a day, seven (7) days a week, three-hundred and sixty-five (365) days a year, which consists of promptly dispatching qualified employees in response to requests from the Owner or Owner's Representative, by telephone or otherwise, for emergency adjustment or repairs on any day of the week, at any hour, day or night. Emergency response (arrival at the site) shall be made within one (1) hour. If repairs cannot be made immediately, the mechanic shall notify the owner/management of the reason. Emergency call-back services shall be provided under the terms of this agreement without additional charge.

If overtime non-emergency repairs are requested and approved by the Owner in writing, the Contractor shall bill the Owner for the premium labor portion only at the regular billing rates attached to this Contract, subject to contingencies.

Emergency call-back response time during regular business hours shall not exceed one (1) hour maximum; however, entrapment will be answered within thirty (30) minutes. During non-business hours, response time shall not exceed two (2) hours if additional elevator service is available. However, if no additional service is available, response time shall be in one (1) hour unless a passenger entrapment is mandating immediate response.



Any elevator that is shut down will be restored to service by 7:00 am the next business day.

LUBRICATION

Lubricate all those mechanical parts recommended to be lubricated by the original manufacturer of the elevators' equipment as often as required by the manufacturer and in the manner specified by the manufacturer. The type of lubricant must be consistent with the manufacturer's specifications.

LUBRICANTS, MATERIALS, AND CLEANING

Lubricants shall consist of oils, greases, and compounds furnished by the Contractor and shall be of the highest quality. The consistencies shall be proper for the purposes employed and the applicable parts. It should be understood and agreed between the parties hereto that abrasive bearing lubricants shall not be used, except on new parts installed, and only if the period is recommended by the original manufacturer of the elevator's equipment. Where abrasive bearing lubricants have been employed in conformity hereto, they are to be thoroughly removed by cleaning after the working period has elapsed.

The Contractor shall keep the guide rails clean and properly lubricated. Except when roller guides are installed, no rail lubrication shall be used.

The Contractor shall perform a thorough hoistway and pit cleaning, including all hoistway equipment, and a complete clean down of all escalator trust, pits, and steps, as part of this Contract on the anniversary date of this Contract.

When necessary, the Contractor shall renew guide shoe gibs or rollers and springs, as required, to ensure smooth and quiet operation. All oil reservoirs shall be appropriately kept sealed to prevent leakage. Any oil leakage caused by the Contractor shall be removed and cleaned by the Contractor.

The Contractor shall provide approved metal containers to store wiping cloths, minor parts, etc.

The Contractor shall keep all control equipment clean, and relay contractors shall properly furnish, align, and set it.

The Contractor will supply cleaning compounds, waste, clothes, and other materials; it is understood and agreed that the cleaning agents employed shall not be flammable nor noxious and must always be stored in approved lockable metal containers provided by the Contractor.



During all examinations, the Contractor shall immediately remove and discard all accumulated dirt and debris from the elevator's/escalator's car-top, pit, trust, and machine room areas.

Prior to each anniversary date of this Contract, the Contractor shall thoroughly clean the entire hoistway and machine room, trust, and pit components of all accumulated dirt, grease, dust, and debris as part of this Contract annually.

SCOPE OF SERVICES

This specification aims to implement a continuing system of full maintenance to provide necessary systematic service and preventive maintenance for all of the equipment described herein. Any items of work, inspections, parts, and services listed herein shall not be construed as "limiting" the CONTRACTOR'S SERVICES but rather as minimum requirements.

SCOPE OF WORK

All Equipment under this Contract shall be maintained in first-class operation, furnished with all material and labor, and comply with all requirements of the current American National Standard Code for Elevators, Dumbwaiters, Escalators, and Moving Walks (ANSI).

PREVENTIVE MAINTENANCE SCHEDULE

The Contractor agrees to provide preventive maintenance at 2 hours per passenger hydraulic elevator, 2 hours per passenger traction elevator, 3 hours per freight elevator, and 2 hours per escalator at a minimum each month. These hours do not include repairs. Repairs are to be scheduled by the Contractor with a dedicated repair team. Since a resident elevator and an escalator mechanic will be placed on this project, the Contractor must have two present during the agreed-upon work hours. Examination frequency to reflect MHI Consulting LLC (PMCP) Preventive Maintenance Control Program in accordance with the profiles defined for each make and type of vertical transportation located at the Philadelphia Convention Center. The Contractor will follow the required hours and PMCP. The maintenance mechanic will start on the first Monday of the month to perform regular maintenance and return the following day until the portfolio is completed. The maintenance mechanic will not take trouble calls/entrapments of any kind at any other location when performing maintenance at PMCP. If a repair needs to be done on any equipment at PMCP, the maintenance mechanic will not assist during his regular maintenance schedule at PMCP.

PREVENTATIVE MAINTENANCE HOURS-MECHANICS CHECK-IN

The Contractor's mechanic shall check into the manager's or maintenance office when he arrives and leaves the building. Copies of the mechanic's time tickets, verifying time spent on each visit, what work was performed, and parts used, shall be left with the building



manager or maintenance supervisor. All records for work performed may be accessed through the Contractor's Service reporting system and event-driven emails sent by the Contractor.

EXPERIENCE WITH COMPARABLE EQUIPMENT

The Contractor must show that its employees have 15 years of experience maintaining comparable equipment to provide the necessary preventative maintenance to maintain the elevator and escalator equipment in first-class condition. The Contractor must also show its employees that they have the necessary parts and tools.

ALTERATIONS AND ADDITIONS

The Contractor shall make no alterations or additions to the equipment without prior written approval from Pennsylvania Convention Center management.

The maintenance of this equipment in a safe condition within proper operating limits, as originally specified, and with minimum downtime is of paramount importance.

EXAMINATION OF PREMISES

The Contractor shall be held to have examined the premises and satisfied itself as to the conditions under which it will be obligated to operate and perform its Services hereunder.

EXTENT OF COVERAGE – TRACTION ELEVATORS

In connection with the provision of its Services hereunder, the Contractor shall use personnel directly employed, trained, and supervised by the Contractor.

Regularly and systematically examine, clean, lubricate, adjust, and, when conditions warrant, repair or replace the following:

- Elevator Machines—Geared/Gearless.
- Controllers, Selectors, Dispatchers, and Relay Panels.
- Machine Brakes and Brake Pulleys.
- And Parts thereof, including
- Hoisting Motors.
- Selector Motors, Exciter and Regulator.
- Worms, Gears, and Thrusts.
- Bearings.
- Rotating Elements.
- Brake Magnet Coils.
- Brushes, brush Holders, and Commutators.
- Brake Shoes, Linings, and Pins.
- Windings and Coils.



- Contacts, Relays, and Timers.
- Resistors and Transformers.
- Solid State Devices.
- Emergency Lighting.
- Fireman's Service Equipment.
- Deflector, Secondary, and all other Sheaves, Shafts, Bearings, and Assemblies.
- Automatic Power Door Operators, Landing and Car Door Hangers, Landing and Car Door Contacts, Door Protective Devices, Hoistway Door Interlocks, Bottom Door Guides, Manual Door Closers, and Auxiliary Door Closing Devices.

Keep guide rails properly lubricated, except where roller guides are used.

Replace guide shoe gibs or rollers when conditions warrant, providing smooth and quiet operation.

Repair or replace control cables when conditions warrant.

Periodically drain the gear case, flushing to remove sediment and grit, and refill with new gear oil.

Relamp all signals during regular examination only, except where building maintenance personnel have union jurisdiction.

Furnish lubricants compounded to the Contractor's specifications.

Periodically examine, clean, lubricate, adjust, and when conditions warrant, repair or replace the following safety device:

- Interlocks and Door Closers.
- Car and Counterweight Buffers.
- Overspeed Device Governors, Governor Tension Sheave Assemblies, and Car and Counterweight safeties.
- Limit, Landing, and Slowdown, Switches.
- Door Protective Devices and Alarm Bells.

Conduct all tests as required by the current elevator code. This includes annual no load safety and governor test and a 5-year full load safety test.

Periodically equalize the tension in all hoist ropes. Replace all wire ropes and fastenings, when conditions warrant.

Examine, and when conditions warrant, regroove or replace all sheaves, governor tension sheaves, secondary or deflection sheaves, and compensating sheaves.

Periodically examine, lubricate, adjust, and when conditions warrant through normal wear and tear, repair or replace the following accessory equipment:

- Car and Corridor Operating Push Buttons.
- Load Weighing Equipment.



- All Hall Lanterns, Car Position and Hall Position Indicators, Lobby Control Panels, Car Operating Panels, and all other Signal and Accessory Facilities are furnished and installed as part of the equipment.

EXTENT OF COVERAGE – HYDRAULIC ELEVATORS

The conditions of the entire basic contract form as to service, coverage, term, personnel, etc., hereinbefore included apply to hydraulic elevators, and the following provisions are added:

- Maintenance, repairing, and replacing items are the responsibility of the Contractor.
- The power plant complete, consisting of its enclosure, pump, motor, power transmission elements between the pump and motor, valves of every kind, strainers, mufflers, gaskets, and all other accessories.
- The entire controller and motor starter, including accessories, are included.
- The entire "jack unit," including everything except excluded items listed hereinafter.
- Repair or replace conductor cables and hoistway and machine room wiring in such a way as to maintain the percentage of spare conductors present at the signing of this Agreement. The minimum number of spare conductors is 5%.
- If installed, all piping, fittings, and accessories, such as vibration dampeners, silencers, etc., between the pumping plant and the jack unit. Underground piping is not included.
- Emergency lighting, if furnished and installed by the same manufacturer.
- Automatic power door operators, landing and car door hangers, landing and car door contacts, door protective devices, hoistway door interlocks, bottom door guides, manual door closers, and auxiliary door closing devices.

Conduct all tests and cylinder leakage tests on all hydraulic elevators in accordance with the current elevator code requirements.

Revamp all signals during regular examinations.

HOURS OF SERVICE – GENERAL, ALL UNITS

The Contractor shall perform all work hereunder, except emergency minor adjustment call-back service, during the regular working hours and the regular working days of the elevator trade.

Should the Pennsylvania Convention Center require examination, cleaning, lubrication, adjustments, repairs, or replacements of elevator equipment to be performed during other than regular working hours of the elevator trade, the Contractor shall absorb the straight-time labor charges. The Pennsylvania Convention Center will compensate the Contractor for the overtime bonus hours at the Contractor's standard billing rates.



The Contractor agrees to provide a 24/7 phone monitoring service on units in this Agreement. This service will be provided at no additional cost to the Pennsylvania Convention Center; however, if the existing phone system is incompatible, the Contractor will conduct a survey of the equipment and provide a separate quotation for installing a new phone system.

CONDITIONS OF SERVICE – GENERAL, ALL UNITS

The Pennsylvania Convention Center will provide the Contractor full and unrestricted access to the equipment to render services thereon.

The Contractor shall maintain the original contract speed at all times, which is feet per minute. Perform all adjustments required to maintain the proper door opening and closing time within the limits of applicable codes. Check the operating system for each unit or group of units continuously and make necessary tests and corrections to ensure all circuits are correct and time settings are correctly adjusted. During servicing, the Contractor shall provide barricades.

The Contractor shall conduct annual equipment performance evaluations, including car speed, door operations, riding quality, and car leveling. Following such assessment, the Contractor

shall perform adjustments, repairs, and replacements required to maintain the manufacturer's operating performance. A copy of evaluations will be left with the Pennsylvania Convention Center and reviewed with it on request.

EXCLUDED SERVICES

The following items of elevator equipment, hoistway, and machine room enclosures are not included in this Contract:

ELEVATORS - Hydraulic

Refinishing, repairing, replacing or cleaning of car enclosure, gates and/or door panels, door pull straps, hoistway enclosure, rail alignment, hoistway doors, door frames, sills, hoistway gates, finished flooring, power feeders, switches, their wiring and fusing, car light diffusers, ceiling assemblies and attachments, smoke or heat sensors, fireman's phone devices, intercoms, music systems, media displays, card-readers or other security systems, light tubes and bulbs, hydraulic cylinder, unexposed piping, well hole casing, pit pumps, emergency power generators, disposal of or clean-up of waste oil or any contamination caused by leaks in the hydraulic cylinder or unexposed piping, including any consequential damages.



ELEVATORS – Traction

Refinishing, repairing, replacing or cleaning of car enclosure, gates and/or door panels, door pull straps, hoistway enclosure, rail alignment, hoistway doors, door frames, sills, hoistway gates, finished flooring, power feeders, switches, their wiring and fusing, car light diffusers, ceiling assemblies and attachments, smoke or heat sensors, fireman's phone devices, intercoms, music systems, media displays, card-readers or other security systems, pit pumps, emergency power generators, motor generators, light tubes and bulbs.

ESCALATORS

Renewal of refinishing of balustrades, trim and moldings, decks, skirts, guards, exterior truss enclosures, lighting, power lines to escalators, steps, step treads, step chain, anti-slide devices, brushes, guards, and damage or deterioration to escalator skirt deflector brushes.

The Pennsylvania Convention Center agrees that escalators are for the sole purpose of transporting passengers, preventing other items from being transported on escalators, and agrees to prevent safety devices from being damaged.

ALL VERTICAL TRANSPORTATION EQUIPMENT

- The Contractor shall be required to make all tests specified by governing Code and ordinance but shall not be required to install new devices on the equipment, which may be recommended or directed by insurance companies, federal, state, municipal, or other authorities, to make changes or modifications in design.
- The Contractor shall not be responsible for alignment of guide rails and or escalator trusses.
- Should any of the equipment not meet safety requirements, it shall be the responsibility of the Pennsylvania Convention Center, at its cost, to make necessary repairs and to place the equipment in a condition that will be acceptable for coverage under the terms of this Agreement.
- The Contractor shall not be liable for damage to the building structure resulting from these tests unless such damage results from the negligence or willful misconduct of the Contractor, its agents, or employees.

WIRING DIAGRAMS, INSTRUCTION MANUAL, ETC.

The Pennsylvania Convention Center agrees to furnish the Contractor, to the extent available, for the Contractor's use for as long as this Contract shall remain in effect, a complete set of electrical wiring diagrams for all of the equipment covered by this Contract, together with all additional helpful information; such as instruction manuals, lubrication charts, etc., are available to the Pennsylvania Convention Center from the manufacturers at no cost.



The Contractor shall protect and maintain the above materials and shall, on discontinuance of this Contract, return the documents in first-class condition to the Pennsylvania Convention Center.

The Contractor shall provide and maintain a maintenance schedule and record in each machine room, as well as a call-back and repair log, and shall make these documents available to the Pennsylvania Convention Center upon request. All service records can also be accessed by the Contractor's Service reporting system and through event-driven emails.

CERTAIN OTHER CONTRACTOR & PENNSYLVANIA CONVENTION CENTER RESPONSIBILITIES

Except as otherwise specified herein, Contractor shall not be obligated to make other safety tests herein, Equipment adjustments, or to install new attachments whether or not recommended or directed by insurance companies, or by federal, state, municipal, A.S.M.E. codes, or other governmental or non-governmental authorities. Additionally, except as otherwise specified herein, the Contractor shall (i) not be required to perform and keep records of firefighter's service testing, and (ii) not be obligated to make equipment adjustments to achieve Code required Escalator Step/Skirt Performance Index or loaded gap values.

The Contractor shall not be obligated to make changes or adjustments required by new or retroactive code changes unless, as provided in Section 1. A(i) of this Agreement, Contractor and Pennsylvania Convention Center mutually agree in advance on the additional costs associated with such changes or adjustments. The Contractor will be responsible for performing all state-required testing and correcting outstanding violations or deficiency lists cited by code authorities or any third-party agency before the Effective Date of this Agreement. The Contractor will not be required to make renewals or repairs necessitated by water damage, prior water exposure, rust, fire, explosion, acts of God, misuse, vandalism, theft, war, acts of government, labor disputes, strikes, lockouts, or tampering with the elevator equipment by unauthorized personnel. The Contractor shall not be obligated to make repairs or renewals for damage or deterioration caused by UV rays.

Obsolete items are defined as follows: An item (i) for which the original design is no longer regularly manufactured by the OEM or the original item has been replaced with an item of different design and (ii) which may include but not be limited to assemblies, parts, components or systems. No exception to this exclusion will be made for items defined as obsolete above simply because they can be custom-made or acquired at any price. A Contractor will be required to furnish reconditioned or used parts.



Any work not explicitly covered under this Agreement shall be at the expense of the Pennsylvania Convention Center, provided such Pennsylvania Convention Center authorizes such work in advance, in writing.

Safety: Contractor agrees to notify the Pennsylvania Convention Center to report any condition that may indicate the need for correction before the subsequent regular examination. Pennsylvania Convention Center agrees to notify the contractor to shut down the equipment upon the manifestation of any irregularities in the operation or appearance of the equipment and to notify the Contractor within 24 hours or sooner. The Pennsylvania Convention Center shall provide written notification within ten (10) days after any occurrence or accident in or about the equipment. The Contractor reserves the right to discontinue work at a the Pennsylvania Convention Center whenever, in its reasonable opinion, its personnel do not have a safe work environment.

The Contractor shall keep elevator/escalator pits clean of all debris and dirt related to general housekeeping. The Pennsylvania Convention Center agrees to maintain dry conditions at all times. Should water or other liquids become present, the Pennsylvania Convention Center shall contract with others for the removal and proper handling of such liquids and or soil contaminants.

DESCRIPTION OF ESCALATOR EQUIPMENT

Thirty (30) Escalators

The entire escalator equipment shall be maintained as described per the following detailed terms:

EXTENT OF COVERAGE-ESCALATORS

In connection with the provision of its Services hereunder, the Contractor shall use personnel directly employed, trained, and supervised by the Contractor.

Regularly and systematically examine, clean, lubricate, adjust, and when conditions warrant, repair or replace the following:

- Escalator Drive Machines.
- Motors and Brakes.
- Controllers and Switches.
- Handrail Drive Devices.
- Handrails.
- Worms and Gears.
- Bearing and Thrusts.
- Windings, Commutators and Rotating Elements.



- Contacts, Coils, Switches, and Relays.
- Resistors and Magnet Frames.
- Demarcation Strips, Risers, and Rollers.
- Handrail Chains, and Drive Chains.
- Step Tracks and Handrail Tracks.
- Sprockets, Pulleys, and Gears.
- Drive Belts and Timing Belts.
- Tension Devices.
- Combs and Comb plates (combs are billable when damaged by others).
- Landing Plates.
- Lubricators.
- Under Steps and Comb Lighting.
- Safety Devices.
- Perform an annual test of all operating and safety devices and governors using the applicable provisions of the current elevator code as a guide. Furnish ten (10) days advance notice of tests. Provide written reports of tests and file them with the proper authorities.
- Perform a total clean-down of escalator equipment, including pits, pans, and balustrade interiors, as conditions warrant.
- Wax handrails, as required to provide smooth, quiet operation.
- Balustrades, decks, skirt panels, anti-slide devices, and guards shall be examined regularly, adjusted, adequately fastened, and aligned.
 - The Contractor shall be responsible for advising the Owner of the necessity to replace these products but shall not be responsible for the cost of such replacement cleaning to be done by the Owner on a routine basis.
- Three-year Escalator Testing
- Step Index Tests are included for units not equipped with escalator skirt brushes.

PREVENTIVE MAINTENANCE - ESCALATORS

This section contains an Escalator Maintenance check chart and schedule. The preventative maintenance information and forms reference the Maintenance Service Log Summary.

Perform required maintenance and inspect the escalator using these methods:

- **Visual Awareness Review:** Always examine the escalator. Be aware of anything that looks out of place.
- **Manual Inspection and Repair:** Physically look at every part of the escalator, especially when scheduled service is being performed.



Service Schedule

The following is a service schedule containing these categories:

- **Weekly Service** Basic maintenance should be performed weekly to maintain the escalator.
- **Biweekly (Every 2 weeks)** Added items to the weekly service that should be performed to ensure reliable operation of the escalator.
- **Monthly** These items should be performed every month.
- **Quarterly (Every 3 months)** Vital maintenance should be performed every 3 months.
- **Semi-Annual (Every 6 months)** These items should be performed every six months.
- **Annual (Yearly)** These items should be performed once/year.

Preventative Maintenance and Service Schedule

- Weekly
 - Comb Fingers: Clean and check the condition and alignment
 - Comp Plate: Clean plate and gap
 - Steps and Risers: Check for damage
- Biweekly
 - Floorplate: Clean and inspect for damage
 - Handrail: Lead/Lag check, clean, and check condition
 - Steps and Wheels: Check the condition, check alignment, examine wheels, tighten step nuts, and clean
 - Lubricator: Check the oil level
- Monthly
 - Coupling: Check for vibration and noise
 - Main Drive Chain: Check for abnormal wear and/or Corrosion; check that the chain is adequately lubricated
 - Skirt Panels: Check the condition
 - Deck Moldings: Clean
 - Interior Panels: Clean
 - Newel Ends: Check for any unusual noise or temperature and clean
 - Comb fingers: Tighten screws
 - Step Guide Rollers: Check alignment
 - Handrail Drive Chains: Check Condition
 - Step Chain: Check the condition
 - Main Drive Shaft: Check sprocket wear and alignment
 - Tension Carriage: Check the condition
- Quarterly
 - Main Drive Chain: Check for proper chain slack
 - Pawl Brake: Check for operation



- Machine Brake Check torque and operation
- Gear Reducer: Check oil level and fill if needed with manufacturer-approved oil
- Comp Plate Impact switches: Check tripping force
- Handrail Drive Chains: Check for elongation of chain and tension
- Step axle sleeves: Lubricate with manufacturer-approved lubrication
- Take-up Device: check handrail tension
- Handrail Drive sheave Pressure Rollers: Check spring force
- Lubrication: Check pump
- Semi-Annually
 - Gear Reducer: Check sprockets for wear
 - Brake Lining wear detector: Check operation
 - Pawl Brake Switch: Check Operation
 - Step Chain Track: Clean Track rails
 - Step Chain Guide shoe: Lubricate with Manufacturer-approved lubrication
 - Step Roller Track: Clean track rails
 - Up-Thrust Guides: Clean
 - Turn-Around Track Rail: Clean track rails
 - Handrail Guides: Check the condition and clean
 - Tension Carriage Rollers: Lubricate with Manufacture-approved lubrication
 - Return Guides: Check for abnormal wear and clean
 - Steps and Wheels: Grease step wheel shoe
 - Step Chain: Check tension
 - Lubricator: Clean lubricator brushes and check tubing condition
- Annually
 - Motor Bearings: Replenish Grease with Manufacture-approved lubrication
 - Main Drive Bearings: Add grease with Manufacture-approved lubrication
 - Tension Carriage Bearings: Add grease to fittings with Manufacture-approved lubrication
 - Handrail Drive Bearings: Add grease to fitting with Manufacture-approved lubrication
 - Gear Reducer: Change oil with Manufacture-approved oil
 - Check the torque of MPB's first two at the top and bottom and five in the middle
 - Clean Down: Remove all trash, oil, grease, rust build-up, and paint the exposed steel with rust-inhibiting paint

TESTING - GENERAL, ALL UNITS

The Contractor shall examine monthly all safety devices & governors and conduct Annual Safety No Load Tests (Category 1), Five-year Full Load Safety Test (Category 5), Hydraulic Pressure Tests (Category 3), Escalator Three-year tests, Escalator Step Index Tests and Full Speed Tests of safety mechanism, overhead speed governors, car and



counterweight buffers. Additionally, during these tests, the car balances will be checked, and the governor set recalibrated and sealed for proper tripping speed. All test results must be forwarded to the Owner's Representative and Consultant, who will submit them to Ownership. As per ANSI A17.1, 2, 3, all periodic tests and inspections shall be included in the terms and conditions of this Contract.

It shall be the Contractor's sole responsibility to ensure that all work outlined/listed as "Unsatisfactory" on any Inspection report be repaired. An affirmation of correction is filed within the deadlines set forth by the Building Departments. Any fines and/or filing fees shall be included and covered as part of this agreement with no additional cost to Ownership.

Perform a monthly test of the Elevators' Fire Safety System, i.e., Manual Recall and Firemen's Elevator Operation, in the designated elevators. Confirmation and results of all tests shall be forwarded in writing to the Owner upon completion of testing. The scheduling of all test procedures shall be coordinated with the Agent on a "not to interfere" basis and approved before the commencement of the indicated service requirements.

PERFORMANCE TIMES, LEVELING AND CONTRACT SPEED

The control system shall be maintained to provide smooth acceleration and retardation. The Contractor must maintain the elevators per the following performance specifications (including floor-to-floor times, door timings, rated speed, group supervisory system, etc.).

- Operating Speed at 10 percent plus or minus rated speed in both travel directions under varying load conditions.
- Door Opening Cycle at Industry Standards for this type of equipment.
- Door Closing Cycle at Industry Standards for this type of equipment.
- Floor-to-floor time at Industry Standards for this type of equipment. (Measured at the start of the Door Closing Cycle until doors are 3/4 open at the following typical landing with a traveling distance under 16'-0".)
- Non-interference Long Door Dwell Time at 4.00 to 6.00 seconds.
- Non-interference Short Door Dwell Time at 0 to 2.00 seconds.
- Door Closing Pressure at 20 pounds maximum.
- Landing Accuracy at 1/16" plus or minus.

SPARE PARTS

The Contractor shall provide and maintain a supply of spare parts including contacts, relay assemblies, diodes, capacitors, resistors, relays and boards, coils, leads, generator and motor brushes, lubricants, wiping cloths, and other minor parts in each elevator machine room for the performance of routine preventative maintenance. All spare parts shall be kept in storage cabinets provided by the Contractor. A minimum of two (2) car panel and hoistway door hanger roller assemblies, one (1) interlock switch assembly with linkage, two (2) door guides, two (2) car guides or two (2) sets of rollers, one (1) clutch engaging



devices and a full complement of fuses, lamps and overload elements, ten (10) gallons of applicable hydraulic fluid shall be kept on the premises at all times. Replacement button assemblies, detector edge, and photoelectric eye components shall be stored, based on demand during the first six months of service.

WIRE ROPES

The Elevator Contractor shall examine and equalize tension on all wire ropes and renew all hoisting ropes, compensating ropes, and governor ropes whenever necessary to ensure the maintenance of adequate safety factors. The Contractor shall also shorten ropes as required to maintain legal bottom clearances and re-shackle as required. All proper Code compliant anti-spin devices with two Crosby clips shall be included as part of this agreement, even when missing before taking over this Contract.

BRAKES

The Elevator Contractor shall obey code 8.6.4.6, and maintain the driving machine brake annually to ensure proper operations. The brake maintenance shall be recorded in the maintenance records, and a metal tag indicating the Contractor's name and Date of service shall be attached to the elevator controller.

WIRING

The Contractor shall repair and/or replace all associated electrical wiring and electrical traveling conductors extending to the elevators from the mainline switch to the machine room and outlets in the hoistways. The mainline switch is excluded.

RE-LAMPING

The Contractor shall be responsible to re-lamp all lighting and pushbutton fixtures in the pit, machine room, and hoistway (including cab work lighting), as required. All guards shall also be included.

PAINTING

The Contractor shall keep machine room floors, the exterior of the machinery, and any other parts of the equipment subject to rust properly painted, always identified, and presentable. The proper insulating compound shall periodically treat motor windings and controller coils.

NOTICE TO REPAIR OR REPLACE

The Contractor shall comply with all written citations of the Government Agencies having legal Jurisdiction and written recommendations of the Owner's insurance carrier or Consultant for repairs as covered.



However, the Contractor is not required under this Contract to install new attachments on the elevators different from those now constituting the equipment, as recommended or directed by insurance companies, the Building Department, or otherwise. The Contractor states that the equipment complies with common elevator standards and the Building Department at the time of installation.

REPAIRS, RENEWALS, AND REPLACEMENTS

Repairs, renewals, and replacements shall be made by the Contractor when required or when other examinations reveal the necessity, therefore, or when the Owner so advises the Contractor under the terms of this Contract. It should be understood and agreed that repairs, renewals, and preventative maintenance practices shall be equal in design, workmanship, quality, finish, fit, adjustment, operation and appearance to the original installation and that replacements shall be new and genuine parts equal to those parts supplied by the manufacturer of the original elevator's equipment or its successor, and shall apply to the repairs, renewal, or replacement of all mechanical, electronic, and electrical parts, including but not limited to the following:

- Automatic power-operated door operator, all accessories (Car door hanger, car door contact, door protective device, detector edges, car door saddle, elevator car guide shoes, gibbs or rollers).
- Machine, worm gear, thrust bearing, drive sheave, drive sheave shaft bearings, other sheaves and bearings, brake pulley, brake coil, brake contact, shoes and linings, components part and all associated castings.
- Piston, jack, power unit, muffler, pump, motor, valves system, bearings, windings and coils, rotating elements, contacts and relays, resistors and contractors, packing, drive belts, strainers, and mufflers, above-ground piping.
- Motor, including gearless applications, motor-generator, and hoist motors, motor windings, rotating element, commutator, field coil, brushes, brush holders, bearings, rotors, starters, slip rings.
- Controller, selector and dispatching equipment, all relays, solid-state components, drives, resistors, condensers, transformers, contact leads, dashpots, timing devices, communication system, computer devices, insulators, solenoids, chokes, resistance grids, and mechanical and electrical driving equipment to include all SCR equipment and related systems.
- Governor, governor sheave and shaft assembly, bearings, contacts, and governor jaws. Governor Cable tension sheave and appurtenances.



- Deflector or secondary sheave, bearings, car and counterweight buffers, car and counterweight guide rails, top and bottom limit switches, governor tension sheave assembly, compensating sheave assembly, and counterweight guide shoes including roller or gibs. Hoistway door interlocks, hoistway door hangers, lobby sill, tracks and rollers, bottom door guides, and auxiliary door closing devices, clutch engaging devices and related operating linkages, sight guards, non-vision wings, door rollers and lubricators, all cab and hatchway door equipment.
- Hall lanterns, main lobby fixtures, main and auxiliary car operating panel, car position indicator, electric door operators, safety edge, photo eyes and/or detector edges. Cabs, fans, and handrails are also included. Re-lamping of signal and operating fixtures shall be performed during scheduled preventative service visits only. The cab fan and handrail(s) are also included.
- Car and counterweight buffers, car and counterweight guide rails, top and bottom limit switches, and counterweight guide shoes including roller or gibs.
- The Contractor shall provide safe access to the elevator pit for the building staff to service or repair the "sump pump", were provided, during normal business hours.
- Furnish lubricants and hydraulic system oil compounds to the original elevator specifications.
- The following items of the elevator equipment are excluded: car enclosure (including removable panels, suspended ceiling, light diffusers, etc.), cab door panels, hoistway enclosures, hoistway door panels, door frames and sills, fluorescent light tubes and car frame.
- The Contractor shall provide an estimate of costs to replace the excluded items upon request unless the items are covered under the full coverage conditions as an accessory or an appurtenance item.
- If the Contractor elected to prorate or exclude specific components normally covered under the full protective service agreement provided, the following information detailed under the terms of this Contract will be provided in writing. If no exclusions are attached, it shall mean there are no exclusions.
- The present replacement and/or repair cost of each prorated or excluded component or system is specified, attach a separate list.



- A detailed formula for proration clause based on the present replacement price and future labor and material escalation provisions per this document and percentage of time contract is in force.
- Proration and/or exclusion provisions shall be specifically detailed for the applicable elevator equipment indicated with the understanding that such limitations do not reduce or eliminate the Contractor's liability on other elevators covered under the terms of this agreement.

OBSOLESCENCE

Component Obsolescence shall be defined as the inability to purchase a component of the same vintage or newer for this contractual contingency. The said component can be manufactured by the original equipment manufacturer or a third-party (generic) brand. If the original component has been discontinued or replaced with a modern, redesigned, re-engineered, or change of manufacturers, said component will be the responsibility of the Contractor awarded the maintenance contract to install. Any elevator/escalator under this Contract shut down or turned off for more than seven (7) calendar days will result in a contract adjustment of 25% a week and or 5% a day per the value of this Contract.

In the event equipment and/or a part thereof, as covered under this agreement, cannot be replaced, the condition shall be reported to the Owner's Representative with the following information:

- Alternate equipment or parts renewal options for the system restoration due to obsolescence.
- Procurement and installation time for the restoration of system service.
- Any Local Law or safety code requirements that will be triggered by the alternative equipment or component renewal (i.e., including filing, tests, and approvals).

After the Owner's authorization to proceed with an alternative obsolescence repair and approval of the relative extra cost, if any, the Contractor shall immediately perform such work and restore operating services.

The Owner shall retain the right to bid all repairs and replacements competitively, and such work as performed by another qualified contractor shall not diminish or otherwise alter the coverage provided under this agreement subject to the following:

- The maintenance contractor has the right to inspect work performed by others and, if conditions warrant, reject obsolescence procedures that increase their contractual liability. Should the Contractor reject an obsolescence repair by others, a qualified third-party consultant shall be commissioned to evaluate the work and decide on the acceptability of the prevailing conditions.



RECORD KEEPING

A complete permanent record of inspections, maintenance, lubrication and call-back service for each elevator under service will be kept in the appropriate elevator machine room and with building personnel. These records are always to be available to Building Management or Ownership. The records shall indicate the reason the mechanic was in the building, arrival, and departure time, the work performed, etc.; these records will be the property of the Owner and submitted monthly or when requested by the Owner. Penalties on the invoices will be applied for any incomplete monthly service work/reports.

The Contractor shall provide and maintain a complete set of updated electrical wiring diagrams and drawings on file with the building office and to become the property of the Owner.

REPORTS BY CONTRACTOR

Contractor shall, at any time during the term of this Contract, upon written request of the Owner, render a report of inspections, call-backs, shutdowns (entrapments or otherwise), repairs or replacements made by the Contractor at the premises herein, itemized as to parts installed or services performed, and supply samples of lubricants, compounds, or other materials employed.

SOLE RESPONSIBILITY

The maintenance work shall be performed only by properly uniformed and trained elevator mechanics directly employed and supervised by the Contractor, who are experienced and skilled in maintaining elevators similar to those to be maintained under this Contract and shall not be assigned or transferred to any other Contractor or Subcontractor.

LABOR CONTRACTS AND OVERTIME

It is further understood and agreed that the Contractor shall furnish to the Owner, in duplicate, a copy of his current labor contract and any subsequent labor contracts effective during the term of this Contract about his elevator maintenance personnel, and the Contractor further agrees to furnish any additional information concerning overtime to the Owner at any time upon request.

COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS

The Contractor agrees that he/she and his/her agents and employees will comply with all municipal, state, and federal laws, rules, and regulations applicable to the business to be conducted under this Contract and that the Contractor shall obtain all necessary permits, pay all license fees and taxes to comply therewith. The Elevator Contractor shall also comply with the terms and conditions of the Exhibit attached hereto. If a strike, boycott, picketing, work stoppage, slowdown, or other labor activities are directed against the Contractor at the Owner's Facilities, which results in the discontinuation of services



performed by the Contractor, the Owner shall have the unrestricted right during said period to cause itself or by any other third person or persons to perform said services of Contractor using such equipment which is used by the Contractor and without cost to the Owner.

Payments required to be made by the Owner to the Contractor under the Contract shall be excused and terminated during such period. Equipment damage, exclusive of normal wear and tear, will be reimbursed to the Contractor.

VIOLATIONS

The Contractor agrees that he/she and his/her agents shall comply with any violation issued by the Agency having Jurisdiction, assuming all repairs are covered under the scope of work outlined in this agreement. The Contractor's sole responsibility shall be any paperwork, expediting, hearings, and/or any other means necessary to clear all violations. The Owner / Owner's Representative should forward any violation issued to the elevators within five business days. Any fines incurred before the Contractor was given the violation shall be the responsibility of the Owner; however, if given enough time, the Contractor will be responsible for fines incurred afterward.

If there is work that needs to be performed by someone other than the Elevator Contractor or work that is not included in this Contract, the Contractor MUST inform the Owner/Owner's Representative and Consultant(s) of the additional work in writing. In either case, clearing of the violation shall be the Contractor's responsibility once the Owner/owner representative has stated that the work has been completed.

ESCALATION

The escalation shall be calculated based upon two components on the following basis.

Material (20%)

Pre-variance (increase or decrease) shall be defined based upon the metal-to-metal index published by the appropriate authorities.

Labor (80%)

Pre-variance (increase or decrease) shall be based upon negotiated increases by applicable union labor authorities and personnel. These shall be quantified and qualified by the Contractor as required by the Owner and Consultant and supported by official documents as requested.

In either event, the Contractor agrees not to increase the maintenance for Five (5) years by more than three (3%) percent each year with a cap of 10% (calculated from year one) for the life of this Contract.



INSURANCE COVERAGE - Please refer to Section III, 1.2 INSURANCE in the RFP.

NEGLECT

Should any elevators or escalators be left out of service for an extended time by the Contractor other than it would normally take to perform particular repair(s) or replacement(s) that caused the shutdown, with no reasonable explanation, the Owner retains the right to deduct the pro-rated amount of the days out of service from the monthly maintenance amount?

Furthermore, if the Owner feels that the equipment is not being maintained properly, the Owner retains the right to hire a third party to evaluate the maintenance. If this happens, all associated costs will be billed to the Contractor.

During the term of this Contract, the Owner or Owner's Representative shall have the right to hire a third-party consultant to review the Contractor's Work. If any or all of the work performed is substandard, in the opinion of the Consultant, or the Contractor has not performed within the terms of this Contract or has not complied with local law, standards and codes, Owner reserves the right to have the work performed by another Contractor.

CANCELLATION

Owner or Contractor shall have the right to cancel this Contract upon provision of at least thirty (30) days prior written notice to either party of its election to do so with or without cause or for reasons of non-performance or any item in the terms of the Contract. If this Contract is canceled the elevator contractor must make all arrangements to vacate the premises and leave equipment in clean and non-damaged condition. Pertinent information including but not limited to as-built drawings, schematics, circuitry changes shall be left at the premises.

In addition to the rights provided hereunder, the Owner shall have the right to cancel this Contract immediately upon the occurrence of any of the following contingencies: Bankruptcy of the Owner, Owner's Representative or Contractor, Mortgage Foreclosure, Condemnation, Destruction, or Transfer of Conveyance of Title to the premises in which the subject equipment is located; or the premises in which the subject equipment is rendered unusable in the opinion of the Owner or government authority.

PAYMENT

This service shall be furnished from January 1, 2026 for the period of three (3) years with two 1-year renewal options. All replacement parts required herein shall be supplied and



installed at the Contractor's sole cost and expense (except as noted in the list attached). The Owner agrees to pay the Contractor \$ _____ every month during the terms of this Contract.

All invoices shall separately indicate the portions of the total amount due under the Contract for elevator maintenance. Payment requests for non-covered repairs or extra work shall be brought to the Owner's attention at the time of the repairs and are itemized separately with supporting documentation. Any state or local sales tax which may be applicable is not included in the monthly charge.

NON-PAYMENT

The Owner may have the elevator's performance checked at any time to ensure the Contractor is performing per this Contract. If the performance requirements are not maintained, the Owner will retain the monthly payment to the Contractor until the Consultant verifies that the performance is back to standard.

If three (3) consecutive months of sub-standard performance is noted, the Owner has the right to immediately cancel the Contract.

Cancellation of Current Services

By submitting a proposal, the current Elevator Contractor hereby agrees to waive any and all rights to any clause, section, paragraph or article, in whole or in part, which holds the building, cooperative, corporation, Owner, manager or managing Agent, responsible for monies due or penalties imposed in accordance with early cancellation of the elevator maintenance agreement in effect. This submission by the incumbent Elevator Contractor, or a subsidiary of the same, will thereby allow the Owner to cancel the current elevator maintenance agreement with or without cause upon a Thirty (30) Day written notice to the current Elevator Contractor providing maintenance.

Existing Maintenance Agreement

In the event that any Proposer or the successful Proposer is currently the provider of the preventive maintenance services on the elevators that are the subject of this agreement, such Bidder(s) acknowledge and fully agrees that their current elevator maintenance agreement shall become null and void upon submission of a proposal.

NOTE: This Contract is not to be used by anyone other than the Owner for the specified Elevator's Maintenance Contract.



HOURLY RATE SCHEDULE

NOTE ANY ANNUAL ESCALATIONS

Personnel	Contractors Hourly Base Cost Including Hourly Selling Fringe Benefits	Overhead & Straight Time Profit Percentage	Time & a Half Hourly Premium Rate Selling Price	Double Time Premium Hourly Rate Selling Price
Manager				
Supervisor				
Maintenance Mechanic				
Repair Mechanic				
Modernization Mechanic				
Helper				
Engineer				
Adjuster				
Tech. Trouble Shooter				
Foreman				
Other				

Contractor: _____

Normal working hours: _____ M-F

Time and one-half working hours and days: _____

Double-time working hours and days: _____



PRICING MATRIX

FOR OWNER'S DETERMINATION IF ONE OR TWO COMPANIES WILL BE AWARDED THIS CONTRACT

Annual Cost - Maintenance for the 11 passenger elevators/2 lift stations at 2 hours/month each

\$ _____

Annual Cost - Maintenance for the 12 Freight elevators at 3 hours/month each

\$ _____

Annual Cost - Maintenance for the 30 escalators at 2 hours/month each

\$ _____

Annual Cost – One resident elevator and One resident escalator mechanic

\$ _____

Annual Cost - One resident mechanic for elevators only

\$ _____

Annual Cost - One resident mechanic for escalators only

\$ _____

The Pennsylvania Convention Center Authority/ASM Global management reserves the right to choose any combination of proposal options and award to multiple contractors.

Please complete this portion of the specifications and submit it with your proposal.

Name of Elevator
Contractor



PROPOSAL FORM

Mandatory Submissions

By submitting a Proposal on this form, the proposer certifies that the proposer fully understands the Project Specifications as they apply to this project. The bidder agrees to provide all services, materials, manpower, administration, coordination, etc., to conform to these specifications at the price stated.

Pre-Maintenance:

Please also submit a separate document with line item pricing for any/all items you believe need repair, replacement & or adjustments. This will not be part of the contract price.

Total Pre-Maintenance Price for _____ (____) Elevator(s): \$_____

Total Pre-Maintenance Price for _____ (____) Escalator(s): \$_____

Name of Elevator
Contractor

Address

I.D. #

Telephone Number

Fax Number

Name of Person Signing

Signature

Title

Date

Any exceptions to these specifications and/or coverage proposed shall be clearly stated and submitted at the time of your proposal submission. Any exceptions not received with your proposal will not be considered.