

MODERNIZATION PROPOSAL FOR

# The Exchange Lofts

309 Church Street  
Nashville, TN 37201

January 27, 2022



**Ghertner & Company**  
50 Vantage Way, Suite 100  
Nashville, TN 37228



PO Box 1301  
Knoxville, TN 37901  
800.338.0064/865.573.0731



## 14 21 00 Traction Elevator Modernization

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Complete labor and materials to modernize two (2) existing geared traction passenger elevators. Elevator work includes:
  - 1. Non-proprietary microprocessor based controllers, drives, selectors and wiring.
  - 2. Non-proprietary door operators and related equipment.
  - 3. New hoist machines, ropes and ascending brakes
  - 4. Car doors, ceilings, and fronts as described herein.
  - 5. Signal fixtures in the cars and hallways.
  - 6. Accessibility provisions for physically disabled persons.
  - 7. Equipment and devices as required for safely operating the specified elevators at their rated speed and capacity.
  - 8. Materials and accessories as required to complete the elevator modernization.
  - 9. Lerch Bates Project No. 0100028583 Specification Sections 310, 800, 1010, 1030 (Alternates #2 and #3), 1040, 1300, 1600, 1700, 1800, 1900, and 142200.
- B. Elevator maintenance (interim and warranty service).

#### 1.02 RELATED WORK NOT INCLUDED in this Proposal: Confirm Existing or Provide New

- A. HEATING AND AIR CONDITIONING – Provide or Confirm. suitable ventilation and cooling equipment, thermostatically controlled, if required to maintain the machine-room temperature between 45°F and 90°F. The relative humidity should not exceed 85 percent non-condensing. HVAC unit may be located within the bounds of the machine room if solely for the heating or cooling of that machine room.
- B. ASBESTOS – Should any asbestos be found to be present in the building which is related to any of our work, it shall be the responsibility of others to abate contain or prepare the workplace as safe for our employees to work within or about. Elevator Contractor cannot and will not be responsible for working with asbestos which may be disturbed or uncontained. Elevator Contractor cannot and will not be responsible for any costs associated with delay of the job should asbestos be detected or require addressing by others for us to proceed. This includes but is not limited to re-mobilization charges which may be applied.

#### 1.03 ADMINISTRATIVE REQUIREMENTS

- A. Pre-installation Meeting: Convene a meeting one week prior to starting work.
  - 1. Review schedule of installation, installation procedures and conditions, and coordination with related work.



## Signature Page

### PAYMENT TERMS

- **Thirty percent (30%) due with order for engineering and down payment.**
- **Twenty-Five percent (25%) due with material delivery whether stored onsite, our facility or at facility directed by owner.**
- **40% Progress Payments**
- **5% Retainage Due at the completion of all work and at the satisfaction of the Purchaser.**

### ACCEPTANCE

Our proposal amount is:

Four Hundred Thirty-Five Thousand Three Hundred Seventy-Five and 00/100 Dollars  
(\$435,375.00) Including Tax.

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviations from above specifications involving extra costs will be executed only upon written orders and will become an extra charge over and above the estimate. All agreements contingent upon strikes accidents or delays beyond our control. Owner to carry fire, tornado, and other necessary insurance. Our workers are fully covered by Workmen's Compensation Insurance

**NOTE:** This proposal may be withdrawn by us if not Accepted within 30 days.

Submitted by :

**Jeff Cruze**  
**Account Manager, Nashville**

Acceptance of Proposal-The prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Customer Authorized Representative:

Signature: David Floyd Date: 2/1/2022

Print Name: David Floyd Title: Managing Agent

Accepted for United Elevator Services LLC

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Print Name: P. David Vickers, Chief Manager



## **Contract Clause Warranty**

United Elevator Services, LLC warrants any equipment it installs as described in this proposal against defects in material and workmanship for a period of Sixteen (16) months from the date Purchaser's execution of United Elevator Services, LLC's "Final Acceptance Form." This is made on the on the express conditions that all payments made under this installation agreement and all change orders and have been paid in full. Warranty is contingent on the equipment being currently serviced by United Elevator Services, LLC. No warranties which extended beyond the description in this proposal, nor are there any warranties, expressed or implied, by operation of law or otherwise nor is there a warranty of merchantability. This warranty is not intended to supplant normal maintenance service and shall not be constructed to mean that United Elevator Services, LLC will provide free service to periodic examination, lubrication, tests, or adjustment, nor will United Elevator Services, LLC correct, without a charge. Any problems that arise from normal wear and tear or abuse, misuse, improper or inadequate maintenance, or any other causes other than defective material or workmanship are not covered. In order to make a warranty claim, purchaser must give United Elevator Services, LLC prompt written notice. United Elevator Services, LLC shall, at its own expense correct any proven defect by repair or replacement. United Elevator Services, LLC will not, under any circumstances, reimburse purchaser for cost of work done by others, nor shall we be responsible for the performance of any equipment that has been the subject of service, repair, replacement, revisions or alternations by others. If there is more than one (1) unit which is the subject of work described in this proposal, this clause shall apply separately to each unit as accepted. Should our start of work be delayed for a period greater than six (6) months from the agreed upon delivery, the warranty shall be reduced by the amount of the delay.

## **Installation Service**

For the period of Sixteen (16) months following United Elevator Services, LLC's turnover of the units described in this proposal to purchaser, we agree to provide preventive maintenance and callback services on the contracted equipment. This includes service visits during regular working days and hours. This includes visual inspections, lubrication, and greasing of the equipment and minor adjustments. Emergency callbacks for entrapments are included. We will monitor, at no additional charge, the required emergency phones in each elevator (lines by owner).

Repairs to the equipment installed included a visual investigation to determine the source of shutdown along with any resulting necessary adjustments and parts replacement due to normal wear and tear. Callbacks/repairs due to any one or more of the following: anyone's abuse, misuse and/or vandalism of the equipment; anyone's negligence in connection with the use or operation of the equipment; fire, smoke, explosions, water, storms, wind, lightning, theft, riot, civil commotion, war, malicious mischief, power outages/surges, acts of nature, or any other reason or cause beyond the control of United Elevator Services, LLC's is excluded. Any work under these conditions will be billable at our standard rates. The services described herein will be performed only during normal business working days and hours unless otherwise specified. Work that is not covered or for running on arrival will be billed at the full overtime rate.

## **Indemnification and Limits of Liability:**

In consideration of **UES** performing the services herein specified, Customer expressly agrees to indemnify, defend, save harmless, discharge, release and forever acquit **UES**, its employees, officers, agents, affiliates, and subsidiaries from and against any and all claims, demands, suits, and proceedings brought against **UES**, its employees, officers, agents, affiliates and subsidiaries for loss, property damage (including damage to the equipment which is the subject matter of this Agreement), personal injury or death that are alleged to have been caused by the Customer or any others in connection with the presence, use, misuse, maintenance, installation, removal, manufacture, design, operation or condition of the equipment covered by this Agreement, or the associated areas surrounding such equipment. Customer's duty to indemnify does not apply to the extent that the loss, property damage (including damage to the equipment which is the subject matter of this Agreement), personal injury or death is determined to be caused by or resulting from the sole negligence of **UES** and/or its employees. Customer recognizes that Customer's obligation to **UES** under this clause includes payment of all fees, court costs, judgments, settlements, interest and any other expenses of litigation arising out of such claims or lawsuits. In consideration of the performance of the services and the furnishing of the materials as specified above at the price stated, Customer acknowledges and agrees that **UES** assumes no liability on the account of accidents to persons or damage to persons or property; and that Customer's owns the responsibility for damage to persons or property while riding on or being in or about the elevators referred to in this Agreement is in no way mitigated or abated.



United Elevator Services, LLC.

Post Office Box 1301  
Knoxville, TN 37901  
V: 865.573.0731  
F: 865.573.0867  
T: 800.338.0064



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August 12, 2021

Mr. Steve Shanks  
Lerch Bates, Inc.  
107 Music City Circle, Suite 112  
Nashville, TN 37214

Ref: Exchange Lofts Elevator Modernization – Revised Proposal

Mr. Shanks:

Thank you for providing United Elevator Services with the opportunity to modernize the elevator equipment at Exchange Lofts. Please find attached our proposal for modernization services.

Please see the below qualification on the proposal revision:

- We were made aware the machine room HVAC scope would be handled by the building. We have removed this from our scope of work.

Please review the attached proposal carefully and if it meets with your approval, sign and return a copy to my attention. Should you have any questions, please contact me at (615) 497-0876.

Best regards,

A handwritten signature in blue ink that reads "Jeff Cruze".

Jeff Cruze  
Account Manager, Nashville  
Email: [jeffc@unitedelevator.com](mailto:jeffc@unitedelevator.com)

Encl.

SECTION 00310  
QUOTATION FORM

DATE: 1/27/2022

PROJECT: The Exchange Lofts – 309 Church Street, Nashville, TN 37201  
Turnkey Modernization of Two (2) Geared Traction Passenger Elevators

SUBMITTED BY: United Elevator Services, LLC.  
Name of CONTRACTOR

Jeff Cruze (615) 497-0876  
CONTRACTOR'S Representative Telephone Number

105 Space Park South  
Street Address

Nashville TN 37211  
City State Zip Code

Email quotation to: Jeff Rymer  
Board President  
The Exchange Lofts  
jeff@jeffrymer.com

Email quotation to: Steve Shanks  
Regional Manager  
Lerch Bates, Inc.  
steve.shanks@lerchbates.com

PART 1 - GENERAL

1.1 CONTRACTOR'S BASE QUOTATION

- A. Having examined documents prepared by Lerch Bates Inc. dated July 30, 2021, and having reviewed site conditions, applicable codes and all conditions affecting and governing the work, the Undersigned Contractor hereby offers to provide all engineering, labor, materials, transportation, services and equipment necessary and incidental to properly execute required work of the Contract Documents for the sum of:

Item: 1 Modernize Passenger Elevators: Cars #1-2  
Section: 00020 - 142200

Elevator Dollars \$ 341,730.00

Related Building Work Dollars \$ 66,845.00

B. MAINTENANCE

1. Interim Maintenance: We agree to furnish interim, preventive maintenance during the period from written award of this Contract or verbal notice to proceed until all required work is complete for following amount per month per unit:

Passenger Elevator: #1 \$ 455.00 /Month

Passenger Elevator: #2 \$ 455.00 /Month

**NOTE: Do not include the cost of interim maintenance in "A" above, Base Quotations.**

2. 12-Month Warranty Preventive Maintenance: Amount included in base quotation Item A., 1 above.

\$ 8,760.00 6,700.00

Total Included in Item A.

Passenger Elevator: #1 \$ 365.00 /Month

Passenger Elevator: #2 \$ 365.00 /Month

**NOTE: Purchaser reserves the right to pay warranty maintenance cost in a lump sum or on a monthly basis during period maintenance is actually performed.**

3. Contract Maintenance: We agree to provide continuing preventive maintenance as required by Owner's 3-year contract included with these specifications Section 143250 at a charge per month as follows:

Passenger Elevator: #1 \$ 365.00 /Month

Passenger Elevator: #2 \$ 365.00 /Month

**NOTE: Contract preventive maintenance shall commence at the completion of the one-year warranty maintenance program.**

4. Standard Billing Rates:

BILLING RATE	MECHANIC	HELPER	TEAM
Regular Time	\$ <u>290.00</u>	\$ <u>203.00</u>	\$ <u>493.00</u>
Overtime 1.7	\$ <u>493.00</u>	\$ <u>365.00</u>	\$ <u>858.00</u>
Overtime Double time (Sundays and Holidays)	\$ <u>n/a</u>	\$ <u>n/a</u>	\$ <u>n/a</u>

- C. Enter a cost figure for all pricing requested. Failure to comply, subjects quotation to disqualification.
- D. Undersigned affirms that quotations provided represent entire cost including site conditions, code requirements, drawings, specifications, addenda, and any other Contract Documents, and no claim will be made due to any increase in wage scales, material prices, taxes, insurance, cost indexes or any other factors affecting the construction industry or this project except as expressly allowed in Owner’s maintenance contract.

1.2 ADDENDA

Undersigned acknowledges receipt of Addendum No. 01 through \_\_\_\_\_

1.3 CONTRACTOR'S OTHER SUPPORTING ENCLOSURES

- A. Undersigned has enclosed the following (Check YES or NO):  
 1. Separate letter containing any “Qualification” related to its Quotation.  YES  NO

1.4 PROPOSED MODERNIZATION INSTALLATION SCHEDULE

- A. Undersigned contractor submits the following completion schedule for project. Bidders are instructed to add additional rows to the following schedule grid to accommodate job specific phasing.

PHASE #	PHASE	DURATION (WEEKS)
<u>1</u>	<u>Engineering Surveys</u>	<u>2</u>
<u>2</u>	<u>Submittal Preparation</u>	<u>3</u>
<u>3</u>	<u>Client Approval Period</u>	<u>3</u>
<u>4</u>	<u>Engineering, Procurement and Fabrication</u>	<u>14</u>
<u>5</u>	<u>Mod Installation, Phase #1 Car #1</u>	<u>7</u>
<u>6</u>	<u>Mod Installation, Phase #2 Car #2</u>	<u>7</u>
<u>7</u>	<u>Final Group Testing and Adjusting</u>	<u>1</u>
<u>8</u>	<u>Total Project Duration</u>	<u>37</u>

1.5 CONTRACTOR PROPOSED MODERNIZATION COMPONENTS AND TECHNOLOGY

- A. Undersigned Contractor will utilize the following modernization technology for the projects and submits these systems for approval. Upon acceptance of these systems by Purchaser/Consultant, no substitutions shall be made without written approval of Consultant.

Modernization Systems and Components	Proposed Model Description/Vendor
Machine	<a href="#">Hollister Whitney GT11</a>
Control	<a href="#">EC Pixel</a>
Door Operator	<a href="#">GAL MOVFR</a>
Infrared Door Edge	<a href="#">Janus Pana40</a>
Fixtures	<a href="#">Innovation</a>
Governor	<a href="#">HW</a>
Safety	<a href="#">HW</a>
Cab Interiors	<a href="#">SnapCab</a>
Door Panels/Entrances	<a href="#">Unique Architrcture/Electrostatic Precision Paint</a>

1.6 CONTRACTOR'S LIST OF SUBCONTRACTORS

- A. The undersigned Contractor will utilize the following subcontractors for major components of work and submits these firms for approval. Upon acceptance of these Sub-Contractors by Purchaser/Consultant, no substitutions shall be made without written approval of Consultant.

Subcontractor Name	Type of Work
Energy Command (Jeff Leake) - 615-297-9070	Electrician
ACT - (615) 333-6300	Fire Life Safety (Panel)
International Fire Protection (Devin) Cell: 615-838-6247	Fire Life Safety (Sprinkler)
<a href="#">Not Applicable</a>	HVAC
<a href="#">CIC Construction</a>	Painting / Patching
<a href="#">CIC Construction</a>	Plumbing
<a href="#">CIC Construction</a>	General Contractor
<a href="#">Kenny Bundy - kenny@cictn.com (615) 310-0581</a>	

1.7 SUBMISSION AND ACCEPTANCE OF QUOTATIONS

- A. Undersigned Contractor agrees to Purchaser's right to reject any and all quotations without explanation.

- B. Undersigned Contractor declares that preparation and submission of quotations herein contained do not obligate Purchaser or Consultant in any way.
- C. Undersigned Contractor agrees and understands that Purchaser assumes no obligation to enter into a Contract.

1.8 ALTERNATES

- A. State net sum to be added to or deducted from Stipulated Sum (Base Quotation) in event any Alternate Quotation is accepted.
- B. Submit Alternate Quotations by filling in blank spaces provided herein.
- C. Purchaser reserves right to accept or reject any or all Alternates.
- D. Provide lump sum price for all alternates as described below and in Section 01030, Alternates.

ALTERNATE 1: Provide New Cab Interior Finishes as Specified. See Section 01030.

\_\_\_\_\_ DOLLARS \$ \_\_\_\_\_

ALTERNATE 2: Provide New Counterweight Assemblies, and Pit Mounted Buffers. See Section 01030.

Pricing revised to reflect replacement of counterweight frames, buffers, and channels only.

\_\_\_\_\_ DOLLARS \$ 19,800.00

ALTERNATE 3: Paint Hoistway Doors and Entrances at All Floors. See Section 01030.

\_\_\_\_\_ DOLLARS \$ 7,000.00

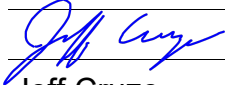
VOLUNTARY  
ALTERNATE 1: \_\_\_\_\_

\_\_\_\_\_ DOLLARS \$ \_\_\_\_\_

VOLUNTARY  
ALTERNATE 2: \_\_\_\_\_

\_\_\_\_\_ DOLLARS \$ \_\_\_\_\_

1.9 CONTRACTOR SIGNATURE

DATE: 1/27/2022  
SIGNED:   
PRINT NAME: Jeff Cruze  
TITLE: Account Manager, Nashville  
NAME OF FIRM: United Elevator Services, LLC.  
STATE LICENSE NO.: 30588

LEGAL ADDRESS:  
United Elevator Services, LLC.  
4835 Airport Highway  
Knoxville, TN 37920

ORGANIZED AS A (MARK ONE):  
 INDIVIDUAL  
 PARTNERSHIP  
 CORPORATION  
UNDER STATE LAW OF TN

TELEPHONE: (800) 338-0064

(SEAL)

END OF SECTION



**The Exchange Lofts  
Elevators #1-2**

**Nashville, Tennessee**

**ELEVATOR MODERNIZATION REQUEST FOR QUOTATION**

**JULY 30, 2021**



*Prepared For:*

Jeff Rymer  
Board President  
The Exchange Lofts

*Prepared By:*

Steve Shanks  
Regional Manager  
Lerch Bates, Inc.

LB Project Number: 0100028583

ALL DOCUMENTS FURNISHED BY LERCH BATES INC. (LERCH BATES) ARE INSTRUMENTS OF SERVICE AND SHALL REMAIN THE SOLE PROPERTY OF LERCH BATES. LERCH BATES SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING THE COPYRIGHT THERETO. THEY ARE TO BE USED ONLY FOR THIS PROJECT AND ARE NOT TO BE MODIFIED, DISTRIBUTED OR USED FOR ANY OTHER PROJECT, IN WHOLE OR IN PART, EXCEPT WITH THE WRITTEN AUTHORIZATION OF LERCH BATES. LERCH BATES ACCEPTS NO LIABILITY FOR ANY UNAUTHORIZED USE OR MODIFICATION OF THESE DOCUMENTS.





**DATE:** July 30, 2021

**REGARDING:** Modernization of Two (2) Passenger Traction Elevators, Twelve (12) Month Warranty, Three (3) Year Maintenance Contract

**LOCATION:** The Exchange Lofts, 309 Church St Nashville, TN 37201

**PRE-BID WALK-THROUGH:** Completed

**FORMAL QUESTIONS:** Must be received three (3) business days prior to bid due date.

**BID DUE:** Friday, August 6, 2021 by 1:00p.m.

Congratulations your firm has been invited to provide a competitive bid for another Lerch Bates Project! Please review all sections of the Construction Documents and bid package fully as they are project specific. Should you have any questions regarding these specifications or referenced documents, please make a formal request for information or clarification via email to Steve.Shanks@LerchBates.com at least three (3) days prior to the bid due date. Questions after this milestone are not guaranteed to be answered prior to the bid due date. **All questions must be in writing.**

We respectfully ask that no deviation from the Construction Documents be made to the base bid and those that do make deviations or clarifications jeopardize bid consideration and award. Bid to the Specifications and Construction Documents. Voluntary alternates may be considered and should be clearly explained in a concise manner as to how they deviate from the specifications. There is no guarantee that voluntary alternates will be accepted.

Building Related Work is the responsibility of the Elevator Contractor per the request of the Owner (Turnkey Project). Lerch Bates has identified the foreseen building related work but the Elevator Contractor is ultimately responsible for ensuring full code and operational compliance as it relates to building related systems such as Electrical, HVAC, Emergency Power, Fire Life Safety and Security Access Control. Should your firm or sub-contractors observe a condition that requires additional work or a revision of work other than that of which is not identified in the Contract Documents, it is your responsibility to notify Lerch Bates immediately so an addendum can be issued as needed.

We appreciate your interest in this project and look forward to the potential of working with your firm!

Steve Shanks  
Regional Manager

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SECTION 00020  
REQUEST FOR QUOTATION

PART 1 - GENERAL

1.1 PROJECT: THE EXCHANGE LOFTS ELEVATOR MODERNIZATION

Two (2) Geared Traction Passenger Elevators

- A. Lerch Bates Inc. has been authorized by The Exchange Lofts to request your firm to submit a quotation for:
1. All engineering, labor, materials, transportation, services, and equipment necessary and reasonably incidental to perform work required by Contract Documents.
  2. Interim preventive maintenance.
  3. Warranty preventive maintenance.
  4. Continuing preventive maintenance subsequent to completion of work.
- B. Important Dates:
1. Pre-bid Walkthrough – Completed.
  2. **Bid Due Date – Friday, August 6, 2021 by 1:00p.m.**
  3. Start Work Date (Onsite) – Based on competitive schedule supplied by contractor.
  4. Project Completion Date – Based on competitive schedule supplied by contractor.

1.2 CONTRACT DOCUMENTS

- A. One set of electronic contract documents are provided for your use.
- B. Make inquiries to Lerch Bates Inc. Do not contact building personnel or the Purchaser, with the exception of requirement of item 1.2 C.
- C. Permission to review existing equipment and site conditions shall be secured from Steve Shanks at 850-712-8576.

1.3 CONSTRUCTION SCHEDULE

- A. See Section 00310, "Quotation Form" for project schedule.

1.4 ELECTRONIC QUOTATION

- A. Email quotations will be received until **1:00p.m.** prevailing local time on **August 6, 2021** identified as follows:

Contractor  
Address  
City/State/Zip

ELEVATOR MODERNIZATION

The Exchange Lofts  
309 Church Street  
Nashville, TN 37201

CONFIDENTIAL QUOTATION

Email quotation to: Jeff Rymer  
Board President  
The Exchange Lofts  
jeff@jeffrymer.com

Email quotation to: Steve Shanks  
Regional Manager  
Lerch Bates, Inc.  
steve.shanks@lerchbates.com

- B. Quotations must be submitted on form provided as a part of Contract Documents, Section 00310. Quotations shall be subject to all requirements of Contract Documents, site conditions, General Conditions, Supplementary and Special Conditions and any other documents issued in connection with project. All blank spaces and questions on the quotation form must be completed and/or responded to. Failure to comply will constitute a non-responsive submittal.
- C. If Contractor desires to furnish items different from specified, Contractor shall submit substitution as an alternate quotation. Contractor shall supply Consultant with information in regard to proposed substitution of components or materials. Consultant shall decide whether the Contractor's substitution is equivalent to that specified. Deviation from requirements of Contract Documents shall be stated, in writing, in Contractor's transmittal letter submitted with quotation.

1.5 NOTICE OF INTENT TO SUBMIT A QUOTATION

- A. Quotations have been invited from a limited number of pre-approved Contractors. Contractors who elect not to provide a quotation after having reviewed Contract Documents and site conditions shall notify Consultant no later than ten (10) working days prior to quotation due date. Failure to submit a quotation without prior notice will be construed as justifiable cause for elimination of such Contractor for future consideration.

1.6 OPENING

- A. Opening of quotations will be in private. Contractor selection will be based upon the following criteria:
  - 1. Cost of required work.
  - 2. Cost of interim maintenance.
  - 3. Cost of warranty maintenance.
  - 4. Cost of contract preventive maintenance.

5. Completion schedule.
6. Contractor's successful completion of similar projects and track record in the location of project.
7. Contractor's maintenance capability in the location of the project.

1.7 QUOTATION

- A. All quotations shall be firm. Escalation will not be permitted if Contract is awarded within 120 days from quotation due date.
- B. If award is deferred beyond 120 days, Contractors' quotations shall be subject to adjustment to reflect changes in the cost of labor and material.

1.8 PURCHASER'S RIGHTS

- A. Purchaser reserves right to reject any or all quotations, to accept other than lowest quotation and to waive any informality in connection with opening and award of Contract.

1.9 INVITED CONTRACTORS

- A. Contractor shall be prepared to provide evidence of experience, qualifications, and financial ability to carry out requirements of Contract Documents.
- B. If Contractor's contact person is other than indicated above, Contractor shall notify Consultant within five (5) days of receipt of this Request for Quotation.

Company	Nashville Machine (ThyssenKrupp Elevator)
Contact Person	Larry Yarbrough
Email	<a href="mailto:Lawrence.yarbrough@thyssenkrupp.com">Lawrence.yarbrough@thyssenkrupp.com</a>

Company	Schindler Elevator
Contact Person	Kevin York
Email	<a href="mailto:Kevin.york@schindler.com">Kevin.york@schindler.com</a>

Company	Otis Elevator
Contact Person	Josh Strube
Email	<a href="mailto:josh.strube@otis.com">josh.strube@otis.com</a>

Company	Kone Elevator
Contact Person	Mike Church
Email	<a href="mailto:Mike.Church@kone.com">Mike.Church@kone.com</a>

Company	Premier Elevator
Contact Person	Jay Liles
Email	<a href="mailto:jay@premier-elevator.com">jay@premier-elevator.com</a>

Company	United Elevator
Contact Person	Jeff Cruze
Email	<a href="mailto:jeffc@unitedelevator.com">jeffc@unitedelevator.com</a>

END OF SECTION

SECTION 00100

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SECTION 00100  
INSTRUCTIONS TO CONTRACTOR

PART 1 - GENERAL

1.1 EXAMINATION

- A. In order to discover and resolve conflicts or lack of definition which might create problems, Contractor must review Contract Documents, existing site conditions, and existing equipment specified to be retained for compatibility with its product prior to submitting quotation. Site review shall include, but not be limited to adequacy of access, retained equipment, elevator hoistways, pits, machine rooms, overhead clearances, electrical power characteristics, structural supports, etc. Investigation and structural calculations required to determine compliance of existing elevator components including machine support beams, with ASME A17.1, Rule 8.7.2.15.2, are responsibility of Contractor. Attach specific, written exception and/or clarification with quotation. Compliance with all provisions of Contract Documents is assumed and required in absence of written exception. If written exception is acceptable to Contractor and Consultant, an Addendum to the specifications will be issued and authorized. Purchaser will not pay for change to building structure, structural supports, mechanical, electrical or other systems required to accommodate Contractor's equipment if not identified before Contract award and authorized as stipulated above.
- B. Submission of quotation is considered evidence that Contractor has visited and is conversant with the site facilities, site conditions, requirements of the Contract Documents, pertinent state and local codes, state of labor and material markets, and has made due allowance in his quotation for all contingencies. Should Contractor's investigation of site conditions or local codes or rules reveal requirements contrary to Contract Documents, or if Contractor finds any discrepancies or omissions from Contract Documents, or if Contractor is in doubt as to their meaning, they shall contact the Consultant for clarification at least five working days prior to quotation due date.
- C. No oral explanation will be made and no oral instructions will be given before quotation due date. Contractor shall act promptly and allow sufficient time for a reply to reach him before submission of his quotation. Any required interpretation or supplemental instructions will be issued in the form of an addendum to the specifications and forwarded to all pre-qualified Contractors.
- D. Provide everything necessary for and incidental to the satisfactory completion of work required by Contract Documents. All required preparations and hoisting and movement of new equipment, reused equipment, or removal of existing equipment shall be the responsibility of Contractor.

1.2 EXISTING MAINTENANCE CONTRACT

- A. If Contractor currently providing equipment maintenance under contract with Purchaser is included on the list of invited Contractors for this Contract, Contractor acknowledges and agrees that said contract shall be immediately null and void upon award of this Contract to Contractor or alternate invited Contractor. Further, if present Maintenance Contractor is not the successful firm in regard to this Contract, Maintenance Contractor agrees to deliver existing as modified control wiring diagrams to Purchaser and immediately remove its equipment and materials from the premises with the Purchaser or Purchasers' representative present. Purchaser shall withhold final maintenance payment due until Maintenance Contractor is in compliance with this requirement.

END OF SECTION



SECTION 00800

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SECTION 00800  
SUPPLEMENTAL CONDITIONS

PART 1 - GENERAL

**Note: The Owner will be providing a separate contract that includes their own supplemental terms and conditions for this project. Their contract will supersede all parts of Section 00800 that may be in direct conflict.**

1.1 DEFINITION OF TERMS

- A. Term ELEVATOR CONSULTANT or CONSULTANT as used herein refers to Lerch Bates Inc. (Lerch Bates).
- B. PURCHASER as used herein refers to The Exchange Lofts.
- C. The term CONTRACT or CONTRACT DOCUMENTS as used herein consists of the Agreement, Conditions of Contract, Specifications, Addenda, Drawings if included, and Alternates if accepted.
- D. CONTRACTOR or ELEVATOR CONTRACTOR as used herein refers to any persons, partners, firm, or corporation having a contract with Purchaser to furnish labor and materials for the execution of work required.
- E. CONTRACT AWARD as used herein refers to Purchaser's verbal or written award for work required.
- F. SUBCONTRACTOR as used herein refers to any persons, partners, firm, or corporation having a contract with Contractor to furnish labor and materials for the execution of work required.
- G. As used in these Contract Documents "provide" shall be understood to mean "furnish and install."
- H. As used in these Contract Documents "retain or reuse existing" shall be understood to mean restore existing components or parts to like-new condition.
- I. Words in the singular shall include the plural whenever applicable or context so indicates.
- J. All technical terms in these Contract Documents have their definition given in latest edition of American National Standard Safety Code for Elevators, Dumbwaiters, Escalators, and Moving Walks ASME A17.1. and A17.2.

1.2 CONSULTANT'S STATUS

- A. Consultant shall act as Purchaser's and/or Building Management's representative on all matters pertaining to required work. Consultant shall interpret Contract Documents, analyze Contractor's quotations, review Contractor suggested alternates, review all submittals of Contractor, approve billings, review technical details and construction procedure, perform work progress reviews and review and test completed work for compliance with Contract Documents prior to acceptance of work by Purchaser.

- B. Field Review Scheduling: Schedule progress and final work reviews with Consultant. Reply promptly, in writing, to corrective work indicated on Consultant's progress and/or final review reports, indicating status and schedule for completion. Consultant anticipates scheduled site review appointments will be met. Contractor's price will be reduced to reimburse Consultant at its normal billing rates for appointments not kept or for additional follow up reviews required due to Contractor's gross non-compliance with previous review requirements.

### 1.3 CONTRACT

- A. Contract includes all engineering, labor, tools and material required to complete the work in every respect. Contractor is cautioned to familiarize itself with existing site conditions and to include all incidental work that might occur or be required during the work. After Contract has been awarded, verbally or in writing, no extra charges will be allowed for any labor or material necessary to complete required work whether exactly described in these specifications herein or not, as long as such work, labor, and material are required to accomplish desired effect and results.
- B. Any discrepancies or ambiguities found in Contract Document or drawings shall be reported to the Consultant prior to Contractor's quotation submittal.

### 1.4 MEASUREMENTS AND DRAWINGS

- A. Drawings or measurements included with Contract Documents are for convenience of Contractor. Complete responsibility for detailed dimensions lies with Contractor. Contractor shall verify all dimensions with the actual on site conditions. Where work of Contractor is to join another trade, Contractor's shop drawings shall show actual dimensions and method of joining work of those trades.

### 1.5 CODES AND ORDINANCES

- A. All work covered by these Contract Documents is to be done in full accord with national code, state and local codes, ordinances, and elevator safety orders as are in effect at time of Contract award. All requirements of local Building Department and fire jurisdiction are to be fulfilled by Contractor and its Subcontractors. Also see Section 01040, Article 1.01.

### 1.6 CONTRACTOR'S INSURANCE

- A. Contractor shall take out and maintain during the life of this Contract Worker's Compensation Insurance with statutory limits set by the State of Tennessee laws for protection of its employees.
- B. Contractor shall carry a comprehensive general liability policy including completed operations blanket contractual broad form property damage, and Purchaser's and Contractor's protective liability in a casualty or liability insurance company acceptable to Purchaser. Insurance policy shall fully protect Contractor, its Subcontractors, Purchaser, and Consultant from all loss and liability. Refer to Purchaser's Terms and Conditions provided.
- C. Prior to commencing work, Contractor shall secure required insurance, at its sole cost, and submit certificate of confirmation naming indemnified parties as additional insured. Said policies, including an endorsement which states that such insurance will not be cancelled or materially changed unless Purchaser is given thirty (30) days notice, in writing, of the intention of said insurer to cancel or change any such policy. In the event Property is owned by a joint venture or other multi-party entity, all joint venture partners or parties with an equity interest in the

ownership shall be named as additional insureds. Contractor's insurance shall be primary to any applicable loss. With Purchaser's prior approval, an Owners & Contractors Protective Liability (OCPL) Policy may be substituted for commercial general liability coverage. Please refer to the attached appendix that states the project specific insurance requirements.

- D. Contractor shall file with Purchaser a certificate of insurance from its insurance company, stating that such insurance is being carried and that Purchaser will be notified at least 10 days prior to any cancellation of said insurance.

#### 1.7 PURCHASER INSURANCE

- A. Purchaser's insurance policy covers work and equipment in place in building and approved and accepted by Consultant and Purchaser. All material and equipment stored on site and not actually installed is not included in Purchaser's policy and such material and equipment shall be covered under Contractor's Property Damage Insurance.

#### 1.8 TAXES, OLD AGE PENSIONS AND UNEMPLOYMENT INSURANCE

- A. Contractor's quotations for required work, materials and equipment shall include all local, state, and federal occupational and sales taxes, luxury taxes, excise taxes, federal and state old age pensions, unemployment insurance contributions, and any other similar taxes and contributions in effect at time of award of Contract, verbally or in writing. Contractor shall be liable for aforementioned taxes whether or not specifically included in his quotation or in final Contract Document. In event additional sales or use taxes are imposed after award of Contract, such sales or use taxes are to be paid, in addition to original Contract amount, by Purchaser to Contractor, who in turn is to pay them to proper authorities. Reciprocally, if any of above mentioned taxes or contributions in effect at time of award of Contract should be revoked before consummation of Contract, Contractor shall rebate Purchaser amount of taxes included in original quotation and Contract. Where required by law, amount of the tax is to be specifically stated in Contractor's quotation; however, failing to do so will not relieve Contractor from responsibility for assumption of these taxes.

#### 1.9 LABOR LAWS

- A. Contractor and its Subcontractors performing work under this Contract shall comply with applicable provisions of all federal, state, and local labor laws.

#### 1.10 PATENTS

- A. Contractor shall save and hold harmless Purchaser and its officers, agents, servants, employees, and Consultant from liability of any nature or kind on account of any patented or unpatented invention, process, article, or appliance manufactured or used in performance of Contract, including its use by Purchaser including all cost and expenses for defending any suits unless otherwise specifically stipulated in Contract Documents.
- B. Licenses which may be required for completion of required work are to be obtained and paid for by the Contractor.

#### 1.11 ASSIGNMENTS

- A. Neither party to this Contract shall assign Contract or sublet it as a whole without written consent of other party, nor shall Contractor assign any payment due him or to become due to him hereunder without previous written consent of Purchaser.

1.12 ADVERTISING

- A. Advertising privileges will be retained by Purchaser. It is the duty of Contractor to keep premises free from posters, signs, decorations, etc., unless specifically approved by Purchaser.

1.13 PROTECTION OF WORK AND PROPERTY

- A. Contractor shall continuously maintain adequate protection of all its work from damage and shall protect Purchaser property from injury or loss arising out of this Contract. Contractor shall make good any such damages, injury, or loss, except such as may be directly caused by agents, subcontractors, or employees of the Purchaser. Contractor shall provide all barricades required to protect open hoistways or shafts per OSHA regulations. Contractor shall provide full height and width vanity barricades to enclose all work that is to be conducted in public areas (i.e. at the floor the physical elevator cab is staged at). Vanity barricade shall be painted and kept clean for the duration of the project. Car staging floors will be agreed upon by the owner and elevator contractor. Design of barricades in public areas shall be approved by Purchaser prior to fabrication and installation.
- B. Contractor to provide dust control measures during any cutting and patching. Written dust control procedures shall be provided before the modernization and kept onsite during the project.
- C. Design of barricades in public areas shall be approved by Purchaser prior to fabrication and installation.
- D. If Contract includes work which would be disruptive during normal business operations, or would be dangerous to building occupants, said work shall be performed during hours as building management dictates. Examples of such work include, without limitation, saw cutting of concrete, jack hammering, welding, metal cutting, pouring concrete, erecting steel or hoisting equipment over occupied portions of the building, or performing tests requiring all elevators in a group. Contractor shall perform such work during off-hours and shall include all costs in its quotation. The following times and scheduling requirements are part of the project: Off hours are considered 6:00 p.m. to 8:00 a.m. Monday through Friday and all day Saturday and Sunday. These services as well as the items listed in this paragraph shall be performed off hours: All final testing and life safety testing.
- E. Contractor shall install a suitable protective covering on all finished floors whether marble, wood, carpet or other, in areas where work is being performed. No material handling equipment shall be permitted on or over finished floors unless said floors have been protected in a manner approved by building management.
- F. Portable fire extinguishers shall be provided throughout Contractor's area of work and shall be placed so as to be accessible at all times. Extinguishers shall be multi-purpose dry chemical type, provided on a basis of one 2A-20BC rated unit for each 3,000 square feet of floor area. Extinguishers will remain property of Contractor.
- G. Contractor shall at all times maintain work areas so all portions are accessible to fire department personnel and apparatus. Fire hydrants and fire department connections to building sprinkler systems must be kept free from obstruction at all times.
- H. Contractor shall strictly supervise any welding, metal cutting or other operations employing open flame work. All welding and cutting equipment shall be safely arranged and all combustibles in vicinity of any work being performed shall either be removed or protected by a noncombustible

cover. Welding or cutting shall be attended by an assistant or fire watchman who is equipped with at least one 2A-20BC rated multi-purpose dry chemical fire extinguisher. Fire watchman will maintain strict surveillance during entire welding or cutting operation and extinguish flying sparks or burning slag. After welding or cutting operation fire watchman shall thoroughly search entire area for remnants of smoldering materials before he is released from his duty. Any welding or other operation employing open flame in any portion of building shall be scheduled with and receive approval of Purchaser. Hot work permits shall be scheduled and approved with Owner.

- I. Contractor shall keep noise level below 80 dBA level during normal building hours. When it is necessary to produce noise above this level, Contractor shall advise building management of such needs and times will be scheduled as directed. The Contractor shall anticipate and schedule excessive noise generating procedures and include allowance for same in its quotation and schedule. Anything above 80 dBA shall be conducted in previously listed off hours.

#### 1.14 ACCIDENT REPORTS

- A. In the event of accidents of any kind, Contractor shall furnish Purchaser with copies of all accident reports. Reports shall be sent without delay and at same time that they are forwarded to any other parties.

#### 1.15 STORAGE OF MATERIALS

- A. Contractor shall confine storage of materials on job site to limits approved by Purchaser and shall not unnecessarily encumber premises or overload any portion of building with materials to a greater extent than structure design load.

#### 1.16 REMOVAL OF EQUIPMENT AND RUBBISH

- A. Contractor shall remove and properly dispose of all rubbish as fast as it accumulates including all existing parts and components not retained, keeping building and premises clean during progress of work and leave premises at completion in a condition acceptable to the Purchaser. Store parts and components identified by Consultant as useful for maintenance of units not being modernized as directed by Purchaser. All other parts and components not retained shall become property of Contractor. Dumpster shall be provided by the elevator contractor and located as directed by the Purchaser or governing authority.

#### 1.17 MATERIALS AND WORKMANSHIP

- A. All materials and equipment furnished shall be new and best quality. Installation shall be accurate, workmanlike, and subject to approval of Consultant. All materials and equipment provided shall conform to regulations of enforcement bodies having jurisdiction. Contractor shall furnish material samples for approval.

#### 1.18 SUPERVISION

- A. Contractor shall assign a competent Project Manager, superintendent, and on-site foreman for project satisfactory to Purchaser and Consultant. Such persons shall represent Contractor and all instructions given to them shall be binding as if given to Contractor.

1.19 ROUTINE BUSINESS

- A. After award of Contract, all business relating to required work shall be transacted through Consultant, unless otherwise directed.

1.20 CHANGES AND EXTRA WORK

- A. Purchaser may at any time make changes to Contract Documents, plans and drawings, omit work, or require additional work by Contractor. For such additional work performed hereunder, Purchaser shall pay Contractor on the basis of a mutually agreed lump sum. See Article 1.25 for method of computing lump sum cost of additional work. Contractor shall make no additions, changes, alterations, or omissions, or perform extra work, without receipt of written authorization of Purchaser.

1.21 PAYMENTS

- A. Unless otherwise agreed, Contractor shall submit monthly applications for payment together with necessary data, information, waivers, and affidavits to Consultant. Consultant shall review data for accuracy and forward such applications to Purchaser for payment. Information shall be submitted with payment request and work progress forms.
- B. Applications for payments are to cover 90% of the value of labor performed and material installed and delivered during the preceding month or materials delivered to Contractor's storage facility.
- C. Balance (retention) shall be paid by Purchaser upon final acceptance of entire work by Consultant and Purchaser and after performance guarantees have been satisfactorily demonstrated. See Section 01700, Article 1.2, D-G.
- D. Contractors Payment Schedule is agreed to mirror the following:
  - 1. 30% Down Payment due at the award of contract.
  - 2. 25% Material Payment due upon onsite delivery.
  - 3. 40% Progress Payments.
  - 4. 5% Retainage Due at the completion of all work and at the satisfaction of the Purchaser.

1.22 PAYMENT WITHHELD

- A. Purchaser and/or Consultant may withhold approval of payment on any Contractor request to such extent as may be necessary to protect Purchaser from loss on account of:
  - 1. Believed negligence on part of Contractor to execute the work properly or fail to perform any provision of Contract. Purchaser, after 15 days' written notice to Contractor, may without prejudice to any other remedy he may have, make good such deficiencies and may deduct its cost from the overall Contract sum.
  - 2. Claims filed or reasonable evidence indicating probable filing of claims by other Contractors or Subcontractors.
  - 3. Failure of Contractor to make proper payments to its material suppliers or Subcontractors for material and labor.
  - 4. A reasonable doubt that required work can be completed by Contractor for balance then unpaid or in Contract time frame.
  - 5. Contractor's damage to building or another Contractor.
- B. When the above grounds are removed, payment shall be made in full, less retention.

1.23 LIENS AND AFFIDAVITS

- A. Neither final payment nor any part of billing retention shall become due until Contractor shall deliver to Purchaser a complete release of all liens arising out of this Contract or receipts marked paid in full in lieu thereof. In addition, Contractor shall furnish an affidavit to Purchaser that, so far as he has knowledge or information, releases, or receipts include all labor and materials for which a lien could be filed. If any lien remains unsatisfied after all payments are made by Purchaser, Contractor shall refund to Purchaser all monies the latter may be compelled to pay in discharging such a lien, including all costs and reasonable attorney's fees.

1.24 CLAIMS FOR EXTRA COST

- A. Contractor claims for extra cost due to additions or changes to required work shall be submitted to Consultant in writing within a reasonable time after such additions or changes identified or are requested and in any event before proceeding with required work. No such claim shall be valid unless so made. Maximum charge for additions/changes to work shall be Contractor cost +10% for overhead and profit. Contractors cost shall be verifiable from actual supplier invoices, purchase orders, time tickets, etc.

1.25 DELAYS AND EXTENSION OF TIME

- A. If Contractor progress is delayed due to acts of Purchaser or Consultant, acts of other Contractors, fire, floods, strikes or other casualties beyond the control or without fault or negligence of Contractor, time for completion of the work shall be extended for a period determined by Consultant to be equivalent to time of such delay. Contractor must notify Consultant, in writing, of such delay within 48 hours after delay commences, or no extension of time will be granted. Extension of time without written request within said period on one or more occasions shall not be deemed a waiver of provisions of this article.
- B. Should the project be completed past the final approved scheduled turnover date by Purchaser, a penalty will be assessed of \$250/day. The schedule agreed to within the final contract will be the schedule that governs these penalties.

1.26 PERMITS

- A. Contractor shall obtain and pay for or cause its Subcontractor to obtain and pay for all permits required to complete required work. In addition, Contractor shall arrange, schedule, and pay for or cause its Subcontractors to arrange, schedule and pay for all required final inspections by state, local or independent certified inspecting authorities necessary for issuance of all required Purchaser utilization permits in regard to completed work.

PART 2 - SPECIAL CONDITIONS

2.1 PROGRESS OF WORK

- A. Upon award, verbally or in writing, Contractor shall reconfirm in writing, starting and completion schedule including equipment delivery dates based upon the information submitted on its quotation form, Section 00310.
- B. Contractor shall submit in writing monthly reports with payment request, including current equipment delivery dates and anticipated completion dates for individual units and groups of units.



- C. Project Manual: Upon award, verbally or in writing, Contractor shall prepare two (2) project manuals neatly bound in a three-ring binder. One (1) manual shall be maintained onsite by Contractor and one (1) provided to Purchaser. The manuals shall contain the following information and sections identified in an index with numbered divisions.
1. Project Specification, revised if required to indicate basis of award. (While maintaining original text and clearly identifying revision.)
  2. Contractor completed Bid Form, specification Section 00310. Include copy of original submission and any revisions.
  3. Alternate quotations indicating Purchaser acceptance or rejection.
  4. Purchaser's executed Contract.
  5. Initial project schedule with estimated versus actual milestone dates. Include schedule revisions.
  6. Project payment requests including verification of payment and lien releases.
  7. Code acceptance.
  8. Purchaser's temporary acceptance documents
  9. Purchaser's final acceptance documents.
  10. Consultants progress review comments and requirements.
  11. Consultant's final Contract review comments and requirements.
  12. Shop drawing submittals, including sets with review remarks.
  13. As built drawings, including control wiring diagrams.
  14. Maintenance Agreement, Owner Supplied
- D. A second manual shall include the identical section numbers and shall be identified and utilized for general correspondence on these subjects. Additional sections shall include correspondence not specifically identified by one of these sections. An index in front of this section shall number and identify source of correspondence and subject.
- E. Contractor shall maintain all manuals in an up-to-date condition. Prior to final payment, Contractor shall deliver to Purchaser the documents in Items 1, 2, 3, and 13 above on flash drive.

END OF SECTION

SECTION 01010

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SECTION 01010  
SUMMARY OF WORK

PART 1 - GENERAL

1.1 WORK COVERED BY CONTRACT DOCUMENTS

- A. Modernize Passenger Elevators #1 and #2.
- B. Provide all labor, engineering, tools, transportation, services, supervision, materials, and equipment necessary for and incidental to satisfactory completion of required work as indicated in Contract Documents.
- C. Provide all required staging, hoisting and movement of new equipment, reused equipment, or removal of existing equipment.
- D. Applicable conditions of Purchaser's General, Special, and Supplemental Conditions.
- E. Prime contracts are defined below and each is recognized to be a major part of required work to be performed concurrently in close coordination with work of other Contractors.
  - 1. This Contract: Elevator Modernization including associated work specified in Section 01900 (Turnkey Project).
- F. Scope of Contract includes, but is not limited to, the following:
  - 1. Coordination, scheduling, and management of work of component suppliers and subcontractors.
  - 2. Modernize or furnish and install equipment as specified utilizing existing and/or modified hoistways and machine rooms.
  - 3. Specific item of required work which cannot be determined to be included in another contract is thereby determined to be included in prime contract.

1.2 PRIME CONTRACTOR'S DUTIES

- A. Prime Contractor's duties include the following:
  - 1. Provide and pay for labor, materials and equipment, tools, construction equipment and machinery, and other facilities and services necessary for proper execution and completion of required work.
  - 2. Pay for legally required sales, consumer, and state remodel taxes.
  - 3. Secure and pay for required permits, fees and licenses necessary for proper execution and completion of required work, as applicable at time of quotation due date.
  - 4. Give required notices.
  - 5. Comply with codes, ordinances, rules, regulations, orders, and other legal requirements of public authorities which bear on performance of required work.
  - 6. Promptly submit written notice to Consultant of observed variance of Contract Documents from legal requirements.
  - 7. Enforce strict discipline and good order among employees. Do not employ persons unskilled in assigned task.
  - 8. Obtain and pay for all permits required for this work.

1.3 WORK SEQUENCE

- A. Construct work in stages. Description and proposed sequence dates are as listed on Quotation Form Section 00310.

1.4 CONTRACTOR USE OF PREMISES

- A. Confine operations at site to areas permitted by law, ordinances, permits, Contract Documents, and Purchasers specific instructions.
- B. Do not unreasonably encumber site with materials or equipment. Staging area will be located as directed by Purchaser.
- C. Do not load structure with weight that will endanger structure. Coordinate with Purchaser.
- D. Assume full responsibility for protection and safekeeping of tools and products stored on or off premises.
- E. Move stored products which interfere with operations of building or the operations of other trades.
- F. Obtain and pay for use of additional storage or work areas needed for operations.

1.5 CONCURRENT MODERNIZATION WORK AND BUILDING OPERATION

- A. This project is a major elevator modernization in an existing building which is open for public business and will continue to operate throughout all phases of required work. It is essential that Contractor give special attention and priority to all matters concerning project safety, protection from dust and loose materials, reduction of noise level, protection from water and air infiltration into building, and maintenance of neat, slightly conditions in and around work areas inside and outside of building. Packaging, scrap materials, and demolition debris shall be promptly removed from building and site on a daily basis.
- B. At all times Contractor shall provide clearly visible warning and directions signs, barricades, temporary lighting, overhead protection, and hazard-free walking surfaces throughout public area. At all times special attention must be given to building entrances, exits, and proper safe exiting through work areas as required by law.
- C. Contractor shall consult Purchaser and other Contractors to establish and maintain safe temporary routes including, but not limited to, proper barricades, walking surfaces, lighting, fire protection, exiting, warning, and directional signs, and general protection of persons from all hazards in accordance with OSHA Standards due wholly or partially to its operations.

END OF SECTION

SECTION 01030

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SECTION 01030  
ALTERNATES

PART 1 - GENERAL

1.1 SCOPE

A. Provide material and labor required for complete execution of accepted alternates. Comply with all provisions of the Contract Documents.

**B. Alternate #1: Install New Cab Interiors (Cars #1 and #2). Replace Section 142200, Part 2.9 (A) with the following:**

A. Car Enclosure: Retain existing car shell. Car weight to be verified prior to removal of interior cab finishes. Remove existing interior finishes, weigh, and document. Provide complete as specified herein. New cab weight including all new finishes to be verified following completion of modernization. Post modernization weight not to exceed code allowable limits. Provide the following features.

1. Shell: Retain.
2. Canopy: Retain existing.
3. Front Return Panels and Integral Entrance Columns: Clad in new No.4 stainless-steel.
4. Transom: Clad full length in in new No.4 stainless-steel.
5. Car Door Panels: New. Fully enclosed 16-gauge steel, sandwich construction without binder angles. Provide leading edges of center-opening doors with rubber astragals. Provide a minimum of two (2) gibs per panel, one at leading and one at trailing edge with gibs in the sill groove entire length of door travel. Construct door panels with interlocking, stiffening ribs. Architectural metal cladding shall wrap around leading and trailing edge of panel and return a minimum of 1/2" on rear side of leading edge of panel. Finish in in No.4 stainless-steel.
6. Base: No.4 stainless-steel with concealed ventilation.
7. Interior Wall Finish: Remove existing wall panels. Provide new removable panels faced and edged with 5WL textured stainless-steel or approved equal.
8. Ventilation: New. Three-speed OE exhaust blower mounted to car canopy on isolated rubber grommets. Exhaust blower shall meet requirements of Item 2.3, H. Ventilation shall shut off after adjustable period (60 – 180 seconds) of no elevator demand. Cover hole on car top from the additional vent fan that is currently installed.
9. Lighting: Provide new LED fixtures with wiring and hookup. Coordinate with emergency lighting requirements. Lighting shall shut off after adjustable period (60 – 180 seconds) of no elevator demand. Provide emergency lighting integral with portion of normal car lighting system. Provide temporary lighting as required.
10. Suspended Ceiling: New six-section suspended ceiling finished in No.4 stainless-steel. Include recessed LED light fixtures built into the panels.
11. Handrails: Provide new stainless-steel flat grab bar across the rear wall. Return handrail ends to car walls.
12. Protective Pads and Buttons: Three-piece removable pads. Two pads covering side walls and adjacent front return and one covering rear wall. Provide cutout to access main car operating panel.
13. Flooring: Provide new tile flooring as selected by Purchaser from Contractor's samples. Flooring quality shall be, at minimum, equal to the level of tile currently installed.

**C. Alternate #2: Install New Counterweight Assemblies and New Pit Mounted Buffers (Cars #1 and #2). Replace Section 142200, Part 2.6 (B) and Part 2.6 (D) with the following:**

B. Buffers, Car, and Counterweight: New. Pit mounted, oil type with blocking and support channels.

D. Counterweight Assembly: New. Steel frame with metal filler weights. Provide Type "B" safety devices.

**D. Alternate #3: Cars #1-2. Replace Section 142200, Part 2.7 (A-C) with the following:**

- A. Entrance Frames (At Painted Floors Only): Paint. Clean all surfaces of dirt and grease. Sand and finish surfaces as necessary to remove pits and scratches and prepare surface for painting. Apply filler to insure smooth surface, and sand prior to painting. For metal surfaces, apply one coat of electrostatic enamel in the solid color selected by the Purchaser. For wood surfaces, apply one coat of enamel in the solid color selected by the Purchaser. Provide Arabic floor designation/Braille plates, centered at 60" above finished floor, on both side jambs of all entrances. Braille indications shall be below Arabic floor designation. Provide flat stainless floor designation/Braille plates. Provide 3" car identification plates at the designated landing.
- B. Hoistway Door Panels (At Painted Floors Only): Paint. Clean all surfaces of dirt and grease. Sand and finish surfaces as necessary to remove pits and scratches and prepare surface for painting. Apply filler to ensure smooth surface, sand and apply one coat of electrostatic enamel in the solid color selected by the Purchaser. Provide new door gibs with fire tabs at all floors. Minimum two gibs per panel, one at leading edge, and one at trailing edge of each panel. Provide code required door panel retainer mechanism on lower edge of door panel to address failure of primary lower edge door guidance.
- C. Hoistway Door Sight Guards (At Painted Floors Only): Clean all surfaces of dirt and grease. Sand and finish surfaces as necessary to remove pits and scratches and prepare surface for painting. Apply filler to ensure smooth surface, sand and apply one coat of electrostatic enamel in the solid color matching the hall door panels. Replace any damaged sight guards found during the modernization.

END OF SECTION

SECTION 01040

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SECTION 01040  
PROJECT PROCEDURES

PART 1 - GENERAL

1.1 APPLICABLE CODES

- A. Compliance with Regulatory Agencies: Comply with most stringent applicable provisions of following Codes, laws, and/or Authorities, including revisions and changes in effect:
1. Safety Code for Elevators and Escalators, ASME A17.1
  2. Guide for Inspection of Elevators, Escalators, and Moving Walks, ASME A17.2
  3. Elevator and Escalator Electrical Equipment, ASME A17.5
  4. National Electrical Code, NFPA 70
  5. Americans with Disabilities Act, ADA A117.1
  6. Local Fire Authority
  7. Requirements of most stringent provision of local applicable building code.
  8. Life Safety Code, NFPA 101

1.2 STAGING AREA

- A. An equipment staging area will be available for use by Contractor. Contractor shall restrict usage to area designated and shall notify Purchaser/Property Management prior to storing of any large equipment which will impose heavy concentrated loading on floor area. Do not store such equipment until approval is received. If staging area provided is not suitable for the contractor, contractor is required to provide their own storage container, and pay for outdoor space near the building as required.

1.3 WORK PHASE

- A. See Section 00310, Quotation Form.

1.4 OCCUPANCY AND WORK BY OTHERS

- A. Contractor expressly affirms Purchaser's rights to let other contracts and employ other Contractors in connection with required work. Contractor will afford other Contractors and their workmen reasonable opportunity for introduction and storage of materials and equipment, for execution of their work, and will properly connect and coordinate its work with theirs. Contractor will also incorporate comparable provisions in all its subcontracts.
- B. Contractor declares that other Contractors employed by Purchaser on basis of separate contracts may proceed at such times as necessary to install items of work required by Purchaser.
- C. Contractor declares that it will cooperate with other Contractors employed by Purchaser and, in addition to other coordination and expediting efforts, will coordinate their work by written notices regarding necessity of such work to be done on or before certain dates.
- D. Contractor declares that it is responsible for review, stamped, and signed approval of all shop drawings for required work.
- E. Contractor hereby declares that content of foregoing paragraphs and influence they may have on project:
1. Shall not cause a change in stipulated Contract Sum

2. Shall not cause a change in Construction Time Schedule

END OF SECTION

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SECTION 01300  
SUBMITTALS

PART 1 - GENERAL

1.1 SUBMITTALS

- A. Within thirty (30) calendar days after award of contract and before beginning equipment fabrication submit shop drawings and required material samples for review. Allow fourteen (14) days for response to initial submittal.
1. Scaled or Fully Dimensioned Layout: Details of car enclosures, machine room equipment, hoistway entrances, and car/hall signal fixtures.
  2. Design Information: Indicate equipment lists, reactions, and design information on layouts.
  3. Power Confirmation Information: Design for existing conditions.
  4. Fixtures: Cuts, samples, or shop drawings.
  5. Finish Material: Submit 3" x 12" samples of actual finished material for review of color, pattern, and texture. Compliance with other requirements is the exclusive responsibility of the Contractor. Include, if requested, signal fixtures, lights, graphics, Braille plates, and detail of mounting provisions.
  6. Design Information: Provide calculations verifying the following:
    - a. Adequacy of existing electrical provisions.
    - b. Adequacy of retained equipment relative to code requirements if car weight increased by more than 5%.
    - c. Machine room heat emissions in B.T.U.
    - d. Adequacy of existing retained elevator machine beams.
    - e. Adequacy of existing car platform structure for intended loading.
  7. Written Maintenance Control Program (MCP) specifically designed for the equipment included under this contract. Include any unique or product specific procedures or methods required to inspect or test the equipment. In addition, identify weekly, bi-weekly, monthly, quarterly, and annual maintenance procedures, including statutory and other required equipment tests.
- B. Submittal review shall not be construed as an indication that submittal is correct or suitable or that the work represented by submittal complies with the Contract Documents. Compliance with Contract Documents, Code requirements, dimensions, fit, and interface with other work is Contractor's responsibility.
- C. Acknowledge and/or respond to review comments within fourteen (14) calendar days of return. Promptly incorporate required changes due to inaccurate data or incomplete definition so that delivery and installation schedules are not affected. Identify and cloud drawing revisions including Contractor elective revisions on each re-submittal. Contractor's revision response time is not justification for equipment delivery or installation delay.

1.2 FINAL CONTRACT DOCUMENTS

- A. See Section 01700, Project Closeout.

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SECTION 01600

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SECTION 01600  
MATERIAL AND HANDLING

PART 1 - GENERAL

1.1 SITE CONDITION INSPECTION

- A. Prior to beginning installation of equipment, examine hoistway and machine room areas. Verify no irregularities exist which affect execution of work specified.
- B. Do not proceed with installation until work in place conforms to project requirements.

1.2 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver material in Contractor's original unopened protective packaging.
- B. Store material in original protective packaging. Prevent soiling, physical damage, or moisture damage.
- C. Protect equipment and exposed finishes from damage and stains during transportation, erection, and construction.
- D. Allocate available site storage areas and coordinate their use with Purchaser and other Contractors.
- E. Provide suitable temporary weather-tight storage facilities as may be required for materials that will be stored in the open.

1.3 INSTALLATION REQUIREMENTS

- A. Install all equipment in accordance with Contractor's instructions, referenced codes, specification, and approved submittals.
- B. Install machine room equipment with clearances in accordance with referenced codes and specification.
- C. Install all equipment so it may be easily removed for maintenance and repair.
- D. Install all equipment for ease of maintenance.
- E. Install all equipment to afford maximum accessibility, safety, and continuity of operation.
- F. Remove oil, grease, scale, and other foreign matter from the following equipment and apply one coat of field-applied machinery enamel.
  - 1. All exposed equipment and metal work installed as part of this work which does not have architectural finish.
  - 2. Machine room equipment, and pit equipment.
  - 3. Neatly touch up damaged factory-painted surfaces with original paint color. Protect machine-finish surfaces against corrosion.

1.4 MANUFACTURER'S NAMEPLATES

- A. Manufacturer's name plates and other identifying markings shall not be affixed on surfaces exposed to public view. This requirement does not apply to Underwriter's Laboratories and code required labels.
- B. Each major component of mechanical and electrical equipment shall have identification plate with the Manufacturer's name, address, model number rating, and any other information required by governing codes.

1.5 COLORS OF FACTORY-FINISHED EQUIPMENT

- A. All colors will be selected from the Manufacturer's standard range unless custom colors are specified herein.
- B. Submit samples of all standard colors available and/or specified custom colors for review and approval. See Section 01300, Submittals.
- C. Submit samples of all specified architectural metals specified for review and approval. See Section 01300, Submittals.

1.6 MATERIALS AND FINISHES

- A. Steel:
  - 1. Sheet Steel (Furniture Steel for Exposed Work): Stretcher-leveled, cold-rolled, commercial quality carbon steel, complying with ASTM A366, matte finish.
  - 2. Sheet Steel (for Unexposed Work): Hot-rolled, commercial quality carbon steel, pickled and oiled, complying with ASTM A568/A568M-03.
  - 3. Structural Steel Shapes and Plates: ASTM A36.
- B. Stainless Steel: Type 302 or 304 complying with ASTM A240, with standard tempers and hardness required for fabrication, strength and durability. Apply mechanical finish on fabricated work in the locations shown or specified, Federal Standard and NAAMM nomenclature, with texture and reflectivity required to match existing. Protect with adhesive paper covering.
  - 1. No. 4 Satin: Directional polish finish. Graining directions as shown or, if not shown, in longest dimension.
  - 2. Textured (Alternate #1): 5WL as manufactured by Rigidized Metals or Windsor pattern 5-SM as manufactured by Rimex Metals or approved equal with .050 inches mean pattern depth with bright directional polish (satin finish).
- C. Aluminum: Extrusions per ASTM B221; sheet and plate per ASTM B209.
- D. Fire-Retardant Treated Particle Board Panels (Only Applicable with Alternate #1): Minimum 3/4" thick backup for natural finished wood and plastic laminate veneered panels, edged and faced as shown, provided with suitable anti-warp backing; meet ASTM E84 Class "I" rating with a flame-spread rating of 25 or less, registered with Local Authorities for elevator finish materials.
- E. Paint: Clean exposed metal parts and assemblies of oil, grease, scale, and other foreign matter and factory paint one shop coat of standard rust-resistant primer. After erection, provide one finish coat of industrial enamel paint. Galvanized metal need not be painted.

- F. Prime Finish (Only applicable as part of Alternate #3): Clean all metal surfaces receiving an enamel paint finish of oil, grease, and scale. Apply one coat of rust-resistant primer followed by a filler coat over uneven surfaces. Sand smooth and apply final coat of primer.
- G. Entrance Field Paint (Only applicable as part of Alternate #3): Clean all surfaces to remove dirt and grease. Sand and finish surfaces as necessary to remove pits and scratches and prepare surface for painting. Apply filler to ensure smooth surface; sand and apply one coat of electrostatic enamel in the selected solid color.
- H. Entrance Support Equipment within Hoistway: Include strut angles, headers, sill support angles, fascia, hanger covers, etc. Clean and check for corrosive activity. Replace components which exhibit severe deterioration. Tighten all fastenings. Repaint exposed surfaces with two coats of rust preventive primer.
- I. Flooring: New tile flooring as selected by Purchaser from Contractor's samples. Tile quality/material level shall, at minimum, meet the existing tile design.

END OF SECTION



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SECTION 01700  
FINAL CONTRACT COMPLIANCE REVIEW

PART 1 - GENERAL

1.1 FINAL CLEANING

- A. See Section 00800, Supplemental Conditions, for contractual requirements governing site cleaning. As a minimum:
1. Elevator hoistways and all equipment therein shall be cleaned and left free of rust, filings, welding slag, rubbish, loose plaster, mortar drippings, extraneous construction materials, dirt, and dust. Include walls, building beams, sill ledges, and hoistway divider beams.
  2. Care shall be taken by workpersons not to mark, soil, or otherwise deface existing or new surfaces. Clean and restore such surfaces to their original condition.
  3. Clean down surfaces and areas which require final painting and finishing work. Cleaning includes removal of rubbish, broom cleaning of floors, removal of any loose plaster or mortar, dust and other extraneous materials from finish surfaces, and surfaces which will remain visible after the work is complete.
  4. Entire machine room floor shall be cleaned and painted deck grey.

1.2 CONSULTANT'S FINAL OBSERVATION AND REVIEW REQUIREMENTS

- A. Review procedure shall apply for individual elevators, portions of groups of elevators and completed groups of elevators accepted on an interim basis, or elevators and groups of elevators completed, accepted, and placed in operation.
- B. Contractor shall perform review and evaluation of all aspects of its work prior to requesting Consultant's final review. Work shall be considered ready for Consultant's final contract compliance review when all Contractor's tests are complete and all elements of work or a designated portion thereof are in place and elevator or group of elevators are deemed ready for service as intended.
- C. Furnish labor, materials, and equipment necessary for Consultant's review. Notify Consultant five (5) working days in advance when ready for final review of elevator or group of elevators.
- D. Consultant's written list of observed deficiencies of materials, equipment and operating systems will be submitted to Contractor for corrective action. Consultant's review shall include as a minimum:
1. Workmanship and equipment compliance with Contract Documents.
  2. Contract speed, capacity, floor-to-floor, and door performance comply with Contract Documents.
  3. Performance of following is satisfactory:
    - a. Starting, accelerating, running
    - b. Decelerating, stopping accuracy
    - c. Door operation and closing force
    - d. Equipment noise levels
    - e. Signal fixture utility
    - f. Overall ride quality
    - g. Performance of door control devices
    - h. Operations of emergency two-way communication device
    - i. Operations of firefighters' service
    - j. Operations of special security features and floor lock-off provisions
    - k. Operations of remote monitoring devices

- I. Operations of emergency brake device
  4. Test Results:
    - a. In all test conditions, obtain specified contract speed, performance times, stopping accuracy without re-leveling, and ride quality to satisfaction of Purchaser and Consultant. Tests shall be conducted under both no load and full load condition.
  - E. Performance Guarantee: Should Consultant's review identify defects, poor workmanship, variance or noncompliance with requirements of specified codes and/or ordinances, or variance or noncompliance with the requirements of Contract Documents, Contractor shall complete corrective work in an expedient manner to satisfaction of Purchaser and Consultant at no cost as follows:
    1. Replace equipment which does not meet code or Contract Document requirements.
    2. Perform work and furnish labor, materials, and equipment necessary to meet specified operation and performance.
    3. Perform retesting required by governing code authority, Purchaser and Consultant.
  - F. A follow-up final contract compliance review shall be performed by Consultant after notification by Contractor that all deficiencies have been corrected. Provide Consultant with copies of the initial deficiency report marked to indicate items which Contractor considers complete.
- 1.3 PURCHASER'S INFORMATION
- A. Provide three (3) sets of neatly bound written information necessary for proper maintenance and adjustment of equipment within 30 days following final acceptance. Final retention will be withheld until data is received by Purchaser and reviewed by Consultant. Include the following as minimums:
    1. Straight-line wiring diagrams of "as-installed" elevator circuits with index of location and function of components. Provide one set reproducible master. Mount one set wiring diagrams on panels, racked, or similarly protected, in elevator machine room. Provide remaining set rolled and in a protective drawing tube. Maintain all drawing sets with addition of all subsequent changes. These diagrams are Purchaser's property.
    2. Written Maintenance Control Program (MCP) specifically designed for the equipment included under this contract. Include any unique or product specific procedures or methods required to inspect or test the equipment. In addition, identify weekly, bi-weekly, monthly, quarterly, and annual maintenance procedures, including statutory and other required equipment tests.
    3. Provide any necessary interface cards required for equipment maintenance, code mandated testing, and troubleshooting.
    4. Lubrication instructions including recommended grade of lubricants.
    5. Parts catalogs for all replaceable parts including ordering forms and instructions.
    6. Four sets of keys for all switches and control features properly tagged and marked.
    7. Neatly bound instructions explaining all operating features including all apparatus in the car and lobby control panels.
    8. Neatly bound maintenance and adjustment instructions explaining areas to be addressed, methods and procedures to be used, and specified tolerances to be maintained for all equipment.
    9. Diagnostic equipment complete with access codes, adjusters' manuals and set-up manuals for adjustment, diagnosis and troubleshooting of elevator system, and performance of routine safety tests.
    10. The elevator installation shall be a design which can be maintained by any licensed elevator maintenance company employing journeymen mechanics, without the need to

purchase or lease additional diagnostic devices, special tools, or instructions from the original equipment Manufacturer.

- a) Provide onsite capability to diagnose faults to the level of individual circuit boards and individual discreet components for the solid-state elevator controller.
  - b) Provide a separate, detachable device, as required to the Purchaser as part of this installation if the equipment for fault diagnosis is not completely self-contained within the controller. Such device shall be in possession of and become property of the Purchaser.
  - c) Installed equipment not meeting this requirement shall be removed and replaced with conforming equipment at no cost to the Purchaser.
- B. Preventive Maintenance Contract: Furnish properly executed contract for continuing, preventive maintenance. Utilize Owner's Vertical Transportation Preventive Maintenance Contract.
- C. Acceptance of such records by Purchaser/Consultant shall not be a waiver of any Contractor deviation from Contract Documents or shop drawings or in any way relieve Contractor from his responsibility to perform work in accordance with Contract Documents.

END OF SECTION

SECTION 01800

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SECTION 01800  
MAINTENANCE

PART 1 - GENERAL

1.1 INTERIM MAINTENANCE

- A. Furnish monthly preventive maintenance service on elevators described herein for a period from mobilization, verbal or written, until each unit is removed from building service for modernization. In addition, furnish interim preventive maintenance on completed units until the modernization of each group of elevators is complete and one-year warranty maintenance, defined in Item 1.2 below, is commenced. Cost of interim maintenance shall not be included as part of modernization quotation. Indicate costs on a per-unit basis for interim maintenance as requested on quotation form, Section 00310. Costs for interim maintenance shall be paid by Purchaser separately and monthly based upon the number of units in service. Perform interim maintenance based upon terms and conditions of the Owner's Maintenance Specification Section 143250..
- B. Prior to the removal of any car from service, the consolidated call back service for all cars in the specific group shall be no more than three (3) calls per month. Contractor will be responsible for providing preventative maintenance to achieve this requirement.
- C. If callback activity exceeds 3 callbacks per unit per month at any time when cars are off-line, all maintenance must be completed on OT until callback rate is less than 3/unit/month.
- D. Use competent personnel, acceptable to Purchaser, employed and supervised by the Contractor.

1.2 WARRANTY MAINTENANCE

- A. Provide preventive maintenance and 24-hour emergency callback service for one year commencing on date of final acceptance of all modernized elevators by Purchaser. Warranty maintenance should expire for concurrently for all elevators. Monthly examine, adjust, clean, and lubricate all equipment. Repair or replace defective parts using parts produced by the Contractor of installed equipment. Maintain elevator machine room, hoistway, and pit in clean condition.
- B. Use competent personnel, acceptable to the Purchaser, supervised and employed by Contractor.
- C. The warranty maintenance period specified in Item 1.2, A. above shall be extended one (1) month for each three (3) month period in which equipment related failures average more than .25 per unit per month.
- D. Purchaser retains the option to delete cost of warranty maintenance from modernization equipment contract and remit twelve (12) equal installments directly to Contractor during period in which maintenance is being performed.
- E. Warranty maintenance to be performed per the terms of Owner's Maintenance Specification Section 143250.

1.3 CONTRACT PREVENTIVE MAINTENANCE

- A. Quote monthly cost for three-year Preventive Maintenance Agreement with two, one-year extensions possible, commencing upon completion of the warranty period specified in Item 1.2, A. above. Submit quote based upon terms and conditions of Owner's Maintenance Specification Section 143250. Base quotation on present labor and material cost. Price adjustment will be made at Agreement commencement date and thereafter as provided in Agreement.
  
- B. Use competent personnel, acceptable to the Purchaser, employed and supervised by Contractor.

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SECTION 01900  
RELATED WORK

PART 1 - GENERAL

1.1 RELATED WORK BY ELEVATOR CONTRACTOR (TURNKEY PROJECT)

- A. Architectural and Structural, Hoistway and Hallway:
1. Design to existing conditions.
  2. Divider screens between adjacent elevators spanning the length of the hoistway during the modernization.
  3. Any interior hoistway ledges that exceed 4" must be beveled to meet code requirements.
  4. Wall blockouts and fire rated closure for control and signal fixture boxes which penetrate hoistway walls.
  5. All cutting and patching walls. If walls are damaged during the modernization it is the contractor's responsibility to make repairs, so they are back in the original condition.
  6. All fireproofing within the hoistway as required by code. Seal all fireproofing to prevent flaking.
  7. Dust control measures during any cutting and patching are to be taken by the Contractor. Written dust control procedures shall be provided before the modernization and kept onsite during the project.
  8. Any additional structural support or modifications required for the support of the new machines shall be included in the contractor's scope of work.
  9. Waterproof pits to prevent future water intrusion.
  10. Code compliant pit access ladder for each elevator. Retractable ladder if provided shall include an electrical contact conforming to ASME A17.1, Rule 2.2.2.4.2.7.
  11. Contractor shall provide full height and width vanity barricades to enclose all work that is to be conducted in public areas (i.e. at the floor the physical elevator cab is staged at). Protect open hoistways and entrances during construction per OSHA Regulations.
  12. Protect car enclosure, hoistway entrance assemblies, and special metal finishes from damage.
  13. Cover non-elevator related low voltage wire that goes down the hoistway, so it is effectively "removed". This wire enters the hoistway between floors 3 and 4.
  14. Remove wood that is located within the hoistway.
  15. Clean pit floors and paint them deck grey.
  16. Clean and paint all car tops deck grey (do not paint data tags).
  17. Clean and paint all buffers and supports black (do not paint pistons).
- B. Architectural and Structural, Machine Room
1. Design to existing conditions
  2. Per AHJ, build new fenced in enclosure with access around existing machines, and new controls. Electrical shall be relocated to within the fenced in area as well. The fence shall be full height to the ceiling and shall also be located behind the machines to prevent falling over the existing railing.
  3. Remove wood in machine room behind the ladder to the roof. Replace with braced fencing to eliminate fall hazard.
  4. Self-closing and locking access gate. Include signage: "ELEVATOR MACHINE ROOM" and "AUTHORIZED PERSONNEL ONLY".
  5. All existing trash, and debris shall be removed from the machine room, including the area outside of the new fencing.
  6. The entire machine room floor shall be painted deck grey, including the area outside of the new fencing.
  7. Repair sheetrock wall covering/patch on the existing machine room wall.

8. Permanently seal the existing machine room vent under the existing mainline disconnects.
  9. Provide class "ABC" fire extinguisher in the elevator machine room.
  10. All required fireproofing or patching to achieve fire rating. Seal fireproofing to prevent flaking.
  11. Reroute phone lines that are freely hanging over the machines, so they are no longer in the machine room.
  12. Remove all abandoned conduit within the machine room.
  13. Wood on the machine room ceiling shall be replaced with sheet steel or painted with fire proofing.
  14. Remove wood near the bedplate of machine #2 and replace with fire resistant material.
- C. Plumbing and Fire Protection
1. Retain all existing fire sprinklers.
  2. High Water Alarm: High water alarms shall be installed as permitted by the AHJ when there is no existing sump hole, sump pump or means to discharge. The high water alarm shall take the elevator to a higher floor and remove it from service, similar to alternative recall.
- D. Mechanical:
1. Machine Room: Ventilation and heating. Maintain minimum temperature of 55° F, maximum 90° F. Maintain maximum 80% relative humidity, non-condensing. New HVAC has been installed in the machine room. Contractor to verify that this system will meet the minimum heating and cooling requirements noted herein. If not, supplemental HVAC will need to be provided as part of this project.
- E. Electrical Service, Conductors, and Devices:
1. Machine Room Lighting: New guarded LED fixtures to provide minimum 19 footcandles average illumination. Provide toggle switch at the top and bottom of the machine room access stairs to replace existing. Occupancy sensor is not allowed.
  2. Pit Lighting: New guarded LED fixtures to provide minimum 10 footcandles average illumination.
  3. GFCI convenience outlets in pit.
  4. Non-GFCI convenience outlet in pit for high-water detection device.
  5. New code complaint Heavy Duty three-phase mainline copper power feeder to terminals of each elevator controller in the machine room with protected lockable "open" disconnecting means. Auxiliary contacts to disable emergency battery power. Per AHJ, the mainline disconnects shall be relocated to within the new fenced in machine area.
  6. New single-phase copper power feeder to each elevator with individual protected lockable "open" disconnecting means located in machine room for utilization equipment:
    - a. Car lighting and Blower
    - b. Machine Room Rope Brake
  7. Emergency telephone line to each individual elevator control panel in elevator machine room.
  8. Automatic Fire Recall System shall operate as described herein. Provide all necessary upgrades or additional devices as required to operate as follows:
    - a. Fire alarm initiating devices in each elevator lobby.
    - b. Fire alarm initiating devices in the elevator machine room.
    - c. Fire alarm initiating devices at top of hoistway.
    - d. Three Relay Activation Modules for each group of elevators or single elevator. Locate modules within three feet of controller designated by the Elevator Contractor to minimize un-supervised wiring. Program Modules as follows:
      - 1) PRIMARY: Activate when any hallway device, except primary floor, activates.

- 2) ALTERNATE: Activate when hallway device at primary floor activates.
  - 3) FIRE HAT: Activate when machine room device activates.
  - e. Device in machine room and at top of hoistway to provide signal for general alarm.
  - f. Provide technician from fire alarm contractor and elevator contractor for pre-test of system during normal off-peak working hours.
  - g. Provide technician from fire alarm contractor and elevator contractor for acceptance test of system with AHJ during normal off-peak working hours.
  9. Temporary power and illumination to install, test, and adjust elevator equipment.
  10. Means to automatically disconnect power to affected elevator drive unit and controller prior to activation of machine room fire sprinkler system and/or hoistway fire sprinkler system. Provide heat detectors, shunt trip breaker and all necessary equipment if required.
  11. When sprinklers are provided in the hoistway all electrical equipment, located less than 4'-0" above the pit floor shall be identified for use in wet locations. Exception: Seismic protection devices.
  12. Power for Mechanical Equipment: Provide power for HVAC and/or ventilation equipment where applicable.
  13. Remove all abandoned electrical equipment from machine room and hoistway.
  14. Conduit from fire alarm panel to each fire alarm device location at each floor, hoistway, pit and machine room including three relay activation modules in machine room. Provide junction box at each location.
  15. Review power confirmation data on behalf of the Owner. Verify electrical supply to the controllers meets the stated requirements. Where applicable, review standby power generator capability to meet stated requirements and absorb regenerated power.
- F. Battery Automatic Operation: New.
1. Upon loss of normal power, each elevator shall be equipped with controls to automatically lower or raise the car to the nearest landing depending on the load in the car. Upon arrival at the landing, the elevator doors shall open automatically and remain open until regular door time has expired. The elevator shall then become deactivated. The standby power source shall be provided via 12-volt D.C. battery units installed in machine space, including solid-state charger and testing means mounted in a common metal container. Battery to be rechargeable lead acid or nickel cadmium with a ten-year life expectancy. Upon restoration of normal power, the elevator shall automatically resume normal operation.

END OF SECTION

SECTION 142200

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SECTION 142200  
ELECTRIC TRACTION ELEVATOR MODERNIZATION

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Two (2) traction elevators as follows:
  - 1. Geared Passenger Elevators, Cars #1 and #2
- B. **THIS IS A TURNKEY ALL INCLUSIVE PROJECT.** All engineering, equipment, labor, and permits required to satisfactorily complete elevator modernization required by Contract Documents.
- C. Applicable conditions of General, Special, and Supplemental Conditions, Division 1, and all sections listed in Contract Documents "Table of Contents."
- D. Applicable conditions of Purchasers General, Special, and Supplemental Conditions.
- E. Preventive maintenance as described in Section 01800.
- F. Additional equipment or finishes furnished under other sections, installed under this section:
  - 1. CCTV System Provisions
  - 2. Card Reader Security System Provisions
  - 3. Monitoring System Provisions
- G. Cartage and Hoisting: All required staging, hoisting, and movement to, on, and from the site including new equipment, reused equipment, or dismantling and removal of existing equipment.
- H. Unless specifically identified as "Reuse," "Retain," or "Refurbish," provide new equipment.
- I. Protective barriers between cars in normal operation and adjacent cars in the modernization process. Full depth and height of hoistway.
- J. Hoistway, pit, and machine room barricades as required.

1.2 RELATED WORK

- A. See Section 01900, Related Work.

1.3 DEFINITIONS

- A. Terms used are defined in the latest edition of the Safety Code for Elevators and Escalators, ASME A17.1.
- B. Reference to a device or a part of the equipment applies to the number of devices or parts required to complete the installation.
- C. Provisions of this specification are applicable to all elevators unless identified otherwise.

1.4 QUALITY ASSURANCE

- A. Approved Contractors:

1. KONE Elevator, Otis Elevator Co., Nashville Machine (ThyssenKrupp), Schindler Elevator Corp., Premier Elevator
  2. Alternate Contractors must receive approval of Purchaser and/or Consultant at least fourteen (14) calendar days prior to bid date.
- B. Approved Cab Vendors
1. Car Enclosure: Eklund's Inc., Gunderlin, Ltd., Snap Cab, Globe Architectural and Metal, KONE, Otis, Schindler, ThyssenKrupp
- C. Approved Components
1. Hoistway Entrance: Hauenstein & Burmeister, KONE, Otis, Schindler, ThyssenKrupp
  2. Fixtures: Standard or vandal-resistant as specified
  3. OEM Control Systems: KONE Resolve, Otis Elevonic, ThyssenKrupp TAC 32, Schindler TXR5
  4. Non-OEM control systems: GAL Galaxy IV or MCE Ibox
  5. Hoist Machines: Hollister Whitney, Torin, Imperial, KONE, Otis, Schindler
  6. Rope brakes: Hollister Whitney, Bode, Draka
  7. Alternate components must have approval of Purchaser and/or Consultant at least fourteen (14) calendar days prior to bid date.
- D. Seismic Performance Requirements: As required by the local authority having jurisdiction.
- E. Compliance with Regulatory Agencies: See Section 01040, Project Procedures.
- F. Warranty:
1. Material and workmanship of installation shall comply in every respect with Contract Documents. Correct defective material or workmanship which develops within one (1) year from date of final acceptance of all work to satisfaction of Purchaser and Consultant at no additional cost, unless due to ordinary wear and tear or improper use or care by Purchaser. Perform maintenance in accordance with terms and conditions indicated in the Preventive Maintenance Agreement.
  2. Defective is defined to include, but not be limited to: Operation or control system failures, car performance below required minimum, excessive wear, unusual deterioration, or aging of materials or finishes, unsafe conditions, the need for excessive maintenance, abnormal noise, or vibration, and similar unsatisfactory conditions.
  3. Retained Equipment: All retained components, parts, and materials shall be cleaned, checked, modified, repaired, or replaced in strict accordance with the specification requirements defined herein. Retained equipment must be compatible for integration with new systems.
  4. All retained equipment shall be covered under the warranty provisions, of Article 1.4, F., 1. & 2. above. No prorations of equipment or parts shall be allowed on preventive maintenance contract between the Contractor and Purchaser.
  5. Make modifications, requirements, adjustments, and improvements to meet performance requirements specified herein.
- 1.5 DOCUMENT AND SITE VERIFICATION
- A. In order to discover and resolve conflicts or lack of definition which might create problems, Contractor must review Contract Documents and site conditions for compatibility with its product prior to submittal of quotation. Review existing structural, electrical, and mechanical provisions for compatibility with Contractor's products. Purchaser will not pay for change to structural, mechanical, electrical, or other systems required to accommodate Contractor's equipment.

1.6 SUBMITTALS

- A. See Section 01300, Submittals, and Section 01700, Final Contract Compliance Review, Article 1.3.

1.7 PERMIT, TEST AND INSPECTION

- A. Obtain and pay for permit, license, and inspection fee necessary to complete installation.
- B. Perform full pre-test during normal off-peak working hours in advance of acceptance test.
- C. Perform test required by Governing Authority in accordance with procedure described in ASME A17.2 Guide for Inspection of Elevators, Escalators, and Moving Walks in the presence of Authorized Representative. Where the Local Jurisdiction required tests to be performed after normal working hours it shall be done at no additional cost to the Purchaser.
- D. Supply personnel and equipment for test and final review by Consultant as required in Section 01700.

1.8 MAINTENANCE

- A. Interim: See Section 01800, Maintenance, Article 1.1, A.
- B. Warranty Maintenance: See Section 01800, Maintenance, Article 1.2, A.
- C. Preventive Maintenance: See Section 01800, Maintenance, Article 1.3, A.

PART 2 - PRODUCTS

2.1 SUMMARY

- A. Two (2) traction elevators as follows:
  - 1. Geared Passenger Elevators, Cars #1 and #2
- B. Unless specifically identified as "retain existing," provide new equipment.

	Existing Equipment	Disposition
Number:	Cars #1-2	Retain Existing
Capacity:	2,000 #	Retain Existing
Class Loading:	Passenger Class A	Retain Existing
Contract Speed:	300 F.P.M.	Retain Existing
Roping:	1:1	Retain Existing
Machine:	Geared	New Geared
Machine Location:	Overhead	Retain Existing Location

	Existing Equipment	Disposition
Operational Control:	Relay Logic-Based System	Microprocessor-Based System
Motor Control:	DC Variable Voltage	AC Variable Voltage Variable Frequency Microprocessor Based with Digital Closed-Loop Feedback
Power Characteristics:	240 Volts, 3 Phase, 60 Hertz Field Verify	Retain Existing
Stops:	Front: 6; Rear: 0	Retain Existing
Openings:	Front: 6; Rear: 0	Retain Existing
Floors Served:	Front: *1, 2, 3, 4,5, 6	Retain Existing
Travel:	63' ± Field Verify	Retain Existing
Clear Inside Car:	71 ½" Wide X 44" Deep Field Verify	Retain Existing
Entrance Size:	36" Wide X 84" High Field Verify	Retain Existing
Entrance Type:	Single Speed, Center Opening	Retain Existing
Door Operation:	Medium Speed, Heavy-Duty Door Operator, Minimum Opening Speed 1-1/2 F.P.S.	High Speed, Heavy-Duty, Door Operator, Minimum Opening Speed 2-1/2 F.P.S.
Door Protection:	Infrared, Full Screen Device	Infrared, Full Screen Device with Differential Timing, Nudging and Interrupted Beam Time
Safety:	Gradual Wedge Clamp – Type B	New Gradual Wedge Clamp -Type B
Guide Rails:	Planed Steel Tees	Retain Existing
Buffers:	Oil	Refurbish Existing
Car Enclosure:		As Specified Herein  Protective Pad Buttons and Vinyl Covered Pads



Existing Equipment	Disposition
	Battery Powered Emergency Car Lighting. Provide Separate Constant Pressure Test Button in Car Service Compartment. Illuminate Portion of Normal Car Lighting
Signal Fixtures:	LED Illumination Stainless-steel Halo Design
Hall and Car Pushbutton Stations:	Single Hall Pushbutton Riser, Single Car Operating Panels
Car Position Indicators:	Single Digital with Car Direction Arrows
In Car Lanterns:	Both Car Entrance Columns with Volume Adjustable Electronic Chime or Tone. Sound Twice for Down Direction
Hall Car Position Indicator:	Digital with Car Direction Arrows at Floor 1 Only
Communication System:	Self-Dialing, Vandal Resistant, Push to Call, Two-Way Communication System with Recall, Tracking and Voiceless Communication
Fixture Submittal:	Submit Brochure Depicting Contractor's Proposed Designs with Bid
Additional Features:	<p>Spring-Loaded Car and Counterweight Roller Guides</p> <p>Car Top Inspection Station</p> <p>Firefighters' Service, Phase I and II, including Alternate Floor Return</p> <p>Battery Automatic Operation</p> <p>New Accessibility Signage</p> <p>Stationary Car Return Panels Arranged for Surface Applied Car Operating Panels</p>

Existing Equipment	Disposition
	Hoistway Access Switches, Top and Bottom Floors
	Hoistway Door Unlocking Device, All Floors
	Platform Isolation
	Load-Weighing Device
	Anti-Nuisance Feature
	Independent Service Feature
	Card Reader Provisions, All Cars
	CCTV Provisions, All Cars
	Machine, Power Conversion Unit, and Controller Sound Isolation
	Tamper Resistant Fasteners for All Fastenings Exposed to the Public
	One Year Warranty Maintenance with 24-Hour Call-Back Service
	No Visible Company Name or Logo
	Wiring Diagrams, Operating Instructions, and Parts Ordering Information
	Monitoring System Provisions
	System Diagnostic Means and Instructions
	Non-Proprietary Control System and Diagnostics Provisions
Alternates:	See Section 01030

2.2 MATERIALS

- A. See Section 01600, Materials.

2.3 CAR PERFORMANCE

- A. Car Speed:  $\pm 3\%$  of contract speed under any loading condition.
- B. Car Capacity: Safely lower, stop and hold 125% of rated load.

- C. Car Stopping Zone:  $\pm 1/8$ " under any loading condition.
- D. Door Opening Time: Seconds from start of opening to fully open:
  - 1. Cars #1-2: 1.5 seconds
- E. Door Closing Time: Seconds from start of closing to fully closed:
  - 1. Cars #1-2: 2.2 seconds
- F. Car Floor-to-Floor Performance Time: Seconds from start of doors closing until doors are 3/4 open (1/2 open for side opening doors) and car level and stopped at next successive floor under any loading condition or travel direction (12'-0" typical floor height):
  - 1. Cars #1-2: 8.9 Seconds
- G. Car Ride Quality:
  - 1. Ride Quality shall be measured and analyzed according to the methods specified in ISO18738.
  - 2. Device to be utilized in procuring field measurements shall be the EVA-625 Elevator Vibration Analysis System as manufactured by Physical Measurement Technologies (PMT).
  - 3. Specified levels apply to horizontal and vertical acceleration measured from within car, from the point at which the car has moved 1/2 meter from start position to 1/2 meter from final position, as defined by ISO18738.
  - 4. Maximum peak to peak vibration for the horizontal and vertical axes shall be no greater than 25 mg peak to peak.
  - 5. The A95 peak to peak vibration for the horizontal and vertical axes shall be no greater than 17.5 mg peak to peak.
  - 6. Acceleration and Deceleration: Smooth constant and not less than 3.0 feet/second<sup>2</sup> with an initial ramp between 0.5 and 0.75 second. Sustained Jerk: Not more than 6 feet/second<sup>3</sup>.
- H. Noise and Vibration Control
  - 1. Airborne Noise: Measured noise level of elevator equipment and its operation shall not exceed 60 dBA inside car under any condition including door operation and car ventilation exhaust blower on its highest speed. Limit noise level in the machine room relating to elevator equipment and its operation to no more than 80 dBA. All dBA readings to be taken 3'-0" off the floor and 3'-0" from the equipment using the "A" weighted scale.
  - 2. Vibration Control: All elevator equipment provided under this contract, including machine, controller, and their support shall be mechanically isolated from the building structure and electrically isolated from the building power supply and to each other to minimize the possibility of objectionable noise and vibrations being transmitted to occupied areas of the building.

## 2.4 OPERATION

- A. Duplex Collective Microprocessor-Based: New.
  - 1. Approved microprocessor-based car and motion control systems are as follows:
    - a. KONE: Resolve
    - b. Otis: Elevonic
    - c. Schindler: TXR5
    - d. ThyssenKrupp: TAC 32T
    - e. GAL: Galaxy IV
    - f. MCE: Ibox

2. Operate cars without attendants from pushbuttons in cars and located at each floor. When cars are available, park one car at main floor ("home" car). Park other car where last used ("free" car).
  3. Respond to car calls and hall calls above main floor using the free car. Once a car has started, respond to registered calls in the direction of travel and in the order the floors are reached.
  4. Do not reverse car direction until all car calls have been answered, or until all hall calls ahead of the car and corresponding to the direction of car travel have been answered.
  5. Slow cars and stop automatically at floors corresponding to registered calls in the order in which they are approached in either direction of travel. As slowdown is initiated for a hall call, automatically cancel hall call. Cancel car calls in the same manner. Hold car at arrival floor an adjustable time interval to allow passenger transfer.
  6. Answer calls corresponding to direction in which car is traveling unless call in the opposite direction is the highest (or lowest) call registered.
  7. When the free car is clearing calls, start home car to respond to:
    - a. A call registered on home car pushbuttons.
    - b. An up hall call registered below free car.
    - c. An up or a down call registered above free car while free car is traveling down.
    - d. A hall call when free car is delayed in its normal operation for a predetermined period.
  8. When both cars are clearing calls, stop only one car in response to any registered hall call. Return the first car to clear its calls to main floor. Should last service required bring both cars to main floor, the first arriving car becomes the free car.
- B. Other Items: New.
1. Load Weighing: Provide means for weighing car passenger load. Control system to provide dispatching at main floor in advance of normal intervals when car fills to capacity. Provide hall call by-pass when the car is filled to preset percentage of rated capacity and traveling in down direction. Field adjustment range: 10% to 100%.
  2. Anti-Nuisance Feature: If car loading relative to weight in car is not commensurate with number of registered car calls, or activation of door protection device is not commensurate with the number of registered car calls, cancel car calls. Systems employing either load weighing or door protective device for activation of this feature are acceptable.
  3. Independent Service: Provide controls for operation of each car from its pushbuttons only. Close doors by constant pressure on desired destination floor button or door close button. Open doors automatically upon arrival at selected floor.
- C. Firefighters' Service: Provide equipment and operation in accordance with Code requirements.
- D. Firefighters' Emergency Operation: Provide equipment and operation in accordance with code requirements.
- E. Automatic Car Stopping Zone: Stop car within 1/8" above or below the landing sill. Maintain stopping zone regardless of load in car, direction of travel, distance between landings, hoist rope slippage, or stretch.
- F. Remote Monitoring and Diagnostics: New. Equip each controller and the group dispatch logic controller with standard ports, interface boards, and drivers to accept maintenance, data logging, fault finding diagnostic and monitoring computers, keyboards, modems, and programming tools. The system shall be capable of driving remote color CRT monitors that continually scan and display the status of each car and call. Do not provide full monitoring system, provide output capability only.

- G. Motion Control: New. Microprocessor based AC, variable-voltage, variable frequency IGBT with digitally encoded closed-loop velocity feedback suitable for operation specified and capable of providing smooth, comfortable car acceleration, retardation, and dynamic braking. Limit the difference in car speed between full load and no load to not more than  $\pm 3\%$  of the contract speed.
- H. Door Operation: New. Automatically open doors when car arrives at main floor. At expiration of normal dwell time, close doors. Reopen doors when car is designated for loading.
- I. Standby Lighting and Alarm: New. Car mounted battery unit with solid-state charger to operate alarm bell and car emergency lighting. Battery to be rechargeable with minimum 5-year life expectancy. Provide constant pressure test button in service compartment of car operating panel. Provide lighting integral with portion of normal car lighting system.
- J. Battery Automatic Operation: New. Upon loss of normal power, each elevator shall be equipped with controls to automatically lower or raise the car to the nearest landing depending on the load in the car. Upon arrival at the landing, the elevator doors shall open automatically and remain open until regular door time has expired. The elevator shall then become deactivated. The standby power source shall be provided via 12-volt D.C. battery units installed in machine space, including solid-state charger and testing means mounted in a common metal container. Battery to be rechargeable lead acid or nickel cadmium with a ten-year life expectancy. Upon restoration of normal power, the elevator shall automatically resume normal operation.
- K. Card/Proximity Reader Security System Provisions: New.
  - 1. Provide provisions inside all cars for future card reader unit. Provide wiring provisions inside traveling cable as described herein.
- L. Car Light and Fan Timer: New. Provide necessary logic and power relay to allow car lights and fan to turn off after a programmable amount of time.

## 2.5 MACHINE ROOM EQUIPMENT

- A. Arrange equipment in existing machine room spaces.
- B. Geared Traction Hoist Machine: New.
  - 1. Single worm geared traction type with AC induction or P.M.S.M. ACV<sup>3</sup>F motor, brake, gear, drive shaft, deflector sheave, and gear case mounted in proper alignment on an isolated bedplate. Provide bedplate blocking to elevate deflector sheave above machine room floor.
  - 2. Provide hoist machine mounted direct drive, digital, closed-loop velocity encoder.
  - 3. Provide hoist machine drip pans to collect lubricant seepage.
- C. Solid State Power Conversion and Regulation Unit: Provide new if required for contractor's equipment.
  - 1. Provide solid state, alternating current, variable voltage, variable frequency (ACV<sup>3</sup>F), I.G.B.T. converter/inverter drives.
  - 2. Design unit to limit current, suppress noise, and prevent transient voltage feedback into building power supply. Provide internal heat sink cooling fans for the power drive portion of the converter panels. Conform to IEEE standards 519-1992 for line harmonics and switching noise.
  - 3. Isolate unit to minimize noise and vibration transmission. Provide isolation transformers, filter networks, and choke inductors.

4. Suppress solid-state converter noises, radio frequency interference, and eliminate regenerative transients induced into the mainline feeders or the building standby power generator.
  5. Supplemental direct-current power for the operation of hoist machine brake, door operator, dispatch processor, signal fixtures, etc., from separate static power supply.
- D. Encoder: New. Direct drive, solid-state, digital type. Update car position at each floor and automatically restore after power loss.
- E. Controller: UL/CSA labeled. New.
1. Compartment: Securely mount all assemblies, power supplies, chassis switches, relays, etc., on a substantial, self-supporting steel frame. Completely enclose equipment with covers. Provide means to prevent overheating.
  2. Relay Design: Magnet operated with contacts of design and material to insure maximum conductivity, long life, and reliable operation without overheating or excessive wear. Provide wiping action and means to prevent sticking due to fusion. Contacts carrying high inductive currents shall be provided with arc deflectors or suppressors.
  3. Microprocessor-Related Hardware:
    - a. Provide built-in noise suppression devices which provide a high level of noise immunity on all solid-state hardware and devices.
    - b. Provide power supplies with noise suppression devices.
    - c. Isolate inputs from external devices (such as pushbuttons) with opto-isolation modules.
    - d. Design control circuits with one leg of power supply grounded.
    - e. Safety circuits shall not be affected by accidental grounding of any part of the system.
    - f. System shall automatically restart when power is restored.
    - g. System memory shall be retained in the event of power failure or disturbance.
    - h. Equipment shall be provided with Electro Magnetic Interference (EMI) shielding within FCC guidelines.
  4. Wiring: CSA labeled copper for factory wiring. Neatly route all wiring. interconnections and securely attach wiring connections to studs or terminals.
  5. Permanently mark components (relays, fuses, PC boards, etc.) with symbols shown on wiring diagrams.
  6. Monitoring System Interface: Provide controller with serial data link through RJ45 Ethernet connection and install all devices necessary to monitor items outlined herein. Provide monitoring interface only.
- F. Sleeves and Guards: Provide 2" steel angle guards around cable or duct slots through floor slabs or grating. Provide rope and smoke guards for sheaves, cables, and cable slots in machine room.
- G. Machine and Equipment Support Beams: Retain existing in place. Provide all required supplemental supports and attachments for new machines. Provide Structural Engineering certification validating size and location of all new support structure provided.
- H. Governor: New. Centrifugal-type, car driven machine room mounted with pull-through jaws and bi-directional shutdown switches. Provide required bracketing and supports for attachment to building structure.
- I. Emergency Brake: New.
1. Provide means to prevent ascending car over-speed and unintended car movement per Code.
  2. Acceptable emergency brake devices:
    - a. BODE Rope Brake

- b. Hollister-Whitney Rope Gripper
- c. Draka
3. Mount the auxiliary brake on suitable structural steel supports. Provide a drawing showing the supports, stamped by Professional Engineer verifying the adequacy of the support provided.
4. Provide control circuits to enable the device to function as required by Code.
5. Alternately provide redundant machine brake as allowed by code.

## 2.6 HOISTWAY EQUIPMENT

- A. Guide Rails: Retain main and counterweight guide rails in place.
  1. Clean rails and brackets. Remove rust on bottom side of rails. Paint rails with rust preventative paint 24" up from the pit floor.
  2. Check all rail and bracket fastenings and tighten.
- B. Buffers, Car, and Counterweight: Retain existing.
  1. Sand and buff the rusted buffer pistons with materials approved by the manufacturer.
  2. Drain, flush, refill and test. Paint pit channels and buffers black (do not paint pistons).
- C. Counterweight Assembly: Retain existing assembly. Install new spring-loaded roller guides. Dynamic and Static Balancing of each elevator is required. Contractor is to carry an allowance of +/- 500 lbs of additional filler weight to be used as needed.
- D. Counterweight Guard: Retain metal guards in pit. Paint guards black to match new pit channel and buffer paint (Do not paint over any data tags).
- E. Governor Rope and Encoder Tape Tensioning Sheaves: New. Mount sheaves and support frame on pit floor or guide rail. Provide frame with guides or pivot point to enable free vertical movement and proper tension of rope and tape.
- F. Hoist and Governor Ropes: New.
  1. Traction steel type as required by machine design. Fasten with staggered length, adjustable, spring isolated wedge type shackles.
  2. Governor rope as required by governor manufacturer.
- G. Terminal Stopping: Provide normal and final devices.
- H. Electrical Wiring and Wiring Connections:
  1. Conductors and Connections: Copper throughout with individual wires coded and connections on identified studs or terminal blocks. Use no splices or similar connections in wiring except at terminal blocks, control compartments, or junction boxes. Provide a minimum of 10% spare conductors throughout. A minimum of ten #18 AWG wires shall be provided. Run spare wires from car connection points to individual elevator controllers in the machine room. Provide eight pairs of spare shielded communication wires in addition to those required to connect specified items. Tag spares in machine room.
  2. Conduit: Painted or galvanized steel conduit, EMT, or duct. Flexible heavy-duty service cord may be used between fixed car wiring and car door switches for door protective devices.
  3. Traveling Cables: Flame and moisture-resistant outer cover. Prevent traveling cable from rubbing or chafing against hoistway or equipment within hoistway. In addition to wires needed to connect specified items the following shall be provided:
    - a. Six (6) twisted shielded pair for future card reader.
    - b. Four (4) pair of shielded wires to car top, plus 3'-0" excess loop at both ends for future CCTV provisions.

- c. One (1) RG6 coax to car top, plus 3'-0" excess loop at both ends for future CCTV provisions.
- 4. Auxiliary Wiring: Connect fire alarm initiating devices, emergency two-way communication system, new CCTV camera, emergency power wiring and announcement speaker in car controller in machine room.
- I. Entrance Equipment: Refurbish/replace and adjust assemblies to ensure smooth and quiet mechanical open and close of doors. Provide equipment as follows:
  - 1. Door Hangers: New. Two-point hanger and roller with neoprene roller surface and suspension with eccentric upthrust roller adjustment.
  - 2. Door Tracks: New. Bar or formed, cold-drawn removable steel tracks with smooth roller contact surface.
  - 3. Door Interlocks: New. Operable without retiring cam.
  - 4. Door Closers: New Spring activated spirators. Design and adjust to insure smooth, quiet mechanical close of doors.
  - 5. Door Relating Cables: New cables and pullies at all floors.
- J. Hoistway Door Unlocking Device: New. Provide unlocking device including new escutcheon in door panel at all floors, with finish to match adjacent surface.
- K. Hoistway Access Switches: Mount in entrance frame side jamb at top and bottom floors. Provide switch without faceplate. Locate within easy reach to entrance so entrance can be guarded by one technician.
- L. Floor Numbers: Stencil paint 4" high floor designations in contrasting color on inside face of hoistway doors or hoistway fascia in location visible from within car.

## 2.7 HOISTWAY ENTRANCES

- A. Entrance Frames: Retain existing. Provide Arabic floor designation/Braille plates, centered at 60" above finished floor, on both side jambs of all entrances. Provide plates at main egress landing with "Star" designation. Braille indications shall be below Arabic floor designation. Provide flat stainless floor designation/Braille plates. Provide 3" car identification plates at the designated landing.
- B. Hoistway Door Panels: Retain existing. Provide new door gibs with fire tabs at all floors. Minimum two gibs per panel, one at leading edge, and one at trailing edge of each panel. Provide code required door panel retainer mechanism on lower edge of door panel to address failure of primary lower edge door guidance.
- C. Hoistway Door Sight Guards: Retain existing. Retain existing. Replace damaged or missing sight guards during modernization.
- D. Hoistway Door Sills: Retain existing. Clean and polish full length. Check and tighten all fastenings.
- E. Hoistway Door Sill Supports: Retain existing. Check and tighten all fastenings.
- F. Fascia, Toe Guards, and Hanger Covers: Retain existing. Provide as required where damaged or missing. Check and tighten all fastenings. Paint/Stencil floor number on fascia or hoistway wall all floors visible where car doors are initially opened.
- G. Struts and Headers: Retain existing. Check and tighten all fastenings.



H. Finish of Frames and Doors: Retain existing finishes. See Alternate #3.

2.8 CAR EQUIPMENT

A. Car Frame: Retain Existing. Check and tighten all fastenings.

B. Safety Device: New Type "B," gradual wedge clamp.

C. Platform: Retain existing. Reinforce if required. Check and tighten all fastenings.

D. Platform Apron: Provide new extended platform apron to meet Code. Minimum 14-gauge steel, reinforced and braced to car platform with Contractor's standard finish.

E. Car Guide Shoes: New. Roller type, with three or more spring dampened, sound-deadening rollers per shoe.

F. Cab Stabilizers: New. Provide new cab stabilizers on the car top.

G. Finish Floor Covering: Retain existing. See Alternate #1.

H. Car Sills: New. One-piece extrusion.  
1. Nickel silver.

I. Car Doors: New. Fully enclosed 16-gauge steel, sandwich construction without binder angles. Provide leading edges of center-opening doors with rubber astragals. Provide a minimum of two (2) gibs per panel, one at leading and one at trailing edge with gibs in the sill groove entire length of door travel. Construct door panels with interlocking, stiffening ribs. Architectural metal cladding shall wrap around leading and trailing edge of panel and return a minimum of 1/2" on rear side of leading edge of panel.

J. Car Door Hangers: New. Two-point hanger roller with neoprene roller surface and suspension with eccentric upthrust roller adjustment.

K. Car Door Track: New. Bar or formed, cold-drawn removable steel track with smooth roller contact surface.

L. Car Door Header: Retain existing if compatible with Contractor's door operator. Check and tighten all fastenings. If existing header is not compatible, provided a new door header constructed of minimum 12-gauge steel, shape to provide stiffening flanges.

M. Car Gate Switch: New. Prohibit car operation unless car door is closed.

N. Door Clutch: New. Heavy-duty clutch, linkage arms, drive blocks and pickup rollers or cams to provide positive, smooth, quiet door operation. Design clutch so car doors can be closed, while hoistway doors remain open.

O. Restricted Opening Device: New. Restrict opening of car doors outside unlocking zone. Plunger type restrictors not acceptable.

P. Car Door Operator: New. High speed, heavy-duty door operator capable of opening doors at no less than 2.5 f.p.s. Accomplish reversal in no more than 2-1/2" of door movement. Provide solid-state door control with closed loop circuitry to constantly monitor and automatically adjust door operation based upon velocity, position, and motor current. Maintain consistent, smooth,

and quiet door operation at all floors, regardless of door weight or varying air pressure. Provide closed loop operation, monitoring door speed, torque and closing force, at all times.

Q. Door Control Device: New.

1. Infrared Reopening Device: Black fully enclosed device with full screen infrared matrix or multiple beams extending vertically along leading edge of each door panel to minimum height of 7'-0" above finished floor. Device shall prevent doors from closing and reverse doors at normal opening speed if beams are obstructed while doors are closing, except during nudging operation. In event of device failure, provide for automatic shutdown of car at floor level with doors open.
2. Nudging Operation: After beams of door control device are obstructed for a predetermined time interval (minimum 20.0 - 25.0 seconds), warning signal shall sound, and doors shall attempt to close with a maximum of 2.5 foot pounds kinetic energy. Activation of the door open button shall override nudging operation and reopen doors.
3. Interrupted Beam Time: When beams are interrupted during initial door opening, hold door open a minimum of 3.0 seconds. When beams are interrupted after the initial 3.0 second hold open time, reduce time doors remain open to an adjustable time of approximately 1.0 - 1.5 seconds after beams are reestablished.
4. Differential Door Time: Provide separately adjustable timers to vary time that doors remain open after stopping in response to calls.
  - a. Car Call: Hold open time adjustable between 3.0 and 5.0 seconds.
  - b. Hall Call: Hold open time adjustable between 5.0 and 8.0 seconds. Use hall call time when car responds to coincidental calls.

R. Car Operating Panel: New.

1. One car operating panels with faceplate, consisting of a metal box containing operating fixtures, mounted behind the car stationary front return panel. Faceplate shall be hinged and constructed of stainless steel, satin finish.
2. Suitably identify floor buttons, alarm button, door open button, door close button and emergency push-to-call button with flat stainless-steel tactile symbols flush mounted. Configure plates per local building code accessibility standards including Braille. Locate operating controls no higher than 48" above the car floor; no lower than 35" for emergency push-to-call button and alarm button.
3. Provide minimum 3/4" diameter raised or flush floor pushbuttons which illuminate to indicate call registration. Provide stainless-steel buttons with illuminated LED halo. Innovation Industries PB-35 or approved equal.
4. Provide alarm button to ring bell located on car. Illuminate button when actuated.
5. Provide keyed stop switch at bottom of car operating panel in locked car service compartment. Mark device to indicate "run" and "stop" positions.
6. Provide "door open" button to stop and reopen doors or hold doors in open position.
7. Provide "door close" button to activate door close cycle. Cycle shall not begin until normal door dwell time for a car or hall call has expired, except firefighters' operation.
8. Provide firefighters' locked box with code required devices and illuminated fire hat jewel in car operating panel.
9. Provide firefighters' Phase II key switch with engraved instructions filled red. Include light jewel, buzzer, and call cancel button.
10. Provide lockable service compartment with recessed flush door. Door material and finish shall match car return panel or car operating panel faceplate.
11. Include the following controls in lockable service cabinet with function and operating positions identified by permanent signage or engraved legend:
  - a. Access switch.
  - b. Light switch.
  - c. Four-position exhaust blower switch (Off, Low, Med, High).
  - d. Independent service switch.
  - e. Constant pressure test button for battery pack emergency lighting.

- f. 120-volt, AC, GFCI protected electrical convenience outlet.
  - g. Stop key switch.
  - h. Switch to choose either voice or passing tone.
12. Provide black paint filled (except as noted), engraved, or approved etched signage as follows with approved size and font:
- a. Phase II firefighters' operating instructions on main operating panel on the rear side of the compartment door filled red.
  - b. Car number at the top of the main car operating panel.
  - c. "Certificate of Inspection on File in Building Management Office" on the service compartment door.
  - d. Car capacity in pounds on service compartment door.
- S. Car Top Control Station: New. Mount to provide safe access and utilization while standing in an upright position on car top. Locate car top stop switch within easy reach of landing entrance.
- T. Work Light and Duplex Plug Receptacle: New. GFCI protected outlet at top and bottom of car. Include on/off switch and lamp guard.
- U. Communication System: New.
- 1. "Push to Call," two-way communication instrument in car with automatic dialing, tracking, and recall features with shielded wiring to car controller in machine room. Provide dialer with automatic rollover capability with minimum two numbers. Provide consolidator to allow multiple phones connected to one (1) line, if required.
    - a. "Push to Call" button or adjacent light jewel shall illuminate and flash when call is acknowledged. Button shall match car operating panel pushbutton design. Provide uppercase "PUSH TO CALL" "HELP ON THE WAY" engraved signage adjacent to button to indicate when call is placed and when call is received. Coordinate signage with communications provider.
    - b. Provide "Push to Call" button tactile symbol, engraved signage, and Braille adjacent to button mounted integral with car front return panel.

## 2.9 CAR ENCLOSURE

- A. Car Enclosure Passenger Elevators: Retain existing car shell. Post modernization weight not to exceed code allowable limits. Provide the following features.
- 1. Shell: Retain existing.
  - 2. Canopy: Retain existing. Cover hole where one exhaust fan is no longer needed.
  - 3. Front Return Panels and Integral Entrance Columns: Retain existing. Clad in new No.4 stainless-steel.
  - 4. Transom: Retain existing. Repaint entire transom around the cab black. Per the AHJ, provide metal mesh screening over the upper cab vents from the outside of the cab to prevent items or appendages from passing through the cutouts.
  - 5. Car Door Panels: New. Fully enclosed 16-gauge steel, sandwich construction without binder angles. Provide leading edges of center-opening doors with rubber astragals. Doors shall be finished in No.4 stainless-steel finish. Provide a minimum of two (2) gibs per panel, one at leading and one at trailing edge with gibs in the sill groove entire length of door travel. Construct door panels with interlocking, stiffening ribs. Architectural metal cladding shall wrap around leading and trailing edge of panel and return a minimum of 1/2" on rear side of leading edge of panel.
  - 6. Base: Retain existing.
  - 7. Reveals: Retain existing.
  - 8. Interior Wall Finish: Retain existing.
  - 9. Ventilation: New. Three-speed type OE exhaust blower mounted to car canopy on isolated rubber grommets. Exhaust blower shall meet requirements of Item 2.3, H.

Ventilation shall shut off after adjustable period (60 – 180 seconds) of no elevator demand.

10. Lighting: New. Provide LED fixtures with wiring and hookup. Coordinate with emergency lighting requirements. Lighting shall shut off after adjustable period (60 – 180 seconds) of no elevator demand. Provide emergency lighting integral with portion of normal car lighting system. Provide temporary lighting as required.
11. Suspended Ceiling: Install new six-section no.4 stainless-steel finished drop ceiling with recessed LED light fixtures with wiring and hookups built in.
12. Handrails: Retain existing.

- B. Top of Car Guardrail: Provide car top railings where fall hazard exceeds 12". Install guardrails, necessary hardware and toe board to meet code requirements.

## 2.10 HALL CONTROL STATIONS

- A. Hall Pushbuttons: New. Provide single riser with surface mounted faceplates. Include pushbuttons for each direction of travel which illuminate to indicate call registration. Include approved engraved message and pictorial representation prohibiting use of elevator during fire or other emergency situation as part of faceplate. Pushbutton design shall match car operating panel pushbuttons. Provide faceplate designed to cover existing wall blockout and facilitate handicapped access requirements. Provide any cutting, patching and painting required to mount the new pushbuttons and repair wall finish. Provide all code required operational key switches within the main floor hall station (Phase 1, communication failure, etc.).

## 2.11 SIGNALS

- A. Car Direction Lanterns: Provide flush-mounted car lantern in both car entrance columns. Illuminate up or down LED lights and sound electronic tone once for up and twice for down direction travel as doors open. Sound tone once for up direction and twice for down direction. Sound level shall be adjustable from 0 - 80 dBA measured at 5'-0" in front of hall control station and 3'-0" off floor. Provide adjustable car door dwell time to comply with ADA requirements relative to hall call notification time. Provide vandal resistant lantern and light assembly consisting of series of dots or lines for maximum visibility with faceplates. Arrows shall be minimum 2-1/2" in their smallest dimension.
- B. Car Position Indicator: New. Provide digital indicator containing floor designations and direction arrows a minimum of 2" high to indicate floor served and direction of car travel. Locate fixture in transom above car entrance in place of the existing position indicator. Faceplate shall be designed to cover the existing cutout. When a car leaves or passes a floor, illuminate indication representing position of car in hoistway. Illuminate proper direction arrow to indicate direction of travel.
- C. Hall Position Indicator: New. Alpha-numeric digital indicator containing floor designations and direction arrows a minimum of 2" high to indicate floor served and direction of car travel. Mount at Floor 1 only. Provide surface mounted fixture that is as small as possible.
- D. Faceplate Material and Finish: Stainless steel Satin finish all fixtures.
- E. Floor Passing Tone: Provide an audible tone of no less than 20 decibels and frequency of no higher than 1500 Hz, to sound as the car passes or stops at a floor served.
- F. Voice Synthesizer: New. Provide electronic device with easily reprogrammable message and female voice to announce car direction, floor, emergency exiting instructions, etc.

2.12 FIREFIGHTERS' KEY BOX

- A. Firefighters' Key Box: Flush-mounted box with lockable hinged cover. Engrave instructions for use on cover per Local Fire Authority requirements.

2.13 SEISMIC OPERATIONS AND EQUIPMENT

- A. Provide design, components, and operation per governing code. If required by the AHJ, Provide dual counterweight derailment sensing wires vertically each side of counterweight the entire height of travel. The counterweight frame shall be equipped with a minimum of four derailment rings. A dual axis seismic switch shall be provided that will activate at no less than 0.15 times gravity in the vertical or horizontal directions. A minimum of one seismic switch shall be provided per single or group of elevators. Counterweight retainer plates must be bolted.

PART 3 - EXECUTION

3.1 SITE CONDITION INSPECTION

- A. Prior to beginning installation of equipment, examine hoistway and machine room areas. Verify no irregularities exist which affect execution of work specified.
- B. Do not proceed with installation until work in place conforms to project requirements.

3.2 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver material in Contractor's original, unopened protective packaging.
- B. Store material in original protective packaging. Prevent soiling, physical damage, or moisture damage.
- C. Protect equipment and exposed finishes from damage and stains during transportation, erection, and construction.

3.3 INSTALLATION

- A. Install all equipment in accordance with Contractor's instructions, referenced codes, specification, and approved submittals.
- B. Install machine room equipment with clearances in accordance with referenced codes, and specification.
- C. Install all equipment so it may be easily removed for maintenance and repair.
- D. Install all equipment for ease of maintenance.
- E. Install all equipment to afford maximum accessibility, safety, and continuity of operation.
- F. Remove oil, grease, scale, and other foreign matter from the following equipment and apply one coat of field-applied machinery enamel.
  - 1. All exposed equipment and metal work installed as part of this work which does not have architectural finish.
  - 2. Machine room equipment, and pit equipment.
  - 3. Neatly touch up damaged factory-painted surfaces with original paint color. Protect machine-finish surfaces against corrosion.

3.4 FIELD QUALITY CONTROL

- A. Work at jobsite will be checked during course of installation. Full cooperation with reviewing personnel is mandatory. Accomplish corrective work required prior to performing further installation.
- B. Have Code Authority acceptance inspection performed and complete corrective work.

3.5 ADJUSTMENTS

- A. Static balance car to equalize pressure of guide shoes on guide rails.
- B. Lubricate all equipment in accordance with Contractor's instructions.
- C. Adjust motors, power conversion units, brakes, controllers, leveling switches, limit switches, stopping switches, door operators, interlocks, and safety devices to achieve required performance levels.

3.6 CLEANUP

- A. Keep work areas orderly and free from debris during progress of project. Remove packaging materials on a daily basis.
- B. Remove all loose materials and filings resulting from work.
- C. Clean machine room equipment and floor.
- D. Clean hoistways, car, car enclosure, entrances, operating and signal fixtures.
- E. Paint Machine room floor deck grey.
- F. Paint pit floors deck grey.
- G. Paint car tops deck grey.
- H. Paint Buffers and supports black.
- I. Paint all factory prime material/components such as hoist machines, governors, machine beams, etc. with color scheme as selected by contractor. Exception: all rotating equipment shall be painted with demarcating yellow.

3.7 ACCEPTANCE REVIEW AND TESTS

- A. See Section 01700, Article 1.2, Consultant's Final Observation and Review Requirements.

3.8 PURCHASER'S INFORMATION

- A. See Section 01700, Article 1.3, Final Contract Compliance Review.

END OF SECTION

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SECTION 143250 -  
LERCH BATES MAINTENANCE SPECIFICATION (LBMS)

## PART 1 GENERAL

**Note: The Owner will be providing a separate contract that includes their own supplemental terms and conditions for this project. Their contract will supersede all parts of Section 143250 that may be in direct conflict.**

## 1.1 PARTIES

The parties to this Agreement (the "Agreement") are The Exchange Lofts ("Purchaser") and \_\_\_\_\_ ("Contractor"). The contract start date is the date this Agreement is executed by Purchaser or their Designated Representative. The purpose of this Agreement is to set forth the terms and conditions under which Contractor will provide certain services for Purchaser. This agreement covers the two (2) geared traction elevators located at The Exchange Lofts, 309 Church Street, Nashville, TN 37201 and listed in Section 143250, Appendix A.

## 1.2 DUTIES OF CONTRACTOR

- A. Contractor shall furnish all supplies, materials, parts, labor, labor supervision, tools, scaffolding, machinery, hoists, equipment (including employee safety equipment), lubricants, and technical information to provide proactive full preventive maintenance service including, but not limited to, cleaning, lubrication, adjusting, parts replacement, repair, and callback service. All work shall be in conformity with highest standards and best industry practices, applicable laws, and all expressed and implied provisions of this Agreement for the complete vertical transportation systems detailed in Appendix A of this Agreement.

## 1.3 AGREEMENT INTENT

- A. The intent of this Agreement is to maintain the elevator equipment to the highest industry standards using "industry best" practices by continuously preserving and maintaining the condition, appearance, and performance of the elevators in keeping with their original and modernized design. The purpose of the maintenance program specified herein is to provide the following:
  - 1. Safe, consistent, and reliable operation
  - 2. Maximum operational performance
  - 3. Maximum beneficial usage
  - 4. Maximum life cycle
- B. Contractor acknowledges Purchaser is relying on Contractor's professional expertise in performance of Services to achieve and comply with the Agreement intent.
- C. Contractor accepts full responsibility for the equipment, as it exists on the effective date of this Agreement and will leave it in a condition acceptable to Purchaser, or a mutually agreeable third-party consultant, at the termination date.
- D. Contractor acknowledges Purchaser provided free access to and sufficient time for adequate examination of the equipment and review of service records. Contractor further acknowledges the specified vertical transportation equipment has been evaluated by Contractor, and Contractor has determined the equipment is in serviceable operating condition. The Contractor accepts full and complete responsibility for all of the maintenance service, repair, cleaning, and testing of the specified vertical transportation equipment listed, in "as is" condition, in accordance with this Agreement.



- E. Invoicing Requirements. The following criteria must be clearly met for payment of any invoice:
  1. Travel time clearly identified and a separate line item on technician's time sheet.
  2. Site arrival time and departure time clearly identified on technician's time sheet.
  3. Service call and work description clearly identified on technician's time sheet.
  4. Billable material cost backup.
  5. Travel expenses/surcharges shall not be allowed.
  6. Contractor's invoice must include clear and concise detail of service call and work complete.
  7. Contractor's invoice must include clear and concise detail of travel hours billed and hourly rate utilized.
  8. Contractor's invoice must include clear and concise detail of time on job and hourly rate utilized.

1.4 OBSOLESCENCE

- A. Definition of Obsolescence: A system, component, or part that is no longer repairable, re-buildable, supported, manufactured, available in-stock or supplied by the OEM, non-OEM elevator systems parts supplier or other third party parts supplier or fabricator in the same form, fit and function.
- B. If contractor, third party consultant, or Purchaser receive a notice of "component or part obsolescence" from a third party non-OEM elevator system parts supplier, not owned by or in any way affiliated with the contractor, during the course of this agreement then Purchaser will evaluate a claim of obsolescence. Claim may include only the necessary retrofit material and only the additional portion of labor above and beyond what would have been required to replace the obsolete component or part with an OEM original component or part.
- C. No other claim for obsolescence of any kind will be considered by the Purchaser during this agreement.

1.5 TERM OF AGREEMENT

- A. The term of this Agreement is a five-year term beginning \_\_\_\_\_ and terminating after five (5) years. If Contract is not renewed after the initial term of five years, work shall continue monthly at third year pricing until a new agreement is executed. This Agreement shall be subject to termination as provided in Article 1.6.
- B. An elevator modernization is taking place during the term of this agreement. Monthly billing will be suspended while an elevator is out of service. Monthly billing will also be suspended during the sixteen (16) month warranty period post modernization, as the cost for monthly maintenance has already been included in the capital project.
- C. All fees are payable for all vertical transportation equipment as set forth in Appendix A. Contractor shall send invoices detailing the fees outlined herein, and other charges to Purchaser by the \_\_\_\_\_ day of each month to:

Contact:	
Street Address:	
City, State, Zip:	

## 1.6 CANCELLATION

- A. If Contractor violates any provision or fails to properly perform services required by this Agreement on any unit, Purchaser shall advise Contractor of deficiencies and shall allow Contractor ten (10) working days unless otherwise agreed, to correct deficiencies at Contractor's expense and to Purchaser's sole satisfaction. If Contractor fails to comply or remedy in the allotted time, Purchaser shall have right to cancel Agreement immediately with written notice to Contractor.
- B. Purchaser, after an additional ten calendar days' written notice to Contractor, may perform or cause to be performed all or any part of Services and Contractor agrees that it shall reimburse Purchaser for any expenses incurred. Purchaser shall deduct said expense from any sum owed to Contractor.
- C. The waiver by Purchaser of a breach of any provision of this Agreement by Contractor shall not be construed as a waiver of any subsequent breach by Contractor.
- D. If any property covered by this Agreement is sold, new Owner may extend this Agreement at its discretion by assignment or other means.
- E. Purchaser may modernize all or a portion of vertical transportation units during the term of this Agreement. Modernization is any "Alteration" as defined by Code. Any modernization may competitively bid and if the successful bidder is not the current Contractor then the Contractor agrees that this contract may be cancelled at the sole discretion of the Owner. The Owner is under no obligation to include the Contractor in the bidding process.
- F. If this Agreement Is Cancelled:
  - 1. Contractor agrees to take actions reasonably necessary to cause an orderly transition of Services to another contractor without detriment to the rights of Purchaser or to continued operation of Property including, but not limited to, refraining from any interference or disruption of occupants or other contractors.
  - 2. Contractor shall immediately deliver to Purchaser all reports, records, as-built wiring diagrams, portable electronic diagnostic devices supplied (owned by Purchaser or Owner), access codes, and other materials and documentation related to and required to facilitate services required by this Agreement.

## 1.7 CONTRACTOR SERVICES

- A. Services shall include all labor, transportation, supplies, materials, parts, tools, scaffolding, machinery, hoists, employee safety equipment, equipment, lubricants, supervision and all other work and materials expressly required under this Agreement, or reasonably inferred, whether or not expressly stated herein.
- B. Contractor shall coordinate and follow the directives of Purchaser with respect to scheduling Services and any deliveries hereunder or at a time or times further specified in other provisions of this Agreement.
- C. Services shall be performed as follows:
  - 1. In conformance with all provisions of this Agreement.
  - 2. In conformance with all applicable original equipment manufacturer's specifications.
  - 3. In conformance with the written Maintenance Control Program (MCP).
  - 4. In conformance with Purchaser's rules, policies, regulations, and requirements for work at the Property, as modified and supplemented during term of this Agreement.
  - 5. In conformance with Purchaser's requirements for cleanup using containers supplied by Contractor.



6. To Purchaser's satisfaction in conformance with this agreement.
  7. By qualified, careful, and efficient employees in conformity with best industry practices.
  8. Diligently, to highest industry standards, in a complete and workman-like manner, free of defects or deficiencies.
  9. In such manner as to minimize any annoyance, interference, or disruption to occupants of Property and their invitees.
- D. Contractor shall initiate, maintain, and supervise all safety precautions and programs in connection with Services, and comply with all applicable safety laws. Contractor shall take all reasonable precautions for safety of Purchaser, Purchaser's tenants, Purchaser's employees, Contractor's employees, and other persons on or about the Property.
- E. Contractor shall repair, to satisfaction of Purchaser, any damage to the Property and adjacent areas caused by performance of Services. This excludes building structural deficiencies which may occur during periodic safety testing.
- F. Contractor's additional services:
1. Attendance and assistance at bi-annual inspection as needed.
  2. Re-lamping of lighting in equipment pits, hoist ways, or elevator car tops.
  3. Attendance and assistance to facilitate Fire Service testing.
- 1.8 CONTRACTOR COMPLIANCE WITH LAWS
- A. Contractor agrees to comply with all current laws, codes, rules, and regulations set forth by appropriate authorities having jurisdiction in the locations where Services are performed. In the event of differing testing requirements between this Agreement and local codes or ordinances, the more stringent requirement shall prevail.
- B. The Contractor shall not be required to install new attachments or perform tests as may be recommended or directed by: inspecting entities; insurance companies; and federal, state, or municipal governmental authorities subsequent to the date of this Agreement, unless compensated for such tests, installation, or services.
- C. Contractor must complete all code-mandated testing and work tasks as detailed in Appendix E.
- 1.9 CONTRACTOR'S EMPLOYEES
- A. This Agreement is not one of agency, partnership, master-servant, or joint employer, but one with Contractor engaged in the business of providing Services hereunder as an independent contractor. Contractor shall have sole responsibility for the means, methods, techniques, procedures, and safety precautions in connection with performance of Services.
- B. Contractor shall be responsible for the supervision and execution of Services by its employees. An onsite condition review shall be conducted by the designated Supervisor of Contractor on an annual basis to ensure that all Services hereunder are performed properly. Contractor shall designate its Supervisor and inform Purchaser of the person responsible for execution of Service, and Supervisor shall have the authority to act as Contractor's agent. Supervisor shall notify Purchaser of site inspection and provide Purchaser with a written summary of findings within ten working days after completion of site review.
- C. Contractor agrees that its employees are properly qualified and will use reasonable care in the performance of Services. Contractor agrees that all work shall be performed by, and under the supervision of, skilled, experienced elevator service and repair persons directly trained, employed, and supervised by Contractor. Any and all employees performing work under this

Agreement shall be satisfactory to Purchaser. Purchaser shall be given at least thirty days' notice prior to making changes to site-specific mechanic/employees.

- D. If Purchaser, in Purchaser's sole opinion, determines, for any reason, that the qualifications, actions, or conduct of any particular Contractor employee has violated this Agreement by performing unsatisfactory Services, interfering with operation of Property, bothering or annoying any occupants, other contractors, or subcontractors then at Property, or that such actions or conduct is otherwise detrimental to Purchaser, then upon Purchaser's notice, Contractor shall immediately provide qualified replacement persons.
- E. Contractor shall not engage any subcontractors or other parties to perform Services unless first approved in writing by Purchaser. Purchaser's acceptance of subcontractors or other parties shall not relieve, release, or affect in any manner any of Contractor's duties, liabilities, or obligations hereunder, and Contractor shall at all times be and remain fully liable hereunder.
- F. Contractor employees are required to wear standard matched uniforms with a company logo. Each employee shall be required to have on their person a company ID card for identification as a current company employee.

#### 1.10 HOURS AND MANNER OF WORK

- A. All work, except as otherwise noted in this Agreement, including unlimited call-back service, shall be performed during the building's regular hours. These hours are 7:00 a.m. to 5:00 p.m. Purchaser, at its option, may request callback or normal service within the scope of this Agreement at no additional cost during those hours.
- B. Response Time for Callback Service:
  - 1. During regular time hours identified in Article 1.10 A. Contractor shall arrive at Property within 90 minutes from time of notification of equipment problem or failure by Purchaser. For callbacks placed during regular time hours, the portion of work that could have been accomplished from the required arrival time of technician to the end of the defined workday shall not be billed at overtime rates.
  - 2. During the regular time hours identified in Article 1.10 A, Contractor shall arrive at Property in response to passenger entrapment calls within 60 minutes from time of notification by Purchaser.
  - 3. During hours outside those identified in Article 1.10 A. Contractor shall arrive at Property within 120 minutes from time of notification of equipment problem or failure by Purchaser. For callbacks placed during regular time hours, the portion of work that could have been accomplished from the required arrival time of technician to the end of the defined workday shall not be billed at overtime rates.
  - 4. During hours outside those identified in Article 1.10 A, Contractor shall arrive at Property in response to passenger entrapment calls within 90 minutes from time of notification by Purchaser.
- C. If additional work beyond the scope of work enumerated in this Agreement is requested during regular hours, the regular time hourly rates shown below shall apply at the hourly rates indicated in Appendix A.
- D. If additional work within the scope of this Agreement is requested during overtime hours, Purchaser shall pay only the difference between regular time and applicable overtime hours at the hourly rates indicated in Appendix A.
- E. If additional work beyond the scope of work enumerated in this Agreement is requested during overtime, the rate billed shall be the applicable overtime rate at the hourly rates indicated in Appendix A



- F. If any unit is shut down due to equipment failure for more than 72 continuous hours, maintenance billing for that unit may be suspended until it is restored to beneficial usage, excluding scheduled equipment repairs. Suspended billing shall be calculated per unit, per day, and will not begin until the 72-hour period is exceeded.
- G. During peak passenger traffic times, Purchaser requires all elevators to be in operation. The elevator Contractor shall not remove elevators from service during these times without authorization. The peak traffic times are Monday thru Friday 7:30-9:30 a.m. and 4:00-6:00 p.m. Holidays are excluded.
- 1.11 MINIMUM MAINTENANCE HOURS AND PROCEDURES
- A. Contractor agrees to furnish maintenance personnel for specified minimum hours per month, for on-site, routine, regular preventive maintenance as listed in Section 143250 Appendix A (see detailed scheduled hours).
- B. Staffing: Contractor shall provide adequate and dedicated personnel suitable to Purchaser, for preventative maintenance based on the required maintenance hours identified in Section 143250 Appendix A. During vacation periods, an alternate mechanic, suitable to Purchaser, shall be assigned for maintenance. These hours shall not include time expended for callbacks, repair work, tests, or billable work. Time spent assisting Purchaser in performing tests of Firefighter's Emergency Operation or Standby Power Operation, and time spent accompanying Purchaser or their Elevator Consultant in making tests, inspections, or reviews may be credited against these minimum hours, and no additional billing shall be accepted for such time expended.
- C. Contractor's Employees Shall:
1. Upon arrival and departure all Contractor employees must register in the log maintained at Purchaser's location. In addition, Purchaser may require Contractor's employees to check in with designated personnel each time they enter the building.
  2. The site maintenance log book shall indicate the name of person or persons, time of arrival, purpose of visit, i.e. callback, preventive maintenance, scheduled repair, Supervisor's inspection, etc., and a brief description of work accomplished, including car and/or group designation, elevator, and time of departure. A sample of the maintenance logbook is in Appendix I and a sample of the callback log is in Appendix J.
  3. When departing the property, Contractor's personnel shall sign the maintenance logbook indicating as listed above under item C. 2.
  4. In addition, Contractor's employees who perform billable work shall leave time tickets after each visit when leaving the property.
- D. If the hours expended fall below those required on a three-month rolling average basis Purchaser shall have the right to require the shortfall in hours of work to be made up on a schedule of work acceptable to Purchaser. If the hours expended fall below those required for two three-month rolling average periods, the Purchaser shall have the right to a credit in the amount of the shortfall in hours for every three-month rolling average period after the first period. This metric will reset after each period where the hours expended meets or exceeds those required.
- E. Quarterly, Contractor shall meet with Purchaser or its Designated Representative. The scope of this meeting shall include:
1. A review of the previous quarter's callbacks
  2. A review of maintenance, including work performed, progress on any deficiency lists or other programs, and scheduled work requiring removal of elevators from service
  3. A review of any reported complaints
  4. Such other elevator-related items as may be appropriate
  5. A review of on-site spare equipment or parts for the elevators

6. A review of maintenance hours
  7. If requested by Purchaser, Contractor shall provide a monthly list of callbacks for review by Purchaser prior to the quarterly meetings.
- F. Overtime travel time in response to any callback shall be billed as the difference between regular time and overtime travel. There shall be a maximum of two (2) hours per round trip allowed for travel for any overtime callback.
- 1.12 SCHEDULING OF WORK
- A. Within thirty days of receipt of a fully executed copy of this Agreement, Contractor shall prepare and submit a schedule of repairs, tests, or other work that will require a shutdown of one or more elevators within the initial 90 days. The nature of work, elevator involved, and anticipated days out of service shall be included. Subsequently, this schedule shall be updated quarterly prior to the meeting referenced in Article 1.11 E.
- 1.13 ELEVATOR CALLBACK FREQUENCY
- A. Callback frequency for the elevators covered under this Agreement shall be subject to the provisions of this Agreement.
- B. Total callbacks for equipment failure on any elevator shall not be more than three (3) per unit per one quarter, as indicated in Appendix B.
- C. Callbacks due to vandalism or misuse of the equipment shall be excluded.
- 1.14 PERFORMANCE REQUIREMENTS
- A. Contractor agrees to maintain the following minimum performance requirements for the gearless or geared designated in table located in Section 143250 Appendix A:
1. Car Floor-to-Floor Performance Time: Seconds from start of doors closing until doors are 3/4 open (1/2 open for side opening doors) and car level and stopped at next successive floor under any loading condition or travel direction (13'-6" typical floor height).per Section 143250 Appendix A. Times shown are  $\pm 0.2$  seconds
  2. Door opening times are measured in seconds from start of car door open until doors are fully open, per Section 143250 Appendix A. Times shown are  $\pm 0.1$  seconds.
  3. Door closing times are measured in seconds from start of door close to doors fully closed and shall be no less than the times shown per Section 143250 Appendix A or those permitted by code. Times shown are  $\pm 0.1$  seconds.
  4. Door closing force is measured at rest with the doors between 1/3 and 2/3 closed. Door closing force shall be no more than 30 lbf.
  5. Car Speed:
    - a. Traction Geared:  $\pm 5\%$  of contract speed under any loading condition.
    - b. Traction Gearless:  $\pm 3\%$  of contract speed under any loading condition.
  6. Car Capacity: Safely lower, stop and hold 125% of rated load.
  7. Car Stopping Zone:
    - a. Traction:  $\pm 1/8$ " under any loading condition.
  8. Door opening and closing shall be smooth and quiet, with smooth checking at the extremes of travel. Car and hoistway doors shall open flush with entrance jambs and each other.
  9. Car Ride Quality: All elevators shall be maintained and adjusted to meet the performance requirements per these specifications for each property and within the following parameters:
    - a. Ride Quality shall be measured and analyzed according to the methods specified in ISO18738.



- b. Device to be utilized in procuring field measurements shall be the EVA-625 Elevator Vibration Analysis System as manufactured by Physical Measurement Technologies (PMT).
  - c. Specified levels apply to horizontal and vertical acceleration measured from within car, from the point at which the car has moved ½ meter from start position to ½ meter from final position, as defined by ISO18738.
  - d. Maximum peak to peak vibration for the horizontal and vertical axes shall be no greater than 20 mg peak to peak.
  - e. The A95 peak to peak vibration for the horizontal and vertical axes shall be no greater than 14 mg peak to peak.
  - f. Acceleration and Deceleration: Smooth constant and not less than 3.0 feet/second<sup>2</sup> with an initial ramp between 0.5 and 0.75 second. Sustained Jerk: Not more than 6 feet/second<sup>3</sup>.
  - g. Acceleration and deceleration shall be smooth, with no noticeable "steps" or bumps to increase or reduce speed, and no objectionable vibrations.
10. Noise and Vibration Control:
- a. Airborne Noise: Measured noise level of elevator equipment and its operation shall not exceed 60 dBA inside car under any condition including door operation and car ventilation exhaust blower on its highest speed. Limit noise level in the machine room relating to elevator equipment and its operation to no more than 80 dBA. All dBA readings to be taken 3'-0" off the floor and 3'-0" from the equipment using the "A" weighted scale.
  - b. Vibration Control, All Cars: All elevator equipment provided under this contract, including machine, controller and their support shall be mechanically isolated from the building structure and electrically isolated from the building power supply and to each other to minimize the possibility of objectionable noise and vibrations being transmitted to occupied areas of the building.
  - c. Elevator cars shall travel smoothly and quietly through the hoistways
- B. Performance requirements indicated are minimum standards and are not the sole criteria for judging the Contractor's performance.
- 1.15 REMOVAL OF UNITS FROM SERVICE
- A. Removal of elevators from service during peak hours shall be coordinated with and approved by Purchaser. Removal of elevators for routine maintenance during off-peak hours is expected, but notification to and coordination with Purchaser shall be provided.
- 1.16 PURCHASER'S RIGHT TO INSPECT AND REQUIRE WORK
- A. Purchaser reserves the right to make, or cause to be made, audits, maintenance evaluations, inspections or tests whenever it deems advisable or necessary to ascertain that the requirements of this Agreement are being fulfilled. The Contractor agrees to furnish, without cost, personnel to accompany Purchaser and/or its representatives during such inspections. Deficiencies noted shall be submitted in writing to the Contractor.
    - 1. If said deficiencies are not corrected at the time of the follow-up review, then Contractor shall be responsible for the cost of subsequent follow-up reviews at a cost of \$250/hour portal to portal.
    - 2. Failure to correct the deficiencies found, as a part of this section, to the satisfaction of the Purchaser or their representative subject this agreement to cancellation as noted in Section 1.6
  - B. The Contractor shall, promptly (within ten days unless otherwise agreed), correct deficiencies covered under the terms of this Agreement at its expense. This includes deficiencies discovered as a part of this section.

- C. If Contractor fails to perform the work required by the terms of this Agreement in a diligent and satisfactory manner, Purchaser, after thirty days' written notice to Contractor listing the deficiencies or failures to perform, may perform or cause to be performed all or any part of the work required hereunder. Contractor agrees that it shall reimburse Purchaser for any expense incurred thereto, or Purchaser, at its election, may deduct such expenses from any sum owed to Contractor. The waiver by Purchaser of a breach of any provision of this Agreement by Contractor shall not operate or be construed as a waiver of any subsequent breach by Contractor.
- D. In the event Contractor disputes a listing of deficiencies or failures to perform, in whole or in part, and the parties cannot resolve the dispute, a qualified Elevator Consultant acceptable to both parties may be retained by Contractor to conduct a non-binding mediation of any disputes, and Purchaser and Contractor shall split the Consultant's fees equally.
- E. A qualified vertical transportation consultant may be retained by Purchaser to perform any of Services and mediate disputes noted in 1.17 or elsewhere in this agreement.

#### 1.17 EXCLUSIONS

- A. Contractor shall NOT be responsible for the following:
  - 1. Repairs, callbacks, modifications, adjustments, or replacement required because of negligence, accident, or misuse of the equipment by anyone other than Contractor, its employees, subcontractors, servants or agent, or other causes beyond the Contractor's control except ordinary use and wear.
  - 2. Repair or replacement of building items, such as hoistway or machine room walls and floors, car enclosures, car finish floor material, hoistway and car entrance frames, car or hoistway sills, signal fixture faceplate surfaces, cleaning of car interiors, and cleaning of the portions of sills visible when the doors are open.
  - 3. Mainline and auxiliary disconnect switches, fuses, and feeders to control panels.
  - 4. Lamps for car, machine room and pit illumination. Contractor shall replace machine room, car, car top and pit lamps, but they are to be provided by the Purchaser.
  - 5. Smoke and heat sensors and related life safety equipment.
  - 6. Standby power generators and associated contacts and relays, and wiring to the elevator machine rooms (exclusive of wiring connections to elevator controller).
  - 7. Building paging/communication systems, including consoles, panels and wiring to junction box on elevator controllers. However, Contractor shall maintain and repair paging system and emergency telephone equipment and speakers in the cars and wiring from each such speaker to the machine room junction boxes.
  - 8. Failure or fluctuations of property electric power, air conditioning, or humidity control.
  - 9. Ingress by water or other material into machine room, hoistway, car enclosure, or pit.
  - 10. Access Control Equipment, Software, Hardware, Programming:
    - a. Exclusive of elevator traveling cables
    - b. Termination points within elevator systems in control room and car

#### 1.18 REMOVAL OF PARTS

- A. No parts or components required for the performance of Services on the vertical transportation equipment or required for its operation may be removed from the site without written approval from Purchaser. This does not include renewal parts stocked on the job by Contractor, but does include parts and components that were installed with and are a part of the elevator installation, and parts delivered to the property and paid for by Purchaser, which shall remain its sole property until installed on the equipment.



## 1.19 MACHINE ROOMS

- A. Contractor shall place and keep in the machine rooms Underwriter's Laboratory rated metal parts cabinets. No open storage of parts or supplies shall be permitted.
- B. Machine rooms and parts cabinets shall be kept clean and neat at all times. Floors shall be professionally painted on an annual basis, and maintained clean and free of dirt, debris, carbon dust, rags, parts, or other items.

## 1.20 WIRING DIAGRAMS

- A. Wiring diagrams, as provided by Owner, shall be kept neatly folded and stored, except where mounted on boards, and shall be copied and replaced by the Contractor if damaged or unreadable.
- B. For each elevator, Contractor shall maintain Property's complete set of straight-line wiring diagrams, showing "As-Built" conditions and any changes or modifications to circuits resulting from control modifications, parts replacement, or equipment upgrades. This includes all manuals supplied by a third-party controller manufacturer or as part of a non-proprietary specification requirement for a modernization or new installation. Purchaser may reproduce these original or modified as-built drawings, manuals, and shall retain sole possession of this set of drawings or books in the event that the Contract is terminated, or if Purchaser's set of drawings or manuals cannot be located at that time.

## 1.21 MAINTENANCE CONTROL PROGRAM

- A. Contractor shall prepare and provide a Maintenance Control Program (MCP) in compliance with the more stringent requirement of ASME A17.1 2016, or the AHJ Code in effect. Instructions for locating this written program shall be posted on the controller cabinets, at least one per elevator, as required by ASME A17.1 2016. Documentation of the MCP must be kept in a visible location in each machine room. When accepted by Purchaser, Contractor's preventive maintenance schedule, including the Maintenance Control Program, and this procedure shall become Section 143250 Appendix H to this Agreement.
- B. Contractor, on Purchaser's behalf, shall conspicuously post written Maintenance Control Program (MCP) and work log in each machine room or instructions for locating the MCP in or on the car controllers. Contractor shall maintain preventive maintenance history and testing logs in accordance with the MCP either in the machine room, building management office, or electronically within unit computer control system. Data shall be accessible by Purchaser via manual log or web access and hard copy printout at all times. Log or electronic printout shall include all entries for routine preventive maintenance, repairs, tests, callbacks, and Supervisor's inspection. Entries shall include date work is completed, Mechanic's or Supervisor's name, brief description of work completed, including unit number and number of units serviced, repaired or inspected, and the approximate time required for work excluding travel time to and from property. Purchaser shall be allowed to inspect and copy log or electronic printout and maintenance history and schedule at any time.

## 1.22 SPECIAL CONDITIONS

- A. Performance Requirements: Equipment must be maintained to perform in compliance with the following standards, as detailed in Section 143250 Appendices A and B.
  - 1. Callback frequency
  - 2. Callback response time
  - 3. Mean time between callbacks
  - 4. Availability

5. Maintenance actions
  6. Annual repair time accrued
- B. Should Contractor require remote monitoring of the equipment to facilitate its maintenance program, all related installation and maintenance costs shall be at Contractor's expense.
  - C. Equipment manufacturer's electronic diagnostic devices required to facilitate services, including fixed and hand held devices purchased by Purchaser, shall be maintained and upgraded by Contractor during the term of this Agreement and shall remain Purchaser's property at the expiration or cancellation of the contract.
  - D. Local inspection fees with regard to operation of equipment covered by this Agreement shall be paid by Purchaser. Fees for re-inspection due to Contractor's failure to expeditiously eliminate deficiencies covered by Services shall be paid by Contractor.
  - E. Purchaser may provide information to enable Contractor to render Services hereunder, or Contractor may learn information about Property or develop such information from Purchaser. Contractor agrees:
    1. To treat, and to obligate Contractor's employees, subcontractors and suppliers to treat as confidential all such information whether or not identified by Purchaser as confidential.
    2. Not to disclose any such information or make available any reports, recommendations and/or conclusions which Contractor may make on behalf of Purchaser to any person, firm or corporation or use the same in any manner, whatsoever, without first obtaining Purchaser's written approval, except to the extent necessary in connection with performing Services or when required by law.
  - F. Contractor shall not, in the course of performance of this Agreement, or thereafter, use or permit the use of Purchaser or Property Manager's name or the name of any affiliate of Purchaser or Property Manager, or the name, address or any picture or likeness of or reference to the Property in any advertising, promotional or other materials prepared by or on behalf of Contractor without the prior written approval of Purchaser and Property Manager, as applicable.

### 1.23 PURCHASER'S RESPONSIBILITIES

- A. Provide clear, safe, and convenient access to the Property and to elevator equipment rooms and pits.
- B. Maintain telephone lines to controller terminals, equipment room electrical switch gear, and electrical feeders to elevator controllers.
- C. Maintain equipment room heating and air conditioning systems. Temperature range 60°-90° F, non-condensing.
- D. Maintain fire alarm initiating devices in elevators, lobbies, machine rooms, hoistways, etc.
- E. Prohibit storage of Property equipment or supplies in elevator equipment rooms and obstruction of equipment room access corridors and doors.
- F. Maintain equipment rooms, hoistways, and pits in a code-compliant and dry condition.
- G. Coordinate with Contractor in regard to Purchaser's required equipment retrofits, such as elevator security systems, new car interior finishes, car interior CCTV systems, etc.
- H. During building construction and/or retrofit, make provisions to limit infiltration of dust and debris into elevator equipment and equipment spaces.

PART 2 EXECUTION

2.1 IN WITNESS WHEREOF, THE PARTIES HAVE EXECUTED THIS AGREEMENT THE DATE NOTED BELOW:

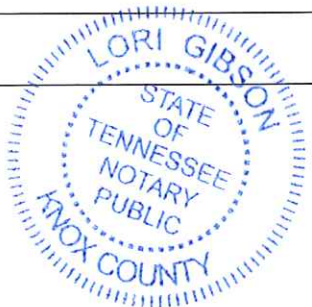
\_\_\_\_\_  
*Lori Gibson* 10/12/2021

BY: \_\_\_\_\_ BY: *[Signature]*

TITLE: \_\_\_\_\_ TITLE: Chief Manager

DATE: \_\_\_\_\_ DATE: 10-12-2021

END OF SECTION



*notary expires  
July 6, 2025*



APPENDIX A -  
EQUIPMENT ID, SCHEDULE, PERFORMANCE REQUIREMENTS, AND PRICING

The Exchange Lofts 309 Church St Nashville, TN 37201						Performance Requirements (Stopping Accuracy = $\pm 1/8"$ )		
Car ID	OEM	Type	Capacity	Ne of Stops	Speed	Floor-to-Floor Time ( $\pm 2$ )	Door Open Time ( $\pm 1$ )	Door Close Time ( $\pm 1$ )
Car #1	Otis Elevator	Traction	2,000	6	300 fpm	8.9 sec.	1.5 sec.	2.2 sec.
Car #2	Otis Elevator	Traction	2,000	6	300 fpm	8.9 sec.	1.5 sec.	2.2 sec.

Elevator Contractor Monthly Maintenance Hours and Year One Billing per Elevator  
Purchaser's special request for overtime service on specific elevators with hour requirements

Car ID	Elevator Contractor Minimum Monthly Maintenance Hrs.	Purchaser's Requested Overtime Maintenance Hrs.	Total Annual Hours	Year One Monthly Billing	Year One Total Annual Billing
1	1 Hour	0 Hours	12 Hours	\$365.00	\$4,380.00
2	1 Hour	0 Hours	12 Hours	\$365.00	\$4,380.00
Sub-Totals	2 Hours	0 Hour	24 Hours	\$730.00	
Total Annual Maintenance Cost:					\$8,760.00

LABOR and MATERIAL ADJUSTMENT

Mechanic Labor Rate, Including Fringe Benefits Applicable, Consisting of: Total Rate: \_\_\_\_\_ Date: \_\_\_\_\_  
Base Rate: \_\_\_\_\_ Fringe: \_\_\_\_\_

U.S. Metal Products Index: Index: \_\_\_\_\_ Date: \_\_\_\_\_

- "Fringe benefits" means employee benefits granted in lieu of or in addition to hourly base rate increases, and include but are not limited to, accruals for pensions, vacations, paid holidays, group life, sickness, and hospitalization insurance. Fringe benefits shall not include any direct or indirect costs based on labor.
- Price escalations shall be limited to a maximum of 4% over the current price in any one-year period.
- Contractor shall provide written notification of pending price adjustment as described above within thirty days of each Anniversary Date. If Contractor fails to give such written notice, the Agreement Price for the ensuing year shall be deemed to be the prior year's Agreement price.

BILLING RATE	MECHANIC	HELPER	TEAM
Regular Time	\$290.00	\$203.00	\$493.00
Overtime 1.7	\$493.00	\$365.00	\$858.00
Overtime Double time (Sundays and Holidays)	\$N/A	\$N/A	\$N/A

The above rates may be adjusted by written notice to Owner proportionally to the increase or decrease in the straight time hourly rates as set forth in Lerch Bates Maintenance Specification. Such adjustments shall not exceed 4% in any one-year period.

APPENDIX B -  
KEY PERFORMANCE INDICATORS

	Measured unit or building performance
$\leq 3$	No more than 3 callbacks per unit per quarter (Rolling Average)
$\geq 90$ days	Mean Time Between Callbacks Note: Once a unit falls below the 90 day threshold it shall be considered as conditionally passing in subsequent Rolling Quarters if the elevator has no callbacks during that Rolling Quarter. Callbacks due to vandalism or misuse of the equipment shall be excluded from MTBC calculation.
$\geq 99.5\%$	Equipment Availability
$\leq 1$	Not more than 1 entrapment per unit per quarter

The Contractor must provide the following information to the Purchaser on a monthly basis.

- A. Callback log containing:
1. Service Provider number
  2. Date and time call was placed
  3. Date and time technician arrived
  4. Date and time unit was returned to service
  5. Callback identifier for calls placed due to misuse of equipment or vandalism
  6. Callback identifier for calls placed due to entrapment
- B. Maintenance log containing:
1. Service Provider number
  2. Date of maintenance action
  3. Description of maintenance
- C. Emergency communication test log containing:
1. "Pass" or "Fail" for each emergency communication device tested.
- D. Repair log containing:
1. Service Provider number
  2. Date and time unit was removed from service
  3. Date and time unit was returned to service
  4. Description of repair

APPENDIX C -  
DEFINITIONS

The words or phrases shown below, which appear in this Agreement, are defined as follows.

- A. AHJ: Authority Having Jurisdiction
- B. Pro-Active: Acting in anticipation of future problems, needs, or changes.
- C. Full: Complete, especially in detail, number, or duration; all that is wanted, needed, or possible.
- D. Preventive: To anticipate or act ahead of; to keep from happening.
- E. Maintain/Maintenance: Keep in an existing state. Preserve from failure or decline.
- F. Timely Replacement: Adequate inventory of commonly used spare parts and other components for elevators available within 4 hours.
- G. Tenant Sensitive Items: Anything concerning the elevators that tenants can see, hear, or feel.
- H. Callback: Any request by Property personnel for elevator service assistance, and those requests which elevator industry jargon would describe as a "callback."
- I. Mean Time Between Failures: The mean time between callbacks resulting in a unit being out of service due to equipment failure. This is calculated using the number of callbacks that occurred during a rolling 12-month period. With one month being dropped from the calculation as each new month is added. In the context of this Agreement, refers to Mean Time Between Callbacks (MTBC).
- J. Repair Time Total: Cumulative time for all repairs over the last twelve months or a set calendar twelve-month period.
- K. Availability: Considers equipment down time vs. maximum equipment up time or usage time. This is calculated as "maximum availability - down time/maximum availability - 100" and is expressed as a percentage. The higher the percentage, the better the performance is. This percentage is only calculated vs. the time in the building or facility when the equipment is required to support building activity. The evaluation considers actual equipment availability vs. potential 100% availability.
- L. Entrapments: An out of service elevator with passengers in the cab requiring the Contractor or other emergency personnel to release the passengers.
- M. Rebuild: To repair, especially to dismantle, rewind, machine and or reassemble with new parts.
- N. Fabricate: To construct or manufacture from prepared, standard, or custom components.



APPENDIX D -  
EXTENT AND SCOPE OF SERVICES

- A. Pro-Active Full Preventive Maintenance: Contractor shall regularly and systematically, on a continuous basis, examine, clean, lubricate and adjust the vertical transportation equipment and provide unlimited callback service during regular working hours and, as conditions warrant, in accordance with accepted industry standards and the applicable manufacturer's published specifications and technical field notes, including those published internally within the manufacturer's organization, repair or replace all portions of the equipment, except those specifically excluded, including but not limited to the work and coverage described hereinafter.
- B. Elevators:
1. Basic Elevator Scope: The services shall include all work and materials expressly required under this Agreement or reasonably inferred, whether or not expressly stated herein, including, but not limited to the following:
    - a. Hoist machines, including worms, gears, thrust bearings, drive sheaves, drive sheave shafts and shaft bearings, tachometers, brake assemblies and pulleys, and all other components and parts of the machine and brake;
    - b. Hoist motors and power conversion devices, including motor windings, field coils, rotating elements (including armatures and commutators), brushes, brush holders, motor bearings, and all other related components and parts;
    - c. Governors, including governor sheave shaft assemblies, bearings, contacts, governors' jaws, and all other related components or parts;
    - d. Rope brake devices, secondary braking devices,
    - e. Car and counterweight safeties, including actuating mechanisms, jaws, and all other related components and parts;
    - f. Controllers, selectors and dispatching equipment, including all micro-processor and/or solid state components, relays, resistors, capacitors, condensers, transformers, contacts, leads, dashpots, timing devices, computer devices, encoders, tach generators, steel selector tapes (or cables), mechanical and electrical driving equipment, and all other related components and parts;
    - g. Hoistway equipment, including deflector or secondary sheaves and sheave bearings, car and counterweight guide rails (excluding replacement), top and bottom limit switches, counterweights and counterweight guide shoes including rollers or sliding gibs, inductors, cams, tapes and all other related components and parts;
    - h. Hoistway entrance equipment, including hoistway door interlocks, hangers, hanger covers and tracks, hoistway door drive assemblies including vanes, drive blocks, clutches, pick-up assemblies and bearings, bottom door guides, auxiliary door closing devices (including cables, sheaves, and arms), door restrictor devices, and all other related components and parts;
    - i. Car and hoistway door gibs, including their attachments to the door panels.
    - j. Car equipment, including car guide assemblies, guide rollers or sliding car guides, car door restrictors, car top exhaust fan or blowers, load weighing or sensing switches, car top inspection stations, car top and bottom lights, car frames, car platforms, and all other related components and parts;
    - k. Car door operators, including door drive chains, sheaves or belts, car door hangers, hanger covers and rollers, car door contacts, all door protective devices (including screen type detectors, proximity edges, mechanical safe edges and light rays), and all other related components and parts;
    - l. Pit equipment, including car and counterweight buffers, tape sheave assemblies, governor rope pit tension sheave assemblies, compensating rope sheave assemblies or other pit mounted compensation guides, pit lights, and light fixtures



- including re-lamping (bulbs furnished by Purchaser), and all other related components and parts;
- m. Hoist, compensating, and governor ropes or belts and their fastening means, and all other similar or related components and parts;
  - n. Seismic Devices, including seismic switches and contacts, derailment devices, and all other related components and parts.
  - o. Alarm bells, emergency stop switches, emergency car lights, and batteries;
  - p. Car operating panels and their attachments to return panels, hall call pushbutton stations, car, and corridor signals and fixtures (including lighted surrounds or buttons), visual and audible signaling devices, remote status panels and switches, and all other related components and parts;
2. Additional Elevator Scope of Work:
- a. Keep all car tops, pits, and hoistways clean and free from dirt, oil, lint, debris, and stored items, and maintain each machine room in clean, neat condition.
  - b. Keep all and guide rails clean and free from dirt, lint, rust, or accumulated grease, and keep rail shanks properly painted.
  - c. Repair or replace conductor cables and hoistway and machine room elevator wiring to prevent shutdowns and provide uninterrupted operation of elevator signals and uninterrupted elevator operation.
  - d. Affix by stencil painting and maintain the appropriate elevator numbers on the car crossheads and on all equipment components in the machine rooms and pits. These numbers shall be a minimum of 1½" high.
  - e. Repair damage to car and hoistway door finish when caused by improper adjustment or maintenance of associated door equipment.
  - f. Replace burned out light tubes or bulbs, furnished by Purchaser, in all machine room and pit light fixtures. Replacement of car light bulbs or tubes shall be Purchaser's responsibility when accessibility is possible using standard hand tools from inside elevator cab.
  - g. Maintain and repair the emergency telephone, telephone buttons, button contacts, speakers, and wiring from the machine room junction box, in a fully operational condition. Also maintain wiring for the car telephones from the cars to the machine room junction boxes.
  - h. 24/7 monitoring of the emergency communication devices per code requirements.
  - i. Maintain the emergency telephone buttons, button contacts, speakers, and wiring to the machine room junction box, in a fully operational condition. Also maintain wiring for the car telephones from the cars to the machine room junction boxes.
3. Additional Services:
- a. Cleaning:
    - 1) Contractor shall clean elevator equipment, machine rooms, and pit floors at regular intervals sufficient in frequency to maintain a professional appearance, prevent tracking of dirt, oil, or grease from car tops, pits or machine rooms onto carpeted areas, and to preserve the life of the equipment.
    - 2) Contractor shall not be responsible for cleaning any equipment made necessary by events beyond its reasonable control or as a result of improper janitorial or building maintenance functions. Unusual conditions, such as on-going construction or "build-out" in the building may be reviewed with Purchaser to determine responsibility for cleaning.
  - b. Painting:
    - 1) Paint all elevator machine room, hoistway, and pit equipment and all car tops at intervals frequent enough to maintain a professional appearance, prevent rusting, and preserve the equipment. Car tops, and floors in machine rooms, machinery spaces, and pits shall be maintained and painted with a low VOC paint including the color additive "Deck Gray" or other suitable color if approved by Purchaser.

- 2) All paint shall be suitable for the purpose intended and shall be high quality. Application of the paint shall, in all circumstance, comply with current ASME, OSHA, and applicable local codes. Contractor shall schedule all painting procedures with Purchaser.
- c. Lubrication:
  - 1) Lubricate the equipment at intervals recommended by the equipment manufacturer or as dictated by the use of the equipment. All lubricants shall be suitable for the purpose intended and shall meet or exceed the minimum requirements specified by the manufacturer of the equipment to which the lubricant is applied.
  - 2) Lubricants, cleaning fluids and all combustible liquid shall be stored in metal cabinets in the machine room and shall be disposed of in accordance with OSHA and EPA guidelines. MSDS data sheets shall be posted as required.
- d. Adjustment: Adjust the equipment as necessary:
  - 1) To the specifications found in this agreement.
  - 2) When required to maintain performance standards specified in this Agreement.
  - 3) When necessary to preserve the useful life of a part or assembly.
  - 4) When necessary to prevent or eliminate Tenant Sensitive items from becoming adversely noticeable to building's tenants.
  - 5) Additionally, Contractor shall check and adjust the elevator dispatching systems and make necessary tests at such intervals as are required to ensure all systems are operating properly. If required to complete such system checks, this work shall be completed during overtime at no additional cost to Purchaser.
- e. Repairs and Replacements: Make repairs and/or replace all worn, damaged, or broken parts or components. Parts or components requiring repair shall be rebuilt to "as new" condition. Parts or components shall be replaced:
  - 1) When worn beyond normal adjustment limits.
  - 2) When necessary to ensure continued normal operation.
  - 3) When necessary to extend the useful life of the elevators or any of their components.
  - 4) When necessary to continue safe, dependable operation in accordance with ASME A17.1 and A17.2 Code.
  - 5) When necessary to continue performance of the equipment in accordance with its original design.
  - 6) When necessary to maintain the performance standards specified in this Agreement, including the elevator performance, smoothness, and quietness of operation.
  - 7) When more than one elevator requires repair, Purchaser, upon consultation with Contractor, shall establish priorities of accomplishment.
- f. Manufacturers' Parts and Lubricants: In performing the Services, Contractor agrees to provide parts used by manufacturers of the equipment for replacement or repair, and to use lubricants obtained from and/or recommended by the manufacturer of the equipment. Equivalent parts or lubricants may be used if approved in writing by Purchaser.
- g. Adequate Parts and Parts Storage:
  - 1) Contractor shall maintain an adequate inventory of spare parts and components to permit timely replacement and repairs without delay. All parts, materials, lubricants, rags, cleaning fluids, combustible liquids, and other materials and supplies shall be kept and stored in U.L. rated metal cabinets, provided by Contractor, properly secured, in each machine room, unless code required clearances would be violated by the presence of such cabinets. All materials and supplies kept in these cabinets shall be neatly arranged, and cabinet doors shall be left in the fully closed position after each visit.



- 2) Cabinets shall be sufficient in number and size to store all parts, materials, and supplies out of sight. No parts, materials, or supplies shall be stored on top of cabinets, on the floors, or any other place where they are visible.
- h. Prompt Corrective Action: When, as a result of an examination, a need for corrective action is apparent and the corrective action is within the scope of Contractor's responsibility, Contractor shall proceed immediately to make such replacements, repairs, and/or corrections. If Contractor reasonably believes the corrective action is not within the scope of Contractor's responsibility, and no safety or potential safety problem exists, Contractor shall deliver a written report to Purchaser within seven days of the examination. If a safety or potential safety problem exists, Contractor shall immediately take corrective action at the least possible expense to Purchaser, regardless of scope of responsibility, and make a prompt written report to Purchaser.

APPENDIX E -  
CODE-MANDATED TESTS

- A. Contractor shall schedule, coordinate, and complete statutory Category 1, 3, and 5 tests and other equipment tests including but not limited to:
- B. Monthly firefighters' service operational tests, including test log in the machine room.
- C. Monthly operational tests: Battery pack car emergency lighting and alarm, monthly car emergency communication device, and battery pack car lowering devices or car rescue devices.
- D. Contractor shall schedule, coordinate, and complete all statutory tests. Contractor shall schedule said tests in the presence of local enforcing authority and/or persons designated by Purchaser. Scheduling difficulties shall not exempt Contractor from performing tests in compliance with applicable Code or regulatory requirements.
- E. Contractor shall make "Periodic Inspections and Tests" in accordance with the more stringent of the requirements of ASME A17.1 or the AHJ.
- F. Category 1 and Category 5 tests shall be performed during regular hours on all elevators except for Elevator #3. Elevator #3 shall be completed during overtime hours. The Agreement Price shall include all such required tests. Should Purchaser require tests during overtime hours for elevators other than Elevator #3, the additional costs for tests performed in overtime shall be paid by Purchaser in accordance with this Agreement.
- G. Contractor shall affix metal tags for all Category 1 and Category 5 tests in accordance with ASME A17.1-2010 or later, adopted by the AHJ.
- H. Contractor shall complete and submit all documentation required of elevator service provider by AHJ.
- I. Contractor is responsible for ensuring all equipment included under Agreement is free and clear of all violations whether those violations are the result of AHJ-required testing or other inspections.
- J. Contractor's failure to execute statutory tests mandated by either national Codes or local jurisdictions or regulations within thirty calendar days of required time constraint shall make the Contractor responsible for any fines assessed by the AHJ. In the event the AHJ places the elevator out of service or levies a fine because of missed statutory tests, no additional costs shall be paid by Purchaser. To prevent missed required testing, the contractor shall schedule said tests in a timely manner with the building management.
- K. Before performing tests of the elevators, Contractor shall take all reasonable steps to verify that the equipment is in a safe condition for testing, shall check appropriate clearances, shall check basic operation of safety devices and shall adhere to best practices in making the tests, including all safety procedures in general use by the Contractor or published by the Contractor or manufacturer of the equipment.
- L. Contractor shall be responsible for damages to elevator components as a result of any AHJ/code-required test if damage would have been prevented through proper maintenance of equipment. See Section L above.
  - 1. This includes, but is not limited to, car guides, buffers, and door equipment.
  - 2. Interior finishes are EXCLUDED from the contractor's responsibility.



APPENDIX F -  
INSURANCE

- A. Prior to commencing work, Contractor shall secure required insurance, at its sole cost, and submit certificate of confirmation or other documentation reasonably acceptable to Purchaser. All insurance shall meet the minimum requirements of this Section 1.17 set forth below. During the term of this Agreement, Contractor shall, continuously maintain the following minimum insurance coverages:

Type of Insurance Coverage	Amount
Workers' Compensation and Occupational Disease	Statutory Limits
Employer's Liability, Including Occupational Disease Coverage	\$1,000,000
Property Damage Insurance for the protection of Contractor and Purchaser, as their interests may appear, covering all of Contractor's personal property, business records, fixtures and equipment located on the Property, and other insurable risks for "all risk" perils, excluding earthquake and flood.	Not less than the full insurance replacement cost of such property and the full insurable value of such other interests of Contractor
E Commercial General Liability, Including Operations, Contractual, and Completed Operations Coverages, Occurrence Basis (further described in B below)	\$10,000,000 Combined Single Limit for Bodily Injury and Property Damage
Commercial Automobile Liability Covering Owned, Non-Owned, and Hired Vehicles Used in the Performance of the Services	\$1,000,000 Combined Single Limit for Bodily Injury and Property Damage

- B. The Commercial General Liability Insurance shall include, but not be limited to, coverage for death and bodily injury, property damage or destruction (including loss of use), product and completed operations liability, contractual liability, fire legal liability, personal injury liability and advertising injury liability.
- C. All insurance required to be carried by Contractor hereunder shall include the following provisions: (i) shall name \_\_\_\_\_ as additional insureds; (ii) shall release Purchaser, any Property Manager and any lender from any claims for damage to business or to any person or the Property or Building and to Contractor's personal property in the Building or Property, caused by or resulting from risks insured against under any insurance policy carried by Contractor in force at the time of such damage; (iii) shall be issued by Insurance companies authorized to do business in the State where the Building is located with a financial rating of at least an "A-" status as rated in the most recent edition of Best's Key Rating Guide; (iv) shall be issued as a primary and noncontributory policy; and (v) shall contain an endorsement requiring at least thirty days' prior written notice of cancellation to Landlord and Landlord's lender (if any), before cancellation or change in coverage, scope or amount of any policy. Contractor shall deliver certificates of such policies together with evidence of payment of all current premiums to Purchaser within thirty days of execution of this Agreement and prior to performance of any Services or work. Any certificate of insurance shall designate Contractor as the insured, specify the Building location, list Purchaser (and its Property Manager and lender, if any) as additional insureds (with the additional insured endorsement attached thereto), and list Purchaser with Purchaser's current address as "Certificate Holder." Contractor shall take all necessary steps to renew all insurance at least thirty days prior to such insurance expiration dates and shall provide Purchaser a copy of the renewed certificate, prior to said policy's expiration date. If Contractor fails at any time to maintain the insurance required by this Agreement, and fails to cure such default within five business days of written notice from Purchaser or Property Manager then, in addition to all other remedies available under this Agreement and applicable

law for such default, Purchaser may terminate this Agreement without further notice or any penalty.

- D. Purchaser and Contractor each release and relieve the other, and waive the entire right of recovery for third party liability and any loss or damage that may occur to the Property, Building or any improvements thereto, or personal property of such party therein, by reason of any cause to the extent that such rights of recovery, claim, action or cause of action is or would be covered by insurance carried by either party or required to be obtained pursuant to this Agreement. This waiver applies whether or not the loss is due to the negligent acts or omissions of Purchaser, Property Manager or Contractor, or their respective officers, directors, employees, agents, contractors, or invitees. Each of Purchaser and Contractor shall have their respective commercial insurers endorse the applicable insurance policies to reflect the foregoing waiver of claims, provided, however, that the endorsement shall not be required if the applicable policy of insurance permits the named insured to waive rights of subrogation on a blanket basis, in which case the blanket waiver shall be acceptable.
- E. Subject to the waiver of subrogation set forth above, nothing in this Agreement shall be construed to mean that Contractor assumes any liability on account of accidents to persons, or property, except those directly, or indirectly, due to acts or omissions of Contractor, its employees, subcontractors, servants or agents. Contractor shall not be held responsible or liable for any loss or damage to the extent solely and directly due to "Force Majeure" (defined below), with the exception of explosion caused by action or inaction of Contractor, its employees, subcontractors, servants or agents which shall continue to be the responsibility of the Contractor regardless of Force Majeure. In the event of Force Majeure, dates for performance or completion of any ongoing maintenance or corrective action required shall be extended by such length of time as may be reasonably necessary to compensate for such "Force Majeure."
- F. "Force Majeure" under this Agreement shall mean any delay in performance by either party to the extent resulting from any (i) strikes, lockouts, or labor disputes; (ii) failure of power or other utilities; (iii) inability to obtain labor or materials or reasonable substitutes therefor; (iv) war, governmental action, court order, condemnation, civil unrest, riot, fire or other casualty; (v) extreme or unusual weather conditions, acts of God or unforeseen soil conditions; or (vi) other conditions similar to those enumerated in this Section beyond the reasonable control of the party required to perform (except for financial inability which shall not be considered Force Majeure).
1. If either party is affected by Force Majeure it shall promptly notify the other of the nature and extent of the circumstances in question.
  2. Notwithstanding any provision of this Agreement, neither party shall be deemed to be in breach of this Agreement, or otherwise be liable to the other for any delay in performance or the non-performance of any of its obligations under this Agreement, to the extent that the delay or non-performance is due to any Force Majeure of which it has notified the other party, and the time for performance of the obligation shall be amended accordingly.
  3. If at any time the Contractor claims Force Majeure in respect of the obligations under this Agreement with regard to the supply of the Services, Purchaser shall be entitled to obtain from any other person such Services as the Contractor is unable to provide.



APPENDIX G -  
INDEMNIFICATION

- A. The Contractor acknowledges that it has reviewed site and equipment conditions covered by this Agreement prior to the date of commencement of this Agreement. The Contractor shall indemnify Purchaser against any claims during the Term of this Agreement for adjustment, repair, or replacement of all equipment for which the Contractor is responsible under this Agreement.
- B. To extent permitted by law, Contractor shall indemnify and hold harmless Indemnified Parties from and against any and all claims, demands, losses, damages, injuries, liabilities, expenses, penalties, judgments, liens, encumbrances, orders and awards, whether foreseen or unforeseen, direct or indirect, special or consequential, all of which are collectively referred to as "claims," howsoever caused, which directly or indirectly relate to or result wholly or in part from, or are alleged to relate or result wholly or in part from:
1. Services performed or required to be performed by Contractor.
  2. Any violation of this Agreement by Contractor.
  3. Any action or omission of Contractor outside the scope of this Agreement.
  4. Utilization of electronic diagnostic devices/capabilities in performance of Services.
- C. Such indemnity shall include reasonable attorneys' fees, experts' fees, court costs, and other related expenses arising out of any matter covered by foregoing indemnity, except to extent of claims excluded under Article D. Contractor shall initially defend claims hereunder on behalf of Indemnified Parties through counsel approved in writing by Purchaser (not unreasonably withheld), until such time as a court of competent jurisdiction determines that exclusion in Article D applies, or such counsel otherwise has a conflict of interest, or Purchaser's insurer reasonably determines that such counsel's performance is unsatisfactory. Contractor's counsel shall then withdraw its representation of Indemnified Parties and transfer all relevant files and documents to a counsel designated, in writing, by Purchaser or other Indemnified Party. Purchaser, or other Indemnified Party, shall assume responsibility at that time for its defense and payment of its attorney's fees; costs are subject to reimbursement of such reasonable attorney's fees and costs by Contractor unless Article D applies.
- D. Such indemnity shall not apply to the extent of claims caused by the negligence or willful misconduct of the party or parties seeking to be indemnified, whether determined by a court of competent jurisdiction with all appeals expired or exhausted, or pursuant to a written settlement and release agreement reasonably approved in writing by Contractor and Purchaser, and by their respective insurers, if applicable. For purposes of this clause "negligence" by an Indemnified Party shall not include its passive failure to supervise Contractor.
- E. The term "Indemnified Parties" herein shall mean Purchaser, or Purchaser and their respective subsidiaries, beneficiaries, parents, shareholders, affiliates, directors, officers, partners, agents, servants and employees of all of the foregoing and anyone else acting for or on their behalf.
- F. Contractor's obligations under this Provision shall survive expiration or earlier cancellation of this Agreement for one year.

APPENDIX H -  
CONTRACTOR'S PREVENTIVE MAINTENANCE  
SCHEDULE AND MAINTENANCE CONTROL PROGRAM



Contractor to insert MCP Here

APPENDIX I -  
SAMPLE MAINTENANCE LOG



APPENDIX J -  
SAMPLE CALLBACK LOG

Callback Log

Date	Unit No	Time of Call	Person Reporting Issue	Time Mech. Arrived	Date/Time Unit Back into Service

Date	Unit No	Time of Call	Person Reporting Issue	Time Mech. Arrived	Date/Time Unit Back into Service

Description of the Problem:
Resolution Description from Mechanic:

Description of the Problem:
Resolution Description from Mechanic: