ATTACHMENT A.

SPECIFICATION FOR REFURBISHMENT OF BIZZELL LIBRARY

TRACTION ELEVATORS

A. SCOPE FOR ELEVATOR

1. These specifications are for the upgrade of the two elevators having eight (8) landings and a rise of 75’, with a capacity of 2500 pounds, a speed of 350 fpm, and 1:1 roping. Power to the machines is 480 volt, 3 phase. The elevators are located on The University of Oklahoma's Norman campus in the Bizzell library at 401 W. Brooks St.

2. The successful bidder will furnish all required engineering, material, and labor, including electrical connections or upgrades to the electrical feeder to the elevator and connections to fireman’s return and fire hat relay’s (relay provided by others). At completion of contract, the elevator will be a complete, fully functional, and working system that is ADA and ASME A17.1 complaint. The contractor will be responsible for obtaining permits and their associated costs, acceptance testing, and any other requirements imposed by the Oklahoma Department of Labor under the State Elevator Safety Act.

3. Work shall include but not limited to the following base-bid items

   a. New MCE Motion 4000 controller with the capability of delaying the shunt trip.

   b. New AC gearless Imperial 500 machine

   c. New Mac door rollers, hangers, and door operators. New Mac restrictive clutch and interlocks

   d. Replace all hoistway doors with stainless steel doors.

   e. Replace all limit switches
f. New wiring

1. Traveling cable spares: The traveling cable for the elevator shall have no fewer than eight spare conductors or ten percent spare conductors, whichever is greater.

2. Car station spares: A minimum of eight spare conductors shall be supplied to the car station from the machine room.

3. Communication wire: One pair of shielded communication wires shall be provided for an emergency phone, and one spare pair of shielded communication wires shall be provided in the traveling cable to the car. Two Cat 6 stranded twisted cable, can be attached to the outside of the traveling cable.

4. Other equipment spare wires: The number of spare wires shall be maintained regardless of other equipment installed inside the elevator at the time of installation, such as security card reader, camera, intercom, etc.

5. Hoistway wire spares: There shall be no fewer than eight spare conductors from the elevator controller to the hoistway junction box.

g. Provide extra pair of wires at hall stations for one card. Controller needs capability to connect to one card to lock out hall stations. Assist our IT department in installing card readers.

h. Replace existing safeties and governor. Replace existing tail sheave.

i. Replace the existing door safety edge with new Janus Panaforty or sees screen

j. New traction steel hoist and governor ropes.

k. New car and counterweight guide roller assemblies

l. Furnish and install a new Innovation control operating panel with code complaint fire service controls
m. Must have new Innovation car riding position indictors with chime. Install blank stainless steel cover on existing position indictors.

n. Furnish and install new Innovation hall call stations

o. Furnish and installed barrel-type, key-operated switches and keys
   1. EPCO1: for all switched or keyed equipment (e.g., lights, fan, independent service, and run/stop)
   2. FEO K1: for all fire service

p. Install car top safety rail

q. Install an ascending car over speed/unintended movement protection device, such as a rope brake, on each elevator.

r. Install hoistway access switch

s. Code data plate: a data plate shall be provided by the elevator contactor that indicates the A17.1 Code to be used for inspections and tests. The data plate shall be such material and construction that the letters and figures stamped, etched, cast, or otherwise applied to the face shall remain permanently and readily legible. The data plate shall be in plain view, securely attached on the main line disconnect or on the controller. The height of the letters and figures shall be provided as per code.

t. Load weighing system with cab display or alarm for overload

u. New talk-a-phone emergency phone in elevator

v. Provide fire alarms interconnect for fireman’s return and fire hat service. Connection point will be provided in the elevator machine room by others

w. Revisit and check hoistway and governor ropes after one year and shorten ropes if needed.
B. ALTERNATES
Bidders are invited to provide the following alternates to be priced individually but, if accepted, to be carried out with the base-bid work.

1. Regenerative braking controller

2. Bidders are invited to propose any other work as alternate(s) that may be identified during the prebid site visit (see below).

C. TIME OF COMPLETION AND LIQUIDATED DAMAGES:
The Project start date is July 07, 2014. The elevator must be back in service and performing satisfactorily by January 15, 2015.

Liquidated Damages will be assessed at $150 per day because of the impact it will cause the University operations meeting the schedule for the on-going renovation on the 5th floor of Bizzell library exhibit.

If the Contractor fails to achieve Final Completion date of January 15, 2015 the Contactor shall pay the Owner the sum of one hundred and fifty dollars ($150.00) per calendar day for every unexcused delay in achieving Final Completion. Any sums due and payable hereunder by the Contractor shall be payable, not as a penalty, but as liquidated damages. When the Owner reasonably believes that Final Completion will be inexcusably delayed, the Owner shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount believed by the Owner to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving Final Completion, or any part thereof, for which the Owner has withheld payment, the Owner shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages;

D. EXECUTION

a. Only one elevator can be out of service/renovated at one time. The contractor will have use of a second elevator for the minimum amount of time required to move material. This should be scheduled to avoid the early morning/late afternoon heavy elevator usage times.

b. Safety precautions such as screens, partitions, or other suitable barricades to effectively isolate public from work areas.

c. Contractors will wear approved identity badges while on premises.
d. Parking is very limited and controlled in this area. The contractor may purchase parking permits from the University’s Parking and Transit department for use on their vehicles provided they are clearly marked with the company name.

E. **BIDDERS**

a. Proposed personnel shall be qualified and with at least five (5) years experience and trained to install elevator equipment specified herein.

b. Bidders shall submit a history of at least five (5) prior installations same as this project with names of contact persons and phone numbers.

c. Bidders must submit two (2) copies of the following with their proposals.
   
i. Equipment information manual containing general data on major components, sequence of operation, maintenance procedures, and equipment.
   
   ii. System logic description.
   
   iii. Cut sheets of equipment to be furnished and any other information that may be used in bid evaluation

F. **DETAILED SPECIFICATION**

a. Acceptable vendors (no substitutions)

   Controller.
   
   i. Motion 4000 controller

b. Drive machine (AC gearless/direct drive).

   i. Imperial series 500

c. Door operator equipment.

   i. “MAC” permanent magnet, closed loop door operator with 104 board.

B. JOB END CLOSE OUT SUBMITTALS

1. Upon acceptance of the elevator system(s), all submittals will be provided to the OU Elevator shop.

2. Emergency keys: Contractor shall provide one emergency door key and three sets of the control keys for each elevator. Keys shall be delivered to the OU Elevator Shop.

3. Project manual: Upon completion, the Contractor shall prepare and submit a Project Manual (three copies per elevator installed) for the Owner’s use.

4. Adjuster’s test report: An adjuster’s test report with all controller settings, parameters and adjustments, and all data from safety tests performed. Settings and adjustments shall be noted.

5. Parts catalog: A comprehensive parts catalog containing all components of the elevator system with part numbers and available vendors shall be provided. This shall include but is not limited to all mechanical, control, and fixture parts.

6. Operation and maintenance manuals: Manuals describing recommended service requirements and procedures for optimal life and operation of equipment shall be provided.

7. Electrical schematics: Three sets of as-built electrical schematics. One copy of the three copies provided of the control wiring diagrams shall be encapsulated in plastic and mounted in the machine room.

8. As-Built: All submittals shall be “as-built.”

9. Training – On-Site Training: Contractor shall provide one eight-hour session of training at new installation locations on the complete operation, adjusting, and troubleshooting of the elevator system. Training shall include complete instruction on the use of any service or adjusting tools.

C. DIAGNOSTIC AND SPECIAL TEST EQUIPMENT

1. Special equipment or tools necessary for the repair, adjusting, or troubleshooting of the operation of the elevator and any component such as a door operator, selector, or controller of the elevator shall be included in the project and furnished to the OU Elevator shop at no additional cost. These items shall be useful, viable, and available for a minimum of thirty years.
2. Items shall include all required hardware, firmware, software, cables, and associated apparatus for complete function and training manuals specific to the equipment installed which are available to the vendor.

3. Updates or future publications: Any and all information, printed material, and or publications pertaining to the provided elevator equipment that updates or recommends any changes to or operational problems of the equipment shall be provided to the Owner for a period of thirty years. This shall include any and all information that is provided to the vendor’s branch offices, service representatives and mechanics, or factories.

4. Service tool: As part of the final acceptance test, the service tool shall be demonstrated to operate completely and to be fully functional. This test shall be documented.

5. Reprogramming: There shall be no cost to Owner for reprogramming or recharging of the service tool at any time.

D. ACCEPTANCE TEST

1. The system shall pass the five (5) year inspection test as defined by current codes, documented and witnessed by The University of Oklahoma Department of Facilities Management and the Department of Labor elevator division. The contractor shall be responsible for the cost of the DOL inspection.