

**REVISION - SECTION 7 – SCOPE OF SERVICES/WORK****PURPOSE**

Winnebago County is accepting bids for the modernization of five (5) elevators located in the Winnebago County Courthouse (3) at 400 West State Street, Rockford, Illinois 61101; and Old Courthouse (2) at 403 Elm Street, Rockford, Illinois, 61101. All five (5) elevators are primarily used for passenger service.

**DETAILED SPECIFICATIONS**

These detailed specifications are as accurate as possible. It will be the bidder's sole responsibility to be all inclusive with labor, material and equipment necessary to modernize the existing traction passenger elevators. The County expects five (5) fully operational elevators with current technology once the process is complete.

**I. ELEVATOR DESCRIPTION AND IMPROVEMENTS**

A. These specifications include the requirements for the modernization of five (5) geared traction passenger elevators with the following duty requirements:

**1. CAR 1 - COURTHOUSE**

1. Capacity: #3,000
2. Number of stops: 9 Front 0 Rear
3. Speed: 350 feet per minute

**2. CAR 2 - COURTHOUSE**

1. Capacity: #3,000
2. Number of stops: 9 Front 0 Rear
3. Speed: 350 feet per minute

**3. CAR 3 - COURTHOUSE**

1. Capacity: #3,000
2. Number of stops: 9 Front 0 Rear
3. Speed: 350 feet per minute

**4. CAR 6 - OLD COURTHOUSE**

1. Capacity: #3,500
2. Number of stops: 5 Front 1 Rear
3. Speed: 350 feet per minute

**5. CAR 7 - OLD COURTHOUSE**

1. Capacity: #3,000
2. Number of stops: 5 Front 0 Rear
3. Speed: 350 feet per minute

B. The following equipment is a list of items the County believes needs to be replaced:

1. Controllers: Upgrade to current industry standards
2. Drive machine and motor
3. Hoistway cables
4. Car operating panels to be replaced with new push buttons
5. Door operators and associated operating linkages. Add zone restriction for car doors.
6. Hoistway door tracks, hangars, sheaves, linkage, locks and all related equipment.
7. All hall fixtures replaced with new surface mount push buttons.
8. Traveling cables and hoistway wiring

9. Replace and relocate pit stop switches
10. Replace leveling unit with equipment that complies with new controller manufacturer's standard leveling system
11. Care and counter weight roller guides
12. Landing doors to be replaced with new on all five (5) cars
13. Inside car door panels to be replaced with new on cars 1, 2, 3 & 7

C. The following equipment is to be installed in a manner that complies with current code:

1. Install new non-proprietary controllers or C.E.C.
2. Install new variable frequency drives with new AC drive motors
3. Install new drive machines, and required sheaves
4. Install new hoistway cables
5. Install new push button fixtures in the car operating panel and in the corridor call stations
6. Install new hoistway door tracks, locks, pickup roller assemblies, closer, linkage, hangers and rollers
7. Install new door drives, tracks, unlocking devices, linkage and zone restricting clutch assemblies
8. Install new pit switches
9. Install new landing systems
10. Install new car and counter weight rollers
11. Install all new hoistway and traveling cable wiring
12. Install hall lanterns and chimes
13. Install floor passing chime
14. Install position indicator in the elevator cabs
15. Install emergency lights
16. Install new position indicators in the corridor above the elevator doors on the ground level
17. All lighting to be LED

D. The following pertains to in car upgrade

1. Provide and install new:
  1. Wall coverings
  2. Flooring
  3. Hand railings
  4. Ceiling
  5. Exhaust fan
  6. Lights
  7. Control panel
  8. Removable protective wall covers
2. See Administration building elevator for example of desired finish (EXHIBIT A)

## II. TESTS

- A. At completion of installation and before final acceptance, contractor shall perform all tests and inspections required for certification by the prevailing code regulatory agency.
- B. Test and inspection to certify compliance with all requirements of this section shall be conducted by the County before final acceptance of installation.

- C. Successful Bidder shall obtain required permits and schedule tests with the appropriate authority.

### **III. OPERATION AND MAINTENANCE DATA**

- A. Submit three (3) paper copies and one(1) digital copy of manufacturer's operation and maintenance manuals that include, but are not limited to, all mechanical, adjusting, troubleshooting, parts catalog numbers, sequence of operation, electrical as built drawings and lubrication data. The manuals shall be presented to the County after final acceptance of the installation.
- B. After final inspection, two (2) sets of paper and one (1) digital copy of as-built mechanical and electrical drawings shall be provided to the County.
- C. All operation, maintenance data and prints provided shall become the property of the County and shall not be removed by the elevator contractor at a later date. This includes any tools or devices that are needed to troubleshoot and/or adjust the control system.

### **IV. FIREFIGHTER'S OPERATION**

- A. Provide automatic firefighter's operation in accordance with current local code requirements, initiated by building fire and smoke alarm sensing devices or main floor hall key switch.
- B. Locate three-position keyed switches marked OFF/ON/BY-PASS with key removable in ON or OFF position, at designated level to be determined by the County and successful bidder.
- C. Do not permit smoke sensors to restore normal service to the elevator. Normal service will be restored by activation of the designated level fire service key switch to the by-pass position. If a reset is available on the building fire panel or enunciator, this device may be used to reset the Phase I recall. Field verify conditions.
- D. Furnish three-position keyed switches marked OFF/HOLD/ON with key removable in any position, marked FIRE SERVICE in each car.
- E. The elevators shall be provided with an audible and visual signal system, which shall be activated to alert the passengers that the car is returning non-stop to the designated level. The signal shall remain activated until the car has returned to the designated level.
- F. Firemen's car call cancel button shall be provided in the car-operating panel.
- G. The smoke sensors will be furnished and installed by successful bidder or successful bidder's sub-contractor.

### **V. MATERIALS**

- A. All fabricated components and material installed shall comply with current local code requirements and items covered in this section if requirements exceed the minimum standard.
- B. Materials shall be manufacturer's standard design and comply with all duty requirements.

### **VI. ELEVATOR CONTROLLER**

- A. The controlling devices shall be designed for elevator service as indicated.
- B. All circuits required by current local code shall be included on controllers.

### **VII. DOOR OPERATOR**

- A. Car door restricted opening devices shall comply with current local code.
- B. Door operators and controllers shall provide circuitry to reduce the kinetic energy to current local code.
- C. Lobby floor doors are heavier than other landings.

### **VIII. HOISTWAY ENTRANCES**

- A. Existing entrance frames, door panels and sills shall be retained. Also replace tracks, hangars, sheaves, linkage, locks and all related equipment.

**IX. CAR OPERATING PANEL**

- A. The car operating panel shall incorporate the following devices in a single unit:
1. Floor call button, illuminated, when activated, car call buttons corresponding with appropriate floor designations
  2. Door open and close button
  3. Fire service key switch, light and buzzer
  4. Door hold key switch
  5. Emergency light
  6. Light key switch
  7. Fan key switch
  8. Alarm bell push button
  9. ADA compliant telephone marked PHONE
  10. Fire service Phase II car call cancel button
  11. Digital position indicator
  12. Keyed emergency stop switch
  13. Keyed independent switch
  14. Key switch lock-out for all floors

**X. DETAILED MACHINE ROOM EQUIPMENT**

- A. Hoistway drive machines shall be replaced with new drive machines and AC drive motors.  
B. Elevator control systems shall be replaced with control systems with variable frequency drives.

**XI. ELECTRICAL**

- A. All electrical wiring runs shall contain ten percent (10%) spares and comply with National Electrical Code NFPA 70 requirements.

**XII. DESIGN FOR HANDICAPPED**

- A. Must comply with section 407 (elevators) of 2010 ADA Standards for Accessible Design.

**XIII. INSPECTION**

- A. Field verify all requirements for work specified in this section including, but not limited to, the following:
1. Site dimensions
  2. Hoist Motor requirements
  3. Requirements for fixture relocation
  4. Interior cab dimensions for installation of specified improvements
  5. Any dimensions or information that are required to furnish and install all items specified in this section

**XIV. INSTALLATION**

- A. Install hoistway and machine room components for proper fit and alignment.  
B. Arrange equipment in machine room so that it can be removed for repairs or replaced without dismantling or removing other components. Arrange equipment to meet required working and electrical clearances.  
C. All cutting and patching of the hoistway walls to mount the new position indicators and hall call stations at code required height shall be the responsibility of the elevator contractor.  
D. Field Welds: Chip and clean away oxidation and residue; wire brush, weld and paint.  
E. Adjust equipment for smooth and quiet operation

**XV. CAR AND COUNTERWEIGHT ROLLER GUIDES**

- A. Install new guide rollers on car and counter weights as required.  
B. Adjust all roller guides for equal tensions on each rail surface.

**XVI. FIELD QUALITY CONTROL**

- A. Field inspection and testing will be performed in accordance with current local code.
- B. Supply instruments and execute required tests.
- C. Furnish test and approval certificates issued by appropriate authorities.
- D. Schedule inspection with local jurisdictional authority.

**XVII. CLEANING AND PAINTING**

- A. Remove protective coverings from finished surfaces and components ready for inspection.
- B. Clean and paint machine room and pit floor.
- C. Contractor shall clean hoistway prior to acceptance of the elevator by the County.

**XVIII. ADJUSTING**

- A. Adjust for smooth acceleration and deceleration of car.
- B. Adjust doors to open and close without binding or racking.
- C. Cars shall be capable of lifting and lowering code compliant load.
- D. Leveling speeds shall comply with manufacturer's standard adjustments. If car lands above or below the landing sill, re-level shall be prompt and return the car within  $\pm \frac{1}{4}$ " sill-to-sill leveling accuracy.
- E. Mechanical door locks shall not bind.
- F. Sill-to-sill leveling accuracy shall be  $\pm 1/4$ ".
- G. Brake shall operate smoothly.

**XIX. WINNEBAGO COUNTY WILL:**

- A. Provide a legal machine room of adequate size, properly ventilated, lighted and maintain the temperature between 55 and 95 degrees Fahrenheit.
- B. Provide, without charge, adequate power for excavation and tools during construction, starting, testing, and adjusting of equipment.

**OPTIONAL ADDITIONAL BID**

**Cars 6 & 7 - Replace entrance frame assemblies on the top terminal floor to make openings consistent with other floors. (EXHIBIT C)**

**Bids must be all inclusive, if subcontractors are required it is the responsibility of the successful bidder to obtain, coordinate, and compensate them. Subcontractors are to be listed on Bid Subcontractor Form.**

**END OF SECTION 7 – SCOPE OF WORK**