

## SECTION 142400 – EXISTING HYDRAULIC ELEVATOR

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes renovation/replacement of one six stop hydraulic passenger elevator.

- B. Related Sections include the following:

1. See Section 14210, Electric Traction Elevators, for general requirements, warranties, etc.
2. Division 05 Section "Structural Steel Framing" for the following:
  - a. Attachment plates, angle brackets, and other preparation of structural steel for fastening guide-rail brackets.
  - b. Divider beams.
  - c. Hoist beams.
  - d. Structural-steel shapes for subsills that are part of steel frame.
3. Division 05 Section "Metal Fabrications" for the following:
  - a. Attachment plates and angle brackets for supporting guide-rail brackets.
  - b. Divider beams.
  - c. Structural-steel shapes for subsills.
  - d. Pit ladders.
  - e. Cants in hoistways made from steel sheet.
4. Division 05 Section "Pipe and Tube Railings" for railings between adjacent elevator pits.
5. Division 05 Section "Decorative Metal" for combination units that contain hall push-button stations.
6. Division 09 Section for finish flooring in elevator cars.
7. Division 09 painting Sections for field painting of hoistway entrance doors and frames.
8. Division 26 Sections for electrical service for elevators to and including **fused** disconnect switches at machine room door.
9. Division 27 Section "Communications Horizontal Cabling" for telephone service for elevators.
10. Division 28 Section "Access Control" for security access system equipment used to restrict elevator use.
11. Division 28 Section "Fire Detection and Alarm" for smoke detectors in elevator lobbies to initiate emergency recall operation and heat detectors in shafts and machine rooms to disconnect power from elevator equipment before sprinkler activation and for connection to elevator controllers.

12. Division 31 Section "Earth Moving" for excavating well hole to accommodate cylinder assembly.
  13. Division 31 Section "Earth Moving" for disposition of excavated material from cylinder well hole.
- C. Unit Prices: Rock excavation for cylinder well holes will be paid for under the unit price indicated in the Contract and as specified in Division 01 Section "Unit Prices."

### 1.3 DEFINITIONS

- A. Definitions in ASME A17.1 apply to work of this Section.
- B. Defective Elevator Work: Operation or control system failure, including excessive malfunctions; performances below specified ratings; excessive wear; unusual deterioration or aging of materials or finishes; unsafe conditions; need for excessive maintenance; abnormal noise or vibration; and similar unusual, unexpected, and unsatisfactory conditions.

### 1.4 SUBMITTALS

- A. Product Data: Include capacities, sizes, performances, operations, safety features, finishes, and similar information. Include product data for the following:
1. Car enclosures and hoistway entrances.
  2. Operation, control, and signal systems.
- B. Shop Drawings: Show plans, elevations, sections, and large-scale details indicating service at each landing, machine room layout, coordination with building structure, relationships with other construction, and locations of equipment and signals. Include large-scale layout of car control station and standby power operation control panel. Indicate variations from specified requirements, maximum dynamic and static loads imposed on building structure at points of support, and maximum and average power demands.
- C. Samples for Initial Selection: For finishes involving color selection.
- D. Samples for Verification: For exposed finishes of cars, hoistway doors and frames, and signal equipment; **3-inch (75-mm)** square Samples of sheet materials; and **4-inch (100-mm)** lengths of running trim members.
- E. Qualification Data: For Installer.
- F. Operation and Maintenance Data: For elevators to include in emergency, operation, and maintenance manuals.
1. In addition to items specified in Division 01 Section "Operation and Maintenance Data," include diagnostic and repair information available to manufacturer's and Installer's maintenance personnel.

- G. Inspection and Acceptance Certificates and Operating Permits: As required by authorities having jurisdiction for normal, unrestricted elevator use.
- H. Warranty: Special warranty specified in this Section.
- I. Continuing Maintenance Proposal: Service agreement specified in this Section.

## 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Elevator manufacturer or manufacturer's authorized representative who is trained and approved for installation of units required for this Project.

## PART 2 - REPAIRS TO HYDRAULIC ELEVATOR

### 2.1 REPAIRS TO ELEVATOR

- A. As a minimum the following work shall be performed.
  - 1. Hydraulic Elevator Pit:
    - a. Remove and replace all switches
    - b. Change packing gland
    - c. Replace cylinder
    - d. Clean, paint and lubricate
    - e. Clean and flush oil lines/replace muffler
    - f. Extend oil lines to new 2<sup>nd</sup> floor.
    - g. Clean pit and install new pump in sump.
  - 2. Cab:
    - a. Remove and replace damaged cab panels, to restore to new condition.
    - b. Remove and replace floor
    - c. Replace all fixtures, car operating panel, push buttons, door operator, position indicators, reader box, and phone
    - d. Add 2<sup>nd</sup> floor to push button controls
    - e. Clean, paint and lubricate doors and related accessories, install new door safe edge
  - 3. Machine Room:
    - a. Provide and install new pump and control system.
    - b. New machine room on 2<sup>nd</sup> floor, to provide a complete and operating system.
    - c. Remove and replace controller
    - d. Remove and replace tank, pump, and valve
    - e. Change traveling Cable
    - f. Extend power to new machine room
  - 4. Hoistway:
    - a. Clean, lubricate and reset all hoistway equipment
    - b. Doors, switches, tracks, etc.
    - c. Change 1<sup>st</sup> floor interlock

- d. Provide safety lock out to leave car at 2<sup>nd</sup> floor during times when 1<sup>st</sup> floor may be flooded. Note: This is a flood lockout so that car can be held at second floor, or that it can be operated at all stops above 1<sup>st</sup> floor. This may be accomplished by hand valve, in hydraulic line, or by mechanical means. If by hand valve, interlock with electrical service to prevent operation while valved off.
  - e. Add door, frame, and accessories at the new second landing
5. General:
    - a. Assure that all hall elevator lights, push button stations, audible signal equipment, etc., that works with elevator is operational and in good appearance and repair.
  6. Provide modifications necessary to increase the elevator travel speed by 50%.

END OF SECTION 142400