

**AGREEMENT**  
**CITY OF TRENTON, NEW JERSEY**  
**BID2023-31**  
**RES. NO. 23-363**  
**AWARDED TO**  
**CURRENT ELEVATOR TECHNOLOGY, INC., FOR REFURBISHMENT AND MODERNIZATION OF**  
**ELEVATOR AT THE TRENTON WATER FILTRATION PLANT**

This Agreement, entered into this 4<sup>TH</sup> Day of AUGUST 2023 between the City of Trenton, a municipal corporation of the State of New Jersey, ('CITY') **319 EAST STATE STREET, TRENTON, NEW JERSEY 08608** and **CURRENT ELEVATOR TECHNOLOGY, INC., 129 MAPLE DRIVE, SHOHOLA, PA 18458** (Contractor"), witnesseth that:

**WHEREAS**, Contractor has bid, proposed or offered to furnish and deliver to the City the materials, supplies and/or goods to perform the services **in an amount not to exceed \$234,000.00 for a period of one (1) year from date of award;**

**FIRST**, A. Contractor, under the penalty expressed in the bond hereinafter mentioned, will furnish, supply and deliver to the City of Trenton the following materials, supplies or services as authorized by:

**RESOLUTION ACCEPTING A BID AND AWARDING A CONTRACT TO CURRENT ELEVATOR TECHNOLOGY, INC., FOR REFURBISHMENT AND MODERNIZATION OF ELEVATOR AT THE TRENTON WATER FILTRATION PLANT, ROUTE 29 SOUTH, TRENTON, NJ 08604 FOR A PERIOD OF ONE (1) YEAR FROM DATE OF AWARD IN AN AMOUNT NOT TO EXCEED \$234,000.00 - BID 2023-31**

B. The contract shall submit with contracts with the following:

**UPDATED CERTIFICATE OF INSURANCE WITH SIGNED CONTRACTS**

**SUBCONTRACTOR: ROBERT GRIGGS; PLUMBING & HEATING, METRIX ELECTRICAL LLC; ELECTRIC**

Such performance by Contractor will be in strict accordance with the terms and conditions of the bid specifications, the bid response and the authorizing resolution, which are included above and is incorporated by reference,. Additionally, Contractor will furnish good and ample security in a sum equal to the said contract price for the said articles and services.

**SECOND**. The City of Trenton will pay Contractor the total sum mentioned herein when the appropriate Department Director has executed a certification that the said articles or services have been furnished, delivered and accepted in full conformity to the aforementioned specifications and offer or proposal.

**THIRD**. The City of Trenton reserves the right to order a greater or lesser quantity, not to exceed twenty-five percent, of any or all of the articles named in the said offer or proposal than is stated therein, and it is distinctly agreed between the said parties that the price quoted in the offer or proposal of Contractor shall be regarded as a standard of prices, and the total sum mentioned herein as the consideration of this contract shall not be regarded as limiting the right of the City of Trenton to order such greater or lesser quantity.

**FOURTH**. In the event of the failure of Contractor to deliver to the City of Trenton, such articles or perform such work or labor as described in such quantities as ordered at the time stated for such delivery by the City of Trenton, or in the event that such articles as are delivered or work and labor performed do not meet the specifications or standards, as established by the City of Trenton for such articles or acceptance of such work and labor, then such delivery shall be rejected by telephone or written notice to the Agent or address indicated by the Contractor and by simultaneous and like notice to his surety. Additionally, if Contractor or his surety does not cure the default within the time set by the said Agent on behalf of the City of Trenton, then the said Agent on behalf of the City, shall have the right to procure such services or purchase such articles in their place and stead in the open market as are needed for replacement, and from the best source available in the judgment of the said Agent and to charge the expense of such articles or work performed to Contractor and to deduct the amount thereof from any moneys due or to become due to Contractor by virtue of this agreement. Provided, however, that the surety on the bond of Contractor for the faithful performance of this agreement shall be first notified of the necessity for such replacement, and given the same time allowance for such replacement as is given Contractor.

**FIFTH**. This contract shall not be amended, assigned or subcontracted without the consent of the City of Trenton in writing (if the total compensation payable thereunder shall thereby exceed \$2,500.00, approval by Resolution of the Governing Body shall be required), and any breach of this covenant shall authorize the City of Trenton, by its said Agent, to declare this contract null and void and to refuse to make any further payments thereunder to Contractor.

**SIXTH**. In case of any conflict between the provisions of this agreement and of any of the provisions of the specifications, the latter shall govern and control.

Applicable for Public Construction Contracts Only: "Dispute Resolution Procedures (NJSAC 40A:11-50). Disputes arising under this contract shall be subject to mediation or non-binding arbitration at the sole discretion of the City of Trenton,

before a construction industry mediator or arbitrator or panels thereof. The City of Trenton shall have the right to select a third party to mediate any disputes arising under this agreement and the mediation shall be conducted informally in a manner decided upon by the mediator".

SEVENTH. Contractor hereby agrees to pay all workmen as a minimum the prevailing wages rate in accordance with Chapter 150 of the New Jersey Laws of 1963, Prevailing Wages on Public Contracts and U.S. Department of Labor Wage Rates with the higher rate for any given occupation being the governing rate, and N.J.S.A. 10:2-1 et seq., prohibiting discrimination in employment on public contracts.

EIGHTH. During the performance of this contract, the contractor agrees as follows:

a. CONTRACTOR or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, or sex. CONTRACTOR will take affirmative action to ensure that such applicants are recruited and employed, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation, disability, nationality or sex. Such action shall include, but not be limited to the following: employment, up-grading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause. (N.J.S.A. 10:5-33; N.J.A.C. 17:27-3.4)

b. CONTRACTOR or subcontractor, where applicable will, in all solicitations or advertisements for employees placed by or on behalf of CONTRACTOR, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation, disability, nationality or sex. (N.J.S.A. 10:5-33; N.J.A.C. 17:27-3.4)

c. CONTRACTOR or subcontractor where applicable, will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of CONTRACTOR's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment. (N.J.S.A. 10:5-33; N.J.A.C. 17:27-3.4)

d. CONTRACTOR or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer pursuant to P.L. 1975, c.127, as amended and supplemented from time to time. (N.J.A.C. 17:27-3.4)

Note: A public works contract for a subcontractor with a total work force of four or fewer employees or for a contractor or subcontractor performing under an existing Federally approved or sanctioned affirmative action program shall contain as mandatory language only paragraphs a, b, and c above, and the contract shall not contain any other mandatory language prescribed by N.J.A.C. 17:27. (N.J.A.C. 17:27-3.4) (c)

e. All bidders and all contractors who are negotiating for a procurement or service contract with the public agency which is not subject to a federally approved or sanctioned affirmative action program are required to submit to the public agency, prior to or at the time the contract is submitted for signing by the public agency (in accordance with N.J.A.C. 17:27-4.3 promulgated by the Treasurer pursuant to P.L. 1975, c. 127), one of the following three documents:

1. Appropriate evidence that the contractor is operating under an existing federally approved or sanctioned affirmative action program; or

2. A certificate of employee information report approval issued in accordance N.J.A.C. 17:27-4; or

3. An initial employee information report consisting of forms provided by the affirmative action office and completed by the contractor in accordance with N.J.A.C. 17:27-4. (N.J.A.C. 17:27-3.3) (a)

f. CONTRACTOR or subcontractor agrees to attempt in good faith to employ minority and female workers consistent with the applicable county employment goals prescribed by N.J.A.C. 17:27-5.2 promulgated by the Treasurer pursuant to P.L. 1975, c. 127, as amended and supplemented from time to time or in accordance with a binding determination of the applicable county employment goals determined by the affirmative action office pursuant

to N.J.A.C. 17:27-5.2 promulgated by the Treasurer pursuant to P.L. 1975, c. 127, as amended and supplemented from time to time. (N.J.A.C. 17:27-5.3)(a) (1)

g. CONTRACTOR or subcontractor agrees to inform in writing appropriate recruitment agencies in the area, including employment agencies, placement bureaus, colleges, universities, labor unions, that it does not discriminate on the basis of age, creed, color, national origin, ancestry, marital status or sex, gender identity or expression, and that it will discontinue the use of any recruitment agency which engages in direct or indirect discriminatory practices. (N.J.A.C. 17:27-5.3) (a) (2)

h. CONTRACTOR or subcontractor agrees to revise any of its testing procedures, if necessary, to assure that all personnel testing conforms with the principles of job-related testing, as established by the statutes and court decisions of the State of New Jersey and as established by applicable Federal law and applicable Federal court decisions. (N.J.A.C. 17:27-5.3) (a) (3)

i. CONTRACTOR or subcontractor agrees to review all procedures relating to transfer, upgrading, downgrading and layoff to ensure that all such actions are taken without regard to age, creed, color, national origin, ancestry, marital status or sex, and conform with the applicable employment goals, consistent with the statutes and court decisions of the State of New Jersey, and applicable Federal law and applicable Federal court decisions. (N.J.A.C. 17:27-5.3) (a) (4)

j. CONTRACTOR agrees that in the hiring of persons for the performance of work under this contract or any subcontract hereunder, or for the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under this contract, no contractor, nor any person acting on behalf of such contractor or subcontractor, shall, by reason of race, creed, color, national origin, ancestry, marital status, gender identity, or expression, affectional or sexual orientation or sex, discriminate against any person who is qualified and available to perform the work to which the employment relates. (N.J.S.A. 10:2-1) (a)

k. No contractor, subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee engaged in the performance of work under this contract or any subcontract hereunder, or engaged in the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under such contract, on account of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex. (N.J.S.A. 10:2-1) (b)

l. There may be deducted from the amount payable to the contractor by the contracting public agency, under this contract, a penalty of \$50.00 for each person for each calendar day during which such person is discriminated against or intimidated in violation of the provisions of the contract. (N.J.S.A. 10:2-1) (c)

m. This contract may be canceled or terminated by the contracting public agency, and all money due or to become due hereunder may be forfeited, for any violation of this section of the contract occurring after notice to the contractor from the contracting public agency of any prior violation of this section of the contract. (N.J.S.A. 10:2-1) (d)

n. The parties of this contract do hereby agree that the provisions of N.J.S.A. 10:2-1 through 10:2-4, dealing with discrimination in employment on public contracts, and the rules and regulations promulgated pursuant thereto, are hereby made a part of this contract and are binding upon them. (N.J.A.C. 13:6-1.1)

o. Contractor and subcontractor agree and guarantee to afford equal opportunity in performance of the contract and, except with respect to affectional or sexual orientation, and gender identity or expression in accordance with an affirmative action program approved by the State Treasurer. (N.J.S.A. 10:5-32 and 10:5-35) (a)

p. The parties of this contract do hereby agree that the provisions of Title II of the Americans with Disabilities Act of 1990, 42 U.S.C. Section 12101 et seq., which prohibits discrimination on the basis of disability by public entities in all services programs and activities provided or made available by public entities, and the rules and regulations promulgated pursuant thereto, are made a part of this contract. The contractor agrees to conduct all activities in compliance with the provisions of Title VI of the Civil Rights Act of 1964, the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972, and the U.S. Department of Labor's regulations at 29 CFR Parts 31, 32 and 34.

Contractor shall cooperate with any state or federal reviews aimed at determining compliance with nondiscrimination laws and regulations authorized by State Law and expressly specified herein.

IN WITNESS WHEREOF, the City of Trenton has caused this agreement to be signed by the Mayor of the City of Trenton and its corporate seal to be hereto affixed, attested by the City Clerk, and Contractor has likewise caused this agreement to be executed the day and year first above written.

**CITY OF TRENTON**

Attest:

  
Brandon L. Garcia, RMC  
Municipal Clerk

Date

9/5/2023

  
W. Reed Gusciora, Esq. Mayor

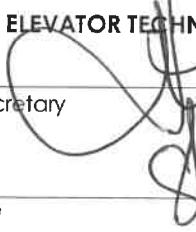
Date

8-31-23

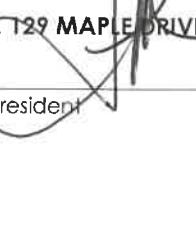
and

**CURRENT ELEVATOR TECHNOLOGY, INC., 129 MAPLE DRIVE, SHOHOLA, PA 18458**

Attest:

  
Secretary

Date

  
President

29/23

# RESOLUTION

No. 23-363

AUG 03 2023

Approved as to form and Legality

WESLEY BRIDGES, ESQ., DIRECTOR OF LAW

Date of Adoption

Factual content certified by

SEAN SEMPLE, ACTING DIRECTOR OF WATER & SEWER

Councilman /woman

*Leska A. Drisley, D. Feliciano, D. Gonzalez, D. Williams*  
**RESOLUTION ACCEPTING A BID AND AWARDING A CONTRACT TO  
CURRENT ELEVATOR TECHNOLOGY, INC., FOR REFURBISHMENT AND  
MODERNIZATION OF ELEVATOR AT THE TRENTON WATER FILTRATION  
PLANT, ROUTE 29 SOUTH, TRENTON, NJ 08604 FOR A PERIOD OF ONE (1)  
YEAR FROM DATE OF AWARD IN AN AMOUNT NOT TO EXCEED \$234,000.00  
- BID 2023-31**

**WHEREAS**, two (2) sealed bids were received on April 28, 2023, in the Division of Purchasing at 11:00am by the Purchasing Agent, for Refurbishment and Modernization of Elevator at Trenton Water Filtration Plant, for the City of Trenton, Department of Water and Sewer for a period of one (1) year; and

**WHEREAS**, the elevator system installed in the operational area of the plant is out lived and served beyond its useful life. It has not been refurbished since it was installed in 1996. The system is currently out of order and tagged out to avoid potential catastrophe. The system also requires major updates to make it operational and comply with the latest code requirements. The dysfunctional elevator system is causing safety concerns to personnel. System also requires an air purification system to mitigate airborne health risks especially in the aftermath of COVID pandemic outbreak; and

**WHEREAS**, the low bid of Current Elevator Technology, Inc., 129 Maple Drive Shohola, PA 18458 is made pursuant to advertisement, be and is hereby accepted, as the lowest, responsible, responsive bidder complying with terms and specifications on file in the Division of Purchasing; and

**WHEREAS**, funds in an amount not to exceed \$234,000.00 have been certified to be available in the following account number: CY' 2023, 3-05- -55-5506-826-007 contingent upon the temporary and final adoption of CY'2023 budget. This contract shall be awarded for a period of one (1) year from date of award.

**NOW, THEREFORE, BE IT RESOLVED**, by the City Council of the City of Trenton that the Mayor is hereby authorized to execute a contract with, Current Elevator Technology, Inc., 129 Maple Drive Shohola, PA 18458 in an amount not to exceed \$234,000.00 for Refurbishment and Modernization of Elevator at Trenton Water Filtration Plant for a period of one (1) year for the City of Trenton, Department of Water and Sewer for the said purposes in the manner prescribed by law.

	Aye	Nay	Abstain	Absent			Aye	Nay	Abstain	Absent		Aye	Nay	Abstain	Absent
EDWARDS	✓				GONZALEZ	✓					FRJSBY	✓			
FELICIANO	✓				HARRISON	✓									
FIGUEROA KETTENBURG	✓				WILLIAMS	✓									

This Resolution was adopted at a Meeting of the City Council of the City of Trenton on

AUG 03 2023

*Leska A. Drisley*  
President of Council

*J. J. Williams*  
City Clerk

## **Codes and Standards**

Comply with the following Codes and Standards:

- American National Standards Institute (ANSI) A17.1 thru 17.4
- National Electrical Manufacturers Association (NEMA)
- Occupational Safety and Health Administration (OSHA)
- National Fire Protection Association (NFPA)
- New Jersey Administrative Code (NJAC)
- Uniform Construction Code (UCC)

## **E. Maintenance**

Contractor will be responsible for the maintenance of the elevator system. The maintenance contract will commence at an additional cost (refer to bidding section) after the end of the first-year anniversary of the project and will terminate at the sixth anniversary of the project. Contractor will be responsible to maintain the elevator in good condition and will pay periodical site visit to evaluate and/or readjust the system. Contractor will also perform an annual no-load test at full speed. Contractor will be responsible to perform full-load test after the fifth anniversary of the project completion. Include a maintenance plan with bid document.

## **II. SCOPE OF WORK**

The current capacity and speed of the elevators shall be retained. The current travel, stops, and openings will be the same.

Any labor, materials or equipment of any kind required to perform the complete and code compliant in refurbishing the system but not particularly specified, detailed or described in this specification are assumed to be included in Contractor's scope of work. If any labor, material, or equipment required to complete the intended project is apparently omitted or otherwise not specified in this specification, it shall be assumed that the best industry practice shall apply.

### **Elevator System Refurbishment Work:**

Following is the scope pertaining to refurbishing of the elevator system. Original parts and material shall be used made for specific elevator use and warranted by the vendor, meeting codes requirements:

1. Automatic Self-Leveling System: The elevator shall be provided with a new automatic self-leveling system that shall typically bring the elevator car level with the floor landings (tolerance + 1/4) regardless the direction of travel. The automatic self-leveling system shall correct for over travel or under travel and rope stretch.

2. Special Emergency Service:

2.1 Provide and install a new special emergency service operation shall be provided and installed in compliance with the latest applicable revision of the ASME/ANSI A17.1 Code.

2.2 Special Emergency Service Phase I to return the elevator non-stop to a designated floor shall be initiated by an elevator smoke detector system or a key switch provided in a lobby fixtures.

2.3 Provide and install contacts on the elevator controller to receive signals from the smoke detector system.

2.4 Provide and install a key switch in the car cabin for in-car control of elevator when on Phase II of Special Emergency Service.

2.5 If an elevator is on independent service when the elevators are recalled on Phase I operation, a buzzer shall sound in the car and a jewel shall be illuminated, subject to applicable codes.

3. Independent Service: Requires a new independent service when the 'Independent Service Switch' in the car cabin operating panel is actuated; it shall cancel previously registered car calls, disconnect the elevator from the hallway buttons, and allow operation from the car buttons only. Door operation shall occur only after actuation of the 'DOOR CLOSE' button.

4. Inspection Operation: Requires a new inspection operation to an unable key switch. The key switch shall be provided and installed in the car cab operating panel to permit operation of the elevator from on top of the car and to make car and hall buttons inoperative for regular inspection and maintenance.

5. Remote Elevator Monitoring Maintenance: Provide and install a new microprocessor system that continuously monitors the elevator round the clock. The system shall notify a dispatching center in the event it is inoperative by sending a message via telephone line to unable the company to dispatch a mechanic, immediately.

6. Power Supply: New equipment shall be rated for 208 Volts power supply.

7. Controller: A microprocessor-based control system shall be provided and installed to perform all functions of safe elevator motions and elevator door control. This shall include all the hardware required to connect, transfer, and interrupt power, and protect the motor against overloading. The system shall

also perform group operational control. New controller shall be equipped with generator operation option as well.

8. Soft Starter: A new solid-state starter shall be provided and installed. The power requirement and starting configuration shall be in complete conformance of the presently installed system.
9. Submersible Power Unit: The existing power unit shall be replaced with a new power unit. The configuration of new power unit shall match the configuration of the current unit and shall consist of a positive displacement pump, motor, integral 4-coil control valve, oil tank and muffler and all required ancillary hardware. The pump and motor shall be submerged and mounted to the tank with rubber isolators to control vibration and reduce noise.

#### 10. Car Door Accessories:

10.1 Closed Loop Door Operator: Provide and install a new closed loop door operator. This closed loop door operator shall power operate the door, mounted on top of the car, and shall be designed to give a consistent door operation performance with change in temperature, wind, or minor obstruction in the door track. The system shall continuously monitor door speed and position and adjusts it accordingly to match the pre-determined car travel profile.

10.2 Door Protection Device: Provide and install a new solid state, infrared passenger protection device on the car door. Elevator doors shall be provided with a reopening device that will stop and reopen the car door and hoistway door automatically should the door become obstructed by an object or a person.

10.3 Provide and replace the following with the new compatible with the system:

- Roller, Gibbs, Clutch
- Hoistway Door Restrictors

10.4 Following shall be retained after cleaning and as needed readjustment:

- Car Doors, Tracks and Hangers
- Hoistway Entrances
- Hoistway Door, Tracks, and Hangers

11. Hoistway Equipment:

11.1 Hoistway Operating Devices - Provide and install new terminal stopping devices to slow or automatically stop the car at the terminal landings and to automatically cut off the power and apply the brake, should the car travel beyond the terminal landings.

11.2 Pit Switch - Provide and install an emergency stop switch that shall be in the pit accessible from the pit access door.

11.3 Following shall be retained after cleaning and readjustment as needed:

- Car Guides (may require realigning and cleaning)
- Car Interiors (requires cleaning)
- Car Flooring (requires cleaning)
- Spring Buffers and Ancillary Pit (requires cleaning and readjustment)
- Jack Assembly (requires cleaning and realigning)

12. Car Fixtures:

12.1 Integral Car Operating Panel - Provide and install a new integral car operating panel. The panel shall consist of a bank of mechanical illuminated buttons designated and marked to correspond with the landings served, an emergency call button, an emergency stop button, door open and door close buttons and a light switch to control car light. All buttons shall be long life LED illumination, as applicable. The panel shall be equipped with a button that shall initiate two-way communication between the car and to a designated location within Water Filtration Plant building and shall be automatically switching over to another location if call remains unanswered/unattended.

12.2 Emergency Car Lighting - Provide and install an emergency power unit employing a six (6) volt sealed rechargeable battery and totally static circuit shall be provided. The power unit shall illuminate the elevator car and provide current to the alarm bell in the event of normal power outage. The equipment shall comply with the requirements of the latest applicable revision of the ASME/ANSI A17.1 Code.

12.3 Cabin Air Purifier - Furnish and install cabin air purifier to existing elevator fan. The fan assembly shall be modified to facilitate flow of air across the air purifier ionizer and then into the cabin.\

### 13. Fixtures in Hallway

13.1 Hallway Buttons and Stations - Provide and install new surface mount buttons and stations at each landing. Install an up button and a down button at each intermediate landing and a single button at each terminal landing. All buttons shall be long-life LED illumination, as applicable. New stations shall replace existing buttons and must be complying to applicable codes and industry standards.

#### **Work by Others:**

Prospective bidders are advised herein that this is a turnkey project. Any item or work that needs to be done by others will be the responsibility of the awarded bidder; therefore, subcontracting is allowed under this contract. Additionally, prospective bidders agree to pursue and schedule the work by other trades in a timely fashion to not interrupt vendors work. Bidders are encouraged to visit the Site to assess actual the need of work to be completed by others.

The following listing of work items are suggestive and may require in the performance of refurbishing work by others, and the awarded contractor hereby agrees to provide this work in accordance with the applicable codes and enforcing authorities, as required. All 'Work by Others' must either be completed prior to elevator vendor manning the job or be sequentially scheduled as to not obstruct the progress of the project.

1. Air Conditioning: Provide suitable ventilation and cooling equipment, if required, to maintain the machine-room temperature between 60°F and 100°F. The relative humidity should not exceed 95% non-condensing.
2. Building Power: Provide electrical power for light, tools, hoists, etc. during installation as well as electric current for starting, testing, and adjusting the elevator. Power of permanent characteristics to be provided to properly operate all the elevators concurrently scheduled to be modernized. Power must be a 3-phase 4 wire system with ground and bonded disconnects. Grounded leg delta systems are not acceptable.
3. Smoke and Heat System: Provide elevator lobby, machine room and hoistway smoke detecting devices located as required and wired from the fire control center to a controller in the machine room. Hoistway devices are required to be made accessible from outside the elevator hoistway.

Coordinate signal connections and necessary testing with the Elevator Contractor. Provide the following zones and locate signal circuits in a properly labeled junction box in the machine room:

- 3.1 Main Floor Recall - Provide and install one set of normally closed contacts that will open when any smoke sensor related to the elevators at the designated main landing senses smoke. This excludes other devices located in the machine room, hoistway or main egress floor.
- 3.2 Alternate Floor Recall - Provide one set of normally closed contacts that will open when the smoke sensor at the main egress floor senses smoke.
- 3.3 Machine Room/Hoistway Recall - Provide one set of normally closed contacts that will open when any smoke sensor located in the machine room or hoistway/pit senses smoke.

4. Sprinklers: Provide code compliant sprinkler system, as required, in the hoistway, pit and machine room. If sprinklers are being installed or altered in the hoistway(s), pit or the machine rooms, a means must be provided to disconnect three-phase power before water is applied. This is usually accomplished with a shunt trip breaker that must be located outside the elevator machine room. The shunt trip breaker may be activated by heat detectors located within 24-inch of the sprinkler heads and arranged to trip at a lower temperature than the sprinkler heads. A heat detector is not required in the pit if the sprinkler head is within 24-inch of the pit floor. Heat and smoke devices in elevator hoistway must be installed with UL rated and lockable panels that are accessible for servicing from outside the hoistway. The panel interiors are to be guarded using a minimum 13-gauge metal with a pattern of maximum 3/4-inch holes.
5. Cutting and Patching: Cutting, (including cutouts to accommodate hall signal fixtures, entrances and/or machine room access), patching, and painting of walls, floors or partitions may be required in the performance of work.
6. Main Disconnect: Provide and install a fused lockable disconnect switch or circuit breaker for each elevator per the National Electrical Code (NEC) with feeder or branch wiring to the transformer. Size to suit elevator contractor. Provide and install a 'SHUNT TRIP' disconnect, as required, if sprinklers are being provided. Provide and install suitable connections from the main disconnect to the elevator control equipment. Electrical Feeder system to limit available short circuit to not more than 10k amps at the load side of the elevator main line disconnect.

7. Ground Wire: Provide and install a properly sized ground wire from the elevator controller(s) to the primary building ground.
8. Emergency Communications System: Provide a continuously monitored phone line terminating at the controller.
9. Elevator Management System (EMS): Provide a 120VAC 15A single phase power supply with two duplex GFCI outlet and fused disconnect switch (or circuit breaker) located in areas containing EMS equipment (typically machine room, fire command center, and/or building security station). Where Web based EMS supplied, provide CAT-5 cable from elevator machine room to EMS terminal locations.
10. Car Light Power Supply and Disconnect: For each car provide a 120-volt AC, 15-amp, single-phase power supply with fused disconnect switch (or circuit breaker) capable of being locked in the 'OPEN/OFF' positions with feeder wiring to each controller located in the machine room.
11. Remote Monitoring Power Supply and Disconnect: Provide and install a separate 120-volt, 15-amp, single-phase power supply with fused SPST disconnect switch or circuit breaker for remote monitoring capable of being locked in the 'OPEN' position.
12. Information Display Power Supply and Disconnect: Provide a separate 120-volt, AC, 15-amp, single-phase power supply with fused SPST disconnect switch with duplex outlets in the machine room or other locations as required, for information display terminal and controller of information display when provided. Also provide a pair of shielded/twisted conductors between controller and machine room.
13. Roof Lighting: Lighting will be required to illuminate machine room access paths on the roof.
14. Lighting: Provide sufficient lighting in the buildings common areas to facilitate a safe working environment in the performance of the work. Provide new or modify machine room lighting to provide a minimum of 19 ft. candles of illumination and new pit lighting to provide a minimum of 10-feet candles of illumination. The machine room light switch shall be located within 18-inch of the lock-set side of the entry door. Pit light switches shall be adjacent to the pit ladder and a minimum of 24-inch above the threshold level. Lighting must have code compliant guards of either grounded metal, plastic or comparable. Pits subject to sprinklers shall have NEMA 4 rated

fixtures.

- 15 Project Being Dried-In: Elevator lobbies, hoistway, machine room, storage area, etc., are required to be dried-in for the entire duration of the project.
- 16 Machine Room Access: Provide a self-locking and self-closing door for the elevator machine room. Access door to be adequately sized to accept equipment required in the performance of work. Modify machine room access, as required, to comply with code and facilitate safe egress/ingress of all equipment and personnel.
- 17 Fire Extinguisher: Provide a fire extinguisher in elevator machine room.
- 18 Non-Elevator Material in Hoistway: Remove or encapsulate, as required, any non-elevator related pipes or wiring located in the elevator machine room or hoistway as feasible.
- 19 Hoistway Ventilation: Provide a code compliant hoistway ventilation system. Code requires means to prevent the accumulation of hot air and gasses at the top of the hoistway and maintain positive pressure. Pressurizing the hoistway by providing vents from the top of the hoistway to the outside of the building usually accomplishes good ventilation within work area. Vents shall not be less than 3½-percent of the area of the hoistway nor less than 3-square feet for each elevator car, whichever is greater. You may not vent the hoistway to the machine room. If the hoistway vents must run through the machine room, they must be enclosed in a fire rated structure and not violate clearances around our equipment.
- 20 Hoistway Ledges: Provide a 75-degree angle constructed of a non-combustible material on all ledges that are 2-inch greater in the hoistway, excluding multi-hatch divider beams as required.
- 21 Side Counterweight Guarding: Provide and install guarding of counterweights in a multiple elevator hoistway as required, when a counterweight is located between elevators, the counterweight runway shall be guarded on the side next to the adjacent elevator. The guarding must meet or exceed the requirements of ASME A17.1 – 2007, section 2.3.2.3.
- 22 Sump Hole Grating: Provide a flush grating over the sump hole located in the elevator pit.
- 23 Storage: The plant operation will provide protected and secure storage space close to work zone, if possible. TWW will not be responsible for loss of stollen, or broken material or equipment due to the negligence of the

vendor or sub-contractor on the jobsite.

- 24 Disposal: The disposal of removed elevator components (recyclable) such as machines, controllers, ropes, hydraulic fluid, oils, buffers and packing materials from the new equipment and all related materials can be disposed at the dumpster located outside the premises, if accommodated in the dumpster. Large components may not fit in the dumpster and will become the property of the vendor.
- 25 Pit Ladders: Provide a pit ladder, as required, in each pit that does not have walk-in access doors. Ladder shall be extendable to 48-inch above first landing access door.
- 26 Emergency Return Unit (ERU): If an ERU battery-operated lowering device is being provided with hydraulic elevator modernization than others are to provide an auxiliary contact in either the existing lockable disconnect (if currently code compliant) or in a new code compliant lockable disconnect.
- 27 Asbestos and Hazardous Material: The presence of asbestos or other hazardous material in any elevator hoist way, machine room, hallway, or other place in the building where vendor's personnel are or may be required to perform their work is not known to be present. In the event it should become necessary to abate, encapsulate or remove asbestos or other hazardous material from the building, TWW agree to be responsible for such abatement, encapsulation or removal, and any governmental reporting, and in such event, vendor will be entitled to delay its work.
- 28 Lockout Tag Out: In furtherance of OSHA's directive contained in 29 C.F.R. § 1910.147(f)(2)(i), which requires that a service provider (an "outside employer") and its customer (an "on-site employer") must inform each other of their respective lock out/tag out ("LOTO") procedures whenever outside servicing personnel are to be engaged in control of hazardous energy activities on the customer's site, vendor incorporates by reference its mechanical LOTO procedures and its electrical LOTO procedures. TWW will disseminate these procedures in the organization to the appropriate personnel who may interact with vendor personnel while vendor personnel are working on site at the WFP.
- 29 Confined Spaces: The machine room, hoistway, pit and mezzanine ("Elevator Spaces") may be considered Permit- Required Confined Spaces as defined by the Occupational Safety and Health Organization ("OSHA"), 29 C.F.R. § 1910.146(b) and § 1926 Subpart AA. Vendor shall have a documented process to control or eliminate hazards and classify such Elevator Spaces as non-permit required confined spaces.

30 Permits: Proposer shall be responsible for all permits required to perform the work and permit required to recommission the elevator system in the service.

### **III. DELIVERABLES**

All deliverables are going to become the property of TWW. In addition:

- Warranty statement
- Load test results
- Operation and Maintenance Manual: Include warranty statement load test results, equipment catalogue cuts, operation, and maintenance procedure for newly installed equipment.