

OAKLEY



CALIFORNIA

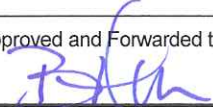
Agenda Date: 09/12/2017

Agenda Item: 3.6

STAFF REPORT

Date: Tuesday, September 12, 2017
To: Bryan H. Montgomery, City Manager
From: Dwayne Dalman, Economic Development Manager

Approved and Forwarded to City Council:


Bryan H. Montgomery, City Manager

SUBJECT: Award of Construction Contract to Otis Elevator Company for the purchase and installation of an elevator at 3330 Main Street, Oakley

Background and Analysis

3330 Main Street is a two-story, commercial building located in downtown Oakley, across Main Street from City Hall Plaza and adjacent to Grocery Outlet. The property was purchased by the former Oakley Redevelopment Agency in May 2011. The ground floor of the building was renovated and leased to Guanatos Ice Cream and the Oakley Chamber of Commerce. In addition, the City has a lease agreement with Sprint for a cell tower located on the roof.

In order to further meet the needs of Oakley's small and home-based business community, the City has planned to construct the Oakley Entrepreneur Center in the vacant second floor of the building. In addition to the Entrepreneur Training class that is hosted by the City on an annual basis, the Entrepreneur Center is being established to strengthen Oakley's entrepreneur community and to provide a location where a greater number of small business entrepreneurs will be able to grow, succeed and add local employment opportunities in the community.

However, the building's original construction did not include an elevator, which is needed to provide handicap access to the second floor. Staff received two bids for the purchase and installation of an elevator for the space. The low bid was submitted by Otis Elevator for \$91,650. The second bid was obtained by Kone Elevator for approximately \$154,000.

Fiscal Impact

The FY 2017/18 Project Construction Budget for the planned Entrepreneur Center has a total budget allocated of \$350,000. It was anticipated that this budget allocation would include the purchase and installation of an elevator.

Staff Recommendation

Staff recommends that the City Council adopt the resolution approving staff to enter into a contract with Otis Elevator Company for an amount not to exceed \$91,650, and authorizing the City Manager to execute said agreement.

Additionally, due to variables associated with construction projects and to address unforeseen circumstances during the course of construction, staff further recommends that the City Council authorize staff to execute future change orders to the construction contract as necessary, in an amount not to exceed \$5,000 for work beyond what is defined in the project proposal.

Attachments

- 1) Resolution
- 2) Proposal

RESOLUTION NO. ___-17

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OAKLEY
AWARDING A CONTRACT WITH OTIS ELEVATOR COMPANY FOR THE
PURCHASE AND INSTALLATION OF AN ELEVATOR AT 3330 MAIN
STREET, OAKLEY**

WHEREAS, THE City of Oakley owns the building located at 3330 Main Street; and

WHEREAS, the City desires to construct the Oakley Entrepreneur Center in the vacant second floor of the building; and

WHEREAS, an elevator is need to provide handicap access to the second floor; and

WHEREAS, Otis Elevator Company has submitted a proposal for an amount not to exceed \$91,650 and a second, higher bid was received by Kone Elevator for \$154,000; and

NOW, THEREFORE, BE IT RESOLVED AND ORDERED, that the City Council of the City of Oakley hereby approves the proposal and awards the contract to Otis Elevator Company for an amount not to exceed \$91,650, and authorizes the City Manager to execute the respective agreements.

PASSED AND ADOPTED by the City Council of the City of Oakley at a meeting held on the 12th of September, 2017 by the following vote:

AYES:
NOES:
ABSENT:
ABSTENTIONS:

APPROVED:

ATTEST:

Sue Higgins, Mayor

Libby Vreonis, City Clerk

Date

Scope of: Elevator 1 - Unit 1 -F7N75072

Designation & Model	Otis HydroFit™ Elevator System	
Capacity and Speed	2100 lbs. Passenger @ 100 fpm	
Stops, Floors & Rise	2 Stops- 2 Front Openings With 11 ft. 0 inches Of Rise	
Clear Car Inside Dimensions	5 ft. 8 5/16 inches wide x 4 ft. 3 9/16 inches deep	
Clear Hoistway	7 ft. 6 inches wide x 5 ft. 11 inches deep	
Clear Overhead & Pit Depth	Overhead- 12 ft. 0 inches Pit- 4 ft. 0 inches	
Door Type / Size	One Speed Side Slide- 36 inches wide x 84 inches high	
Control Space	Machine Room	
Operation	Simplex	
Power Supply	240 Volts, Single Phase AC, 60 Hertz – Otis to provide and to install phase converter for the elevator to interface with the single phase power provided by the building	
Cab Enclosure	Otis steel cab shell with brushed stainless steel panels, Cab Height: 93 in. Brushed stainless steel standard return, header and car door Brushed stainless steel suspended flat ceiling with 6 LED down lights Brushed stainless steel, round bar, side and rear handrails	
Cab Flooring	Furnished and installed by others- 1.25 inch recess	
Hoistway Entrance Finish(s)	Brushed stainless steel entrances at front landings-1, 2 Aluminum sills at front landings- 1, 2	
Signals	Brushed stainless steel standard car operating panel including round buttons with blue illuminating halos Hall fixtures, with flat metal brushed stainless steel faceplates, mounted in wall and brushed stainless steel flat buttons	
Constant Features	Access at top and bottom landing with zoning Firefighters' Service Phase I and Phase II Handicapped and braille markings Optiguard® door reversal device In car lantern Otis ADA hands free phone Emergency car lighting	
Additional Features	Independent service One set of protective cab wall pads with hooks Brushed stainless steel hall fixtures at front landings- 1, 2	
Code Compliance	All applicable local, state and national codes Designed for seismic zone 4 requirements	ANSI A17.1, California local code and A.D.A.
Maintenance	12 months after acceptance of elevator by owner, including emergency callback service during normal working hours.	

PROJECT SPECIFIC CLARIFICATIONS

Due to variations in manufacturer standards, Otis is submitting the following clarifications:

Architectural drawings dated 3-10-2017

1. The clear hoistway dimensions, overhead dimension and pit depth shall be as indicated on this proposal.
2. Otis shall store parts of the elevator shipment inside the office located nearby the elevator hoistway. The City of Oakley shall work with Otis to ensure that this storage area is sufficient in size and location.
3. A phase converter will be provided and installed as part of this proposal to allow the elevator to interface with single phase power. This device will be located in the elevator machine room. This requires a larger machine room than our minimum dimensions to accommodate electrical clearances. Otis shall complete a machine room study to advise if the machine room dimensions as drawn need to be increased.

SAMPLE SCHEDULE

Approximately 4 weeks after contract award will be required to furnish submittals. Pit details and other design coordination will be furnished earlier as required.

Approximately 10-12 weeks will be required to deliver the elevator equipment to the job site once all approvals are received.

Approximately 2.5 weeks will be required to install the elevator once a completed hoistway, control room, and 3-phase power are available. A detailed installation schedule will be furnished upon request.

Our proposal is based upon a mutually agreeable project schedule. Standard lead times and durations are listed. Please contact us if any of the durations need to be improved.

GENERAL CLARIFICATIONS

1. Our bid is based on manufacturing lead-time of 10-12 weeks after approvals.
2. You shall be responsible for providing suitable and secure on-site storage, approximately 20' x 25' per elevator adjacent to the hoistway on the main access level for the building.
3. We require suitable tractor trailer access to the building for unloading of material. In addition, we need roll-able access from unloading point to storage and storage to hoistway area.
4. If you are not ready to accept delivery of the material on the date the machine room is to be ready, you shall give us sufficient notice of a local point where you will accept delivery, and be responsible for all monthly storage fees. An extra charge will be assessed for any double handling or re-transportation of elevator material required by the general contractor/owner or agent thereof.
5. You will provide one (1) dedicated outside telephone line to the elevator machine room.
6. Our price includes one (1) inspection per elevator by the State Elevator Unit. Should the initial inspection(s) fail due to deficiencies by others (and not by Otis), reimbursement for additional inspection fees and Otis remobilization(s) will be required. Further, should there be any delays caused by others during the inspection(s), reimbursement for additional inspection fees and additional Otis standby labor will be required.
7. If we are requested to operate the elevator for other trades or perform labor outside of the scope of this work, it shall be performed in accordance with our normal hourly labor rates.
8. The following close-out documents will be provided: our standard owner's information manual, our standard final layout/installation drawings, and our standard warranty. Unless otherwise specified, 2 copies of each will be provided. Additional copies are available at \$100 per set.
9. The proposed elevator is not gurney compliant. In most instances, the local Fire Marshal is required to approve the installation of a non-gurney accessible elevator. It shall be the responsibility of the owner to obtain the Fire Marshal approval.

City Build or Local Residency Requirements and M/W/DBE Participation: Otis will make good faith efforts to comply; however, we cannot commit to any workforce or residency goals. All hiring will be subject to IUEC Local 8 requirements. The materials and components that comprise Otis' products are procured from a variety of sources located throughout the world, which allows us to provide our customers with high quality equipment at competitive prices, but limits our ability to meet certain percentages of M/W/DBE set aside goals. As a corporation, we are committed to achieving diversity within our workforce and in our supply base, however, we cannot commit to specific set aside targets in the contract.
10. LEED and CalGreen – Otis will make good faith efforts to satisfy LEEDS and CalGreen requirements, but cannot guarantee compliance with any specific requirements or status certification.
11. Any special traffic controls, permits, flag personnel, etc. that may be needed during material delivery are to be furnished by the general contractor.
12. A hoisting beam to facilitate safe and efficient installation of the elevator and to facilitate future maintenance of the elevator is to be designed, furnished and installed by others. Upfront coordination with Otis can minimize the impact of this requirement.
13. As our work is performed in concentrated area(s), Otis will be responsible for clean-up of its own work area(s) only. The general contractor will be responsible for providing a dumpster in which we are to place our debris. The dumpster is to be located reasonably close to our staging area(s). We will not participate in or provide labor for general jobsite cleaning.
14. All work, including material deliveries, will be performed during regular working hours. Overtime labor and deliveries, if requested, will be extra to this proposal.
15. We have based our proposal on Otis standard products including our required dimensions, standard parts and equipment, such as fixtures, finishes, operating parameters and work by others requirements. No allowance has been made for any non-standard equipment unless specifically noted herein.
16. 3-phase power will be required to perform the elevator installation. Please be advised that the installation can occur with generator power, with the generator furnished by others. Power for welding equipment is to be furnished by others.
17. Pit ladders and pit screen are to be by others. Otis will assist with determining guide rail support requirements; however, no supplemental steel or supports are included by Otis. Deductive change orders for supports by others will not be accepted. Grouting, fire stopping, and caulking outside the hoistway are to be by others.
18. Providing a temporary construction elevator is not included in our price. Providing any will be subject to our standard Temporary Acceptance Provisions, including a per-day usage charge, equipment/component reconditioning charge, and additional State Elevator Unit inspection charges. Occasional running of an elevator prior to final acceptance (without the need for a temporary construction elevator variance) is also available and will be subject to applicable Otis hourly billing rates.
19. Otis shall provide a pre-engineered elevator. Local jurisdiction plan check processes and the associated costs including but not limited to additional drawings, OHSPD requirements, details and structural calculations, are excluded from this proposal.
20. When requested, Otis will provide input regarding the vertical transportation installation schedule, and Otis will contract for a specific, and mutually agreeable, installation schedule.
21. 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. Otis has a documented process to control or eliminate hazards and classify such Elevator Spaces as non-permit required confined spaces. In the event that the customer/general contractor or unique site conditions or hazards (such as chemical manufacturing sites) require Otis to handle such Elevator Spaces as Permit-Required Confined Spaces, the customer/general contractor will be responsible for supplying, at its expense, all resources, including monitoring, permitting, attendants, and rescue planning associated with handling such Elevator Spaces as Permit-Required Confined Spaces. The customer/general contractor is required to inform Otis of all known or potential hazards related to Elevator Spaces that Otis may be required to access prior to Otis performing any work in such spaces. Further, the customer/general contractor is required to communicate any changes in the conditions associated with such Elevator Spaces or activities in or around such spaces that could introduce a hazard into such spaces.
22. The equipment that Otis will provide under this order is produced from components procured from a variety of sources located throughout the world. Therefore, we cannot confirm compliance with the Buy American Act (or applicable Domestic Sourcing Act). However, these components are selected or designed to meet applicable U.S. standards and the final unit is assembled in the United States.
- 23.

TERMS AND CONDITIONS

- This proposal is submitted with the understanding that any contract resulting therefrom will be subject to review and mutual acceptance of all terms and conditions contained therein. It is conditioned on neither party being liable to the other for any loss, damage or delay due to any cause beyond either party's reasonable control, including but not limited to, acts of government, strikes, lockouts, other labor disputes, fire, explosion, theft, water damage, flood, earthquake, riot, civil commotion, war, malicious mischief or act of God. Under no conditions, shall either party be liable for special, indirect, liquidated, or consequential damages in contract, tort, including negligence, warranty or otherwise, notwithstanding any indemnity provisions to the contrary. Notwithstanding any provision in any contract document to the contrary, our acceptance is conditioned on being allowed additional time for the performance of the Work due to delays beyond our reasonable control.
1. earth quake, riot, civil commotion, war, malicious mischief or act of God. Under no conditions, shall either party be liable for special, indirect, liquidated, or consequential damages in contract, tort, including negligence, warranty or otherwise, notwithstanding any indemnity provisions to the contrary. Notwithstanding any provision in any contract document to the contrary, our acceptance is conditioned on being allowed additional time for the performance of the Work due to delays beyond our reasonable control.
 2. If payment and performance bonds are requested of us, please add (\$5.00 per \$1000) of resulting contract amount.
 3. It is agreed that Otis shall not be responsible for any Liquidated Damages. Should the contract documents require provisions for Liquidated Damages, our bid is contingent upon review of the schedule to assure we can achieve the desired date with our standard lead times.
 4. We agree to provide evidence of insurance coverage but cannot name others as additional insured or waive our rights of subrogation. All insurance coverage afforded to you or others shall terminate upon final acceptance of the work. If "Owners and Contractors Protective Insurance" is required in addition to our standard Certificate of insurance, add (\$0.00 per \$1000).
 5. If the project is covered by an Owner/Contractor Controlled Insurance Program ("OCIP/CCIP), Otis agrees to participate provided it is at no cost to Otis and subject to its review and acceptance of the proposed program. The OCP obligation is waived and any obligation of Otis to name others as Additional Insured shall be for off-site operations only.
 6. Otis will provide surety bond(s) in the form provided by Otis' Surety at no cost to Otis. This is in lieu of participation in any type of surety wrap-up or Subguard program
 7. Our proposal is based the following payment terms:

Schedule of Values :

Description	Percent of Total Contract Value / Billing Cycle
Design, Engineering, Material procurement, Superintendent's initial site visit, and Layouts	35% Billed upon award. Due in 30 days or prior to release of factory orders whichever occurs first.
Factory Materials	35% Billed the month before shipment occurs. Due the month material is delivered. Installation will not commence until the material is paid for.
Installation Labor	30% Billed each month as work progresses. General milestones for reference purposes. Additional invoices may occur between these milestones. Unloading Materials..... 10% Entrances Installed 40% Ready to Adjust & Test..... 45% Adjust & Test 5%
Retention	10% Due 30 days after turnover of equipment

8. Fully executed change orders must be received prior to Otis performing any additional work outside the scope of the base contract. Otis will not accept oral or written "directives to proceed" without a fully executed and agreed-upon change order.
9. All software supplied is licensed to you or your successors but only for use with, and for operation of this elevator/escalator.
10. Otis will not supply information such as internal Otis manuals, manufacturing drawings or source code. Any counters, meters, tools, remote monitoring devices, communication devices, or other such equipment that we may use or install to deliver service under this proposal and any resulting contract remains our property, solely for the use of our employees. Such equipment is not considered as part of the elevator/escalator. If the contract or subsequent maintenance service is terminated for any reason, we will be given access to the premises to remove such equipment, including the resident software, at our expense.
11. In the event the transactions contemplated hereunder are restricted by U.S. Government or other applicable laws and regulations, including but not limited to those designating certain parties as "denied", "restricted" or similarly ineligible to do business with U.S. entities, this agreement will be deemed void and Customer shall pay Otis all sums owed for the goods and services that may have been provided up to such time according to the rates contained in this agreement.
12. Otis equipment installations comply with all applicable local, state and national elevator codes. Compliance with all other building code requirements is solely the responsibility of the contractor.

WARRANTY

Twelve (12) months after acceptance of elevator by owner

The elevator/escalator contractor's acceptance is conditional on the understanding that their warranty covers defective material and workmanship. The guarantee period shall not extend longer than one (1) year from the date of completion or acceptance thereof by beneficial use, whichever is earlier, of each elevator. The guarantee excludes ordinary wear and tear or improper use, vandalism, abuse, misuse, or neglect or any other causes beyond the control of the elevator contractor and this express warranty is in lieu of all other warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose. This express warranty is in lieu of all other warranties, expressed or implied, including any warranty of merchantability or fitness for a particular purpose.

Elevator Voluntary Alternates - Emergency Return Unit

1. Furnish an Emergency Return Unit (ERU). This an auxiliary power supply for your hydraulic elevator that activates automatically when the building loses power. During a power failure, the Otis AUT-O-SAFE emergency return unit automatically returns the elevator to the lowest landing and opens the elevator doors to allow passengers to exit. Neither emergency (generator) power operation or the ERU operation is required by the State of California Elevator Code for this elevator.

If desired, add Three Thousand Five Hundred Dollars and Zero Cents per elevator

\$3,500 per elevator

PREPARATORY WORK BY OTHERS

For Hydrofit Elevators

The following items must be performed or furnished at no cost to Otis Elevator Company ("Otis") by the Owner or General Contractor or their agents in accordance with governing codes. The price and installation schedule of Otis Elevator Company is based on these job-site conditions existing at the beginning and during installation of the elevator equipment. Failure to provide the items specified in this list will result in additional work or installation delays performed by Otis Elevator beyond the scope of our contract and a change order will be submitted for materials and/or labor expended. Please refer to our Installation Handbook for details and dimensions for the following items.

All work to be performed per the latest revision of the applicable national code and/or local code.

General Prep/Work

1. Provide any cutouts to accommodate elevator equipment (troughing, venting, and hall fixtures) along with patching and painting of walls, floors, or partitions together with finish painting of entrance doors and frames, if required.

Provide tractor trailer access to the building for unloading of material and an onsite storage area for elevator equipment as follows: dry and enclosed, provides roll-able access to the elevator hoistway at the ground level, located within 100 feet (30.5 meters) of the hoistway, and is larger than 25 x 20 feet (7620 mm X 6096 mm) per elevator. Any warranties provided by Otis for elevator equipment are null and void if equipment is stored in a manner other than a dry enclosed building structure.
- 2.
3. Provide sufficient onsite refuse containers for the proper disposal of elevator packaging material. Should sufficient refuse containers not be provided, disposal of packaging material shall become the responsibility of the owner.

Hoistway & Pit Prep/Work

4. Prior to the start of installation, provide a dry, properly framed, enclosed and vented hoistway in accordance with all applicable codes.
 5. Provide a clear plumb hoistway with variations from the size shown on the Otis layout not to exceed -0 inch / +1 inch (25 mm).
 6. Furnish adequate rail bracket supports and bracket spacing as required by governing code from pit floor to top of hoistway. For steel or wood frame construction, adequate backing for a rail bracket to be installed not less than 10'-3" (3124 mm) or more than 11'-3" (3429 mm) from the top landing. Furnish separator beams where required. Rail bracket attachment supports must be exposed and flush with the clear hoistway line.

If the floor to floor height exceeds the maximum bracket spacing allowed by the elevator code, Otis requires some form of steel support to properly attach our guide rail brackets. The maximum allowed bracket spacing is indicated in the rail force and bracket detail table on the Otis layout. Any rail bracket mounting surfaces that are not in line with the finished hoistway dimension (i.e. the clear hoistway line) may need to be extended to meet the required distance. Otis agrees to provide guidance on this matter at the appropriate time.

If rail bracket embedded plates or inserts are provided by Otis, they shall be installed by others in accordance with Otis' documentation and instruction.

If vertical tube steel is utilized as rail support, (2) vertical tubes spaced at 20.4" (518 mm) on center are required for car rail brackets with "A" dimension \geq 5.76" (146 mm).
 7. Furnish a dry pit reinforced to sustain vertical forces on car rails and impact loads on cylinder head(s) and buffer(s). The pit must be dry and clean.
 8. Provide and install a fixed vertical iron ladder in each pit as required by governing code and located per Otis layouts, or as coordinated with Otis personnel. Ladder width and projection from wall per local code. If pit depth is greater than 9'-10" (3000 mm) [13'-9" (4191 mm) with no floor below bottom landing], a pit access door is required.
 10. Falls and Falling Objects
 - a- Protection from Falls:

As required by the Occupational Safety and Health Administration (OSHA) 1926.502 B) (1-3) a freestanding removable barricade at each hoistway opening at each floor. Barricades shall be 42" (1067mm) high, with mid-rail and kick board, and withstand 200 lbs of vertical and horizontal pressure.
 - b- Protection from Falling Objects:

As required by the Occupational Safety and Health Administration, (OSHA) 1926.502(j), hoistway protection from falling debris and other trades materials by either.
 - 1) Full entrance screening/mesh in front of all elevator entrances
 - 2) Secured/controlled access to all elevator lobbies (lock and key) with posted Notice "only elevator personnel beyond this protection."
- Notes:
Items a.) and b.) can be integrated systems.
Hoistway barricades and screening shall be constructed, maintained and removed by others.

Hydrofit Hoistway & Pit Prep/Work continued

11. One front entrance wall, at the main landing, is not to be constructed until after all elevator material is located in the hoistway. Remaining front entrance walls are not to be constructed until after door frames and sills are in place. If front walls are poured concrete weight bearing walls, rough openings are to be provided to accept entrance frames and filled in after frames are set. Rough opening sizes per Otis layouts. Prior to the elevator(s) being turned over, all entrance walls must be installed and rough openings filled in complete to maintain fire rated hoistway requirements.

Provide adequate support at all fastening points of each entrance. Provide plumb vertical surfaces for entrances and sill supports, one above the other, and square with the hoistway. For 4'-0" (1219 mm) and 4'-6" (1372 mm) two speed door arrangements, an additional hoistway attachment point is required for an auxiliary support bracket under the sill assembly in the center of the clear door opening. Finish floor and grout, if required, between door frames to sill line. A horizontal support is to be provided 1 foot (305 mm) above the clear opening at the top landing to support the door frame assembly. If floor heights exceed 12'-0" (3658 mm), a horizontal support is to be provided 1 foot (305 mm) above the clear opening. If transoms are required, the support would be 1 foot (305 mm) above the transom height.
12. Provide and install a steel safety beam per elevator, from side wall to side wall at the top of the hoistway, capable of withstanding a maximum net live load of 5000 lb. (2268 kg). Otis requires 2" (51 mm) clear above the beam. Beam must be removed before car is placed in operation if it infringes on required clearance.
13. Glass used in hoistway construction must block 98% or more of incident full spectrum ultraviolet radiation for the full height of the hoistway.
14. If an emergency door in a blind hoistway is required, provide an outward swinging single section type door with door closer and a self closing barrier per ASME A17.1-2007, section 2.11.1.2. Contact your local Otis personnel for a detailed drawing (AAA26900D_FMI), showing Otis specific requirements

Machine Room or Space Prep Work

16. Provide a suitable dry machine room with access and ventilation in accordance with all applicable codes and regulations. The machine room is to be maintained at a temperature between 60°F (15.5°C) and 100°F (38°C). When a machine space is used, the machine space will be in the hoistway behind the metal door installed per Hoistway and Pit Prep / Work above with ventilation in accordance with all applicable codes and regulations. The machine space is to be maintained at a temperature between 32°F (0°C) and 104°F (40°C). Relative humidity not to exceed 95% non-condensing. Local codes may require tighter temperature ranges. The temperature and humidity range shall be permanently posted in the machine room / space. Please check with your local code authority for the exact requirements in your area.

Machine room / space(s) and door to meet code compliant fire resistive construction. When a machine room is used, provide a self closing and self locking door with a group 2 locking device. When a machine space is used, provide a standard 3' x 7' self closing and self locking metal door with a group 2 locking device in the hoistway per agreed upon location and Otis layout. In addition, ensure that all air gaps around the machine room / space door are sealed (i.e. threshold, weather stripping, etc.). Self closing mechanism cannot protrude into the machine space at any time.

Provide trenching and backfilling as necessary to accommodate any remote machine room condition that may exist.

Fire Prevention Prep/Work

17. Provide hoistway walls designed and constructed in accordance with the required fire rating (including those places where elevator fixture boxes, rail bracket fastenings, and any other penetration into the hoistway walls).
18. In the United States, provide smoke detectors, located as required, with wiring from the sensing devices to the controller(s) designated by Otis.
 - a. For each group of elevators, provide a normally closed contact representing the smoke detector at the designated return landing.
 - b. For each group of elevators, provide a normally closed contact representing all smoke detectors located in lobbies, hoistways, or control rooms/spaces, but not the smoke detector at the designated return landing (see above) or the smoke detectors as described in i. & ii. below.
 - i. If a smoke detector is located in the hoistway at or below the lower of the two recall landings, it shall be wired to activate the same normally closed contact as the smoke detector located in the lobby at the lower of the two recall landings.
 - ii. If the control room(s)/space(s) are located at the designated return landing, the smoke detectors located therein shall be wired to activate the same normally closed contact as the smoke detector at the designated landing.
 - c. Requirements for intermittently illuminating the fire hat visual signal in the car operating panel, either i. or ii apply.
 - i. or a single unit or for a group of elevators having one common control room/space and one common hoistway, provide one additional normally closed contact representing the control room/space and hoistway smoke detectors.

If the group contains more than one hoistway and hoistway smoke detectors are installed, or if the group has more than one control room/space,
 - ii. provide one normally closed contact for each elevator. The contact is to represent the smoke detector in the control room/space for that particular elevator, and any smoke detectors in the hoistway containing that particular elevator.
19. In the United States, if sprinklers are installed in the hoistway(s), control room(s)/space(s), or machine space(s), a means to automatically disconnect the main line power supply of the affected elevator and any other power supplies used to move the elevator upon or prior to the application of water is required (unless prohibited by local code.) In addition, when the Automatic Recovery Operation (ARO) is specified, the means provided to automatically disconnect power to the elevator shall be equipped with an additional auxiliary contact that is positively opened when power is removed from the elevator system. This automatically controlled mainline disconnect must be provided with all associated wiring and conduit to the controller.
20. Provide a Class "ABC" fire extinguisher, minimum 10 lbs., in the machine room or in a location convenient to the machine space.

Hydrofit Electrical Requirements

21. All 125 volt, 15 or 20 ampere single-phase receptacles installed in pits, machinery spaces, and elevator car tops shall be of ground fault circuit interrupter (GFCI) type. All 125 volt, 15 or 20 ampere single-phase receptacles installed in machine rooms / spaces shall have GFCI protection.

22. Furnish a dedicated, balanced, 3-phase, 3 wire electrical feeder system with a separate solidly grounded equipment grounding conductor terminating in the machine room / space. Size of the feeders and grounding conductor to suit elevator power characteristics. Feeder conductors and grounding conductor must be copper. A fused disconnect switch or circuit breaker capable of being locked in the open position for each elevator per the National Electrical Code (ANSI/NFPA 70) or Canadian Electrical Code (C22.1) with feeder or branch wiring to the controller (NEC 620-51, 620-61(D), and 620-62 or CEC Rule 38-013(2)(a)) must be provided. Fuses are to be current limiting class RK1 or equivalent. Circuit breakers are to have current limiting characteristics equivalent to class RK1 fuses. Fuses or circuit breakers are to be time delay to cover the full load up accelerating current as listed in the Otis Confirmation of Power Supply form.

Furnish a separate 120 volt, 15 ampere single-phase branch circuit and SPST fused disconnect switch or circuit breaker capable of being locked in the open position to supply the car lights, receptacles, auxiliary lighting power source, and ventilation on each car in compliance with the National Electrical Code must be provided.

When a machine room is used and where practical, disconnects shall be located adjacent to the door of the machine room enclosure. When a machine space is used, disconnects or circuit breakers shall be located behind the door of the machine space per Otis layout.

Branch circuit wiring to each controller (NEC 620-53 or CEC Rule 38-053) must be provided.

A convenience outlet and a suitable light of not less than 200 Lux (19FC) as measured at floor level must be provided in the machine room / space with a light switch located within 18" (456 mm) of lock jamb side of machine room door when a machine room is used, or outside the machine space door on the lock jamb side per Otis layout when a machine space is used (NEC 620-23 or CEC Rule 38-023).

A convenience outlet and light fixture of not less than 100 Lux (10FC) as measured at the pit floor level must be in the pit with a light switch located adjacent to the pit access door (NEC 620-24 or CEC Rule 38-024). The light bulb(s) shall be externally guarded to prevent contact and accidental breakage.

[Note: Consult with the Otis Construction Superintendent at your location concerning the following paragraph.]

To meet the date upon which the elevators are to be turned over, the permanent 3-phase feeder system and protective devices must be installed and power available prior to the start of elevator installation.

23. Provide 120 volt, 20 ampere power for light, tools, hoist, etc. to the hoistway during installation. Source must be within 75 feet (22.86 M) of the hoistway.

24. Provide one (1) dedicated outside telephone line per elevator car to the elevator machine room / space(s), and terminated at the controller designated by the Otis construction superintendent. Reference the A17.1 code and the Otis Confirmation of Power Supply for specific requirements.

25. **Options:**

For Elevators with an intra-building Intercom- Provide a separate 120 volt, 15 ampere, single-phase power supply with fused SPST disconnect switch or circuit breaker located as required for intercommunicating system power supply. Circuit to be arranged for feeding from the building emergency lighting supply if provided. Conduit and wiring for remotely located intercommunicating stations must be provided.

You agree to indemnify and save Otis harmless against any and all liability and costs arising out of your failure to carry out any of the foregoing requirements.