Otis Elevator Company
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Miami Lakes, FL 33014
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Office: (305) 816-5740
fausto.frias@otis.com

Fausto Frias
New Equipment Sales

May 4, 2021
Design Spaec

Project: **129 N MIAMI AVE**
Re: **Otis Elevator- NON BINDING ESTIMATE**

Dear Mr. Incrovaia:

We are pleased to provide you with our proposal to furnish and install:

One (1) 2100 lb Otis HydroFit Elevator Systems of a rated speed of 100-fpm.

Totaling (1) Units, as described in this proposal, for the sum of:

Item	Cost
Base Bid	$80,000
TOTAL	**$80,000**

Please take note of the following sections of this proposal:

1. **Scope of Work**
2. **Job Specific Clarifications**
3. **Voluntary Alternates**
4. **General Clarifications**
5. **Terms and Conditions**
6. **Preparatory Work by Others**

This quotation is based upon

- Plans: NO PLANS

We appreciate having the opportunity to provide you with our proposal on this project and look forward to working with you and your project team.

Please call me at my mobile (786)-910-0886 if you have any questions.

Sincerely,

Fausto Frias
New Equipment Sales

1. **Scope of Work Elevator 1**

Designation & Model	Otis HydroFit™ Elevator System
Capacity & Speed	2100 lb Passenger Cab @ 100 fpm
Stops & Floors	2 Stops with 2 Openings
Rise	12 ft 6 in 0
Clear Car Inside Dimensions	5 ft 9 in 1/2 wide x 4 ft 4 in 1/8 deep
Clear Hoistway Dimensions	Hoistway- 7 ft 9 in 0 wide x 5 ft 11 in 0 deep Overhead- 12 ft 6 in 0 Pit Depth- 4 ft 0 in 0
Door Type & Size	One Speed Side Slide- 36 in wide x 84 in high
Control Space	Machine Roomless- Tank and Controller In Hoistway Pit
Operation	Simplex
Power Supply	240 Volts, Three Phase AC, 60 Hertz
Cab Enclosure	93” High, Otis Laminated Steel Shell Cab Stainless Steel* Standard Swing COP Return, Header, and Car Door 3/8” x 2” (9.5 mm x 51 mm) Flat Tubular Bar with Brushed Steel Finished handrails shall be provided on the rear wall.Flat Black Pearl Ceiling with 4 LED Lights
Cab Flooring	Furnished and Installed by Others- 1 1/4 in Recess
Hoistway Entrance Finishes	Brushed Stainless Steel Frames at: 1 Painted** Frames at: 2 Brushed Stainless Steel Doors at: 1 Painted** Doors at: 2
Hoistway Sill Finishes	Extruded Aluminum Sills at: 1, 2
Signals	Standard Swing Car Operating Panel (COP) with Flat Round Buttons that have an Illuminated Halo. Stainless Steel* Wall Mounted Hall Fixtures with Flat Round Buttons that have an Illuminated Halo.
Constant Features	Access At Top and Bottom Landing With Zoning Firefighter's Service, Phase I and II Handicapped and Braille Markings Optiguard® Door Reversal Device In Car Lantern Otis ADA Hands Free Phone Emergency Car Lighting
Additional Features	Stainless Steel* Hall Position Indicators at: 1 Stainless Steel* Hall Lanterns at: 1 Stainless Steel* Hall Fixtures at all Landings
Code Compliance	All Applicable Local, State, and National Codes- ANSI A17.1 Florida, Local Code and A.D.A. No Seismic Requirements
Maintenance	12 Months After Acceptance of Elevator by Owner. Includes Emergency Callback Service During Normal Working Hours.

*Brushed Stainless Steel Full Finish #4 **Paints to be selected from manufacturer's catalog of choices.

2. **Project Specification Clarifications**

Other Project Specific Clarifications:

i) A safety/hoisting beam is required at the top of the hoistway and is by other trades. It should be located exactly as per the elevator shop drawings.

ii) Pit ladders are by other trades

iii) Rail bracket inserts will be furnished by Otis, for installation by other trades in the hoistway walls. This is to avoid silica inhalation due to drilling in concrete per the latest OSHA requirements.

iv) Our bid is based on manufacturing lead-time of 16-18 weeks after approvals.

v) If rail bracket inserts (anchor channels) are provided by Otis, they shall be installed by others at no cost to Otis, in accordance with Otis documentation and instructions.

vi) This proposal is provided with the understanding that materials will be ordered with sufficient lead time (as outlined in our approvals package) to allow delivery and installation prior to **12/31/2021**. If Otis is unable to order and install materials in a timely manner due to delays on behalf of the owner, general contractor and/or agent thereof, or if delivery or installation is requested after **12/31/2021**, the owner and/or general contractor will be responsible for all cost increases incurred by Otis. 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.

vii) Otis will furnish and install all of the necessary components, circuitry and wiring for a new AccessAlert system, which will operate on the elevator car top and pit. AccessAlert will be installed so the elevator can be controlled in a safe manner when an authorized person accesses the elevator hoistway. The AccessAlert system meets all applicable safety codes.

viii) When requested, Otis will provide input regarding the vertical transportation installation schedule, and Otis will contract for a specific, and mutually agreeable, installation schedule.

ix) General contractor to provide and falling objects protection netting over barricades.

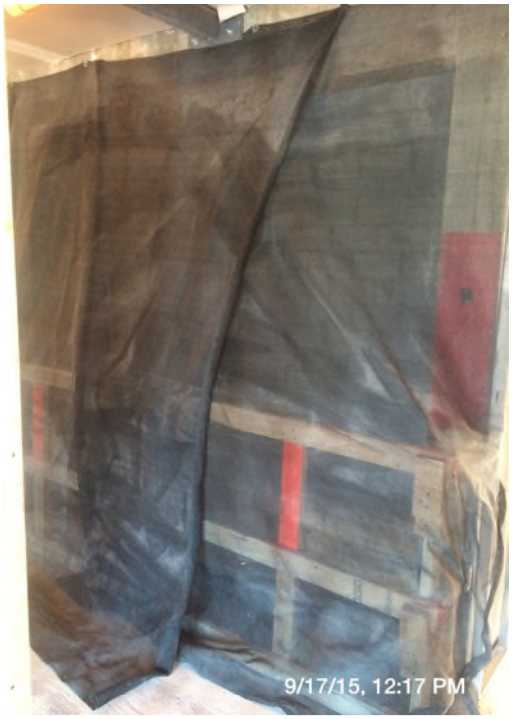
(1) Minimum of two (2) sheets over each rough opening overlapping over each other to allow for safe entry/exit even during an emergency without entrapping our workers.

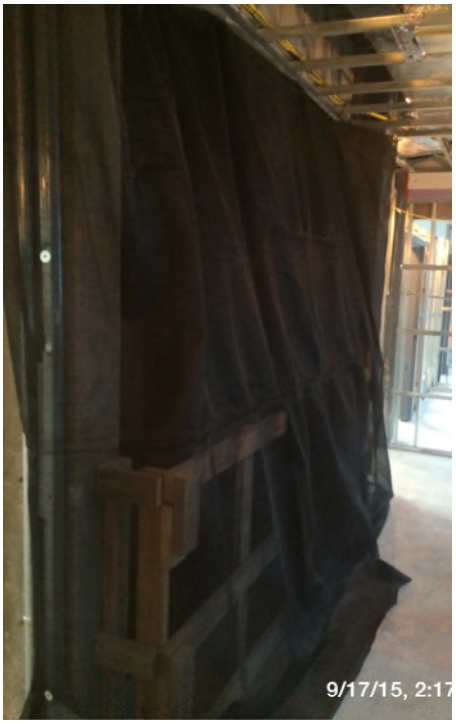
(2) Covering the entire rough opening.

(3) Installed by others, maintained by Otis

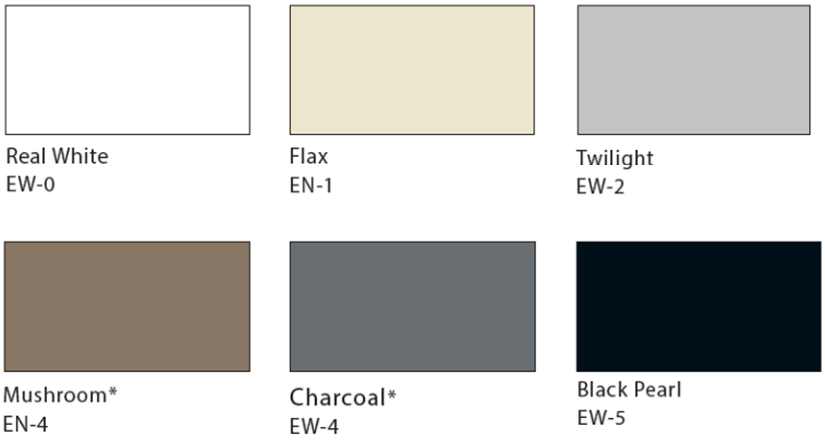
(4) Installed over the barricades.

(5) Secured to the walls on both sides.





x) Color of painted entrances, to be from Otis's standard selector. Custom colors and textures are available at an additional cost.



3. **Alternates**
   - 3.1. **Payment and performance** bond: add 1%.
   - 3.2. **Mechanic labor rates:** $200/regular hour; $390 per overtime hour.
   - 3.3. **Additional Construction or Temporary Use** is subject to payment a one-time fee of $4,500 per additional traction elevator, which covers the cost of the labor required for the additional inspection, and the normal cleaning and refurbishing of the elevator after use by the GC; and a monthly fee of $2,500 per elevator, which covers the cost of monthly preventive maintenance, monthly inspections, call-back service and extending the warranty. Fees due to the City or County to be paid directly by the general contractor to the City of County. Repairs due to misuse, vandalism, abuse, etc will be at an additional cost.
   - 3.4. Provisions to support **in-the-car card-readers** (devices furnished and installed by others), please add $3,890 per elevator. Includes four (4) twisted shielded pairs from cab to controller, controller logic and software to support in-the-car card readers, and two (2) team hours to support the installation by other trades. Wiring from elevator-controller to reader monitoring station, and installation of the security devices is by other trades.
   - 3.5. Provisions to support **in-the-car CCTV cameras** (camera devices furnished and installed by others) please add $2,865 per elevator. Includes one (1) additional traveling cable (from cab to controller) with two coaxial cables, and two (2) team hours to support the installation by other trades. Wiring from elevator-controller to CCTV monitoring station or recorder, and installation of the CCTV devices is by other trades.
   - 3.6. **Re-mobilization fee**, due to failure of by other trades to timely complete their work: $3,500 per elevator.
   - 3.7. **Re-inspection fee**, due to failure of by other trades: $3,500 per elevator, plus city or county inspector fees if applicable.

4. **General Clarifications**
   - 4.1. **Divider beams** at all floors, and in the overhead, will be provided by contractor. In addition contractor will provide tube steel between elevators running from divider beams to divider beams if the distance between floors exceeds the maximum distance between brackets allowable.
   - 4.2. The installation of the elevator equipment may require the use of specialized tools that Otis may rent. The rental cost of these specialized tools is included in this proposal for a period of **One (1)** months per elevator, the period of time we will need to install the elevators. If there are delays to the elevator installation schedule beyond Otis' control, and if those delays necessitate additional rental tool costs, Otis will be reimbursed for all additional rental fees and any associated labor.
   - 4.3. Contractor will provide one (1) dedicated outside telephone line to the elevator machine room as described in the "Work by Others" section.
   - 4.4. 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.
   - 4.5. Any fees required via participation in a third party billing consolidator will be passed on to Contractor via change order and will handled in the same manner as all other change orders per our clarifications.
   - 4.6. Change orders will be stated price (lump sum). In the event a stated price cannot be calculated, hourly rates for Time and Material (T/M) are below.

Pay Status	Regular Time	Over Time*
Man Hour	$200	$390

4.7. Contractor will communicate to Otis supervision who the signatories and/or titles, roles and positions are which are authorized to sign time tickets on-site that will be used as support documentation for T/M change orders. Work cannot commence or continue until a designated signatory signs the document.

4.8. Contractor will be responsible for providing suitable and secure on-site storage as described in the "Work By Others" section of this proposal.

4.9. If contractor is not ready to accept delivery of the material on the requested/notified delivery date, contractor will give us sufficient notice of a local point where contractor will accept delivery, and be responsible for all monthly storage fees. An extra charge will be assessed for any double handling, re-transportation or inefficiencies created by non-adjacent storage conditions.

4.10. 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.

4.11. If Otis is requested to operate the elevator for others, or perform labor outside of the scope of this work, that work will be performed in accordance with our normal hourly labor rates.

4.12. Contractor agrees to pursue and schedule the work by other trades in a timely manner so as to not interrupt our work. Should our crew(s) have to de-mobilize from the job due to delays in work by others not in our contract, we shall be entitled to a re-mobilization charge of twenty five hundred ($2,500) dollars. We will also extend the stated schedule to the extent that we are delayed.

4.13. Should any elevator be required for temporary use before final acceptance of the elevator and substantial completion, others will provide without expense to Otis Elevator Company, if required, temporary car enclosures, requisite guards or other protection for elevator hoistway openings, mainline switch with wiring, necessary power, signaling devices, lights in car and elevator operators together with any other special labor or equipment needed to permit this temporary usage. Otis Elevator Company will be reimbursed the rates quoted (see alterantes) to cover expenses associated with the additional inspection fee and the required clean-up. These rates do not include any additional costs required due to abuse, misuse, vandalism, etc. Otis' temporary acceptance form will be executed before any elevator is placed in temporary use, and the cost of equipment rehabilitation will be paid for by contractor.

4.14. When an elevator is used for temporary service, the completion date may, as a result of the temporary service, be extended by Otis Elevator Company. Otis Elevator Company shall provide notice of the extension at the time the elevator is made available for the temporary service.

4.15. This proposal includes a one-time final inspection fee. Should re-inspection be required because of work that is not the responsibility of Otis, contractor will be responsible for the cost of re-inspection and remobilization for Otis personnel. A minimum change order of twenty five hundred ($2,500) dollars will be executed prior to rescheduling a follow-up inspection.

4.16. The following close-out documents will be provided: our standard owner's information manual, our standard final layout/installation drawings, and our standard warranty letter. Unless otherwise specified, 2 copies of each will be provided. Additional copies are available at $100 per set.

5. **Terms and Conditions**

5.1. Non-Otis contract language: In the event contractor does not accept Otis Standard Commercial Terms and the Otis Acknowledgement Letter, the contract price may be altered.

5.2. It is agreed that 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.

5.3. It is agreed that Otis will 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 Otis can achieve the desired date with our standard lead times. Security for elevator material delivered to the jobsite is the

responsibility of the Contractor. The Contractor is responsible for all costs to replace any damaged, stolen or missing elevator equipment. Otis will not be responsible for deductibles on Builder's Risk insurance policies. Otis will provide a change order, police report, and affidavits as needed to substantiate the claim. Otis will not procure replacement equipment until a signed change order is received.

5.4. If payment and performance bonds are requested of us, please add 1% of resulting contract amount.

5.5. OTIS agrees 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 ($75 per $1000, or 0.75%).

5.6. This proposal does not include any provision for an "Owner Controlled Insurance Program" (OCIP/CCIP/Wrap Up). That option is not available, and no deduct is available for Otis' participation.

5.7. Our proposal is based the following payment terms:

5.7.1. Our quoted price is based on the "Initial Payment" equaling thirty-five percent (355%) of contract award. This amount, plus a fully executed subcontract must be received prior to releasing equipment for manufacturing or scheduling well-hole drilling.

5.7.2. Otis will mobilize after the "Material Delivery Payment" is received. See "Schedule of Values" below.

5.7.3. Monthly "Progress Payments" will be calculated as the proportionate value of work performed relative to the remaining balance due on this sub-contract (i.e. balance due after the "Material Delivery Payment" is received). This includes any materials stored on or offsite. Also, contractor agrees to make progress payments to Otis for any work performed prior to final execution of the contract and/or the submission of any required documents other than those required for payment applications.

5.7.4. Final payment (retainage) will be due thirty (30) days after final acceptance of the elevator installation, otherwise all warranties and New Installation Service (NIS) will be suspended.

5.7.5. Otis must be paid ninety-five percent (90%) of the final contract price prior to scheduling the state, county or city inspection and turnover of the elevator equipment.

5.7.6. All change orders must be executed and paid prior to scheduling final inspection.

5.7.7. Otis does not accept credit cards as a form of payment.

5.7.8. Otis will not agree to any language referencing or implying "pay when paid". This contract is between Otis Elevator and referenced Contractor. The attached payment schedule ("Schedule of Values") is not contingent upon Contractor's ability to be paid by others or any other factor or event not described above.

5.7.9.

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	50% Billed the month before shipment occurs. Due the month material is delivered. Installation will not commence until the material is paid for.

Installation Labor	15% 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%

5.9 Our proposal includes our Remote Elevator Monitoring (REM®) feature. This feature will be installed during the original installation for the duration of the warranty/maintenance period. Upon expiration of this service period, if the owner elects not to continue maintenance with Otis, it is understood that this REM unit will be removed by Otis from the jobsite and remain in our possession.

5.10 All software supplied with the elevator is licensed to you or your successors but only for use with, and for operation of this elevator.

5.11 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. 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.

5.12 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.

5.13 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.

5.14 Warranty: Twelve (12) months after acceptance of elevator. The elevator 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 or merchantability or fitness for a particular purpose.

6. **Preparatory Work By Others**

The following items must be performed or provided 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 is based on these job-site conditions existing at the beginning and during the installation of the elevator equipment.

All work must be performed per the applicable national and or local codes.

General Prep Work for HydroFit Elevators

1. Provide any cutouts to accommodate elevator equipment (troughing, venting, and hall fixtures), along with the patching/painting of walls, floors, or partitions together with finish painting of entrance doors and frames, if required.
2. Provide tractor trailer access to the building for unloading of material and an on-site 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 (30480mm) of the hoistway and is larger than 25 x 20 feet (7620mm x 6096mm) 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.

3. Provide secure, sufficient on-site 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 and Pit Prep Work for HydroFit Elevators

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" / +1 in (25mm).
6. Install per Machine Room Prep Work, Machine Space Prep Work and Electrical Requirements.

   Provide a rough opening for and install a 3' X 7' (914 mm x 2137 mm) standard fire rated interior door on one side of the hoistway, as shown on the Otis layout. The machine space access door must not be on an outside wall. When determining the location of the machine space door, the dimension on the Otis layout is from the inside door edge of the jamb and not the door stop edge. Please be advised that this door location is very critical. Follow door manufacturing instructions for the different types of hoistway wall material and make the appropriate adjustments so that this door will be placed in the proper location.

   The door frame must be securely mounted to the wall to sustain a cantilevered / horizontal force exerted by the electrical disconnect(s), electrical conduit, and wiring up to an approximate 325 lb. (47 kg) load. Install per Machine Room/Space Prep Work and Electrical Requirements. The door hand and opening is dependent on configuration, see the general contractor guide or talk to your Otis representative.
7. Provide adequate rail bracket supports, 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 should be not less than 10'-3" (3124 mm) or more than 11'-3" (3429 mm)from the top landing. Provide 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 elevator 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 instructions.

   If vertical tube steel is utilized as rail support, see the Otis layout for any specific requirements.

   When a machine space is used, with a second floor controller/tank location, provide adequate Tank Stand supports flush with the hoistway wall when the following hoistway construction material is used; cmu block, steel frame, or wood.

   The support can be any of the following: header beams, steel tube, inserts or embedded plates at locations specified as per Otis layout.

   Note: When a support is provided, it should be able to withstand the force shown on Otis contract layout for seismic and non-seismic conditions.

   Concrete hoistway walls do not require Tank Stand supports.
8. Provide 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. The elevator pit must have a floor drain or sump pump to prevent the accumulation of water. Location to be coordinated with Otis to avoid all elevator components and access areas. In areas requiring Firefighter's Emergency Operation, a sump pump / drain shall be provided that shall have the capacity to remove a minimum of 11.4 m^3 / h (3,000 gal / h) per elevator (2.2.2.5, ASME A17.1-2007/CSA B44-07). Otis recommends that the owner verify the system complies with all applicable laws and local codes.
9. 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 pit wall pocket requirements are shown in the pit plan view on the Otis layout. For entrance heights greater than 7' (2134 mm), the top rung must be 12" (305 mm) above the bottom landing. Hand grips must be provided to a height of 4' (1219 mm) above the bottom landing. Hand grips must have 4-1/2" (114 mm) radial clearance, from their centerline to any obstruction in the hoistway (refer to the detail views for

typical ladder arrangement). If pit depth is greater than 9'-10" (3000mm) [13'-9" (4101 mm) with no floor below bottom landing], a pit access door is required.

10. The entrance wall at the main landing, is not to be constructed until after all elevator equipment is installed in the hoistway (the entire front wall's width of 8'-6" must be open for installation). Remaining front entrance walls are not to be constructed until after door frames and sills are in place.

    The rough opening, per sizes shown on the Otis layout are required. Prior to the completion and turnover of the elevator(s), all entrance walls must be installed and rough openings filled in complete to maintain fire rated hoistway requirements.

11. 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 doorframes to sill line. A horizontal support is to be provided 1'-0" (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'-0" (305 mm) above the clear opening. If transoms are required then the support would be 1'-0" (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 lbs. (2268 kg). Otis requires 2" (51 mm) clear above the beam. Total clear overhead must cover entire width and depth of the hoistway. An area consisting of the width of the hoistway by 16" (406 mm) depth on each side of the hoist beam must be left clear to the top of the hoistway.

13. Glass used in hoistway construction must block ≥ 98% 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.

Hoistway and Pit Prep Work for All Elevators

15. 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 (90.7 kg) 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.

Machine Room / Machine Space Prep Work for Hydrofit Elevators

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 60º F (15.5º C) and 100º F (38º C). 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 32º F (0º C) and 104º F (40º C). Relative humidity is 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/machine space. Please check with your local code authority for the exact requirements in your area.

17. Machine room and Machine space doors to meet code compliant fire resistive construction. When a machine room is used, provide a self-closing (local building code dependent) and self-locking door with a group 2 locking device. When a machine space is used, provide a standard 3' x 7' (914 mm x 2137 mm) self-closing (local building code dependent) and self-locking metal door with a group 2 locking device in the hoistway per Otis layout. In addition, ensure that all air

gaps around the machine room / machine space door(s) are sealed (i.e. threshold, weather stripping, etc.) The self-closing mechanism cannot protrude into the machine space at any time. The machine space door knob shall have a blank plate on the hoistway side of the door.

18. When a machine space is used, Otis will provide a metal shroud and metal shroud cover to be mounted on the hoistway side of the machine space door frame, per Otis layout. The metal shroud will accommodate the mounting of the main electrical feeder system, fused disconnect switch or circuit breaker for car lighting, and the convenience outlet. Conduit knockouts through the metal shroud cover will be required as needed to access the disconnect switches or circuit breakers and convenience outlet. See Electrical Requirements.
19. [Note: Consult with the Otis Representative at your location concerning the metal shroud mentioned above for machine space applications.]
20. [Refers to elevators with remote machine rooms requiring buried piping and wire way] Provide trenching and backfilling as necessary to accommodate remote machine room conditions.

Fire Prevention Prep Work for HydroFit Elevators

21. Provide hoistway walls designed and constructed in accordance with the required fire rating (including those places where elevator fixture boxes, rail bracket fastenings penetrate into the hoistway walls).
22. 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 machine rooms/spaces, but not the smoke detector at the designated return landing (see above) or the smoke detectors as described in the bulleted items below.
        - 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.
        - If the control machine room/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 bullets below apply.
        - For a single unit or for a group of elevators having one common machine room/space(s) and one common hoistway, provide one additional normally closed contact representing the machine room/space(s) 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 machine room/space(s), provide one normally closed contact for each elevator. The contact is to represent the smoke detector in the machine room/space(s) for that particular elevator, and any smoke detectors in the hoistway containing that particular elevator.
23. If sprinklers are installed in the hoistway(s) or machine room/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). Smoke detectors shall not be used to activate sprinklers in hoistway(s), machine/control room(s) or machinery spaces or to disconnect the main power supply.
24. Provide and "ABC" fire extinguisher, minimum 10 lbs, in the machine room or in a location convenient to the machine space.

Electrical Requirements for HydroFit Elevators

25. 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 (GCFI) type. All 125 volt, 15 or 20 ampere single phase receptacles installed in machine rooms / spaces shall have GFCI protection. A dedicated single phase receptacle supplying a permanently installed pit sump pump shall not require GFCI protection National Electrical Code [NEC620-85 or CEC Rule 38-085].
26. 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.

[Note: If the 3 phase power to the control system is simulated (not from the utility), by use of a phase converter system, the phase converter must have all three phases balanced. Digital phase converter is required.]

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.

For machine room applications, a convenience outlet and a suitable light, of not less than 200 Lux (19 fc) as measured at the floor level must be provided in the machine room with a light switch located within 18" (456 mm) of lock jamb side of machine room door.

For machine space applications, a convenience outlet located inside the machine space door and a suitable light located outside the machine space door on the lock jamb side, of not less than 200 Lux (19 fc) as measured at floor level must be provided per Otis layout. The machine space light circuit shall be a dedicated circuit separate from other lighting circuits (NEC 620-24 or CEC Rule 38-024)'

A convenience outlet and light fixture of not less than 100 Lux (10 fc) 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.

27. Provide 120 volt, 20 ampere power for lights, tools, welding, hoisting, etc. to the hoistway during installation. Source must be within 75' (22.86 m) of the hoistway.
28. Provide one (1) dedicated outside telephone line, per elevator car to the elevator machine room / machine space(s), and terminated at the controller designated by the Otis construction superintendent. Reference A17.1/CSA-B44 code and the Otis Confirmation of Power Letter for specific requirements.
29. [Optional] 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 inter-communicating 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.