



February 12, 2026

CANCELLATION NOTICE OF A REGULAR MEETING
AND
CALL AND NOTICE OF A SPECIAL MEETING
OF THE
OPERATIONS AND DEVELOPMENT COMMITTEE
OF THE
BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY

NOTICE is hereby given that the Airport Authority administration offices will be closed on Monday, February 16, 2026, in observation of Presidents' Day. Therefore, the regular meeting of the Operations and Development Committee scheduled for Monday, February 16, 2026, at 8:30 a.m., in the Airport Sky Room of Hollywood Burbank Airport, 2627 N. Hollywood Way, Burbank California 91505, has been cancelled.

NOTICE is hereby given that a special meeting of the Operations and Development Committee will be held Tuesday, February 17, 2026, at 8:30 a.m., in the Airport Sky Room of Hollywood Burbank Airport, 2627 N. Hollywood Way, Burbank, California 91505.

In addition to attending the meeting in person members of the public may observe the meeting telephonically and may offer comment in real time through the following number:

Dial In: (818) 862-3332

Terri Williams, Board Secretary
Burbank-Glendale-Pasadena Airport Authority

SPECIAL MEETING
OF THE
OPERATIONS AND DEVELOPMENT COMMITTEE
Airport Skyroom
Tuesday, February 17, 2026
8:30 a.m.

The public comment period is the opportunity for members of the public to address the Committee on agenda items and on Airport-related non-agenda matters that are within the Committee's subject matter jurisdiction. At the discretion of the presiding officer, public comment on an agenda item may be presented when that item is reached

Members of the public are requested to observe the following decorum when attending or participating in meetings of the Committee:

- *Turn off cellular telephones and pagers.*
- *Refrain from disorderly or boisterous conduct, including loud, threatening, profane, or abusive language, clapping, whistling, stamping, or other acts that disrupt or otherwise render unfeasible the orderly conduct of the meeting.*
- *If you desire to address the Committee during the public comment period, fill out a speaker request card and present it to the Board Secretary.*
- *Confine remarks to agenda items or to Airport-related non-agenda matters that are within the Committee's subject matter jurisdiction.*
- *Limit comments to three minutes or to such other period of time as may be specified by the presiding officer.*



The following activities are prohibited:

- *Allocation of speaker time to another person.*
- *Video presentations requiring use of Authority equipment.*



Any disclosable public records related to an open session item on a regular meeting agenda and distributed by the Authority to the Committee less than 72 hours prior to that meeting are available for public inspection at Hollywood Burbank Airport (2627 N. Hollywood Way, Burbank) in the administrative office during normal business hours.



In accordance with the Americans with Disabilities Act of 1990, if you require a disability-related modification or accommodation to attend or participate in this meeting, including auxiliary aids or services, please call the Board Secretary at (818) 840-8840 at least 48 hours prior to the meeting.

AGENDA

Tuesday, February 17, 2026

1. Roll Call
2. Approval of Agenda
3. Public Comment
4. Approval of Minutes
 - a. January 20, 2026
5. Items for Approval

[See page 1]

- a. Award of Stanchion Purchase Order
Visiontron Corp.

[See page 3]

Staff seeks a recommendation from the Operations and Development Committee (“Committee”) to the Commission to authorize a Purchase Order to Visiontron Corp. in the amount of \$129,974.65 for the acquisition of common-use stanchions to be installed for queueing and line management at multiple locations throughout the Replacement Passenger Terminal.

Due to this procurement taking longer than originally anticipated, subject to the Committee’s recommendation, this item has also been placed on the Commission agenda for its meeting immediately following the Committee’s meeting.

- b. Award of Design-Build Agreement for Elevator Replacement
Project Number (E26-01)

[See page 5]

Staff seeks an Operations and Development Committee (“Committee”) recommendation to the Commission that it:

- i) **Award of a Design-Build Agreement in the amount of \$2,338,661 to Charles Pankow Builders, Ltd. for replacement of the Replacement Parking Structure (“RPS”) elevators,**
- ii) **Authorize a project budget for project management and contract administration for a not-to-exceed amount of \$184,000,**
- iii) **Authorize a project contingency of \$230,000, and**
- iv) **Authorize Staff to file a CEQA Notice of Exemption for the project.**

With the opening of the Replacement Passenger Terminal (“RPT”), the RPS operation changes from a valet park storage facility to a public accessible parking structure. Even with the opening of the RPT Garage, the Airport will be well below the 6,637 public parking spaces authorized by the City of Burbank to meet the parking demand. The proposal to replace the RPS elevators is critical to increasing the amount of public parking, especially long-term parking availability. Subject to the recommendation of the Committee, this item has also been placed on the Commission agenda for its meeting immediately following the Committee’s meeting.

- c. Preliminary Budget Authorization for ACE Parking
Lease of Additional Buses
Change to Employee Medical Program

[See page 8]

Staff seeks an Operations and Development Committee recommendation to the Commission to grant preliminary budget authorizations to ACE Parking III, LLC (“ACE”) for a lease of eight 40-foot CNG shuttle buses and for a change in medical benefits for ACE employees. The additional buses are needed to address the change in courtesy shuttle operations that will occur upon opening of the Replacement Passenger Terminal in October 2026. The change in medical benefits addresses ACE’s updated collective bargaining agreement with Teamsters Local 986.

6. Items for Information

- a. Committee Pending Items

[See page 10]

7. Adjournment

**MINUTES OF THE SPECIAL MEETING OF THE
OPERATIONS AND DEVELOPMENT COMMITTEE
BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY**

TUESDAY, JANUARY 20, 2026

A special meeting of the Operations and Development Committee was called to order on this date in the Airport Skyroom, 2627 N. Hollywood Way, Burbank, California, at 8:38 a.m., by Commissioner Hampton.

1. ROLL CALL

Present: Commissioners Hampton, Talamantes and Asatryan

Absent: None

Also Present: Staff: John Hatanaka, Executive Director; Stephanie Gunawan-Piraner, Deputy Executive Director, Planning and Development

2. Approval of Agenda

Motion Commissioner Asatryan moved approval of the agenda; seconded by Talamantes .

Motion Approved The motion was approved (3-0).

3. Public Comment

There were no public comments.

4. Approval of Minutes

a. December 15, 2025 The agenda packet included a draft copy of the December 15, 2025, Committee meeting minutes for review and approval.

Motion Commissioner Talamantes moved approval of the minutes; seconded by Commissioner Asatryan.

Motion Approved The motion was approved (3-0).

5. Items for Information

a. Introduction: Proposed On-Call Public Works Pavement Improvement Program

Staff provided an overview of the concept, process and benefits of awarding on-call pavement improvement contracts to multiple construction firms through a public works RFB process. This overview is being presented to familiarize the Committee with the proposed program in use at other Southern California Airports, which have experienced greater responsiveness and efficiency with addressing pavement repairs and improvements. With Committee concurrence, Staff will proceed with the RFB process and return to the Committee at a future meeting with program recommendations for consideration of award by the Commission.

b. Committee Pending Items

Staff informed the Committee of future pending items that will come to the Committee for review.

6. Adjournment

There being no further business to discuss, the meeting was adjourned at 9:05 a.m.

**STAFF REPORT PRESENTED TO THE
BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY
OPERATIONS AND DEVELOPMENT COMMITTEE
FEBRUARY 17, 2026**

**AWARD OF STANCHION PURCHASE ORDER
VISIONTRON CORP.**

Presented by Mario Solis
Manager of Operations - Airside

SUMMARY

Staff seeks a recommendation from the Operations and Development Committee (“Committee”) to the Commission to authorize a Purchase Order to Visiontron Corp. (“Visiontron”) in the amount of \$129,974.65 for the acquisition of common-use stanchions to be installed for queueing and line management at multiple locations throughout the Replacement Passenger Terminal (“RPT”).

Due to this procurement taking longer than originally anticipated, subject to the Committee’s recommendation, this item has also been placed on the Commission agenda for its meeting immediately following the Committee’s meeting.

BACKGROUND

In the existing terminal building, Authority-owned common use stanchions are positioned at all ticket counters and both security screening checkpoints. The stanchions at the boarding gates and on the aircraft apron, are either the property of the airline or its ground handlers. At the RPT, all of the airline operations will be on a common-use basis. This includes operations at the ticket counter, curbside check-in counter, gate hold rooms, and at the Transportation Security Administration (“TSA”) security screening checkpoint. To support queueing and line management at these locations, the RPT project requires the procurement of new common-use stanchions, which will then be assigned at each location by the Operations Department. Based on location, the type of stanchion will be either free standing or attached through a floor-mounted magnetic base. The design of the proposed stanchions to be acquired are for either indoor or outdoor use.

For the RPT project, a total of 721 stanchions have been identified for installation in the following areas:

For outdoor use, a free-standing base model is required:

- Curbside Check-in: 20 Stanchions
- Ramp gate areas: 28 Stanchions

For indoor use, a free-standing base model will be utilized at:

- All fourteen gate hold rooms: 294 Stanchions
- Overflow management: 40 Stanchions

For floor-mounted indoor use:

- Ticket counter positions: 187 Stanchions
- TSA Security Screening Checkpoint: 152 Stanchions

PROCUREMENT PROCESS

A Request for Bids (“RFB”) was issued on December 8, 2025, through the Authority’s Planetbids System with three submissions received by the January 12, 2026, deadline. Out of the three submittals, two were deemed to be responsive.

Bids were received from the following companies:

Company	Price (Stanchions)
Architectural Brass – <i>non-responsive</i>	\$126,235
Visiontron	\$129,974.65
Lavi	\$132,452.15

The RFB required the submittal to include the cost of stanchions and all related materials.

After a thorough review of the two bids by Procurement and confirmed by the Operations Department, Visiontron was identified as the lowest responsive and responsible bidder.

FUNDING

Funding for the acquisition of common use stanchions was included in the FY 2026 adopted budget for the RPT project.

RECOMMENDATION

Staff seeks the recommendation of the Committee to the Commission to approve the acquisition of common-use stanchions and authorize staff to issue a Purchase Order to Visiontron for this equipment in the amount of \$129,974.65.

**STAFF REPORT PRESENTED TO THE
BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY
OPERATIONS AND DEVELOPMENT COMMITTEE
FEBRUARY 17, 2026**

**AWARD OF DESIGN-BUILD AGREEMENT FOR ELEVATOR REPLACEMENT
PROJECT NUMBER (E26-01)**

Presented by Vincent Nguyen,
Senior Manager, Engineering and Project Delivery

SUMMARY

Staff seeks an Operations and Development Committee (“Committee”) recommendation to the Commission that it:

- i) Award of a Design-Build Agreement in the amount of \$2,338,661 to Charles Pankow Builders, Ltd. (“Pankow”) for replacement of the Replacement Parking Structure (“RPS”) elevators,
- ii) Authorize a project budget for project management and contract administration for a not-to-exceed amount of \$184,000,
- iii) Authorize a project contingency of \$230,000, and
- iv) Authorize Staff to file a CEQA Notice of Exemption for the project.

With the opening of the Replacement Passenger Terminal (“RPT”), the RPS operation changes from a valet park storage facility to a public accessible parking structure. Even with the opening of the RPT Garage, the Airport will be well below the 6,637 public parking spaces authorized by the City of Burbank to meet the parking demand. The proposal to replace the RPS elevators is critical to increasing the amount of public parking, especially long-term parking availability. Subject to the recommendation of the Committee, this item has also been placed on the Commission agenda for its meeting immediately following the Committee’s meeting.

BACKGROUND

The southeast quadrant of the Airport contains a five-story parking structure built in 2013, known as the RPS. The RPS is currently used as vehicle storage by valet parking operations staff. With the opening of the RPT, valet parking operations will be relocated to a new parking structure located adjacent to the new terminal, and the RPS will be repurposed as a public self-park structure.

The RPS currently houses two single-cab elevators. The existing elevators, which date to the construction of the RPS in 2013, are no longer in service due to ongoing maintenance and reliability challenges that exceed practical repair. In addition, the limited availability of replacement parts within the United States has required overseas procurement, resulting in significant and recurring delays. Upon conversion to self-park operations, in which public occupancy is expected, the RPS will require a fully operational, reliable, and modern elevator system to meet accessibility and life safety requirements.

PROCUREMENT

On October 29, 2025, Staff publicly solicited responses to a Request for Proposals (“RFP”) on the Authority’s PlanetBids e-procurement website. Staff offered two time slots for the mandatory pre-proposal meeting/site walk on November 6, 2025 and November 12, 2025. Despite significant attendance at the two mandatory pre-proposal meetings, only one proposal was received, submitted by Pankow, a general contracting firm based in Pasadena, CA.

SELECTION PROCESS

The proposal received from Pankow was reviewed by Staff from the Procurement and Engineering departments. The proposal met the requirements of the RFP and demonstrated that Pankow has the appropriate experience and qualifications to complete the project. Pankow’s initial cost proposal was \$2,199,320.

Staff subsequently invited Pankow to meet and discuss its proposal contents, including cost, schedule, and the specific elevator product. Following these meetings, Staff requested that Pankow evaluate and provide alternative elevator products with proven long-term performance in a comparable setting. This request was intended to ensure long-term reliability, ease of maintenance, and improved availability for replacement parts, based on challenges experienced with the previous elevator manufacturer.

Pankow provided proposals from four elevator subcontractors. While Staff was able to reduce \$46,237 from the general conditions cost, selection of the elevator system deemed to be the most advantageous for the Authority resulted in a net increase of \$139,341. Based on these revisions and clarifications, Pankow submitted a final revised fee proposal of \$2,338,661.

CONSTRUCTION ADMINISTRATION AND PROJECT MANAGEMENT

To ensure the executed project meets the design intent and technical specifications, Staff requires technical design oversight during construction, as well as project management, inspection, and labor compliance monitoring support. The scope of work for construction administration includes submittal and shop drawing reviews, providing design clarifications, occasional site visits, and other associated services as required.

PROJECT BUDGET

The estimated total project budget is listed below.

Pankow Design-Build Agreement	\$ 2,338,661
Construction Administration and Project Management	\$ 184,000
Project Contingency	<u>\$ 230,000</u>
Total	\$ 2,752,661

FUNDING

The FY 2026 Facility Improvement Program Budget includes \$2,500,000 in capital Airport funded appropriations for this project which are adequate to accommodate anticipated expenditures of \$1,300,000 to be incurred this fiscal year. The balance of project costs will be programmed into the FY 2027 budget.

SCHEDULE

Staff anticipates work to commence shortly after the award and execution of the Design-Build Agreement with an anticipated completion of the project in December 2026.

ENVIRONMENTAL REVIEW

Staff have reviewed the CEQA guidelines regarding exemptions applicable to the project and determined that the Project is exempt pursuant to the Class 1 categorical exemption (14 C.C.R. § 15301). Among other things, that exemption covers repair and minor alteration of existing facilities involving no expansion of existing use.

OPERATIONAL IMPACTS

Construction work will be away from public traffic, with most of the work adjacent to the two elevator shafts. Impacts on existing Valet operations are expected to be minor and limited to the construction footprint. Per the anticipated construction schedule, Staff recognizes the elevators will not yet be operational when the RPT opens. Staff will continue to assess the potential impacts of this schedule and make the required efforts to ensure sufficient parking is available to airport passengers.

STAFF RECOMMENDATION

Staff recommends that the Committee recommend to the Commission award of the Design-Build Agreement to Pankow, authorization of project management and contingency funds, and approval of the filing of a CEQA Notice of Exemption to facilitate the timely execution of the RPS elevator replacement project.

**STAFF REPORT PRESENTED
BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY
OPERATIONS AND DEVELOPMENT COMMITTEE
FEBRUARY 17, 2026**

**PRELIMINARY BUDGET AUTHORIZATIONS FOR ACE PARKING
LEASE OF ADDITIONAL BUSES
CHANGE TO EMPLOYEE MEDICAL PROGRAM**

Presented by Scott Kimball
Deputy Executive Director, Business Development

SUMMARY

Staff seeks an Operations and Development Committee (“Committee”) recommendation to the Commission to grant preliminary budget authorizations to ACE Parking III, LLC (“ACE”) for a lease of eight 40-foot CNG shuttle buses and for a change in medical benefits for ACE employees. The additional buses are needed to address the change in courtesy shuttle operations that will occur upon opening of the Replacement Passenger Terminal (“RPT”) in October 2026. The change in medical benefits addresses ACE’s updated collective bargaining agreement (“CBA”) with Teamsters Local 986.

BACKGROUND

On July 10, 2023, the Commission awarded a Parking and Shuttle Services Agreement (“Agreement”) to ACE. The Agreement provides for ACE’s performance of self-park management services, valet parking services, and shuttle services for the Airport. As compensation, ACE receives a management fee and reimbursement of operating expenses that are consistent with the approved annual budget.

With the move from the current passenger terminal to the RPT, courtesy shuttle operations will undergo a transition of service points and transiting routes. Lot B, currently an employee parking lot, will be closed as required under the Development Agreement with the City of Burbank. Lot C, currently serving as a remote parking lot located on Thornton Avenue, will become the replacement for employee parking. With the move to the RPT, the current public parking in the southeast quadrant of the Airport changes from close-in parking to the new long-term remote public parking. Rental car operations located in the Regional Intermodal Transportation Center (“RITC”) will require the larger shuttle buses to serve customers who will be traveling to and from the RPT instead of traversing the elevated walkway to the current terminal.

Competition for available 40-foot courtesy shuttle buses in the greater Los Angeles/Riverside area has significantly increased due to the LA28 Olympic Committee’s efforts to lease and store as many buses as possible in advance for the 2028 Olympic Games in Los Angeles.

ACTION NEEDED

In order to ensure ACE can serve the Airport's needs when the RPT opens, Staff is seeking the Committee's recommendation to the Commission for a preliminary budget authorization for ACE to enter into a lease for eight buses with Complete Coach Works ("CCW") of Riverside, California. CCW requires a 6-month lead time to secure, prepare and deliver the shuttle buses to ACE. The cost of this lease becomes effective in FY 2027 starting in October for a two-year period.

The projected cost of leasing, Staffing and operating these buses for a 12-month period is estimated to be approximately \$4.1 million. Fifty percent of this cost will be the responsibility of the car rental companies located in the RITC. Once it is finalized this cost will be included into the upcoming FY 2027 budget process and a contract amendment will be presented to formally memorialize the approval.

Additionally, ACE has updated its CBA with Teamster Local 986 specifically for medical coverage under the union medical trust fund. The cost of this change is estimated to be \$142,920 for the remainder of the FY 2026 (April 1 – June 30, 2026). The upcoming contract amendment will include a formal acceptance of this change to the approved annual budget for ACE's operating expenses.

BUDGET IMPACT

Appropriations for the Teamsters Medical Trust Fund costs were not budgeted in FY 2026. The additional \$142,920 in medical benefit costs are anticipated to be accommodated within this year's budget. Appropriations for this item will be included in the FY 2027 budget development process.

RECOMMENDATION

Staff recommends that the Committee recommend to the Commission granting of preliminary budget authorizations for ACE to enter into a lease for eight additional shuttle buses to serve the RPT, and acceptance of the increase in cost of ACE employees' medical benefits covered under the CBA with Teamster Local 986.

**BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY
OPERATIONS AND DEVELOPMENT COMMITTEE
FEBRUARY 17, 2026**

COMMITTEE PENDING ITEMS

Future

Tentative Presentation

- | | |
|--|----------------|
| 1. Award of Contract Extension - Janitorial Services | April 20, 2026 |
| 2. Award of Contract Extension - Waste Removal | May 4, 2026 |
| 3. Award of Contract Extension - Landscape Services | June 1, 2026 |
| 4. Award of Contracts – Service Providers for RPT Operations | TBD |
| 5. Award of Contract - On-call Pavement Contractors | TBD |

DESIGN-BUILD AGREEMENT

(Burbank-Glendale-Pasadena Airport Authority / Charles Pankow Builders, Ltd.)

THIS DESIGN-BUILD AGREEMENT (“Agreement”) is dated February 17 2026 for reference purposes and is executed by the Burbank-Glendale-Pasadena Airport Authority, a California joint powers agency (“Authority”) and Charles Pankow Builders, Ltd., a California limited partnership (“Design-Builder”). Design-Builder’s CSLB license number is 688972. Design-Builder’s DIR registration number is 1000004415.

RECITALS

- A. The Authority owns and operates Hollywood Burbank Airport (officially known as Bob Hope Airport) (“Airport”). In accordance with Government Code Section 5956 et seq., the Authority has conducted a competitive proposal process to procure design and construction services for the following airport improvement project: parking structure elevator replacement (“Project”).
- B. The Authority has determined that the Project is exempt from California Environmental Quality Act review pursuant to Title 14, Section 15302 of the California Code of Regulations.
- C. The Authority desires to retain Design-Builder as an independent contractor to design and construct the Project.
- D. Design-Builder represents that it is fully qualified to perform such work by virtue of the training and experience of its personnel.

NOW, THEREFORE, the parties agree as follows:

1. Definitions.

In addition to the terms defined elsewhere in this Agreement, the following definitions shall apply:

- A. “Basis of Design”: the basis of design set forth in the attached Exhibit D.
- B. “Contract Documents”:
1. This Agreement.
 2. Price Proposal and Proposal.
 3. Indemnity Requirements.
 4. Basis of Design.
 5. Technical Specifications.

6. Supplemental Conditions.
7. Federal Requirements.
8. RFP.
9. Construction Documents and Specifications prepared by Design-Builder and approved in writing by the Authority.

C. “Indemnity Requirements”: the defense, hold harmless, and indemnification requirements set forth in the attached Exhibit B.

D. “Indemnitees”: the Authority, TBI Airport Management, Inc., the Cities of Burbank, Glendale, and Pasadena, and the respective officers, agents, employees, and volunteers of each such entity.

E. “Federal Requirements”: the federal requirements set forth in the attached Exhibit G, which requirements are applicable to projects not funded by an Airport Improvement Program grant from the Federal Aviation Administration.

F. “Insurance Requirements”: the insurance requirements set forth in the attached Exhibit C.

G. “Price Proposal”: the price schedule set forth in the attached Exhibit A.

H. “Proposal”: Design-Builder’s February 9, 2026 proposal.

I. “RFP”: Authority Request for Proposals No. E26-01 Parking Structure Elevator Replacement Design-Build Services (“RFP”) and associated addenda.

J. “Supplemental Conditions”: the supplemental conditions set forth in the attached Exhibit F.

K. “Technical Specifications”: The specifications set forth in the attached Exhibit E.

2. Contract Time.

A. The Contract Time shall be 315 Calendar Days from issuance of Notice to Proceed to Substantial Completion. Time is of the essence in the performance of this Agreement.

B. Design-Builder acknowledges that the Contract Time is a reasonable period for completion of the Project.

C. Design-Builder acknowledges that the following schedule is reasonable for completion of the Project:

1. Notice to Proceed: February 18, 2026
2. Substantial Completion – Milestone 1 315 days from NTP

3. Project Closeout: 60 days following substantial completion

3. Compensation.

The Authority shall compensate Design-Builder for design and construction of the Project, and Design-Builder agrees to accept as full satisfaction for such work, payment according to the Price Proposal. Design-Builder shall submit invoices to the Authority on a monthly basis. In no event shall the compensation payable to Contractor under this Agreement exceed \$2,338,661 (“Contract Price”).

4. Design Services/Shop Drawings/Samples.

A. Design-Builder shall perform architectural, engineering, and all other design professional services necessary for the preparation of the drawings, specifications and other design submittals required for completion of the Project consistent with the Contract Documents.

B. Design-Builder shall submit to the ADR shop drawings, materials, and/or equipment lists and manufacturers’ data as required. Shop drawings, lists, and manufacturers’ data shall be accompanied by letter of transmittal enumerating the drawings or describing the data submitted and noting any deviations from the Contract Documents. Should Design-Builder fail to notify the ADR of deviations from the Contract Documents, Design-Builder, if so notified by the ADR, shall execute the work in accordance with the Contract Documents even though shop drawings, lists, or data have been reviewed by the Authority.

C. Prior to submittal of any shop drawings, lists or data, Design-Builder shall thoroughly check all dimensions, size of members, connections, materials, performance characteristics, and other details and satisfy itself that all drawings, lists, and data are correct and in conformance with the drawings, specifications, and job conditions. After Design-Builder has completed its checking, Design-Builder shall place on each drawing and on the last page of each piece of data and lists, the date and signature of the checker, who shall be a direct employee of Design-Builder and not of any subcontractor.

D. Design-Builder shall submit duplicate samples of materials and finishes proposed for use in the work, as specified or directed. The work shall be in accordance with approved samples. Samples requiring selection of factory-applied color or texture shall be submitted within 10 days prior to final submission of plans and specifications. The Authority reserves the right to review any and all materials and reject or request substitution.

E. Design-Builder shall perform all design professional services in accordance with the Standard of Care.

5. Construction Services.

A. Unless otherwise stated in the Contract Documents to be the responsibility of the Authority or a separate contractor, Design-Builder shall provide the necessary supervision, labor, inspection, testing, start-up, material, equipment, machinery, temporary utilities, and other temporary facilities to permit Design-Builder to complete construction of the Project consistent with the Contract Documents.

B. Design-Builder shall perform all construction activities efficiently and with the requisite expertise, skill, and competence to satisfy the requirements of the Contract Documents. Design-Builder shall at all times exercise complete and exclusive control over the means, methods, sequences and techniques of construction.

C. Design-Builder shall employ only subcontractors that are duly licensed and qualified to perform the work consistent with the Contract Documents. Design-Builder is responsible for the proper performance of the work of its subcontractors and their acts and omissions in connection with such performance.

D. Design-Builder shall supervise, inspect, and direct the construction competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to provide the construction consistent with the Contract Documents. Design-Builder shall be solely responsible for ensuring that the completed construction complies accurately with the Contract Documents. Design-Builder shall keep the Authority advised as to the quality and progress of the Project.

6. Ownership of Work Product.

A. The Construction Documents and other project-related documents and electronic data prepared by or on behalf of Design-Builder shall be deemed to be “works for hire” and are the property of the Authority. Design-Builder assigns to the Authority, without reservation, all copyrights and all other intellectual property rights to all project-related documents, images, electronic files, models, computer drawings and other electronic expression, photographs, and other expression produced by or on behalf of Design-Builder in connection with this Agreement for the Authority’s exclusive use. Design-Builder shall obtain a valid written assignment of copyrights and all other intellectual property rights from its subcontractors in terms identical to those that obligate Design-Builder to the Authority as expressed in this Paragraph, which intellectual property rights Design-Builder hereby assigns to the Authority. Design-Builder and subcontractors may retain ownership of proprietary engineering, and means and methods. However, the Authority shall have the right to use, reproduce, and rely upon all documents, drawings, calculations, etc. prepared under this Agreement for the Project, including for operation, maintenance, future alterations, and additions without additional compensation to Design-Builder and its subcontractors.

B. The Authority grants to Design-Builder a nonexclusive license to reproduce the documents for purposes relating directly to Design-Builder’s performance of the Project, for Design-Builder’s archival records, and for Design-Builder’s reproduction of drawings and photographs in Design-Builder’s marketing materials. No other project-related documents may be reproduced for any other purpose without the express written permission of the Authority. No other copyrights are included in this grant of nonexclusive license to Design-Builder. This nonexclusive license shall terminate immediately upon the breach of this Agreement by Design- Builder.

C. A copy of every technical memorandum and report prepared by Design-Builder shall be submitted to the Authority to demonstrate progress toward completion of the Project. In the event the Authority rejects or has comments on any such work product, the Authority shall identify specific requirements for satisfactory completion by Design-Builder. Design-Builder shall

provide the Authority with project-related documents in reproducible or electronic format, upon the Authority's written request. Complete Record Documents, including a complete set of "as-built" drawings, shall be turned over to the Authority upon termination of this Agreement or Final Completion, whichever occurs first.

D. If the Authority reproduces project-related documents or creates a derivative work based upon project-related documents created by Design-Builder, then the Authority shall remove or completely obliterate the original professional seals, logos, and other indications on the documents of the identity of Design-Builder and Design-Builder's consultants. However, where required by law, such identification with appropriate qualifying language or other statutorily prescribed information identifying the original architect or the scope of the reuse of the documents may remain or be applied. The Authority acknowledges that its use of the project-related documents for any purpose other than the Project shall be at its sole risk.

E. If Design-Builder believes or is advised by any design professional retained to provide services on the Project that implementation of any instructions received from the Authority would cause a violation of any applicable law, then Design-Builder shall notify the Authority in writing.

7. Legal Requirements.

A. Design-Builder shall perform this Agreement in accordance with applicable laws.

B. In entering into this Agreement, Design-Builder offers and agrees to assign to the Authority all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Business and Professions Code Section 16700 et seq.) arising from purchases of goods, services, or materials pursuant to this Agreement. This assignment shall be made and become effective at the time the Authority tenders final payment to Design-Builder without further acknowledgment by the parties.

C. Design-Builder acknowledges that the Project is a "public works project" within the scope of the Prevailing Wage Law (Labor Code Section 1720 et seq.). Design-Builder shall comply with Prevailing Wage Law requirements including:

1. Pursuant to Labor Code Section 1773.2, copies of the prevailing rate of per diem wages for each craft, classification, or type of worker needed to perform the Project are on file at the Airport and will be made available to any interested party on request. By initiating any work on the Project, Design-Builder acknowledges receipt of a copy of the DIR determination of such prevailing rate of per diem wages, and Design-Builder shall post such rates at the project site.

2. Design-Builder shall comply with and be bound by the provisions of Labor Code Sections 1774 and 1775 concerning the payment of prevailing rates of wages to workers and the penalties for failure to pay prevailing wages. Design-Builder shall, as a penalty paid to the Authority, forfeit \$200 for each calendar day, or portion thereof, for each worker paid less than the prevailing rates as determined by the DIR for the work or craft in which the worker is employed for any public work done pursuant to this Agreement by Design-Builder or by any subcontractor.

3. Design-Builder shall comply with and be bound by the provisions of Labor

Code Section 1776, which requires Design-Builder and each subcontractor to (1) keep accurate payroll records and verify such records in writing under penalty of perjury, as specified in Section 1776, (2) certify and make such payroll records available for inspection as provided by Section 1776, and (3) inform the Authority of the location of the records. Design-Builder has 10 days in which to comply subsequent to receipt of a written notice requesting these records, or as a penalty to the Authority, Design-Builder shall forfeit \$100 for each day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

4. Design-Builder and each subcontractor shall comply with and be bound by the provisions of Labor Code Section 1771.4(a)(3), which requires that each contractor and each subcontractor shall furnish the records specified in Section 1776 directly to the Labor Commissioner at least monthly, in a format prescribed by the Labor Commissioner.

5. Design-Builder acknowledges that eight hours labor constitutes a legal day's work. Design-Builder shall comply with and be bound by Labor Code Section 1810. Design-Builder shall comply with and be bound by the provisions of Labor Code Section 1813 concerning penalties for workers who work excess hours. Design-Builder shall, as a penalty paid to the Authority, forfeit \$25 for each worker employed in the performance of the Project by Design-Builder or by any subcontractor for each calendar day during which such worker is required or permitted to work more than eight hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of Division 2, Part 7, Chapter 1, Article 3 of the Labor Code. Pursuant to Labor Code Section 1815, work performed by employees of the Design-Builder in excess of eight hours per day, and 40 hours during any one week shall be permitted upon public work upon compensation for all hours worked in excess of eight hours per day at not less than 1.5 times the basic rate of pay.

6. Design-Builder shall comply with and be bound by the provisions of Labor Code Sections 1777.5, 1777.6 and 1777.7 and California Code of Regulations Title 8, Section 200 et seq. concerning the employment of apprentices on public works projects. Design-Builder shall be responsible for compliance with these Sections for all apprenticeable occupations. Before commencing construction of the Project, Design-Builder shall provide the Authority with a copy of the information submitted to any applicable apprenticeship program. Within 60 days after concluding work, Design-Builder and each of its subcontractors shall submit to the Authority a verified statement of the journeyman and apprentice hours performed under this Agreement.

7. Design-Builder shall not perform work with any subcontractor that has been debarred or suspended pursuant to Labor Code Section 1777.1 or any other federal or state law providing for the debarment of contractors from public works. Design-Builder and subcontractors shall not be debarred or suspended throughout the duration of this Agreement pursuant to Labor Code Section 1777.1 or any other federal or state law providing for the debarment of contractors from public works. If Design-Builder or any subcontractor becomes debarred or suspended during the duration of this Agreement, Design-Builder shall immediately notify the Authority.

8. In accordance with Labor Code Sections 1725.5 and 1771.1, no contractor or subcontractor shall be qualified to bid on, be listed in a bid, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public

work, unless currently registered and qualified to perform public work pursuant to Section 1725.5.

9. The Project is subject to compliance monitoring and enforcement by the DIR. Design-Builder shall post job site notices, as prescribed by regulation.

D. Labor Code Sections 1860 and 3700 provide that every contractor will be required to secure the payment of compensation to its employees. In accordance with the provisions of Labor Code Section 1861, by signing this Agreement, Design-Builder certifies as follows:

“I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers’ compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.”

E. Each and every provision required by law to be inserted in this Agreement shall be deemed to be inserted and this Agreement shall be read and enforced as though such provision were included. If through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon request of either party this Agreement shall promptly be amended to make such insertion or correction.

8. Project Manager.

Design-Builder’s single lead Project Manager and authorized representative for the Project is Alex Jimenez and has the authorization to make decisions for and bind Design-Builder. The Project Manager shall manage and coordinate all commercial and technical aspects of the Project. The Project Manager shall submit monthly progress reports to the Authority and maintain the project schedule. The Project Manager shall not be changed unless the Project Manager ceases to be an employee of Design-Builder. Any change in the Project Manager shall be subject to the Authority’s prior approval.

9. Design-Builder’s Responsibility for Project Safety.

A. Design-Builder recognizes the importance of performing the work in a safe manner so as to prevent damage, injury, or loss to (i) all individuals at the project site, whether working or visiting, (ii) the Project, including materials and equipment incorporated into the Project or stored on-site or off-site, and (iii) all other property at the project site or adjacent thereto. Design-Builder assumes responsibility for implementing and monitoring all safety precautions and programs related to the completion of the Project. Design-Builder shall, prior to commencing construction, designate a Safety Representative with the necessary qualifications and experience to supervise the implementation and monitoring of all safety precautions and programs related to the Project. Unless otherwise required by the Contract Documents, Design-Builder’s Safety Representative shall be an individual stationed at the project site who may have responsibilities on the Project in addition to safety. The Safety Representative shall make routine daily inspections of the project site and shall hold weekly safety meetings with Design-Builder’s personnel, subcontractors, and others as applicable.

B. Design-Builder's responsibility for safety under this Section is not intended in any way to relieve subcontractors of their own contractual and legal obligations and responsibility for: (i) complying with all legal requirements, including those related to health and safety matters; and (ii) taking all necessary measures to implement and monitor all safety precautions and programs to guard against injuries, losses, damages, or accidents resulting from their performance of the work.

10. Design-Builder's Warranty.

Design-Builder warrants to the Authority that the construction, including all materials and equipment furnished as part of the construction, shall be new, of good quality, in conformance with the Contract Documents and free of defects in materials and workmanship. Design-Builder's warranty obligation excludes defects caused by abuse, alterations, or failure to maintain the Project in a commercially reasonable manner. Nothing in this warranty is intended to limit any manufacturer's warranty that provides the Authority with greater warranty rights than set forth in the Contract Documents. Design-Builder will provide the Authority with all manufacturers' warranties upon Substantial Completion.

11. Correction of Defective Work.

A. Design-Builder shall correct any work that is found to not be in conformance with the Contract Documents within a period of one year from the date of Substantial Completion. Longer periods to the extent required by any specific warranty included in the Contract Documents are manufacturer warranties solely between manufacturers and the Authority.

B. Design-Builder shall, within 14 days of receipt of written notice from the Authority that the Project is not in conformance with the Contract Documents, take meaningful steps to commence correction of such nonconforming work, including the correction, removal or replacement of the nonconforming work and any damage caused to other parts of the Project affected by the nonconforming work. If Design-Builder fails to commence the necessary steps within such period, then the Authority, in addition to any other remedies provided under the Contract Documents, may provide Design-Builder with written notice that the Authority will commence correction of such nonconforming work with its own forces. If the Authority does perform such corrective work, then Design-Builder shall be responsible for all reasonable costs incurred by the Authority in performing such correction. If the nonconforming work creates an emergency requiring an immediate response, then the 14-day cure period shall be inapplicable.

C. The one-year period referenced in paragraph A above applies only to Design-Builder's obligation to correct nonconforming work and does not constitute a period of limitations for any other rights or remedies the Authority may have regarding Design-Builder's obligations under the Contract Documents.

12. Indemnity.

Design-Builder shall defend, hold harmless, and indemnify the Indemnitees as specified in the Indemnity Requirements.

13. Insurance.

Without limiting Design-Builder's defense, hold harmless, and indemnification obligations under this Agreement, Design-Builder shall maintain policies of insurance as specified in the Insurance Requirements.

14. Authority Responsibilities.

A. The Authority shall cooperate with Design-Builder and perform the Authority's obligations in a timely manner to facilitate Design-Builder's timely and efficient performance of the work and so as not to delay or interfere with Design-Builder's performance of Design-Builder's obligations under the Contract Documents.

B. The Authority shall provide timely reviews and approvals of interim design submissions and Construction Documents.

C. The Authority shall give Design-Builder timely notice of any work that the Authority identifies as defective or not in compliance with the Contract Documents.

D. Unless expressly stated to the contrary in the Contract Documents, the Authority shall provide, at its own cost and expense, for Design-Builder's information and use the following, all of which Design-Builder is entitled to rely upon in performing the work:

1. Surveys describing the property, boundaries, topography and reference points for use during construction, including existing service and utility lines.

2. Geotechnical studies describing subsurface conditions, and other surveys describing other latent or concealed physical conditions at the site.

3. Temporary and permanent easements, zoning and other requirements and encumbrances affecting land use, or necessary to permit the proper design and construction of the Project and enable Design-Builder to complete the Project.

4. To the extent available, record drawings of any existing structures at the project site.

5. To the extent available, environmental studies, reports and impact statements describing the environmental conditions in existence at the project site.

6. Basis of Design and Technical Specifications.

E. The Authority is responsible for all work performed on the Project or at the project site by separate contractors, designers, or consultants, under the Authority's control. The Authority shall contractually require its separate contractors to cooperate with, and coordinate their activities so as not to interfere with, Design-Builder in order to enable Design-Builder to timely complete the Project consistent with the Contract Documents.

15. Authority Rights.

A. The Authority reserves the right to order changes in the Project, to perform work

or operations related to the Project with the Authority's own forces, and to award separate contracts in connection with the Project.

B. If Design-Builder fails to correct defective work as required herein, or fails to carry out the Project in accordance with the Contract Documents, then the Authority may order Design-Builder to stop the Project, or any portion thereof, until the Authority reasonably determines that the cause for such order has been eliminated. The Authority's right to stop the Project is in addition to the Authority's termination rights.

C. The Authority may, without cause, order Design-Builder to suspend, delay or interrupt the Project in whole or in part for such period of time as the Authority may determine. If such suspension, delay, or interruption causes Design-Builder to incur increased cost for the performance of the Project, an adjustment to the Contract Price shall be made for such costs as are directly attributable to such suspension, delay or interruption. If such suspension, delay, or interruption causes a delay to the critical path of the Project, an adjustment to the Contract Time shall be made.

16. Termination for Convenience.

A. The Authority may terminate this Agreement for convenience upon 14 days' notice to Design-Builder.

B. The amount to be paid to Design-Builder by the Authority in the event of termination for convenience shall consist solely of:

1. The cost of work completed in accordance with the Contract Documents or deposits and orders placed, up to the date of issuance of the termination notice.

2. Design-Builder's documented, reasonable costs of demobilization for a period of 30 days following the date of issuance of the termination notice, including costs of Design-Builder's personnel reasonably required to effectuate the termination, and such storage, transportation, and other costs incurred which are reasonably necessary for the preservation, protection, or disposition of the work.

C. In no event shall the Authority be responsible for, and Design-Builder waives any claim for, overhead or anticipated profits on unperformed work or other economic loss upon termination for convenience.

17. Termination for Cause.

A. The Authority may terminate this Agreement for cause if Design-Builder commits any of the following default events: (i) failure to commence the Project upon issuance of the Notice to Proceed; (ii) failure to perform the work with such diligence as will achieve Substantial Completion within the Contract Time; (iii) failure to perform the work in strict accordance with the Contract Documents and applicable laws; or (iv) failure to make prompt payment to subcontractors for material or labor.

B. Prior to terminating this Agreement for cause, the Authority shall notify Design-

Builder and Design-Builder's performance bond surety of the default event(s). If Design-Builder does not cure the default event(s) within 14 days of such notice, or if Design-Builder does not commence and diligently prosecute a cure that is not reasonably susceptible to being completed within 14 days, then the Authority may immediately terminate this Agreement.

C. Upon a determination by a court of competent jurisdiction that a termination for cause was wrongful, such termination will be deemed to be converted to a termination for convenience and Design-Builder's remedy for wrongful termination in such event shall be limited to the recovery of the payments permitted for termination for convenience.

D. The provisions of this Section shall be non-exclusive, and shall be in addition to all other rights and remedies available to the Authority under law or in equity.

18. Independent Contractor.

Design-Builder is, and shall at all times remain as to the Authority, an independent contractor. Design-Builder shall have no power to incur any debt, obligation, or liability on behalf of the Authority or to act otherwise on behalf of the Authority as an agent. Neither the Authority nor any of its officers, employees, agents, or volunteers shall have control over the conduct of Design-Builder except as set forth in this Agreement.

19. Conflict of Interest.

Design-Builder shall employ no Authority official nor any regular Authority employee in the work performed pursuant to this Agreement. Design-Builder shall comply with all conflict of interest statutes of the State of California applicable to Design-Builder's services under this Agreement including the Political Reform Act (Government Code Section 81000 et seq.) and Government Code Section 1090. During the term of this Agreement, Design-Builder shall retain the right to perform similar services for other clients, but neither Design-Builder nor any of its officers, employees, associates and subcontractors shall, without the prior written approval of the Authority, perform work for another person or entity for whom Design-Builder is not currently performing work that would require Design-Builder or any of its officers, employees, associates or subcontractors to abstain from a decision under this Agreement pursuant to a conflict of interest law. Design-Builder shall incorporate a clause substantially similar to this Section into any subcontracts that Design-Builder executes in connection with the Project.

20. Notices.

Any notices, invoices, or other documents related to this Agreement shall be deemed received on: (a) the day of delivery, if delivered by hand during regular business hours or by e-mail before or during business hours; (b) the business day after delivery, if delivered by e-mail after regular business hours; or (c) on the second business day following deposit in the United States mail, postage prepaid, to the addresses listed below, or to such other addresses as the parties may, from time to time, designate in writing. Any notice delivered by e-mail that concerns breach or termination of this Agreement shall concurrently be sent by deposit in the United States mail, postage prepaid but such notice shall be deemed received on the day of e-mail delivery.

Authority
Burbank-Glendale-Pasadena Airport Authority
2627 Hollywood Way
Burbank, CA 91505
Attn: Vincent Nguyen
E-mail: VNguyen@bur.org

Design-Builder
CHARLES PANKOW BUILDERS, LTD.
199 S. Los Robles Ave, Suite 300
Pasadena, CA 91101
Attn: Alex Jiminez
E-mail: AJimenez@pankow.com

21. Litigation.

In the event that either party shall commence legal action to enforce or interpret this Agreement, the prevailing party shall be entitled to recover its costs of suit including reasonable attorneys' fees. The venue for litigation shall be Los Angeles County, California.

22. Exhibits.

Exhibits A through G are incorporated into this Agreement by reference. In the event of any material discrepancy between the express provisions of this Agreement and the provisions of Exhibits A through F, the provisions of this Agreement shall prevail. In the event of any material discrepancy between the express provisions of this Agreement and the provisions of Exhibit G, the provisions of Exhibit G shall prevail.

23. Interpretation.

The terms of this Agreement shall be construed in accordance with the meaning of the language used and shall not be construed for or against either party by reason of the authorship of this Agreement or any other rule of construction that might apply. As used in this Agreement, and as the context may require, the singular includes the plural and vice versa; the masculine gender includes the feminine and vice versa; "shall" is mandatory, "may" is permissive; "business day" means a non-holiday weekday; "regular business hours" means the period from 8:00 a.m. PST to 5:00 p.m. PST on a business day; and "include," "includes," and "including" are illustrative and nonexhaustive.

24. Entire Agreement.

This Agreement (and the attached Exhibits) represents the entire and integrated contract between the parties regarding the Project. This Agreement supersedes all prior oral or written negotiations, representations, and contracts related to the Project. This Agreement may not be amended, nor any provision or breach waived, except in a writing that is signed by the parties and that expressly refers to this Agreement.

25. Waiver of Consequential Damages.

Design-Builder and the Authority waive Claims against each other for any consequential damages arising out of or relating to this Agreement.

26. Differing Site Conditions.

If Design-Builder encounters conditions at the site that are (1) subsurface or otherwise

concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then Design-Builder shall promptly provide notice to the Authority before conditions are disturbed and in no event later than 21 days after first observance of the conditions. If it is determined that such conditions differ materially and cause an increase or decrease in Design-Builder's cost of, or time required for, performance of any part of the Project, then Design-Builder shall be entitled to that an equitable adjustment be made in the Contract Sum or Contract Time, or both.

27. Damages for Delay.

A. The Parties acknowledge, recognize and agree that because of the unique nature of the Project, it is difficult or impossible to determine with precision the amount of damages that would or might be incurred by Authority as a result of Design-Builder's failure to achieve Substantial Completion on or before the Scheduled Substantial Completion Date. Accordingly, Design-Builder shall pay Authority as liquidated damages the amount of Five Hundred Dollars (\$500) per day for each day that Substantial Completion is later than the Scheduled Substantial Completion Date.

B. Any sums which would be payable under Section 27 above are in the nature of liquidated damages, are not a penalty, and represent a fair and reasonable estimate of compensation for the losses that may reasonably be anticipated from the failure of Design-Builder to achieve Substantial Completion on or before the Scheduled Substantial Completion Date. Such liquidated damages shall be the sole and exclusive measure of damages with respect to any failure by Design-Builder to achieve Substantial Completion on or before the Scheduled Substantial Completion Date. The total maximum amount of liquidated damages that may be assessed and charged to Design-Builder for the failure to achieve Substantial Completion within the time allotted in the Project Schedule, including any Modifications to the Project Schedule by approved Change Order, shall not exceed \$70,000.00.

28. Standard of Care.

Notwithstanding anything to the contrary, the standard of care for all services performed by Design-Builder and its designers, consultants and Design-Build subcontractors as part of the Work shall be the care and skill ordinarily used by members of the applicable profession practicing under similar conditions at the same time and locality of the Project ("Standard of Care").

[SIGNATURES ON FOLLOWING PAGE]

TO EXECUTE THIS AGREEMENT, the parties have caused their authorized representatives to sign below.

Charles Pankow Builders, Ltd.

By: Jack P. Mollenkopf, Jr.
C7CA44E68C5E433...

Print Name: Jack P. Mollenkopf, Jr.

Title: Chief Executive Officer

Signed by:

By: David A. Eichten
D8BBFC7C0E52462...

Print Name: David A. Eichten

Title: President

Burbank-Glendale-Pasadena Airport Authority

Jess A. Talamantes, President

Approved as to form:

Richards, Watson & Gershon
A Professional Corporation

**EXHIBIT A
Price Proposal**

Price is a lump sum, firm, fixed price for the duration of the Project, and includes all cost items such as design development, final design, construction labor, materials, equipment, expenses, G&A, incidentals, overhead(s), profit, shipping and handling, supplies, any and all applicable taxes or fees, and travel/mileage/fuel and fuel surcharges.

Description	Lump Sum Price
Design	\$134,473
Construction and completion of all project tasks	\$2,204,188
Total:	\$2,338,661

RPS Elevators Replacement- Schindler Option

2627 N. Hollywood Way

Burbank, CA 91505

2/9/2026

Description	Total	Qualifications
DIVISION 0 - PROCUREMENT	147,449	
Preconstruction Services	49,749	
A/E Services	97,700	
Structural Engineer	20,000	
Waterproofing Consultant	4,300	
IT	9,000	
HVAC Engineer	6,000	
Electrical Engineer	7,500	
Fire Alarm Engineer	2,100	
Code/Life Safety	10,800	
DIVISION 1 - GENERAL REQUIREMENTS	334,693	
Project Management & Supervision	278,168	0
Temporary Job Office Facilities	10,550	
Safety, Cleanup & Protection	45,975	
DIVISION 2 - EXISTING CONDITIONS	329,947	
Demolition	329,947	
Sawcut & Demo Masonry at Elevator Doors	53,250	
Demo & Remove (E) Elevators & Equipment	172,530	
Removal of (E) Rail Wall Brackets from Shaft	21,300	
Scaffolding at Elevator Shafts	21,300	
Final Cleaning	5,858	
Misc. labor	55,710	
DIVISION 3 - CONCRETE	10,180	
Cast-In-Place Concrete	10,180	
Grind & Place Non-Shrink Grout Slope Away	10,180	
DIVISION 4 - MASONRY	67,521	
Masonry	67,521	
CMU Infill At Elevator Jambes	67,521	
DIVISION 5 - METALS	46,372	
Metal Fabrication	46,372	
Elevator Pit Ladders Remove & Replace	7,115	
Rail Supports - F & I	34,612	
D-Ring Anchors Lifeline per S1	4,645	
DIVISION 6 - WOOD, PLASTIC & COMPOSITES	21,991	
Rough Carpentry	21,991	
F&I Fire-Rated Plywood Backboards	1,428	
F&I Elevator Barricades	20,563	
DIVISION 7 - THERMAL & MOISTURE PROTECTION	15,508	
Waterproofing	15,508	
Waterproofing of Pit Walls & Slabs	11,609	
Pump Out (E) Water from Pits	3,900	
DIVISION 8 - OPENINGS	9,053	
Doors, Frames & Hardware	9,053	
Doors & Hardware @ Elev. Control Rooms	9,053	
DIVISION 9 - FINISHES	19,284	

RPS Elevators Replacement- Schindler Option

2627 N. Hollywood Way

Burbank, CA 91505

2/9/2026

Description	Total	Qualifications
Flooring	8,520	
Elevator Cabs Flooring	8,520	
Painting & Coverings	10,764	
Painting of Elevator Entry Faces	10,764	
DIVISION 10 - SPECIALTIES	5,155	
Signage & Directories	3,110	
New Signage	3,110	
Misc Specialties	2,045	
Install Fire Extinguishers and Cabinets	2,045	
DIVISION 14 - CONVEYING EQUIPMENT	820,050	
Conveying Equipment	820,050	
Elevators Replacement - Gen 3 Edge	734,850	
Elevator Cab Allowance	85,200	
DIVISION 21 - FIRE SUPPRESSION	7,455	
Fire Suppression	7,455	
Fire Sprinkler Work	7,455	
DIVISION 23 - HEATING, VENTILATING, AND AIR-CONDITIO	23,430	
HVAC	23,430	
Replace Through Wall Mounted AC Units	23,430	
DIVISION 26 - ELECTRICAL	192,270	
Electrical	192,270	
Electrical Associated w/ Elevators	192,270	
DIVISION 27 - COMMUNICATIONS	4,177	
Communications	4,177	
Telephone for Elevators	4,177	
DIVISION 28 - ELECTRONIC SAFETY & SECURITY	41,269	
Electronic Surveillance	15,176	
CCTV in Each Elevator Cab	15,176	
Fire Detection & Alarm	26,093	
Fire Alarm System	26,093	
Subtotal	2,095,802	
Subcontractor Default Insurance	18,581	
Contractor Bond	17,072	
Insurance	31,572	
Business Tax	2,573	
Building Permit	38,588	
Total Cost	2,204,188	
Fee	134,473	
Total Price	2,338,661	

CLARIFICATIONS

RPS Elevators Replacement - Otis Elevators Option

2/9/2026

DIVISION 01 - General Requirements

- 1 This proposal is good for 30 days
- 2 Work is priced to be completed M-F during normal business hours. Weekend and Overtime work is excluded
- 3 Pricing is based on project drawings: Architect/Designer Name dated Date of Drawings (Type in as label, i.e.
- 4 This proposal is submitted on a Design-Build basis and is expressly reliant upon the information provided by the Owner in the Request for Proposals, including the Basis of Design, Condition Assessment Report, and other reference documents furnished by the Owner. Pankow Builders is entitled to rely on the accuracy and completeness of such
- 5 Any material discrepancies, concealed conditions, or inaccuracies discovered during design development or construction that were not reasonably inferable from the provided documents shall constitute a change in scope,
- 6 Design services are limited to the scope required to replace the elevator systems in accordance with the Owner's Basis of Design and applicable codes governing elevator replacement work. Code upgrades to existing building systems, structural elements, fire/life safety systems, or accessibility features not directly triggered by the elevator replacement scope are excluded unless specifically identified as included.
- 7 Project schedule assumes timely review, approval, and inspection by all Authorities Having Jurisdiction. Delays attributable to permitting agencies, inspectors, or third parties shall entitle Contractor to an equitable adjustment in Contract Time and, where applicable, Contract Sum.
- 8 Any milestone or completion date is contingent upon timely Owner decisions, approvals, access, and funding, as well as compliance with the assumptions set forth herein.
- 9 Estimate assumes retention of 10% and monthly payments within 30 days of submission. No retention shall be held back for bonds, taxes, and insurance. Bonds (if any) and insurance shall be billed in full in first billing.
- 10 Project schedule assumes timely availability of authority having jurisdiction ("AHJ") inspector.
- 11 To the extent any delays are due to circumstances beyond the control of Contractor, Contractor shall be compensated by an extension of time and an increase in the contract sum.
- 12 Contract terms to be mutually agreeable.
- 13 Contractor pricing assumes uninterrupted access to the elevator hoistways, pits, and required staging areas during normal working hours. Restricted access, security requirements, or phased access imposed by Owner operations may impact schedule and cost and shall be subject to equitable adjustment.
- 14 The following is excluded:
 - a Overtime/ weekend work and overtime.
 - b All special/independent, third party consultants These are assumed provided by Owner as needed to project team
 - d Parking
 - e Builders risk (BR) insurance. BR is assumed to be provided by Owner, Contractor and its subcontractors shall be named as additional insureds and all deductibles shall be paid by Owner
 - f All unforeseen conditions and anything not specifically shown on the plans
 - g Coordination with other GCs or contractors working in the building
 - h All utilities (power, water, waste, data) necessary for construction. These are assumed to be provided by Owner to Contractor pricing assumes uninterrupted access to the elevator hoistways, pits, and required staging areas during normal working hours. Restricted access, security requirements, or phased access imposed by Owner operations may impact schedule and cost and shall be subject to equitable adjustment.
 - i Supply chain delays and extended lead times
 - j Any code upgrades for existing conditions not shown on drawings or identified in this proposal
 - k Repair and/or replacement of any existing systems that need to be upgraded in order to complete new work unless specifically listed as included in our proposal
 - l Any repairs, cleaning, or seismic upgrade of existing MEPFS systems

DIVISION 02 - Demolition

- 1 It is the owner's responsibility to complete the hazardous materials test report that is inclusive of all materials that will be disturbed during the duration of construction. If one was not received we have assumed all materials are clean. All
- 2 Removal of any underground obstructions, storage tanks, equipment, or hazardous materials is excluded.
- 3 Excavation of existing abandoned underground utilities is excluded; Reuse / relocation of existing underground utilities

DIVISION 05 - Metals

- 1 Due to the volatility of the steel industry, our pricing is based upon the cost of steel today.
- 2 A 50% deposit is required for release of materials.

DIVISION 06 - Wood, Plastics, & Composites

- 1 A 50% deposit will be required in order to release materials to be ordered.

DIVISION 07 - Thermal & Moisture Protection

- 1 It is assumed that there are no existing leaks or other waterproofing issues affecting the building envelope. Only waterproofing at the pit is included.

DIVISION 08 - Openings

- 1 Final keying shall be performed by owner. Pankow has included construction cores for temporary use during

DIVISION 09 - Finishes

- 1 Minor floor prep only has been included, it is assumed existing floors do not require complete leveling. Moisture testi

DIVISION 14 - Conveying Equipment

- 1 A 50% deposit will be required in order when contract is executed to meet the schedule. Once elevator is manufactu a 40% deposit is required prior to delivery and 10% after installation
- 2 Elevator work is based on Otis Elevator Company proposal dated 12/17/2025, including all qualifications, clarificatio terms, and scheduling assumptions, which are incorporated herein by reference.
- 3 Elevator system design is based on a proprietary, manufacturer-engineered system. Detailed elevator engineering, performance criteria, and proprietary components shall be provided by the elevator manufacturer. Contractor's responsibility is limited to coordination and integration of the manufacturer's design into the overall project.
- 4 Elevator acceptance shall occur upon successful completion of final inspection by the applicable AHJ. This proposal includes one (1) final inspection per elevator. Additional inspections, re-inspections, or delays caused by factors out of Contractor or elevator manufacturer control are excluded and subject to additional cost and time.
- 5 Temporary or early use of elevators prior to final acceptance is excluded unless expressly authorized in writing. Any approved temporary use shall be subject to additional costs, inspections, cleaning, reconditioning, and correspondin adjustments to warranty commencement.
- 6 Elevator warranty periods shall commence upon final acceptance by the AHJ and Owner. Temporary use, partial operation, or beneficial occupancy shall not initiate warranty periods.

DIVISION 21 - Fire Suppression

- 1 Fire sprinkler system assumes the existing system is code compliant and free of defects.
- 2 Seismic/hanger upgrades are excluded.

DIVISION 22 - Plumbing

- 1 Exclude all plumbing.

DIVISION 23 - HVAC

- 1 Pricing assumes 4 wall units.
- 2 Pricing assumes all existing mechanical equipment, ductwork, piping, etc. are in good working condition to be tied in

DIVISION 26 - Electrical

- 1 Pricing assumes all panels are adequate to cover the required loads.
- 2 Pricing has not taken into account any utility company related design, specifications, or delays in scheduling of their
- 3 Pricing assumes a 24 hour notice to the owner will be sufficient prior to completing any power shutdowns. Elevator power, communications, monitoring, and network connectivity requirements are based on elevator manufacturer criteria. Adequacy of existing electrical service, panels, feeders, telecommunications infrastructure, an building IT systems is the responsibility of the Owner unless expressly included.

DIVISION 27 - Communications

- 1 One tel/data is included.

DIVISION 28 - Electronic Safety & Security

- 1 Excludes all security, card readers, camera, and associated devices have been excluded.

Line	Name	Duration	Start	Finish	2025												2026												2027					
					December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January				
Project Requirements																																		
Contract Milestones																																		
1	Design-Build Proposals Due		12/1/2025 *	12/1/2025	Design-Build Proposals Due																													
2	Construction Duration (Calendar Days)	388d	12/1/2025	12/24/2026																														
3	Notice of Selection		2/6/2026 *	2/6/2026	◆ Notice of Selection																													
4	Contract Award		2/9/2026	2/9/2026	◆ Contract Award																													
5	Notice to Proceed		2/13/2026	2/13/2026	◆ Notice to Proceed																													
6	Substantial Completion		12/24/2026	12/24/2026	◆ Substant																													
7	Final Project Completion		12/24/2026	12/24/2026	◆ Final Pro																													
Construction Milestones																																		
8	Elevator 01 Replacement Complete		12/24/2026	12/24/2026	◆ Elevator																													
9	Elevator 02 Replacement Complete		12/24/2026	12/24/2026	◆ Elevator																													
10	Certificate of Occupancy		12/24/2026	12/24/2026	◆ Certifica																													
Preconstruction																																		
A. Contracts																																		
11	Prime Contract Negotiation & Execution	11d	2/6/2026	2/20/2026	Prime Contract Negotiation & Execution																													
12	Issue Elevator NTP	5d	2/16/2026	2/20/2026	Issue Elevator NTP																													
13	Elevator Subcontract Negotiation & Execution	30d	2/23/2026	4/3/2026	Elevator Subcontract Negotiation & Execution																													
B. Drawing Deliverables																																		
14	Architectural & Engineering Plans	20d	2/27/2026	3/26/2026	Architectural & Engineering Plans																													
15	Submit Plans to AHJ		3/27/2026	3/27/2026	◆ Submit Plans to AHJ																													
16	Plan Check 01	20d	3/27/2026	4/23/2026	Plan Check 01																													
17	Plan Check 01 Comments Returned		4/24/2026	4/24/2026	◆ Plan Check 01 Comments Returned																													
18	Plan Check 01 Corrections	5d	4/24/2026	4/30/2026	Plan Check 01 Corrections																													
19	Plan Check 02	10d	5/1/2026	5/14/2026	Plan Check 02																													
20	Plan Check Approval		5/15/2026	5/15/2026	◆ Plan Check Approval																													
21	Pull Permits	1d	5/15/2026	5/15/2026	Pull Permits																													
C. Estimate Deliverables																																		
22	Arch. & Eng. Plan Estimate	10d	3/20/2026	4/2/2026	Arch. & Eng. Plan Estimate																													
23	Plan Check Estimate Revision 01	10d	4/24/2026	5/7/2026	Plan Check Estimate Revision 01																													



BUR Elevator Replacement

Data Date: 12/1/2025

Rev Date :

View: Print View

Print Date : 2/9/2026

Filter: All Activities

Page 1 of 4

EXHIBIT B

Indemnity Requirements

1. Indemnification for Services Other than Design Professional Services. Other than for design-professional services, and to the fullest extent permitted by law, Design-Builder hereby undertakes and assumes liability for, and agrees to defend (at the Authority's option), indemnify, and hold harmless the Indemnitees from and against any and all claims, losses, damages, defense costs and/or liability (including strict liability), expenses, fines, penalties, assessments or judgments of any kind or nature (individually and collectively referred to hereinafter as "Claim" or "Claims"), arising out of or in connection with Design-Builder's or any of Design-Builder's subcontractor's (of any tier) acts, work or products and equipment installed, relative to this Agreement, except only for those Claims that arise out of the sole negligence, active negligence, or willful misconduct of the Authority; and including Claims arising out of or in connection with Design-Builder's and/or any of Design-Builder's subcontractor's (of any tier) acts, products and equipment installed, or work, for:

(a) Damage to third party property and damage to Authority property not a part of the Project.

(b) The release of any hazardous substances (except for pre-existing hazardous substances not discovered or made known to Design-Builder prior to such release) on or from the project site or any areas adjacent.

(c) The violation of any applicable legal requirements or applicable permits.

(d) Any claim or allegation that any equipment, materials or information provided constitutes an infringement of any patent, trade secret, trademark, copyright or other proprietary rights of any third party.

(e) The performance of the work or the failure to perform the work by, or on behalf of, Design-Builder or any of its subcontractors.

(f) Goods and services provided by or on behalf of Design-Builder or Design-Builder's vendors.

2. Indemnification for Design Professional Services. To the fullest extent permitted by law, Design-Builder shall, at its sole cost and expense, indemnify and hold harmless the Indemnitees from and against any and all damages, costs, expenses, liabilities, claims, demands, causes of action, proceedings, judgments, penalties, liens, and losses of any nature whatsoever, including fees of accountants and other professionals, and all costs associated therewith, and reimbursement of attorneys' fees and costs of defense, whether actual, alleged or threatened, that arise out of, pertain to, or relate to, in whole or in part, the negligence, recklessness or willful misconduct of Design-Builder, and/or its officers, agents, servants, employees, subcontractors, or their officers, agents, servants or employees (or any entity or individual that Design-Builder shall bear the legal liability thereof) in the performance of design professional services under this Agreement by a "design professional," as the term is defined under Civil Code Section 2782.8(c)(2).

3. Notice and Legal Defense. Except for claims under Section 2 above, promptly after receipt by an Indemnitee of any claim or notice of the commencement of any action, administrative or legal proceeding, or investigation in connection with an actual or potential Claim from any party as to which any indemnity provided for this Exhibit may apply, the Indemnitee will notify the Authority and Design-Builder in writing of such fact. Any delay in an Indemnitee's notifying Design-Builder of any such claim or notice will not excuse Design-Builder of its obligations hereunder. Upon Design-Builder's receipt of such notice, Design-Builder shall assume, on behalf of the Indemnitee, and conduct with due diligence and in good faith, the defense thereof with counsel reasonably satisfactory to the Indemnitee; provided that the Indemnitee shall have the right at its own expense to be represented therein by advisory counsel of its own selection; and provided further that if the defendants in any such action include both Design-Builder and the Indemnitee, and if the Indemnitee shall have reasonably concluded that there may be legal defenses available to it which are different from, additional to, or inconsistent with those available to Design-Builder, then the Indemnitee shall have the right to select separate counsel to participate in the defense of such action on its own behalf and at Design-Builder's expense.

4. Failure to Defend Action. Except for claims under Section 2 above, if any Claim arises as to which any indemnity provided for in this Exhibit may apply, and Design-Builder fails to assume the defense of such Claim promptly after the receipt by Design-Builder of notification thereof, then the Indemnitee against which the claim is instituted or commenced may, at Design-Builder's expense, contest, or (with the prior written consent of Design-Builder, not to be unreasonably withheld) settle, such Claim; provided that no such contest need be made and settlement or full payment of any such Claim may be made without Design-Builder's consent (with Design-Builder remaining obligated to indemnify the Indemnitee under this Exhibit) if, in the written opinion of the Indemnitee's legal counsel, such Claim is meritorious. All costs and expenses incurred by the Authority or the Indemnitee (if different) in connection with any such contest, settlement or payment may be deducted from any amounts due to Design-Builder under this Agreement, with all such costs in excess of the amount deducted to be reimbursed by Design-Builder to the Authority or the Indemnitee (if different) promptly following, but not later than 30 days following, demand therefor. In the event and to the extent that the Authority makes a deduction as described in the preceding sentence, then the Authority shall be responsible for making appropriate payments to any Indemnitees, and shall indemnify Design-Builder for any claims by the Indemnitees arising out of the Authority's failure to make such payments.

5. Survival. The provisions of this Exhibit shall survive termination or expiration of this Agreement.

6. Insurance Not Limiting. The obligations set forth in this indemnification provision shall be in effect without regard to whether or not the Authority, Design-Builder, or any other person maintains, or fails to maintain, insurance coverage, or a self-insurance program, for any such Claims.

EXHIBIT C Insurance Requirements

1. Design-Builder shall obtain, provide, and maintain policies of insurance as specified below.

A. **General Liability Insurance.** Design-Builder shall maintain commercial general liability insurance in an amount not less than \$1,000,000 per occurrence, \$2,000,000 general aggregate, for bodily injury, personal injury, and property damage.

B. **Automobile Liability Insurance.** Design-Builder shall maintain automobile insurance covering bodily injury and property damage for all activities of Design-Builder arising out of or in connection with the Services, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than \$1,000,000 combined single limit for each accident.

C. **Professional Liability (Errors and Omissions) Insurance.** Design-Builder shall maintain professional liability insurance that covers the Services in the minimum amount of \$1,000,000 per claim and in the aggregate. Any policy inception date, continuity date, or retroactive date must be before the Commencement Date and Design-Builder shall maintain continuous coverage through a period of no less than three years after expiration or termination of this Agreement.

D. **Workers' Compensation/Employer's Liability Insurance.** Design-Builder shall maintain workers' compensation insurance (statutory limits) and employer's liability insurance with limits of at least \$1,000,000.

2. The insurance policy or policies shall contain, or shall be endorsed to contain, the following provisions:

A. General liability policies shall provide or be endorsed to provide: (i) that the Indemnitees shall be additional insureds; and (ii) a waiver of subrogation in favor of additional insureds. This provision shall also apply to any excess/umbrella liability policies.

B. A severability of interests provision must apply for all additional insureds ensuring that Design-Builder's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

C. The coverage shall contain no special limitations on the scope of protection afforded to the Indemnitees.

D. For any claims related to this Agreement, Design-Builder's insurance coverage shall be primary insurance as respects the Indemnitees. Any insurance or self-insurance maintained by the Indemnitees shall be excess of Design-Builder's insurance and shall not contribute with it.

E. The limits of insurance may be satisfied by a combination of primary and

umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of each Indemnitee before the Indemnitee's own insurance or self-insurance shall be called upon to protect it as a named insured.

F. Any failure to comply with reporting or other provisions of the policy, including breaches of warranties, shall not affect coverage provided to the Indemnitees.

G. Design-Builder's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

H. The policy shall be endorsed to state that coverage shall not be suspended, voided, cancelled by either party, or reduced in coverage or in limits except after 30 calendar days (10 calendar days in the event of non-payment of premium) prior written notice by certified mail, return receipt requested, has been given to the Authority.

I. Insurance is to be placed with insurers authorized to conduct business in the State of California with a minimum current A.M. Best's rating of no less than A:X, unless waived by the Contract Administrator. An exception to this standard will be made for the State Compensation Insurance Fund when not specifically rated.

J. Any deductibles or self-insured retentions must be declared to and approved by the Contract Administrator. At the option of the Contract Administrator, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Indemnitees, or Design-Builder shall provide a financial guarantee satisfactory to the Contract Administrator guaranteeing payment of losses and related investigations, claim administration and defense expenses.

K. The workers' compensation insurer agrees to waive all rights of subrogation against the Authority for injuries to employees of Design-Builder resulting from work for the Authority or use of the Airport.

3. Requirements of specific coverage features or limits are not intended as a limitation on coverage, limits, or other requirements, or as a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for clarification purposes only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If Design-Builder maintains higher limits than the minimum specified above, the Authority requires and shall be entitled to coverage for the higher limits maintained by Design-Builder. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the Authority.

4. Design-Builder shall furnish to the Authority an original certificate or certificates of insurance and amendatory endorsements showing that required policies are in effect in the required amounts and, as to the workers' compensation insurance, with the required waiver of subrogation. The certificates and endorsements must be received and approved by the Contract Administrator prior to commencement of work. The Authority reserves the right to require complete, certified copies of all required insurance policies at any time.

5. Design-Builder shall ensure that its subcontractors provide the same minimum insurance coverage and endorsements required of Design-Builder. Design-Builder shall monitor and review all such coverage, and Design-Builder assumes all responsibility for ensuring that such coverage is provided. Upon request, Design-Builder shall submit all subcontractor agreements to the Authority for review.

6. In the event any policy of insurance does not comply with these requirements or is cancelled and not replaced, the Authority has the right but not the duty to obtain the insurance it deems necessary. Any premium paid by the Authority in such event shall be promptly reimbursed by Design-Builder or the Authority shall withhold from its payments to Design- Builder an amount sufficient to pay that premium.

7. The Authority reserves the right at any time to change the amounts and types of required insurance by giving Design-Builder 90 days notice of such change. If such change results in substantial additional cost to Design-Builder, then the parties shall renegotiate Design-Builder's compensation.

EXHIBIT D
Basis of Design

(attached)

**PARKING STRUCTURE ELEVATOR REPLACEMENT DESIGN-BUILD SERVICES
HOLLYWOOD BURBANK AIRPORT
PROJECT NUMBER E26-01**

**EXHIBIT D
BASIS OF DESIGN**

Basis of Design – Elevators

This section presents guidelines for replacing the existing two (2) elevators at Hollywood Burbank Airport at the proposed Self-park Parking Structure. Both existing elevators are Hyundai Elevator Co., Ltd. elevators and were manufactured in 2013 and has a Rated Capacity of 3500 lbs and Rated Speed of 200 fpm.

The contractor shall provide scope and fee to replace the two existing Hyundai elevators (Elevator Cab and operating infrastructure including doors at each landing) within the parameters of this RFP, which includes but not limited to: demolition/removal of existing elevator, procurement/installation of new elevator (including one year warranty), all required electrical, lighting, and fire protection upgrades, architectural modifications (saw-cutting of existing CMU walls, adding new CMU to match existing size, structural type, and finish, patching walls and floors, replacing of threshold, grout and fill, etc.) and structural validation.

The Contractor must provide finish to match existing CMU type, color, and texture. The Contractor must also provide samples for elevator finishes as shown in Division 14.

The Contractor shall provide structural calculation of existing shaft walls (as required by AHJ) prior to installation of new elevator guiderails.

1.1 Codes and Standards

1.1.1 Codes and Ordinances / Regulatory Agencies

Work specified by the Contract Documents shall be performed in compliance with applicable Federal, State, and municipal codes and ordinances in effect at the time of Contract execution. Regulations of the Authority Having Jurisdiction (AHJ) shall be fulfilled by the Contractor and Subcontractors. The Contractor and/or Subcontractors are responsible to obtain any/all permits as required by the AHJ. The entire installation, when completed, shall conform to all applicable regulations set forth in the latest editions of:

- Local and/or State laws applicable for the City of Burbank.
- California Building Code applicable to the AHJ.
- California Elevator Safety Orders applicable to the AHJ.
- Safety Code for Elevators and Escalators, ASME A17.1 and all supplements as modified and adopted by the AHJ.
- Safety Code for Elevators and Escalators, A17.1S supplement to A17.1 as modified and adopted by the AHJ for Machine Room Less installations (MRL).
- Guide for Inspection of Elevators, Escalators, and Moving Walks, ASME A17.2.
- Safety Code for Existing Elevators and Escalators, ASME A17.3, as modified and adopted by the AHJ.
- Guide for Emergency Evacuation of Passengers from Elevators, ASME A17.4.
- National Electrical Code (ANSI/NFPA 70).
- Americans with Disability Act- Accessibility Guidelines for Buildings and Facilities and/or A117.1 Accessibility as may be applicable to the AHJ.

- ASME A17.5/CSA-B44.1 - Elevator and Escalator Electrical Equipment.
- ECC (Energy Conservation Code) as may be applicable to the AHJ.

1.2 Design Criteria and Performance Requirements

Elevator system shall be designed to meet the minimum requirements, for each elevator:

- Elevator Capacity: 3,500 lbs
- Speed: 200 fpm
- Travel: 42'-0"
- Roping/Ropes: 2:1
- Number of Landings: 5
- Number of Openings: 5
- Operation: Simplex Selective Collective
- Control: Variable Voltage Variable Frequency (VVVF)
- Cab Interior Size: 7'-8" wide x 5'-4" deep, 8'-0" clear height (floor to canopy)
- Entrance Size: 3'-6" wide x 7'-0" high

1.3 Contractor Qualifications

All proposers must provide qualified personnel and team members to accomplish the services required by BUR as described in this BOD. Proposers must possess or be teamed with a firm with a valid Class C California State Contractors License and Class C-11 Elevator Contractor License at the time of proposal submittal and maintain validity through the duration of the project. For related work including plumbing, electrical, and etc., proposer must possess or be teamed with a firm with a Class A or B California State Contractors License. For the structural verification, proposer must possess or be teamed with an individual licensed as a Structural Engineer in the State of California.

Contractor shall demonstrate the firm's significant, in-depth knowledge, past performance and experience relating to elevator design and construction. Contractor shall have at least three successfully completed elevator infrastructure projects in the last five years of a comparable nature, with a value of more than \$500,000. The assigned project manager shall have 5 years of experience minimum performing similar work.

1.4 Controller, Drive, Sensors, and Wiring

Provide a UL/CSA rated controller as follows:

- Able to be installed in the elevator pit or mechanical room.
- NEMA-4 Rated for all equipment, completely enclosed
- Provide VVVF drive, complete enclosed
- Wiring: Neatly route all wiring interconnections and securely attach wiring connections to studs or terminals. Provide labels for all devices, wiring, extra and spare wires, neatly organized in controller cabinet. Permanently mark components with symbols shown on wiring diagrams.
- Replace safety circuit wiring and sensors.
- Run all wiring through liquid-tight conduit.

1.5 Exterior Environment

Provide and coordinate equipment as follows:

- Renewed landing plate/threshold to prevent groundwater entering the elevator shaft/pit. Ensure threshold is flush with adjacent concrete landing and elevator cab to prevent a tripping hazard.
- Renewed elevator cab door frame flush with wall surface.

- Saw-cut, patch, grout, seal, and paint existing CMU to ensure finished surface match visual aesthetic and performance of existing CMU walls and shaft. Any CMU blocks shall match existing size, structural type, and finish.
- Provide liquid-tight conduit for all new and replaced wiring.
- Review and update canopy, as required by AHJ, to prevent water accumulation in elevator shaft and/or protection to occupants waiting for elevator.

1.6 Related Work

1.6.1 Elevator Shaft and Pit

- Clear, plumb elevator pit with variation not to exceed 1” at any point.
- Patching and finishing around elevator door threshold after installation.
- Waterproof elevator pit, or provide waste drain with sump pump to prevent standing water in elevator pit, as required by AHJ.
- Replace existing access ladder in elevator shaft, as required by AHJ and in accordance with manufacturer recommendations.
- Replace existing rails for elevator, as required by AHJ and in accordance with manufacturer recommendations. Rails must be structurally validated by a licensed structural engineer prior to installation.
- Provide adequate ventilation in elevator shaft, as required by AHJ.
- Provide adequate fire suppression, as required by AHJ.
- Protect open elevator shaft during construction per OSHA/CalOSHA Regulations.
- Protect elevator shaft, elevator cab, landing plates, and special metal finishes from damage.

1.6.2 Electrical Service, Conductors and Devices

- Light with guard and GFCI convenience outlet in each pit and machine room space, as required by AHJ.
- Three phase mainline copper power feeder with true earthen grounding to terminals of each elevator controller in the machine room space with protected, lockable “open,” disconnect switch. Auxiliary disconnect, as required by AHJ.
- Provide control panel compliant with UL508A SB.SCCR of 5000A, or as required by AHJ.
- Conduit from the closest elevator shaft of each elevator to the control room. Coordinate size, number, and location of conduits with elevator contractor.

1.7 Close-out Documents

- Provide one-year warranty maintenance with 24-hour call-back service and including full repair and parts.
- Provide three sets of neatly bound written information necessary for proper maintenance and adjustment of equipment within 30 days following final acceptance. Final retention shall be withheld until data are received by the D-B and reviewed by the Airport Authority.

Include the following as minimums:

- Straight-line wiring diagrams of “as-installed” elevator circuits, with index of location and function of components.
- Provide one set reproducible master. Mount one set wiring diagrams on panels; racks, or similarly protected. Provide remaining set rolled and in a protective drawing tube.
- Training manuals and training to include software access and diagnostic codes to enable Airport staff to diagnose and maintain escalator systems and controls.

- Maintain all drawing sets with addition of all subsequent changes. These diagrams are the Airport's property.
- Lubrication instructions, including recommended grade of lubricants.
- Parts catalogs for all replaceable parts, including ordering forms and instructions.
- Neatly bound instructions explaining all operating features, including all apparatus in control panels.
- Neatly bound maintenance and adjustment instructions, explaining areas to be addressed, methods and procedures to be used, and specified tolerances to be maintained for all equipment.
- Diagnostic equipment, complete with access codes, adjusters manuals, and set-up manuals for adjustment, diagnosis, and troubleshooting of elevator system and performance of routine safety tests.
- The elevator installation shall be a design that can be maintained by any licensed elevator maintenance company employing journeymen mechanics, without the need to purchase or lease additional diagnostic devices, special tools, or instructions from the original equipment Elevator Contractor.
- Provide on-site capability to diagnose faults to the level of individual circuit boards and individual discrete components for the solid-state escalator controller.
- Provide a separate, detachable device, as required to the Airport, as part of this installation if the equipment for fault diagnosis is not completely self-contained within the controller. Such device shall be in possession of and become property of the Airport.
- Installed equipment not meeting this requirement shall be removed and replaced with conforming equipment at no cost to the Airport.
- Provide upgrades and/or revisions of software during the progress of the work, warranty period, and the term of the ongoing maintenance agreement between the Airport and Elevator Contractor.

EXHIBIT E
Technical Specifications

(attached)



DIVISION 14

SECTION 14 21 23

TECHNICAL SPECIFICATIONS FOR

TWO (2) MACHINE ROOM-LESS TRACTION ELEVATORS

AT

HOLLYWOOD BURBANK AIRPORT

2627 NORTH HOLLYWOOD WAY

BURBANK, CA

DATE: September 9, 2025

VDA No. 78104/JS

DIVISION 14— CONVEYING EQUIPMENT

Section 14 21 23 Elevator

PART 1 - GENERAL

1.1 Description

- A. Work of this Section includes labor, materials, tools, equipment, appliances and services required to manufacture, deliver and install the units complete as shown on the drawings, as specified herein, and/or as required by job conditions.
- B. The work and/or requirements specified in all sections are described in singular with the understanding that identical work shall be performed on all units or associated systems unless otherwise specified herein.
- C. The work shall include, but is not limited to the following:
 - 1. Removal of existing elevator systems to include entrance, rails, cab, car sling, platform, machines, and pit equipment.
 - 2. Installation of two (2) 3500 lbs. capacity machine room-less traction passenger elevators operating at 200 fpm.
- D. Intent
 - 1. Related equipment shall be designed, constructed, installed, and adjusted to produce the highest results with respect to smooth, quiet, convenient, and efficient operation, durability, economy of maintenance, and the highest standard of safety.
 - 2. It is not the intent of these specifications to detail the construction and design of all parts of the equipment, but it is expected that the type, materials, design, quality of work and construction of each part shall be adequate for the service required, durable, properly coordinated with all other parts, and in accordance with the best commercial standards applicable and of the highest commercial efficiency possible.
 - 3. Electric and magnetic circuits and related parts shall be of proper size, design, and material to avoid heating and arcing, and all other objectionable effects which may reduce the efficiency of operation, economy of maintenance, and/or net-useful life of the apparatus.
 - 4. Minimum requirements for design, materials, etc., are for certain parts of the equipment. Equivalent requirements approved by the Consultant shall apply to such parts as are of special design, construction, or material and to which the specified requirements are not directly applicable. These minimum requirements, as a whole, shall be considered as establishing proportionate general minimum standards for all parts of the equipment.
 - 5. General requirements for design, materials and construction are intended primarily to apply to the heavy-duty and important parts of the equipment specifically mentioned and to other parts of similar duty and importance. Less important and light-duty parts may be of the standard design, materials, and construction provided that such standards are in accordance with the best commercial practice and are fully adequate for the purpose of use.

6. All equipment and component parts installed, supplied, or provided under this contract shall be manufactured and distributed by an original equipment manufacturer/installer or a third-party, non-installer company servicing the vertical transportation industry.
 - a. Apparatus shall conform to the design and construction standards referenced herein and shall be rated the best commercial grade suitable for this application.
 - b. Equipment and component systems shall not employ any experimental devices or proprietary designs that could hamper and/or otherwise prohibit subsequent maintenance repairs or adjustments by all qualified contractors.
 - c. Manufacturers of the apparatus shall provide technical support and parts replacements for their equipment and component systems for a minimum of twenty (20) years and issue such guarantee of support to the purchaser with written certification naming the final Owner of their product(s) to ensure the apparatus or systems remain maintainable regardless of who may be selected for future service.
7. All equipment provided shall be factory and field tested with a history of design reliability and net-useful life established.
 - a. Contractor must be able to demonstrate the apparatus to be installed has been used successfully in a substantially similar manner under comparable conditions.
8. The Contractor shall not use as part of the permanent equipment any experimental devices, proprietary design, components, construction of materials which have not been fully tried out in at least substantially similar or under comparable service.
9. Certain design limitations, tests, etc., are herein specified as a partial check of the adequacy of design, construction and materials used. These requirements do not cover all the features necessary to ensure satisfactory and approved operation, etc., of the equipment.
10. It is understood the entire system shall be designed and fabricated in full compliance with applicable local laws and code standards. The absence of a particular item or requirement shall not relieve the Contractor of full and sole responsibility for such equipment, features, and/or procedures.
11. With the exception of only those items specifically identified as being performed by others, the Specifications are intended to include all engineering, material, labor, testing, and inspections needed to achieve work specified by the Contract Documents. Inasmuch as it is understood that any incidental work necessary to complete the project is also covered by the Specifications, bidders are cautioned to familiarize themselves with the existing job site conditions. Additional charges for material or labor shall not be permitted subsequent to execution of the Contract.
12. Bidders must report discrepancies or ambiguities occurring in the Specifications to the Consultant for resolution prior to the bidding deadline, otherwise the Specifications shall be deemed acceptable in their existing form.

E. Related Sections

1. Division 01: Protecting hoistway during installation of equipment, LEED Reporting Form, Construction Waste Management, Sustainable Design Requirements, Indoor Air Quality Management, Volatile Organic Compound Limits.
2. Division 01: Clear, plumb, substantially flush hoistway with variations not to exceed more than 1" at any point.

3. Division 01: Bevel cants not less than 75° from the horizontal on any rear or side wall ledges or beams that project or recess more than (2") into the hoistway. Not required on hoistway divider beams.
4. Division 03: Cutting and patching.
5. Division 03: Concrete pits and slabs.
6. Section 03 60 00: Grouting under hoistway door sills.
7. Section 05 12 00: Structural steel hoistway / machine frame, hoist beam in overhead.
8. Section 05 50 00: Access Ladders, smoke hole grating, railing and inspection platforms, intermediate support members, sump pit covers.
9. Section 05 70 00: Interior Ornamental Metals.
10. Division 07: Elevator pit waterproofing.
11. Section 08: Lockable, self-closing, self-locking fire rated machine/control room and pit access door.
12. Section 09 2000: Shaft and machine / control room walls.
13. Section 09 6000: Finished flooring.
14. Division 23: Ventilation of hoistway and machine room, and fire extinguisher in machine room.
15. Division 26: Power feeders to starter panels through fused main line switches
16. Division 26: Branch circuits through fused disconnects for car lights.
17. Division 26: Lights and GFI receptacles in machine room, hoistway and pit.
18. Division 26: Signal wiring to initiate emergency power operation.
19. Division 26: Signal wiring from smoke detectors to a junction box in the machine room.
20. Division 26: Empty conduit runs for wiring required to monitor elevators from a central location.
21. Division 27: Life safety system speakers and telephone.
22. Division 27: Card reader and CCTV Systems, device and their interface with the elevator system.
23. Division 27: Telephone communications wiring terminated in a junction box located next to the controller.
24. Division 27: Ethernet port in each elevator machine room, fire command center and building engineer's office.

F. Abbreviations and Symbols

1. The following abbreviations, Associations, Institutions, and Societies may appear in the Project Manual or Contract Documents:

ADA	Americans with Disabilities Act
AHJ	Authority Having Jurisdiction
AIA	American Institute of Architects
ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWS	American Welding Society
CBC	California Building Code
CCR	California Code of Regulations
EPA	Environmental Protection Agency

IBC	International Building Code
IEEE	Institute of Electrical and Electronics Engineers
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Agency
OSHA	Occupational Safety and Health Act

G. Codes and Ordinances / Regulatory Agencies

1. Work specified by the Contract Documents shall be performed in compliance with applicable Federal, State, and Municipal Codes and ordinances in effect at the time of Contract execution. Regulations of the Authority Having Jurisdiction shall be fulfilled by the Contractor and Subcontractors. The entire installation, when completed, shall conform with all applicable regulations set forth in the latest editions of:
 - a. Local and/or State laws applicable for the City of Burbank.
 - b. California Building Code applicable to the AHJ.
 - c. California Elevator Safety Orders applicable to the AHJ.
 - d. Safety Code for Elevators and Escalators, ASME A17.1 and all supplements as modified and adopted by the AHJ.
 - e. Safety Code for Elevators and Escalators, A17.1S supplement to A17.1 as modified and adopted by the AHJ for Machine Room Less installations (MRL).
 - f. Guide for Inspection of Elevators, Escalators, and Moving Walks, ASME A17.2.
 - g. Safety Code for Existing Elevators and Escalators, ASME A17.3, as modified and adopted by the AHJ.
 - h. Guide for Emergency Evacuation of Passengers from Elevators, ASME A17.4.
 - i. National Electrical Code (ANSI/NFPA 70).
 - j. American with Disabilities Act - Accessibility Guidelines for Buildings and Facilities and/or A117.1 Accessibility as may be applicable to the AHJ.
 - k. ASME A17.5/CSA-B44.1 - Elevator and Escalator Electrical Equipment.
 - l. ECC (Energy Conservation Code) as may be applicable to the AHJ.
2. The Contractor shall advise the Owner's Representative of pending Code changes that could be applicable to this project and provide quotations for compliance with related costs.

H. Reference Standards

1. AISC - Specification for the Design, Fabrication and Erection of Structural Steel for Buildings
2. ANSI/AWS D1.1 - Structural Welding Code, Steel
3. ANSI/NFPA 80 - Fire Doors and Windows
4. ANSI/UL 10B - Fire Tests of Door Assemblies
5. ANSI/IEEE - 519-Latest Edition
6. ANSI/IEEE - Guide for Surge Withstand Capability (SWC) Tests
7. ANSI Z97.1— Laminated/Safety Tempered Glass

I. Definitions

1. Defective Work: Operation or control system failure, including excessive malfunctions; performances below specified ratings; excessive wear; unusual deterioration or aging of materials or finishes; unsafe conditions; need for excessive maintenance; abnormal noise or vibration; and similar unusual, unexpected, and unsatisfactory conditions.
2. Provide: Where used in this document, provide shall mean to install new device, apparatus, system, equipment or feature as specified in this document.
3. Definitions in ASME A17.1 as amended or modified by the AHJ apply to work of this Section.

1.2 PERMITS AND SUBMITTALS

A. Permits

1. Prior to commencing work specified by the Contract Documents, the Contractor shall, at its own expense, obtain all permits or variances as may be required by the AHJ and provide satisfactory evidence of having obtained said permits and variances to both the Owner's Representative and Consultant.
2. File necessary drawings for approval of all Authorities Having Jurisdiction.
3. Acquire operating permits for each elevator upon completion of installation.
4. All relative costs shall be included in the base bid proposal with the understanding that corrective actions are covered under the specified scope of work.
5. Provide and submit to the Standards Board all applications and engineering data for product variances.

B. Submittals

1. Comply with the requirements of Division 01.
2. Submit the following:

a. Samples

Item No.	Quantity	Size	Description
S1	3	12" x 12"	Exposed finishes as requested by Architect
S2	1	Actual	Each fixture as requested by the Architect
S3	1	Actual	Entrance Jamb and Car Braille plate

b. The samples shall be:

- 1) Held on site after inspection and used as a standard for acceptance or rejection of subsequent production units.
- 2) Labeled to identify their intended use and relation to the documents, e.g., car finishes, control panel, etc.
- 3) Returned to the elevator contractor at the completion of the project.

Subject to approval, where an item of equipment is a standard item, copies of the manufacturer's catalogue or brochure may be accepted provided that all dimensions and relevant information are shown in the catalogue or brochure.

- c. Shop Drawings - Submit computer generated project specific layout drawings for approval. Include the following:
- 1) A listing of all components, devices and sub-systems including:
 - a) Manufacturer and location of plant
 - b) Size and model number
 - 2) Machine room plan indicating:
 - a) Location of equipment
 - b) Service connections
 - c) Reactions
 - 3) Control Room Plan indicating:
 - a) Location of equipment and Code clearances
 - b) Service connections and disconnect switches
 - c) Passenger rescue and brake release
 - d) CCTV provisions
 - 4) Fully dimensioned hoistway plan and section of each unit indicating:
 - a) Platform (with cab), hoistway and entrance dimensions
 - b) All running clearances
 - c) Location of fixtures
 - d) Buffers, service ladders and pit reactions
 - e) Location of inserts
 - f) Rail Reactions
 - 5) Entrance details
 - 6) Sill support detail
 - 7) Fixture details including hall lanterns, hall pushbutton stations, car operating panel, etc.
 - 8) Wiring diagrams
 - 9) Insert diagrams
 - 10) Cab details including wall, ceiling, base, handrail, lighting, fixtures, front return and transom plans and sections
 - 11) MRL criteria including:
 - a) Location of machine and governor
 - b) Structural requirements and reactions
 - c) Clearances
 - d) Access requirements

3. Calculations
 - a. Rail loads
 - b. Pit, governor and machine reactions
 - c. Heat emissions in machine room and hoistway.
 - d. Electrical loads including, accelerating and running currents. Include all auxiliary loads.
 - e. Submit design calculations identifying seismic design forces and support capacities. Calculations shall be certified by a registered professional engineer.

C. Keys

1. Upon the initial acceptance of work specified by the Contract Documents on each unit, the Contractor shall deliver to the Owner, four (4) keys for each general key-operated device that is provided under these specifications in accordance with ASME A17.1, Part 8 standards as may be adopted and modified by the AHJ.
2. All other keying of access or operation of equipment shall be provided in accordance with ASME A17.1 Part 8 as may be adopted and modified by the AHJ.

D. Diagnostic Tools

1. Prior to seeking final acceptance of the project, the Contractor shall deliver to the Owner any specialized tools required to perform diagnostic evaluations, adjustments, and/or programming changes on any microprocessor-based control equipment installed by the Contractor. All such tools shall become the property of the Owner.
 - a. Owner's diagnostic tools shall be configured to perform all levels of diagnostics, systems adjustment and software program changes which are available to the Contractor.
 - b. Owner's diagnostic tools that require periodic re-calibration and/or re-initiation shall be performed by the Contractor at no additional cost to the Owner for a period equal to the term of the maintenance agreement from the date of final acceptance of the project.
 - c. The Contractor shall provide a temporary replacement, at no additional cost to the Owner, during those intervals in which the Owner might find it necessary to surrender a diagnostic tool for re-calibration, re-initiation or repair.
2. Contractor shall deliver to the Owner, printed instructions, access Codes, passwords or other proprietary information necessary to interface with the microprocessor-control equipment.
3. Software / Firmware Updates
 - a. During the life of the equipment and subject to the term of the maintenance agreement, where revisions to firmware and/or software are issued by the control manufacturer or manufacturer of solid state and microprocessor-based subsystems subsequent to the beneficial use of the equipment, updates shall be provided so that the installation and spare circuit boards are current with respect to software and firmware versions.

E. Wiring Diagrams, Operating Manuals and Maintenance Data

1. Deliver to the Owner, two (2) identical volumes of printed information organized into neatly bound manuals prior to seeking final acceptance of the project.

2. The manuals shall also be submitted in electronic format on non-volatile media, incorporating raw 'CAD' and/or Acrobat 'PDF' file formats. Electronic manuals shall be properly indexed, bookmarked, and searchable.
3. Manuals, as well as electronic copies, shall contain the following:
 - a. Step-by-step adjusting, programming and troubleshooting procedures that pertain to the solid-state microprocessor-control and motor drive equipment.
 - b. Passwords or identification Codes required to gain access to each software program in order to perform diagnostics or program changes.
 - c. A composite listing of the individual settings chosen for variable software parameters stored in the software programs of both the motion and dispatch controllers.
 - d. Method of control and operation.
4. Provide two (2) sets of "AS INSTALLED" straight-line wiring diagrams in both hard and electronic format in accordance with the following requirements:
 - a. Displaying name and symbol of each relay, switch or other electrical component utilized including identification of each wiring terminal.
 - b. Electrical circuits depicted shall include all those which are hard wired in both the machine room and hoistway.
 - c. Supplemental wiring changes performed in the field shall be incorporated into the diagrams in order to accurately replicate the completed installation.
5. Furnish two (2) sets of bound instructions and recommendations for maintenance, with special reference to lubrication and lubricants along with the full Maintenance Control Program as required Part 8 of ASME A17.1.
6. Manuals or photographs showing controller replacement parts with part numbers listed.
7. Submit Manuals electronically for approval a minimum of ninety (90) days prior to final acceptance of the elevator installation for approval.

F. Training

1. Prior to seeking final acceptance of the project, the Contractor shall conduct a two (2) hour training program on-site with building personnel selected by the Owner.
2. The focus of the session shall include:
 - a. Instructions on proper safety procedures and who to contact for the purpose of assisting passengers that may become entrapped inside an elevator car, as well as all other equipment problems.
 - b. Explain each control feature and its correct sequence of operation.
3. Control features covered shall include, but not be limited to:
 - a. Independent Service Operation.
 - b. Emergency Fire Recall Operation - Phase I.
 - c. Emergency In-car Operation - Phase II.
 - d. Emergency Power Operation.
 - e. Emergency Communications Equipment.
 - f. Security Operating Features.

G. Patents

1. Patent licenses which may be required to perform work specified by the Contract Documents shall be obtained by the Contractor at its own expense.
2. The Contractor agrees to defend and save harmless the Owner, Consultant and agents, servants, and employees thereof from any liability resulting from the manufacture or use of any patented invention, process or article of appliance in performing work specified in the Contract Documents.

1.3 QUALITY ASSURANCE

A. Energy Conservation Code

1. The Contractor shall comply with the requirements set forth in the Energy Conservation Code as may be applicable to the AHJ.
2. Except for equipment or systems under the purview of other disciplines, elevator equipment provided by the Contractor requiring compliance shall include, but not be limited to:
 - a. Energy efficiencies of gearless motors
 - b. Absorption of regenerated power for elevators
 - c. Energy efficiencies of car interior lighting and ventilation
 - d. Automatic operation of car interior lighting and ventilation through the individual car controller

B. Accessibility Requirements

1. Locate the alarm button and emergency communications actuation button at 35" and floor and control buttons not more than 48" above the finished floor. The alarm button shall illuminate when pressed for visual acknowledgement to the user. Locate the uppermost floor button at 48".
2. Provide raised markings in the panel to the left of the car call and other control buttons. Letters and numbers shall be a minimum of 5/8" and raised .03" and shall be white on a black background.
3. The centerline of the new hall pushbutton risers shall be within CBC reach ranges above the finished floor.
4. The hall arrival lanterns provided shall sound once for the "up" direction and twice for the "down" direction. Design and locate fixtures per Federal standards.
5. Provide floor designations at each entrance on both sides of jamb at height of 60" to the baseline of the designation. Designations shall be white on a black background. Locate Braille beneath the floor designation. Provide a star to the left of the floor designation at the designated level. Star shall be 2" in height and have points of equal length.
6. Provide an audible signal within the elevator to tell passengers the car is stopping or passing a floor served by the elevator.
7. Provide a verbal annunciator to announce the floor at which the elevator is stopping where required by the AHJ.
8. Provide signal control timing for passenger entry/exit transitions per California Building Code standards.
9. Ensure sill-to-sill running clearances do not exceed 1 X" at all landings served.

10. Provide visual call acknowledgment signal for car emergency intercommunications devices. Provide provisions for the deaf/hard of hearing.

C. Qualifications

1. The work shall be performed by a company specialized in the business of manufacturing, installing and servicing conveying systems of the type and character required by these specifications with a minimum of ten (10) years of experience.
2. Prior written acceptance is required for manufacturers other than those listed in Section 2.2, before quoting this project. Requests for acceptance will not be considered unless they are submitted before bid date and are accompanied by the following information:
 - a. List of five (5) similar installations having exact equipment being proposed for this project arranged to show name of project, system description and date of completed installation. The list shall include the names, position and resumes of the construction team and field supervisor of the installations.
 - b. Complete literature, performance and technical data describing the proposed equipment. Include the names, position and resumes of the proposed construction team and field supervisor.
 - c. List of ten (10) service accounts by building name, building manager or owner, including phone numbers.
 - d. Location of closest service office from which conveying system will be maintained.
 - e. Location of closest parts inventory for this installation.
 - f. List of the names, positions and resumes of the construction teams and field supervisor for the installation.

1.4 DELIVERY / STORAGE/ HANDLING / COORDINATION

A. Delivery and Storage of Material and Tools

1. Delivery, Storage and Handling:
 - a. Deliver materials to the site ready for use in the accepted manufacturer's original and unopened containers and packaging, bearing labels as to type of material, brand name and manufacturer's name. Delivered materials shall be identical to accepted samples.
 - b. Store materials under cover in a dry and clean location, off the ground.
 - c. Remove delivered materials which are damaged or otherwise not suitable for installation from the job site and replace with acceptable materials.
2. The Owner shall bear no responsibility for the materials, equipment or tools of the Contractor and shall not be liable for any loss thereof or damage thereto.
3. The Contractor shall confine storage of materials on the job site to the limits and locations designated by the Owner and shall not unnecessarily encumber the premises or overload any portion with materials to a greater extent than the structural design load of the Facility.

B. Work with Other Trades / Coordination

1. Coordinate installation of sleeves, block outs, equipment with integral anchors, and other items that are embedded in concrete or masonry for the applicable equipment. Furnish templates, sleeves, equipment with integral anchors, and installation instructions and deliver to Project site in time for installation.
2. Coordinate sequence of installation with other work to avoid delaying the Work.
3. Coordinate locations and dimensions of other work relating to the equipment scheduled for installation including pit ladders, sumps, and floor drains in pits; entrance subsills; machine/hoist beams; mechanical equipment; and electrical service, electrical outlets, lights, and switches in pits, machine rooms, and hoistways as it relates to the specific equipment.

1.5 WARRANTY / MAINTENANCE SERVICES

A. Contract Close-Out, Guarantee and Warranties

1. Guarantee and Warranties:
 - a. Warrant the equipment installed under these specifications against defects in material and quality of installation and correct any defects not due to ordinary wear and tear or improper use of car which may develop within one year from the date each unit is completed and placed in permanent operation and accepted by the Owner.
 - b. This warrantee shall be written and issued at the completion of each unit prior to final payment.

B. Maintenance

1. Warranty Maintenance: Provide full protective maintenance on the specified equipment for a period of twelve (12) months from the date of final acceptance of the entire installation as specified under the Full Protective Maintenance Service in "3" below or per existing Owners Maintenance Agreement for the Airport.
 - a. The price for this service shall be included in the base price or as otherwise specified in the contract documents.
2. Full Protective Maintenance Service: Submit a separate price for a Full Protective Maintenance Service for the specified units based on a three (3) year contract with two (2) one (1) year extension options in accordance with Owners maintenance agreement.

1.6 ALTERNATES / ALLOWANCES / UNIT PRICES

A. Allowances

1. Carry the following allowances for all elevators:
 - a. Cab interior allowance: \$40,000 per cab

2. The above allowance is exclusive of any handling charge, applicable sales and/or use taxes. Cab interior allowance includes all labor, materials, permits, and necessary coordination associated with the work.
3. Assume a 1,500 lbs. weight allowance in conjunction with the cab interior allowance cover wall panels, handrails, ceiling, lighting, and related trim finishes.

B. Alternates

1. Voluntary Alternates: Contractor shall comply with the following if any voluntary alternates are submitted for consideration:
 - a. It is understood that the base specification reflects minimum standards. The Value Engineering Alternate allows individual contractors to suggest special performance criteria which may be of interest to the Owner and may reflect a degree of quality above the requirements of the base specification.
 - b. Voluntary alternate prices may be acceptable as a deviation from, not a substitution for, the basis of bid work of this bid package.
 - c. In order to submit a voluntary alternate, the following must be provided at the time of the bid.
 - 1) A complete bid reflecting the requirements of the base specification.
 - 2) All alternates must be accompanied with pertinent data, technical documentation and reference/installation for review.
 - 3) Along with the pricing for voluntary alternates or any voluntary alternates provided submit schedule and maintenance pricing adjustments for each if applicable.

PART 2 - PRODUCTS

2.1 GENERAL DESCRIPTION

A. Elevators PE1 and PE2

1. Quantity	Two (2)
2. Type	Machine Room-Less Traction Passenger Elevator
3. Capacity (lbs.)	3500
4. Speed (fpm)	200
5. Travel in Feet	42' — 0" refer to drawings
6. Roping / Ropes	2:1
7. Number of Landings	Five (S)
8. Number of Openings	Five (S)
9. Front Openings	Five (S)
10. Rear Openings	None
11. Operation	Simplex Selective Collective
12. Control	Variable voltage variable frequency
13. Fireman's Service	Phase I and II
14. Counterweight Safety	Not Required

15.	Guide Rails	Steel tees, provide rail backing as required
16.	Guides	Roller
17.	Buffers	Oil
18.	Cab Interior Size	7'-8" wide x 5'-4" deep 8'-0" clear height - floor to canopy
19.	Cab	\$40,000 allowance / As further specified.
20.	Entrance Size	3'-6" wide x 7'-0" high
21.	Door Operation	Single-Speed side-Opening
22.	Machine Type	Gearless traction
23.	Machine Location	Manufacturer's standard location
24.	Security / Key / Card Reader	provisions
25.	Number of Pushbutton Risers	One (1)

2.2 MANUFACTURERS

A. Recommended Equipment Manufacturers

1. In addition to Original Equipment Manufacturers, the following manufacturer's equipment and materials are recommended for use on this project.
2. Other manufacturers/products not specifically mentioned below shall be considered for review on an individual basis upon submission of all design & maintenance submittal documentation conforming to the Code and standards in effect as required by the AHJ.
 - a. Controller - Motion Control Engineering (MCE), Elevator Controls Corporation, Elevator Systems, Inc., Smartrise
 - b. Tracks, Hangers, Interlocks and Door Operators - G.A.L (Vantage), ECI, Wittur-Sematic
 - c. Fixtures - G.A.L., Adams, EPCO, Monitor, E-Motive USA (Avire-Global), C.E. Electronics, Innovation, MAD, National, C.J. Anderson.
 - d. Door Protective Device - Janus, Adams, G.A.L., T.L. Jones, Tri-Tronics.
 - e. Cabs and Entrances - CEC Elevator Cab, EDI/ECI, Elite Elevator Cab, Forms + Surfaces, National Cab & Door, Tyler, Velis, Gunderlin, Eklund, EMCO, Columbia Elevator Products, United Cabs, USC Elevator, H&B, G&R.
 - f. VVVF Power Drives - Mitsubishi, MagneTek, Yaskawa, TorqMax, KEB.
 - g. VVVF Emergency Power Systems — MCE, Reynolds & Reynolds Electronics, ESI (TEERS).
 - h. Guide Rails — Savera (AFD Industries), Monteferro, Harris Companies
 - i. Electrical Traveling Cables — Draka, James Monroe, Wurtec, Datwyler, SEES.
 - j. Guide Shoes/Rollers — ELSCO, G.A.L, Wittur, Hollister Whitney (Vantage), Elpro, Delco.
 - k. Wire Ropes (Suspension means) - Paulsen, Bethlehem, Wayland, Draka, Gustav-Wolf, SEES, IPH.
 - l. Intercommunications/Telephones - Webb Electronics, K-Tec, Ring, Wurtec, Janus, approved equal.
 - m. Car & Counterweight Frames and equipment — Hollister Whitney (Vantage), Wittur, Bore-Max, Global-Tardiff.
3. Original Equipment Manufacturers may substitute their own branded equipment subject to the following:

- a. All requirements of the specifications are met regarding performance, appearance, serviceability and support.
- b. A full stock of all regular and critical replacement parts required for this project are maintained at a facility within fifty (50) miles of the project site.
 - 1) Any parts not stocked at the above referenced facility shall be identified with the location of the nearest source and shall be available for next-day delivery upon demand.
- c. All parts and software shall be made available for purchase to a qualified elevator maintenance firm within one (1) business day delivery without direct Owner involvement.
 - 1) Provide details of parts supply facility and a list of current parts pricing for all major components required for the installation.
- d. All specialized tools, equipment, software, and passwords, **required** to maintain/update, repair, adjust the operation, and perform Code mandated tests/inspections are provided to the Owner as part of the base installation.
 - 1) Updates to these items shall be available via the parts supply facility referenced above.
- e. Training and Technical support of the product(s) shall be available to the Owner's elevator service provider.

2.3 CONTROL FEATURES / OPERATION

A. Motion Control

- 1. Smooth stepless acceleration and deceleration of the elevator car shall be provided in either direction of travel during both single and multiple floor runs.
- 2. Use digital logic to calculate optimum acceleration and deceleration patterns during each run.
- 3. Acceleration, deceleration, jerk, maximum velocity, leveling accuracy and elapsed flight time, for a typical elevator one floor run, shall not exceed values as further specified.

B. Simplex Selective Collective Operation

- 1. Provide simplex selective collective operation from a riser of hall pushbutton stations.
- 2. The registration of one or more car calls shall dispatch the car to the selected floors.
 - a. The car shall also respond to registered hall calls in the same direction of travel.
 - b. Car and hall calls shall be canceled when answered.
- 3. Stops in response to calls that are registered in either the car or hall pushbutton stations shall occur in the natural order of progression in which the floors are encountered, depending on the direction of car travel, and irrespective of the order in which calls are registered.

4. When the car has responded to the highest or lowest call, and calls are registered for the opposite direction, the car shall reverse direction automatically and respond to those registered calls.
5. When the car arrives at its last stop and reverses direction of travel, all previously registered car calls shall be automatically cancelled.
6. When the car arrives at a landing where both up and down hall calls are registered, it will answer the call in the direction of travel.
 - a. After a pre-determined delay, if no car call is registered, the car shall respond to calls registered for the opposite direction. Car doors shall close immediately, re-open and respond to the call for the opposite direction.
 - b. Hall lantern operation shall always correspond to direction of service.
7. When an empty car reverses direction at a landing with no hall calls, the doors shall not open and the hall lantern shall not operate.
8. If the car has no car calls registered and arrives at a floor where both up and down hall calls have been registered, the car shall respond to the hall call corresponding to the last direction of car travel. If, after making its stop, a car call is not registered and no other hall calls exist ahead of the car corresponding to its original direction of travel, the doors shall close and immediately reopen in response to the hall call for the opposite direction.
9. The car shall maintain its original direction at each stop until the doors are fully closed to permit a passenger to register a car call before the car reverses its direction of travel.

C. Independent Service Operation

1. The car operating station shall be equipped with a key-operated switch located in the specified service compartment labeled "IND SER".
2. When placed in the "on" position the following shall occur:
 - a. Simplex elevator - existing hall call registrations shall extinguish and hall buttons shall remain inoperative as an indication to passengers that there is no elevator service.
3. During Independent Service Operation, the elevator doors shall remain open at any landing until the door close or a car call pushbutton is pressed and maintained until the doors are fully closed.
4. If more than one (1) car call is registered, all registered car calls shall extinguish when the elevator stops in response to the first call.
5. Fire Emergency Recall shall automatically override Independent Service Operation and engage Phase I - Fire Emergency Recall Operation following a period of approximately forty-five (45) seconds.

D. Inspection Service Operation

1. Provide a key operated switch in the main car operating panel locked service panel that, when turned to the 'ON' position, shall cause the elevator to be removed from service and placed in Inspection Service Operation.
2. The car shall move at a speed not to exceed 150 feet per minute (0.75 meters per second) as per Code with both the hall and car door panels in the closed and locked position.

3. The Inspection Service switch shall be keyed differently than other typical keys used in the operation of the elevator. Keying shall be in accordance with Security Group Classifications as required by applicable Code.
4. The top of the elevator car shall be equipped with a control for limited operation of the car during repairs, maintenance and inspection conducted in the hoistway. The transfer of control to the top of car operating device shall cause that device to be the sole means of control for the elevator.
 - a. Visual and audible indication shall be provided on the top of the car when Firefighters' Emergency Operation is initiated.
5. Power door operating equipment shall be rendered inoperative while the car is being operated in the Inspection Service mode with the exception of power closing of the door. The control system shall maintain closing power on the door while the elevator is moving under Inspection Service Operation.
6. The in-car Inspection Service switch shall be rendered ineffective when the top of car inspection control is activated.
7. Machine Room Inspection Operation and Inspection Operation with open door circuits shall be provided in accordance with A17.1 Safety Code, as modified and adopted, where required or allowed by the AHJ.

E. Hoistway Access Operation

1. Provisions shall be made to allow access to the hoistway through the use of hoistway access switches.
2. Operating the access switch shall permit the car to move at a speed not to exceed 150 feet per minute (0.75 meters per second) as per Code with the hall and car doors in the open position to obtain access to the top of the car or climb-in pit.
3. The car shall automatically stop motion when the car top is level with the hoistway door sill for access to top of car.
4. The access key switch(es) shall be keyed differently than other typical keys used in the operation of the elevator. Keying shall be in accordance with Security Group Classifications as required by applicable Code.
5. Access operation shall be disabled when top of car inspection operation is in effect.

F. Load Weighing Operation

1. A positive means shall be provided to continuously monitor the amount of load being transported by the elevator car.
2. The system shall be used to:
 - a. Preload static motor drives.
 - b. Activate control features that include:
 - 1) load dependent non-stop operation where applicable.
3. The anti-nuisance feature shall operate at loads not exceeding 200 lbs., whereas load dispatch and load non-stop shall be set to function at 65% of the rated loading capacity for the initial set up and adjustment procedure.

G. Firefighters' Emergency Operation

1. Firefighters Service Operation and devices shall meet applicable Code requirements of the AHJ.
2. Contractor shall be responsible for compliance in all aspects of Firefighters Service including, but not limited to the mode of operation, initiation of operation, operating control and signaling devices as well as fixture engraving including operating instructions applicable to and where required by the AHJ.

H. Emergency Power Operation / All Elevators Operational

1. Upon loss of normal power, and establishing of emergency power, all elevators shall automatically resume normal operation.
2. An illuminated signal marked "ELEVATOR EMERGENCY POWER" shall be provided in the elevator lobby at the designated level to indicate that the normal power supply has failed and the emergency power is in effect.
3. Prior to return to normal power, the building ATS shall provide a "pre-transfer" signal to the elevator equipment that will initiate the landing of elevators prior to transfer from emergency power to normal power.
 - a. Timer of the pre-transfer signal shall be adjustable from fifteen (15) to thirty (30) seconds.
4. The following additional requirements apply:
 - a. Firefighters' Service Operation, if in effect, will remain active at all times during emergency power operation.
 - b. Car lighting will remain active with car lighting on separate emergency power feeders in addition to battery back-up.
 - c. Communications will remain active at all times on emergency power feeders in addition to battery back-up.
 - d. Remote monitoring, where provided, will be active from each group dispatcher for selected elevators using an uninterruptible power supply (UPS) to maintain the central processing unit during power transfers.
 - e. Position indicator for each elevator will be active in the selected elevator.
5. Testing of elevators under emergency power shall be accomplished with the building ATS providing necessary "pre-transfer" signals to the elevator control apparatus.
 - a. Prior to testing, the building ATS shall provide a "pre-transfer" signal to initiate the landing of the elevators prior to the transfer from normal to emergency power.
 - b. After testing, the building ATS shall provide a "pre-transfer" signal to initiate the landing of the elevators prior to the transfer from emergency to normal power.

I. Elevator Seismic Safety Requirements

1. Guarding of equipment, machine supports, guide rail systems, the design of counterweight car frame and platform, safeties and signaling devices shall meet the requirements for Seismic Risk Zone 3 or greater in accordance with Section 8.4 of ASME A17.1 as modified by the AHJ based on the following building design:

- a. Project Seismic Dign Category:
 - b. Seismic Imporance Factor: ?
 - c. Spectral Response Acceleration Short Period (Sds):
2. Provide seismic equipment, including the following:
- a. Guide rails, guide rail supports and their fastenings shall meet requirements for the seismic zone.
 - b. Provide a seismic detection device with backup battery provisions.
 - 1) Acceptable products: Model SS04 manufactured by CED Elevator Supply Division, Model CHV-2 manufactured by Seismic Switch, Inc., or approved equal.
 - 2) Locate a device in the machine room adjacent to a vertical load-bearing building structural member in an area that prevents incidental contact.
 - c. Provide suspension retainers on all sheaves.
 - d. Provide a counterweight displacement detection device. Provide a dual string design that will enable activation of device by the derailment of either side of the counterweight at any point in the hoistway.
- J. CCTV provisions
- 1. CCTV Camera Surveillance of the Elevator
 - a. A camera furnished by the security contractor shall be installed in a corner-mounted housing to provide for camera surveillance of the elevator.
 - 2. Firefighters' Emergency Operation
 - a. Firefighters' Emergency Operation and other automatic recall functions shall bypass all security elevator control functions.
 - 3. System Interface
 - a. Provide a terminal cabinet in each elevator control room for elevator / security system interface. The terminal cabinet shall contain all terminals required to interface the elevators located in the machine room to the security system.
 - 4. Submittals
 - a. Submit product specifications, fabrication shop drawings, and wiring diagrams of the following:
 - 1) Elevator / Security interface terminal cabinet.
 - 2) CCTV camera installation.
 - 3) Traveling Cables.
 - 4) Hoistway wiring.

5. Traveling Cable
 - a. The card reader interface traveling cable and hoistway wiring shall be one (1), twelve (12) conductor 20 gauge stranded, low voltage cable with an overall braided shield and drain wire.
 - b. The CCTV camera interface traveling cable shall be two (2), RG-59U stranded center conductor coax cables and one (1), two (2) conductor 20 gauge stranded, low voltage cable with an overall braided shield and drain wire.
 - c. All security interface traveling cables shall be located in the elevator control traveling cable and shall be isolated from other traveling cables or hoistway wiring used to carry high voltage alternating current circuits.

6. Interface Terminal Cabinet Installation
 - a. Install the interface terminal cabinet within the elevator machine room in a readily accessible location no more than 6'-0" AFF.
 - b. Provide any control logic and relays that will be required to interface the elevator control system to the dry contact closures (rated for 1 AMP at 24 VDC) provided by the security system.
 - c. Provide interconnect wiring from the elevator control system to the interface terminal cabinet.
 - d. The security contractor shall wire from the security system to the interface terminal cabinet.

7. CCTV Camera Installation
 - a. CCTV camera shall be provided by the security contractor and installed by the Elevator Contractor.
 - 1) The security contractor shall provide supervision, wiring details and installation diagrams to the Elevator Contractor.
 - b. The exact CCTV camera locations shall be specified by the Architect.

8. Traveling Cable Installation
 - a. Traveling cables for the CCTV camera shall extend from the elevator / security interface terminal cabinet in the elevator machine room to the top of the elevator cab. Provide an excess loop of 10' of cable at each end.
 - b. Terminate the cable to dual screw barrier terminal strips on each end.

9. Conduit, Power and Wiring
 - a. Provide all conduit, power and wiring required for the installation of the terminal cabinet, traveling cables and interfacing to the elevator control system.
 - b. Provide one (1) 120V duplex unswitched outlet dedicated to security on top of each elevator equipped with CCTV camera.
 - c. The security contractor shall provide all wiring from the interface terminal cabinet to the security system.

K. Door Operation

1. Car and hoistway doors shall be arranged to operate in unison without excessive noise or slamming in either direction of travel.
 - a. Door opening speeds of 2.0 feet per second shall be provided in conjunction with closing speeds of 1.0 foot per second in accordance with governing Code.
 - b. Door operation shall commence as the car stops level at the floor and the machine brake is applied. Pre-door opening shall not be permitted.
2. Where the hoistway door and the car door are mechanically coupled, the kinetic energy of the closing door system shall be based upon the sum of the hoistway and the car door weights, as well as all parts rigidly connected thereto, including the rotational inertia effects of the door operator and the connecting transmission to the door panels.
3. The force necessary to prevent closing of the car and hoistway door from rest shall not exceed thirty (30) lbf. This force shall be measured on the leading edge of the door with the door at any point between one-third and two-thirds of its travel.
4. Door open and door close time shall be measured between the moment car door operation in either direction begins and the instant at which that cycle is completed.
5. When responding to either a car or corridor call, the amount of time that the elevator door remains stationary in the open position shall be adjustable up to sixty (60) seconds.
 - a. Door open dwell time for a corridor call shall be separate of that for a car call, and in both cases, dwell time shall be canceled whenever the car door protection device is momentarily interrupted by passenger transfers, followed by a reduced door open dwell time of approximately one (1) second (adjustable) after the door protection device is cleared of obstructions.
6. The operation of the door protective device by interruption of one or more infrared light beams (dual or multi-beam non-contact) during the close cycle shall cause the immediate reversing of the doors to the full open position.
7. The door closing cycle shall be arranged so that, in the event the door protective devices become continually obstructed after the normal door open dwell time has expired and following a time interval of approximately thirty (30) seconds (adjustable), a warning tone shall sound and the door closing cycle shall commence at reduced speed and torque per applicable Code requirements.
8. Each car operating station shall be provided with a "door open" and "door close" pushbutton.
 - a. Pressure on the "door open" button shall cause doors in the full open position to remain so and doors engaged in the close cycle to reverse direction and assume the full open position so long as pressure remains applied to the button.
 - b. The "door open" buttons shall also control the open cycle during Phase II - Emergency In-car Operation.
 - c. The "door close" pushbutton shall function on Independent Service, Attendant Service and Phase II - Emergency In-car Operation as well as during normal automatic operations.
9. Repeated attempts by the power door operator to open or close the door at any landing shall be monitored by the control system.

- a. In the event the door fails to cycle properly after a preset (adjustable) number of attempts, the car shall either travel to the next stop or remove itself from service, depending upon whether the malfunction is in the open or close cycle.
10. Each hoistway door shall be provided with an automatic self-closing mechanism arranged so that the door shall close and lock if the car should leave the landing while the hoistway door is unlocked.
11. Car doors shall be arranged to prevent their being manually opened from inside the car unless the elevator is positioned within a floor landing zone.

2.4 MACHINE ROOM / SECONDARY EQUIPMENT

- A. Arrange equipment in control rooms to maintain Code-required maintenance and electrical clearances as defined in ASME A17.1 and California Building Code.
- B. Control Equipment
 1. The elevators shall have microprocessor-based controller/dispatchers.
 2. Digital logic shall calculate optimum acceleration, deceleration, and velocity patterns for the car to follow during each run.
 3. Closed-loop distance and velocity feedback shall monitor the actual performance of the elevator car with the desired speed profile.
 4. System operating software shall be stored in non-volatile memory.
 5. Elevator control relays, contactors, switches, capacitors, resistors, fuses, circuit breakers, overload relays, power supplies, electronic circuit boards, microprocessors, static motor drive units, wiring terminal blocks and related components shall be totally enclosed inside a free-standing metal cabinet with hinged access doors.
 - a. Provide natural or mechanical ventilation for the controller cabinets.
 - b. Equip the vent openings and exhaust fans with filters.
 6. Mount equipment to moisture-resistant, noncombustible panels supported from the steel frame.
 7. Provide a "noise filter" between hoistway wiring and controller/dispatchers to eliminate interference.
 8. Optically isolate communication cables between components.
 9. Wiring: Wiring on the units, whether factory or field wiring, shall be done in neat order, and all connections shall be made to studs and/or terminals by means of grommets, solderless lugs, or similar connections. All wiring shall be copper.
 10. Terminal Blocks: Provide terminal blocks with identifying studs on units for connection of board wiring and external wiring.
 11. Marking: Identifying symbols or letters shall be permanently marked on or adjacent to each device on the unit, and the marking shall be identical with marking used on the wiring diagrams. In addition to the identifying marks, the ampere rating shall be marked adjacent to all fuse holders.

12. The manufacturer's standard on-board "LCD" display shall be incorporated on the main processor board and/or otherwise incorporated in the controller cabinet. The "LCD" shall be capable of providing alpha-numeric characters to view the operational status of the elevator and/or group functions depending on the application. The display shall provide the user with necessary information for troubleshooting and reprogramming of the basic system parameters.
 - a. Where the "LCD" is not an integral part of the controller and troubleshooting/reprogramming requires the use of a separate tool, the tool shall be maintained in the machine room and accessible to service personnel. This tool, along with all technical documentation for the correct use of the tool, shall remain the property of the Owner.
 - b. Password protection of critical programming features is required to prevent accidental changes to life-safety and other non-typical control settings.
 - c. Where a separate dispatch or group control panel is provided, a separate "LCD" display shall be provided to view group functions.

13. In the event diagnostics and monitoring is accomplished via Field Service Tools, provide the required Field Service Tools with related control system appurtenances for diagnostic evaluations, system monitoring and field adjustments.
 - a. Provide instructions for proper use of such diagnostic tools and/or equipment with all coding and other operational requirements.
 - b. Maintain and calibrate the diagnostic tools and update the associated instructions and other related documents under the service agreement.
 - 1) Should the agreement be cancelled for any reason by either party, maintenance and updating of diagnostic tools shall be provided to the Owner at the Contractor's cost without the need to purchase or lease additional diagnostic devices, special tools, or instructions from the original equipment provider.
 - 2) The Owner may request field and technical instructions be provided by the original installation contractor or manufacturer for proper servicing by other qualified elevator company personnel.
 - 3) The established cost-plus profit, as previously specified, shall be applicable for the life of the system.
 - a) If the equipment for fault diagnosis is not completely self-contained within the controllers but requires a separate detachable device, that device shall be furnished to the Owner as part of this installation.
 - b) Such device shall be in possession of and become property of the Owner.

14. Microprocessor Documentation
 - a. Provide and/or obtain complete information on systems' design, component parts, installation and/or modification procedures, adjusting procedures and associated computer conceptual logic circuitry and field connection.
 - b. Provide microprocessor upgrading and/or modifications to programs that have been assigned to enhance the operation of the equipment for a period of ten (10) years after project approval.

C. VVVF AC Drive

1. Provide a solid-state, variable voltage, variable frequency (VVVF), 3-phase AC hoist motor drive system as part of the microprocessor-based equipment.
 - a. VVVF drive system shall be a low-noise, flux-vector inverter device.
 - b. Include a digital LED readout and touch-key pad to facilitate software parameter adjustments, monitor system operation and display fault Codes.
2. The drive shall utilize a 3-phase, full wave rectifier and capacitor bank to provide direct current power for solid-state inversion.
3. The inverter shall utilize IGBT power semiconductors and duty cycle modulation fundamental frequency of not less than one kilohertz to synthesize 3-phase, variable voltage variable frequency output.
4. The system shall be designed and configured with the following countermeasures for noise generated by the pulse-width modulated (PWM) inverters.
 - a. Control of radiated noise via inverter and/or motor cables.
 - b. Conducted noise through power lines.
 - c. Induction noise and ground noise.
5. Inverter shall be encased in metal and independently grounded.
6. A noise filter for the input power line shall be provided to prevent penetration into radios, wireless equipment and smoke detectors.
7. A 3% three-phase line reactor shall be provided on the power system rated at the utility voltage input to the drive and sized for the rated drive current.
8. The drive shall:
 - a. Be configured as a complete digital drive system.
 - b. Be totally software configurable.
 - c. Interface with external equipment/signals via either discrete local I/O connections or high speed Local Area Network (LAN).
 - d. Be located within the limits of the control cabinet (where system size allows) or separately mounted in an appropriate chassis with hinged swing-out doors with clearances equal to the cabinet width dimensions.
 - e. Provide programmable linear or S-curve acceleration.
 - f. Provide free run or programmable linear or S-curve deceleration.
 - g. Have controlled reversing.
9. Operating and Environmental Conditions:
 - a. Have a service factor of 1.0.
 - b. Rated for continuous duty.
 - c. Humidity - 90% rated humidity non-condensing.
 - d. Cooling - forced air when required.
 - e. Digital display for:
 - 1) Running - output frequency, motor RPM, output current, voltage.
 - 2) Setting - Parameters values for setup and review.

3) Trip - separate message for each trip, last thirty (30) trips to be retained in memory.

10. Protective Features:

- a. Motor overspeed.
- b. Adjustable current limit.
- c. Isolated control circuitry.
- d. Digital display for fault conditions.
- e. Selectable automatic restart at momentary power loss.
- f. Manual restart.
- g. Over/Under Voltage.
- h. Line to line and line to ground faults.
- i. Over-temperature.

D. VVVF AC Drive - Regenerative Module

1. The system shall provide full regenerative capabilities to control overhauling motor speed and reduce hoist motor deceleration time by allowing overhaul power to be discharged back into the power lines.
 - a. The regenerative section may be an integral part of the drive or a stand-alone unit mounted in a separate cabinet with proper ventilation as required by the manufacturer.

E. VVVF Emergency Return / Auxiliary Power System

1. Provide a system that will make back-up power available to the elevator when commercial power fails.
2. The unit shall safely move the elevator to a landing and provide power to the door operator to allow passengers to exit.
3. Movement of the car may be load dependent utilizing dynamic braking to control car speed.
4. The unit shall include:
 - a. On board controller.
 - b. UPS status monitor capable of notifying building management system.
 - c. Restart input from the car door open button.
 - d. Test button to simulate power failure.
 - e. UPS bypass control.
 - f. Monitoring of the disconnect switch.
 - g. Lockable shut-off switch.
 - h. Three phase, 208/460 VAC input.
 - i. Battery level LED indicator.
 - j. Necessary fusing for batteries, outputs, logic circuitry and charger.

F. Seismic switch

1. Provide a dual axis seismic switch that will activate at no less than 0.15 times gravity in the vertical or horizontal directions. Locate device in control rooms to avoid incidental contact.

2.5 HOISTWAY EQUIPMENT

A. Guide Rails / Inserts / Brackets

1. Provide machined, standard size steel "T" section guide rails with tongue and grooved joints for the car and counterweight. Use not less than 15.0-pound car rails. Size rails to span maximum vertical distance between supports as noted on the drawings.
2. The car guide rails shall be as follows: Saveria Extra Line, Monteferro H or approved equal.
3. Use not less than 3/4" thick machined steel fishplates to form rail joints. Connect rails to fishplate with four (4) bolts.
4. The section modulus and moment of inertia of the fishplates shall not be less than that of the rail.
5. For concrete and concrete block hoistways furnish rail brackets and provide inserts and an insert location drawing to Construction Manager or General Contractor.
6. Brackets shall be used to support the rails from the hoistway framing and/or inserts.
 - a. The rails shall be attached to the brackets by heavy clamps or clips.
 - b. Bolting or welding rails to brackets shall only be allowed in certain instances.
 - c. Do not attach brackets to the top flange of hoistway framing steel.
7. All guide rails shall be erected plumb and parallel to a maximum deviation of 1/8" (plus or minus 1/16").
8. Provide oversized steel members and brackets for the rails where the distances exceed the manufacturer's standard dimensions.

B. Counterweight Assembly / Frame

1. Counterweight shall consist of a steel frame welded or bolted together and necessary steel or lead sub-weights.
 - a. Sub-weights shall be held within the frame by not less than two (2) tie-rods passing through holes in all weights with rods equipped with locknuts, secured by washers and cotter pins at each end.
 - b. The counterweight shall be equal to the weight of the elevator car and approximately 40% of the contract (specified) capacity.
 - c. Provide the required pit counterweight guard where no compensation is used.
 - d. The bottom of the counterweight shall have a buffer striking plate and means to attach knock-off blocks to compensate for varying rope length.
 - e. Where a counterweight is located between elevators, provide a guard between the counterweight and the adjacent elevator extending the full height of the shaft as required by Code.

C. Roller Guides

1. Provide roller guide shoes with adjustable mounting base, rigidly bolted to the top and bottom of each side of the car and counterweight frame.
 - a. Roller guides shall consist of a set of sound reducing wheels in precision bearings held in contact with the three (3) finished rail surfaces by adjustable stabilizing springs.

- b. The bearings shall be sealed or provided with grease fittings for lubrication.
 - c. Equip roller guides with adjustable stops to control postwise float.
 - d. Fit the top car roller guides with galvanized, painted or powder coated steel guards.
2. Approved applications and manufacturers:
- a. ELSCO car and counterweight roller guides or approved equal.

D. Hoist Ropes

1. Pre-formed traction steel wire rope, specifically constructed for elevator applications, shall be provided for suspension of the elevator car and counterweight assembly.
- a. Fastenings shall be accomplished by use of individual tapered rope sockets (wedge clamp) with adjustable shackles.
 - b. Shackles shall be installed in accordance with manufacturer's requirements to eliminate noise and bounce under normal operation.
 - c. Install maple blocks or other approved spreader assembly to manage rope transition from hitch arrangement to sheave arrangement.
 - d. General design requirements for rope shackles and the method of securing wire rope shall conform with ASME A17.1 Elevator Safety Code as modified by, and/or in addition to Codes and standards accepted by the AHJ.
 - e. Provide machine-room-less elevators with hoist ropes having steel core.
2. Coated steel belts with steel cords embedded in polyurethane case may be used in lieu of conventional steel hoist ropes subject to approval of the AHJ.
- a. Belts shall be UL listed and non-combustible.

E. Governor Rope

1. Pre-formed wire rope specifically constructed for elevator applications, shall be provided for governor ropes.
- a. Rope shall be traction steel or iron in accordance with OEM design requirements.
 - b. Rope diameter and method of fastening shall be in accordance with ASME A17.1 Safety Code as adopted and/or otherwise modified by the AHJ.

F. Electrical Conduit / Wiring / Traveling Cable

1. Electrical wiring shall be provided.
- a. All wiring shall be stranded copper conductors, manufactured in compliance with ANSI/ASTM B174-71 and UL 62 requirements, and polyvinyl chloride insulation complying with ETT requirements of UL 62 and Article 400 of the National Electric Code.
 - b. Electrical wiring provided for hoistway interlock shall be of a flame retardant type, capable of withstanding temperatures of at least 392 degrees Fahrenheit. Conductors shall be Type SF or equivalent.

- c. Each run of electrical conduit or duct shall contain no less than 10% spare wires and, in any case, no fewer than two (2) spare wires.
 - d. Crimp-on type wire terminals shall be used where possible.
2. Traveling cable shall be provided.
- a. Each traveling cable shall be provided with a flame and water resistant polyvinyl chloride jacket.
 - b. Electrical wiring shall consist of stranded copper conductors, manufactured in compliance with ANSI/ASTM B174-71 and UL 62 requirements, and polyvinyl chloride insulation complying with ETT requirements of UL 62 and Article 400 of the National Electric Code.
 - c. Each traveling cable shall contain no less than 10% spare wires.
 - d. Traveling cable exceeding 100' in length shall be provided with a steel wire rope support strand from which the cable shall be suspended.
 - e. Traveling cable must be contained within an approved electrical conduit to within 6' of the final suspension point in the hoistway.
 - f. Each traveling cable shall be arranged to provide no fewer than six (6) individually shielded pairs of 20 gauge wire and arranged to contain no less than one (1) coaxial cable for CCTV remote monitoring.
 - g. Traveling cable conductors that terminate at a hoistway center box shall be connected to stud blocks provided for that purpose.
 - 1) Each wiring terminal shall be clearly identified by its nomenclature as shown on the "as built" wiring diagrams and solderless, crimp-on type wire terminals shall be used where possible.
 - h. The attachment of a traveling cable to the underside of the elevator car shall be performed so that a minimum loop diameter of 30x the cable diameter is provided.
 - i. Pre-hang the cables for at least twenty-four (24) hours with ends suitably weighted to eliminate twisting during operation.
3. Rigidly supported EMT conduit, flexible metal conduit and galvanized steel trough shall be utilized throughout the hoistway.
- a. Both EMT and flexible conduit shall be connected on either end by use of compression fittings and secured in place with metal clamps sized in accordance with the diameter of conduit utilized.
 - 1) Wire or plastic wire ty-raps shall not constitute an acceptable means of fastening.
 - b. The use of flexible metal conduit shall be limited to runs not greater than 3' in length.
 - 1) Reuse of existing conduit/duct shall be at the discretion of the Consultant.

G. Normal and Final Terminal Stopping Devices

- 1. Provide normal terminal stopping devices to stop the car automatically from any speed obtained under normal operation within the top and bottom overtravel, independent of the operating devices, final terminal stopping device and the buffers.

2. Provide final terminal stopping devices to stop the car automatically from the speed specified within the top clearance and bottom overtravel.
3. The terminal stopping devices shall have rollers with rubber or other approved composition tread to provide silent operation when actuated by the cam fixed to the top of the car.
 - a. Terminal stopping devices that are not mechanically operated (i.e.: magnetic proximity) shall be provided by the manufacturer of the control equipment, intended for use as a terminal limit, and designed for reliable operation in the hoistway environment.
4. Final terminal limits shall be pinned so as to prevent movement after final adjustment where required by the AHJ.

H. Machine Beams

1. Provide support beams support machines, governors, dead-end hitches, deflector, and overhead sheaves. The machinery and deflector sheaves shall be located within the hoistway as shown on the drawings. Coordinate attachments of the machine beams to the building structure with the structural drawings.
2. Mounting of the hoist machine and deflector sheaves shall incorporate isolation to minimize the transmission of noise and/or vibration to the building structure.

1. Gearless Elevator Hoisting Machine (MRL)

1. Provide a permanent magnet synchronous motor (PMSM) AC gearless traction machine, specially designed and manufactured for elevator service. The machine shall have high starting torque and low starting current, rated for 50⁰ C (90⁰ F) continuous operation, and a minimum of 210 starts per hour.
 - a. Securely mount the machine to overhead steel beams or to the guide rail system.
 - b. The armature shaft shall be supported in ball or roller type bearings.
 - c. The driving sheave shall be cast from the best grade of metal with a Brinell hardness of 215 to 230 and shall be machined with grooves, providing maximum traction with a minimum of rope and sheave wear.
 - d. Ensure that adequate ventilation of internal stator windings and rotating element is provided to prevent overheating with thermal overload protection. (Constant velocity fan for constant cooling.)
 - e. Equip housing with eyebolt(s) for lifting.
 - f. Provide the machine with an electro-mechanical brake.
 - 1) The brake shall be spring applied and electrically released where drum or disk-type brakes are employed.
 - 2) Design the brake electro-magnet for quick release and application of the brake.
 - 3) The brake lining material shall be non-asbestos.
 - g. Design the brake for quick release to provide smooth and gradual application of the brake shoes.
 - 1) An emergency brake shall be an integral part of the machine design.

- h. Provide a sheave guard and seismic rope retainer on the machine sheave to prevent hoisting rope from jumping off the grooves.
 - 1) Provide service platforms, grating, handrails, ladders and required accessories to service and maintain the hoisting machines, if required by the local AHJ.
 - i. Design and construct the hoisting machine based on passenger elevator cab enclosure weight as specified and as shown on the architectural drawings.
- J. Overspeed Governor
- 1. Provide a remote-resetting speed governor, located in the overhead, to operate the car safety.
 - a. Maintain the proper tension in the governor rope with a weighted tension sheave located in the pit.
 - 1) Springs used to develop the tension are not acceptable.
 - b. Provide rope grip jaws, designed to clamp the governor rope to actuate the car safety upon a predetermined overspeed downward.
 - 1) The centrifugal type governor shall trip and set rope jaws within sixty (60) degrees of governor sheave rotation after reaching rated tripping speed.
 - c. Design the governor rope tripping device so that no appreciable damage to or deformation of the governor rope shall result from the stopping action of the device in operating the car safety.
 - d. Provide an electrical governor overspeed protective device which shall remove power from the driving machine motor and brake before or at the application of the safety.
 - 1) The setting for the overspeed switch shall be as prescribed in the ASME A17.1 Safety Code.
 - 2) Locate and enclose the switch to ensure that excess lubrication will not enter the switch enclosure.
 - 3) Overspeed switch shall operate in both direction of travel on systems employing a static power drive unit.
 - e. Seal and tag the governor with the running speed, tripping speed and date last tested.
 - f. Design the governor to prevent false tripping due to conditions caused by rope dynamics.
 - g. Governor shall be mounted to the guide rail system or machine beam supports in the hoistway overhead.
 - 1) Coordinate access requirements and testing procedures with the AHJ.
 - 2) Where governor access is not required by the AHJ, governor shall be capable of being manually reset from outside the hoistway.

K. Equipment Isolation

1. Provide effective sound isolation between machines, secondary deflector sheaves, solid state motor drive units and filters, from building structure to reduce noise transmission to occupied spaces and elevator cabs.
2. When operating per plans and specifications, the elevator equipment shall not generate noise levels in excess of NC-40 in occupied resident spaces and shall be free of pure tones. For the purposes of this specification, a pure tone shall be defined as a sound level in any one-third octave band which is greater than five (5) dB above both adjacent one-third octave bands, in the range 45 to 11,200 Hz.

L. Overhead / and Governor Stop Switches

1. Provide a positive action stop switch at the following locations as required by applicable Code:
 - a. Overhead machinery space.
 - b. Overhead governor access panel as may be mandated by the AHJ.
2. The switch shall be arranged to prevent the application of power to the hoist motor and machine brake when placed in the "OFF" position.
 - a. Clearly identify the switch with permanent marking on the switch cover that indicates "RUN" and "STOP" positions.

M. Emergency Brake

1. Ascending Car Overspeed Protection Device
 - a. Provide a device designed to prevent an ascending elevator from striking the hoistway overhead structure.
 - b. The device shall decelerate the car with any load up to the rated capacity by applying an emergency brake.
 - 1) The device shall detect an ascending car overspeed condition of not greater than ten percent (10%) higher than the speed that the car governor is set to trip.
 - 2) The device, when activated, shall prevent operation of the car until the device is manually reset.
 - 3) The device shall meet the requirements of the ASME A17.1 Safety Code as may be modified by the AHJ.
2. Unintended Car Movement Protection Device
 - a. Provide a device to prevent unintended car movement away from the landing when the car and hoistway doors are not closed and locked.
 - 1) The device shall prevent such movement in the event of failure of:
 - a) The electric driving machine motor.
 - b) The brake.

- c) The machine shaft or shaft coupling.
 - d) Machine gearing.
 - e) Control system.
 - f) Any component upon which the speed of the car depends.
 - g) Suspension ropes and the drive sheave of the traction machine are excluded.
- 2) The device shall prevent operation of the car until the device is manually reset.
 - 3) The device shall meet the requirements of the ASME A17.1 Safety Code as may be modified by the AHJ.

2.6 PIT EQUIPMENT

A. Car and Counterweight Buffers

- 1. Provide buffer with necessary blocking and horizontal steel braces under the car and counterweight.
- 2. Provide spring type buffers for the elevator and counterweight.
- 3. The buffer shall be tested and approved by a qualified testing laboratory.
- 4. Provide a permanent buffer marking plate which indicates the manufacturer's name, identification number, rated impact speed and stroke.
- 5. Provide a permanent data plate in the vicinity of the counterweight buffer indicating the maximum designed counterweight runby.
- 6. Support buffers from the pit floor level with all required blocking and bracing steel members.

B. Ladders, Guard Rails, Screens and Guards

- 1. Provide the following secondary metal work in the pit, hoistway and in elevator control room in accordance with bid documents.
 - a. Counterweight shall be guarded by means of a steel guard from the pit floor to a position of at least 2450 mm (96") above pit floor where compensation ropes are not provided'
 - b. Pit access ladders.
- 2. Submit detailed shop drawings of all miscellaneous metal items for Architect's approval.
- 3. The pit ladder shall have continuous steel flat bar side rails 12 mm (1/2") x 75 mm (3"), with eased edges, spaced a minimum of 400 mm (16") apart. Rungs shall be steel bars 18 mm (3/4") in diameter, 400 mm (16") in clear inside width, spaced 300 mm (12") apart with top to have a non-slip surface. Rungs shall be located along centerline of side rails, located not less than 180 mm (7") from the nearest permanent object or structure. Plug weld and grind smooth on outer rails faces. Support each ladder at top and bottom and at intermediate points spaced not more than 1500 mm (60"). Extend side rails 1200 mm (48") above top rung.

C. Governor Rope Tension Assembly

- 1. Provide a governor rope tension assembly.
 - a. Maintain the proper tension in the governor rope with a weighted tension sheave located in the pit.

- 1) Springs used to develop the tension are not acceptable.
- b. The sheave shall be of proper diameter and set directly plumb with the governor rope drop to prevent the rope from pulling off of the sheave at an angle.
- c. Lubrication fittings shall be provided on the assembly.
- d. The assembly shall have necessary rope guards to prevent accidental contact of the rope/sheave by service personnel and to prevent the governor rope from jumping off of the sheave.

D. Pit Stop Switch

1. Elevator shall be provided with a push/pull switch that is conspicuously designated "EMERGENCY STOP" and located so as to be readily accessible from the hoistway entrance on the lowest landing served adjacent to the pit ladder at a height of approximately 18" above the floor.
 - a. This switch shall be arranged to prevent the application of power to the hoist motor and machine brake when placed in the "OFF" position.

2.7 HOISTWAY ENTRANCES

A. Hoistway Entrance Structure

1. Frames - The frames shall be constructed of 14-gauge sheet steel.
2. Doors - The doors shall be constructed of 16-gauge sheet steel, not less than 1-1/4" thick, reinforced to accept hangers, interlocks or door closers.
3. Equip all hoistway landing doors with one-piece full height non-vision wings of material and finish to match hall side of door panels.
4. Entrances shall bear 1 hour label of Underwriters Laboratories, Inc.
5. Provide each door panel with two removable laminated plastic composition guides, arranged to run in sill grooves with a minimum clearance, replaceable without removing the door from the hangers and incorporating a steel fire stop.
6. Provide the leading edge of door panels with continuous black rubber astragal bumper strips.
 - a. The strips shall be relatively inconspicuous when the doors are closed and shall be easily replaced.
7. Provide rubber bumpers at the top and bottom of the door to stop them at their limit of travel in opening direction.
8. Sills - Provide narrow-type, extruded sills with the nosing approximately 1" deep and running the full length of door travel.
 - a. The sills shall be at least 3/8" thick.
 - b. The wearing surface shall be of a non-slip type.
 - c. Rigidly secure the sills to the building construction by means of steel sill support brackets or blocking with necessary metal shimming or adjustments.
 - d. Provide and rigidly secure sill support members to the building structure after blocking and leveling them with necessary metal shimming.

- 1) Use 4" x 4" x 1/4" angle for single speed entrances.
 - 2) If formed sheet steel sill support members are used, the structural properties of these members shall match or exceed the structural properties of 4" x 4" x 1/4" angle for single speed entrances.
9. Struts - Provide 3" x 3" x 1/4" hot rolled steel angle struts.
- a. If formed sheet steel struts are used, the structural properties of formed struts shall match or exceed the structural properties of 3" x 3" x 1/4" steel angle.
 - b. Extend the struts from top of sill to either the bottom of floor beam or intermediate framing above.
 - c. Bolt struts in place with not less than two (2) bolts at each end.
 - d. Strut clip angles or brackets shall have a thickness not less than the thickness of the supported strut.
10. Track Support - 3/16"-thick steel track support plate shall extend between and be bolted to the vertical steel struts with no less than two (2) bolts at each end.
11. Track Covers — 16 gauge steel cover plates shall extend the full travel of the doors.
- a. Covers shall be made in sections for service access to hangers, sheaves, tracks and interlocks.
 - b. The sections above the door opening shall be movable from within the elevator car.
 - c. Cover fastening devices shall be non-removable from the cover.
12. Fascias - 16 gauge steel fascia plates shall extend at least the full width of the door and be secured at hanger support and sill with oval head machine screws.
- a. Provide fascia plates where the clearance between the edge of the loading side of the platform and the inside face of the hoistway enclosure exceeds the Code allowed clearance.
13. Toe Guards — Provide 14 gauge steel toe guards to extend 12" below any sill not protected by fascia.
- a. The toe guards shall extend the full width of the door and shall return to the hoistway wall at a 15-degree angle and be firmly fastened.
14. Dust Covers — Provide 16 gauge steel dust covers to extend 6" above any header not protected by fascia.
- a. The dust covers shall extend to a full width of travel of the doors, return to the hoistway wall at a 15-degree angle and be firmly fastened.
- B. Tracks / Hangers / Closers / Related Equipment
1. Formed or extruded steel landing door hanger tracks shall be provided.
 2. Each landing door panel shall be suspended from a pair of door hanger assemblies that are compatible with the hanger tracks.

- a. Hanger assemblies shall be directly mounted to the door panel using 3/8" diameter or better hardware.
 - b. Solid steel blocks shall be used where job-site conditions dictate the use of spacers between hanger assemblies and the landing door panel.
 - c. Hanger assemblies shall be adjusted or shimmed so that door panels are suspended in a plumb manner with no more than 3/8" vertical clearance to the cab entrance threshold.
 - d. Upthrust rollers shall be adjusted for minimal operating clearance against the bottom edge of the hanger track.
 - e. Means shall be provided to prevent hangers from jumping the track.
 - f. Blocks shall be provided to prevent rollers from overrunning the end of the track.
3. Each set of center opening landing doors shall be provided with a cable driven relating mechanism which is compatible for use with the door hanger assemblies.
- a. The relating mechanism shall be properly tensioned and adjusted to equalize the relationship between the door panels and the hoistway entrance.
4. Each set of single speed side slide landing doors shall be provided with a sill-mounted spring closing mechanism.
- a. Spirator-type spring closers shall be acceptable should prevailing sill depth or runby clearance conditions require their use.

C. Interlocks / Unlocking Devices

1. Each set of landing doors shall be provided with a complete electromechanical interlock assembly.
- a. Each interlock assembly shall consist of:
 - 1) A switch housing with contacts.
 - 2) Lock keeper.
 - 3) Clutch engagement/release subassembly.
 - 4) Associated linkages.
 - b. Arrange the lock so that individual leading door panels (side slide or center opening) are locked when in the closed position.

D. Hoistway Entrance Sill

1. Provide an entrance sill with the nosing approximately 1" deep and running the full length of door travel.
- a. Sill shall be at least 3/8" thick.
 - b. The wearing surface shall be of a non-slip type with the door guide grooves providing a minimum clearance for the guides.
 - c. Rigidly secure the sills to the building construction by means of steel sill support brackets or blocking with necessary metal shimming or adjustments.
 - d. The sills shall be extruded aluminum.

E. Hoistway Door Bottom Guides / Safety Retainers

1. The bottom of each side sliding type hoistway door panel shall be equipped with a minimum of two (2) guiding members.
 - a. Metal mounting angles shall be secured to the integral panel frame structure; and when conditions warrant, additional external metal support plates or angles shall be installed to ensure the integrity of the panel frame is not compromised.
 - b. Guides shall be manufactured of low friction non-metal material with sufficient strength to withstand forces placed on door panels per ASME A17.1 Standards.
 - c. Each guide assembly shall incorporate a steel wear indicator and be so designed to permit sliding member replacements without removal of door panel(s) from top hanger devices.
 - d. Panels shall be hung with a maximum vertical clearance of 3/8" between top of sill and bottom of panel and the guide shall engage the sill groove by not less than 1/4".
2. The bottom of each side sliding type hoistway door panel shall be equipped with a guiding member safety retainer to prevent displacement in the event of primary guide means failure.
 - a. A metal reinforcement (12 gauge stainless or galvanized steel) shall be installed between the two (2) primary guiding members (a.k.a. "Z" bracket).
 - b. The reinforcement shall be designed with a minimum length of 8" or the maximum possible length that will fit between the primary members and a minimum overall height of two and one-half (2.5)" secured on the internal face of the door panel. (Hoistway side)
 - c. The retainer shall be set with the supplemental safety angle 3/8" into the corresponding sill groove; and be capable of preventing displacement of the panel no more than 3/4" with an applied force of 1125 lbf at right angles over an area 12" x 12" at the approximate center of the door panel.

2.8 CAR EQUIPMENT / FRAME

A. Car Frame and Platform

1. The car frame shall be made of steel members, with the required factor of safety.
2. The car platform shall consist of a steel frame with necessary steel stringers, all securely welded together.
3. The frame and platform shall be so braced and reinforced that no strain will be transmitted to the elevator car.
4. Passenger Elevator
 - a. Provide platform with two (2) layers of 3/4" thick marine grade plywood.
 - b. Cover the underside of the car platform with sheet steel.
 - c. The support frame shall carry rubber pads on which the platform shall rest without any connection to the steel frame for sound and vibration isolation.
 - d. Provide extruded nickel silver thresholds having non-slip surface, guide grooves.
 - e. Recess the platform to receive finished flooring as selected by the architect and specified under another section of their specification.
 - f. The car frame shall be sized for an 8'-0" overall cab height.

B. Car Safety

1. Provide a governor actuated mechanical safety device mounted under the car platform and securely bolted to the car sling.
2. The car safety shall be sized for the capacity and speed noted herein.
 - a. When tripped, the safety mechanism shall engage the rails with sufficient force to stop a fully loaded car with an average rate of retardation within the limits given in A17.1 Safety Code as adopted and/or otherwise modified by the AHJ.
3. Install a car safety marking plate of corrosion resistant metal and, in addition to the data required by Code, indicate the manufacturer's name and manufacturer's catalog designation number for safety.
4. Make provisions to release the car safety. In no event shall the safety be released by downward motion of the car. Raising the car to reset the safety shall be allowed.
5. Provide an electrical safety plank switch that will interrupt the power to the hoist machine and apply the machine brakes when the safety is set.

C. Automatic Leveling / Releveling / Positioning Device

1. Equip the elevator with a floor leveling device which shall automatically bring the car to a stop within 1/4" of any floor for which a stop has been initiated regardless of load or direction of travel.
2. This device shall also provide for releveling which shall be arranged to automatically return the elevator to the floor in the event the elevator should move below or above floor level in excess of 1/4".
3. This device shall be operative at all floors served and whether the hoistway or car door is open or closed provided there is no interruption of power to the elevator.
4. A positioning device shall be part of the controller microprocessor systems.
 - a. Position determination in the hoistway may be through fixed tape in the hoistway or by sensors fitted on each driving machine to encode and store car movement.
 - b. Design the mechanical features and electrical circuits to permit accurate control and rapid acceleration and retardation without discomfort.
5. Where there are consecutive floors/stops that are short stops, the system shall be capable of distinguishing between the two landing zones without error.
6. All equipment and logic required for leveling system to properly function with short stops shall be included.

D. Top-of-Car Inspection Operating Station

1. An inspection operating station shall be provided on top of the elevator car.
2. This station shall be installed so that the controls are plainly visible and readily accessible from the hoistway entrance without stepping on the car.
3. When the station is operational, all operating devices in the car shall be inoperative.
4. Provide the following control devices and features:

- a. A push/pull or toggle switch designated "EMERGENCY STOP" shall be arranged so as to prevent the application of power to the hoist motor or machine brake when in the "off" position.
 - b. A toggle switch designated "INSPECTION" and "NORMAL" to activate the top of car Inspection Service Operation.
 - c. Pushbutton designated "Up", "Down" and "Enable" to operate the elevator on Inspection Service (the "Enable" button shall be arranged to operate in conjunction with either the "Up" or "Down" button).
 - d. An indicator light and warning buzzer that are subject to activation under Phase I - Fire Emergency Recall Operation.
- E. Car Top Guardrails
- 1. Provide car top guard rails comprised of a lower, middle, and upper guard rails securely fastened on the side and rear of the perimeter of the car top to meet California Building Code requirements.
- F. Load Weighing Device
- 1. Provide means to measure the load in the car within an accuracy of + 4% of the elevator capacity.
 - 2. Provide one of the following types of devices:
 - a. A device consisting of four (4) strain gauge load cells located at each corner of the car platform and supporting a free floating car platform and cab with summing circuits to calculate the actual load under varying conditions of eccentric loading.
 - b. A strain gauge device located on the crosshead, arranged to measure the deflection of the crosshead and thus determine the load in the car.
 - c. A device consisting of four (4) strain gauge load cells, supporting the weight of the elevator machine with summing circuits to calculate the actual load under varying conditions of load.
 - d. A device to measure the tension in the elevator hoist ropes and thus determine the load in the car.
 - 3. Arrange that the output signal from the load weighing device be connected as an input to the signal and motor control systems to pre-torque of the hoisting machine motors where applicable.
 - 4. Provide audible and visual signals in connection with the load weighing device when used as an "overload" device.
- G. Car Enclosure Work Light / Receptacle
- 1. The top and bottom of each car shall be provided with a permanent lighting fixture and 110 volt GFCI receptacle.
 - 2. Light control switches shall be located for easy accessibility from the hoistway entrance.
 - 3. Where sufficient overhead clearance exists, the car top lighting fixture shall be extended no less than 24" above the crosshead member of the car frame.
 - 4. Light bulbs shall be guarded so as to prevent breakage or accidental contact.

H. Emergency Exits / Top

1. Ensure they operate as per Code and have proper electrical contacts and mechanical locks on the exterior of the cab enclosure.
2. The top of car emergency exit shall be so arranged that it can be opened from within the car by means of a keyed spring-return cylinder-type lock having not less than a five-pin or five-disk combination and opened from the top of the car without the use of a key.
3. No other key to the building shall unlock the emergency exit lock except access switch keys which may be keyed alike.
 - a. Keys shall be assigned in accordance with ASME A17.1 Group 1 Security requirements.

I. Master Door Power Operator System — VVVF/AC

1. Provide a heavy-duty master door operator on top of the elevator car enclosure for power opening and closing of the cab and hoistway entrance door panels.
2. The operator may be of the pivot/lever or belted linear drive type.
3. Operator shall utilize an alternating current motor, controlled by a variable voltage, variable frequency (VVVF) drive and a closed-loop control with programmable operating parameters.
 - a. System may incorporate an encoder feedback to monitor positions with a separate speed sensing device or an encoderless closed-loop VVVF-AC control to monitor motor parameters and vary power applied to compensate for load changes.
4. The type of system shall be designated as a high speed operator, designed for door panel opening at an average speed of 2.0 feet per second and closing at approximately 1.0 foot per second.
 - a. Reduce the closing speed as required to limit kinetic energy of closing doors to within values permitted by ASME A17.1 as may be adopted and/or modified by the AHJ.
5. The door shall operate smoothly without a slam or abrupt motion in both the opening and closing cycle directions.
 - a. Provide controls to automatically compensate for load changes such as:
 - 1) Wind conditions (stack effect).
 - 2) Use of different weight door panels on multiple landings.
 - 3) Other unique prevailing conditions that could cause variations in operational speeds.
 - b. Provide nudging to limit speed and torque in conjunction with door close signaling/closing and timing devices as permitted by ASME A17.1 as may be adopted and/or modified by the AHJ. Nudging shall be initiated by the signal control system and not from the door protective device.
6. In case of interruption or failure of electric power from any cause, the door operating mechanism shall be so designed that it shall permit emergency manual operation of both the car and corridor doors only when the elevator is located in the floor landing unlocking zone.

- a. The hoistway door shall continue to be self-locking and self-closing during emergency operation.
 - b. The door operator and/or car door panel shall be equipped with safety switches and electrical controls to prevent operation of the elevator with the door in the open position as per ASME A17.1 Code Standards.
 - c. Provide zone-lock devices as required by ASME A17.1 as may be adopted and/or otherwise modified by the AHJ.
- 7. Construct all door operating levers of heavy steel or reinforced extruded aluminum members.
 - 8. Belts shall be designed for long life and operate noise free.
 - 9. All components shall be designed for stress and forces imposed on the related parts, linkages and fixed components during normal and emergency operation functions.
 - a. All pivot points, pulleys and motors shall have either ball or roller-type bearings, oilite bronze bushings or other non-metallic bushings of ample size.
 - 10. Provide operating data / data tag permanently attached to the operator as required by applicable Code and standards.
- J. Car Door Hangers / Tracks / Gate Switch
- 1. Provide sheave type two-point suspension hangers and track for each car door.
 - a. Sheaves shall be hardened steel, not less than 3-1/4" in diameter with sealed grease packed precision ball bearings.
 - b. The upthrust shall be taken by a roller mounted on the hanger and arranged to ride on the underside of the track.
 - 2. The track shall be of formed cold rolled steel or cold drawn steel and shall be rounded on the track surface to receive the hanger sheaves.
 - a. The track shall be removable and shall not be integral with the header.
 - 3. Provide a gate switch that mounts directly to the car door track.
 - a. The gate switch shall prevent movement of the elevator until such time as it signals the control equipment that the car door has physically closed.
- K. Car Door Panel(s)
- 1. Provide no less than 1" thick, 14-gauge hollow metal flush construction panel(s), reinforced for power operation and insulated for sound deadening.
 - 2. Paint the hoistway side of each panel black and face the cab side with 16-gauge sheet steel matching the existing returns or in selected material and finish as otherwise directed by Owner/Architect.
 - 3. The panels shall have no binder angles and welds shall be continuous, ground smooth and invisible.
 - 4. Drill and reinforce panels for installation of door operator hardware, door protective device, door gibs, etc.

- a. Provide each door panel with two (2) removable laminated plastic composition guides, arranged to run in the sill grooves with minimum clearance.
 - b. The guide mounting shall permit their replacement without removing the door from the hangers.
- S. Provide the meeting edge of center opening doors with necessary continuous rubber astragal bumper strips.
- a. These strips shall be relatively inconspicuous when the doors are closed.
- L. Door Reopening Device / "3D"
- 1. Provide a combination infrared curtain and 3D door protection system.
 - 2. The door shall be prevented from closing and will reopen when closing if any one of the curtain light rays is interrupted or should an object enter the 3D detection zone.
 - 3. The door shall start to close when the protection system is free of any obstruction.
 - 4. The infrared curtain and 3D zone protective system shall provide:
 - a. Protective curtain field not less than 71" above the sill.
 - b. 3D protective zone field not less than 61" above the sill.
 - c. Accurately positioned infrared lights to conform to the requirements of the applicable handicapped Code.
 - d. Modular design to permit on board test operation and replacement of all circuit boards without removing the complete unit.
 - e. Self-contained, selectable 3D zone timeout feature to allow for closing at nudging speed with audible signal.
 - f. Automatic turning-off of the 3D zone in the event of three (3) consecutive 3D triggers.
 - 1) Light curtain shall continue to operate after 3D system timeout.
 - g. Selectable control of the 3D zone operation on an "always-on" or "as doors close" basis.
 - h. Controls to shut down the elevator when the unit fails to operate properly.
 - i. Provide audible and visual notification of pending door close.

2.9 FINISH / MATERIALS / SIGNAGE

A. Material, Finishes and Painting

1. General

- a. Cold-rolled Sheet Steel Sections: ASTM A366, commercial steel, Type B
- b. Rolled Steel Floor Plate: ASTM A786
- c. Steel Supports and Reinforcement: ASTM A36
- d. Aluminum-alloy Rolled Tread Plate: ASTM B632
- e. Aluminum Plate: ASTM B209
- f. Stainless Steel: ASTM A167 Type 302, 304 or 316
- g. Stainless Steel Bars and Shapes: ASTM A276
- h. Stainless Steel Tubes: ASTM A269

- i. Aluminum Extrusions: ASTM B221
 - j. Nickel Silver Extrusions: ASTM B155
 - k. Bronze Sheet: ASTM B36(36M) alloy UNS No. C2800 (Muntz Metal)
 - l. Structural Tubing: ASTM A500
 - m. Bolts, Nuts and Washers: ASTM A325 and A490
 - n. Laminated / Safety Tempered Glass: ANSI Z97.1
2. Finishes
- a. Stainless Steel
 - 1) Satin Finish: No. 4 satin, long grain.
 - 2) Mirror Finish: No. 8 non-directional mirror polished.
 - b. Sheet Steel:
 - 1) Shop Prime: Factory-applied baked on coat of mineral filler and primer.
 - 2) Finish Paint: Two (2) coats of low sheen baked enamel, color as selected by the Architect.
 - 3) Steel Equipment: Two (2) coats of manufacturer's standard rust-inhibiting paint to exposed ferrous metal surfaces in both the hoistway and pit that do not have galvanized, anodized, baked enamel, or special architectural finishes.
3. Painting
- a. Apply two (2) coats of paint to the machine room and pit floors.
 - b. Apply two (2) coats of clear lacquer to bronze or similar non-ferrous materials to prevent tarnishing during a period of not less than twelve (12) months after initial acceptance by the Owner or Agent.
 - c. Identify all equipment including buffers, car apron, crosshead, safety plank, machine, controller, drive, governor, disconnect switch, etc., by 4" high numerals which shall contrast with the background to which it is applied. The identification shall be either decalcomania or stencil type.
 - d. Paint or provide decal-type floor designation not less than 4" high on hoistway doors (hoistway side), fascia and/or walls as required by A17.1 as may be adopted and/or modified by the AHJ. The color of paint used shall contrast with the color of the surface to which it is applied.
- B. Hoistway Entrances
- 1. Entrance Frames: Provide stainless steel with No. 4 finish standard bolted type construction having matching end caps. Provide 2" wide square profile.
 - 2. Door Panels: Provide stainless steel with No. 4 finish.
 - 3. Entrance Sills: Extruded aluminum.
- C. Designation and Data Plates, Labeling and Signage.
- 1. Provide an elevator identification plate on or adjacent to each entrance frame and the designated and alternate emergency fire recall levels.

2. Provide floor designation cast plates at each elevator entrance, on both sides of the jamb at a height of 60" to the baseline of floor indication.
 - a. Floor number designations and Braille shall be 2" high, 0.03" raised and stud mounted. Provide characters in white on black background.
3. Identify an Elevator with 3" high international emergency medical services Star of Life symbol at each elevator entrance on both sides of the jamb.
4. Provide raised designations and Braille markings to the left of the car call and control buttons of the car operating panel(s).
5. Designations shall be a minimum of 5/8" high, 0.03" raised and stud mounted.
6. Provide characters in white on black background.
7. Provide elevators with data and marking plates, labels, signages and refuge space markings complying with A17.1 Elevator Safety Code as may be adopted and/or otherwise modified by the AHJ.
8. Architect shall select the designation and data plates from manufacturer's premium line of plates.

2.10 FIXTURES / SIGNAL EQUIPMENT

A. General - Design and Finish

1. The design and location of the hall and car operating and signaling fixtures shall comply with the ADAAG, CBC and local requirements of the AHJ.
2. The operating fixtures shall be selected from the manufacturer's or a third-party fixture company's premium vandal resistant line of fixtures.
3. The layout of the fixtures including all associated signage and engraving shall be as approved by the Owner/ Architect.
4. Where no special design is shown on the drawings, the buttons shall be as follows:
 - a. Stainless steel raised type as selected by the Owner/ Architect.
 - b. The button shall have a collar on the button with LED call registered light.
5. Where no special design is shown on the drawings, the faceplates shall be as follows:
 - a. 1/8" thick stainless steel faceplate with No. 4 finish.
6. Mount passenger elevator fixtures with concealed fasteners. The screw/fastener and key switch cylinder finishes shall match faceplate finish.
7. Where key-operated switch and or key operated cylinder locks are furnished in conjunction with any component of the installation, four (4) keys for each individual switch or lock shall be furnished, stamped or permanently tagged to indicate function.
8. All caution signs, pictographs, Code mandated instructions and directives shall be integral with fixture faceplates, engraved and filled with epoxy in Code required colors.

B. Main Car Operating Panel

1. Provide a main car operating pushbutton panel on the inside front return panel of the car.

2. Car operating panel shall be incorporated in the swing-front return of the elevator cab.
3. The pushbuttons shall become individually illuminated as they are pressed and shall extinguish as the calls are answered.
4. The operating panel shall include:
 - a. A call button for each floor served, located not more than 48" above the cab floor.
 - b. "Door open" / "Door close" / "Door Hold" buttons in elevator used for resident moves in each tower.
 - c. Illuminated alarm button, interfaced with emergency alarm. The alarm button shall illuminate when pressed.
 - d. Self-dialing, hands-free emergency communication system actuation button with call acknowledging feature, provisions for the deaf per ASME A17.1, CBC-2022 and A.D.A. design provisions.
 - e. LCD screen for displaying text from monitoring service and separate fixtures to enable individuals inside cab to respond to monitoring service nonverbally to comply with current emergency communication requirements included in CBC 2022 Building Code.
 - f. An integral (no separate faceplate) digital L.E.D. floor position indicator. Providing the position indicator integral with the specified LCD screen for emergency communication provisions is acceptable.
 - g. Three (3) position firefighter key operated switch, call cancel button and illuminated visual/audible signal system with mandated signage engraved per ASME A 17.1 Standards as modified by the AHJ.
5. Locked Firemen's Service cabinet, keyed in accordance with local Code, containing required devices and signals in accordance with ASME A17.1 Standards.
6. Provide a locked service cabinet flush mounted and containing the key switches required to operate and maintain the elevator, including, but not limited to:
 - a. Independent service switch.
 - b. Light switch.
 - c. Fan switch.
 - d. G.F.C.I. duplex receptacle.
 - e. Emergency light test button and indicator.
 - f. Emergency Stop/Run switch
 - g. Inspection Service Operation key switch.
 - h. Port for hand-held service tool where applicable.
 - i. Dimmer for cab interior lighting.
7. Post Annual Operating Certificate in a horizontal position behind an opening in the service cabinet door or in the return below the service cabinet that is fitted with a flush-mounted clear Plexiglas without a frame.
8. Car operating panel shall incorporate:
 - a. Black-filled engraved elevator identification number.
 - b. The rated passenger load capacity in pounds.

C. Car Position Indicator

1. The position of the car in the hoistway shall be indicated by the illumination of the position indicator numeral corresponding to the floor at which the car has stopped or is passing.
 - a. Provide 2" high, 10-segment LED type position indicator with direction arrows, integral with the car operating panel.
 - b. Provide Lexan cover lens with hidden support frame behind fixture plate to protect the indicator readout.
 - c. Provide audible floor passing signal per ADA standards where not provided by the elevator signal control.
 - d. Flush mount fixture with cover to match selected car front or car operating panel finish as directed by the Owner.

D. Voice Annunciator

1. Provide a voice annunciator in each elevator.
2. The device features shall comply with the requirements of ADAAG and local accessibility requirements.
3. The system shall include, but not limited to:
 - a. Solid state digital speech annunciator.
 - b. A recording feature for customized messages.
 - c. Playback option.
 - d. Built-in voice amplifier.
 - e. Master volume control.
 - f. Audible indication for selected floor, floor status or position, direction of travel, floor stop, seismic operation, firefighter service and nudging.
4. Locate all associated equipment in a single, clearly labeled enclosure located either in the machine room and/or on car top.

E. Corridor Pushbutton Stations / Riser

1. Pushbutton signal fixtures shall be provided on each landing.
2. Each signal fixture shall consist of the following:
 - a. A flush-mounted faceplate with a stainless-steel No. 4 finish.
 - b. Illuminating tamper-resistant pushbuttons measuring */" at their smallest dimension as selected by the Owner.
 - c. A recessed mounting box, electrical conduit and wiring.
3. Intermediate landings shall be provided with fixtures containing two (2) pushbuttons while terminal landings shall be provided with fixtures containing a single pushbutton.
4. Include firefighter key switch in the main lobby level service fixture specified in part 2.10 J below.
5. Pushbutton signal fixtures shall be installed within ADA and CBC reach range above the floor and shall be installed both plumb and flush to the finished wall.

- a. Standardize the final distance on all floors.
- F. Floor Position Indicator
- 1. Provide a digital LED type floor position indicator at the main lobby only.
 - 2. Indicator shall include 2" high numerals with integral direction arrows that will indicate the direction in which the elevator is traveling.
 - 3. Indicator shall be located directly above the hoistway entrance frames.
- G. Hall Direction Lanterns
- 1. Provide a visual and audible signal at each entrance to indicate the direction of travel and, where applicable, which car shall stop in response to the hall call.
 - a. Design the lantern with up and down indication at intermediate landings and a single indication at terminal landings.
 - b. Lanterns shall sound once for the up direction and twice for the down direction.
 - 1) Provide an electronic chime with adjustable sound volume.
 - 2) Provide advanced hall lantern notification to comply with accessibility standards.
 - 2. Locate the lantern above the corridor entrance, providing flush-mounted faceplates with a stainless steel No. 4 finish, and hall lantern lens shall be minimum 2 ?" in their smallest dimension.
- H. Hoistway Access Switch
- 1. Install a cylindrical type keyed switch at top and bottom floors in order to permit the car to be moved at slow speed with the doors open to allow authorized persons to obtain access to the top of the car.
 - 2. Locate the switch in the terminal floor entrance jambs without faceplate at a height of 78" above the finished floor.
 - 3. This switch is to be of the continuous pressure spring-return type and shall be operated by a cylinder type lock having not less than a five (5) pin or five (5) disc combination with the key removable only in the "OFF" position.
 - a. The lock shall not be operable by any key which operates locks or devices used for other purposes in the building and shall be available to and used only by inspectors, maintenance men and repairmen in accordance with A17.1 applicable Security.
- I. Lobby Service Fixture
- 1. Provide a service fixture at the main lobby including the following features:
 - a. A flush-mounted faceplate with a stainless steel No. 4 finish.
 - b. A recessed mounting box, electrical conduit and wiring.
 - c. Firefighter key switch with Code-required engraved operating instructions and illumination jewel.

- d. Emergency power provisions, including an indicator light that illuminates when a transfer to emergency power takes place with an engraved description.
 - e. Emergency communication failure provisions.
 - f. Intercom provisions to initiate communication with each elevator cab as specified in part 2.12 C below.
2. Firefighters' Key Box: Provide a key box mounted above lobby service fixture, meeting California Building Code requirements. Include all required keys.

2.11 CAR ENCLOSURES

- A. Elevator Cab Interior Allowance (\$40,000 total net allowance per elevator.)
- B. Elevator Cab / General Design Requirements

- 1. Materials:
 - a. Particleboard: Premium grade, AWI, Section 200, fire retardant treated, equal to Duraflake FR
 - b. Plastic Laminate: Comply with NEMA LD3, 0.05" thick, color, texture and finish as selected by the architect
- 2. Steel Shell: 14-gauge furniture steel reinforced and designed to accept finished wall panels. Finish shell panels with one coat of rust inhibitive primer and two (2) coats of enamel paint in accordance with Section 09900. Apply 1/8" thick, rubberized sound deadening material to the hoistway side of the shell.
 - a. All panels shall have minimum radii. Apply sealant beads to panel joints before bolting together with lock washers.
- 3. Canopy: Canopy construction methods shall match the shell walls. Use 12-gauge furniture sheet steel and adequately support canopy to comply with the loading requirements of the Code.
 - a. Paint canopy with a coat of primer and one (1) coat of low sheen enamel paint.
 - b. Provide necessary cutouts for the installation of fan and top emergency exit. Arrange exit panel to swing up using a heavy duty piano hinge.
 - c. The exit panel shall have dual locks, necessary stops and a handle.
 - d. When in the locked position, the panel shall be flush with the interior face of the canopy with hairline joints.
- 4. Base: Where finished base provided under another section of these specifications, recess and prepare the shell to accept the base.
 - a. Provide concealed vent slots above side and rear wall base for proper ventilation. Arrange and size vent slots for quiet operation without any whistling. Use 16 gauge baffles to protect the hoistway side of the vent slots.
 - b. The elevator cab shop drawings shall include elevator vent calculations and number, location and size of top and bottom vent holes.

5. Interior Wall Finish: Wall panels and trim are included in the cab interior allowance. Provide 16-gauge stainless steel panels with 5w1 pattern applied to shell.
6. Flooring: Provide 1" recess for finished flooring provided under another section and prepare sub-flooring to accept the finished flooring.
7. Return Panels, Entrance Posts and Transom: Use 14-gauge furniture sheet steel clad with satin stainless steel No. 4 finish with proper reinforcing to prevent oil canning.
 - a. Swing return panels shall have required cutouts for the car call buttons, keyed switches, indicators, emergency light fixture, cabinets and the specified special control and signaling devices.
 - 1) Provide concealed full height stainless steel piano hinges of sufficient strength to support the panel, without sagging, in the open position.
 - 2) The concealed locks shall secure the panel at two (2) points with linkage that shall be free of vibration and noise when in the locked position.
 - 3) When locked in the closed position, the return panel shall be in true alignment with the transom and base.
 - 4) Lock release holes shall be not more than 1/4" diameter and be located at the return side jamb of the panel.
 - 5) Engrave the elevator identification number and capacity, no smoking sign, firefighter instructions, and other Code mandated instructions and caution signs directly in the front return panel. Applied panels are unacceptable.
 - b. Transom shall be 14 gauge and be reinforced and constructed the same as the front return panels.
 - c. Construct entrance posts for the passenger elevators from 12-gauge sheet steel and reinforce to maintain vertical alignment with the adjacent panels.
8. Cab Doors: Standard 1" thick, 14-gauge hollow metal flush construction, reinforced for power operation and insulated for sound deadening. Paint hatch side of doors black and face cab side with 16-gauge stainless steel No. 4 finish.
 - a. The door panels shall have no binder angles. All welds shall be continuous, ground smooth and invisible.
 - b. Drill and reinforce doors for installation of door operator hardware, door protective device, door gibs, etc.
9. Ceiling: Suspended ceiling is included in the cab interior allowance. Construction techniques for wall panels shall apply to ceiling panel construction. Locate top emergency exit inconspicuously. Construct and mount the exit panel to prevent light leakage around the perimeter of panel.
10. Ventilation: The ventilation system of the exhaust type shall be provided in each elevator.
 - a. The system shall include a blower driven by a direct connected motor and mounted on top of car with isolation to effectively prevent transmission of vibration to the car structure. The blower shall have not less than two (2) operating speeds. The ventilation system shall be sized to provide one (1) air change per minute at low speed and one and one-half (1.5) air changes per minute at high speed. The unit design and installation shall be such that the maximum noise level, when operating at high speed, shall not exceed 55

dBA approximately 3' above the car floor. A three-position switch to control the blower shall be provided in the service panel.

11. Lighting: Cab ceiling lighting is included in the cab interior allowance.
12. Handrails: Handrails are included in the cab interior allowance. All attachment hardware shall match the selected handrail and shall permit handrail removal from within the cab.
 - a. Design handrail attachment system to support the weight of a person (two hundred fifty [250] pounds) sitting on it without any deflection and damage to the handrail, cab panel and the shell.
13. Protective Pads and Pad Hooks: Provide one (1). Protective pads shall cover the return panels, and the side walls. Provide cutouts in pads for access to the cab operating and signaling devices. Pads shall be fire-resistant canvas with two (2) layers of cotton batting padding.
14. Accessories: Construct elevator cab to accommodate the door operator, hangers, interlocks and all accessory equipment provided under other sections of these specifications, including card readers and CCTV equipment provided by the security contractor.
15. All cab materials shall conform to the Code prescribed flame spread rating and smoke development requirements.

C. Cab Fabrication and Installation

1. Maintain accurate relation of planes and angles with hairline fit of contacting panels and/or surfaces.
2. Any shadow gaps (reveals) between panels shall be consistent and uniform.
3. Unless otherwise specified or shown on the drawings, for work exposed to view use concealed fasteners.
4. Maximum exposed edge radius at corner bends shall be 1/16". There shall be no visible grain difference at the bends.
5. Form the work to the required shapes and sizes with smooth and even curves, lines and angles. Provide necessary brackets, spacers and blocking material for assembly of the cab.
6. Interior cab surfaces shall be flat and free of bow or oil canning. The maximum overall deviation between the low and high points of 24" x 24" panel section shall not exceed 1/32".
7. Make weights of connections and accessories adequate to safely sustain and withstand stresses to which they will be subjected.
8. All steel work except stainless steel and bronze materials shall be painted with an approved coat of primer and one (1) coat of baked enamel paint.
9. Cab Finish Warranty Enhancement
 - a. Contractor shall be responsible for engineering and installing interior cab finishes in a manner that will withstand all Code mandated inspections and test procedures. Failure of finishes during testing shall be repaired by the contractor without expense to the owner. Any objections or qualifications to material selection or design shall be identified during the engineering of the cab interior drawings for review by the owner.

2.12 EMERGENCY LIGHTING / COMMUNICATIONS / SIGNALING

A. Battery Back Up Emergency Lighting Fixture and Alarm

1. Provide a self-powered emergency light unit.
 - a. Arrange a minimum of two (2) of the cab light fixtures to operate as the emergency light system.
 - b. Where cab lighting is utilized for emergency lighting, Contractor shall coordinate the battery back-up equipment so that it is compatible with the type of cab lighting specified by the Owner or Architect.
2. Provide a car-mounted battery unit including solid-state charger and testing means enclosed in common metal container.
 - a. The battery shall be rechargeable nickel cadmium with a ten (10) year minimum life expectancy. Mount the power pack on the top of the car.
 - b. Provide a 6" diameter alarm bell mounted directly to the battery/charger unit and connected to sound when any alarm pushbutton or stop switch in the car enclosure is operated.
 - c. The bell shall be configured to operate from power supplied by the building emergency power generator. The bell shall produce a sound output of between 80 - 90 dBa (measured from a distance of 10') mounted on top of the elevator car.
 - 1) Activation of this bell shall be controlled by the stop switch and alarm button in the car operating station.
 - 2) The alarm button shall illuminate when pressed.
3. Where required by Code for the specific application, the unit shall provide mechanical ventilation for at least one (1) hour.
4. The operation shall be completely automatic upon failure of normal power supply.
5. Unit shall be connected to normal power supply for car lights and arranged to be energized at all times so it automatically recharges battery after use.

B. Emergency Voice Communication / Video / Text Communication

1. A hands-free emergency voice communication system complying with California Building Code 2022, 3001.2 shall be furnished in each car mounted as an integral part of the car operating panel.
 - a. Necessary wires shall be included in the car traveling cable and shall consist of a minimum of seven (7) shielded pair of 20AWG conductors.
 - b. 120V power shall be provided to power the hands-free device.
 - c. Conversation levels shall measure 60 dbA or higher and measure 10 dbA above ambient noise levels.
 - d. Each device shall be provided with a self-diagnostic capability in order to automatically alert building personnel should an operational problem be detected.

2. In addition to the standard Alarm button, a separate activation button shall be provided with the car operating fixtures to initiate the emergency communication device.
3. The communication means shall be equipped with an auto-dialer and a message shall be displayed on the same panel when a call has been placed to acknowledge that communications are established.
4. On the same panel, messages shall be displayed which permit authorized personnel to communicate with and obtain responses from a trapped passenger, including passengers who cannot verbally communicate or cannot hear.
5. Once activated by authorized personnel, a message shall be displayed indicating "Help is on the way" or similar language as approved by the AHJ.
6. The communication device shall be able to:
 - a. Receive incoming calls from any On-Site Rescue Station (when provided or required).
 - b. Receive incoming calls from other off-site locations via the public telephone system.
 - c. Acknowledge incoming calls and automatically establishing hands-free two-way voice and video communications.
7. The system shall provide its own four-hour backup power supply in case of a loss of regular AC power.
8. Pushing the activation button will cause an on-site Rescue Station (where provided or required) or a security phone/computer to ring:
 - a. If the on-site call is not picked up within thirty (30) seconds, the call will be automatically forwarded to a twenty-four (24) hour off-site monitoring service.
 - b. Contractor shall provide off-site monitoring for full compliance with current emergency communication requirements.
 - c. A means to display video to authorized personnel for observation of passengers at any location on the car floor shall be provided. Camera provisions must be flush and integral with a return or in a discreet location as approved by the Architect or Owner.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Inspection

1. Study the Contract Documents with regard to the work as specified and required so as to ensure its completeness.
2. Examine surface and conditions to which this work is to be attached or applied and notify the Owner in writing if conditions or surfaces are detrimental to the proper and expeditious installation of the work. Starting the work shall imply acceptance of the surfaces and conditions to perform the work as specified.
3. Verify, by measurements at the job site, dimensions affecting the work. Bring field dimensions which are at variance with those on the accepted shop drawings to the attention of the Owner. Obtain the decision regarding corrective measures before the start of fabrication of items affected.

4. Cooperate in the coordination and scheduling of the work of this section with the work of other sections so as not to delay job progress.

3.2 INSTALLATION / PROJECT PHASING

A. Installation

1. Install the elevators, using skilled personnel in strict accordance with the final accepted shop drawings and other submittals.
2. Comply with the Code, manufacturer's instructions and recommendations.
3. Comply with Burbank Airport Rules and Regulations.
4. Coordinate work with the work of other building functions for proper time and sequence to avoid delays and to ensure right-of-way of system. Use lines and levels to ensure dimensional coordination of the work.
5. Accurately and rigidly secure supporting elements within the shaftways to the encountered construction within the tolerance established.
6. Provide and install motor, switch, control, safety and maintenance and operating devices in strict accordance with the submitted wiring diagrams and applicable Codes and regulations having jurisdiction.
7. Ensure sill-to-sill running clearances do not exceed 1-1/4" at all landings served.
8. Erect guide rails plumb and parallel with a tolerance of 1/8" (plus or minus 1/16").
9. Install rails so joints do not interfere with brackets.
10. Set entrance plumb in hoistway and in alignment with guide rails prior to erection of the front walls.
11. Arrange door tracks and sheaves so that no metal-to-metal contact exists.
12. Reinforce hoistway fascias to allow not more than 1/2" of deflection.
13. Install elevator cab enclosure on platform plumb and align cab entrance with hoistway entrances.
14. Sound isolate cab enclosure from car structure. Allow no direct rigid connections between enclosure and car structure and between platform and car structure.
15. Isolate cab fan from canopy to minimize vibration and noise.
16. Remove oil, dirt and impurities and give a factory coat of rust inhibitive paint to all exposed surfaces of struts, hanger supports, covers, fascias, toe guards, dust covers and other ferrous metal.
17. Prehang traveling cables for at least twenty-four (24) hours with ends suitably weighted to eliminate twisting after installation.
18. After installation, touch up in the field, surfaces of shop primed elements which have become scratched or damaged.
19. Lubricate operating parts of system as recommended by the manufacturer.

3.3 FIELD QUALITY CONTROL

A. Inspection and Testing

1. Upon completion of each work phase or individual elevator specified herein, the Contractor shall, at its own expense, arrange and assist with inspection and testing as may be required by the A.H.J. in order to secure a Certificate of Operation.

B. Substantial Completion

1. The work shall be deemed "Substantially Complete" for an individual unit or group of units when, in the opinion of the Consultant, the unit is complete, such that there are no material and substantial variations from the Contract Documents, and the unit is fit for its intended purpose.
2. Governing authority testing shall be completed and approved in conjunction with inspection for operation of the unit; a certificate of operation or other required documentation issued; and remaining items mandated for final acceptance completion are limited to minor punch list work not incorporating any life safety deficiencies.
3. The issuance of a substantial completion notification shall not relieve the Contractor from its obligations hereunder to complete the work.
4. Final completion cannot be achieved until all deliverables, including but not limited to training, spare parts, manuals, and other documentation requirements, have been completed.

3.4 PROTECTION / CLEANING

A. Protection and Cleaning

1. Adequately protect surfaces against accumulation of paint, mortar, mastic and disfiguration or discoloration and damage during shipment and installation.
2. Upon completion, remove protection from finished surfaces and thoroughly clean and polish surfaces with due regard to the type of material. Work shall be free from discoloration, scratches, dents and other surface defects.
3. The finished installation shall be free of defects.
4. Before final completion and acceptance, repair and/or replace defective work, to the satisfaction of the Owner, at no additional cost.
5. Remove tools, equipment and surplus materials from the site.

3.5 DEMONSTRATION

A. Performance and Operating Requirements

1. Passenger elevators shall be adjusted to meet the following performance requirements:
 - a. Speed: within +3% in both directions of travel under any loading condition.
 - b. Leveling: within +1/4" as measured between the car entrance threshold and the landing sill on any given floor under any loading condition.
 - c. Typical Floor-to-Floor Time: (Recorded from the doors start to close on one floor until they are 3/4 open at the next floor) under various loading conditions.

Passenger Elevator	12.5 seconds.
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Door Operating Times

Door Type	Opening	Closing
42" wide side opening	2.3 sec.	4.0 sec.

- d. Door dwell time for hall calls: 5.0 seconds minimum.
- e. Door dwell time for car calls: 5.0 seconds minimum.
- f. Reduced non-interference dwell time: 1.0 seconds.

2. Maintain the following ride quality requirements for the passenger elevators:

- a. The speed of the car roller guides shall not exceed 500 rpm.
- b. Where pit permits, extend bottom roller guides by not less than one half the distance from the centerline of the upper roller guides to the platform.
- c. Noise levels inside the car shall not exceed the following:
 - 1) Car at rest with doors closed and fan off - 40 dba.
 - 2) Car at rest with doors closed, fan running - 55 dba.
 - 3) Car running at high speed, fan off - 50 dba.
 - 4) Door in operation - 60 dba.
- d. Vertical and horizontal accelerations shall not exceed 14 milli-g.
 - 1) The accelerometer used for this testing shall be capable of measuring and recording acceleration to nearest 0.01 m/s² (1 milli-g) in the range of 0-2 m/s² over a frequency range from 0-80 Hz with ISO 8041 filter weights applied. Accelerometer should provide contact with the floor similar to foot pressure, 60 kPA (8.7psi).
- e. The amplitude of acceleration and deceleration shall not exceed 2.6 - 2.8 ft./sec² for MRL traction.
- f. The maximum jerk rate shall be 1.5 to 2.0 times the acceleration and deceleration.
- g. The maximum velocity which the elevator achieves in either direction of travel while operating under load conditions that vary between empty car and full rated load shall be within 1 3% of the rated speed.

B. Acceptance Testing

- 1. Comply with the requirements of Division 01.
- 2. The Contractor shall provide at least five (5) days prior written notice to the Owner and Consultant regarding the exact date on which work specified in the Contract Documents will reach completion on any single unit of vertical transportation equipment.
- 3. In addition to conducting whatever testing procedures may be required by local inspecting authorities in order to gain approval of the completed work, and before seeking approval of said work by the Owner, the Contractor shall perform certain other tests in the presence of the Consultant.

4. The Contractor shall provide test instruments, test weights, and qualified field labor as required to safely operate the unit under load conditions that vary from empty to full rated load and, in so doing, to successfully demonstrate compliance with applicable performance standards set forth in the project specifications with regard to:
 - a. Operation of safety devices.
 - b. Sustained high-speed velocity of the elevator in either direction of travel.
 - c. Brake-to-brake running time and floor-to-floor time between adjacent floors.
 - d. Floor leveling accuracy.
 - e. Door opening/closing and dwell times.
 - f. Ride quality inside the elevator car.
 - g. Communication system.
 - h. Load settings at which anti-nuisance, load dispatch, and load non-stop features are activated.
5. Upon completion of work specified in the Contract Documents on the last car in any group of elevators, and in conjunction with the aforementioned testing procedures, the Contractor shall carry out additional testing of group dispatch/supervisory control features in the presence of the Consultant.
6. The Contractor shall provide test instruments and qualified field labor as required to successfully demonstrate:
 - a. Simulated and actual emergency power operation.
 - b. Firefighter and independent service operations.
 - c. Restricted access security features and card reader controls.

END OF SPECIFICATION

EXHIBIT F
Supplemental Conditions

(attached)

**PARKING STRUCTURE ELEVATOR REPLACEMENT DESIGN-BUILD SERVICES
HOLLYWOOD BURBANK AIRPORT
PROJECT NUMBER E26-01**

**ATTACHMENT B
SPECIFICATIONS**

SECTION 008000 – SUPPLEMENTAL CONDITIONS

PART 1 GENERAL

1.1 DEFINITION OF TERMS

- A. AIRPORT DESIGNATED REPRESENTATIVE (ADR) as used herein, refers to the project representative designated by BGPAA.
- B. AUTHORITY or BPGAA as used herein, refers to Burbank Glendale Pasadena Airport Authority (BGPAA).
- C. The term CONTRACT or CONTRACT DOCUMENTS, as used herein, consists of the Agreement, Conditions of Contract, Specifications, Addenda, Drawings if included, and Alternates if accepted.
- D. CONTRACTOR or ESCALATOR CONTRACTOR, as used herein, refers to any persons, partners, firm, or corporation having a contract with The Authority to furnish labor and materials for the execution of work required.
- E. CONTRACT AWARD, as used herein, refers to verbal or written award for work required.
- F. SUBCONTRACTOR, as used herein, refers to any persons, partners, firm, or corporation having a contract with Contractor to furnish labor and materials for the execution of work required.
- G. As used in these Contract Documents, “provide” shall be understood to mean “furnish and install.”
- H. As used in these Contract Documents, “retain or reuse existing” shall be understood to mean restore existing components or parts to like-new condition.
- I. Words in the singular shall include the plural whenever applicable or context so indicates.
- J. All technical terms in these Contract Documents have their definition given in latest edition of American National Standard Safety Code for Elevators, Dumbwaiters, Escalators, and Escalators ASME A17.1. and A17.2.

1.2 ADR STATUS

- A. ADR shall act as BGPAA’s representative on all matters pertaining to required work. ADR shall interpret Contract Documents, analyze Contractor’s quotations, review Contractor suggested alternates, review all submittals of Contractor, approve billings, review technical details and construction procedure, perform work progress reviews and review and test completed work for compliance with Contract Documents prior to acceptance of work by BGPAA.
- B. Field Review Scheduling: Schedule progress and final work reviews with ADR. Reply promptly, in writing, to corrective work indicated on ADR’s progress and/or final review

reports, indicating status, and schedule for completion. ADR anticipates scheduled site review appointments will be met. Contractor's price will be reduced to reimburse ADR at its normal billing rates for appointments not kept, or for additional follow up reviews required due to Contractor's gross noncompliance with previous review requirements.

1.3 CONTRACT

- A. Contract includes all engineering, labor, tools and material required to complete the work in every respect, except those items specifically indicated to be done by other trades, Section 019000. Contractor is cautioned to familiarize itself with existing site conditions and to include all incidental work that might occur or be required during the work. After Contract has been awarded, verbally or in writing, no extra charges will be allowed for any labor or material necessary to complete required work whether exactly described in these specifications herein or not, as long as such work, labor and material are required to accomplish desired effect and results. This provision shall not apply to changes in scope authorized in writing by Authority or to unforeseen conditions that materially differ from those reasonable anticipated.
- B. Any discrepancies or ambiguities found in the Contract Document or drawings shall be reported to the Authority through the Planetbids system prior to the deadline for questions during the bidding process.

1.4 MEASUREMENTS AND DRAWINGS

- A. Drawings or measurements included with Contract Documents are for convenience of Contractor and are not guaranteed to be accurate. Complete responsibility for detailed dimensions lies with Contractor. Contractor shall field verify all dimensions with the actual on-site conditions. Where work of Contractor is to join another trade, Contractor's shop drawings shall show actual dimensions (field measured and verified) and method of joining work of those trades.

1.5 CODES AND ORDINANCES

- A. All work covered by these Contract Documents is to be done in full accord with national code, state and local codes, ordinances and escalator safety orders as are in effect at time of Contract award. All requirements of local Building Department and fire jurisdiction are to be fulfilled by Contractor and its Subcontractors. Also see Section 010400, Article 1.1.

1.6 CONTRACTOR'S INSURANCE

- A. Contractor shall take out and maintain during the life of this Contract Worker's Compensation Insurance with statutory limits set by the State of California laws for protection of its employees.
- B. Contractor shall carry a comprehensive general liability policy including completed operations blanket contractual broad form property damage, and BGPAA's and Contractor's protective liability in a casualty or liability insurance company acceptable to BGPAA. Insurance policy shall fully protect Contractor, BGPAA, and ADR from all loss and liability.
- C. Contractor shall not commence work under this Contract until it has obtained all insurance required hereunder and certificate of such insurance has been filed with and approved by BGPAA. Contractor will name BGPAA and ADR as additionally insured for

this project. Contractor shall provide insurance policy coverage until all work covered by this Contract is completed and accepted by BGPAA. Minimum insurance coverage as follows:

Type of Insurance Coverage	Amount
Worker's Compensation and Occupational Disease	Statutory Limits
Employer's Liability, Including Occupational Disease Coverage	\$2,000,000
Commercial General Liability, Including Operations, Contractual, and Completed Operations Coverages, Occurrence Basis	\$2,000,000 Combined Single Limit for Bodily Injury and Property Damage
Commercial Automobile Liability Covering Owned, Non-Owned, and Hired Vehicles used in the Performance of the Services	\$2,000,000 Combined Single Limit for Bodily Injury and Property Damage

D. Contractor shall file with BGPAA a certificate of insurance from its insurance company, stating that such insurance is being carried and that BGPAA will be notified at least 10 days prior to any cancellation of said insurance.

1.7 BGPAA INSURANCE

A. BGPAA insurance policy covers work and equipment in place in building and approved and accepted by BGPAA. All material and equipment stored on site and not actually installed is not included in BGPAA's policy and such material and equipment shall be covered under Contractor's Property Damage Insurance.

1.8 TAXES, OLD AGE PENSIONS AND UNEMPLOYMENT INSURANCE

A. Contractor's quotations for required work, materials and equipment shall include all local, state and federal occupational and sales taxes, luxury taxes, excise taxes, federal and state old age pensions and unemployment insurance contributions, and any other similar taxes and contributions in effect at time of award of Contract (verbally or in writing). Contractor shall be liable for aforementioned taxes whether or not specifically included in his quotation or in final Contract Document. In event additional sales or use taxes are imposed after award of Contract, such sales or use taxes are to be paid, in addition to original Contract amount, by BGPAA to Contractor, who in turn is to pay them to proper authorities. Reciprocally, if any of above mentioned taxes or contributions in effect at time of award of Contract should be revoked before consummation of Contract, Contractor shall rebate BGPAA amount of taxes included in original quotation and Contract. Where required by law, amount of the tax is to be specifically stated in Contractor's quotation; however, failing to do so will not relieve Contractor from responsibility for assumption of these taxes.

1.9 LABOR LAWS

- A. Contractor and its Subcontractors performing work under this Contract shall comply with applicable provisions of all federal, state, and local labor laws.

1.10 PATENTS

- A. Contractor shall save and hold harmless BGPAA and its officers, agents, servants, employees and consultants, from liability of any nature or kind on account of any patented or unpatented invention, process, article or appliance manufactured or used in performance of Contract, including its use by BGPAA including all cost and expenses for defending any suits unless otherwise specifically stipulated in Contract Documents.
- B. Licenses which may be required for completion of required work are to be obtained and paid for by the Contractor.

1.11 ASSIGNMENTS

- A. Neither party to this Contract shall assign Contract or sublet it as a whole without written consent of other party, nor shall Contractor assign any payment due them or to become due to them hereunder without previous written consent of BGPAA.

1.12 ADVERTISING

- A. Advertising privileges will be retained by BGPAA. It is the duty of Contractor to keep premises free from posters, signs, decorations, etc., unless specifically approved by BGPAA.

1.13 PROTECTION OF WORK AND PROPERTY

- A. Contractor shall continuously maintain adequate protection of all its work from damage and shall protect BGPAA property from injury or loss arising out of this Contract. Contractor shall make good any such damages, injury or loss, except such as may be directly caused by agents, subcontractors, or employees of the BGPAA. Contractor shall provide all barricades required to protect open elevator shafts per OSHA/CalOSHA regulations. Design of barricades, signage, and graphics in public areas shall be approved by BGPAA prior to fabrication and installation.
- B.
- C. Contractor shall schedule work which would be disruptive during normal business operations, or would be dangerous to building occupants, to occur during 11PM – 5AM, unless prior written approval by the Airport. Examples of such work include, without limitation, saw cutting of concrete, jack hammering, welding, metal cutting, pouring concrete, erecting steel or hoisting equipment over occupied portions of the building or performing tests requiring all elevators to be shut down. Contractor shall perform such work during off-hours and shall include all costs in its bid.
- D. Contractor shall install a suitable protective covering on all finished floors (whether marble, wood, carpet or other) in areas where work is being performed. No material

handling equipment shall be permitted on or over finished floors unless said floors have been protected in a manner approved by building management.

- E. Portable fire extinguishers shall be provided throughout Contractor's area of work and shall be placed so as to be accessible at all times. Extinguishers shall be multi-purpose dry chemical type, provided on a basis of one 2A-20BC rated unit for each 3,000 square feet of floor area. Extinguishers to remain property of Contractor.
- F. Contractor shall at all times maintain work areas so that all portions are accessible to fire department personnel and apparatus. Fire hydrants and fire department connections to building sprinkler systems must be kept free from obstruction at all times.
- G. Contractor shall strictly supervise any welding, metal cutting or other operations employing open flame work. All welding and cutting equipment shall be safely arranged and all combustibles in vicinity of any work being performed shall either be removed or protected by a noncombustible cover. Welding or cutting shall be attended by an assistant or fire watchman who is equipped with at least one 2A-20BC rated multi-purpose dry chemical fire extinguisher. Fire watchman will maintain strict surveillance during entire welding or cutting operation and extinguish flying sparks or burning slag. After welding or cutting operation, fire watchman shall thoroughly search entire area for remnants of smoldering materials before he is released from his duty. Any hot work, welding or other operation employing open flame in any portion of building shall be scheduled with and receive approval of BGPAA.
- H. Contractor shall keep noise level below 80 dBA level during normal building hours. When it is necessary to produce noise above this level, Contractor shall advise the Airport of such needs and times will be scheduled off hours, unless otherwise directed. The Contractor shall anticipate and shall schedule excessive noise generating procedures and include allowance for same in its quotation and schedule.

1.14 ACCIDENT REPORTS

- A. In the event of accidents of any kind, Contractor shall furnish BGPAA with copies of all accident reports. Reports shall be sent without delay and at the same time they are forwarded to any other parties.

1.15 STORAGE OF MATERIALS

- A. Contractor shall confine storage of materials on job site to limits approved by BGPAA and shall not unnecessarily encumber premises or overload any portion of building with materials to a greater extent than structure design load.

1.16 REMOVAL OF EQUIPMENT AND WASTE

- A. Contractor shall remove and properly dispose of all waste on a daily basis, or if required, as fast as it accumulates, including all existing parts and components not retained, keeping building and premises clean during progress of work and leave premises at completion in a condition acceptable to the BGPAA.

1.17 MATERIALS AND WORKMANSHIP

- A. All materials and equipment furnished shall be new and best quality. Installation shall be accurate, workmanlike and subject to approval of ADR. All materials and equipment provided shall conform to regulations of enforcement bodies having jurisdiction. Contractor shall furnish material samples for approval.

1.18 SUPERVISION

- A. Contractor shall assign a competent Project Manager, superintendent and on-site foreman for project satisfactory to BGPAA and ADR. Such persons shall represent Contractor and all instructions given to them shall be binding as if given to Contractor.

1.19 ROUTINE BUSINESS

- A. After award of Contract, all business relating to required work shall be transacted through ADR, unless otherwise directed.

1.20 CHANGES AND EXTRA WORK

- A. BGPAA may at any time make changes to Contract Documents, plans and drawings, omit work or require additional work by Contractor. For such additional work performed hereunder, BGPAA shall pay Contractor on either a Time and Materials basis or a mutually agreed lump sum. See Article 1.25 for method of computing lump sum cost of additional work. Contractor shall make no additions, changes, alterations, or omissions, or perform extra work, without receipt of written authorization of BGPAA.
- B. Payment for authorized extra work shall be limited to the following markups on the actual cost of labor, materials, and equipment:
 - 1. Contractor's markup for overhead and profit: not to exceed 15% of the net cost of the work performed with the Contractor's own forces.
 - 2. Subcontractor's markup for overhead and profit: not to exceed 10% of the net cost of the work performed with the Subcontractor's own forces.
 - 3. Prime Contractor's markup on Subcontractor work not to exceed 5%.
 - 4. No markup shall be applied to sales tax, insurance, or bond costs.
- C. The above markups represent the maximum compensation allowed for extra work. No additional payment will be made for indirect costs, home office overhead, or other items not specifically included.

1.21 PAYMENTS

- A. Unless otherwise agreed, Contractor shall submit monthly applications for payment together with necessary data, information, waivers, and affidavits to ADR. ADR shall review data for accuracy and forward such applications to BGPAA for payment. Information shall be submitted with payment request and work progress forms included at the end of this section as Appendix "A." Contractor shall be paid for undisputed amounts no later than 30 days after submittal of billing.
- B. Applications for payments are to cover 95% of the value of labor performed and material installed and delivered during the preceding month or materials delivered to Contractor's storage facility.

- C. Balance (retention) shall be paid by BGPAA upon Substantial Completion minus 150% of the value of any punchlist items. Final payment shall be made at final acceptance of entire work by ADR and BGPAA and after performance guarantees have been satisfactorily demonstrated. See Section 017000 Articles 1.2 D-G.

Design-Builder may include in its monthly billings any deposits required by the elevator subcontractor.

PAYMENT WITHHELD

- A. BGPAA thru its ADR may withhold approval of payment on any Contractor request to such extent as may be necessary to protect BGPAA from loss on account of:
 - 1. Believed negligence on part of Contractor to execute the work properly or fail to perform any provision of Contract. BGPAA, after 30 days' written notice to Contractor, may without prejudice to any other remedy they may have, make good such deficiencies and may deduct its cost from the overall Contract sum.
 - 2. Claims filed or reasonable evidence indicating probable filing of claims by other Contractors or Subcontractors.
 - 3. Failure of Contractor to make proper payments to its material suppliers or Subcontractors for material and labor.
 - 4. A reasonable doubt that required work can be completed by Contractor for balance then unpaid or in Contract time frame.
 - 5. Contractor's damage to building or another Contractor.
- B. When the above grounds are removed, payment shall be made in full, less retention.

1.22 LIENS AND AFFIDAVITS

- A. Neither final payment nor any part of billing retention shall become due until Contractor shall deliver to BGPAA a complete release of all liens arising out of this Contract, or receipts marked paid in full in lieu thereof. In addition, Contractor shall furnish an affidavit to BGPAA that so far as they have knowledge or information, releases or receipts include all labor and materials for which a lien could be filed. If any lien remains unsatisfied after all payments are made by BGPAA, Contractor shall refund to BGPAA all monies the latter may be compelled to pay in discharging such a lien, including all costs and reasonable attorney's fees.

1.23 CLAIMS FOR EXTRA COST

- A. Contractor claims for extra cost due to additions or changes to required work shall be submitted to ADR in writing within 5 working days after such additions or changes identified or are requested and in any event before proceeding with required work. No such claim shall be valid unless so made. Refer to Section 1.20 for Markup limits on extra work. Contractor's cost shall be verifiable from actual supplier invoices, purchase orders, time tickets, etc.

1.24 DELAYS AND EXTENSION OF TIME

- A. If Contractor progress is delayed due to acts of BGPAA or its designated representatives, acts of other Contractors, fire, floods, strikes or other casualties beyond the control or without fault or negligence of Contractor, time for completion of the work shall be extended for a period determined by ADR to be equivalent to time of such delay. Contractor must notify ADR, in writing, of such delay within 48 hours after delay commences, or no extension of time will be granted. Extension of time without written request within said period on one or more occasions shall not be deemed a waiver of provisions of this article.

1.25 PERMITS

- A. Contractor shall obtain and pay for or cause its Subcontractor to obtain and pay for all permits required to complete required work. In addition, Contractor shall arrange, schedule and pay for or cause its Subcontractors to arrange, schedule and pay for all required final inspections by state, local or independent certified inspecting authorities necessary for issuance of all required BGPAA utilization permits in regard to completed work.

PART 2 SPECIAL CONDITIONS

2.1 PROGRESS OF WORK

- A. Upon award, Contractor shall confirm in writing, starting and completion schedule including equipment delivery dates based upon the information submitted on elevator quotation form.
- B. Contractor shall submit in writing, monthly reports with payment request, including current equipment delivery dates and anticipated completion dates for individual units and groups of units.
- C. A manual shall include the identical section numbers and shall be identified and utilized for general correspondence on these subjects. Additional sections shall include correspondence not specifically identified by one of these sections. An index in front of this section shall number and identify source of correspondence and subject.
- D. Contractor shall maintain all six manuals in an up-to-date condition. Prior to final payment, Contractor shall deliver to BGPAA the documents in Items 1, 2, 3, and 13 above via electronic file transfer method specified by the Airport.

END OF SECTION

SECTION 010100 – SUMMARY OF WORK

PART 1 GENERAL

1.1 WORK COVERED BY CONTRACT DOCUMENTS

- A. Replace two (2) elevators
- B. Provide all labor, engineering, tools, transportation, services, supervision, materials and equipment necessary for and incidental to satisfactory completion of required work as indicated in Contract Documents.
- C. Provide all required staging, hoisting, and movement of new equipment, reused equipment, or removal of existing equipment.
- D. Applicable conditions of BGPAA's General, Special, and Supplemental Conditions.
- E. Prime contracts are defined below and each is recognized to be a major part of required work to be performed concurrently in close coordination with work of other Contractors.
 1. This Contract: Replacement of Two Elevators.
 2. Include associated work specified in Section 019000.
 3. Other projects such as the SE Quadrant Reconfiguration.
- F. Scope of Contract includes, but is not limited to, the following:
 1. Coordination, scheduling and management of work of component suppliers and subcontractors.
 2. Modernize or furnish and install equipment as specified utilizing existing and/or modified elevator pit and machine rooms.
 3. Barricading and protection of work areas.
 4. Specific item of required work which cannot be determined to be included in another contract is thereby determined to be included in prime contract.

1.2 CONTRACTOR'S DUTIES

- A. Contractor's duties include the following:
 1. Provide and pay for labor, materials and equipment, tools, construction equipment and machinery and other facilities and services necessary for proper execution and completion of required work.
 2. Pay for legally required sales, consumer, and state remodel taxes.
 3. Secure and pay for required permits, fees and licenses necessary for proper execution and completion of required work, as applicable at time of quotation due date.
 4. Give required notices.
 5. Comply with codes, ordinances, rules, regulations, orders and other legal requirements of public authorities which bear on performance of required work.
 6. Promptly submit written notice to ADR of observed variance of Contract Documents from legal requirements.
 7. Enforce strict discipline and good order among employees. Do not employ persons unskilled in assigned task.
 8. Assure submission of all certified payroll, including the Certified Payroll Report of subcontractors from all tiers to both the BGPAA, and the DIR as applicable.

1.3 WORK SEQUENCE

- A. Construct work in stages. Description and proposed sequence dates are in line with the intended opening date of the RPT listed on the RFP

1.4 CONTRACTOR USE OF PREMISES

- A. Confine operations at site to areas permitted by law, ordinances, permits, Contract Documents, and BGPAA's specific instructions.
- B. Do not unreasonably encumber site with materials or equipment. Staging area will be located as directed by BGPAA.
- C. Do not load structure with weight that will compromise structure. Coordinate with BGPAA.
- D. Assume full responsibility for protection and safekeeping of tools and products stored on or off premises.
- E. Move stored products which interfere with operations of building or the operations of other trades.
- F. Obtain and pay for use of additional storage or work areas needed for operations.

1.5 CONCURRENT MODERNIZATION WORK AND BUILDING OPERATION

- A. This project is an elevator replacement in an existing site which is currently open to the public but the elevator is inoperable and shut down. It is essential that Contractor give special attention and priority to all matters concerning project safety, protection from dust and loose materials, reduction of noise level, protection from water and air infiltration into building, and maintenance of neat, sightly conditions in and around work areas inside and outside of building. Packaging, scrap materials, and demolition debris shall be promptly removed from building and site, on a daily basis.
- B. At all times, Contractor shall provide clearly visible warning and directions signs, barricades, temporary lighting, overhead protection, and hazard-free walking surfaces throughout public area. At all times, special attention must be given to building entrances, exits and proper safe exiting through work areas as required by law.
- C. Contractor shall obtain approval from BGPAA and if required consult with other Contractors to establish and maintain safe temporary routes including, but not limited to, proper barricades, walking surfaces, lighting, fire protection, exiting, warning, and directional signs, and general protection of persons from all hazards in accordance with OSHA/CalOSHA Standards due wholly or partially to its operations.

END OF SECTION

SECTION 010400 – PROJECT PROCEDURES

PART 1 GENERAL

1.1 APPLICABLE CODES

- A. Compliance with Regulatory Agencies: Comply with most stringent applicable provisions of following Codes, laws, and/or Authorities, including revisions and changes in effect:
- Local and/or State laws applicable for the City of Burbank.
 - California Building Code applicable to the AHJ.
 - California Elevator Safety Orders applicable to the AJH.
 - Safety Code for Elevators and Escalators, ASME A17.1 and all supplements as modified and adopted by the AHJ.
 - Safety Code for Elevators and Escalators, A17.1S supplement to A17.1 as modified and adopted by the AHJ for Machine Room Less installations (MRL).
 - Guide for Inspection of Elevators, Escalators, and Moving Walks, ASMEA17.2.
 - Safety Code for Existing Elevators and Escalators, ASME A17.3, as modified and adopted by the AHJ.
 - Guide for Emergency Evacuation of Passengers from Elevators, ASMEA17.4.
 - National Electrical Code (ANSI/NFPA 70).
 - Americans with Disability Act- Accessibility Guidelines for Buildings and Facilities and/or A117.1 Accessibility as may be applicable to the AHJ.
 - ASME A17.5/CSA-B44.1 - Elevator and Escalator Electrical Equipment.
 - ECC (Energy Conservation Code) as may be applicable to the AHJ.

1.2 STAGING AREA

- A. An equipment staging area will be available for use by Contractor. Contractor shall restrict usage to area designated and shall notify BGPAA prior to storing of any large equipment which will impose heavy concentrated loading on floor area. Do not store such equipment until approval is received.

1.3 WORK PHASE

- A. Contractor shall provide project schedule and phasing upon ordering elevators.

1.4 OCCUPANCY AND WORK BY OTHERS

- A. Contractor expressly affirms BGPAA's rights to let other contracts and employ other Contractors in connection with required work. Contractor will afford other Contractors and their workmen reasonable opportunity for introduction and storage of materials and equipment, for execution of their work and will properly connect and coordinate his work with theirs. Contractor will also incorporate comparable provisions in all its subcontracts.
- B. Contractor declares that other Contractors employed by BGPAA on basis of separate contracts may proceed at such times as necessary to install items of work required by BGPAA.
- C. Contractor declares that it will cooperate with other Contractors employed by BGPAA and, in addition to other coordination and expediting efforts, will coordinate their work by written notices regarding necessity of such work to be done on or before certain dates.
- D. Contractor declares that it is responsible for review, stamped, and signed approval of all shop drawings for required work.
- E. Contractor hereby declares that content of foregoing paragraphs, and influence they may have on project:
 - 1. Shall not cause a change in stipulated Contract Sum
 - 2. Shall not cause a change in Construction Time Schedule

END OF SECTION

SECTION 010500 – GENERAL NOTES

1. The Authority reserves the right to delay the start of work should it be determined to have significant operational impacts.
2. The Contractor is required to contact the ADR upon entering and exiting the work site. The ADR will notify the airport's communication center of the Contractor's location and activities while on site.
3. Avoid conflicts where possible. Contractor shall field-verify path and location with the ADR prior to trenching and/or digging.
4. Contractor must submit any Utility Shutdown Request (USR) or Area Shutdown Request (ASR) in writing, at least 2 weeks in advance.
5. Maintain a minimum 12" of separation between all CCTV/data conduit, power conduit, fire water lines and any other utilities.
6. All conduits stubbed up for future connections shall be capped.
7. Contractor shall obtain and pay all applicable permits including, but not limited to, a haul route permit, if required.
8. No stockpiled material is allowed on property (unless approved by the ADR).
9. Construction traffic on airport is limited to haul and access routes if shown on plans. Haul routes and pavement, including adjacent affected areas, shall be kept in broom clean condition at all times.
10. It shall be the Contractor's responsibility to coordinate off-site haul routes (state highways, county roads or city streets) with the appropriate owner who has jurisdiction over the affected route. On-Site haul routes shall be maintained by the Contractor and shall be restored to their original condition upon completion of being used as a haul route. The before and after condition of the on-site haul routes shall be jointly inspected and determined by the Contractor and the ADR.
11. The Contractor shall exercise extreme caution when excavating in areas of existing utilities. Existing utilities shall be located and marked in advance of excavation in all areas. Any damage done to known utilities shall be repaired immediately by the Contractor at its expense. The location of any utilities shown on the plans is approximate only, and depths may not be known. The Contractor shall be responsible for replacing or repairing all damage to known utilities and airport property caused by its forces and its subcontractor's forces.
12. It is the responsibility of the Contractor to field locate and verify all utilities within the work area prior to beginning any work. Appropriate Digalert reports should be submitted prior to any excavation.
13. Contractor utilities: staging areas may or may not have utilities. Any utilities required by the Contractor shall be coordinated with the utility companies and shall be the sole responsibility of the Contractor.
14. Contractor construction equipment shall be stored in the designated Contractor's operations and storage area to be determined prior to construction.
15. All construction layout and staking shall be furnished by the Contractor. Survey and control points will be provided by the airport.
16. It shall be the Contractor's responsibility to be familiar with the existing conditions in the vicinity of the proposed construction area prior to bidding.

17. The Contractor shall provide and apply dust control at all times, as required, to abate nuisance dust which is a direct result of construction activities on and about the construction area.
18. The Contractor shall protect-in-place all features located within the construction areas, unless otherwise noted. The Contractor may, at its own expense and written approval of the ADR, remove features or additional pavement beyond repair limits to assist construction. All landscape and hardscape damaged by construction must be replaced in kind.
19. The Contractor shall be responsible for compliance with California state water resources control board order no 2022-0057-DWQ; national pollutant discharge elimination system (NPDES) general prevention plan (SWPPP) for construction activities prepared by the airport authority.
20. Work on Contractor's equipment, repairs, cleaning, fueling, etc. shall comply with the best management practices according to either the approved SWPPP provided by the Contractor or the authority's general stormwater permit.
21. The Authority, as part of its policy of being environmentally responsible, requires the Contractor to comply with the Clean Construction Policy, as attached in Attachment E of the RFP.
22. Fuel support: any type of fueling support facility or device used to refuel construction equipment is subject to safety inspection. Local fire codes and safety standards shall be met prior to commencement of work. No fueling is permitted within the project areas.
23. Open flame welding or torch cutting operations are prohibited unless adequate fire and safety precautions have been taken and the procedure approved by the ADR.
24. Any work performed without written approval of the ADR and/or all work and material not in conformance with the plans and specifications is subject to removal and replacement at Contractor's expense.
25. The Contractor agrees that, in accordance with generally accepted construction practices, the Contractor will be required to assume sole and complete responsibility for job site conditions during the course of construction of the project, including safety of all persons and property. This requirement shall be made to apply continuously and not be limited to normal working hours.
26. No final acceptance shall be issued until "as-built" plans are submitted to the airport, and verified by the ADR. As-built plans shall be provided in hard copy and in Autocad format, version 2009 or higher.
27. Contractor shall provide light towers for all nighttime work spaced at not greater than 100 feet. Light towers shall be aimed as to not interfere with the visibility of pilots, tower personnel, and/or drivers around the Airport.
28. Approved open trenches and excavations on airport property shall be prominently marked with flags and lighted by approved light units during hours of restricted visibility and darkness
29. The Contractor shall conduct a safety meeting prior to the start of each shift discussing, at a minimum all topics specified by the ADR and conforming to FAA advisory circulars and California building/OSHA/CalOSHA codes and regulations.
30. Throughout the construction process the following safety and operational practices shall be observed:

- a. Operational safety will be a standing agenda item during weekly safety and progress meetings,
 - b. The Contractor shall perform daily worksite inspections, and
 - c. Compliance with OSHA and CalOSHA requirements for safety and personal protective equipment appropriate for the task, as defined by CalOSHA and the Contractor's approved safety plan.
31. The Contractor shall pay close attention to the safety and security plans and to the security requirements section of the specifications. These shall be strictly enforced.
 32. Emergency vehicles shall have the right-of-way at all times. during any emergency air operations (fire fighting, rescue, medical transport, etc.) the Contractor may be instructed to cease work or vacate specific areas of the airport. Any delays caused by ordered cessation of work shall be grounds for time extensions, as approved by the ADR.
 33. Construction will be in or adjacent to travelling public and operational areas. All rubbish and debris resulting from work shall be removed from the site by the Contractor as needed throughout the day and a minimum of once daily.

END OF SECTION

SECTION 013000 – SUBMITTALS

PART 1 GENERAL

1.1 SUBMITTALS

- A. Within ten working days after award of contract and before beginning equipment fabrication, submit shop drawings and required material samples for review. Allow five working days for response to initial submittal.
 - 1. Scaled or Fully Dimensioned Layout: Plan of pit, elevator shaft, and machine room indicating equipment arrangement, elevation section of elevator shaft.
 - 2. Design Information: Indicate equipment lists, reactions, and design information on layouts.
 - 3. Power Confirmation Information: Design for existing conditions.
 - 4. Fixtures: Cuts, samples, or shop drawings.
 - 5. Finish Material: Submit 12" x 12" samples of actual finished material for review of color, pattern, and texture. Compliance with other requirements is the exclusive responsibility of the Contractor.
 - 6. Design Information: Provide calculations verifying the following:
 - a. Adequacy of existing electrical provisions.
 - b. Adequacy of retained equipment relative to Code requirements if unit weight increased by more than 5%.
 - c. Units heat emissions in BTU.
 - d. Adequacy of existing retained escalator stanchions.
- B. Submittal review shall not be construed as an indication that submittal is correct or suitable, or that the work represented by submittal complies with the Contract Documents. Compliance with Contract Documents, Code requirements, dimensions, fit, and interface with other work is Contractor's responsibility.
- C. Acknowledge and/or respond to review comments within five working days of return. Promptly incorporate required changes due to inaccurate data or incomplete definition so that delivery and installation schedules are not affected. Identify and cloud drawing revisions, including Contractor elective revisions on each re-submittal. Contractor's revision response time is not justification for equipment delivery or installation delay.

1.2 FINAL CONTRACT DOCUMENTS

- A. See Section 017000, Project Closeout.

END OF SECTION

SECTION 016000 – MATERIAL AND HANDLING

PART 1 GENERAL

1.1 SITE CONDITION INSPECTION

- A. Prior to beginning installation of equipment, examine wellway. Verify that no irregularities exist which affect execution of work specified.
- B. Do not proceed with installation until work in place conforms to project requirements.

1.2 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver material in Contractor's original, unopened protective packaging.
- B. Store material in original protective packaging. Prevent soiling, physical damage, or moisture damage.
- C. Protect equipment and exposed finishes from damage and stains during transportation, erection, and construction.
- D. Allocate available site storage areas and coordinate their use with BGPAA and other Contractors.
- E. Provide suitable temporary weather-tight storage facilities as may be required for materials that will be stored in the open.

1.3 INSTALLATION REQUIREMENTS

- A. Install all equipment in accordance with Contractor's instructions, referenced Codes, specification and approved submittals.
- B. Install machine room equipment with clearances in accordance with referenced Codes and specification.
- C. Install all equipment so it may be easily removed for maintenance and repair.
- D. Install all equipment for ease of maintenance.
- E. Install all equipment to afford maximum accessibility, safety, and continuity of operation.
- F. Remove oil, grease, scale, and other foreign matter from the following equipment and apply one coat of field-applied machinery enamel.
 - 1. All exposed equipment and metal work installed as part of this work which does not have architectural finish.
 - 2. Elevator equipment and pit equipment.
 - 3. Neatly touch up damaged factory-painted surfaces with original paint color. Protect machine-finish surfaces against corrosion.

1.4 MANUFACTURER'S NAMEPLATES

- A. Manufacturer's name plates and other identifying markings shall not be affixed on surfaces exposed to public view. This requirement does not apply to Underwriter's Laboratories and code required labels.
- B. Each major component of mechanical and electrical equipment shall have an identification plate with the Manufacturer's name, address, model number rating and any other information required by Governing Codes.

1.5 COLORS OF FACTORY-FINISHED EQUIPMENT

- A. All colors will be selected from the Manufacturer's standard range unless custom colors are specified herein.
- B. Submit samples of all standard colors available and/or specified custom colors for review and approval. See Section 013000, Submittals.
- C. Submit samples of all specified architectural metals specified for review and approval. See Section 013000, Submittals.

1.6 MATERIALS AND FINISHES

- A. Steel:
 - 1. Sheet Steel (Furniture Steel for Exposed Work): Stretcher-leveled, cold-rolled, commercial quality carbon steel, complying with ASTM A366, matte finish.
 - 2. Sheet Steel (for Unexposed Work): Hot-rolled, commercial quality carbon steel, pickled and oiled, complying with ASTM A568/A568 M-03.
 - 3. Structural Steel Shapes and Plates: ASTM A36.
- B. Stainless Steel: Type 302, 304, or 441 complying with ASTM A240, with standard tempers and hardness required for fabrication, strength and durability. Apply mechanical finish on fabricated work in the locations shown or specified, (Federal Standard and NAAMM nomenclature), with texture and reflectivity required to match Architect's sample. Protect with adhesive paper covering.
 - 1. Satin: Directional polish finish (US 32D). Graining directions as shown or, if not shown, in longest dimension.
 - 2. Mirror: Reflective polish finish (US 32) with no visible graining.
 - 3. Textured: 5WL as manufactured by Rigidized Metals or Windsor pattern 5-SM as manufactured by Rimex Metals or approved equal with .050" mean pattern depth with bright directional polish (satin finish).
 - 4. Burnished: Non-directional, random abrasion pattern.
- C. Aluminum: Extrusions per ASTM B221; sheet and plate per ASTM B209.
- D. Paint: Clean exposed metal parts and assemblies of oil, grease, scale, and other foreign matter and factory paint one shop coat of standard rust-resistant primer. After erection, provide one finish coat of industrial enamel paint. Galvanized metal surfaces shall be neatly touched-up with Galvacon™ or equal.
- E. Prime Finish: Clean all metal surfaces receiving a baked enamel paint finish of oil, grease, and scale. Apply one coat of rust-resistant primer followed by a filler coat over uneven surfaces. Sand smooth and apply final coat of primer.
- F. Baked Enamel Finish: Prime finish per above. Unless specified "prime finish" only, apply and bake three additional coats of enamel in the selected solid color.
- G. Refinishing of Natural Metals: Remove existing protective finish. Buff as necessary to remove scratches. Regrain or finish as specified and protect as indicated for particular metal type.

END OF SECTION

SECTION 017000 – FINAL CONTRACT COMPLIANCE REVIEW

PART 1 GENERAL

1.1 FINAL CLEANING

- A. See Section 008000, Supplemental Conditions, for contractual requirements governing site cleaning. As a minimum:
 - 1. Elevator and all equipment therein shall be cleaned and left free of rust, filings, welding slag, rubbish, loose plaster, mortar drippings, extraneous construction materials, dirt, and dust. Include walls, building beams, and elevator shaft.
 - 2. Care shall be taken by workpersons not to mark, soil, or otherwise deface existing or new surfaces. Clean and restore such surfaces to their original condition.
 - 3. Clean down surfaces and areas which require final painting and finishing work. Cleaning includes removal of rubbish, broom cleaning of floors, removal of any loose plaster or mortar, dust and other extraneous materials from finish surfaces, and surfaces that will remain visible after the work is complete.

1.2 ADR'S FINAL OBSERVATION AND REVIEW REQUIREMENTS

- A. Review procedure shall apply for individual elevators, completed elevators accepted on an interim basis or elevators completed, accepted, and placed in operation.
- B. Contractor shall perform review and evaluation of all aspects of its work prior to requesting ADR's final review. Work shall be considered ready for ADR's final contract compliance review when copies of Contractor's test and review sheets are available for ADR's review and all elements of work or a designated portion thereof are in place and escalators are deemed ready for service as intended.
- C. Furnish labor, materials, and equipment necessary for ADR's review. Notify ADR five working days in advance when ready for final review of elevators.
- D. ADR's written list of observed deficiencies of materials, equipment and operating systems will be submitted to Contractor for corrective action. ADR's review shall include as a minimum:
 - 1. Workmanship and equipment compliance with Contract Documents.
 - 2. Contract speed and performance comply with Contract Documents.
 - 3. Performance of following is satisfactory:
 - a. Starting and running.
 - b. Stopping.
 - c. Controlled descent.
 - d. Equipment noise levels.
 - e. Signal and operating devices.
 - f. Overall ride quality.
 - g. Operations of safety devices.
 - 4. Operating Tests:
 - a. Overspeed Protection Device: Test by operating at rated speed, tripping overspeed device manually.

- b. Insulation-Resistance Test: Test safety circuit and motor-winding circuit at 500 Volts. Minimum resistance to ground shall be one Megohm.
 - 5. Test Results:
 - a. In all test conditions, obtain specified contract speed, controlled descent, performance, stopping, ride quality and operation noise levels to satisfaction of BGPAA and ADR.
 - b. Temperature rise in motor windings limited to 50° Celsius above ambient.
 - E. Performance Guarantee: Should ADR's review identify defects, poor workmanship, variance or noncompliance with requirements of specified Codes and/or ordinances, or variance or noncompliance with the requirements of Contract Documents, Contractor shall complete corrective work in an expedient manner to satisfaction of BGPAA and ADR at no cost as follows:
 - a. Replace equipment that does not meet Code or Contract Document requirements.
 - b. Perform work and furnish labor, materials, and equipment necessary to meet specified operation and performance.
 - c. Perform retesting required by Governing Code Authority, BGPAA, and ADR.
 - F. A follow-up final contract compliance review shall be performed by ADR after notification by Contractor that all deficiencies have been corrected. Provide ADR with copies of the initial deficiency report marked to indicate items which Contractor considers complete. If additional reviews are required due to Contractor's gross non-compliance with initial and follow-up deficiency reports, ADR shall bill Contractor at normal billing rates plus expenses, and Contractor acknowledges it will pay for additional compliance reviews.
- 1.3 BGPAA'S INFORMATION
- A. Provide three sets of neatly bound written information necessary for proper maintenance and adjustment of equipment within 30 calendar days following final acceptance. Final retention will be withheld until data is received by BGPAA and reviewed by ADR. Include the following as minimums:
 - 1. Straight-line wiring diagrams of "as-installed" escalators circuits, with index of location and function of components. Provide one set reproducible master. Mount one set wiring diagrams on panels, racked, or similarly protected, in escalators machine room space. Provide remaining set rolled and in a protective drawing tube. Maintain all drawing sets with addition of all subsequent changes. These diagrams are BGPAA's property.
 - 2. Lubrication instructions, including recommended grade of lubricants.
 - 3. Parts catalogs for all replaceable parts including ordering forms and instructions.
 - 4. Four sets of keys for all switches and control features properly tagged and marked.
 - 5. Diagnostic equipment complete with access codes, adjusters' manuals and set-up manuals for adjustment, diagnosis and troubleshooting of escalator system, and performance of routine safety tests.
 - B. Preventive Maintenance Contract: Furnish properly executed contract for continuing, preventive maintenance.

- C. Acceptance of such records by BGPAA shall not be a waiver of any Contractor deviation from Contract Documents or shop drawings or in any way relieve Contractor from his responsibility to perform work in accordance with Contract Documents.

END OF SECTION

SECTION 018000 – MAINTENANCE

PART 1 GENERAL

1.1 WARRANTY MAINTENANCE

- A. Provide preventive maintenance and 24-hour emergency callback service for one year commencing on date of final acceptance by BGPAA. Systematically examine, adjust, clean, and lubricate all equipment. Repair or replace defective parts using parts produced by the Contractor of installed equipment. Maintain escalator, wellway, and pit in clean condition.
- B. Use competent personnel, acceptable to the BGPAA, supervised and employed by Contractor.
- C. The warranty maintenance period specified in Item 1.2 A. above shall be extended one month for each three-month period in which equipment related failures average more than .25 per unit per month.
- D. BGPAA retains the option to delete cost of warranty maintenance from new equipment contract and remit twelve equal installments directly to Contractor during period in which maintenance is being performed.

END OF SECTION

SECTION 019000 – RELATED WORK

PART 1 GENERAL

1.1 RELATED WORK

A. Elevator Shaft and Pit

1. Clear, plumb, elevator shaft with variations not to exceed 1" at any point.
2. Patching and finishing around elevator door threshold after installation.
3. Waterproof elevator pit, or provide waste drain with sump pump to prevent standing water in elevator pit, as required by AHJ.
4. Replace existing access ladder in elevator shaft, as required by AHJ and in accordance with manufacturer recommendations.
5. Replace existing rails for elevator, as required by AHJ and in accordance with manufacturer recommendations. Rails must be structurally validated by a licensed structural engineer prior to installation.
6. Provide adequate ventilation in elevator shaft, as required by AHJ.
7. Provide adequate fire suppression, as required by AHJ.
8. Protect open elevator shaft during construction per OSHA/CalOSHA Regulations.
9. Protect elevator shaft, elevator cab, landing plates, and special metal finishes from damage.

B. Electrical Service, Conductors and Devices

1. Light with guard and GFCI convenience outlet in each pit and space.
2. Three phase mainline copper power feeder with true earthen grounding to terminals of each escalator controller in the space with protected, lockable "open," disconnect switch. Auxiliary disconnect, as required, for multiple drive units.
3. Fire alarm initiating devices in each elevator shaft. Provide alarm initiating signal wiring from connection point to elevator controller terminals. Device to provide signal for general alarm and interruption of elevator operation.
4. Temporary power and illumination to install, test, and adjust elevator equipment.

END OF SECTION

EXHIBIT G Federal Requirements

References in this Exhibit to “Contractor” shall be deemed to refer to Design-Builder. References in this Exhibit to “Sponsor” shall be deemed to refer to the Authority. Design-Builder shall: (i) insert these provisions in each lower tier contract; (ii) incorporate the requirements of these provisions by reference for work done under any purchase orders, rental agreements, and other agreements for supplies or services; and (iii) be responsible for compliance with these provisions by any subcontractor, lower-tier subcontractor, or service provider.

1. General Civil Rights Provisions

A. In all its activities within the scope of its airport program, the Contractor agrees to comply with pertinent statutes, Executive Orders, and such rules as identified in Title VI List of Pertinent Nondiscrimination Acts and Authorities to ensure that no person shall, on the grounds of race, color, national origin, creed, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

B. This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

C. The above provision binds the Contractor and subcontractors from the bid solicitation period through the completion of the contract.

2. Civil Rights – Title VI Assurance

A. During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

1. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);

2. 49 CFR part 21 (Non-discrimination in Federally-Assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964) including amendments thereto;

3. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);

4. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 794 et seq.), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27 (Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance);

5. The Age Discrimination Act of 1975, as amended (42 U.S.C. § 6101 et seq.) (prohibits discrimination on the basis of age);

6. Airport and Airway Improvement Act of 1982 (49 U.S.C. § 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);

7. The Civil Rights Restoration Act of 1987 (P.L. 100-259) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);

8. Titles II and III of the Americans with Disabilities Act of 1990 (42 U.S.C. § 12101, et seq) (prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;

9. Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. § 1681, et seq).

B. During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”), agrees as follows:

1. Compliance with Regulations: The Contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. Nondiscrimination: The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin, creed, sex, age, or disability in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21 including amendments thereto.

3. Solicitations for Subcontracts, including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the Contractor’s obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.

4. Information and Reports: The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any

information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the Sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of a Contractor's noncompliance with the non-discrimination provisions of this contract, the Sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:

a. Withholding payments to the Contractor under the contract until the Contractor complies; and/or

b. Cancelling, terminating, or suspending a contract, in whole or in part.

6. Incorporation of Provisions: The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the Sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the Sponsor to enter into any litigation to protect the interests of the Sponsor. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.