



NOTICE TO BIDDERS
CITY OF BEVERLY HILLS
CONTRACT DOCUMENTS
FOR
MODERNIZATION OF THE
ELEVATORS AT THE LIBRARY,
POLICE DEPARTMENT AND FIRE STATION HEADQUARTERS

BID NO. 18-17

TABLE OF CONTENTS

	Page No.
I. NOTICE INVITING BIDS	1
II. INSTRUCTIONS TO BIDDERS	3
III. SPECIFICATIONS	16
IV. CONTRACT	38
V. BONDS	41
PAYMENT BOND (LABOR AND MATERIALS)	
PERFORMANCE BOND	
VI. INSURANCE	46
WORKERS' COMPENSATION CERTIFICATE OF INSURANCE	
ADDITIONAL INSURED ENDORSEMENT COMPREHENSIVE GENERAL LIABILITY	
ADDITIONAL INSURED ENDORSEMENT AUTOMOBILE LIABILITY	
ADDITIONAL INSURED ENDORSEMENT EXCESS LIABILITY	
VII. APPENDIX I – SCOPE OF WORK.....	63
VIII. APPENDIX II - TENTATIVE PROJECT MILESTONE DATES.....	65
X. APPENDIX III - CIVIC CTR SITE PLAN.....	66
IX. APPENDIX IV – TECHNICAL SPECIFICATIONS	67

I. NOTICE INVITING BIDS

FOR

MODERNIZATION OF THE ELEVATORS AT THE LIBRARY, POLICE DEPARTMENT AND FIRE STATION HEADQUARTERS

Bid number: 18-17

NOTICE IS HEREBY GIVEN that the City of Beverly Hills, California ("City") invites sealed bids for the Project. The City will receive such bids at City Hall, 455 North Rexford Drive, Suite 290, Beverly Hills, California 90210 up to **2:00 p.m. on Thursday, August 16, 2018**, at which time they will be publicly opened and read aloud.

All bids must be made on the form furnished by the City. Each bid must be submitted in a sealed package addressed to the City Clerk with the Project name and bid number typed or clearly printed on the lower left corner of the package. Bids must remain valid and shall not be subject to withdrawal for ninety (90) Days after the bid opening date.

INCORPORATION OF STANDARD SPECIFICATIONS

The 2015 edition of "Standard Specifications for Public Works Construction" and the 2016 Supplements (collectively "Standard Specifications") are incorporated into these Contract Documents by this reference, as amended by the provisions of these Contract Documents. The Work described herein shall be done in accordance with the provisions of the Standard Specifications insofar as the same may apply, and in accordance with these Contract Documents.

SCOPE OF WORK

The Project includes, without limitation, the modernization of a total of (6) six elevators: (1) one hydraulic office elevator at the Library, (2) two hydraulic elevators at the Fire Department Headquarters building, and (3) three hydraulic elevators at the Police Department Headquarters building. The modernization of the Police Department elevators shall be in the base bid, the modernization of the Library elevator and the Fire Department elevators shall be Add Alternates. Contractor to include all work needed to ensure a fully code compliant modernization of the elevators. This Work will be performed in strict conformance with the Contract Documents, permits from regulatory agencies with jurisdiction, and applicable regulations. Execution of the Work shall be completed within 300 calendar days from the day of the Notice To Proceed.

OBTAINING BID DOCUMENTS

A copy of the Contract Documents may be obtained by mail or in person from the Public Works Department, 345 Foothill Road, Beverly Hills, CA 90210, telephone number 310-285-2463. The Contract Documents, including the plans and specifications may also be viewed on, and downloaded from the City's website: [www.beverlyhills.org/shortcuts: bid information: bid number 18-17](http://www.beverlyhills.org/shortcuts:bid%20information:bid%20number%2018-17).

MANDATORY PRE-BID MEETING AND SITE VISIT

A mandatory pre-bid meeting will be held **on August 1, 2018 at 10:00 a.m.** at the Main Library located at the Civic Center, 455 North Rexford Drive, Beverly Hills, CA 90210. After viewing the elevator at the Library, a job walk of the elevators at the Police Department Headquarters and Fire Department Headquarters will follow. Every Bidder is required to attend the pre-bid meeting and site visit. Failure of a Bidder to attend will render that Bidder's Proposal non-responsive. No allowances for cost adjustments will be made if Bidders fail to adequately examine the premises before submitting a Proposal.

REQUESTS FOR CLARIFICATION

If you discover any error, omission, ambiguity or conflict in the Plans or Specifications and wish to have a clarification, please fax or email your request for clarification to the Project Administrator such that it is received by

him or her no later than five (5) working days before Bid opening. Requests for clarification received after this date will be disregarded. Please indicate the Project and bid number in your request for clarification.

REGISTRATION WITH THE DEPARTMENT OF INDUSTRIAL RELATIONS

The Bidder's attention is directed to Labor Code Section 1725.5, which provides that a contractor or subcontractor shall not be qualified to bid on, be listed in a Bid proposal, subject to the requirements of Public Contract Code Section 4104, or engage in the performance of any contract that is subject to Labor Code Section 1720 *et seq.*, unless currently registered and qualified to perform a public work pursuant to Labor Code Section 1725.5. This requirement applies to any bid proposal submitted on or after March 1, 2015, and any contract for public work entered into on or after April 1, 2015.

PREVAILING WAGES

In accordance with Labor Code Section 1770 *et seq.*, this Project is a "public work," and thus, the Contractor and any Subcontractors must pay wages in accordance with the determination of the Director of the Department of Industrial Relations ("DIR") regarding the prevailing rate of per diem wages. Copies of those rates are on file with the Director of Public Works, and are available to any interested party upon request. Contractor shall post a copy of the DIR's determination of the prevailing rate of per diem wages at each job site.

BONDS

Each Bid must be accompanied by a cash deposit, cashier's check, certified check or Bidder's Bond issued by a Surety insurer, each of which must be made payable to the City, in an amount not less than ten percent (10%) of the total Bid submitted. Personal or company checks are not acceptable. Upon award of Contract, Contractor shall provide faithful performance and payment Bonds, each in a sum equal to the Contract Price. Bonds must be issued by a California admitted Surety insurer and submitted using the required forms, which are in the Contract Documents. Failure to enter into a valid contract, including the submission of all required Bonds and insurance coverages, with the City within fifteen (15) Days after the date of the delivery of the contract forms to the Bidder, shall constitute a material breach and subject the Bid security to forfeiture to the extent provided by law.

LICENSES

The Bidder shall possess a valid Class C-11 Contractor's license issued by California State Contractors License Board at the time of the Bid submission. The successful Contractor must also possess a current City business license.

RETENTION SUBSTITUTION

Five percent (5%) of any progress payment will be withheld as retention. In accordance with Public Contract Code Section 22300, and at the request and expense of the Contractor, securities equivalent to the amount withheld may be deposited with City or with a State or federally chartered bank as escrow agent, which shall then pay such moneys to the Contractor. Upon satisfactory completion of the Contract, the securities shall be returned to the Contractor. Alternatively, Contractor may request that the City make payments of earned retentions directly to an escrow agent at Contractor's expense. No such substitutions shall be accepted until all related documents are approved by the City Attorney.

LIQUIDATED DAMAGES

All Work shall be completed within 300 calendar days following the date specified in the written Notice to Proceed from the City. There will be a \$1,000.00 assessment for each calendar day that Work remains incomplete beyond the time specified for the completion of the Work in the Contract Documents.

BIDDING PROCESS

The City reserves the right to reject any Bid or all Bids and to waive any irregularities or informalities in any Bid or in the bidding and to make awards in all or part in the best interest of the City.

II. INSTRUCTIONS TO BIDDERS

FORM OF PROPOSAL: Proposals shall be made on the Proposal forms found herein. Bidders shall include all forms and fill in all blank spaces, including inserting "N/A" (for non applicable) where necessary. The Proposal shall be enclosed in a sealed envelope bearing the name of the Bidder and the name of the Project as described in the Notice Inviting Bids.

DELIVERY OF PROPOSALS: The Proposal shall be delivered by the time and to the place stipulated in the Notice Inviting Bids. The time of delivery shall be definitively determined by the time-stamping clock located at the City Clerk's office. It is the Bidder's sole responsibility to see that this Proposal is received in proper time, and Bidders assume all risks arising out of the means of delivery. Any Proposal received after the scheduled closing time for receipt of Proposals may be returned to the Bidder unopened. Bidders or their authorized agents are invited to be present for Bid opening.

MODIFICATIONS AND ALTERNATIVE PROPOSALS: Unauthorized conditions, limitations or provisos attached to a Proposal will render it non-responsive and may be cause for rejection. The complete Proposal form must be without interlineations, alterations or erasures. No oral, telegraphic or telephonic Proposals or modifications will be considered.

WITHDRAWAL OF PROPOSAL: The Proposal may be withdrawn upon request by the Bidder without prejudice, provided that the request is in writing, has been executed by the Bidder or his or her duly authorized representative, and is filed with the Project Administrator before the date and time fixed for opening of Bids. No Proposal may be withdrawn during the period of ninety (90) Days after the opening of Proposals.

BIDDER'S SECURITY: In accordance with Public Contract Code Section 20170 *et seq.*, each Proposal shall be accompanied by cash, a certified or cashier's check payable to the City, or a satisfactory Bid Bond in favor of the City executed by the Bidder as principal and an admitted surety insurer as Surety, in an amount not less than ten percent (10%) of the amount set forth in the Bid. The cash, check or Bid Bond shall be given as a guarantee that the Bidder will execute the Contract if it is awarded to him or her in conformity with the Contract Documents and all Addenda issued before Bid opening, and shall provide the evidence of insurance and furnish the necessary Bonds as specified in the Contract Documents and all Addenda issued before Bid opening, within fifteen (15) Days after written notice of the award. In case of the Bidder's refusal or failure to do so, the cash, check, or Bond, as the case may be, shall be forfeited to the City pursuant to Public Contract Code Section 20172, except as provided in Public Contract Code Section 20174. Under Section 20174, if the lowest responsible Bidder fails or refuses to execute the Contract, the City may award the Contract to the next lowest responsible Bidder; if the City does so, the amount of the lowest Bidder's security shall be applied by the City to the difference between the lowest Bid and next lowest Bid, and the surplus, if any, shall be returned to the lowest Bidder or to his or her Surety. No Bidder's Bond will be accepted unless it conforms substantially to the form provided in these Contract Documents.

ADDENDA: The Project Administrator may, from time to time, issue Addenda to the Contract Documents. Parties that have obtained the Contract Documents shall be notified of and furnished with copies of such Addenda, either by certified mail, personal delivery, or facsimile during the period of advertising at no additional cost. The City may determine, in its sole discretion, whether an Addendum requires the postponement of the date set for opening Bids. The announcement of the new date, if any, shall be made within the Addenda. **Please Note:** Bidders are primarily and ultimately responsible for ensuring that they have received any and all Addenda. To this end, each Bidder should contact the City to verify that he or she has received all Addenda issued, if any. Bidders must acknowledge receipt of all Addenda, if any, in its Proposal. Failure to acknowledge receipt of all Addenda may cause a Proposal to be deemed incomplete and non-responsive.

DISCREPANCIES IN PROPOSALS: The Bidder shall set forth as to each item of Work, in clearly legible figures, a unit or line item Bid amount for the item in the respective spaces provided for this purpose.

In case of discrepancy between the unit price and the total set forth for the item, the unit price shall prevail. However, if the amount set forth as a unit price is ambiguous, unintelligible or uncertain for any cause, or is omitted, or if the unit price is the same amount as the entry in the "Total" column, then the amount set forth in the "Total" column for

the item shall prevail in accordance with the following:

(1) As to lump sum items, the amount set forth in the "Total" column shall be the unit price.

(2) As to unit price items, the amount set forth in the "Total" column shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price.

In case of discrepancy between words and figures, the words shall prevail.

BIDDER'S EXAMINATION OF SITE AND CONTRACT DOCUMENTS: Each Bidder must carefully examine the site of the Project, the entirety of the Contract Documents and all Addenda issued. Upon submission of a Proposal, it will be assumed that the Bidder has thoroughly investigated the Work and is satisfied as to the conditions to be encountered and the character, quality, and quantities of Work to be performed and materials to be furnished. Upon Proposal submission, it shall be further assumed that the Bidder is familiar with and agrees to the requirements of the Contract Documents and all Addenda issued. The submission of a Proposal shall be considered conclusive evidence that the Bidder has made such an examination and consents thereto. No information derived from an inspection of records or investigation will in any way relieve the Contractor from his or her obligations under the Contract Documents or any Addenda issued nor entitle the Contractor to any additional compensation. By submitting his or her Proposal, the Contractor agrees not to make any claim against the City based upon ignorance or misunderstanding of any condition of the Work site or of the requirements set forth in the Contract Documents or Addenda.

DISQUALIFICATION OF BIDDERS: No Person shall be allowed to make, file or be interested in more than one Bid for the same project, unless alternate Bids are specifically called for. A Person that has submitted a sub-proposal to a Bidder, or that has quoted prices of materials to a Bidder, is not hereby disqualified from submitting a sub-proposal or quoting prices to other Bidders or making a prime Proposal. If there is a reason to believe that collusion exists among the Bidders, all affected Bids will be rejected.

RETURN OF BID SECURITY: The successful Bidder's Proposal security shall be held until the Contract is executed. Bid security shall be returned to the unsuccessful Bidders within a reasonable time, which in any case shall not exceed sixty (60) Days after the successful Bidder has signed the Contract.

AWARD OF CONTRACT: The City reserves the right to reject any or all Proposals or any parts thereof or to waive any irregularities or informalities in any Proposal or in the bidding. The award of the Contract, if made, will be to the lowest responsible Bidder within ninety (90) Days after the opening of the Proposals, except that the award may be made after that period if the successful Bidder has not given the City written notice of the withdrawal of his or her Bid.

ADDITIVE OR DEDUCTIVE BIDS: If additive or deductive Bids are required, the lowest Bid shall be the Proposal with the lowest base bid, plus all of the alternate Bids, minus all of the deductive Bids, as listed in the Proposal forms. This determination method shall be used regardless of whether additive or deductive items are included in the project, which shall be at the City's discretion.

LISTING SUBCONTRACTORS: Each Bidder shall submit a list of the proposed Subcontractors on this Project, as required by the Subletting and Subcontracting Fair Practices Act (Public Contract Code Section 4100, *et seq.*). A form for this purpose is furnished with the Proposal.

EXECUTION OF CONTRACT: The Bidder to whom award of the Project is made shall execute a written contract with the City in the form included in these Contract Documents within fifteen (15) Days from the date of mailing of written notice of the award. This Bidder shall also secure all insurance and Bonds as herein specified, and provide copies therefor to the City, within fifteen (15) Days from the date of mailing of written notice of the award. Failure or refusal to enter into the Contract or to conform to any of the stipulated requirements shall be just cause for the annulment of the award and forfeiture of the Bidder's security. In the event the Bidder to whom an award is made fails or refuses to execute the Contract within that time, the City may declare the Bidder's security forfeited, and the City Council may award the Work to the next lowest responsible Bidder, or may call for new Bids. Where the City

Council awards the Work to the next lowest responsible Bidder, pursuant to Public Contract Code Section 20174, the amount of the lowest Bidder's security shall be applied to the difference between the lowest and next lowest Bid and the surplus, if any, shall be returned to the lowest Bidder or to his or her Surety. If the second lowest responsible Bidder fails or refuses to execute the Contract, the City Council may award the Contract to the third lowest responsible Bidder pursuant to Public Contract Code Section 20174.

SIGNATURES: The Bidder or his, her or its authorized representative shall execute all documents requiring signatures, including but not limited to various forms in the Proposal, various forms in the Contract, and Bonds. Bidders shall provide evidence satisfactory to the City, such as an authenticated resolution of its Board of Directors or a Power of Attorney, indicating the capacity of the person signing the Proposal to bind the Bidder to each Proposal and to any Contract arising therefrom.

INSURANCE AND BONDS: The Contractor shall not begin Work under the Contract until it has given the City evidence of all required insurance coverage, including all additional insured endorsements. The Contractor also shall not begin Work under the Contract until it has furnished to the City two Bonds: one guaranteeing the Contractor's faithful performance of the Contract, and other securing the payment of claims for labor and material. Each of these Bonds shall be executed in a sum equal to the Contract amount.

INDEMNITY: The indemnity shall be as written in Section 7.B of the Specifications.

INTERPRETATION OF CONTRACT DOCUMENTS: If any Bidder is in doubt as to the intended meaning of any part of the Contract Documents, or finds discrepancies in or omissions from the Contract Documents, he or she may submit to the Project Administrator a written request for an interpretation or correction not later than five (5) working days before Bid opening. The Person submitting the request will be responsible for its prompt delivery, and no requests will be accepted or considered after that time. Any interpretation or correction of the Contract Documents will be made only by an Addendum duly issued and mailed, with a copy of such Addendum faxed or emailed, to each Person receiving a set of the Contract Documents. No oral interpretation of any provision in the Contract Documents shall be binding.

TAXES: Except as may be otherwise specifically provided herein, all sales and/or use taxes assessed by federal, State or local authorities on materials used or furnished by the Contractor in performing the Work hereunder shall be paid by the Contractor. Contractor shall calculate payment for all sales, unemployment, pension and other taxes imposed by federal, State, and local law and shall include these payments in the total Proposal.

CHECKLIST FOR BIDDERS

The following information is required of all Bidders at the time of the Bid:

- _____ Completed and Signed Proposal
- _____ Completed and Signed Bid Form
- _____ Completed, Signed Information Required of Bidders Form
- _____ Completed Designation of Subcontractors Form
- _____ Completed, Signed and Notarized Bid Bond or Other Security
- _____ Signed Non-Collusion Declaration
- _____ Completed and Signed Acknowledgement of Addenda

Failure of the Bidder to provide all required information in a complete and accurate manner may be considered non-responsive.

PROPOSAL
CITY OF BEVERLY HILLS
MODERNIZATION OF ELEVATORS AT THE LIBRARY, POLICE DEPARTMENT AND
FIRE STATION HEADQUARTERS

TO THE HONORABLE MAYOR AND CITY COUNCIL OF THE CITY OF BEVERLY HILLS:

The undersigned, as Bidder, declares that: (1) this Proposal is made without collusion with any other Person and that the only Persons or parties interested as principals are those named herein; (2) Bidder has carefully examined the Contract Documents and all Addenda as well as the site of the proposed Work; and (3) Bidder has investigated and is satisfied as to the conditions to be encountered, the character, quality and quantities of Work to be performed and materials to be furnished. Furthermore, the undersigned agrees that submission of this Proposal shall be conclusive evidence that such examination and investigation have been made and agrees, in the event this Contract be awarded to Bidder, to enter into the Contract with the City of Beverly Hills to perform the proposed Project in accordance with the Contract Documents and all Addenda in the time and manner therein prescribed, and to furnish or provide all materials, labor, tools, equipment, apparatus and other means necessary so to do, except as may otherwise be furnished or provided under the terms of the Contract Documents and Addenda, for the following stated unit prices or lump-sum price as submitted on the Bid herein.

Accompanying this Proposal is cash, a cashier's check, a certified check or a Bidder's Bond in an amount equal to at least ten percent (10%) of the total aggregate Bid price hereof based on the quantities shown and the unit prices quoted. The undersigned Bidder further agrees that should he or she be awarded the Contract on the basis hereof and thereafter fails or refuses to enter into the Contract and provide the required evidence of insurance and Bonds within fifteen (15) Days after written notice of the award, the cash, check or Bid Bond shall be forfeited to the City in accordance with Public Contract Code Section 20172, except as otherwise provided in Public Contract Code Section 20174.

The undersigned also certifies to be properly licensed by the State as a contractor to perform this type of Work. The undersigned possesses California Contractor's License Number _____, Class _____, which expires on _____.

Bidder's name: _____

Signature: _____ Date: _____

BID FORM
CITY OF BEVERLY HILLS

NOTE: Any Alteration or Addition to the Bid Form May Invalidate the Bid

The undersigned, having carefully examined the site conditions and the Contract Documents for

**MODERNIZATION OF ELEVATORS AT THE LIBRARY, POLICE DEPARTMENT AND
FIRE STATION HEADQUARTERS**

HEREBY PROPOSES AND AGREES to commence the Work per the Agreement; to furnish all labor, materials, equipment, transportation, service, sales taxes, and other costs necessary to complete the Work as specified herein from the date of Notice To Proceed, in strict conformity with the Contract Documents, at prices indicated below.

1.0 TOTAL LUMP SUM BASE BID (Police Department Elevators):

Bidder agrees to provide and install all base bid work as shown on the Drawings and described in the Contract Documents including licenses, permits, fees, taxes, overhead, bond and insurance for the total lump sum of:

\$ _____
Dollars (in words- printed)

\$ _____
Dollars (in figures)

NOTE: In the case of any discrepancy between words and figures, the words shall prevail.

2.0 ALTERNATE BIDS

ADD ALTERNATE NO. 1 – Modernization of (2) hydraulic elevators at the Fire Department Headquarters building:

\$ _____
Dollars (in words- printed)

\$ _____
Dollars (in figures)

ADD ALTERNATE NO. 2 – Modernization of (1) hydraulic elevator at the Library:

\$ _____
Dollars (in words- printed)

\$ _____
Dollars (in figures)

4.0 BID ALLOWANCES

None.

5.0 UNIT PRICES

None.

6.0 TIME OF PERFORMANCE – Contractor proposes to complete the Work, including the accepted Alternatives, within the calendar days specified in the Contract Documents, commencing from the Date of Notice To Proceed.

7.0 COMPENSATION FOR DELAY (PER DIEM)

Bidder shall determine and provide in the space below the amount of per diem compensation (costs to include any and all of Contractor’s overhead, profit and General Conditions as directly related to this project) for any Compensable Delay at any time during the performance of the Work:

\$ _____
Per Diem Per Day (in words) Per Diem Per Day (in figures)

Per Diem compensation multiplied by Twenty (20) days =

\$ _____
Per Diem (in words) Per Diem (in figures)

8.0 TOTAL PROJECT BID

To determine the low Bidder, the City will calculate the sum of the Base Bid listed in paragraph 1.0, plus the amount of per diem for Compensable Delay listed in paragraph 5.0 multiplied by twenty (20) days. The Contract will then be awarded to the lowest responsive and responsible Bidder.

The Contract Amount may or may not include any or all or the alternatives, at the sole discretion of the City.

The use of the multiplier of twenty (20) days is not intended as an estimate of the number of days of Compensable Delay anticipated by the City. The City will pay the per diem compensation only for the actual number of days of Compensable Delay, as defined in the General Conditions. The actual number of days of Compensable Delay may be lesser or greater than the “multiplier” shown above.

Signature: _____

Title: _____

Date: _____

INFORMATION REQUIRED OF BIDDER

Fill out all of the following information. Attach additional sheets if necessary.

(1) Bidder's name: _____

(2) If the Bidder's name is a fictitious name, who or what is the full name of the registered owner? If the Bidder's name is not a fictitious name, write "N/A" in the response to this question. If you are doing business under a fictitious name, provide a copy of the filed valid Fictitious Business Name Statement.

(3) Business address: _____

(4) Telephone: _____ Facsimile: _____

(5) Type of firm - Individual, Partnership, LLC or Corporation: _____

(6) Corporation organized under the laws of the state of: _____

(7) California State Contractor's License Number and Class: _____

(8) Original Date Issued: _____ Expiration Date: _____

(9) List the name and title of the person(s) who inspected the site of the proposed Work for your firm:

(10) List the name and title of the person(s) who attended the mandatory pre-bid meeting for this Project, including the mandatory site visit, for your firm, if any:

Upon request of the City, the Bidder shall furnish additional information.

The Bidder certifies under penalty of perjury under the laws of the State that the information provided above is true and correct.

Company

Signature: _____

Title: _____

Date: _____

Signature: _____

Title: _____

Date: _____

BID BOND

KNOW ALL PERSONS BY THESE PRESENTS that:

WHEREAS the City of Beverly Hills ("City"), has issued an invitation for Bids for the Work described as follows:

**MODERNIZATION OF ELEVATORS AT THE LIBRARY, POLICE DEPARTMENT
AND FIRE STATION HEADQUARTERS**

(Project name)

WHEREAS _____

(Name and address of Bidder)

("Principal"), desires to submit a Bid to City for the Work.

WHEREAS, Bidders are required under the provisions of the California Public Contract Code to furnish a form of Bidder's security with their Bid.

NOW, THEREFORE, we, the undersigned Principal, and _____

(Name and address of Surety)

("Surety") a duly admitted surety insurer under the laws of the State of California, as Surety, are held and firmly bound unto the City in the penal sum of _____

Dollars (\$ _____), being not less than ten percent (10%) of the total Bid price, in lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the hereby bounded Principal is awarded a contract for the Work by the City and, within the time and in the manner required by the bidding specifications, enters into the written form of contract included with bidding specifications, furnishes the required Bonds, one to guarantee faithful performance and the other to guarantee payment for labor and materials, and furnishes the required insurance coverage, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

In case suit is brought upon this Bond, Surety further agrees to pay all court costs incurred by the City in the suit and reasonable attorneys' fees in an amount fixed by the court. Surety hereby waives the provisions of California Civil Code Section 2845.

IN WITNESS WHEREOF, this instrument has been duly executed by Principal and Surety, on the date set forth below, the name of each corporate party being hereto affixed and these presents duly signed by its undersigned representative(s) pursuant to authority of its governing body.

Dated: _____

“Principal”

“Surety”

By: _____
Its

By: _____
Its

By: _____
Its

By: _____
Its

(Seal)

(Seal)

Note: This Bond must be dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached.

**NONCOLLUSION DECLARATION
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID
[Public Contract Code 7106]**

The undersigned declares:

I am the _____ of _____, the party making the foregoing Bid.

The Bid is not made in the interest of, or on behalf of, any undisclosed Person, partnership, company, association, organization, or corporation. The Bid is genuine and not collusive or sham. The Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham Bid. The Bidder has not directly or indirectly colluded, conspired, connived, or agreed with any Bidder or anyone else to put in a sham Bid, or to refrain from bidding. The Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the Bid price of the Bidder or any other Bidder, or to fix any overhead, profit, or cost element of the Bid price, or of that of any other Bidder. All statements contained in the Bid are true. The Bidder has not, directly or indirectly, submitted his or her Bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, Bid depository, or to any member or agent thereof, to effectuate a collusive or sham Bid, and has not paid, and will not pay, any Person or entity for such purpose.

Any person executing this declaration on behalf of a Bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the Bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____, at

_____, _____."

Signature _____

Signature _____

Printed Name: _____

Printed Name: _____

Date: _____

Date: _____

ACKNOWLEDGMENT OF ADDENDA

Bidder's Name: _____

The Bidder shall signify receipt of all Addenda here, if any:

Addendum Number	Date Received	Signature

If there are more Addenda than there is room in the chart above, attach another page acknowledging receipt of the Addenda.

III. SPECIFICATIONS

1. TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE, AND SYMBOLS

A. STANDARD SPECIFICATIONS

The Work described herein shall be done in accordance with the provisions of the Standard Specifications (defined in the Notice Inviting Bids) insofar as the same may apply, and in accordance with these Contract Documents.

B. TERMS AND DEFINITIONS

Whenever in the Standard Specifications or in the Contract Documents the following terms are used, they shall be understood to mean the following:

- (1) City - The City of Beverly Hills.
- (2) City Council - The City Council of the City of Beverly Hills.
- (3) Project Administrator- The City Assistant Director of Public Works, acting either directly or through properly authorized agents. Such agents shall act within the scope of the particular duties entrusted to them.
- (4) Inspector - An authorized representative of the City, assigned by the City to make inspections of Work performed by or material supplied by the Contractor.
- (5) Laboratory - A laboratory authorized by the City to test materials and Work involved in the Contract.
- (6) Special Provisions - All Contract Documents.
- (7) Project - See Scope of Work in the Notice Inviting Bids.

2. SCOPE AND CONTROL OF THE WORK

Section 2-3.2 ("Self Performance") of the Standard Specifications is hereby deleted and replaced with the following: "The Contractor shall not be required to perform, with its own organization, Contract work amounting to at least fifty percent (50%) of the Contract Price."

Otherwise, the provisions below shall supplement but not replace those provisions in Section 2 of the Standard Specifications.

A. ASSIGNMENT

Any purported assignment without written consent of the City shall be null, void, and of no effect, and Contractor shall hold harmless, defend and indemnify the City and its officers, officials, employees, agents and representatives with respect to any claim, demand or action arising from or relating to any unauthorized assignment.

If the City opts to consent to assignment, the City's consent shall be contingent upon: 1) a letter from the Surety company agreeing to the assignment and assigning all of the Bonds to the assignee without any reduction, or the assignee supplying all new Bonds in the amounts originally required under the Contract Documents; and 2) the assignee supplying all of the required insurance in the amounts required in the Contract Documents. Until the Surety assigns all of the Bonds or the assignee supplies all of the new Bonds, and until the assignee supplies all of the required insurance, an assignment otherwise consented to in writing by the City shall not be effective. Even if the City consents to assignment, no assignment shall relieve the Contractor of liability under the Contract.

B. BONDS

All Bonds must be submitted using the required forms, which are in the Contract Documents, or on any other form approved by the City Attorney.

C. PRECEDENCE OF THE CONTRACT DOCUMENTS

WITH REGARD TO SECTION 2-5.2 IN THE STANDARD SPECIFICATIONS, THE GENERAL PROVISIONS SHALL CONTROL OVER THE SPECIAL PROVISIONS, AND THE NOTICE INVITING BIDS AND INSTRUCTIONS TO BIDDERS (IN THAT ORDER) SHALL CONTROL OVER THE BID, SUCH THAT THE ORDER OF PRECEDENCE SHALL BE AS FOLLOWS:

1. Permits issued by regulatory agencies with jurisdiction.
2. Change Orders and Supplemental Agreements; whichever occurs last.
3. Contract/ Agreement.
4. Addenda.
5. Notice Inviting Bids.
6. Instructions to Bidders.
7. Bid/ Proposal.
8. General Provisions.
9. Special Provisions.
10. Plans.
11. Standard Plans.
12. Standard Specifications.
13. Reference Specifications.

D. SUBSURFACE DATA

If the City or its consultants have made investigations of subsurface conditions in areas where the Work is to be performed, such investigations shall be deemed made only for the purpose of study and design. If a geotechnical or other report has been prepared for the Project, the Contractor may inspect the records pertaining to such investigations subject to and upon the conditions hereinafter set forth. The inspection of the records shall be made in the Office of the Project Administrator. It is the Contractor's sole responsibility to determine whether such investigations exist and the City makes no affirmative or negative representation concerning the existence of such investigations.

The records of any such investigations are made available solely for the convenience of the Contractor. It is expressly understood and agreed that the City, the Project Administrator, their agents, consultants or employees assume no responsibility whatsoever with respect to the sufficiency or accuracy of any investigations, the records thereof, and the interpretations set forth therein. No warranty or guarantee is expressed or implied that the conditions indicated by any such investigations or records are representative of those existing in the Project area. The Contractor agrees to make such independent investigations and examination as necessary to be satisfied of the conditions to be encountered in the performance of the Work.

The Contractor represents that he or she has studied the Plans, Specifications and other Contract Documents, and all surveys and investigation reports of subsurface and latent physical conditions, has made such additional surveys and investigations as necessary for the performance of the Work at the Contract Price in accordance with the requirements of the Contract Documents, and that he or she has correlated the results of all such data with the requirements of the Contract Documents. No claim of any kind shall be made or allowed for any error, omission or claimed error or omission in whole or in part, of any geotechnical exploration or any other report or data furnished or not furnished by the City.

E. SURVEYING

Contractor shall verify all dimensions on the drawings and shall report to the City any discrepancies before

proceeding with related Work. Contractor shall perform all survey and layout Work per the benchmark information on the Project Plans. All surveying Work must conform to the Professional Land Surveyors' Act, California Business and Professions Code Section 8700 *et seq.* All final Project surveying notes are to be provided to the City before final payment to the Contractor.

Construction stakes shall be set and stationed by the Contractor at the Contractor's expense. Surveying costs shall be included in the price of items bid. No separate payment will be made. Re-staking and replacement of construction survey markers damaged as a result of the Work, vandalism, or accident shall be at the Contractor's expense.

F. INSPECTIONS

Contractor shall arrange for all off-site inspection of the Work required by any ordinance or governing authorities. The Contractor shall also arrange for other inspections, including tests in connection therewith, as may be assigned or required.

3. CHANGES IN WORK

The provisions below shall supplement but not replace those provisions in Section 3 of the Standard Specifications.

A. INCREASES, ALTERATION AND DECREASES OF THE WORK TO BE DONE

The City reserves the right to increase or decrease the quantity of any item or portion of the Work described in the Contract Documents or the Proposal form or to alter or omit portions of the Work so described, as may be deemed necessary or expedient by the Project Administrator, without in any way making the Contract void. Such increases, alterations or decreases of Work shall be considered and treated as though originally contracted for, and shall be subject to all the terms, conditions and provisions of the original Contract. The Contractor shall not claim or bring suit for damages, whether for loss of profits or otherwise, on account of any decrease, alteration or omission of any kind of Work to be done.

B. EXTRA WORK

Section 3-3.2.3 ("Markup") of the Standard Specifications is hereby deleted and replaced with the following:

The term "Net Cost of Extra Work" shall mean the actual costs necessarily incurred by Contractor and all subcontractors that actually perform the Extra Work caused by the change(s) in the Work, and consists of costs of labor, materials and equipment rental only. Overhead and profit allowed under this Article, shall be deemed to include all costs and expenses which the Contractor or any of its subcontractors may incur in the performance of a change in the Work and which are not otherwise specifically recoverable by them pursuant to this Article 7. The "Net Cost of Extra Work" shall be limited to the following to the extent so incurred:

1. **Labor** - The costs of labor will be the actual straight-time cost for wages prevailing locally for each craft or type of worker at the time the Extra Work is done at the Project Site, plus employer payments collectively referred to as "Fringe Benefits and Payroll Taxes," of payroll, taxes and insurance, health and welfare pension, vacation, apprenticeship funds, and other direct costs resulting from Federal, State or local laws, as well as assessments or benefits required by lawful collective bargaining agreements. The use of a labor classification which would increase the Net Cost of Extra Work will not be permitted unless the Contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental. Wages or salaries and Fringe Benefits and Payroll Taxes of necessary supervisory and administrative personnel directly employed at the Project Site for the supervision of the Extra Work are included, but only (1) if the Extra Work requires an extension of Contract Time or requires direct supervision of approved overtime Work and (2) to the extent such personnel are solely engaged in supervising such Extra Work during periods of overtime or extension of the Contract Time.

2. **Material** - The cost of materials reported shall be at invoice or lowest current price at which

such materials are locally available and delivered to the jobsite in the quantities involved, plus sales tax, freight and delivery. The City reserves the right to approve materials and sources of supply, or to supply materials to the Contractor, if necessary, for the progress of the work. No mark-up shall be applied to any material provided by the City. Material re-stocking charges shall be limited to 5% of the amount of material.

3. **Tool and Equipment Rental** - No payment will be made for the use of tools which have a replacement value of \$500 or less. Regardless of ownership, the rates to be used in determining equipment rental cost shall not exceed listing rates prevailing locally at equipment rental agencies, or distributors, at the time the work is performed. The rental rates paid shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals. If equipment is used intermittently, when not in use, it shall be returned to its rental source unless the Contractor elects to keep it at the work site at no expense to the City. The reported rental time for equipment already at the jobsite shall be the duration of its use on the Extra Work, commencing at the time it is first put into actual operation on the Extra Work, plus the time required to move it from its previous site and back, or to a closer site.

4. **Invoices** - Vendors' invoices for material, equipment rental, and other expenditures, shall be submitted with the request for payment. If the request for payment is not substantiated by invoices or other documentation, the City's Representative may establish the cost of the item involved at the lowest price which was current at the time of such submittal.

Net Cost of Extra Work shall NOT include any of the following, which are construed to be included in the Contractor's overhead and profit figures:

1. Wages or salaries and Fringe Benefits and Payroll Taxes of Contractor's and all subcontractors' employees or personnel not directly employed at the Project site for the supervision or performance of Extra Work.

2. Overhead, administrative, or general expenses of any kind including data processing, engineering, estimating and etc. costs incurred in connection with Extra Work.

3. Loss of efficiency or productivity.

4. Capital expenses, including interest on capital employed in connection with Extra Work.

5. Legal costs.

6. Federal, state, or local income and franchise taxes.

C. CONTRACTOR FEE OR MARK-UP

The term "Contractor Fee" or "Mark-up" shall mean the full amount of compensation for all costs and expenses including overhead, profit, bond and insurance not included in the Net Cost of Extra Work. The Contractor Fee, or Mark-up, shall be computed as follows:

1. If the Net Cost of Extra Work is less than or equal to \$25,000, the Contractor Fee, or Mark-up, shall be computed as follows:

a. For Extra Work performed directly by the Contractors forces the added cost for all expenses, overhead, profit, bond and insurance shall not exceed fifteen percent (15%) of the Net Cost of the Extra Work.

b. For Extra Work performed by a First Tier subcontractor, the cost for combined expenses, overhead, profit, bond and insurance of both the Contractor and subcontractor shall not exceed twenty percent (20%) of the Net Cost of the subcontractor's Extra Work.

c. For Extra Work performed by any Sub-subcontractor, the cost of combined

expenses, overhead, profit, bond and insurance of the Contractor, the subcontractor and the lowest Tier of subcontractor shall not exceed twenty-five percent (25%) of the Net Cost of the lowest Tier subcontractor's Extra Work.

2. If the Net Cost of Extra Work is greater than \$25,000 and less than or equal to \$100,000, the Contractor Fee or Mark-up shall be computed as follows:
 - a. For Extra Work performed directly by the Contractor's forces the added cost for all expenses, overhead, profit, bond and insurance shall not exceed twelve percent (12%) of the Net Cost of the Extra Work.
 - b. For Extra Work performed by a 1st Tier subcontractor, the cost for combined expenses, overhead, profit, bond and insurance of both the Contractor and subcontractor shall not exceed seventeen percent (17%) of the Net Cost of the subcontractor's Extra Work.
 - c. For Extra Work performed by any Sub-subcontractor, the cost of combined expenses, overhead, profit, bond and insurance of the Contractor, the subcontractor and the lowest tier of subcontractor shall not exceed twenty-two percent (22%) of the Net Cost of the lowest Tier subcontractor's Extra Work.

3. If the Net Cost of Extra Work is greater than \$100,000, the Contractor Fee or Mark-up shall be computed as follows:
 - a. For Extra Work performed directly by the Contractor's forces the added cost for all expenses, overhead, profit, bond and insurance shall not exceed ten percent (10%) of the Net Cost of the Extra Work.
 - b. For Extra Work performed by a 1st Tier subcontractor, the cost for combined expenses, overhead, profit, bond and insurance of both the Contractor and subcontractor shall not exceed fifteen percent (15%) of the Net Cost of the subcontractor's Extra Work.
 - c. For Extra Work performed by any Sub-subcontractor, the cost of combined expenses, overhead, profit, bond and insurance of the Contractor, the subcontractor and the lowest tier of subcontractor shall not exceed twenty percent (20%) of the Net Cost of the lowest tier subcontractor's Extra Work.

4. The Table of Contractor Fees/Mark-ups below is provided as a guide for the convenience of the Contract:

NET COST OF EXTRA WORK									
TIER	\$0 – 25,000			\$25,000 – 100,000			OVER \$100,000		
	GC ONLY	GC w/ SUB	GC, SUB, SUB SUB	GC ONLY	GC w/ SUB	GC, SUB, SUB SUB	GC ONLY	GC w/ SUB	GC, SUB, SUB SUB
General Contractor	15	5	5	12	5	5	10	5	5
Subcontractor		15	5		12	5		10	5
Sub-subcontractor			15			12			10
Totals	15%	20%	25%	12%	17%	22%	10%	15%	20%

4. CONTROL OF MATERIALS

The provision below shall supplement but not replace those provisions in Section 4 of the Standard Specifications.

A. TRADE NAMES OR EQUALS

If Contractor requests to substitute an equivalent item for a brand or trade name item, the burden of proof as to the

comparative quality and suitability of alternative equipment or articles or materials shall be upon the Contractor, and Contractor shall furnish, at Contractor's own expense, all information necessary or related thereto as required by the Project Administrator. All requests for substitution shall be submitted, together with all documentation necessary for the Director to determine equality.

5. UTILITIES

The provisions below shall supplement but not replace those provisions in Section 5 of the Standard Specifications.

A. LOCATION

The methods used and costs involved to locate existing elements, points of connection and all construction methods are Contractor's sole responsibility. Accuracy of information furnished, as to existing conditions, is not guaranteed by the City. Contractor, at his or her sole expense, must make all investigations necessary to determine locations of existing elements, which may include, without limitation, contacting U.S.A. Alert and other private underground locating firm(s), utilizing specialized locating equipment, hand trenching, or both. For every Dig Alert Identification Number issued by U.S.A. during the course of the project, Contractor must submit to the City the "Underground Service Alert Identification Number Form" attached hereto and incorporated herein by this reference.

B. PROTECTION

If Utilities become damaged or broken due to the Contractor's Work, it will be Contractor's responsibility to repair the Utility at no cost to the Utility or the City of Beverly Hills.

C. NOTIFICATION

The Contractor shall notify the Project Administrator and the owners of all Utilities and substructures not less than forty-eight (48) hours before starting construction.

D. ENTRY BY UTILITY OWNERS

The right is reserved to the owners of public Utilities or franchises to enter upon the Project site for the purpose of making repairs or changes in their property that may be necessary as a result of the Work as well as any other reason authorized by the City. When the Contract Documents provide for the Utility owners to alter, relocate or reconstruct a Utility, or when the Contract Documents are silent in this regard and it is determined by the Project Administrator that the Utility owners must alter, relocate or reconstruct a Utility, the Contractor shall schedule and allow adequate time for those alterations, relocations or reconstructions by the respective Utility owners.

E. RELOCATION

The Contractor shall cooperate fully with all Utility forces of the City or forces of other public or private agencies engaged in the relocation, altering, or otherwise rearranging of any facilities that interfere with the progress of the Work. The Contractor shall schedule the Work so as to minimize interference with the relocation, altering, or other rearranging of facilities.

F. COOPERATION

The Contractor's attention is directed to the fact that work may be conducted at or adjacent to the site by other contractors during the performance of the Work under this Contract. The Contractor shall conduct its operations so as to cause a minimum of interference with the work of such other contractors, and shall cooperate fully with such contractors to provide continued safe access to their respective portions of the site, as required to perform work under their respective contracts. Compensation for compliance shall be included in the various items of Work, and no additional compensation shall be allowed therefor.

6. PROSECUTION, PROGRESS AND ACCEPTANCE OF THE WORK

The provisions below shall supplement but not replace those provisions in Section 6 of the Standard Specifications.

A. CONSTRUCTION SCHEDULE AND COMMENCEMENT OF THE WORK

1. Construction Schedule

In addition to the construction schedule required pursuant to Section 6-1.1 of the Standard Specifications after notification of the award of the Contract and before any start of the Project, as well as the revised construction schedule in advance of beginning revised operations, Contractor shall submit an updated construction schedule with its monthly invoice every month. Progress payments shall be contingent upon the receipt of monthly updated construction schedules.

2. Pre-Construction Conference

Approximately ten (10) days before the commencement of Work at the site, a pre-construction conference will be held at the City and shall be attended by the Contractor's Project manager, its on-site field superintendent, and any Subcontractors that Contractor deems appropriate. Attendance by Contractor and any Subcontractors designated is mandatory.

Unless previously submitted to the Project Administrator, the Contractor shall bring to the pre-construction conference copies of each of the following:

- 1) Construction Schedule.
- 2) Procurement schedule of major equipment and materials and items requiring long lead time.
- 3) Shop drawing/ sample submittal schedule.
- 4) Preliminary schedule of values (lump sum price breakdown) for progress payment purposes.
- 5) Written designation of the on-site field superintendent and the Project manager. Both daytime and emergency telephone numbers shall be included in the written designation.

The purpose of the conference is to designate responsible personnel and establish a working relationship. The parties will discuss matters requiring coordination and establish procedures for handling such matters. The complete agenda will be furnished to the Contractor before the meeting date. The Contractor shall be prepared to discuss all of the items listed below.

- 1) Contractor's construction schedule.
- 2) Notification of local residents before starting any Work and keeping them informed throughout the Project.
- 3) Procedures for transmittal, review, and distribution of Contractor's submittals.
- 4) Processing applications for payment.
- 5) Maintaining record documents.
- 6) Critical Work sequencing.
- 7) Maintaining sewage service during construction, including proposed by-passes.
- 8) NPDES requirements, if any.
- 9) Field decisions and Change Orders.
- 10) Use of Project site, office and storage areas, security, housekeeping, and City's needs.
- 11) Major equipment deliveries and priorities.
- 12) Traffic control.
- 13) Any other item that the City representative states is relevant to the meeting.

3. Weekly Progress Meetings

Progress meetings will be held each week during the course of the Project. The meeting location, day of the week and time of day will be mutually agreed to by the City and the Contractor. The Contractor shall provide a two-week "look ahead" schedule for each meeting. The construction manager will preside at these meetings and will prepare the meeting agenda, meeting minutes and will distribute minutes to all persons in attendance. As the Work progresses, if it is determined by mutual agreement of the attendees, that weekly meetings are not necessary, the weekly progress meetings may be changed to bi-weekly progress meetings.

B. PROSECUTION OF THE WORK

If the Project Administrator determines that the Contractor is failing to prosecute the Work to the proper extent, the Project Administrator may issue an order in any form or manner. If the order is in writing, the Project Administrator has the option of listing the steps required to remedy the situation and reasonable deadlines therefor. The Project Administrator may also provide that if such steps are not taken within such listed deadlines, then a penalty of Five Hundred dollars (\$500) per day may be assessed for each day of delay. This option is available in addition to all other options in the Standard Specifications or as otherwise legally available.

C. TERMINATION OF THE CONTRACT FOR CONVENIENCE

In addition to the reasons for termination listed in Section 6-5 of the Standard Specifications, which allow termination upon any written notice, the City may cancel the Contract for any other reason or for no reason upon thirty (30) days' written notice. The rest of the procedure outlined in Section 6-5 shall apply to such situation, including the Contractor's required immediate notification of Subcontractors and suppliers and the payment. In no event (including termination for impossibility or impracticability, due to conditions or events beyond the control of the City, for any other reason or for no reason) shall the total amount of money to Contractor exceed the amount which would have been paid to Contractor for the full performance of the services described in the Contract.

D. DELAYS AND EXTENSIONS OF TIME

1. Changed Conditions Caused by Acts of God

The Contractor shall not be responsible for the cost of repairing or restoring damage to the Work if the damages have been determined to have been proximately caused by an Act of God and are in excess of five percent (5%) of the Contract amount, provided that the Work damaged was built in accordance with accepted and applicable building standards and the Contract Documents. Per Section 7105(b)(2) of the Public Contract Code, "Acts of God" shall include only earthquakes in excess of a magnitude of 3.5 on the Richter Scale and tidal waves. The Contractor shall notify the City promptly in writing of each such excusable delay, its cause and its expected delay, and shall upon request update such notice. This Section shall not abridge or affect, and shall be read in congruence with, Section 6-6 of the Standard Specifications.

2. Delays

No extension of time will be granted for delay caused by shortage of materials unless the Contractor furnishes to the Project Administrator documentary proof that he or she has diligently made reasonable and timely efforts to obtain such materials from all known sources. No time extension will be granted for delays which do not affect the critical path of the construction schedule provided at the Pre-Construction Conference.

Unless otherwise agreed in writing, an adjustment to the Contract time by reason of a Change Order shall be agreed to at the time the Change Order is issued and accepted by the Contractor. If the Change Order does not reserve the right of the parties, or either of them, to seek an adjustment to the Contract time, then the parties forever relinquish and waive such right and there shall be no further adjustments to the Contract time.

3. Extensions of Time

In the event it is deemed appropriate by the City to extend the time for completion of the Work, any such extension shall not release any guarantee for the Work required by the Contract Documents, nor shall any such extension of time relieve or release the sureties on the Bonds executed. In executing such Bonds, the sureties shall be deemed to have expressly agreed to any such extensions of time. The amount of time allowed by an extension of time shall be limited to the period of the delay giving rise to the same as determined by the City. Notwithstanding any dispute which may arise in connection with a claim for adjustment of the Contract time, the Contractor shall promptly proceed with the Work.

4. Payment for Delays

Notwithstanding any other terms and conditions of the Contract Documents, the City shall have no obligation whatsoever to increase the Contract Price or extend the time for delays.

Unless compensation and/or mark up is agreed upon by the City, the Contractor agrees that no payment of compensation of any kind shall be made to the Contractor for damages or increased overhead costs caused by any delays in the progress of the Contract, whether such delays are avoidable or unavoidable or caused by any act or omission of the City or its agents. Any accepted delay claim shall be fully compensated for by an extension of time to complete the performance of the Work.

This Section shall not apply to compensable delays caused solely by the City. If a compensable delay is caused solely by the City, the Contractor shall be entitled to a Change Order that 1) extends the time for completion of the Contract by the amount of delay caused by the City, 2) compensates the Contractor for the actual costs caused by the delay and 3) pays the Contractor a mark-up for any additional work as set forth in Section 3 of the Standard Specifications and Section 3 of these General Provisions.

E. TIME OF COMPLETION

The Contractor shall complete all Work under the Contract within 300 calendar days from the date of the Notice to Proceed. The Contractor shall not be allowed to begin any construction activity at the site before the issuance of the Notice to Proceed. Between the period of the Notice of Award and Notice to Proceed, the Contractor shall process Shop Drawings and begin procuring equipment and materials.

F. COMPLETION, ACCEPTANCE AND WARRANTY

1. Acceptance

The Project will not be considered complete and ready for City Council acceptance until all required Work is completed and all of the following items have been received by the Project Administrator:

- (1) "Notice of Completion" indicating approval by City departments and divisions;
- (2) All written guarantees and approvals from governing agencies as specified herein;
- (3) All "as-builts";

(4) Duplicate copies of all operating instructions and manufacturer's operating catalogs and data, together with such field instructions as necessary to fully instruct City personnel in correct operation and maintenance procedures for all equipment installed listed under the electrical, air conditioning, heating, ventilating and other trades. This data and instructions shall be furnished for all equipment requiring periodic adjustments, maintenance or other operation procedures.

2. Warranty

For the purposes of the calculation of the start of the warranty period, the Work herein contracted for shall be deemed to be completed upon the date of the City's acceptance of the entire Project, which is when the City Council directs staff to file a Notice of Completion. If that direction is contingent on the completion of any items remaining on a punchlist, the Work herein contracted for shall be deemed to be completed upon the date of the Project Administrator's acceptance of the final item(s) on that punchlist.

Contractor shall repair or replace defective materials and workmanship as required in Section 6-8.3 of the Standard Specification at Contractor's own expense. Additionally, Contractor agrees to defend, indemnify and hold the City harmless from claims of any kind arising from damage, injury or death due to such defects.

The parties agree that no certificate given shall be conclusive evidence of the faithful performance of the Contract, either in whole or in part, and that no payment shall be construed to be in acceptance of any defective Work or improper materials. Further, the certificate or final payment shall not terminate the Contractor's obligations under the warranty herein. The Contractor agrees that payment of the amount due under the Contract and the adjustments and payments due for any Work done in accordance with any alterations of the same, shall release the City, the City Council and its officers and employees from any and all claims or liability on account of Work performed under the Contract or any alteration thereof.

G. LIQUIDATED DAMAGES

For the purposes of the calculation of the start of the liquidated damages, the Work herein contracted for shall be deemed to be completed when the same has been actually completed in accordance with the Plans and Specifications therefor and to the satisfaction of the Project Administrator. The Project must be certified by the Project Administrator in accordance with Section 6-8.1 of the Standard Specifications.

Liquidated damages shall be as set forth in Section 6-9 of the Standard Specifications, except that the sum of Two Hundred and Fifty dollars (\$250) per calendar day is amended to One Thousand dollars (\$1,000) per calendar day. Nothing in this Section shall prohibit the Project Administrator or City Council from granting to the Contractor an extension of time and waiving the liquidated damages.

7. RESPONSIBILITIES OF THE CONTRACTOR

Section 7-12 ("Advertising") of the Standard Specifications is hereby deleted and replaced with the following:

The names, addresses and specialties of Contractor, Subcontractors, architects or engineers may not be displayed on any signage within the public right-of-way. This signage prohibition includes advertising banners hung from truck beds or other equipment.

Otherwise, the provisions below shall supplement but not replace those provisions in Section 7 of the Standard Specifications.

A. LABOR

1. Public Work

Contractor acknowledges that the Project is a "public work" as defined in Division 2, Part 7, Chapter 1 (commencing with Section 1720) of the California Labor Code ("Chapter 1"), and that this Project is subject to (a) Chapter 1, including without limitation Labor Code Section 1771 and (b) the rules and regulations established by the Director of Industrial Relations ("DIR") implementing such statutes. Contractor shall perform all Work on the Project as a public work. Contractor shall comply with and be bound by all the terms, rules and regulations described in (a) and (b) as though set forth in full herein.

2. Copies of Wage Rates

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 City Hall and will be made available to any interested party on request. By initiating any Work on this Project, Contractor acknowledges receipt of a copy of the DIR determination of such prevailing rate of per diem wages, and Contractor shall post such rates at each job site covered by these Contract Documents.

3. Failure to Pay Prevailing Rates

Contractor 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. The Contractor shall, as a penalty to the City, forfeit two hundred dollars (\$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 these Contract Documents by Contractor or by any Subcontractor.

4. Payroll Records

Contractor shall comply with and be bound by the provisions of Labor Code Section 1776, which requires Contractor 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 City of the location of the records.

5. Apprentices

Contractor shall comply with and be bound by the provisions of Labor Code Sections 1777.5, 1777.6 and 1777.7 and California Administrative Code Title 8, Section 200 *et seq.* concerning the employment of apprentices on public works projects. Contractor shall be responsible for compliance with these Sections for all apprenticeable occupations. Before commencing Work on this Project, Contractor shall provide City with a copy of the information submitted to any applicable apprenticeship program. Within sixty (60) Days after concluding Work, Contractor and each of its Subcontractors shall submit to the City a verified statement of the journeyman and apprentice hours performed under this Contract.

6. Debarment or Suspension

Contractor and Subcontractors shall not be debarred or suspended throughout the duration of this Contract pursuant to Labor Code Section 1777.1 or 1777.7. If Contractor or any Subcontractor becomes debarred or suspended throughout the duration of the Project, Contractor shall immediately notify City.

7. Hours

Contractor acknowledges that eight (8) hours labor constitutes a legal day's work. Contractor shall comply with and be bound by Labor Code Section 1810. Contractor shall comply with and be bound by the provisions of Labor Code Section 1813 concerning penalties for workers who work excess hours. The Contractor shall, as a penalty to the City, forfeit twenty-five dollars (\$25) for each worker employed in the performance of this Project by the Contractor or by any Subcontractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one (1) calendar day and forty (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 Contractor in excess of eight (8) hours per day, and forty (40) hours during any one week shall be permitted upon public work upon compensation for all hours worked in excess of eight (8) hours per day at not less than 1 1/2 times the basic rate of pay.

8. Subcontractors

For every Subcontractor who will perform Work on the Project, Contractor shall be responsible for such

Subcontractor's compliance with Chapter 1 and Labor Code Sections 1860 and 3700, and Contractor shall include in the written contract between it and each Subcontractor a copy of the provisions in this Section 7.A of the General Provisions and a requirement that each Subcontractor shall comply with those provisions. Contractor shall be required to take all actions necessary to enforce such contractual provisions and ensure Subcontractor's compliance, including without limitation, conducting a periodic review of the certified payroll records of the Subcontractor and upon becoming aware of the failure of the Subcontractor to pay his or her workers the specified prevailing rate of wages. Contractor shall diligently take corrective action to halt or rectify any failure.

9. Prevailing Wage Indemnity

To the maximum extent permitted by law, Contractor shall indemnify, hold harmless and defend (at Contractor's expense with counsel reasonably acceptable to the City) the City, its officials, officers, employees, agents and independent contractors serving in the role of City officials, and volunteers from and against any demand or claim for damages, compensation, fines, penalties or other amounts arising out of or incidental to any acts or omissions listed in Section 7.A of the General Provisions by any Person (including Contractor, its Subcontractors, and each of their officials, officers, employees and agents) in connection with any Work undertaken or in connection with the Contract Documents, including without limitation the payment of all consequential damages, attorneys' fees, and other related costs and expenses. All duties of Contractor under this Section 7.A.9 shall survive termination of the Contract.

10. Registration with the Department of Industrial Relations

The Bidder's attention is directed to Labor Code Section 1725.5, which provides that a contractor or subcontractor shall not be qualified to bid on, be listed in a Bid proposal, subject to the requirements of Public Contract Code Section 4104, or engage in the performance of any contract that is subject to Labor Code Section 1720 *et seq.*, unless currently registered and qualified to perform a public work pursuant to Labor Code Section 1725.5. This requirement applies to any bid proposal submitted on or after March 1, 2015, and any contract for public work entered into on or after April 1, 2015.

B. INDEMNIFICATION

The following indemnity provisions shall supersede the indemnity in Section 7-3 of the Standard Specifications.

1. Contractor's Duty.

To the maximum extent permitted by law, Contractor hereby agrees, at its sole cost and expense, to defend with competent defense counsel approved by the City Attorney, protect, indemnify, and hold harmless the City, its elected and appointed officials, officers, employees, volunteers, attorneys, agents (including those City agents serving as independent contractors in the role of City representative), successors, and assigns (collectively "Indemnitees") from and against any and all claims (including, without limitation, claims for bodily injury, death or damage to property), demands, charges, obligations, damages, causes of action, proceedings, suits, losses, stop payment notices, judgments, fines, liens, penalties, liabilities, costs and expenses of every kind and nature whatsoever, in any manner arising out of, incident to, related to, in connection with or resulting from any act, failure to act, error or omission of Contractor or any of its officers, agents, attorneys, servants, employees, Subcontractors, material suppliers or any of their officers, agents, servants or employees, arising out of, incident to, related to, in connection with or resulting from any term, provision, image, plan, covenant, or condition in the Contract Documents, including without limitation, the payment of all consequential damages, attorneys' fees, experts' fees, and other related costs and expenses (individually, a "Claim," or collectively, "Claims"). Contractor shall promptly pay and satisfy any judgment, award or decree that may be rendered against Indemnitees in any such Claim. Contractor shall reimburse Indemnitees for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided. Contractor's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by Contractor or Indemnitees. This indemnity shall apply to all Claims regardless of whether any insurance policies are applicable or whether the Claim was caused in part or contributed to by an Indemnitees.

2. Civil Code Exception

Nothing in this Section 7.B shall be construed to encompass Indemnitees' sole negligence or willful misconduct to the limited extent that the underlying Contract is subject to Civil Code Section 2782(a) or the City's active negligence to the limited extent that the underlying Contract Documents are subject to Civil Code Section 2782(b), provided such sole negligence, willful misconduct or active negligence is determined by agreement between the parties or by the findings of a court of competent jurisdiction.

3. Nonwaiver of Rights

Indemnitees do not and shall not waive any rights that they may possess against Contractor because the acceptance by City, or the deposit with City, of any insurance policy or certificate required pursuant to these Contract Documents. This indemnity provision is effective regardless of any prior, concurrent, or subsequent active or passive negligence by Indemnitees and shall operate to fully indemnify Indemnitees against any such negligence.

4. Waiver of Right of Subrogation.

Contractor, on behalf of itself and all parties claiming under or through it, hereby waives all rights of subrogation and contribution against the Indemnitees, while acting within the scope of their duties, from all Claims arising out of or incident to the activities or operations performed by or on behalf of the Contractor regardless of any prior, concurrent or subsequent active or passive negligence by Indemnitees.

5. Survival.

The provisions of this Section 7.B shall survive the term and termination of the Contract, are intended to be as broad and inclusive as is permitted by the law of the State, and are in addition to any other rights or remedies that Indemnitees may have under the law. Payment is not required as a condition precedent to an Indemnitee's right to recover under this indemnity provision, and an entry of judgment against a Contractor shall be conclusive in favor of the Indemnitee's right to recover under this indemnity provision.

C. INSURANCE

Upon award of Contract, Contractor will be obligated to file Certificates of Insurance evidencing coverage as specified in the Contract Documents and in a form acceptable to City.

1. Commencement of Work

The Contractor shall not commence Work under this Contract until all insurance required under this section has been obtained by the Contractor and approved by the City; nor shall the Contractor allow any Subcontractor to commence Work until all similar insurance required of the Subcontractor has been so obtained and accepted.

2. Liability Insurance

Contractor shall procure and maintain for the duration of the contract, insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work by the contractor, his agents, representatives, employees or subcontractors, pursuant to contractor's bid or any subsequent contract. Insurance shall be of the type, in the amounts and subject to the provisions described below.

Commercial general liability coverage at least as broad as Insurance Services Office Commercial General Liability occurrence coverage ("occurrence" form CGO001, Ed. 11/88) with a limit of not less than \$2,000,000 per occurrence. If the insurance includes a general aggregate limit, that limit shall apply separately to this contract or it shall be at least twice the required per occurrence limit.

Business automobile liability insurance at least as broad as Insurance Services office form CA 0001 (Ed. 12/90) covering Automobile Liability, code I "any auto" and endorsement CA 0029 (Ed. 12/88) with a limit not less than

\$1,000,000 per accident.

Workers Compensation Insurance as required by the State of California and employer's liability insurance with a limit not less than \$1,000,000 per accident.

3. Evidence of Coverage

(a) Prior to commencement of work under this Contract, or within 14 days of notification of award of Contract, whichever is shorter, Contractor shall file certificates of insurance with original endorsements evidencing coverage in compliance with this contract and in a form acceptable to City. The certificate shall be on the City's standard proof of insurance form or on another form approved in writing by City's Risk Manager. Endorsement must be executed on the City's appropriate standard form titled, "Additional Insured Endorsement," copies of which are provided in the Contract Documents.

(b) Contractor shall provide to City, on request, a complete copy, including all endorsements and riders, of any insurance policy.

(c) During the term of this Contract, Contractor shall maintain current valid proof of insurance coverage, with City at all times. Proof of renewals shall be filed prior to expiration of any required coverage and shall be provided on the City's standard proof of insurance form.

(d) Failure to submit any required evidences of insurance within the required time period shall be cause for termination for default, and shall be cause for forfeiture of this bidder's bid security, if applicable.

(e) In the event Contractor does not maintain current, valid evidence of insurance on file with City, City may, at its option, withhold payment of any moneys owed to Contractor, or which it subsequently owes to Contractor, until proper proof is filed.

4. Rating

All insurance coverages shall be provided by insurers with a rating of B+ or better in the most recent edition of Best's Key Rating Guide, Property-Casualty Edition.

5. Notice

Each insurance policy shall be endorsed to state that coverage shall not be suspended, voided or canceled and shall not be reduced in coverage or limits except after 30 days prior written notice provided to the City. Upon prior request of the carrier, the notice period may be reduced to 10 days in the event of non-payment of premium.

6. Additional Insureds

All liability coverages shall name the City, its City Council and every officer, agent and employee of City as additional insureds with respect to work under this bid or any subsequent contract.

7. Primary Coverage

Contractor's insurance and any insurance provided in compliance with these specifications shall be primary with respect to any insurance or self-insurance programs covering the City, its City Council and any officer, agent or employee of City.

8. Waiver of Rights of Subrogation

Where available, the insurer shall agree to waive all rights of subrogation against the City, its City Council and every officer, agent and employee of City.

9. Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions shall be declared to be subject to the approval by City. At the option of the City, either the insurer shall reduce or eliminate the deductibles or self-insured retentions as respects the City, or the Contractor shall procure a bond guaranteeing payment of losses and expenses.

10. Replacement Coverage

In the event that Contractor does not provide continuous insurance coverage, the City shall have the right, but not the obligation, to obtain the required insurance coverage at Contractor's cost, and the City may deduct all such costs from moneys the City owes to the Contractor or from moneys which it subsequently owes to the Contractor.

11. Subcontractors

Contractor shall ensure all Subcontractors and their employees are listed as additional insureds on all of Contractor's insurance policies required by this Contract.

12. No Limitation on Indemnity

The insurance provisions shall not be construed to limit the Contractor's indemnity obligations contained in these Contract Documents.

In addition, the Contractor shall guarantee and warranty all Work against defective workmanship and materials furnished by the Contractor for a period of one (1) year from the date the Work was completed and accepted by the City.

D. PERMITS

Contractor will be required to obtain all necessary permits from the City, which may include obtaining a no fee encroachment permit for Work within the public right-of-way, as well as all other permits from all other agencies. Should this Project require construction of trenches or excavations which are five (5) feet or deeper and into which a person is required to descend, the Contractor shall obtain a Cal/OSHA permit and furnish the City with a copy before Work can commence on this Project. Contractor shall bear all cost for fees for all agencies except for the City.

E. WORKSITE MAINTENANCE

1. Site Cleanliness

Clean-up shall be done as Work progresses at the end of each day and thoroughly before weekends. If the job site is not cleaned to the satisfaction of the Project Administrator, the cleaning will be done or contracted by the City and shall be back-charged to the Contractor and deducted from the Contract amount.

2. Rubbish Removal

One rubbish removal company is allowed to operate within the City. Information can be obtained from the City's Commercial Services Division (310) 288-2806. This Division shall also be contacted for roll-off containers.

3. Jobsite Run-off Control Measures

The Contractor agrees to provide for City review and approval and implement an approved Storm Water Pollution Prevention Plan (SWPPP) to prevent the run-off of construction materials into the City's storm water system.

8. FACILITIES FOR CITY PERSONNEL

The provisions of Section 8 of the Standard Specifications shall apply except as modified herein. No field offices for City personnel shall be required; however, City personnel shall have the right to enter upon the Project at all times and shall be admitted to the offices of the Contractor to use the telephone, desk and sanitary facilities provided by the Contractor for his or her own personnel.

9. MEASUREMENT AND PAYMENT

The provisions below shall supplement but not replace those provisions in Section 9 of the Standard Specifications.

A. GENERAL PAYMENT

In accordance with Public Contract Code Section 7107, if no claims have been filed and are still pending, the amount deducted from the final estimate and retained by the City will be paid to the Contractor except such amounts as are required by law to be withheld by properly executed and filed notices to stop payment, or as may be withheld for any other lawful purposes.

B. PARTIAL AND FINAL PAYMENT

1. Monthly Closure Date and Invoice Date

In accordance with Section 9-3.2 of the Standard Specifications, the monthly closure date shall be the last calendar day of each month. A measurement of Work performed and a progress estimate of the value thereof based on the Contract and of the monthly payment shall be prepared by the Contractor and submitted to the Project Administrator before the tenth day of the following month for verification and payment consideration.

2. Payments

City shall make payments within thirty (30) Days after receipt of Contractor's undisputed and properly submitted payment request, including an updated construction schedule pursuant to Section 6.A.1 of the General Provisions. City shall return to Contractor any payment request determined not to be a proper payment request as soon as practicable, but not later than seven (7) Days after receipt, and shall explain in writing the reasons why the payment request is not proper.

3. Retention

The City shall withhold not less than five percent (5%) of the Contract Price until final completion and acceptance of the Project.

4. Final Invoice and Payment

Final Payment, constituting the entire unpaid balance of the Contract amount, shall be made by the City to the Contractor when (1) the Contract has been fully performed by the Contractor except for the Contractor's responsibility to correct nonconforming Work as agreed to between the City and the Contractor; and (2) a final Certificate for Payment has been submitted by the Contractor and approved by the City; and (3) the work has been accepted by the City Council of the City of Beverly Hills; and (4) a Notice of Completion has been filed. Final payment shall be made by the City not more than forty (40) days after completion of the above, but only to the extent that no stop notices or other requirements to withhold funds are then in effect.

5. Substitute Security.

In accordance with Public Contract Code Section 22300, the Contractor may request that it be permitted to substitute securities in lieu of having retention withheld by the City from progress payments when such payments become due or, in the alternative, Contractor may request that the City make payments of earned retentions directly

to an agreed upon designated escrow agent at Contractor's expense. If the Contractor selects either one of these alternatives, the following shall control:

a) Substitution of Securities for Performance Retention

At some reasonable time before any progress payment would otherwise be due and payable to Contractor in the performance of Work under these Contract Documents, the Contractor may submit a request to the City in writing to permit the substitution of retentions with securities equivalent to the amount estimated by the City ("estimated amount of retention") to be withheld. Contractor shall deposit such securities with the City or may, in the alternative, deposit such securities in escrow with a State or federally chartered bank in California, as the escrow agent, and at the Contractor's expense. Such securities will be the equivalent or greater in value of the estimated amount of retention. If the Contract is modified by written Modifications or Change Orders or Contractor otherwise becomes entitled to receive an amount more than the Contract amount at the time the securities are deposited, the Contractor shall, at the request of the City, deposit with the City or escrow agent, whichever is applicable, additional securities within a reasonable time so that the amount of securities on deposit with the City or escrow agent is equivalent or greater in value than the amount of retention the City would otherwise be entitled to withhold from progress payments due or to become due to the Contractor as the Work progresses. The City shall withhold any retention amount that exceeds the security amount until the additional securities are deposited and, if the deposit is with an escrow agent, the City has confirmation from that escrow agent of the new total value of securities. Upon satisfactory completion of the Contract, which shall mean, among other things, that the City is not otherwise entitled to retain proceeds from progress payments as elsewhere provided in the Contract or under applicable law, the securities shall be returned to the Contractor. The City shall, within its sole discretion, determine whether the amount of the securities on deposit with the City or escrow agent is equal to or greater than the amount of estimated retention of progress payments which could otherwise be held by the City if the Contractor had not elected to substitute same with securities.

b) Deposit of Retention Proceeds with an Escrow Agent

As an alternative to the substitution of securities, as provided above, or the City otherwise retaining and holding retention proceeds from progress payments, the Contractor may request the City to make payments of retentions earned directly to an escrow agent with the same qualifications as required in paragraph (1) above and at the expense of the Contractor. At its sole expense, the Contractor may direct the investment of such retention payments into only such securities as mentioned in paragraph (3) below and shall be entitled to interest earned on such investments on the same terms provided for securities deposited by Contractor. Upon satisfactory completion of the Contract, which shall mean when the City would not otherwise be entitled to withhold retention proceeds from progress payments had the Contractor not elected to have such proceeds deposited into escrow, Contractor shall be allowed to receive from the escrow agent all securities, interest and payments deposited into escrow pursuant to the terms of this Section. The Contractor shall pay to each Subcontractor, not later than ten (10) Days of receipt of payment, the respective amount of interest earned, net of costs attributed to retention withheld from each Subcontractor, on the amount withheld to insure performance of the Contractor.

c) Subcontractor Entitlement to Interest

Any Contractor who elects to receive interest on moneys withheld in retention by the City shall, at the request of any Subcontractor performing more than five percent (5%) of the Contractor's total Bid, make that option available to the Subcontractor regarding any moneys withheld in retention by the Contractor from the Subcontractor. If the Contractor elects to receive interest on any moneys withheld in retention by the City, then the Subcontractor shall receive the identical rate of interest received by the Contractor on any retention moneys withheld from Subcontractor by the Contractor, less any actual pro rata costs associated with administering and calculating that interest. In the event that the interest rate is a fluctuating rate, the rate for the Subcontractor shall be determined by calculating the interest rate paid during the time that retentions were withheld from the Subcontractor. If the Contractor elects to substitute securities in lieu of retention, then, by mutual consent of the Contractor and Subcontractor, the Subcontractor may substitute securities in exchange for the release of moneys held in retention by the Contractor. The Contractor shall pay each Subcontractor, not later than ten (10) Days after receipt of escrow moneys, the amount owed to each Subcontractor from the moneys plus the respective amount of interest earned, net of costs attributed to the retention held from each Subcontractor, on the amount of retention withheld to insure performance

of the Subcontractor.

d) Securities Eligible for Investment

Securities eligible for investment shall include those listed in California Government Code Section 16430, bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed upon between the Contractor and the City. The Contractor shall be the beneficial owner of any securities substituted for any monies withheld and shall receive any interest thereon.

e) Escrow Agreement for Security Deposits in Lieu of Retention

The escrow agreement that shall be used for the deposit of securities in lieu of retention shall substantially conform to the form prescribed in California Public Contract Code Section 22300(f).

f) Inconsistencies with Prevailing Statutory Requirements

If there is any inconsistency between or differences in Public Contract Code Section 22300 and the terms of this provision, or any future amendments thereto, Section 22300 shall control.

C. AUDIT

The City or its representative shall have the option of inspecting and/or auditing all records and other written materials used by Contractor in preparing its billings to the City as a condition precedent to any payment to Contractor or in response to a construction claim or a Public Records Act request. Contractor will promptly furnish documents requested by the City at no cost. Additionally, Contractor shall be subject to State Auditor examination and audit at the request of the City or as part of any audit of the City, for a period of three (3) years after final payment under the Contract.

10. ADDITIONAL TERMS

A. REQUIRED LICENSES

The Contractor shall possess a valid Class C-11 Contractor's license issued by California State Contractors License Board. The Contractor shall also be required to possess a City business license. In accordance with Section 7028.15 of the Business and Professions Code, all Contractors shall be licensed in accordance with the laws of the State of California and any Contractor or Subcontractor not so licensed is subject to the penalties imposed by such laws.

B. DEBARRED OR SUSPENDED SUBCONTRACTORS

Contractor shall not perform Work with any Subcontractor that has been debarred or suspended pursuant to California Labor Code Section 1777.1 or 1777.7.

C. NONDISCRIMINATORY EMPLOYMENT

Contractor shall not unlawfully discriminate against any individual based on race, color, religion, nationality, gender, sex, sexual orientation, age or condition of disability. Contractor understands and agrees that it is bound by and shall comply with the nondiscrimination mandates of all statutes and local ordinances and regulations.

D. NOTICE TO PROCEED

Upon award of this Contract and signing the Contract Documents, the City shall issue the Contractor a Notice to Proceed. The City will not authorize any Work to be done under these Contract Documents before the Contract has been fully executed. Any Work that is done by the Contractor in advance of such time shall be considered as being done at Contractor's own risk and responsibility, and as a consequence will be subject to rejection.

E. CONTRACTOR'S RESPONSIBILITY FOR WORK

Until the final acceptance of the Work by the City as defined in Section 6.F.1 of the General Provisions, by written action of the Project Administrator, the Contractor shall have the charge and care thereof and shall bear the risk of injury or damage to any part of the Work by the action of the elements or any other cause. The Contractor shall rebuild, repair, restore and make good all injuries or damages to any portion of the Work occasioned by any cause before its completion and acceptance and shall bear the expense thereof, except for such injuries or damages arising from the sole negligence of willful misconduct of the City, its officers, agents or employees. In the case of suspension of Work from any cause whatever, the Contractor shall be responsible for all materials and the protection of Work already completed, shall properly store and protect them if necessary, and shall provide suitable drainage and erect temporary structures where necessary.

F. PROCEDURE IN CASE OF DAMAGE TO PUBLIC PROPERTY

Any portions of curb, gutter, sidewalk or any other City improvement damaged by the Contractor during the course of construction shall be replaced by the Contractor at Contractor's own cost.

G. SOILS ENGINEERING AND TESTING

A soils engineer may be retained by the City to perform soils tests during the Contractor's entire operation to ascertain a minimum ninety-five percent (95%) compaction. The City shall be responsible for the cost of soils tests.

H. BARRICADING, PROTECTION AND TRAFFIC CONTROL

Due to the Project's location, the Contractor shall be required to secure and render safe the entire construction area at the end of each working day. Work areas must be well barricaded and flagged. No open excavations will be allowed on the weekends.

Contractor shall be responsible for and shall provide and maintain all required guards, railings, lights and warning signs and shall take all precautions to avoid injury or damage to any person or property and shall protect and indemnify the City against any claim or liability arising from or based on the lack of proper safeguards or negligence whether by him- or herself or his or her agents, employees or Subcontractors.

Payment for barricading, protection and traffic control shall be included in the price bid and shall include all labor and material necessary to adequately perform the Work involved to the satisfaction of the Project Administrator.

I. ACCESS TO PRIVATE PROPERTY

The Contractor shall be responsible for all fees and costs associated with securing permission to access private property for any portion of the Project.

J. WORKING DAYS AND HOURS

Contractor shall do all Work between the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday. No Work will be allowed on Federal or City holidays.

In addition, no Work will be allowed on any special election day which may be declared. Should a special election day be declared, a time extension of one (1) working day will be granted for each such day.

Whenever the Contractor is permitted or directed to perform night Work or to vary the period during which Work is performed during the day, Contractor shall give twelve (12) hours notice to the Inspector so that inspection may be provided. Also, a charge may be made to the Contractor for approved overtime or weekend inspections requested by the Contractor.

K. CLAIM DISPUTE RESOLUTION

In the event of any dispute or controversy with the City over any matter whatsoever, Contractor shall not cause any delay or cessation in or of Work, but shall proceed with the performance of the Work in dispute. Contractor shall retain any and all rights provided that pertain to the resolution of disputes and protests between the parties. The Disputed Work will be categorized as an “unresolved dispute” and payment, if any, shall be as later determined by mutual agreement or a court of law. Contractor shall keep accurate, detailed records of all Disputed Work, claims and other disputed matters.

All claims arising out of or related to the Contract Documents or this Project, and the consideration and payment of such claims, are subject to the provisions of the Division 3.6 (commencing with Government Code Section 810) of Title 1 of the Government Code (the “Government Claims Act”) with regard to filing claims and to Article 1.5 (commencing with Section 20104) of Division 2, Part 3 of the Public Contract Code regarding the resolution of public works claims of \$375,000 or less. This Contract hereby incorporates those provisions as through fully set forth herein. Thus, Contractor or any Subcontractor must file a claim in accordance with the Government Claims Act as a prerequisite to filing a construction claim in compliance with Article 1.5, and must then adhere to Article 1.5.

L. THIRD PARTY CLAIMS

City shall have full authority to compromise or otherwise settle any claim relating to the Project at any time. City shall timely notify Contractor of the receipt of any third-party claim relating to the Project. City shall be entitled to recover its reasonable costs incurred in providing this notice.

M. COMPLIANCE WITH LAWS

Contractor shall comply with all applicable federal, State and local laws, ordinances, codes and regulations in force at the time Contractor performs pursuant to the Contract Documents.

N. CONTRACTOR’S REPRESENTATIONS

By signing the Contract, Contractor represents, covenants and agrees that: a) Contractor is licensed, qualified, and capable of furnishing the labor, materials, and expertise necessary to perform the services in accordance with the terms and conditions set forth in the Contract Documents; b) there are no obligations, commitments, or impediments of any kind that will limit or prevent its full performance under the Contract Documents; c) there is no litigation pending against Contractor, and Contractor is not the subject of any criminal investigation or proceeding; and d) to Contractor’s actual knowledge, neither Contractor nor its personnel have been convicted of a felony.

O. CONFLICTS OF INTEREST

Contractor agrees not to accept any employment or representation during the term of the Contract or within twelve (12) months after acceptance as defined in Section 6.F.1 of the General Provisions that is or may likely make Contractor “financially interested,” as provided in Government Code Section 1090 and 87100, in any decisions made by City on any matter in connection with which Contractor has been retained pursuant to the Contract Documents.

P. APPLICABLE LAW

The validity, interpretation, and performance of these Contract Documents shall be controlled by and construed under the laws of the State of California, excluding California’s choice of law rules. Venue for any such action relating to the Contract shall be in the Los Angeles County Superior Court.

Q. TIME

Time is of the essence in these Contract Documents.

R. INDEPENDENT CONTRACTOR

Contractor and Subcontractors shall at all times remain, as to the City, wholly independent contractors. Neither the City nor any of its officials, officers, employees or agents shall have control over the conduct of Contractor, Subcontractors, or any of their officers, employees, or agents, except as herein set forth, and Contractor and Subcontractors are free to dispose of all portions of their time and activities which they are not obligated to devote to the City in such a manner and to such Persons that the Contractor or Subcontractors wish except as expressly provided in these Contract Documents. Contractor and Subcontractors shall have no power to incur any debt, obligation, or liability on behalf of the City, bind the City in any manner, or otherwise act on behalf of the City as agents. Contractor and Subcontractors shall not, at any time or in any manner, represent that they or any of their agents, servants or employees, are in any manner agents, servants or employees of City. Contractor and Subcontractors agree to pay all required taxes on amounts paid to them under the Contract, and to indemnify and hold the City harmless from any and all taxes, assessments, penalties, and interest asserted against the City by reason of the independent contractor relationship created by the Contract Documents. Contractor shall include this provision in all contracts with all Subcontractors.

S. CONSTRUCTION

In the event of any asserted ambiguity in, or dispute regarding the interpretation of any matter herein, the interpretation of these Contract Documents shall not be resolved by any rules of interpretation providing for interpretation against the party who causes the uncertainty to exist or against the party who drafted the Contract Documents or who drafted that portion of the Contract Documents.

T. NON-WAIVER OF TERMS, RIGHTS AND REMEDIES

Waiver by either party of any one or more of the conditions of performance under these Contract Documents shall not be a waiver of any other condition of performance under these Contract Documents. In no event shall the making by the City of any payment to Contractor constitute or be construed as a waiver by the City of any breach of covenant, or any default which may then exist on the part of Contractor, and the making of any such payment by the City shall in no way impair or prejudice any right or remedy available to the City with regard to such breach or default.

U. TERM

The Contract is effective as of the Effective Date listed, and shall remain in full force and effect until Contractor has fully rendered the services required by the Contract Documents or the Contract has been otherwise terminated by the City. However, some provisions may survive the term listed within this Section, as stated in those provisions.

V. NOTICE

Except as otherwise required by law, any notice or other communication authorized or required by these Contract Documents shall be in writing and shall be deemed received on (a) the day of delivery if delivered by hand or overnight courier service during the City's regular business hours or (b) on the third business day following deposit in the United States mail, postage prepaid, to the addresses listed on Contractor's Bid and City Hall, or at such other address as one party may notify the other.

W. SEVERABILITY

If any term or portion of these Contract Documents is held to be invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions of these Contract Documents shall continue in full force and effect.

CHECKLIST FOR EXECUTION OF CONSTRUCTION CONTRACT

TO BE SUBMITTED BY SUCCESSFUL BIDDER:

- _____ Two executed copies of the Contract
- _____ Payment Bond in amount of the Contract
- _____ Performance Bond in amount of the Contract
- _____ Workers' Compensation Certificate
- _____ Liability insurance certificate naming the City as a co-insured
- _____ Automobile insurance certificate naming the City as a co-insured
- _____ General aggregate insurance certificate naming the City as a co-insured
- _____ Copy of City business license
- _____ Additional insured endorsement – comprehensive general liability
- _____ Additional insured endorsement – automobile liability
- _____ Additional insured endorsement -- excess liability

IV. CONTRACT

CONTRACT

CITY OF BEVERLY HILLS

CONTRACT FOR

**MODERNIZATION OF ELEVATORS AT THE LIBRARY, POLICE DEPARTMENT AND
FIRE STATION HEADQUARTERS**

THIS CONTRACT ("Contract") is made and entered this _____ day of _____, 20____ ("Effective Date"), by and between the CITY OF BEVERLY HILLS, a California municipal corporation ("City") and _____ ("Contractor"). Contractor's license number is _____.

In consideration of the mutual covenants hereinafter set forth, the parties hereto agree as follows:

1. **Contract Documents.** The Contract Documents consist of this Contract, the Notice Inviting Bids, Instructions to Bidders, Bid (including documentation accompanying the Bid and any post-Bid documentation submitted before the Notice of Award), the Bonds, permits from regulatory agencies with jurisdiction, General Provisions, Special Provisions, Plans, Standard Plans, Standard Specifications, Reference Specifications, Addenda, Change Orders, and Supplemental Agreements. The Contract Documents are attached hereto and incorporated herein by reference. In the event of any conflict between the terms of this Contract and any incorporated documents, the terms of this Contract shall control.
2. **Scope of Services.** Contractor shall perform the Work in a good and workmanlike manner for the project identified as Modernization of Elevators at the Library, Police Department and Fire Station Headquarters ("Project"), as described in this Contract and in the Contract Documents.
3. **Compensation.** In consideration of the services rendered hereunder, City shall pay Contractor a not to exceed amount of _____ dollars (\$_____) in accordance with the prices as submitted in Contractor's Proposal, attached hereto and incorporated herein by this reference.
4. **Incorporation by Reference.** All of the following documents are attached hereto and incorporated herein by this reference: Workers' Compensation Certificate of Insurance; Additional Insured Endorsement (Comprehensive General Liability); Additional Insured Endorsement (Automobile Liability); and Additional Insured Endorsement (Excess Liability).
5. **Antitrust Claims.** In entering into this Contract, Contractor offers and agrees to assign to the City 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 (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the California Business and Professions Code) arising from purchases of goods, services, or materials pursuant to the Contract. This assignment shall be made and become effective at the time the City tenders final payment to Contractor without further acknowledgment by the parties.
6. **Prevailing Wages.** City and Contractor acknowledge that this Project is a public work to which prevailing wages apply. The provisions of Section 7.A of the General Provisions shall apply and are mandatory for this Project.
7. **Workers' Compensation.** California 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 California Labor Code Section 1861, by signing this Contract, the Contractor 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 under take 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."

8. Titles. The titles used in this Contract are for convenience only and shall in no way define, limit or describe the scope or intent of this Contract or any part of it.

9. Authority. Any person executing this Contract on behalf of Contractor warrants and represents that he or she has the authority to execute this Contract on behalf of Contractor and has the authority to bind Contractor to the performance of its obligations hereunder.

10. Entire Agreement. This Contract, including any other documents incorporated herein by specific reference, represents the entire and integrated agreement between City and Contractor. This Contract supersedes all prior oral or written negotiations, representations or agreements. This Contract may not be modified or amended, nor any provision or breach waived, except in a writing signed by both parties which expressly refers to this Contract.

11. Counterparts. This Contract may be executed in counterpart originals, duplicate originals, or both, each of which is deemed to be an original for all purposes.

IN WITNESS WHEREOF, the parties hereto have executed the Contract the day and year first above written.

CITY OF BEVERLY HILLS

By:

JULIAN A. GOLD, Mayor

ATTEST:

By: _____
BYRON POPE, City Clerk

Dated: _____

("CONTRACTOR")

By: _____

Printed Name: _____

Title: _____

By: _____

Printed Name: _____

Title: _____

APPROVED AS TO FORM:

By: _____
LAURENCE S. WIENER
City Attorney

APPROVED AS TO CONTENT:

By: _____
MAHDI ALUZRI
City Manager

By: _____
SHANA EPSTEIN
Director of Public Works

By: _____
SHARON L'HEUREUX DRESSEL
Risk Manager

V. **BONDS**

purposes be deemed an original hereof, have been duly executed by Principal and Surety, on the date set forth below, the name of each corporate party being hereto affixed and these presents duly signed by its undersigned representative(s) pursuant to authority of its governing body.

Dated: _____

“Principal”

“Surety”

By: _____
Its

By: _____
Its

By: _____
Its

By: _____
Its

(Seal)

(Seal)

APPROVED AS TO FORM:

By: _____
Laurence S. Wiener, City Attorney

Note: This Bond must be executed in duplicate and dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached. IF CONTRACTOR IS A PARTNERSHIP, ALL PARTNERS MUST EXECUTE BOND. DATE OF BOND MUST NOT BE PRIOR TO DATE OF CONTRACT. Surety companies executing Bonds must appear on the Treasury Department’s most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.

the principal beneficiary of this Bond and has all rights of a party hereto.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original hereof, have been duly executed by Principal and Surety, on the date set forth below, the name of each corporate party being hereto affixed and these presents duly signed by its undersigned representative(s) pursuant to authority of its governing body.

Dated: _____

“Principal”

“Surety”

By: _____
Its

By: _____
Its

By: _____
Its

By: _____
Its

(Seal)

(Seal)

APPROVED AS TO FORM:

By: _____
Laurence S. Wiener, City Attorney

Note: This Bond must be executed in duplicate and dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached. IF CONTRACTOR IS A PARTNERSHIP, ALL PARTNERS MUST EXECUTE BOND. DATE OF BOND MUST NOT BE PRIOR TO DATE OF CONTRACT. Surety companies executing Bonds must appear on the Treasury Department’s most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.

VI. INSURANCE

**WORKERS' COMPENSATION
CERTIFICATE OF INSURANCE**

WHEREAS, the City of Beverly Hills ("City") has required certain insurance to be provided by:

NOW THEREFORE, the undersigned insurance company does hereby certify that it has issued the policy or policies described below to the following named insureds and that the same are in force at this time:

1. This certificate is issued to:

City of Beverly Hills
City Hall
455 North Rexford Drive, Suite 190
Beverly Hills, California 90210

2. The insureds under such policy or policies are:

3. Workers' Compensation Policy or Policies in a form approved by the Insurance Commissioner of California covering all operations of the named insureds as follows:

<u>Policy Number</u>	<u>Effective Date</u>	<u>Expiration Date</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

By: _____
Its Authorized Representative

**ADDITIONAL INSURED ENDORSEMENT
COMPREHENSIVE GENERAL LIABILITY**

Name and address of named insured ("Named Insured"):

Name and address of Insurance Company ("Company"):

General description of agreement(s), permit(s), license(s), and/or activity(ies) insured:

Notwithstanding any inconsistent statement in the policy to which this endorsement is attached (the "Policy") or in any endorsement now or hereafter attached thereto, it is agreed as follows:

1. The City of Beverly Hills ("City"), its elected officials, officers, attorneys, agents, employees, and volunteers are additional insureds (the above named additional insureds are hereafter referred to as the "Additional Insureds") under the Policy in relation to those activities described generally above with regard to operations performed by or on behalf of the Named Insured. The Additional Insureds have no liability for the payment of any premiums or assessments under the Policy.

2. The insurance coverages afforded the Additional Insureds under the Policy shall be primary insurance, and no other insurance maintained by the Additional Insureds shall be called upon to contribute with the insurance coverages provided by the Policy.

3. Each insurance coverage under the Policy shall apply separately to each Additional Insured against whom claim is made or suit is brought except with respect to the limits of the Company's liability.

4. Nothing in this contract of insurance shall be construed to preclude coverage of a claim by one insured under the policy against another insured under the policy. All such claims shall be covered as third-party claims, i.e., in the same manner as if separate policies had been issued to each insured. Nothing contained in this provision shall operate to increase or replicate the Company's limits of liability as provided under the policy.

5. The insurance afforded by the Policy for contractual liability insurance (subject to the terms, conditions and exclusions applicable to such insurance) includes liability assumed by the Named Insured under the indemnification and/or hold harmless provision(s) contained in or executed in conjunction with the written agreement(s) or permit(s) designated above, between the Named Insured and the Additional Insureds.

6. The policy to which this endorsement is attached shall not be subject to cancellation, change in coverage, reduction of limits (except as the result of the payment of claims), or non-renewal except after written notice to City, by certified mail, return receipt requested, not less than thirty (30) Days before the effective date thereof. In the event of Company's failure to comply with this notice provision, the policy as initially drafted will continue in full force and effect until compliance with this notice requirement.

7. Company hereby waives all rights of subrogation and contribution against the Additional Insureds, while acting within the scope of their duties, from all claims, losses and liabilities arising out of or incident to the perils insured against in relation to those activities described generally above with regard to operations performed by or on behalf of the Named Insured regardless of any prior, concurrent, or subsequent active or passive negligence by the Additional Insureds.

8. It is hereby agreed that the laws of the State of California shall apply to and govern the validity, construction, interpretation, and enforcement of this contract of insurance.

9. This endorsement and all notices given hereunder shall be sent to City at:

City Manager
City of Beverly Hills
City Hall
455 North Rexford Drive, Suite 190
Beverly Hills, California 90210

10. Except as stated above and not in conflict with this endorsement, nothing contained herein shall be held to waive, alter or extend any of the limits, agreements, or exclusions of the policy to which this endorsement is attached.

<u>TYPE OF COVERAGES TO WHICH THIS ENDORSEMENT ATTACHES</u>	<u>POLICY PERIOD FROM/TO</u>	<u>LIMITS OF LIABILITY</u>

11. Scheduled items or locations are to be identified on an attached sheet. The following inclusions relate to the above coverages. Includes:

- | | |
|---|--|
| <input type="checkbox"/> Contractual Liability | <input type="checkbox"/> Explosion Hazard |
| <input type="checkbox"/> Owners/Landlords/Tenants | <input type="checkbox"/> Collapse Hazard |
| <input type="checkbox"/> Manufacturers/Contractors | <input type="checkbox"/> Underground Property Damage |
| <input type="checkbox"/> Products/Completed Operations | <input type="checkbox"/> Pollution Liability |
| <input type="checkbox"/> Broad Form Property Damage | <input type="checkbox"/> Liquor Liability |
| <input type="checkbox"/> Extended Bodily Injury | <input type="checkbox"/> _____ |
| <input type="checkbox"/> Broad Form Comprehensive General Liability Endorsement | <input type="checkbox"/> _____ |
| | <input type="checkbox"/> _____ |

12. A deductible or self-insured retention (*check one*) of \$ _____ applies to all coverage(s) except: _____ *if none, so state*). The deductible is applicable per claim or per occurrence (*check one*).

13. This is an occurrence or claims made policy (*check one*).

14. This endorsement is effective on _____ at 12:01 a.m. and forms a part of Policy Number _____.

I, _____ (*print name*), hereby declare under penalty of perjury under the laws of the State of California, that I have the authority to bind the Company to this endorsement and that by my execution hereof, I do so bind the Company.

Executed _____, 20____

Signature of Authorized Representative

(*Original signature only; no facsimile signature or initialed signature accepted*)

Telephone No.: (_____) _____

**ADDITIONAL INSURED ENDORSEMENT
AUTOMOBILE LIABILITY**

Name and address of named insured ("Named Insured"): _____

Name and address of Insurance Company ("Company"): _____

General description of agreement(s), permit(s), license(s), and/or activity(ies) insured:

Notwithstanding any inconsistent statement in the policy to which this endorsement is attached (the "Policy") or in any endorsement now or hereafter attached thereto, it is agreed as follows:

1. The City of Beverly Hills ("City"), its elected officials, officers, attorneys, agents, employees, and volunteers are additional insureds (the above named additional insureds are hereafter referred to as the "Additional Insureds") under the Policy in relation to those activities described generally above with regard to operations performed by or on behalf of the Named Insured. The Additional Insureds have no liability for the payment of any premiums or assessments under the Policy.

2. The insurance coverages afforded the Additional Insureds under the Policy shall be primary insurance, and no other insurance maintained by the Additional Insureds shall be called upon to contribute with the insurance coverages provided by the Policy.

3. Each insurance coverage under the Policy shall apply separately to each Additional Insured against whom claim is made or suit is brought except with respect to the limits of the Company's liability.

4. Nothing in this contract of insurance shall be construed to preclude coverage of a claim by one insured under the policy against another insured under the policy. All such claims shall be covered as third-party claims, i.e., in the same manner as if separate policies had been issued to each insured. Nothing contained in this provision shall operate to increase or replicate the Company's limits of liability as provided under the policy.

5. The insurance afforded by the Policy for contractual liability insurance (subject to the terms, conditions and exclusions applicable to such insurance) includes liability assumed by the Named Insured under the indemnification and/or hold harmless provision(s) contained or executed in conjunction with the written agreement(s) or permit(s) designated above, between the Named Insured and the Additional Insureds.

6. The policy to which this endorsement is attached shall not be subject to cancellation, change in coverage, reduction of limits (except as the result of the payment of claims), or non-renewal except after written notice to City, by certified mail, return receipt requested, not less than thirty (30) Days before the effective date thereto. In the event of Company's failure to comply with this notice provision, the policy as initially drafted will continue in full force and effect until compliance with this notice requirement.

7. Company hereby waives all rights of subrogation and contribution against the Additional Insureds, while acting within the scope of their duties, from all claims, losses and liabilities arising out of or incident to the perils insured against in relation to those activities described generally above with regard to operations performed by or on behalf of the Named Insured regardless of any prior, concurrent, or subsequent active or passive negligence by the Additional Insureds.

8. It is hereby agreed that the laws of the State of California shall apply to and govern the validity, construction, interpretation, and enforcement of this contract of insurance.

9. This endorsement and all notices given hereunder shall be sent to City at:

City Manager
City of Beverly Hills
City Hall
455 North Rexford Drive, Suite 190
Beverly Hills, California 90210

10. Except as stated above and not in conflict with this endorsement, nothing contained herein shall be held to waive, alter or extend any of the limits, agreements, or exclusions of the policy to which this endorsement is attached.

<u>TYPE OF COVERAGES TO WHICH THIS ENDORSEMENT ATTACHES</u>	<u>POLICY PERIOD FROM/TO</u>	<u>LIMITS OF LIABILITY</u>
---	------------------------------	----------------------------

11. Scheduled items or locations are to be identified on an attached sheet. The following inclusions relate to the above coverages. Includes:

- | | |
|-------------------------|-----------------------------|
| í Any Automobiles | í Truckers Coverage |
| í All Owned Automobiles | í Motor Carrier Act |
| í Non-owned Automobiles | í Bus Regulatory Reform Act |
| í Hired Automobiles | í Public Livery Coverage |
| í Scheduled Automobiles | í _____ |
| í Garage Coverage | í _____ |

12. A deductible or self-insured retention (check one) of \$_____ applies to all coverage(s) except: _____ (if none, so state). The deductible is applicable G per claim or G per occurrence (check one).

13. This is an occurrence or claims made policy (check one).

14. This endorsement is effective on _____ at 12:01 a.m. and forms a part of Policy Number _____.

I, _____ (print name), hereby declare under penalty of perjury under the laws of the State of California, that I have the authority to bind the Company to this endorsement and that by my execution hereof, I do so bind the Company.

Executed _____, 20____

Telephone No.: (____) _____

Signature of Authorized Representative
(Original signature only; no facsimile signature
or initialed signature accepted)

**ADDITIONAL INSURED ENDORSEMENT
EXCESS LIABILITY**

Name and address of named insured ("Named Insured"): _____

Name and address of Insurance Company ("Company"): _____

General description of agreement(s), permit(s), license(s), and/or activity(ies) insured:

Notwithstanding any inconsistent statement in the policy to which this endorsement is attached (the "Policy") or in any endorsement now or hereafter attached thereto, it is agreed as follows:

1. The City of Beverly Hills ("City"), its elected officials, officers, attorneys, agents, employees, and volunteers are additional insureds (the above named additional insureds are hereafter referred to as the "Additional Insureds") under the Policy in relation to those activities described generally above with regard to operations performed by or on behalf of the Named Insured. The Additional Insureds have no liability for the payment of any premiums or assessments under the Policy.

2. The insurance coverages afforded the Additional Insureds under the Policy shall be primary insurance, and no other insurance maintained by the Additional Insureds shall be called upon to contribute with the insurance coverages provided by the Policy.

3. Each insurance coverage under the Policy shall apply separately to each Additional Insured against whom claim is made or suit is brought, except with respect to the limits of the Company's liability.

4. Nothing in this contract of insurance shall be construed to preclude coverage of a claim by one insured under the policy against another insured under the policy. All such claims shall be covered as third-party claims, i.e., in the same manner as if separate policies had been issued to each insured. Nothing contained in this provision shall operate to increase or replicate the Company's limits of liability as provided under the policy.

5. The insurance afforded by the Policy for contractual liability insurance (subject to the terms, conditions and exclusions applicable to such insurance) includes liability assumed by the Named Insured under the indemnification and/or hold harmless provision(s) contained in or executed in conjunction with the written agreement(s) or permit(s) designated above, between the Named Insured and the Additional Insureds.

6. The policy to which this endorsement is attached shall not be subject to cancellation, change in coverage, reduction of limits (except as the result of the payment of claims), or non-renewal except after written notice to City, by certified mail, return receipt requested, not less than thirty (30) Days before the effective date thereto. In the event of Company's failure to comply with this notice provision, the policy as initially drafted will continue in full force and effect until compliance with this notice requirement.

7. Company hereby waives all rights of subrogation and contribution against the Additional Insureds, while acting within the scope of their duties, from all claims, losses and liabilities arising out of or incident to the perils insured against in relation to those activities described generally above with regard to operations performed by or on behalf of the Named Insured regardless of any prior, concurrent, or subsequent active or passive negligence by the Additional Insureds.

8. It is hereby agreed that the laws of the State of California shall apply to and govern the validity, construction, interpretation, and enforcement of this contract of insurance.

9. This endorsement and all notices given hereunder shall be sent to City at:

City Manager
City of Beverly Hills
City Hall
455 North Rexford Drive, Suite 190
Beverly Hills, California 90210

10. Except as stated above and not in conflict with this endorsement, nothing contained herein shall be held to waive, alter or extend any of the limits, agreements, or exclusions of the policy to which this endorsement is attached.

<u>TYPE OF COVERAGES TO WHICH THIS ENDORSEMENT ATTACHES</u>	<u>POLICY PERIOD FROM/TO</u>	<u>LIMITS OF LIABILITY</u>
---	------------------------------	----------------------------

- Following Form
- Umbrella Liability

11. Applicable underlying coverages:

<u>INSURANCE COMPANY</u>	<u>POLICY NO.</u>	<u>AMOUNT</u>
--------------------------	-------------------	---------------

12. The following inclusions, exclusions, extensions or specific provisions relate to the above coverages:

13. A deductible or self-insured retention (*check one*) of \$ _____ applies to all coverage(s) except: _____ (*if none, so state*). The deductible is applicable per claim or per occurrence (*check one*).

14. This is an occurrence or claims made policy (*check one*).

15. This endorsement is effective on _____ at 12:01 a.m. and forms a part of Policy Number _____.

I, _____ (*print name*), hereby declare under penalty of perjury under the laws of the State of California, that I have the authority to bind the Company to this endorsement and that by my execution hereof, I do so bind the Company.

Executed _____, 20____

Telephone No.: (____) _____

Signature of Authorized Representative
(*Original signature only; no facsimile signature or initialed signature accepted*)

VII. APPENDIX I

SCOPE OF WORK

1.0 SCOPE OF WORK

- 1.1 Scope of Work shall be as described and in accordance with vertical transportation modernization specifications prepared by HKA Elevator Consulting, Inc., 23211 South Pointe Drive, Laguna Hills, CA 92653 dated:

Library specifications dated May 4, 2018

Fire Department Headquarters specifications dated May 4, 2018

Police Department Headquarters specifications dated July 12, 2018

- 1.2 The scope of work includes:

The Project includes, without limitation, the modernization of a total of (6) six elevators: (1) one hydraulic office elevator at the Library, (2) two hydraulic elevators at the Fire Department Headquarters building, and (3) three hydraulic elevators at the Police Department Headquarters building. The modernization of the Police Department elevators shall be in the base bid, the modernization of the Library elevator and the Fire Department elevators shall be Add Alternates. Contractor to include all work needed to ensure a fully code compliant modernization of the elevators. This Work will be performed in strict conformance with the Contract Documents, permits from regulatory agencies with jurisdiction, and applicable regulations. Execution of the Work shall be completed within 300 calendar days from the day of the Notice To Proceed.

Additional information regarding this project:

Every person on the Contractor's crew that will be working at the Police Department will need to pass a background check. Background checks typically take 2 to 3 weeks to process. Contractor's staff that pass the background check will be given badges to access the Police Department.

In the Police Department building, the release elevator and the public elevator must be modernized at the same time. The booking elevator will be modernized separately. Logistically, this will allow the Police Department to continue their operations while the elevators are being modernized. At the pre-construction meeting, the Contractor will be shown routes to be used to access construction areas.

- 1.3 Bid Alternates:

ADD ALTERNATE NO. 1 – Modernization of (2) hydraulic elevators at the Fire Department Headquarters building.

ADD ALTERNATE NO. 2 – Modernization of (1) hydraulic elevator at the Library.

- 1.4 Bid Allowances:

None.

- 1.5 Unit Prices:

None.

2.0 LISTING OF PLANS AND SPECIFICATIONS

Vertical Transportation Modernization Specifications, City of Beverly Hills Library prepared by HKA Consulting, Inc. dated May 4, 2018

Vertical Transportation Modernization Specifications, City of Beverly Hills Fire Department Headquarters prepared by HKA Consulting, Inc. dated May 4, 2018

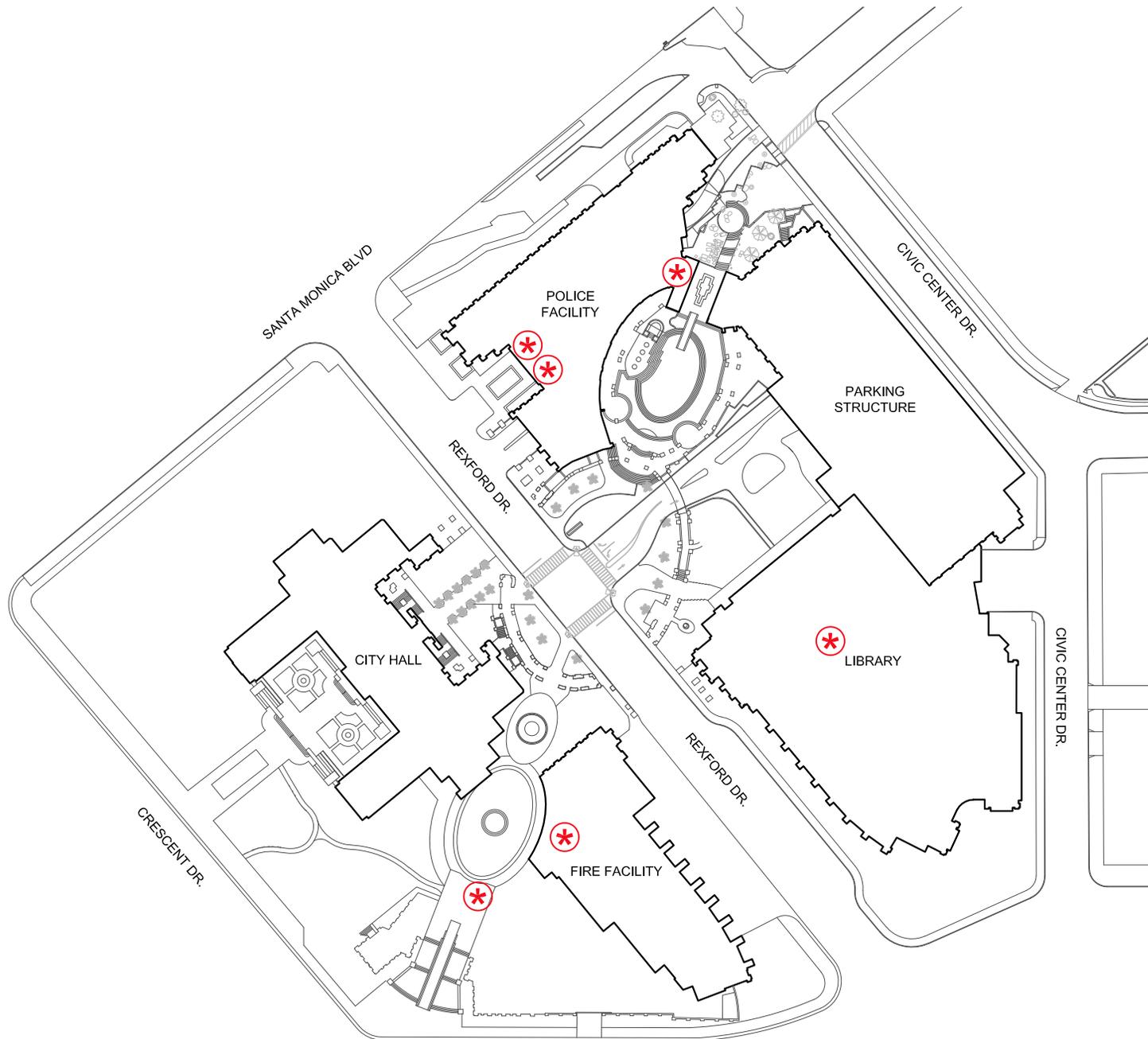
Vertical Transportation Modernization Specifications, City of Beverly Hills Police Department Headquarters prepared by HKA Consulting, Inc. dated July 12, 2018

VIII. APPENDIX II – TENTATIVE PROJECT MILESTONE DATES

CITY COUNCIL AWARD OF CONTRACT:	SEPTEMBER 2018*
CONSTRUCTION START:	FALL 2018*
CONSTRUCTION COMPLETE:	SUMMER 2019*

*The above dates are tentative and are subject to change

IX. APPENDIX III
CIVIC CENTER SITE PLAN



 ELEVATORS TO BE MODERNIZED

CAMPUS PLAN
SCALE: 1/128" = 1'-0"



X. APPENDIX IV

TECHNICAL SPECIFICATIONS

Vertical Transportation Modernization Specifications, City of Beverly Hills Library prepared by HKA Consulting, Inc. dated May 4, 2018

Vertical Transportation Modernization Specifications, City of Beverly Hills Fire Department Headquarters prepared by HKA Consulting, Inc. dated May 4, 2018

Vertical Transportation Modernization Specifications, City of Beverly Hills Police Department Headquarters prepared by HKA Consulting, Inc. dated July 12, 2018



Elevator Consulting, Inc.

23211 South Pointe Drive
Laguna Hills, CA 92653
949-348-9711

3765 East Sunset Road, B-5
Las Vegas, NV 89120
702-319-9711

15811 32nd Avenue NE Lake
Forest Park, WA 98155
206-954-1821

VERTICAL TRANSPORTATION MODERNIZATION SPECIFICATIONS

**City of Beverly Hills Library
444 N. Rexford
Beverly Hill, CA**

May 4, 2018

TABLE OF CONTENTS

PART 1 - GENERAL:	1
1.01 General Conditions	1
1.02 Related Documents:	1
1.03 DEFINITIONS:	1
1.04 DESCRIPTION:	2
1.05 QUALITY ASSURANCE:	4
1.06 SUBMITTALS:	6
1.07 CONTRACT AND PROGRESS PAYMENTS:	7
1.08 PRODUCT DELIVERY, STORAGE AND HANDLING:	7
1.09 SCHEDULING AND SEQUENCING:	8
1.10 WARRANTY:	8
1.11 ALTERNATES:	Error! Bookmark not defined.
PART 2 - PRODUCTS:	9
2.01 DESCRIPTION OF SYSTEMS:	9
2.02 MATERIALS:	10
2.03 FINISHES:	10
2.04 AUTOMATIC OPERATION:	11
2.05 SPECIAL OPERATIONS:	11
2.06 DOOR OPERATION:	12
2.07 SIGNALS AND OPERATING FIXTURES:	13
2.08 WIRING:	16
2.09 CAR ENCLOSURES:	17
2.10 HOISTWAY ENTRANCES; PASSENGER TYPE:	18
2.11 HYDRAULIC ELEVATOR EQUIPMENT:	19
2.12 HYDRAULIC HOISTWAY EQUIPMENT:	20
2.13 MACHINE ROOM EQUIPMENT:	21
PART 3 - EXECUTION:	23
3.01 INSTALLATION:	23
3.02 NOISE CONTROL:	24
3.03 FIELD QUALITY CONTROL:	25
3.04 INSTRUCTIONS:	25
3.05 PROJECT RECORD DOCUMENTS:	25
3.06 MAINTENANCE:	26

SECTION 14 22 10
MODERNIZATION OF ELEVATORS

PART 1 - GENERAL:

1.01 General Conditions

- A. Bidders Note: All clarifications, exceptions and qualifications to this document must be submitted at bid time. The format shall be this document marked up to reflect bidder's proposed product for this project. Additional pages in letter form with regard to work by others or instructions to the contractor are acceptable, but all other clarifications to this document will be submitted with the bid as a mark-up of this document. The marked-up document when submitted will be reviewed and negotiated, and will become a part of the Contract.
- B. Bidding documents:
 - 1. Bidders shall examine existing conditions. Any discrepancies which affect the elevator work or conditions adverse to the bidder's equipment shall be brought to Owner's Representative's attention at least seven (7) days prior to the bid date. If no discrepancies are presented, changes required to accommodate bidder's equipment become the responsibility and cost to Contractor.
 - 2. Bidders are responsible to identify all required building related work at time of bidding and included with their bid documents.
- C. The specifications are written to be included as an attachment to the modernization contract.
- D. The Elevator Contractor shall be responsible for all building modifications to provide a code compliant elevator modernization. All sub-contractors will be contracted directly with the elevator contractor. Elevator contractor shall obtain bids from sub-contractors that are approved by the Owner and/or Owners Representative.

1.02 Related Documents:

- A. The following documents for the contract and complete scope of work related to the modernization and maintenance of the project.
Refer to Notice of Inviting Bids document.

1.03 DEFINITIONS:

- A. Main Lobby: Ground Level unless otherwise indicated.
- B. Fire Recall Level: As directed by local fire authority. As existing.
- C. Alternate Fire Recall Level: As directed by local fire authority. As existing.
- D. All retained existing equipment shall be of equal condition and life span as of new equipment.
- E. Serviceability: It is recognized that each manufacturers' system contains components that are proprietary to the development of their systems. The Owner may wish to have the elevator system maintained by another technically qualified service provider and by submitting a bid for

this project, the manufacturer shall guarantee that for a minimum of 20 years they will provide the following:

1. Diagnostic, adjusting and monitoring tools for all components including documents, manuals, and wiring diagrams. Devices shall not self-destruct, require charging or exchange. Remote monitoring devices are excluded from this requirement, however if such devices are removed all wiring shall be neatly terminated, tied within a junction box and properly marked as to its content.
2. Manufacturer shall guarantee to support the equipment for this project with regard to notification to Owner of system corrective updates, provide and install such updates at no cost to Owner.
3. Provide contact information for their separate parts warehouse so that the Owner or designated service provider can order parts on a 24 hour basis and delivered within 48 hours. Parts may be provided from inventory when adequate stock exists. In some cases, parts will have to be special ordered from the factory or other vendor. Proprietary parts will be made available on an exchange basis.
4. Provide a list of parts of each component manufactured and stored at the warehouse and the retail cost of each at close out of the project and estimated escalation cost. The cost of these parts is what would be charged to Owner or other service provider.
5. Provide contact information for technical support so that the Owner or designated service provider can obtain technical support on a 24 hour basis to provide assistance in trouble shooting problems. Indicate hourly rate charged to Owner or designated service provider for such service.
6. In the event that a company other than the Original Equipment Manufacturer (OEM) maintains the elevators, and if the equipment was unable to be repaired by the non-OEM maintenance company, a factory-trained OEM technician would be required to assist (as it would if Contractor's own technician were in the same situation). If such an event was to occur, OEM Contractor would make its factory-trained technician available for assistance upon request of the Owner within three (3) business days, based on the original contractual hourly rates subject to established annual escalations. This shall survive any termination of the maintenance agreement.
7. The above will survive any termination of the maintenance agreement.
8. Contractor shall be defined as "Elevator Contractor".
9. Subcontractor shall be defined as any contractor contracted by either "Owner or Elevator Contractor".

1.04 DESCRIPTION:

- A. Examination of site:
 1. Contractor shall visit the building, examine the existing elevators and contract documents, determine condition of all retained components, space conditions, power supply, standby/emergency power supply, and mainline disconnect.
 2. Make all surveys necessary to meet the requirements of this specification and compatibility to products provided.
- B. Field measurements:
 1. Field verify dimensions before proceeding with the work.
 2. Coordinate related work by other trades.

3. Contractor shall assume responsibility and provide full maintenance of the elevator equipment upon award of this contract and shall continue to do such throughout the modernization.

C. Related work included by others in this section:

1. Contractor shall visit the building, examine the existing conditions, power supply, standby/emergency power supply, emergency battery lowering, mainline disconnect, and include all work needed to ensure a fully code compliant modernization. Contractor or his sub-contractors shall perform this work, which may include but is not limited to the following:
 - a. General:
 - 1) Legal access consisting of self-closing and self-locking access doors, ladders, gratings and steps to machine rooms, controller areas, pits and hoistways.
 - 2) Providing supports to carry structural reaction, impact and uplift loads imposed by elevator equipment.
 - 3) Support full width of hoistway at edge of slab for attachment of sill support angles to be provided and installed by Contractor.
 - 4) Grouting behind entrance frames where concrete walls occur.
 - 5) Patching of floors, walls and surfaces constituting final finishes.
 - 6) Block-outs, pockets and chases in walls and floors for entrances, signals, fixtures, cables and conduit.
 - 7) Construction and modifications not limited to the hoistways, machine rooms and controller areas, all areas properly framed, enclosed and adequately ventilated.
 - b. Electrical work:
 - 1) Power feeders: Modification to existing, or installation and connection of three phase power, through fused mainline switches or circuit breakers and extended to terminals of controllers. Provide continuous ground where needed.
 - 2) Light circuits: Single-phase circuit through disconnects and extended to controller for car lights and fan.
 - 3) Communication circuit: Telephone circuit terminated at junction box of each controller.
 - 4) Illumination: Lights with guards, illuminating light switches and convenience outlets in pits, machine rooms, controller areas and overhead sheave spaces.
 - 5) Conduit: Installation of electrical conduit and pull boxes with pull wire between hoistways and remote locations of each indicator and control panel.
 - 6) GFCI Outlets: Provide in machine room and pits.
 - 7) Standby power: Automatic transfer of standby/emergency power and lighting supply through normal feeders with means of absorbing regenerative power. Two (2) No. 14 wires from "Form C" contacts on transfer switch to designated controller to elevator machine rooms to signal transfer of power.
 - 8) Provide hoistway, overhead, and pit lighting as required by local code authorities.

- 9) Provide NEMA 4 approved electrical devices and conduits for all electrical installed below the lowest sill level.
- c. Fire Life Safety:
 - 1) Sensing devices: Installation and or removal modification to smoke detectors, heat detectors, shunt trip, sprinklers, or products of combustion sensors in elevator lobbies, machine rooms, hoistways and alternate fire recall floor with circuits terminated at junction box in machine rooms for emergency fire service operation.
 - 2) Life safety circuits: Circuits terminated at junction box at each controller for life safety speakers and fireman's phone jack to each car in the car canopy or as directed by the Owner and/or local code authority. Note phone jacks are not permitted in corridor call button boxes.
 - 3) Provide fire proofing as required by lode code authority.
2. Barricades: Full height self-closing self-locking barricades for protection of open hoistways during construction.
3. Temporary screens: Contractor shall provide code compliant hoistway screening between elevators before construction starts and remove at completion of project.
4. Painting: Field painting of prime-finish items constituting final finishes.
5. Card readers: Including wire from machine room j-box to car top j-box, interfacing with elevator controls and installation in elevator car, connection in machine room and testing of system.
6. Closed circuit T.V: Including wire from machine room j-box to elevator car top j-box, connection in machine room and testing. Car top and machine j-box and labeled. Contractor shall coordinate with sub-contractors to complete all required work at no additional cost to the Owner.
7. Contractor shall coordinate and perform all pretesting of all building systems prior to inspection at no additional cost to the Owner.

1.05 QUALITY ASSURANCE:

A. Qualifications of Contractors:

1. General: The entire elevator installation shall be installed and maintained by the acceptable Contractors listed or as qualified by addendum. No portion of the work shall be subcontracted unless qualified and accepted by addendum.
2. Installer's qualifications: Installer must be a licensed, certified conveyance mechanic in the state where installation is located.
3. Personnel list: Contractor shall, at time of bid, submit to Owner's Representative for review and approval a complete organization chart that depicts Contractor's "Project Team" exclusively assigned and dedicated to the modernization and maintenance for this project. The chart shall include, but not be limited to, administrative personnel, managers, supervisors, mechanics, apprentices, and all others who shall provide the requirements, services, and obligations of this contract. Personnel quantities, resumes, certification, titles, labor affiliations, exact roles and responsibilities and reporting structures under this contract shall be included.
4. Maintenance qualifications: Contractor must be a licensed elevator contractor in the state where installation is located.
5. Serviceman qualifications: All Contractor's mechanics that shall be assigned to this project, shall have been in the elevator business or trade for a minimum of ten (10) years with continuous and immediate past experience in the preventative maintenance,

repair, modernization, inspection and testing of elevator equipment of similar characteristics to those included in this project.

- a. Manufacturer's qualifications: The design, engineering and manufacture of major elevator components such as machines, motors, motor drive units, controllers, door operators, safeties, governors, selectors, etc. shall be from manufactures that have been in the business for the last ten (10) years. Equipment proposed must have a history of successful operation under similar conditions for the last five (5) years.
 - b. Directly employ sufficient competent personnel within twenty-five (25) of project to handle construction and maintenance duties.
 - c. Maintain local stock of parts adequate for replacement on permanent or emergency basis.
 - d. Be able to respond to trouble calls within one (1) hour during normal business hours and two (2) hours after normal business hours.
 - e. Be able to respond to entrapments within thirty (30) minutes during normal business hours and thirty (30) minutes one (1) hour after normal business hours.
6. Approved company uniforms shall be worn at all times. Names shall be visible at all times.
7. Approved company identification shall be visible at all times.
- B. Sub-contractors:
1. Contractor shall be solely responsible for any and all of the work done by his sub-contractor or other employees and all orders or instructions from the Owner's Representative shall be through him to them. It shall be Contractor's duty to see that all of his sub-contractors commence their work properly at the proper time, and carry it on with due diligence so that they do not delay or injure either work or materials; and that all damage caused by them or their workmen is properly made good by them or by himself at his cost. Contractor shall submit names of his sub-contractors for approval by the Owner's Representative.
 2. The use of sub-contractors is to be limited to work outside the scope of elevator construction work; for example, patching, painting, coring of walls, marble work and refinishing.
- C. Elevator cabs and entrances:
1. Manufactured or rehabilitated by one of the following or accepted equal:
 - a. Elevator manufacturer
 - b. Citylift
 - c. Travertine
 - d. Winter & Bain
 - e. Sterling Corporation
- D. Quality of work and workmanship:
1. When completed, the installation shall be modern in all respects.
 2. All components specified as new shall be provided as new. All components specified to be retained may be provided as new at Contractor's option subject to approval of Owner's Representative. All retained components are to be examined, cleaned, adjusted, repaired and/or replaced with new parts. Contractor must be willing to accept all retained equipment on full maintenance without prorating.
 3. All work performed shall be conducted in a workmanship type manner.

- E. Requirements of regulatory agencies:
1. Codes: In accordance with the latest applicable edition requirements of the following and as specified:
 - a. A.D.A.: Americans with Disabilities Act
 - b. ASME: American Society of Mechanical Engineers - A17.1; Safety Code for Elevators and Escalators
 - c. CBC: Title 24; California Building Codes
 - d. CCR: Title 8; California Code of Regulations
 - e. IEEE
 - f. NEC: National Electric Code / NFPA 70.
 - g. NFPA-72
 - h. All local codes and Amendments and Administration, which govern
- F. Permits, Inspections, and Taxes:
1. Arrange and pay for inspections by governing authorities.
 2. Obtain and post operating permits per applicable code.
 3. Arrange and pay for all applicable taxes.
- G. Safety Policies and Practices:
1. Installation and maintenance contractors are required to follow their company's safety practices and policies
 2. Installation and maintenance contractors are required to follow all practices and policies of the building management.
 3. Installation and maintenance contractors are required to follow governing authorities' safety practices and policies.

1.06 SUBMITTALS:

- A. Shop drawings:
1. Submit three copies of the following prior to ordering any materials:
 - a. Layouts: Plan of machinery and hoistway spaces showing new equipment and existing equipment; include impact and static loads imposed on building structure and clearances around equipment.
 - b. Details: Submit details of cab shell and interiors, fixtures, and entrances.
 - c. Data: Indicate on layouts or separate data sheets; machine spaces heat release, power requirements, conduit runs outside of hoistways and machine rooms, car and counterweight roller guides, control systems, motor drive units and door operators.
- B. Samples:
1. Provide samples of materials and finishes exposed to public view and additional, if specifically requested, 6 inch x 6 inch panels, 12 inch lengths or full size if smaller, as applicable.

1.07 CONTRACT AND PROGRESS PAYMENTS:

- A. Contract:
 - 1. Contractor to agree and execute Owner's contract with all related documents for this project. Contract will be based on approval of the Owner and/or Owner's representative.
- B. Payment Schedule:
 - 1. Progress payments will be based on a mutually agreed upon schedule of values payment schedule. Initial deposit shall not exceed 20% upon award or letter of intent/contract.
 - 2. Note: All payments are less 10% retention.
- C. Retention:
 - 1. Retention will be paid at completion of Consultant's punch-list. Owner and Owner's Representative reserves the right to reduce Contractor's retention amount to pay/compensate for any additional inspection or compliance reviews required due to Contractor's failure to comply.
- D. Contract Change Orders:
 - 1. Contractor shall submit all change orders to both Owner and Owner's Representative for review and approval. Change Orders shall not be approved without both signatures.
- E. Performance and Payment Bond: base bid or alternate, based per project.
 - 1. Quote cost to provide a corporate surety performance and payment bond in the amount of 100% of the modernization contract including one (1) year warranty maintenance for which the Contractor will pay the premium.
 - 2. This bond will guarantee faithful performance of the contract and shall also guarantee payment of wages for services engaged and of bills contracted for materials, supplies and equipment used in the execution of this contract.
 - 3. Please provide Bond cost as a line item on the proposal.

1.08 PRODUCT DELIVERY, STORAGE AND HANDLING:

- A. Delivery and storage:
 - 1. Protect equipment during transportation, erection and construction. Store under cover to prevent damage due to weather conditions. Replace damaged materials. Storage space on site will be available, if onsite storage is provide and a storage container and or fencing is required to properly secure and store all equipment, it shall be provided at no cost to the Owner.
- B. Handling:
 - 1. Owner's Representative has the first right of refusal to retain any elevator components that are to be removed and modernized with new equipment. All removed components shall remain property of the Owner's Representative, until the Owner's Representative notifies Contractor, in writing, of removed components that Owner's Representative would like to retain. All remaining elevator equipment not to be retained by the Owner's Representative or reused by Contractor shall be promptly removed from the building by Contractor at no cost to the Owner's Representative, and become the property of Contractor.

2. Contractor shall make every attempt to recycle removed elevator equipment. Contractor shall correct any damage to building surfaces and surrounding areas if damaged during removal of this equipment, at no cost to the Owner's Representative.

1.09 SCHEDULING AND SEQUENCING:

A. Schedule:

1. Submit construction schedule with bid indicating time required from award of contract to:
 - a. Submittals
 - b. Equipment fabrication and delivery to site
 - c. Installation and testing per elevator
 - d. Final acceptance of all elevators
2. Contractor shall be responsible for scheduling related work with other sub-contractors to avoid omissions and delays in job progress. Elevators shall not be removed from service, without prior approval, until all equipment has been manufactured and delivered to the project site for all elevators.

B. Sequence:

1. Work under this contract shall be done in the following sequence. Any change to this must be approved by the Owner's Representative. Complete all work for each sequence before proceeding with the next.
 - a. Sequence (1) One: Elevator No. 1

C. Building operations:

1. The building will remain in operation during the execution of this contract. Cooperate with building management in scheduling work in such a way as not to cause interruption of or interference with the building operations.

D. Electrical shutdowns:

1. Temporary electrical shutdowns will not be allowed except for brief periods to be scheduled outside normal hours and at least forty-eight (48) hours in advance and approved by Owner's Representative.

1.10 WARRANTY:

A. Guarantee and Warranty:

1. Provide special project warranty, signed by Contractor, Installer and Manufacturer, agreeing to replace/repair/restore defective materials and workmanship of all work performed which may develop within one (1) year from final date of completion and acceptance of the **entire installation**. "Defective" is hereby defined to include, but not by way of limitation, operation or control system failures, performances below required minimums, excessive wear, unusual deterioration or aging of materials or finishes, unsafe conditions, the need for excessive maintenance, abnormal noise or vibration and similar unusual, unexpected and unsatisfactory conditions.

PART 2 - PRODUCTS:

2.01 DESCRIPTION OF SYSTEMS:

- A. Elevator No. 1:
1. Type: Hydraulic Direct Plunger
 2. Capacity: 2500 Pounds
 3. Speed: 150 FPM
 4. Stops: 3
 5. Openings: 3 Front
 6. Travel: Existing
 7. Control: Soft Start AC
 8. Operation: New Microprocessor Simplex
 9. Machine Location: Adjacent
 10. Special Operations:
 - a. Independent Service
 - b. Fire Emergency Service
 - c. Standby Emergency Power
 11. Door Operation: Provide New
 12. Door Protection: Provide New
 13. Guide Rails: Retain
 14. Guide Shoes: Provide New
 15. Plunger Unit: Retain
 16. Cylinder Unit: Retain
 17. Buffers: Retain
 18. Car Frame & Platforms: Retain
 19. Power Unit: Provide New
 20. Controllers: Provide New
 21. Piping: Retain
 22. Car Operating Panels: Provide New
 23. Car Position Indicators: Provide New
 24. Hall Position Indicators: Provide New
 25. Service Cabinet: Provide New
 26. Communications: Provide New
 27. Hall Button Stations: Provide New
 28. Car Lanterns: Provide New
 29. Handicap Requirements: Provide New, as required
 30. Wiring: Provide New

- 31. Car Enclosure: Retain and Refurbish
- 32. Hoistway Entrances: Retain
- 33. Miscellaneous Items:
 - a. Key Operated Hoistway Access
 - b. Ruptured Pipe Valve
 - c. Clean hoistways, machine rooms and equipment; paint machine room floor, pit floor, car top, and all existing metal work

2.02 MATERIALS:

- A. Aluminum: Alloy and temper best suited for anodizing finish specified.
- B. Plywood: PS-1, A-D exterior Grade Douglas Fir, fire retardant treated.
- C. Sheet steel: ASTM A366, uncoated, pickled, free from defects.
- D. Sound deadener: Fire retardant; spray, roller or adhesive applied; 3/16" thick.
- E. Stainless steel: ASTM A167; type 302 or 304.
- F.

2.03 FINISHES:

- A. Exposed-to-view surfaces:
 - 1. Provide as follows unless otherwise specified.
 - a. Aluminum: Clear anodized finish.
 - b. Sheet steel:
 - 1) Shop prime: Degrease clean of foreign substances and apply one coat of corrosion inhibiting primer compatible with finish paint selected. Hoistway items visible to public shall be painted one additional coat of black paint.
 - 2) Finish paint: Three coats baked enamel; sand each coat smooth; color as selected.
 - c. Stainless steel:
 - 1) Plain: Satin, directional polish, No. 4 directional polish. All interior Stainless to be covered with the 3M Anti-Graffiti coating.
 - d. Touch-up:
 - 1) Prime surfaces: Use same paint as factory for field touch-up.
 - 2) Finish painted surfaces: Refinish whole panel with shop prime and finish paint as specified above.
- B. Non-exposed-to-view surfaces:
 - 1. Degrease or remove any rust and shop paint manufacturer's standard corrosion inhibiting primer.

2.04 AUTOMATIC OPERATION:

- A. General operation of individual elevators:
 - 1. Provide a non-proprietary diagnostic microprocessor-controlled dispatching system, based on real time calculations, designed to monitor all types of traffic and sufficiently flexible so that it can be modified to accommodate changes in traffic patterns.
 - 2. Serial link communications: Provide a distributed processing network consisting of localized processors located in machine rooms, car stations, hall stations and top of car to allow system to make fast decisions based on data shared by the processor involved in the different operations of the elevators. For group dispatch operations, all elevators in the group shall be capable of acting as a group common dispatcher as the need arises.
 - 3. Fault diagnostic system: Provide Owner's Representative with all hardware such as on-board LED diagnostics, hand held device or laptop computer, as standard with manufacturer, and supporting software documentation. Diagnostic system shall be capable of determining faults most difficult to find, as well as be capable of performing all code required testing.
 - 4. The system shall be flexible, irrespective of the number of elevators in normal service.
- B. Simplex selective collective operation:
 - 1. Arrange for simplex selective collective automatic operation. Operate elevators from a single riser of landing buttons and from operating device in car.
 - 2. Momentary pressure of one or more car or landing buttons, other than those for landing at which car is standing, starts car, and causes car to stop at first landing for which a car or landing call is registered corresponding to direction in which car is traveling. Stops made in order in which landings are reached, irrespective of sequence in which calls are registered.
 - 3. Double door operation not permitted. If an up traveling car has a passenger for an intermediate floor and a down call is registered at that floor, with no calls above car, it travels to floor, opens door to let passenger out, then lights down direction arrow in hall lantern and accepts waiting passenger without closing and reopening doors.

2.05 SPECIAL OPERATIONS:

- A. Inspection operation:
 - 1. Provide key-operated hoistway access device and car top operating device. Key switches shall be mounted in door frames with only ferrule exposed at terminal landings.
- B. Independent service:
 - 1. Independent service operation shall be provided so that, by means of a switch located in the car service cabinet, the car can be removed from automatic operation and be operated by an attendant. The attendant shall have full control of the starting, stopping and direction of car travel.
 - 2. The car shall respond to car buttons only. The hall signals for the car on independent service shall not operate.
- C. Operation under fire or other emergency conditions:
 - 1. Provide special emergency service to comply with current ASME and CCR Title 8, CBC Title 24 and local codes having jurisdiction.
 - 2. Provide Phase 1 recall switch at main floor elevator lobby of passenger elevator only.

3. Key switches at main floor shall be integrated in hall button station hoistway entrance jamb with engraved instructions.
- D. Operation under standby/emergency power system:
1. General: The standby power system is sized to operate one elevator in each group simultaneously. Elevators shall be grouped as follows:
 - a. Group 1 = Elevators No. 1.
 2. When normal power fails and standby power becomes available, a signal will be given to the controllers, all elevators will shut down, and all car lights, etc., will be extinguished.
 3. When emergency power comes onto the line, power for lighting car fan and alarm bell shall be automatically transferred and all cars on automatic operation shall be sequentially returned one at a time from each group, to the main floor.
 4. After all cars are parked at main floor, one car of each group shall resume normal operation.
 5. Provide interlocking illuminated strip switches or keyed rotary switch to permit manual or automatic selection of desired elevator to operate on emergency power.
 6. When normal power fails and emergency power is used, or when normal power is restored, the elevator manufacturer shall provide all circuitry necessary, including time delay or auxiliary relays required to accomplish safe, continuous elevator operation. The cars will start in sequence, not simultaneously; allow 10 seconds between starts.
 7. Fire service shall be operable when system is on emergency power operation.
- E. Tenant security:
1. Arrange control system to enable and disable car call buttons as follows:
 - a. Function, which locks out all cars in a group so that all car and corridor buttons are inoperative, except the main floor.
 - b. Function which locks out any selected car button for all elevators in a group serving that floor.
 - c. Tenant security operations can be overridden by cars on independent, any special emergency service or by card reader/Keypad access.

2.06 DOOR OPERATION:

- A. Passenger type:
1. Provide door times available as specified under "Design Criteria."
 2. Car and hoistway doors shall open and close simultaneously, quietly and smoothly; door movement shall be cushioned at both limits of travel. Door operation shall not cause cars to move appreciably.
 3. Door hold open times shall be readily and independently adjustable when car stops for a car or hall call. Main floor door hold times shall be adjustable independent of other floors.
 4. Provide closed loop regulated speed performance, onboard diagnostics, adjustable times, nudging, and test switches.
- B. Door operator:
1. Elevator No. All: Provide new heavy-duty master type solid state closed loop door operators mounted on car enclosure utilizing minimum 12-gauge support angles to isolate from direct mounting of operator on the car top.

2. Pre-approved closed loop heavy duty door operators:
 - a. GAL MOVFR
 3. Provide code compliant door weight data tag.
- C. Door Protection:
1. Elevator No. All: Remove existing door protection devices and provide new electronic optical 3D scanning type:
 - a. Provide a door protective system which does not rely on physical contact with a person or object to inhibit door movement or initiate door reversal.
 - b. Pre-approved optical door sensors:
 - 1) Elevator Contractor
 - 2) Adams GateKeeper Max
 - 3) Formula Systems
 - 4) Janus Pana40 Plus
 - 5) Janus Pana Chrome 3D, with voice annunciation
 - 6) Tritronics Leading Edge
 - c. The system shall be able to detect a 2 inch diameter rod introduced at any position within the door movement and between the height of 2 inches and 63 inches above sill level.
 - d. Detection of intrusion into the protected area shall cause the doors, if fully open, to be held in the open position and, if closing, to reverse to fully open position.
 - e. If doors are prevented from closing for an adjustable period of 15 to 45 seconds or upon activation of fire emergency service, they shall proceed to close at reduced speed and a loud buzzer shall sound. Door closing force shall not exceed 2-1/2 ft.-lb. when door re-opening device is not in operation.
 - f. For side-opening doors, the detector for the strike jamb side shall be recessed, flush with strike jamb.

2.07 SIGNALS AND OPERATING FIXTURES:

- A. General:
1. Provide signals and fixtures as shown and specified. Location and arrangement of fixtures shall comply with disabled access requirements.
 - a. Passenger Elevator Buttons: Provide minimum 1-inch diameter mechanical halo style stainless steel buttons, with LED's and engraved identifications. Buttons shall be raised 1/8 inch from surrounding surface with square shoulders.
 - b. Switches: Toggle type typically or key operated where noted.
 - c. Provide four (4) keys for each elevator keyed device, with proper labeled identification upon turnover of elevator.
 - d. Cabinets: Provide with pulls, concealed hinges and doors mounted flush with hairline joints to adjacent surface.
 - e. Arrangement: Arrangement of fixtures shall generally conform to that specified, but components may be rearranged, if desired, subject to Owner's Representative's approval.
 - f. Engraving: Of size indicated; color backfill with epoxy paint in contrasting color as selected. No applied engraved plates.
 - g. Lamps: Miniature LED type.

- h. Audible Chimes: Electronic adjustable audible chimes; bell type gong not acceptable.
 - i. Provide floor passing signal of the adjustable electronic audible chime type.
 - j. Tactile Markings: Provide raised Braille and alpha characters, numerals or symbols adjacent to operating buttons and devices used by the public according to local codes. Indications may be engraved directly on faceplates or separate plates flush mounted with hairline joints and concealed mechanical fasteners. Plates shall be of same size and shape as buttons.
 - k. Acceptable manufacturers: ERM, fixtures with 5/8" engraved identifications. Operation of car or hall button shall cause button to illuminate. Response of car to car or hall call shall cause corresponding button to extinguish.
 - l. Faceplates: Provide of material and finish as indicated and specified; 1/8 inch minimum thickness with sharp edges relieved. Faceplates shall be sized to cover holes left by removal of existing fixtures where new fixtures are provided and provided with engraved fire sign, per A17.1.
 - m. Audible chimes: Electronic adjustable audible chimes from 75 to 85 dB in elevator lobby 3' - 0" above floor and 3' - 0" away from elevator entrance; bell type gong not acceptable.
- B. Car operating panels:
- 1. General: Provide buttons numbered to conform to floors served and the following:
 - a. Locate top operating button at 48 inches above floor.
 - b. Locate emergency stop switch and illuminated alarm button in bottom row at 35 inches above floor.
 - c. Provide "Door Open", "Door Close", and for booking elevator, "Door Hold" buttons located above emergency stop and alarm of same design as car button.
 - d. All signage required by local codes shall be engraved and painted as directed by Owner's representative.
 - e. Provide fire emergency features, per code. Provide FEO-F1 key switch for fire service unless local code requires different.
 - 2. Elevator No. 1: Provide one new panels per car; integrate cabinets, buttons and engraving into hinged single piece faceplate mounted to front return panel.
- C. Car position indicators:
- 1. Provide car position indicators with 2 inch indications corresponding to floor designations with matching direction arrows.
 - a. Elevator No. All: Provide new digital alpha numeric type segmented LED readout indicator with minimum two-inch high indications mounted integral with each car operating panel.
- D. Service cabinet:
- 1. Provide new cabinet, door with a lock and concealed hinge as an integral part of car operating panel mounted with flush hairline joints. Cabinet door shall be provided with a flush glazed window of required size to hold elevator-operating permit, mounted horizontally. Service cabinet shall contain the following :
 - a. Independent service switch
 - b. Two-speed ventilation switch (Hi-Off-Low)
 - c. Light switch as applicable
 - d. Inspection switch, key operated

- e. Duplex GFI convenience outlet
 - f. Buzzers as required
 - g. Constant pressure test switch for emergency car lighting
 - h. Card reader over-ride switch-key operated
- E. Communication equipment:
- 1. Elevator No. 1: Provide a new complete communication system in compliance with ADA regulations consisting of a combination speaker/microphone, amplifier, automatic dialer with 4 number rollover capability and matching car station push button with telephone symbol to activate system and acknowledgment lights. Mount in car operating panel behind a pattern of holes, wire to machine room and program automatic dialer as directed by Owner's Representative.
- F. Hall button fixtures:
- 1. Each fixture shall contain buttons, which light to indicate hall call registration and extinguish when call is answered. Provide intermediate fixtures with two buttons and terminal fixtures with one. Engrave fire-exiting instructions on faceplates. Provide minimum of two fasteners at top and bottom of faceplate.
 - a. Elevator No. 1: Provide each elevator group of elevators with one riser of hall button stations.
- G. Car lanterns:
- 1. Manufacturer's standard dual car riding lantern mounted at a maximum height above floor. Lens shall be flush with faceplate or face of jamb. Use the vandal type with the protruding pins so it can be seen from all angles and have a less chance of being damaged..
 - 2. Lantern illuminates and chimes as doors open. Provide single chime for up direction and double chime for down direction.
- H. Disabled access requirements:
- 1. Provide to meet local codes having jurisdiction including handrail and button configuration.
 - a. Car operating panels: Provide raised Braille and alpha characters, numerals or symbols to the left of operating buttons and devices used by the public. Indications may be engraved directly on faceplates or separate plates flush mounted with hairline joints and concealed mechanical fasteners. Plates shall be of same size and shape as buttons. Raised characters shall be white on a black background with Braille designations directly below the character. Provide "star" at main egress landing.
 - b. Entrances: Provide raised Braille and alpha characters, numerals or symbols similar to those for car stations of size required by governing authority. Locate on each entrance jamb at 60 inches above floor indicating floor designation. Material and finish of plates shall match hall button station faceplates. Provide with contrasting background and mounting means similar to those on car panels. Braille designation shall be to the bottom of the raised character. Provide "star" at main egress landing.
 - c. Entrances: Provide plate with elevator number for first floor entrance. Character shall be a minimum of 3".

2.08 WIRING:

A. General:

1. Provide all necessary wiring and 25% spares between cars and controllers and to all remote control stations; minimum of eight. Furnish shielded wires in cables for all communications card readers, cameras, digital displays, and speakers. Include four additional pairs of shielded spares and two RG-6 coaxial cables or equivalent, for each car. Electrical wire runs will be free of splices or connection unless at designated junction points.

B. Traveling Cables:

1. Use minimum number of traveling cables. Include shielded wires and spares as noted above. Cord thoroughly and protect cables from rubbing against hoistways or car items. Provide with steel cable core and properly anchored to relieve strain on individual conductors.
2. All traveling cables shall be wired from machine to elevator, without junction box or spliced connections.

C. Hoistway Wiring:

1. All wiring shall be neatly terminated, tied within a junction box and properly marked as to its content.
2. If junction boxes are used, NEC approved terminal strips shall be used and properly identified.
3. No splices shall be allowed.

D. Work light and GFCI convenience outlet:

1. Provide on top of car with protective plastic lamp guard. Provide compact fluorescent type (CFL)

E. Stop switch:

1. Provide in each pit. Provide NEMA 4 enclosure.
2. Provide on each top of car.

F. Alarm gong:

1. Provide on top of each car and to be actuated by corresponding alarm button or emergency stop switch.

G. Auxiliary disconnect switches:

1. Provide as required in remote controller rooms or at remote equipment not in view of mainline switches; include all wiring and conduit.

H. CCTV circuit:

1. Provide provisions for closed circuit television camera in elevators. Run from elevator car top to outside of the elevator machine room, as directed by Owner at no additional cost to the Owner.

2.09 CAR ENCLOSURES:

- A. General: All stainless surfaces are to have the 3M anti-graffiti material applied:
1. Fabricate finish work smooth and free from warps, buckles, squeaks and rattles; joints lightproof. Car shall be sound isolated from car frame. Paint outside of car with 3/16-inch thick sound deadener. No visible fastenings except as indicated.
 2. All elevators shall be weighed before work begins to determine actual weight of car enclosures. Contractor shall keep a log of all equipment and weight removed and added to the suspension system. Contractor is responsible for complying with all applicable ASME and local codes.
 3. All elevators shall be weighed at the completion of the project. Provide all documentation to the governing authority and Owner's Representative for permanent record.
 4. Provide new crosshead data as required by ASME and local code authorities.
- B. Emergency lighting; All elevators:
1. Elevator No. All: Provide an emergency car lighting unit mounted on top of car, battery driven and self-rechargeable. Upon outage of normal power the unit shall, within 5 seconds, light two lamps as part of normal car lighting. The unit shall have sufficient capacity to keep the lights in continuous operation for four hours and the alarm bell for one hour. Provide a readily accessible means for testing the unit in service cabinet. Light fixtures mounted in car front returns or operating panels are not acceptable. Illuminate lights directly over car operating panels.
- C. Elevator No. 1: Retain existing shell enclosure and rehabilitate as follows:
- | | |
|--------------------------|---|
| 1. Front returns: | Clad |
| 2. Car operating panels: | Provide new |
| 3. Walls: | Retain |
| 4. Transom: | Clad |
| 5. Hand rails: | Provide new CA, ADA Compliant Public Elevator only |
| 6. Ceiling and lighting: | Provide new Provide a suspended aluminum frame and tee bar ceiling grid with LED light fixtures to provide uniform illumination of lay-in panels and 25 foot-candles at handrail height. Lay-in panels shall be manufacturer's standard Stainless Steel.. |
| 7. Ventilation: | Provide new Retain two-speed squirrel cage exhaust blower (Morrison OE, Toshiba FV40) with sound isolation mounting on canopy. |
| 8. Emergency exit: | Retain, provide code compliant switch (if req.) |
| 9. Car Doors: | Provide new |
| 10. Finish flooring: | Provide new resilient rubber flooring of owners choice |

2.10 HOISTWAY ENTRANCES; PASSENGER TYPE:

- A. General: All stainless surfaces (entrances and doors) are to have the 3M anti-graffiti material applied
 - 1. Retain existing
- B. Hangers and Tracks:
 - 1. Elevator No. 1: Provide all new door tracks and hanger assemblies. Sheave type with two-point suspension. Steel sheaves with flanged groove and resilient sound-absorbing tires. Minimum 2-1/2 inch diameter for hoistway, 3 inch for car. Manufacturer's heavy-duty tracks and ball or roller bearing with adjustable up thrusts.
- C. Hanger headers:
 - 1. Elevator No. 1: Retain existing.
- D. Struts:
 - 1. Elevator No. 1: Retain existing and clean.
- E. Closers:
 - 1. Elevator No. 1: Provide new cable relating torsion spring mechanical type or broken arm jack knife type as required for door assembly.
- F. Dust and hanger covers:
 - 1. Elevator No. 1: Retain existing, clean and refinish with black paint. Replace damaged and missing dust covers.
- G. Fascia, toe and head guards:
 - 1. Elevator No. 1: Retain existing, modify to comply with code, refinish with black paint and refasten for greater rigidity.
- H. Interlocks:
 - 1. Elevator No. 1: Provide all new. Equip each hoistway door with a tamper-proof interlock which shall prevent operation of the car until doors are locked in the close position as defined by the Code and shall prevent opening of doors at landing from corridor side unless car is at rest at landing in leveling zone or, hoistway access switch is used. Provide all new type "SF" high temperature wiring for interlock circuits.
- I. Pick-up roller assemblies:
 - 1. Elevator No. 1: Provide all new pick-up roller assemblies as required for door operating equipment furnished.
- J. Door restrictor:
 - 1. Elevator No. 1: Provide new, door restrictor device compatible with new door equipment.
- K. Sills:
 - 1. Elevator No. 1: Retain existing, power clean to metal and refinish, full length of sill.
- L. Limit Switches:
 - 1. Elevator No. 1: Provide new
- M. Frames:
 - 1. Elevator No. 1: Retain existing. Clean and refinish as scheduled.

N. Hoistway doors:

1. Elevator No. 1: Retain existing, re-hang to remove all twists, provide two new gibs per panel and one fire gib per panel which will remain engaged in sill if guiding member is destroyed.
2. Provide new full height astragals and missing or damaged non vision wings matching finish of door panels. Contractor must use the original reinforcing on existing hoistway and car doors for mounting hangers, pickup rollers, drive vanes, etc. If original reinforcing is not reusable for drive vanes and pickup rollers, Contractor shall furnish new reinforcing (minimum of 1/4" thick plate) welded to the door face. A minimum of four (4) 5/16" threaded bolts is to be used for attachment to the reinforcing plate. Where slotted holes are provided in the attachment block, a 1/4" dowel pin is to be fitted after doors locks are set up. Clean and refinish door panels as scheduled. Door panels to be refinished by others. Vandal resistant paint.

O. Passenger Elevator Entrance Schedule:

1. Elevator No. 1:
 - a. Size: 3' - 6" wide by 7' - 0" high.
 - b. Type: Side opening, Single speed
 - c. Frames:
 - 1) Main floor: All stainless surfaces (entrances and doors) are to have the 3M anti-graffiti material applied
 - 2) Typical floors: All stainless surfaces (entrances and doors) are to have the 3M anti-graffiti material applied
 - d. Doors
 - 1) Main floor: All stainless surfaces (entrances and doors) are to have the 3M anti-graffiti material applied
 - 2) Typical floors: All stainless surfaces (entrances and doors) are to have the 3M anti-graffiti material applied
 - e. Sills:
 - 1) Main floor: Re-finish
 - 2) Typical floors: Re-finish

2.11 HYDRAULIC ELEVATOR EQUIPMENT:

A. Design Criteria:

1. Performance:
 - a. Contract Speed: Maximum ten percent (10%) speed variation under any loading condition in the up direction.
 - b. Motion Time: From start to stop of elevators motion as measured in both directions for a typical one floor run under any loading condition.
 - 1) Elevator No. 8.0: seconds
 - c. Door Open Times:

- 1) Elevator No. : 2.3 seconds
 - d. Door close times: Minimum, without exceeding kinetic energy and closing force, allowed by code.
 - e. Door dwell times: Comply with A.D.A. formula and provide separate adjustable timers with initial settings as follows:
 - 1) Main lobby hall call: 5.0 to 6.0 seconds.
 - 2) Upper lobby hall call: 5.0 to 6.0 seconds.
 - 3) Car call: 5.0 to 6.0 seconds. Choose one.
 - 4) Interruption of door protective device: Reduce dwell to 1 second.
 - f. Leveling: Within 1/4 inch under any loading condition. Level into floor at all times, do not overrun floor and level back.
 - g. Hydraulic pressure: Hydraulic components shall be factory tested for 600 PSI. Maximum operating pressure shall be 425 PSI.
2. Operating qualities: Owner's Representative will judge riding qualities of cars and enforce the following requirements. Make all necessary adjustments.
 - a. Acceleration and deceleration: Starting and stopping shall be smooth and comfortable, without obvious steps of acceleration. Slowdown, stopping and leveling shall be without jars or bumps. Elevator shall start movement within .5 seconds of fully closed doors. Stopping upon operation of emergency stop switch shall be rapid but not violent.
 - b. Horizontal Acceleration (ISO A95 Scaling): Maximum 10 mg peak-to-peak measured at full speed for full travel in both directions.
 - c. Vertical Vibration: Ride shall be free of vibration throughout acceleration, full speed and deceleration for full travel in both directions.
 3. Sound control: (A Scaled – fast – Lmax over the duration of the operation).
 - a. Vibration: Sound isolate machines and motor drives from beams and building structure to prevent objectionable noise and vibration transmission to occupied building spaces.
 - b. Airborne noise: Maximum acoustical output level of:
 - 1) 65 dB measured in machine room. With the meter located 3' - 0" from each machine room door at floor level
 - 2) 55 dB measured in elevator cars during all sequences of operation.
 - 3) 50 dB measured in elevator lobbies. From the nearest staff work station to the elevator lobby

2.12 HYDRAULIC HOISTWAY EQUIPMENT:

- A. Guide rails and brackets:
 1. Elevator No. All: Retain existing rails, realign, clean, check, tighten and replace Code non-complying brackets, fishplates and bolts. Provide log of the alignment corrections to the Owner's Representative.
- B. Guide shoes:
 1. Elevator No. All: Provide new guide shoes of the roller type with neoprene tires, minimum 3/4 inch wide and fully adjustable spring loaded to provide continuous contact with rail surfaces. Balance car to insure equal guide shoe pressure on all wheels and not exceed manufacturer's recommendations. Nominal roller diameter shall be 4" 6".
 - a. Static balance car.

- C. Buffers:
 - 1. Retain existing.
- D. Car frame and platform:
 - 1. Elevator No. All: Retain existing car frame. Clean down and tighten frame bolts. Static balance weight to be added as required.
- E. Platen isolation:
 - 1. Provide minimum 3/4 inch thick steel plates between top of plunger and car frame with 1 inch rubber or neoprene isolation material between.
 - a. Packing: Provide packing, which inhibits leaking of oil with drip ring and means to collect any oil leakage. Example, 5-gallon bucket.
 - 2. Piping:
 - a. Reuse existing.
 - b. Provide new gaskets for victaulic fittings and test for leaks.
 - 3. Isolation coupling
 - a. Provide at least two isolation coupling one in the machine room and one in the pit.
- F. Pit Valves:
 - 1) Provide in each elevator pit a gate valve to shut off oil between cylinder and pumping plant.
 - 2) Provided new a pressure type line rupture safety valve to shut off oil between cylinder head and pit valve. Activation of safety valve shall not void operation of lowering valve.
- G. Oil:
 - 1. Hydraulic Fluid: USDA certified bio-based product, ultra-low toxicity, "readily" biodegradable, high performing fluid made from rapidly renewable plant stock; with antioxidant, anticorrosive, antifoaming, and metal passivating additives. Hydraulic fluid is approved by elevator manufacture for use with elevator equipment.
 - a. USDA certified bio-based product, >90% bio-based content, per ASTM D6866
 - b. Classified "Readily" biodegradable, per OECD 301B
 - c. >70% Biodegradability, per ASTM D5864
 - d. >20,000 ppm Aquatic toxicity, per EPA-821-R-02-012
 - e. >220 Viscosity Index, ASTM D2270
 - f. 25 Viscosity at 400C, cSt., per ASTM D445
 - g. >2200C, Flash Point, per ASTM D92

2.13 MACHINE ROOM EQUIPMENT:

- A. General:
 - 1. Provide equipment to fit existing space and structural limitations. Coordinate related electrical, structural and mechanical work with other trades.
- B. Pumping plant:
 - 1. Provide new.
 - a. General: Self-contained unit with sound reducing cabinet and sound isolated base.

- b. Pump: IMO, Roper or accepted equal for 150 SSU oil, belt driven or submersible. Maximum speed 3600 RPM. Maximum pressure 425 pounds per square inch.
 - c. Tank: Capacity equal to plunger displacement plus 50%. Provide strainers, oil level gauge and device to maintain uniform oil temperature.
 - d. Valves: Integral type by Elevator Equipment Company, Maxton Company or by elevator manufacturer. Provide conveniently located manual lowering valve accessible without removing pumping plant enclosure panels.
 - e. Motor: General Electric, Imperial, Westinghouse or accepted equal; maximum speed 1800 RPM for belt driven and 3600 RPM for submersible. Provide minimum 80 start heavy-duty motor, continuous rated, 50 degrees C. temperature rise, Class A insulation or 70 degrees C. rise for Class B insulation.
 - f. Muffler: Blow-out proof type between pumping plant and cylinder.
- C. Controller:
1. Integral, floor or wall mounted as applicable to space conditions. Include door operating relays combined with controller. Provide solid state soft starting with starting switches rated at minimum 57% of horsepower rating. IEC method of line starter application is unacceptable. Provide three (3) manual reset overload relays, one in each line and reverse phase relay. Provide externally mounted permanently identified junction boxes on controller cabinets for termination of communication circuits. Pre-approved controllers:
 - a. Motion Control Engineering HMC-2000
- D. Hydraulic elevator protective circuit:
1. In the event the car should stall due to low oil in the system or, if for other cause the car fails to reach the top landing within a predetermined time while traveling "up", a special circuit shall be provided which shall automatically return the car to the bottom landing and open the doors for 10 seconds after which the elevator will close doors and completely shut down. Recycling the mainline switch shall restore Service.

PART 3 - EXECUTION:

3.01 INSTALLATION:

- A. General:
 - 1. Install per manufacturer's requirements, those of regulatory agencies and as specified.
- B. Welded Construction:
 - 1. Provide welded connections for installation of elevator work where bolted connections are not required for subsequent removal or for normal operation, adjustments, inspection, maintenance and replacement of worn parts.
 - 2. Comply with AWS standards for workmanship and for qualifications of welding operators.
- C. Sound Isolation:
 - 1. Mount rotating and vibrating elevator equipment and components on vibration-absorption mounts, designed to effectively prevent transmission of vibrations to structure and thereby, eliminate sources of structure-borne noise from elevator system.
- D. Lubrication:
 - 1. Lubricate operating parts of systems as recommended by manufacturer.
- E. Hazardous Disposal Certification:
 - 1. Contractor to provide oil and hazardous waste removal documentation per required EPA standards. Provide copy of documentation to Owner.
- F. Alignment:
 - 1. Coordinate alignment of hoistway entrances with elevator guide rails, for accurate alignment of entrances with cars. Where possible, delay final adjustment of sills and doors until car is operable in shaft. Reduce clearances to minimum, safe workable dimensions at each landing.
 - 2. Align guide rails plumb and parallel with maximum deviation of 1/16 inch. Anchorage of guide rails in pits shall not compromise waterproofing.
- G. Graphics:
 - 1. Provide graphics visible to public as selected by Owner's Representative.
- H. Manufacturer's nameplates:
 - 1. Manufacturer's nameplates, trademarks or logos not permitted on surfaces visible to public.
- I. Cleaning of the installation:
 - 1. After the installation of each elevator has been completed and immediately prior to the carrying out of the tests, the machine room and all equipment therein, the elevator hoistways including outside of car and all ledges and similar areas, the elevator pit and equipment therein, and all door hanger runners, guides, tracks and sills shall be thoroughly cleaned down, preferably with vacuum cleaning equipment, and all dust, fluff, dirt, grit, excessive oil and grease and rubbish shall be removed from site.

- J. Finish painting after tests:
1. After satisfactory completion of the tests, any damage to the paint work shall be made good and the installation re-cleaned, if necessary, after which at least one final coat of gloss oil resistant or enamelized paint shall be applied by brushing or spraying in Contractor's customary colors to all the existing and new equipment in the machine room and also to such items in the hoistway or elsewhere which have received only a primer coat.
 2. Painting shall be performed either during normal working hours or after hours at no additional cost to the Owner.
- K. Painting of machine room floor, walls and pit floors:
1. After the completion of the entire installation, the floor and walls of each machine room and pit areas shall be thoroughly cleaned down and brush painted with one coat of traffic paint having oil resistant properties. Pit floors shall be painted after the completion of the waterproofing. Owner's Representative will advise the color.
 2. Painting shall be performed either during normal working hours or after hours at no additional cost to the Owner.

3.02 NOISE CONTROL:

- A. General:
1. Contractor, in the preparation and the execution of the work, shall recognize the particular and mandatory requirements of the remodeling project due to the character of the work and the use occupancy of the building.
 2. Contractor shall perform all noisy work as directed by Owner's Representative.
- B. Building operations:
1. Noise and vibration generated by this construction for this work may, at times, create a problem for the operations of the building. In the event the noise produced by the construction work conflicts with the building function, Contractor, at the request of the Owner's Representative, shall reduce or stop the noise.
 2. All disruptive work including removal of old materials and deliveries of new materials shall be done on overtime at no additional cost to Owner.
 3. All disruptive work will be performed after hours at no additional cost to Owner.
- C. Measurement:
1. The noise level shall be measured on the "A" Scale of a sound level meter as follows:
 - a. With the meter located 3' - 0" from the nearest staff work station to the elevator lobby, the sound level shall not exceed 65 db.
 - b. With the meter located 3' - 0" from outside of each machine room door at floor level, the sound level shall not exceed 70 db.
 - c. With the meter located 3' - 0" from any hoistway door at any level, the sound level shall not exceed 70 db.
- D. Types of noise generating work:
1. All heavy demolition (concrete walls and floors).
 2. All grinding, chipping, pounding, sanding and cutting of holes and core drilling.

3.03 FIELD QUALITY CONTROL:

- A. Regulatory agencies inspection:
 - 1. Upon completion of elevators, Contractor shall provide instruments, weights and personnel to conduct test required by regulatory agencies. Contractor shall submit a complete report describing the results of the tests.
- B. Examination and testing:
 - 1. When installation is ready for final acceptance, notify and assist Owner's Representative in making a walk-through inspection of entire installation to assure workmanship and equipment complies with contract documents. Provide equipment to perform the following tests:
 - a. One-hour heat and run test with full load in car. Perform for one car of each duty.
 - 1) Stop car at each floor in each direction.
 - 2) Verify that temperatures do not exceed manufacturer's motor ratings.
 - 3) Performance and leveling tests shall be made before and after heat and run test.
 - b. Check and verify operation of all safety features and special operations.
 - 1) Measure horizontal acceleration.
 - 2) Measure acoustical output levels in machine room, lobbies and cars.
- C. Correction:
 - 1. Make corrections to defects or discrepancies at no cost to Owner's Representative. Should discrepancies be such that re-examination and retesting is required, Contractor shall pay for all costs including those of Owner's Representative's fees.
- D. Final acceptance:
 - 1. Final acceptance of the installation will be made only after all corrections are complete, final submittals and certificates received and the Owner's Representative is satisfied and the installation is complete in all respects. Final payment will not be made until the above is completed.

3.04 INSTRUCTIONS:

- A. Instruct Owner's personnel in proper use of each system.

3.05 PROJECT RECORD DOCUMENTS:

- A. As-built drawings:
 - 1. Contractor shall maintain at the job site a separate and complete set of contract drawings which will be used solely for the purpose of recording changes made in any portion of the work during the course of construction, regardless of the reason for such change.
 - 2. Changes, as they occur, will be marked on the record set of drawings on a daily basis.
 - 3. The monthly payment will be withheld until the Owner's Representative has verified that "as-built" corrections are current. Before final payment is authorized, Contractor shall certify that all changes in the work are included on the drawings and will deliver such to the Owner's Representative.
- B. Record drawings:

1. Contractor shall prepare "as-built" drawings in duplicate of any changes to electrical work on prints supplied by the Owner's Representative. During the course of construction, actual locations to scale shall be shown for all runs of mechanical and electrical work, installed in walls and floors or otherwise concealed. This shall cover all piping, electrical wiring; whether in conduit or cable, duct work, etc. shall be located, in addition, by dimension. All services shall be identified in ink on the prints.
2. In addition, Contractor shall keep a complete record copy of the plans and specifications for the use in preparing "as-built" plans and specifications at the end of the job. Contractor shall sign and date the prints and deliver them to the Owner's Representative.

3.06 MAINTENANCE:

- A. General: No 12 month warranty maintenance to be provided. Warranty parts and warranty call backs and repairs only.
- B. Call-Backs: In event of failures, provide 24 hour call-back service at no additional cost to Owner.
- C. Elevator Shutdowns:
 1. Should any elevator become inoperative, repair within 24 hours of notification of such failure. Breakdown of major components shall be completed and service restored within 72 hours.
 2. Failure to comply with above, Owner may order the work done by other contractors at the Contractor's expense.
 3. Devices repaired or replaced by others shall, nevertheless, become provided with maintenance by the Contractor who shall become completely responsible for correct operation of such devices for lifetime of this contract.
- D. Quotation: Base bid shall include cost of maintenance and materials as described above.

END OF SECTION



Elevator Consulting, Inc.

23211 South Pointe Drive
Laguna Hills, CA 92653
949-348-9711

3765 East Sunset Road, B-5
Las Vegas, NV 89120
702-319-9711

15811 32nd Avenue NE Lake
Forest Park, WA 98155
206-954-1821

VERTICAL TRANSPORTATION MODERNIZATION SPECIFICATIONS

**City of Beverly Hills
Fire Department HQ
445 N. Rexford
Beverly Hill, CA**

May 4,2018

TABLE OF CONTENTS

PART 1 - GENERAL:	1
1.01 General Conditions	1
1.02 Related Documents:	1
1.03 DEFINITIONS:	1
1.04 DESCRIPTION:	2
1.05 QUALITY ASSURANCE:	4
1.06 SUBMITTALS:	6
1.07 CONTRACT AND PROGRESS PAYMENTS:	7
1.08 PRODUCT DELIVERY, STORAGE AND HANDLING:	7
1.09 SCHEDULING AND SEQUENCING:	8
1.10 WARRANTY:	8
1.11 ALTERNATES:	8
PART 2 - PRODUCTS:	9
2.01 DESCRIPTION OF SYSTEMS:	9
2.02 MATERIALS:	9
2.03 FINISHES:	11
2.04 AUTOMATIC OPERATION:	12
2.05 SPECIAL OPERATIONS:	12
2.06 DOOR OPERATION:	13
2.07 SIGNALS AND OPERATING FIXTURES:	14
2.08 WIRING:	16
2.09 CAR ENCLOSURES:	18
2.10 HOISTWAY ENTRANCES; PASSENGER TYPE:	19
2.11 HYDRAULIC ELEVATOR EQUIPMENT:	20
2.12 HYDRAULIC HOISTWAY EQUIPMENT:	21
2.13 MACHINE ROOM EQUIPMENT:	22
PART 3 - EXECUTION:	23
3.01 INSTALLATION:	23
3.02 NOISE CONTROL:	25
3.03 FIELD QUALITY CONTROL:	26
3.04 INSTRUCTIONS:	26
3.05 PROJECT RECORD DOCUMENTS:	26
3.06 MAINTENANCE:	27

SECTION 14 22 10
MODERNIZATION OF ELEVATORS

PART 1 - GENERAL:

1.01 General Conditions

- A. Bidders Note: All clarifications, exceptions and qualifications to this document must be submitted at bid time. The format shall be this document marked up to reflect bidder's proposed product for this project. Additional pages in letter form with regard to work by others or instructions to the contractor are acceptable, but all other clarifications to this document will be submitted with the bid as a mark-up of this document. The marked-up document when submitted will be reviewed and negotiated, and will become a part of the Contract.
- B. Bidding documents:
 - 1. Bidders shall examine existing conditions. Any discrepancies which affect the elevator work or conditions adverse to the bidder's equipment shall be brought to Owner's Representative's attention at least seven (7) days prior to the bid date. If no discrepancies are presented, changes required to accommodate bidder's equipment become the responsibility and cost to Contractor.
 - 2. Bidders are responsible to identify all required building related work at time of bidding and included with their bid documents.
- C. The specifications are written to be included as an attachment to the modernization contract.
- D. The Elevator Contractor shall be responsible for all building modifications to provide a code compliant elevator modernization. All sub-contractors will be contracted directly with the elevator contractor. Elevator contractor shall obtain bids from sub-contractors that are approved by the Owner and/or Owners Representative.

1.02 Related Documents:

- A. The following documents for the contract and complete scope of work related to the modernization and maintenance of the project.
Refer to Notice of Inviting Bids document.

1.03 DEFINITIONS:

- A. Main Lobby: Ground Level unless otherwise indicated.
- B. Fire Recall Level: As directed by local fire authority. As existing.
- C. Alternate Fire Recall Level: As directed by local fire authority. As existing.
- D. All retained existing equipment shall be of equal condition and life span as of new equipment.
- E. Serviceability: It is recognized that each manufacturers' system contains components that are proprietary to the development of their systems. The Owner may wish to have the elevator system maintained by another technically qualified service provider and by submitting a bid for

this project, the manufacturer shall guarantee that for a minimum of 20 years they will provide the following:

1. Diagnostic, adjusting and monitoring tools for all components including documents, manuals, and wiring diagrams. Devices shall not self-destruct, require charging or exchange. Remote monitoring devices are excluded from this requirement, however if such devices are removed all wiring shall be neatly terminated, tied within a junction box and properly marked as to its content.
2. Manufacturer shall guarantee to support the equipment for this project with regard to notification to Owner of system corrective updates, provide and install such updates at no cost to Owner.
3. Provide contact information for their separate parts warehouse so that the Owner or designated service provider can order parts on a 24 hour basis and delivered within 48 hours. Parts may be provided from inventory when adequate stock exists. In some cases, parts will have to be special ordered from the factory or other vendor. Proprietary parts will be made available on an exchange basis.
4. Provide a list of parts of each component manufactured and stored at the warehouse and the retail cost of each at close out of the project and estimated escalation cost. The cost of these parts is what would be charged to Owner or other service provider.
5. Provide contact information for technical support so that the Owner or designated service provider can obtain technical support on a 24 hour basis to provide assistance in trouble shooting problems. Indicate hourly rate charged to Owner or designated service provider for such service.
6. In the event that a company other than the Original Equipment Manufacturer (OEM) maintains the elevators, and if the equipment was unable to be repaired by the non-OEM maintenance company, a factory-trained OEM technician would be required to assist (as it would if Contractor's own technician were in the same situation). If such an event was to occur, OEM Contractor would make its factory-trained technician available for assistance upon request of the Owner within three (3) business days, based on the original contractual hourly rates subject to established annual escalations. This shall survive any termination of the maintenance agreement.
7. The above will survive any termination of the maintenance agreement.
8. Contractor shall be defined as "Elevator Contractor".
9. Subcontractor shall be defined as any contractor contracted by either "Owner or Elevator Contractor".

1.04 DESCRIPTION:

- A. Examination of site:
 1. Contractor shall visit the building, examine the existing elevators and contract documents, determine condition of all retained components, space conditions, power supply, standby/emergency power supply, and mainline disconnect.
 2. Make all surveys necessary to meet the requirements of this specification and compatibility to products provided.
- B. Field measurements:
 1. Field verify dimensions before proceeding with the work.
 2. Coordinate related work by other trades.

3. Contractor shall assume responsibility and provide full maintenance of the elevator equipment upon award of this contract and shall continue to do such throughout the modernization.
- C. Related work included by others in this section:
1. Contractor shall visit the building, examine the existing conditions, power supply, standby/emergency power supply, emergency battery lowering, mainline disconnect, and include all work needed to ensure a fully code compliant modernization. Contractor or his sub-contractors shall perform this work, which may include but is not limited to the following:
 - a. General:
 - 1) Legal access consisting of self-closing and self-locking access doors, ladders, gratings and steps to machine rooms, controller areas, pits and hoistways.
 - 2) Providing supports to carry structural reaction, impact and uplift loads imposed by elevator equipment.
 - 3) Support full width of hoistway at edge of slab for attachment of sill support angles to be provided and installed by Contractor.
 - 4) Grouting behind entrance frames where concrete walls occur.
 - 5) Patching of floors, walls and surfaces constituting final finishes.
 - 6) Block-outs, pockets and chases in walls and floors for entrances, signals, fixtures, cables and conduit.
 - 7) Construction and modifications not limited to the hoistways, machine rooms and controller areas, all areas properly framed, enclosed and adequately ventilated.
 - b. Electrical work:
 - 1) Power feeders: Modification to existing, or installation and connection of three phase power, through fused mainline switches or circuit breakers and extended to terminals of controllers. Provide continuous ground where needed.
 - 2) Light circuits: Single-phase circuit through disconnects and extended to controller for car lights and fan.
 - 3) Communication circuit: Telephone circuit terminated at junction box of each controller.
 - 4) Illumination: Lights with guards, illuminating light switches and convenience outlets in pits, machine rooms, controller areas and overhead sheave spaces.
 - 5) Conduit: Installation of electrical conduit and pull boxes with pull wire between hoistways and remote locations of each indicator and control panel.
 - 6) GFCI Outlets: Provide in machine room and pits.
 - 7) Standby power: Automatic transfer of standby/emergency power and lighting supply through normal feeders with means of absorbing regenerative power. Two (2) No. 14 wires from "Form C" contacts on transfer switch to designated controller to elevator machine rooms to signal transfer of power.
 - 8) Provide hoistway, overhead, and pit lighting as required by local code authorities.

- 9) Provide NEMA 4 approved electrical devices and conduits for all electrical installed below the lowest sill level.
- c. Fire Life Safety:
 - 1) Sensing devices: Installation and or removal modification to smoke detectors, heat detectors, shunt trip, sprinklers, or products of combustion sensors in elevator lobbies, machine rooms, hoistways and alternate fire recall floor with circuits terminated at junction box in machine rooms for emergency fire service operation.
 - 2) Life safety circuits: Circuits terminated at junction box at each controller for life safety speakers and fireman's phone jack to each car in the car canopy or as directed by the Owner and/or local code authority. Note phone jacks are not permitted in corridor call button boxes.
 - 3) Provide fire proofing as required by lode code authority.
2. Barricades: Full height self-closing self-locking barricades for protection of open hoistways during construction.
3. Temporary screens: Contractor shall provide code compliant hoistway screening between elevators before construction starts and remove at completion of project.
4. Painting: Field painting of prime-finish items constituting final finishes.
5. Card readers: Including wire from machine room j-box to car top j-box, interfacing with elevator controls and installation in elevator car, connection in machine room and testing of system.
6. Closed circuit T.V: Including wire from machine room j-box to elevator car top j-box, connection in machine room and testing. Car top and machine j-box and labeled. Contractor shall coordinate with sub-contractors to complete all required work at no additional cost to the Owner.
7. Contractor shall coordinate and perform all pretesting of all building systems prior to inspection at no additional cost to the Owner.

1.05 QUALITY ASSURANCE:

A. Qualifications of Contractors:

1. General: The entire elevator installation shall be installed and maintained by the acceptable Contractors listed or as qualified by addendum. No portion of the work shall be subcontracted unless qualified and accepted by addendum.
2. Installer's qualifications: Installer must be a licensed, certified conveyance mechanic in the state where installation is located.
3. Personnel list: Contractor shall, at time of bid, submit to Owner's Representative for review and approval a complete organization chart that depicts Contractor's "Project Team" exclusively assigned and dedicated to the modernization and maintenance for this project. The chart shall include, but not be limited to, administrative personnel, managers, supervisors, mechanics, apprentices, and all others who shall provide the requirements, services, and obligations of this contract. Personnel quantities, resumes, certification, titles, labor affiliations, exact roles and responsibilities and reporting structures under this contract shall be included.
4. Maintenance qualifications: Contractor must be a licensed elevator contractor in the state where installation is located.
5. Serviceman qualifications: All Contractor's mechanics that shall be assigned to this project, shall have been in the elevator business or trade for a minimum of ten (10) years with continuous and immediate past experience in the preventative maintenance,

repair, modernization, inspection and testing of elevator equipment of similar characteristics to those included in this project.

- a. Manufacturer's qualifications: The design, engineering and manufacture of major elevator components such as machines, motors, motor drive units, controllers, door operators, safeties, governors, selectors, etc. shall be from manufactures that have been in the business for the last ten (10) years. Equipment proposed must have a history of successful operation under similar conditions for the last five (5) years.
 - b. Directly employ sufficient competent personnel within twenty-five (25) of project to handle construction and maintenance duties.
 - c. Maintain local stock of parts adequate for replacement on permanent or emergency basis.
 - d. Be able to respond to trouble calls within one (1) hour during normal business hours and two (2) hours after normal business hours.
 - e. Be able to respond to entrapments within thirty (30) minutes during normal business hours and thirty (30) minutes one (1) hour after normal business hours.
6. Approved company uniforms shall be worn at all times. Names shall be visible at all times.
7. Approved company identification shall be visible at all times.
- B. Sub-contractors:
1. Contractor shall be solely responsible for any and all of the work done by his sub-contractor or other employees and all orders or instructions from the Owner's Representative shall be through him to them. It shall be Contractor's duty to see that all of his sub-contractors commence their work properly at the proper time, and carry it on with due diligence so that they do not delay or injure either work or materials; and that all damage caused by them or their workmen is properly made good by them or by himself at his cost. Contractor shall submit names of his sub-contractors for approval by the Owner's Representative.
 2. The use of sub-contractors is to be limited to work outside the scope of elevator construction work; for example, patching, painting, coring of walls, marble work and refinishing.
- C. Elevator cabs and entrances:
1. Manufactured or rehabilitated by one of the following or accepted equal:
 - a. Elevator manufacturer
 - b. Citylift
 - c. Travertine
 - d. Winter & Bain
 - e. Sterling Corporation
- D. Quality of work and workmanship:
1. When completed, the installation shall be modern in all respects.
 2. All components specified as new shall be provided as new. All components specified to be retained may be provided as new at Contractor's option subject to approval of Owner's Representative. All retained components are to be examined, cleaned, adjusted, repaired and/or replaced with new parts. Contractor must be willing to accept all retained equipment on full maintenance without prorating.
 3. All work performed shall be conducted in a workmanship type manner.

- E. Requirements of regulatory agencies:
1. Codes: In accordance with the latest applicable edition requirements of the following and as specified:
 - a. A.D.A.: Americans with Disabilities Act
 - b. ASME: American Society of Mechanical Engineers - A17.1; Safety Code for Elevators and Escalators
 - c. CBC: Title 24; California Building Codes
 - d. CCR: Title 8; California Code of Regulations
 - e. IEEE
 - f. NEC: National Electric Code / NFPA 70.
 - g. NFPA-72
 - h. All local codes and Amendments and Administration, which govern
- F. Permits, Inspections, and Taxes:
1. Arrange and pay for inspections by governing authorities.
 2. Obtain and post operating permits per applicable code.
 3. Arrange and pay for all applicable taxes.
- G. Safety Policies and Practices:
1. Installation and maintenance contractors are required to follow their company's safety practices and policies
 2. Installation and maintenance contractors are required to follow all practices and policies of the building management.
 3. Installation and maintenance contractors are required to follow governing authorities' safety practices and policies.

1.06 SUBMITTALS:

- A. Shop drawings:
1. Submit three copies of the following prior to ordering any materials:
 - a. Layouts: Plan of machinery and hoistway spaces showing new equipment and existing equipment; include impact and static loads imposed on building structure and clearances around equipment.
 - b. Details: Submit details of cab shell and interiors, fixtures, and entrances.
 - c. Data: Indicate on layouts or separate data sheets; machine spaces heat release, power requirements, conduit runs outside of hoistways and machine rooms, car and counterweight roller guides, control systems, motor drive units and door operators.
- B. Samples:
1. Provide samples of materials and finishes exposed to public view and additional, if specifically requested, 6 inch x 6 inch panels, 12 inch lengths or full size if smaller, as applicable.

1.07 CONTRACT AND PROGRESS PAYMENTS:

- A. Contract:
 - 1. Contractor to agree and execute Owner's contract with all related documents for this project. Contract will be based on approval of the Owner and/or Owner's representative.
- B. Payment Schedule:
 - 1. Progress payments will be based on a mutually agreed upon schedule of values payment schedule. Initial deposit shall not exceed 20% upon award or letter of intent/contract.
 - 2. Note: All payments are less 10% retention.
- C. Retention:
 - 1. Retention will be paid at completion of Consultant's punch-list. Owner and Owner's Representative reserves the right to reduce Contractor's retention amount to pay/compensate for any additional inspection or compliance reviews required due to Contractors failure to comply.
- D. Contract Change Orders:
 - 1. Contractor shall submit all change orders to both Owner and Owner's Representative for review and approval. Change Orders shall not be approved without both signatures.
- E. Performance and Payment Bond: base bid or alternate, based per project.
 - 1. Quote cost to provide a corporate surety performance and payment bond in the amount of 100% of the modernization contract including one (1) year warranty maintenance for which the Contractor will pay the premium.
 - 2. This bond will guarantee faithful performance of the contract and shall also guarantee payment of wages for services engaged and of bills contracted for materials, supplies and equipment used in the execution of this contract.
 - 3. Please provide Bond cost as a line item on the proposal.

1.08 PRODUCT DELIVERY, STORAGE AND HANDLING:

- A. Delivery and storage:
 - 1. Protect equipment during transportation, erection and construction. Store under cover to prevent damage due to weather conditions. Replace damaged materials. Storage space on site will be available, if onsite storage is provide and a storage container and or fencing is required to properly secure and store all equipment, it shall be provided at no cost to the Owner.
- B. Handling:
 - 1. Owner's Representative has the first right of refusal to retain any elevator components that are to be removed and modernized with new equipment. All removed components shall remain property of the Owner's Representative, until the Owner's Representative notifies Contractor, in writing, of removed components that Owner's Representative would like to retain. All remaining elevator equipment not to be retained by the Owner's Representative or reused by Contractor shall be promptly removed from the building by Contractor at no cost to the Owner's Representative, and become the property of Contractor.

2. Contractor shall make every attempt to recycle removed elevator equipment. Contractor shall correct any damage to building surfaces and surrounding areas if damaged during removal of this equipment, at no cost to the Owner's Representative.

1.09 SCHEDULING AND SEQUENCING:

A. Schedule:

1. Submit construction schedule with bid indicating time required from award of contract to;
 - a. Submittals
 - b. Equipment fabrication and delivery to site
 - c. Installation and testing per elevator
 - d. Final acceptance of all elevators
2. Contractor shall be responsible for scheduling related work with other sub-contractors to avoid omissions and delays in job progress. Elevators shall not be removed from service, without prior approval, until all equipment has been manufactured and delivered to the project site for all elevators.

B. Sequence:

1. Work under this contract shall be done in the following sequence. Any change to this must be approved by the Owner's Representative. Complete all work for each sequence before proceeding with the next.
 - a. Sequence (1) One: HQ. Elevator
 - b. Sequence (2) Two: CPR Elevator

C. Building operations:

1. The building will remain in operation during the execution of this contract. Cooperate with building management in scheduling work in such a way as not to cause interruption of or interference with the building operations.

D. Electrical shutdowns:

1. Temporary electrical shutdowns will not be allowed except for brief periods to be scheduled outside normal hours and at least forty-eight (48) hours in advance and approved by Owner's Representative.

1.10 WARRANTY:

A. Guarantee and Warranty:

1. Provide special project warranty, signed by Contractor, Installer and Manufacturer, agreeing to replace/repair/restore defective materials and workmanship of all work performed which may develop within one (1) year from final date of completion and acceptance of the **entire installation**. "Defective" is hereby defined to include, but not by way of limitation, operation or control system failures, performances below required minimums, excessive wear, unusual deterioration or aging of materials or finishes, unsafe conditions, the need for excessive maintenance, abnormal noise or vibration and similar unusual, unexpected and unsatisfactory conditions.

1.11 ALTERNATES:

1. None

PART 2 - PRODUCTS:

2.01 DESCRIPTION OF SYSTEMS:

- A. Elevator No. HQ:
1. Type: Hydraulic Direct Plunger
 2. Capacity: 3000 Pounds
 3. Speed: 120 FPM
 4. Stops: 3
 5. Openings: 2 Front 2 Rear
 6. Travel: Existing
 7. Control: Soft Start AC
 8. Operation: New Microprocessor Simplex
 9. Machine Location: Adjacent
 10. Special Operations:
 - a. Independent Service
 - b. Fire Emergency Service
 - c. Battery Lowering
 11. Door Operation: Provide New
 12. Door Protection: Provide New
 13. Guide Rails: Retain
 14. Guide Shoes: Provide New Roller Guides
 15. Plunger Unit: Retain but replace packing at the end of the modernization.
 16. Cylinder Unit: Retain
 17. Buffers: Retain
 18. Car Frame & Platforms: Retain
 19. Power Unit: Provide New
 20. Controllers: Provide New
 21. Piping: Retain
 22. Car Operating Panels: Provide New
 23. Car Position Indicators: Provide New
 24. Hall Position Indicators: Provide New
 25. Service Cabinet: Provide New
 26. Communications: Provide New
 27. Hall Button Stations: Provide New
 28. Car Lanterns: Provide New
 29. Handicap Requirements: Provide New, as required
 30. Wiring: Provide New

- | | | |
|-----|--|---|
| 31. | Car Enclosure: | Retain and Refurbish |
| 32. | Hoistway Entrances: | Retain |
| 33. | Miscellaneous Items: | |
| | a. Key Operated Hoistway Access | |
| | b. Ruptured Pipe Valve | |
| | c. Card Reader | |
| | d. Clean hoistways, machine rooms and equipment; paint machine room floor, pit floor, car top, and all existing metal work | |
| B. | Elevator No. CPR: | |
| 1. | Type: | Hydraulic Direct Plunger |
| 2. | Capacity: | 2500 Pounds |
| 3. | Speed: | 120 FPM |
| 4. | Stops: | 2 |
| 5. | Openings: | 2 Front |
| 6. | Travel: | Existing |
| 7. | Control: | Soft Start AC |
| 8. | Operation: | New Microprocessor Simplex |
| 9. | Machine Location: | Adjacent |
| 10. | Special Operations: | |
| | a. Independent Service | |
| | b. Fire Emergency Service | |
| | c. Battery Lowering | |
| 11. | Door Operation: | Provide New |
| 12. | Door Protection: | Provide New |
| 13. | Guide Rails: | Retain |
| 14. | Guide Shoes: | Provide New Roller Guides |
| 15. | Plunger Unit: | Retain but replace packing at the end of the modernization. |
| 16. | Cylinder Unit: | Retain |
| 17. | Buffers: | Retain |
| 18. | Car Frame & Platforms: | Retain |
| 19. | Power Unit: | Provide New |
| 20. | Controllers: | Provide New |
| 21. | Piping: | Retain |
| 22. | Car Operating Panels: | Provide New |
| 23. | Car Position Indicators: | Provide New |
| 24. | Hall Position Indicators: | Provide New |

- | | | |
|-----|------------------------|---|
| 25. | Service Cabinet: | Provide New |
| 26. | Communications: | Provide New |
| 27. | Hall Button Stations: | Provide New |
| 28. | Car Lanterns: | Provide New |
| 29. | Handicap Requirements: | Provide New, as required |
| 30. | Wiring: | Provide New |
| 31. | Car Enclosure: | Retain and Refurbish |
| 32. | Hoistway Entrances: | Retain |
| 33. | Miscellaneous Items: | |
| | a. | Key Operated Hoistway Access |
| | b. | Ruptured Pipe Valve |
| | c. | Card Reader |
| | d. | Clean hoistways, machine rooms and equipment; paint machine room floor, pit floor, car top, and all existing metal work |

2.02 MATERIALS:

- A. Aluminum: Alloy and temper best suited for anodizing finish specified.
- B. Plywood: PS-1, A-D exterior Grade Douglas Fir, fire retardant treated.
- C. Sheet steel: ASTM A366, uncoated, pickled, free from defects.
- D. Sound deadener: Fire retardant; spray, roller or adhesive applied; 3/16" thick.
- E. Stainless steel: ASTM A167; type 302 or 304.
- F.

2.03 FINISHES:

- A. Exposed-to-view surfaces:
 - 1. Provide as follows unless otherwise specified.
 - a. Aluminum: Clear anodized finish.
 - b. Sheet steel:
 - 1) Shop prime: Degrease clean of foreign substances and apply one coat of corrosion inhibiting primer compatible with finish paint selected. Hoistway items visible to public shall be painted one additional coat of black paint.
 - 2) Finish paint: Three coats baked enamel; sand each coat smooth; color as selected.
 - c. Stainless steel:
 - 1) Plain: Satin, directional polish, No. 4 directional polish. All interior Stainless to be covered with the 3M Anti-Graffiti coating
 - d. Touch-up:
 - 1) Prime surfaces: Use same paint as factory for field touch-up.

- 2) Finish painted surfaces: Refinish whole panel with shop prime and finish paint as specified above.

B. Non-exposed-to-view surfaces:

1. Degrease or remove any rust and shop paint manufacturer's standard corrosion inhibiting primer.

2.04 AUTOMATIC OPERATION:

A. General operation of individual elevators:

1. Provide a non-proprietary diagnostic microprocessor-controlled dispatching system, based on real time calculations, designed to monitor all types of traffic and sufficiently flexible so that it can be modified to accommodate changes in traffic patterns.
2. Serial link communications: Provide a distributed processing network consisting of localized processors located in machine rooms, car stations, hall stations and top of car to allow system to make fast decisions based on data shared by the processor involved in the different operations of the elevators. For group dispatch operations, all elevators in the group shall be capable of acting as a group common dispatcher as the need arises.
3. Fault diagnostic system: Provide Owner's Representative with all hardware such as on-board LED diagnostics, hand held device or laptop computer, as standard with manufacturer, and supporting software documentation. Diagnostic system shall be capable of determining faults most difficult to find, as well as be capable of performing all code required testing.
4. The system shall be flexible, irrespective of the number of elevators in normal service.

B. Simplex selective collective operation:

1. Arrange for simplex selective collective automatic operation. Operate elevators from a single riser of landing buttons and from operating device in car.
2. Momentary pressure of one or more car or landing buttons, other than those for landing at which car is standing, starts car, and causes car to stop at first landing for which a car or landing call is registered corresponding to direction in which car is traveling. Stops made in order in which landings are reached, irrespective of sequence in which calls are registered.
3. Double door operation not permitted. If an up traveling car has a passenger for an intermediate floor and a down call is registered at that floor, with no calls above car, it travels to floor, opens door to let passenger out, then lights down direction arrow in hall lantern and accepts waiting passenger without closing and reopening doors.

2.05 SPECIAL OPERATIONS:

A. Inspection operation:

1. Provide key-operated hoistway access device and car top operating device. Key switches shall be mounted in door frames with only ferrule exposed at terminal landings.

B. Independent service:

1. Independent service operation shall be provided so that, by means of a switch located in the car service cabinet, the car can be removed from automatic operation and be operated by an attendant. The attendant shall have full control of the starting, stopping and direction of car travel.
2. The car shall respond to car buttons only. The hall signals for the car on independent service shall not operate.

- C. Operation under fire or other emergency conditions:
 - 1. Provide special emergency service to comply with current ASME and CCR Title 8, CBC Title 24 and local codes having jurisdiction.
 - 2. Provide Phase 1 recall switch at main floor elevator lobby of passenger elevator only.
 - 3. Key switches at main floor shall be integrated in hall button station hoistway entrance jamb with engraved instructions.
- D. Tenant security HQ. Only:
 - 1. Arrange control system to enable and disable car call buttons as follows:
 - a. Function, which locks out all cars in a group so that all car and corridor buttons are inoperative, except the main floor.
 - b. Function which locks out any selected car button for all elevators in a group serving that floor.
 - c. Tenant security operations can be overridden by cars on independent, any special emergency service or by card reader/Keypad access.
- E. Tenant Lobby Park security CPR. Only:
 - 1. Arrange control system to enable and disable car call buttons as follows:
 - a. Function, which locks out all corridor buttons are inoperative after a certain time of day.
 - b. Provide a timer that can be programmed to Lobby Park this elevator to meet requirements in above. Timer to lobby park the elevator in the evening and release it in the mornings.

2.06 DOOR OPERATION:

- A. Passenger type:
 - 1. Provide door times available as specified under "Design Criteria."
 - 2. Car and hoistway doors shall open and close simultaneously, quietly and smoothly; door movement shall be cushioned at both limits of travel. Door operation shall not cause cars to move appreciably.
 - 3. Door hold open times shall be readily and independently adjustable when car stops for a car or hall call. Main floor door hold times shall be adjustable independent of other floors.
 - 4. Provide closed loop regulated speed performance, onboard diagnostics, adjustable times, nudging, and test switches.
- B. Door operator:
 - 1. Elevator No. All: Provide new heavy-duty master type solid state closed loop door operators mounted on car enclosure utilizing minimum 12-gauge support angles to isolate from direct mounting of operator on the car top.
 - 2. Pre-approved closed loop heavy duty door operators:
 - a. GAL MOVFR
 - 3. Provide code compliant door weight data tag.
- C. Door Protection:
 - 1. Elevator No. All: Remove existing door protection devices and provide new electronic optical 3D scanning type:

- a. Provide a door protective system which does not rely on physical contact with a person or object to inhibit door movement or initiate door reversal.
- b. Pre-approved optical door sensors:
 - 1) Elevator Contractor
 - 2) Adams GateKeeper Max
 - 3) Formula Systems
 - 4) Janus Pana40 Plus
 - 5) Janus Pana Chrome 3D, with voice annunciation
 - 6) Tritronics Leading Edge
- c. The system shall be able to detect a 2 inch diameter rod introduced at any position within the door movement and between the height of 2 inches and 63 inches above sill level.
- d. Detection of intrusion into the protected area shall cause the doors, if fully open, to be held in the open position and, if closing, to reverse to fully open position.
- e. If doors are prevented from closing for an adjustable period of 15 to 45 seconds or upon activation of fire emergency service, they shall proceed to close at reduced speed and a loud buzzer shall sound. Door closing force shall not exceed 2-1/2 ft.-lb. when door re-opening device is not in operation.
- f. For side-opening doors, the detector for the strike jamb side shall be recessed, flush with strike jamb.

2.07 SIGNALS AND OPERATING FIXTURES:

A. General:

1. Provide signals and fixtures as shown and specified. Location and arrangement of fixtures shall comply with disabled access requirements.
 - a. Elevator Buttons: Provide vandal resistant stainless steel minimum 1 inch diameter mechanical buttons with integral illumination. Buttons shall be raised 1/8 inch from surrounding surface with square shoulders. Operation of car or hall button shall cause button to illuminate.
 - b. Switches: Toggle type typically or key operated where noted.
 - c. Provide four (4) keys for each elevator keyed device, with proper labeled identification upon turnover of elevator.
 - d. Cabinets: Provide with pulls, concealed hinges and doors mounted flush with hairline joints to adjacent surface.
 - e. Arrangement: Arrangement of fixtures shall generally conform to that specified, but components may be rearranged, if desired, subject to Owner's Representative's approval.
 - f. Engraving: Of size indicated; color backfill with epoxy paint in contrasting color as selected. No applied engraved plates.
 - g. Lamps: Miniature LED type.
 - h. Audible Chimes: Electronic adjustable audible chimes; bell type gong not acceptable.
 - i. Provide floor passing signal of the adjustable electronic audible chime type.
 - j. Tactile Markings: Provide raised Braille and alpha characters, numerals or symbols adjacent to operating buttons and devices used by the public according to local codes. Indications may be engraved directly on faceplates or separate

plates flush mounted with hairline joints and concealed mechanical fasteners. Plates shall be of same size and shape as buttons.

- k. Acceptable manufacturers: ERM, fixtures with 5/8" engraved identifications. Operation of car or hall button shall cause button to illuminate. Response of car to car or hall call shall cause corresponding button to extinguish.
 - l. Faceplates: Provide of material and finish as indicated and specified; 1/8 inch minimum thickness with sharp edges relieved. Faceplates shall be sized to cover holes left by removal of existing fixtures where new fixtures are provided and provided with engraved fire sign, per A17.1.
 - m. Audible chimes: Electronic adjustable audible chimes from 75 to 85 dB in elevator lobby 3' - 0" above floor and 3' - 0" away from elevator entrance; bell type gong not acceptable.
- B. Car operating panels:
- 1. General: Provide buttons numbered to conform to floors served and the following:
 - a. Locate top operating button at 48 inches above floor.
 - b. Locate emergency stop switch and illuminated alarm button in bottom row at 35 inches above floor.
 - c. Provide "Door Open", "Door Close", and for booking elevator, "Door Hold" buttons located above emergency stop and alarm of same design as car button.
 - d. All signage required by local codes shall be engraved and painted as directed by Owner's representative.
 - e. Provide fire emergency features, per code. Provide FEO-F1 key switch for fire service unless local code requires different.
 - 2. Elevator No. CPR: Provide one new panel, integrate cabinets, buttons and engraving into hinged single piece faceplate mounted to front return panel.
 - 3. Elevator No. HQ: Provide two new panels, integrate cabinets, buttons and engraving into hinged single piece faceplate mounted to front return panel
- C. Car position indicators:
- 1. Provide car position indicators with 2 inch indications corresponding to floor designations with matching direction arrows. Provide "X" or "E" indications for elevators with express zones.
 - a. Elevator No. All: Provide new digital alpha numeric type segmented LED readout indicator with minimum two-inch high indications mounted integral with each car operating panel.
- D. Service cabinet:
- 1. Provide new cabinet, door with a lock and concealed hinge as an integral part of car operating panel mounted with flush hairline joints. Cabinet door shall be provided with a flush glazed window of required size to hold elevator-operating permit, mounted horizontally. Service cabinet shall contain the following :
 - a. Independent service switch
 - b. Two-speed ventilation switch (Hi-Off-Low)
 - c. Light switch as applicable
 - d. Inspection switch, key operated
 - e. Duplex GFI convenience outlet
 - f. Buzzers as required
 - g. Constant pressure test switch for emergency car lighting

- h. Card reader over-ride switch-key operated
- E. Communication equipment:
- 1. Elevator No. All: Provide a new complete communication system in compliance with ADA regulations consisting of a combination speaker/microphone, amplifier, automatic dialer with 4 number rollover capability and matching car station push button with telephone symbol to activate system and acknowledgment lights. Mount in car operating panel behind a pattern of holes, wire to machine room and program automatic dialer as directed by Owner's Representative.
- F. Hall button fixtures:
- 1. Each fixture shall contain buttons, which light to indicate hall call registration and extinguish when call is answered. Provide intermediate fixtures with two buttons and terminal fixtures with one. Engrave fire-exiting instructions on faceplates. Provide minimum of two fasteners at top and bottom of faceplate.
 - a. Elevator No. CPR: Provide each elevator with one riser of hall button stations.
 - b. Elevator No. HQ: Provide each elevator with one riser of hall button stations on front and one on rear.
- G. Car lanterns:
- 1. Manufacturer's standard dual car riding lantern mounted at a maximum height above floor. Lens shall be flush with faceplate or face of jamb. Use the vandal type with the protruding pins so it can be seen from all angles and have a less chance of being damaged..
 - 2. Lantern illuminates and chimes as doors open. Provide single chime for up direction and double chime for down direction.
- H. Disabled access requirements:
- 1. Provide to meet local codes having jurisdiction including handrail and button configuration.
 - a. Car operating panels: Provide raised Braille and alpha characters, numerals or symbols to the left of operating buttons and devices used by the public. Indications may be engraved directly on faceplates or separate plates flush mounted with hairline joints and concealed mechanical fasteners. Plates shall be of same size and shape as buttons. Raised characters shall be white on a black background with Braille designations directly below the character. Provide "star" at main egress landing.
 - b. Entrances: Provide raised Braille and alpha characters, numerals or symbols similar to those for car stations of size required by governing authority. Locate on each entrance jamb at 60 inches above floor indicating floor designation. Material and finish of plates shall match hall button station faceplates. Provide with contrasting background and mounting means similar to those on car panels. Braille designation shall be to the bottom of the raised character. Provide "star" at main egress landing.
 - c. Entrances: Provide plate with elevator number for first floor entrance. Character shall be a minimum of 3".

2.08 WIRING:

- A. General:
- 1. Provide all necessary wiring and 25% spares between cars and controllers and to all remote control stations; minimum of eight. Furnish shielded wires in cables for all

communications card readers, cameras, digital displays, and speakers. Include four additional pairs of shielded spares and two RG-6 coaxial cables or equivalent, for each car. Electrical wire runs will be free of splices or connection unless at designated junction points.

B. Traveling Cables:

1. Use minimum number of traveling cables. Include shielded wires and spares as noted above. Cord thoroughly and protect cables from rubbing against hoistways or car items. Provide with steel cable core and properly anchored to relieve strain on individual conductors.
2. All traveling cables shall be wired from machine to elevator, without junction box or spliced connections.

C. Hoistway Wiring:

1. All wiring shall be neatly terminated, tied within a junction box and properly marked as to its content.
2. If junction boxes are used, NEC approved terminal strips shall be used and properly identified.
3. No splices shall be allowed.

D. Work light and GFCI convenience outlet:

1. Provide on top of car with protective plastic lamp guard. Provide compact fluorescent type (CFL)

E. Stop switch:

1. Provide in each pit. Provide NEMA 4 enclosure.
2. Provide on each top of car.

F. Alarm gong:

1. Provide on top of each car and to be actuated by corresponding alarm button or emergency stop switch.

G. Auxiliary disconnect switches:

1. Provide as required in remote controller rooms or at remote equipment not in view of mainline switches; include all wiring and conduit.

H. CCTV circuit:

1. Provide provisions for closed circuit television camera in elevators. Run from elevator car top to outside of the elevator machine room, as directed by Owner at no additional cost to the Owner.

2.09 CAR ENCLOSURES:

- A. General: All stainless surfaces are to have the 3M anti-graffiti material applied:
1. Fabricate finish work smooth and free from warps, buckles, squeaks and rattles; joints lightproof. Car shall be sound isolated from car frame. Paint outside of car with 3/16-inch thick sound deadener. No visible fastenings except as indicated.
 2. All elevators shall be weighed before work begins to determine actual weight of car enclosures. Contractor shall keep a log of all equipment and weight removed and added to the suspension system. Contractor is responsible for complying with all applicable ASME and local codes.
 3. All elevators shall be weighed at the completion of the project. Provide all documentation to the governing authority and Owner's Representative for permanent record.
 4. Provide new crosshead data as required by ASME and local code authorities.
- B. Emergency lighting; All elevators:
1. Elevator No. All: Provide an emergency car lighting unit mounted on top of car, battery driven and self-rechargeable. Upon outage of normal power the unit shall, within 5 seconds, light two lamps as part of normal car lighting. The unit shall have sufficient capacity to keep the lights in continuous operation for four hours and the alarm bell for one hour. Provide a readily accessible means for testing the unit in service cabinet. Light fixtures mounted in car front returns or operating panels are not acceptable. Illuminate lights directly over car operating panels.
- C. Elevator No. 1: Retain existing shell enclosure and rehabilitate as follows:
- | | |
|--------------------------|---|
| 1. Front returns: | Clad |
| 2. Car operating panels: | Provide new |
| 3. Wall HQ: | Retain |
| 4. Wall Panels CPR | Provide New |
| 5. Transom: | Clad |
| 6. Hand rails: | Provide new CA, ADA Compliant Public Elevator only |
| 7. Ceiling and lighting: | Provide new Provide a suspended aluminum frame and tee bar ceiling grid with LED light fixtures to provide uniform illumination of lay-in panels and 25 foot-candles at handrail height. Lay-in panels shall be manufacturer's standard Stainless Steel.. |
| 8. Ventilation: | Provide new Retain two-speed squirrel cage exhaust blower (Morrison OE, Toshiba FV40) with sound isolation mounting on canopy. |
| 9. Emergency exit: | Retain, provide code compliant switch (if req.) |
| 10. Car Doors: | Provide new |
| 11. Finish flooring: | Provide new resilient rubber flooring of owners choice |

2.10 HOISTWAY ENTRANCES; PASSENGER TYPE:

- A. General: All stainless surfaces (entrances and doors) are to have the 3M anti-graffiti material applied
 - 1. Retain existing
- B. Hangers and Tracks:
 - 1. Elevator No. All: Provide all new door tracks and hanger assemblies. Sheave type with two-point suspension. Steel sheaves with flanged groove and resilient sound-absorbing tires. Minimum 2-1/2 inch diameter for hoistway, 3 inch for car. Manufacturer's heavy-duty tracks and ball or roller bearing with adjustable up thrusts.
- C. Hanger headers:
 - 1. Elevator No. All: Retain existing.
- D. Struts:
 - 1. Elevator No. All: Retain existing and clean.
- E. Closers:
 - 1. Elevator No. All: Provide new cable relating torsion spring mechanical type or broken arm jack knife type as required for door assembly.
- F. Dust and hanger covers:
 - 1. Elevator No. All: Retain existing, clean and refinish with black paint. Replace damaged and missing dust covers.
- G. Fascia, toe and head guards:
 - 1. Elevator No. All: Retain existing, modify to comply with code, refinish with black paint and refasten for greater rigidity.
- H. Interlocks:
 - 1. Elevator No. All: Provide all new. Equip each hoistway door with a tamper-proof interlock which shall prevent operation of the car until doors are locked in the close position as defined by the Code and shall prevent opening of doors at landing from corridor side unless car is at rest at landing in leveling zone or, hoistway access switch is used. Provide all new type "SF" high temperature wiring for interlock circuits.
- I. Pick-up roller assemblies:
 - 1. Elevator No. All: Provide all new pick-up roller assemblies as required for door operating equipment furnished.
- J. Door restrictor:
 - 1. Elevator No. All: Provide new, door restrictor device compatible with new door equipment.
- K. Sills:
 - 1. Elevator No. All: Retain existing, power clean to metal and refinish, full length of sill.
- L. Limit Switches:
 - 1. Elevator No. All: Provide new
- M. Frames:
 - 1. Elevator No. All: Retain existing. Clean and refinish as scheduled.

N. Hoistway doors:

1. Elevator No. All: Retain existing, re-hang to remove all twists, provide two new gibs per panel and one fire gib per panel which will remain engaged in sill if guiding member is destroyed.
2. Provide new full height astragals and missing or damaged non vision wings matching finish of door panels. Contractor must use the original reinforcing on existing hoistway and car doors for mounting hangers, pickup rollers, drive vanes, etc. If original reinforcing is not reusable for drive vanes and pickup rollers, Contractor shall furnish new reinforcing (minimum of 1/4" thick plate) welded to the door face. A minimum of four (4) 5/16" threaded bolts is to be used for attachment to the reinforcing plate. Where slotted holes are provided in the attachment block, a 1/4" dowel pin is to be fitted after doors locks are set up. Clean and refinish door panels as scheduled. Door panels to be refinished by others. Vandal resistant paint.

O. Passenger Elevator Entrance Schedule:

1. Elevator No. HQ & CPR:
 - a. Size: 3' - 6" wide by 7' - 0" high.
 - b. Type: Side opening, Single speed
 - c. Frames:
 - 1) Main floor: Paint color of Owners choice
 - 2) Typical floors: Paint color of Owners choice
 - d. Doors
 - 1) Main floor: Paint color of Owners choice
 - 2) Typical floors: Paint color of Owners choice
 - e. Sills:
 - 1) Main floor: Re-finish
 - 2) Typical floors: Re-finish

2.11 HYDRAULIC ELEVATOR EQUIPMENT:

A. Design Criteria:

1. Performance:
 - a. Contract Speed: Maximum ten percent (10%) speed variation under any loading condition in the up direction.
 - b. Motion Time: From start to stop of elevators motion as measured in both directions for a typical one floor run under any loading condition.
 - 1) Elevator No. 8.0: seconds
 - c. Door Open Times:
 - 1) Elevator No. : 2.3 seconds
 - d. Door close times: Minimum, without exceeding kinetic energy and closing force, allowed by code.
 - e. Door dwell times: Comply with A.D.A. formula and provide separate adjustable timers with initial settings as follows:
 - 1) Main lobby hall call: 5.0 to 6.0 seconds.

- 2) Upper lobby hall call: 5.0 to 6.0 seconds.
 - 3) Car call: 5.0 to 6.0 seconds. Choose one.
 - 4) Interruption of door protective device: Reduce dwell to 1 second.
 - f. Leveling: Within 1/4 inch under any loading condition. Level into floor at all times, do not overrun floor and level back.
 - g. Hydraulic pressure: Hydraulic components shall be factory tested for 600 PSI. Maximum operating pressure shall be 425 PSI.
2. Operating qualities: Owner's Representative will judge riding qualities of cars and enforce the following requirements. Make all necessary adjustments.
- a. Acceleration and deceleration: Starting and stopping shall be smooth and comfortable, without obvious steps of acceleration. Slowdown, stopping and leveling shall be without jars or bumps. Elevator shall start movement within .5 seconds of fully closed doors. Stopping upon operation of emergency stop switch shall be rapid but not violent.
 - b. Horizontal Acceleration (ISO A95 Scaling): Maximum 10 mg peak-to-peak measured at full speed for full travel in both directions.
 - c. Vertical Vibration: Ride shall be free of vibration throughout acceleration, full speed and deceleration for full travel in both directions.
3. Sound control: (A Scaled – fast – Lmax over the duration of the operation).
- a. Vibration: Sound isolate machines and motor drives from beams and building structure to prevent objectionable noise and vibration transmission to occupied building spaces.
 - b. Airborne noise: Maximum acoustical output level of:
 - 1) 65 dB measured in machine room. With the meter located 3' - 0" from each machine room door at floor level
 - 2) 55 dB measured in elevator cars during all sequences of operation.
 - 3) 50 dB measured in elevator lobbies. From the nearest staff work station to the elevator lobby

2.12 HYDRAULIC HOISTWAY EQUIPMENT:

- A. Guide rails and brackets:
- 1. Elevator No. All: Retain existing rails, realign, clean, check, tighten and replace Code non-complying brackets, fishplates and bolts. Provide log of the alignment corrections to the Owner's Representative.
- B. Guide shoes:
- 1. Elevator No. All: Provide new guide shoes of the roller type with neoprene tires, minimum 3/4 inch wide and fully adjustable spring loaded to provide continuous contact with rail surfaces. Balance car to insure equal guide shoe pressure on all wheels and not exceed manufacturer's recommendations. Nominal roller diameter shall be 4" 6".
 - a. Static balance car.
- C. Buffers:
- 1. Retain existing.
- D. Car frame and platform:
- 1. Elevator No. All: Retain existing car frame. Clean down and tighten frame bolts. Static balance weight to be added as required.

E. Platen isolation:

1. Provide minimum 3/4 inch thick steel plates between top of plunger and car frame with 1 inch rubber or neoprene isolation material between.
 - a. Packing: Provide packing, which inhibits leaking of oil with drip ring and means to collect any oil leakage. Example, 5-gallon bucket.
2. Piping:
 - a. Reuse existing.
 - b. Provide new gaskets for victaulic fittings and test for leaks.
3. Isolation coupling
 - a. Provide at least two isolation coupling one in the machine room and one in the pit.

F. Pit Valves:

- 1) Provide in each elevator pit a gate valve to shut off oil between cylinder and pumping plant.
- 2) Provided new a pressure type line rupture safety valve to shut off oil between cylinder head and pit valve. Activation of safety valve shall not void operation of lowering valve.

G. Oil:

1. Hydraulic Fluid: USDA certified bio-based product, ultra-low toxicity, "readily" biodegradable, high performing fluid made from rapidly renewable plant stock; with antioxidant, anticorrosive, antifoaming, and metal passivating additives. Hydraulic fluid is approved by elevator manufacture for use with elevator equipment.
 - a. USDA certified bio-based product, >90% bio-based content, per ASTM D6866
 - b. Classified "Readily" biodegradable, per OECD 301B
 - c. >70% Biodegradability, per ASTM D5864
 - d. >20,000 ppm Aquatic toxicity, per EPA-821-R-02-012
 - e. >220 Viscosity Index, ASTM D2270
 - f. 25 Viscosity at 400C, cSt., per ASTM D445
 - g. >2200C, Flash Point, per ASTM D92

2.13 MACHINE ROOM EQUIPMENT:

A. General:

1. Provide equipment to fit existing space and structural limitations. Coordinate related electrical, structural and mechanical work with other trades.

B. Pumping plant:

1. Provide new.
 - a. General: Self-contained unit with sound reducing cabinet and sound isolated base.
 - b. Pump: IMO, Roper or accepted equal for 150 SSU oil, belt driven or submersible. Maximum speed 3600 RPM. Maximum pressure 425 pounds per square inch.
 - c. Tank: Capacity equal to plunger displacement plus 50%. Provide strainers, oil level gauge and device to maintain uniform oil temperature.

- d. Valves: Integral type by Elevator Equipment Company, Maxton Company or by elevator manufacturer. Provide conveniently located manual lowering valve accessible without removing pumping plant enclosure panels.
 - e. Motor: General Electric, Imperial, Westinghouse or accepted equal; maximum speed 1800 RPM for belt driven and 3600 RPM for submersible. Provide minimum 80 start heavy-duty motor, continuous rated, 50 degrees C. temperature rise, Class A insulation or 70 degrees C. rise for Class B insulation.
 - f. Muffler: Blow-out proof type between pumping plant and cylinder.
- C. Controller:
1. Integral, floor or wall mounted as applicable to space conditions. Include door operating relays combined with controller. Provide solid state soft starting with starting switches rated at minimum 57% of horsepower rating. IEC method of line starter application is unacceptable. Provide three (3) manual reset overload relays, one in each line and reverse phase relay. Provide externally mounted permanently identified junction boxes on controller cabinets for termination of communication circuits. Pre-approved controllers:
 - a. Motion Control Engineering HMC-2000
- D. Hydraulic elevator protective circuit:
1. In the event the car should stall due to low oil in the system or, if for other cause the car fails to reach the top landing within a predetermined time while traveling "up", a special circuit shall be provided which shall automatically return the car to the bottom landing and open the doors for 10 seconds after which the elevator will close doors and completely shut down. Recycling the mainline switch shall restore Service.
- E. Hydraulic elevator battery emergency lowering operation:
1. Provide a battery driven unit which will initiate operation of the Protective Circuit and lower elevator to bottom landing in the event of a power failure.
 2. Service shall be restored automatically upon restoration of normal power supply.
 3. Arrange with an exposed method of testing.
 4. Arrange circuitry so that, if the mainline switch is open when the power transfer takes place, the elevator will not respond to the operation of the protective circuit.
 5. Provide a double pole-isolating switch on the battery unit to disconnect the battery output.

PART 3 - EXECUTION:

3.01 INSTALLATION:

- A. General:
1. Install per manufacturer's requirements, those of regulatory agencies and as specified.
- B. Welded Construction:
1. Provide welded connections for installation of elevator work where bolted connections are not required for subsequent removal or for normal operation, adjustments, inspection, maintenance and replacement of worn parts.
 2. Comply with AWS standards for workmanship and for qualifications of welding operators.

- C. Sound Isolation:
 - 1. Mount rotating and vibrating elevator equipment and components on vibration-absorption mounts, designed to effectively prevent transmission of vibrations to structure and thereby, eliminate sources of structure-borne noise from elevator system.
- D. Lubrication:
 - 1. Lubricate operating parts of systems as recommended by manufacturer.
- E. Hazardous Disposal Certification:
 - 1. Contractor to provide oil and hazardous waste removal documentation per required EPA standards. Provide copy of documentation to Owner.
- F. Alignment:
 - 1. Coordinate alignment of hoistway entrances with elevator guide rails, for accurate alignment of entrances with cars. Where possible, delay final adjustment of sills and doors until car is operable in shaft. Reduce clearances to minimum, safe workable dimensions at each landing.
 - 2. Align guide rails plumb and parallel with maximum deviation of 1/16 inch. Anchorage of guide rails in pits shall not compromise waterproofing.
- G. Graphics:
 - 1. Provide graphics visible to public as selected by Owner's Representative.
- H. Manufacturer's nameplates:
 - 1. Manufacturer's nameplates, trademarks or logos not permitted on surfaces visible to public.
- I. Cleaning of the installation:
 - 1. After the installation of each elevator has been completed and immediately prior to the carrying out of the tests, the machine room and all equipment therein, the elevator hoistways including outside of car and all ledges and similar areas, the elevator pit and equipment therein, and all door hanger runners, guides, tracks and sills shall be thoroughly cleaned down, preferably with vacuum cleaning equipment, and all dust, fluff, dirt, grit, excessive oil and grease and rubbish shall be removed from site.

- J. Finish painting after tests:
1. After satisfactory completion of the tests, any damage to the paint work shall be made good and the installation re-cleaned, if necessary, after which at least one final coat of gloss oil resistant or enamelized paint shall be applied by brushing or spraying in Contractor's customary colors to all the existing and new equipment in the machine room and also to such items in the hoistway or elsewhere which have received only a primer coat.
 2. Painting shall be performed either during normal working hours or after hours at no additional cost to the Owner.
- K. Painting of machine room floor, walls and pit floors:
1. After the completion of the entire installation, the floor and walls of each machine room and pit areas shall be thoroughly cleaned down and brush painted with one coat of traffic paint having oil resistant properties. Pit floors shall be painted after the completion of the waterproofing. Owner's Representative will advise the color.
 2. Painting shall be performed either during normal working hours or after hours at no additional cost to the Owner.

3.02 NOISE CONTROL:

- A. General:
1. Contractor, in the preparation and the execution of the work, shall recognize the particular and mandatory requirements of the remodeling project due to the character of the work and the use occupancy of the building.
 2. Contractor shall perform all noisy work as directed by Owner's Representative.
- B. Building operations:
1. Noise and vibration generated by this construction for this work may, at times, create a problem for the operations of the building. In the event the noise produced by the construction work conflicts with the building function, Contractor, at the request of the Owner's Representative, shall reduce or stop the noise.
 2. All disruptive work including removal of old materials and deliveries of new materials shall be done on overtime at no additional cost to Owner.
 3. All disruptive work will be performed after hours at no additional cost to Owner.
- C. Measurement:
1. The noise level shall be measured on the "A" Scale of a sound level meter as follows:
 - a. With the meter located 3' - 0" from the nearest staff work station to the elevator lobby, the sound level shall not exceed 65 db.
 - b. With the meter located 3' - 0" from outside of each machine room door at floor level, the sound level shall not exceed 70 db.
 - c. With the meter located 3' - 0" from any hoistway door at any level, the sound level shall not exceed 70 db.
- D. Types of noise generating work:
1. All heavy demolition (concrete walls and floors).
 2. All grinding, chipping, pounding, sanding and cutting of holes and core drilling.

3.03 FIELD QUALITY CONTROL:

- A. Regulatory agencies inspection:
 - 1. Upon completion of elevators, Contractor shall provide instruments, weights and personnel to conduct test required by regulatory agencies. Contractor shall submit a complete report describing the results of the tests.
- B. Examination and testing:
 - 1. When installation is ready for final acceptance, notify and assist Owner's Representative in making a walk-through inspection of entire installation to assure workmanship and equipment complies with contract documents. Provide equipment to perform the following tests:
 - a. One-hour heat and run test with full load in car. Perform for one car of each duty.
 - 1) Stop car at each floor in each direction.
 - 2) Verify that temperatures do not exceed manufacturer's motor ratings.
 - 3) Performance and leveling tests shall be made before and after heat and run test.
 - b. Check and verify operation of all safety features and special operations.
 - 1) Measure horizontal acceleration.
 - 2) Measure acoustical output levels in machine room, lobbies and cars.
- C. Correction:
 - 1. Make corrections to defects or discrepancies at no cost to Owner's Representative. Should discrepancies be such that re-examination and retesting is required, Contractor shall pay for all costs including those of Owner's Representative's fees.
- D. Final acceptance:
 - 1. Final acceptance of the installation will be made only after all corrections are complete, final submittals and certificates received and the Owner's Representative is satisfied and the installation is complete in all respects. Final payment will not be made until the above is completed.

3.04 INSTRUCTIONS:

- A. Instruct Owner's personnel in proper use of each system.

3.05 PROJECT RECORD DOCUMENTS:

- A. As-built drawings:
 - 1. Contractor shall maintain at the job site a separate and complete set of contract drawings which will be used solely for the purpose of recording changes made in any portion of the work during the course of construction, regardless of the reason for such change.
 - 2. Changes, as they occur, will be marked on the record set of drawings on a daily basis.
 - 3. The monthly payment will be withheld until the Owner's Representative has verified that "as-built" corrections are current. Before final payment is authorized, Contractor shall certify that all changes in the work are included on the drawings and will deliver such to the Owner's Representative.

B. Record drawings:

1. Contractor shall prepare "as-built" drawings in duplicate of any changes to electrical work on prints supplied by the Owner's Representative. During the course of construction, actual locations to scale shall be shown for all runs of mechanical and electrical work, installed in walls and floors or otherwise concealed. This shall cover all piping, electrical wiring; whether in conduit or cable, duct work, etc. shall be located, in addition, by dimension. All services shall be identified in ink on the prints.
2. In addition, Contractor shall keep a complete record copy of the plans and specifications for the use in preparing "as-built" plans and specifications at the end of the job. Contractor shall sign and date the prints and deliver them to the Owner's Representative.

3.06 MAINTENANCE:

- A. General: No 12 month warranty maintenance to be provided. Warranty parts and warranty call backs and repairs only.
- B. Call-Backs: In event of failures, provide 24 hour call-back service at no additional cost to Owner.
- C. Elevator Shutdowns:
 1. Should any elevator become inoperative, repair within 24 hours of notification of such failure. Breakdown of major components shall be completed and service restored within 72 hours.
 2. Failure to comply with above, Owner may order the work done by other contractors at the Contractor's expense.
 3. Devices repaired or replaced by others shall, nevertheless, become provided with maintenance by the Contractor who shall become completely responsible for correct operation of such devices for lifetime of this contract.
- D. Quotation: Base bid shall include cost of maintenance and materials as described above.

END OF SECTION



Elevator Consulting, Inc.

23211 South Pointe Drive
Laguna Hills, CA 92653
949-348-9711

3765 East Sunset Road, B-5
Las Vegas, NV 89120
702-319-9711

15811 32nd Avenue NE Lake
Forest Park, WA 98155
206-954-1821

VERTICAL TRANSPORTATION MODERNIZATION SPECIFICATIONS

**City of Beverly Hills
Police Department HQ
464 N. Rexford
Beverly Hill, CA**

July 12, 2018

TABLE OF CONTENTS

PART 1 - GENERAL:	1
1.01 General Conditions	1
1.02 Related Documents:	1
1.03 DEFINITIONS:	1
1.04 DESCRIPTION:	2
1.05 QUALITY ASSURANCE:	4
1.06 SUBMITTALS:	6
1.07 CONTRACT AND PROGRESS PAYMENTS:.....	7
1.08 PRODUCT DELIVERY, STORAGE AND HANDLING:	7
1.09 SCHEDULING AND SEQUENCING:	8
1.10 WARRANTY:	8
1.11 ALTERNATES:	8
PART 2 - PRODUCTS:	9
2.01 DESCRIPTION OF SYSTEMS:	9
2.02 MATERIALS:	12
2.03 FINISHES:	12
2.04 AUTOMATIC OPERATION:	13
2.05 SPECIAL OPERATIONS:	14
2.06 DOOR OPERATION:.....	15
2.07 SIGNALS AND OPERATING FIXTURES:	16
2.08 WIRING:.....	19
2.09 CAR ENCLOSURES:	20
2.10 HOISTWAY ENTRANCES; PASSENGER TYPE:	21
2.11 HYDRAULIC ELEVATOR EQUIPMENT:	24
2.12 HYDRAULIC HOISTWAY EQUIPMENT:	25
2.13 MACHINE ROOM EQUIPMENT:	26
PART 3 - EXECUTION:	27
3.01 INSTALLATION:	27
3.02 NOISE CONTROL:	29
3.03 FIELD QUALITY CONTROL:.....	29
3.04 INSTRUCTIONS:.....	30
3.05 PROJECT RECORD DOCUMENTS:	30
3.06 MAINTENANCE:.....	31

SECTION 14 22 10
MODERNIZATION OF ELEVATORS

PART 1 - GENERAL:

1.01 General Conditions

- A. Bidders Note: All clarifications, exceptions and qualifications to this document must be submitted at bid time. The format shall be this document marked up to reflect bidder's proposed product for this project. Additional pages in letter form with regard to work by others or instructions to the contractor are acceptable, but all other clarifications to this document will be submitted with the bid as a mark-up of this document. The marked-up document when submitted will be reviewed and negotiated, and will become a part of the Contract.
- B. Bidding documents:
 - 1. Bidders shall examine existing conditions. Any discrepancies which affect the elevator work or conditions adverse to the bidder's equipment shall be brought to Owner's Representative's attention at least seven (7) days prior to the bid date. If no discrepancies are presented, changes required to accommodate bidder's equipment become the responsibility and cost to Contractor.
 - 2. Bidders are responsible to identify all required building related work at time of bidding and included with their bid documents.
- C. The specifications are written to be included as an attachment to the modernization contract.
- D. The Elevator Contractor shall be responsible for all building modifications to provide a code compliant elevator modernization. All sub-contractors will be contracted directly with the elevator contractor. Elevator contractor shall obtain bids from sub-contractors that are approved by the Owner and/or Owners Representative.

1.02 Related Documents:

Refer to Notice of Inviting Bids document.

1.03 DEFINITIONS:

- A. Main Lobby: Ground Level unless otherwise indicated.
- B. Fire Recall Level: As directed by local fire authority. As existing.
- C. Alternate Fire Recall Level: As directed by local fire authority. As existing.
- D. All retained existing equipment shall be of equal condition and life span as of new equipment.
- E. Serviceability: It is recognized that each manufacturers' system contains components that are proprietary to the development of their systems. The Owner may wish to have the elevator system maintained by another technically qualified service provider and by submitting a bid for

this project, the manufacturer shall guarantee that for a minimum of 20 years they will provide the following:

1. Diagnostic, adjusting and monitoring tools for all components including documents, manuals, and wiring diagrams. Devices shall not self-destruct, require charging or exchange. Remote monitoring devices are excluded from this requirement, however if such devices are removed all wiring shall be neatly terminated, tied within a junction box and properly marked as to its content.
2. Manufacturer shall guarantee to support the equipment for this project with regard to notification to Owner of system corrective updates, provide and install such updates at no cost to Owner.
3. Provide contact information for their separate parts warehouse so that the Owner or designated service provider can order parts on a 24 hour basis and delivered within 48 hours. Parts may be provided from inventory when adequate stock exists. In some cases, parts will have to be special ordered from the factory or other vendor. Proprietary parts will be made available on an exchange basis.
4. Provide a list of parts of each component manufactured and stored at the warehouse and the retail cost of each at close out of the project and estimated escalation cost. The cost of these parts is what would be charged to Owner or other service provider.
5. Provide contact information for technical support so that the Owner or designated service provider can obtain technical support on a 24 hour basis to provide assistance in trouble shooting problems. Indicate hourly rate charged to Owner or designated service provider for such service.
6. In the event that a company other than the Original Equipment Manufacturer (OEM) maintains the elevators, and if the equipment was unable to be repaired by the non-OEM maintenance company, a factory-trained OEM technician would be required to assist (as it would if Contractor's own technician were in the same situation). If such an event was to occur, OEM Contractor would make its factory-trained technician available for assistance upon request of the Owner within three (3) business days, based on the original contractual hourly rates subject to established annual escalations. This shall survive any termination of the maintenance agreement.
7. The above will survive any termination of the maintenance agreement.
8. Contractor shall be defined as "Elevator Contractor".
9. Subcontractor shall be defined as any contractor contracted by either "Owner or Elevator Contractor".

1.04 DESCRIPTION:

- A. Examination of site:
 1. Contractor shall visit the building, examine the existing elevators and contract documents, determine condition of all retained components, space conditions, power supply, standby/emergency power supply, and mainline disconnect.
 2. Make all surveys necessary to meet the requirements of this specification and compatibility to products provided.
- B. Field measurements:
 1. Field verify dimensions before proceeding with the work.
 2. Coordinate related work by other trades.

3. Contractor shall assume responsibility and provide full maintenance of the elevator equipment upon award of this contract and shall continue to do such throughout the modernization.

C. Related work included by others in this section:

1. Contractor shall visit the building, examine the existing conditions, power supply, standby/emergency power supply, emergency battery lowering, mainline disconnect, and include all work needed to ensure a fully code compliant modernization. Contractor or his sub-contractors shall perform this work, which may include but is not limited to the following:
 - a. General:
 - 1) Legal access consisting of self-closing and self-locking access doors, ladders, gratings and steps to machine rooms, controller areas, pits and hoistways.
 - 2) Providing supports to carry structural reaction, impact and uplift loads imposed by elevator equipment.
 - 3) Support full width of hoistway at edge of slab for attachment of sill support angles to be provided and installed by Contractor.
 - 4) Grouting behind entrance frames where concrete walls occur.
 - 5) Patching of floors, walls and surfaces constituting final finishes.
 - 6) Block-outs, pockets and chases in walls and floors for entrances, signals, fixtures, cables and conduit.
 - 7) Construction and modifications not limited to the hoistways, machine rooms and controller areas, all areas properly framed, enclosed and adequately ventilated.
 - b. Electrical work:
 - 1) Power feeders: Modification to existing, or installation and connection of three phase power, through fused mainline switches or circuit breakers and extended to terminals of controllers. Provide continuous ground where needed.
 - 2) Light circuits: Single-phase circuit through disconnects and extended to controller for car lights and fan.
 - 3) Communication circuit: Telephone circuit terminated at junction box of each controller.
 - 4) Cameras, provide two new remotely controlled cameras with 2-way audible capabilities, one for the booking elevator and one for the release elevator.
 - 5) Illumination: Lights with guards, illuminating light switches and convenience outlets in pits, machine rooms, controller areas and overhead sheave spaces.
 - 6) Conduit: Installation of electrical conduit and pull boxes with pull wire between hoistways and remote locations of each indicator and control panel.
 - 7) GFCI Outlets: Provide in machine room and pits.
 - 8) Standby power: Automatic transfer of standby/emergency power and lighting supply through normal feeders with means of absorbing regenerative power. Two (2) No. 14 wires from "Form C" contacts on transfer switch to designated controller to elevator machine rooms to signal transfer of power.

- 9) Provide hoistway, overhead, and pit lighting as required by local code authorities.
 - 10) Provide NEMA 4 approved electrical devices and conduits for all electrical installed below the lowest sill level.
- c. Fire Life Safety:
- 1) Sensing devices: Installation and or removal modification to smoke detectors, heat detectors, shunt trip, sprinklers, or products of combustion sensors in elevator lobbies, machine rooms, hoistways and alternate fire recall floor with circuits terminated at junction box in machine rooms for emergency fire service operation.
 - 2) Life safety circuits: Circuits terminated at junction box at each controller for life safety speakers and fireman's phone jack to each car in the car canopy or as directed by the Owner and/or local code authority. Note phone jacks are not permitted in corridor call button boxes.
 - 3) Provide fire proofing as required by lode code authority.
2. Barricades: Full height self-closing self-locking barricades for protection of open hoistways during construction.
 3. Temporary screens: Contractor shall provide code compliant hoistway screening between elevators before construction starts and remove at completion of project.
 4. Painting: Field painting of prime-finish items constituting final finishes.
 5. Card readers: Including wire from machine room j-box to car top j-box, interfacing with elevator controls and installation in elevator car, connection in machine room and testing of system.
 6. Closed circuit T.V: Including camera in each Jail elevator Axis Q8414-LSV (0709-001) wire from machine room j-box to elevator car top j-box, connection in machine room and testing. Car top and machine j-box and labeled. Contractor shall coordinate with sub-contractors to complete all required work at no additional cost to the Owner.
 7. Contractor shall coordinate and perform all pretesting of all building systems prior to inspection at no additional cost to the Owner.

1.05 QUALITY ASSURANCE:

A. Qualifications of Contractors:

1. General: The entire elevator installation shall be installed and maintained by the acceptable Contractors listed or as qualified by addendum. No portion of the work shall be subcontracted unless qualified and accepted by addendum.
2. Installer's qualifications: Installer must be a licensed, certified conveyance mechanic in the state where installation is located.
3. Personnel list: Contractor shall, at time of bid, submit to Owner's Representative for review and approval a complete organization chart that depicts Contractor's "Project Team" exclusively assigned and dedicated to the modernization and maintenance for this project. The chart shall include, but not be limited to, administrative personnel, managers, supervisors, mechanics, apprentices, and all others who shall provide the requirements, services, and obligations of this contract. Personnel quantities, resumes, certification, titles, labor affiliations, exact roles and responsibilities and reporting structures under this contract shall be included.
4. Maintenance qualifications: Contractor must be a licensed elevator contractor in the state where installation is located.

5. Serviceman qualifications: All Contractor's mechanics that shall be assigned to this project, shall have been in the elevator business or trade for a minimum of ten (10) years with continuous and immediate past experience in the preventative maintenance, repair, modernization, inspection and testing of elevator equipment of similar characteristics to those included in this project.
 - a. Manufacturer's qualifications: The design, engineering and manufacture of major elevator components such as machines, motors, motor drive units, controllers, door operators, safeties, governors, selectors, etc. shall be from manufactures that have been in the business for the last ten (10) years. Equipment proposed must have a history of successful operation under similar conditions for the last five (5) years.
 - b. Directly employ sufficient competent personnel within twenty-five (25) of project to handle construction and maintenance duties.
 - c. Maintain local stock of parts adequate for replacement on permanent or emergency basis.
 - d. Be able to respond to trouble calls within one (1) hour during normal business hours and two (2) hours after normal business hours.
 - e. Be able to respond to entrapments within thirty (30) minutes during normal business hours and thirty (30) minutes one (1) hour after normal business hours.
 6. Approved company uniforms shall be worn at all times. Names shall be visible at all times.
 7. Approved company identification shall be visible at all times.
- B. Sub-contractors:
1. Contractor shall be solely responsible for any and all of the work done by his sub-contractor or other employees and all orders or instructions from the Owner's Representative shall be through him to them. It shall be Contractor's duty to see that all of his sub-contractors commence their work properly at the proper time, and carry it on with due diligence so that they do not delay or injure either work or materials; and that all damage caused by them or their workmen is properly made good by them or by himself at his cost. Contractor shall submit names of his sub-contractors for approval by the Owner's Representative.
 2. The use of sub-contractors is to be limited to work outside the scope of elevator construction work; for example, patching, painting, coring of walls, marble work and refinishing.
- C. Elevator cabs and entrances:
1. Manufactured or rehabilitated by one of the following or accepted equal:
 - a. Elevator manufacturer
 - b. Citylift
 - c. Travertine
 - d. Winter & Bain
 - e. Sterling Corporation
- D. Quality of work and workmanship:
1. When completed, the installation shall be modern in all respects.
 2. All components specified as new shall be provided as new. All components specified to be retained may be provided as new at Contractor's option subject to approval of Owner's Representative. All retained components are to be examined, cleaned,

adjusted, repaired and/or replaced with new parts. Contractor must be willing to accept all retained equipment on full maintenance without prorating.

3. All work performed shall be conducted in a workmanship type manner.

E. Requirements of regulatory agencies:

1. Codes: In accordance with the latest applicable edition requirements of the following and as specified:
 - a. A.D.A.: Americans with Disabilities Act
 - b. ASME: American Society of Mechanical Engineers – A17.1; Safety Code for Elevators and Escalators
 - c. CBC: Title 24; California Building Codes
 - d. CCR: Title 8; California Code of Regulations
 - e. IEEE
 - f. NEC: National Electric Code / NFPA 70.
 - g. NFPA-72
 - h. All local codes and Amendments and Administration, which govern

F. Permits, Inspections, and Taxes:

1. Arrange and pay for inspections by governing authorities.
2. Obtain and post operating permits per applicable code.
3. Arrange and pay for all applicable taxes.

G. Safety Policies and Practices:

1. Installation and maintenance contractors are required to follow their company's safety practices and policies
2. Installation and maintenance contractors are required to follow all practices and policies of the building management.
3. Installation and maintenance contractors are required to follow governing authorities' safety practices and policies.

1.06 SUBMITTALS:

A. Shop drawings:

1. Submit three copies of the following prior to ordering any materials:
 - a. Layouts: Plan of machinery and hoistway spaces showing new equipment and existing equipment; include impact and static loads imposed on building structure and clearances around equipment.
 - b. Details: Submit details of cab shell and interiors, fixtures, and entrances.
 - c. Data: Indicate on layouts or separate data sheets; machine spaces heat release, power requirements, conduit runs outside of hoistways and machine rooms, car and counterweight roller guides, control systems, motor drive units and door operators.

B. Samples:

1. Provide samples of materials and finishes exposed to public view and additional, if specifically requested, 6 inch x 6 inch panels, 12 inch lengths or full size if smaller, as applicable.

1.07 CONTRACT AND PROGRESS PAYMENTS:

- A. Contract:
 - 1. Contractor to agree and execute Owner's contract with all related documents for this project. Contract will be based on approval of the Owner and/or Owner's representative.
- B. Payment Schedule:
 - 1. Progress payments will be based on a mutually agreed upon schedule of values payment schedule. Initial deposit shall not exceed 20% upon award or letter of intent/contract.
 - 2. Note: All payments are less 10% retention.
- C. Retention:
 - 1. Retention will be paid at completion of Consultant's punch-list. Owner and Owner's Representative reserves the right to reduce Contractor's retention amount to pay/compensate for any additional inspection or compliance reviews required due to Contractors failure to comply.
- D. Contract Change Orders:
 - 1. Contractor shall submit all change orders to both Owner and Owner's Representative for review and approval. Change Orders shall not be approved without both signatures.
- E. Performance and Payment Bond: base bid or alternate, based per project.
 - 1. Quote cost to provide a corporate surety performance and payment bond in the amount of 100% of the modernization contract including one (1) year warranty maintenance for which the Contractor will pay the premium.
 - 2. This bond will guarantee faithful performance of the contract and shall also guarantee payment of wages for services engaged and of bills contracted for materials, supplies and equipment used in the execution of this contract.
 - 3. Please provide Bond cost as a line item on the proposal.

1.08 PRODUCT DELIVERY, STORAGE AND HANDLING:

- A. Delivery and storage:
 - 1. Protect equipment during transportation, erection and construction. Store under cover to prevent damage due to weather conditions. Replace damaged materials. Storage space on site will be available, if onsite storage is provide and a storage container and or fencing is required to properly secure and store all equipment, it shall be provided at no cost to the Owner.
- B. Handling:
 - 1. Owner's Representative has the first right of refusal to retain any elevator components that are to be removed and modernized with new equipment. All removed components shall remain property of the Owner's Representative, until the Owner's Representative notifies Contractor, in writing, of removed components that Owner's Representative would like to retain. All remaining elevator equipment not to be retained by the Owner's Representative or reused by Contractor shall be promptly removed from the building by Contractor at no cost to the Owner's Representative, and become the property of Contractor.

2. Contractor shall make every attempt to recycle removed elevator equipment. Contractor shall correct any damage to building surfaces and surrounding areas if damaged during removal of this equipment, at no cost to the Owner's Representative.

1.09 SCHEDULING AND SEQUENCING:

A. Schedule:

1. Submit construction schedule with bid indicating time required from award of contract to;
 - a. Submittals
 - b. Equipment fabrication and delivery to site
 - c. Installation and testing per elevator
 - d. Final acceptance of all elevators
2. Contractor shall be responsible for scheduling related work with other sub-contractors to avoid omissions and delays in job progress. Elevators shall not be removed from service, without prior approval, until all equipment has been manufactured and delivered to the project site for all elevators.

B. Sequence:

1. Work under this contract shall be done in the following sequence. Any change to this must be approved by the Owner's Representative. Complete all work for each sequence before proceeding with the next.
 - a. Sequence (1) One: Elevator No. Booking
 - b. Sequence (2) Two: Elevator No. Public
 - c. Sequence (3) Three: Elevator No. Release

C. Building operations:

1. The building will remain in operation during the execution of this contract. Cooperate with building management in scheduling work in such a way as not to cause interruption of or interference with the building operations.

D. Electrical shutdowns:

1. Temporary electrical shutdowns will not be allowed except for brief periods to be scheduled outside normal hours and at least forty-eight (48) hours in advance and approved by Owner's Representative.

1.10 WARRANTY:

A. Guarantee and Warranty:

1. Provide special project warranty, signed by Contractor, Installer and Manufacturer, agreeing to replace/repair/restore defective materials and workmanship of all work performed which may develop within one (1) year from final date of completion and acceptance of the **entire installation**. "Defective" is hereby defined to include, but not by way of limitation, operation or control system failures, performances below required minimums, excessive wear, unusual deterioration or aging of materials or finishes, unsafe conditions, the need for excessive maintenance, abnormal noise or vibration and similar unusual, unexpected and unsatisfactory conditions.

1.11 ALTERNATES:

1. None

PART 2 - PRODUCTS:

2.01 DESCRIPTION OF SYSTEMS:

A. Elevator No. Public:

- | | |
|-------------------------------|----------------------------|
| 1. Type: | Hydraulic Direct Plunger |
| 2. Capacity: | 2500 Pounds |
| 3. Speed: | 125 FPM |
| 4. Stops: | 3 |
| 5. Openings: | 1 Front and 2 Rear |
| 6. Travel: | Existing |
| 7. Control: | Soft Start AC |
| 8. Operation: | New Microprocessor Simplex |
| 9. Machine Location: | Adjacent Remote |
| 10. Special Operations: | |
| a. Independent Service | |
| b. Fire Emergency Service | |
| c. Standby Emergency Power | |
| 11. Door Operation: | Provide New |
| 12. Door Protection: | Provide New |
| 13. Guide Rails: | Retain |
| 14. Guide Rollers: | Provide New |
| 15. Plunger Unit: | Retain |
| 16. Cylinder Unit: | Retain |
| 17. Buffers: | Retain |
| 18. Car Frame & Platforms: | Retain |
| 19. Power Unit: | Provide New |
| 20. Controllers: | Provide New |
| 21. Piping: | Retain |
| 22. Car Operating Panels: | Provide New |
| 23. Car Position Indicators: | Provide New |
| 24. Hall Position Indicators: | Provide New |
| 25. Service Cabinet: | Provide New |
| 26. Communications: | Provide New |
| 27. Hall Button Stations: | Provide New |
| 28. Hall/Car Lanterns: | Provide New |
| 29. Handicap Requirements: | Provide New, as required |
| 30. Wiring: | Provide New |

- | | | |
|-----|--------------------------|---|
| 31. | Car Enclosure: | Retain and Refurbish |
| 32. | Hoistway Entrances: | Retain |
| 33. | Miscellaneous Items: | |
| | a. | Key Operated Hoistway Access |
| | b. | Ruptured Pipe Valve |
| | c. | CE Electronics Info Screen |
| | d. | Clean hoistways, machine rooms and equipment; paint machine room floor, pit floor, car top, and all existing metal work |
| B. | Elevator No. Booking: | |
| 1. | Type: | Hydraulic Direct Plunger |
| 2. | Capacity: | 3000 Pounds |
| 3. | Speed: | 125 FPM |
| 4. | Stops: | 3 |
| 5. | Openings: | 3 Front 1 Rear |
| 6. | Travel: | Existing |
| 7. | Control: | Soft Start AC |
| 8. | Operation: | New Microprocessor Simplex |
| 9. | Machine Location: | adjacent |
| 10. | Special Operations: | |
| | a. | Independent Service |
| | b. | Fire Emergency Service |
| | c. | Standby Emergency Power |
| | d. | Tenant Security |
| 11. | Door Operation: | Provide New |
| 12. | Door Protection: | Provide New |
| 13. | Guide Rails: | Retain |
| 14. | Guide Rollers: | Provide New |
| 15. | Plunger Unit: | Retain |
| 16. | Cylinder Unit: | Retain |
| 17. | Buffers: | Retain |
| 18. | Car Frame & Platforms: | Retain |
| 19. | Power Unit: | Provide New |
| 20. | Controllers: | Provide New |
| 21. | Piping: | Retain |
| 22. | Car Operating Panels: | Provide New |
| 23. | Car Position Indicators: | Provide New |
| 24. | Service Cabinet: | Provide New |

- | | |
|--|------------------------------|
| 25. Communications: | Provide New |
| 26. Hall Button Stations: | Provide New (where required) |
| 27. Car Lanterns: | Provide New |
| 28. Handicap Requirements: | Provide New, as required |
| 29. Wiring: | Provide New |
| 30. Car Enclosure: | Retain and Refurbish |
| 31. Hoistway Entrances: | Retain and clad |
| 32. Miscellaneous Items: | |
| a. Key Operated Hoistway Access | |
| b. Ruptured Pipe Valve | |
| c. Card Reader Provisions | |
| d. Jailer Control | |
| e. Clean hoistways, machine rooms and equipment; paint machine room floor, pit floor, car top, and all existing metal work | |

C. Elevator No. Release:

- | | |
|----------------------------|----------------------------|
| 1. Type: | Hydraulic Direct Plunger |
| 2. Capacity: | 3000 Pounds |
| 3. Speed: | 125 FPM |
| 4. Stops: | 2 |
| 5. Openings: | 2 |
| 6. Travel: | Existing |
| 7. Control: | Soft Start AC |
| 8. Operation: | New Microprocessor Simplex |
| 9. Machine Location: | Remote |
| 10. Special Operations: | |
| a. Independent Service | |
| b. Fire Emergency Service | |
| c. Standby Emergency Power | |
| d. Tenant Security | Interface with Existing |
| 11. Door Operation: | Provide New |
| 12. Door Protection: | Provide New |
| 13. Guide Rails: | Retain |
| 14. Guide Shoes: | Provide New |
| 15. Plunger Unit: | Retain |
| 16. Cylinder Unit: | Retain |
| 17. Buffers: | Retain |
| 18. Car Frame & Platforms: | Retain |

- | | | |
|-----|--------------------------|---|
| 19. | Power Unit: | Retain |
| 20. | Controllers: | Provide New |
| 21. | Piping: | Retain |
| 22. | Car Operating Panels: | Provide New Special |
| 23. | Car Position Indicators: | Provide New |
| 24. | Service Cabinet: | Provide New |
| 25. | Communications: | Provide New |
| 26. | Hall Button Stations: | None |
| 27. | Car Lanterns: | Provide New |
| 28. | Guard Control Station: | Interface with Existing |
| 29. | Handicap Requirements: | Provide New, as required |
| 30. | Wiring: | Provide New |
| 31. | Car Enclosure: | Retain and Refurbish |
| 32. | Hoistway Entrances: | Retain |
| 33. | Miscellaneous Items: | |
| | a. | Key Operated Hoistway Access |
| | b. | Rupture Pipe Valve |
| | c. | Card Reader Provisions |
| | d. | Jailer Control |
| | e. | Clean hoistways, machine rooms and equipment; paint machine room floor, pit floor, car top, and all existing metal work |

2.02 MATERIALS:

- A. Aluminum: Alloy and temper best suited for anodizing finish specified.
- B. Plywood: PS-1, A-D exterior Grade Douglas Fir, fire retardant treated.
- C. Sheet steel: ASTM A366, uncoated, pickled, free from defects.
- D. Sound deadener: Fire retardant; spray, roller or adhesive applied; 3/16" thick.
- E. Stainless steel: ASTM A167; type 302 or 304.

2.03 FINISHES:

- A. Exposed-to-view surfaces:
 - 1. Provide as follows unless otherwise specified.
 - a. Aluminum: Clear anodized finish.
 - b. Sheet steel:
 - 1) Shop prime: Degrease clean of foreign substances and apply one coat of corrosion inhibiting primer compatible with finish paint selected. Hoistway items visible to public shall be painted one additional coat of black paint.

- 2) Finish paint: Three coats baked enamel; sand each coat smooth; color as selected.
 - c. Stainless steel:
 - 1) Plain: Satin, directional polish, No. 4 directional polish. All interior Stainless to be covered with the 3M Anti-Graffiti coating.
 - d. Touch-up:
 - 1) Prime surfaces: Use same paint as factory for field touch-up.
 - 2) Finish painted surfaces: Refinish whole panel with shop prime and finish paint as specified above.
- B. Non-exposed-to-view surfaces:
1. Degrease or remove any rust and shop paint manufacturer's standard corrosion inhibiting primer.

2.04 AUTOMATIC OPERATION:

- A. General operation of individual elevators:
1. Provide a non-proprietary diagnostic microprocessor-controlled dispatching system, based on real time calculations, designed to monitor all types of traffic and sufficiently flexible so that it can be modified to accommodate changes in traffic patterns.
 2. Serial link communications: Provide a distributed processing network consisting of localized processors located in machine rooms, car stations, hall stations and top of car to allow system to make fast decisions based on data shared by the processor involved in the different operations of the elevators. For group dispatch operations, all elevators in the group shall be capable of acting as a group common dispatcher as the need arises.
 3. Fault diagnostic system: Provide Owner's Representative with all hardware such as on-board LED diagnostics, hand held device or laptop computer, as standard with manufacturer, and supporting software documentation. Diagnostic system shall be capable of determining faults most difficult to find, as well as be capable of performing all code required testing.
 4. The system shall be flexible, irrespective of the number of elevators in normal service.
- B. Simplex selective collective operation:
1. Arrange for simplex selective collective automatic operation. Operate elevators from a single riser of landing buttons and from operating device in car.
 2. Momentary pressure of one or more car or landing buttons, other than those for landing at which car is standing, starts car, and causes car to stop at first landing for which a car or landing call is registered corresponding to direction in which car is traveling. Stops made in order in which landings are reached, irrespective of sequence in which calls are registered.
 3. Double door operation not permitted. If an up traveling car has a passenger for an intermediate floor and a down call is registered at that floor, with no calls above car, it travels to floor, opens door to let passenger out, then lights down direction arrow in hall lantern and accepts waiting passenger without closing and reopening doors.

2.05 SPECIAL OPERATIONS:

- A. Inspection operation:
 - 1. Provide key-operated hoistway access device and car top operating device. Key switches shall be mounted in door frames with only ferrule exposed at terminal landings.
- B. Independent service:
 - 1. Independent service operation shall be provided so that, by means of a switch located in the car service cabinet, the car can be removed from automatic operation and be operated by an attendant. The attendant shall have full control of the starting, stopping and direction of car travel.
 - 2. The car shall respond to car buttons only. The hall signals for the car on independent service shall not operate.
- C. Operation under fire or other emergency conditions:
 - 1. Provide special emergency service to comply with current ASME and CCR Title 8, CBC Title 24 and local codes having jurisdiction.
 - 2. Provide Phase 1 recall switch at main floor elevator lobby of passenger elevator only.
 - 3. Key switches at main floor shall be integrated in hall button station hoistway entrance jamb with engraved instructions.
- D. Operation under standby/emergency power system:
 - 1. General: The standby power system is sized to operate one elevator in each group simultaneously. Elevators shall be grouped as follows:
 - a. Group 1 = Elevators No. Booking.
 - b. Group 2 = Elevators No. Release.
 - 2. When normal power fails and standby power becomes available, a signal will be given to the controllers, all elevators will shut down, and all car lights, etc., will be extinguished.
 - 3. When emergency power comes onto the line, power for lighting car fan and alarm bell shall be automatically transferred and all cars on automatic operation shall be sequentially returned one at a time from each group, to the main floor.
 - 4. After all cars are parked at main floor, one car of each group shall resume normal operation.
 - 5. Provide interlocking illuminated strip switches or keyed rotary switch to permit manual or automatic selection of desired elevator to operate on emergency power.
 - 6. When normal power fails and emergency power is used, or when normal power is restored, the elevator manufacturer shall provide all circuitry necessary, including time delay or auxiliary relays required to accomplish safe, continuous elevator operation. The cars will start in sequence, not simultaneously; allow 10 seconds between starts.
 - 7. Fire service shall be operable when system is on emergency power operation.
- E. Jailer Control: Provide in Booking and Release elevators a remote control panel interface that over rides all car operating panel functions
 - 1. Provide interface for the following jail operation:
 - a. Door open and close inputs. Doors will only operate from those signals but overridden by Fire Service.

- b. Operator of this remote panel will have the ability to open or close the elevator doors at any point of door travel as well as the ability to keep the doors open as long as required.
 2. Car call inputs. Operator to have the ability to set and extinguish car calls.
 3. Capture Mode: Upon input from the jailer control station the elevator controls will latch this signal. The elevator will stop and reverse direction and run to the jail level with the doors closed until the door open input is activated from the jailers control station. At that time the system will reset.
 4. Riot Control: Input Riot Control On that will take each elevator and send it nonstop to the field programable level, open the doors and shut down. Riot control can only be rest from remote input Riot Control Off.
- F. Emergency Battery Lowering: Hydraulic Passenger elevator only.
 1. Automatically activates during power loss.
 2. Supplies power for rescue operation.
 3. Causes car to descend smoothly to lowest landing.
 4. Keeps doors closed until proper floor level is reached.
 5. Automatically opens doors at lowest landing.
 6. Safely shuts down elevator until normal power is restored.
 7. Automatically resets for future emergencies.
 8. Differentiates between actual power failure and manual operation of elevator disconnect switch.
- G. Tenant security:
 1. Arrange control system to match existing:

2.06 DOOR OPERATION:

- A. Passenger type:
 1. Provide door times available as specified under "Design Criteria."
 2. Car and hoistway doors shall open and close simultaneously, quietly and smoothly; door movement shall be cushioned at both limits of travel. Door operation shall not cause cars to move appreciably.
 3. Door hold open times shall be readily and independently adjustable when car stops for a car or hall call. Main floor door hold times shall be adjustable independent of other floors.
 4. Provide closed loop regulated speed performance, onboard diagnostics, adjustable times, nudging, and test switches.
- B. Door operator:
 1. Elevator No. All: Provide new heavy-duty master type solid state closed loop door operators mounted on car enclosure utilizing minimum 12-gauge support angles to isolate from direct mounting of operator on the car top.
 2. Pre-approved closed loop heavy duty door operators:
 - a. GAL MOVFR
 3. Provide code compliant door weight data tag.

C. Door Protection:

1. Elevator No. All: Remove existing door protection devices and provide new electronic optical 3D scanning type:
 - a. Provide a door protective system which does not rely on physical contact with a person or object to inhibit door movement or initiate door reversal.
 - b. Pre-approved optical door sensors:
 - 1) Elevator Contractor
 - 2) Adams GateKeeper Max
 - 3) Formula Systems
 - 4) Janus Pana40 Plus
 - 5) Janus Pana Chrome 3D, with voice annunciation
 - 6) Tritronics Leading Edge
 - c. The system shall be able to detect a 2 inch diameter rod introduced at any position within the door movement and between the height of 2 inches and 63 inches above sill level.
 - d. Detection of intrusion into the protected area shall cause the doors, if fully open, to be held in the open position and, if closing, to reverse to fully open position.
 - e. If doors are prevented from closing for an adjustable period of 15 to 45 seconds or upon activation of fire emergency service, they shall proceed to close at reduced speed and a loud buzzer shall sound. Door closing force shall not exceed 2-1/2 ft.-lb. when door re-opening device is not in operation.
 - f. For side-opening doors, the detector for the strike jamb side shall be recessed, flush with strike jamb.

D. Door hold button; Elevator No. Booking:

1. Provide an illuminated door hold button, operation of which will hold the doors open for a predetermined and adjustable period of 20 to 90 seconds. Sound warning buzzer 5 seconds prior to expiration of time. Normal operation shall be resumed upon:
 - a. Expiration of door hold time.
 - b. Operation of door close button in car.
 - c. Operation of any floor button in car.

2.07 SIGNALS AND OPERATING FIXTURES:

A. General:

1. Provide signals and fixtures as shown and specified. Location and arrangement of fixtures shall comply with disabled access requirements.
 - a. Passenger Elevator Buttons: Provide minimum 1-inch diameter mechanical halo style stainless steel buttons, with LED's and engraved identifications. Buttons shall be raised 1/8 inch from surrounding surface with square shoulders.
 - b. Booking Elevator Buttons: Provide vandal-resistant stainless steel minimum 1 inch diameter mechanical buttons with integral illumination. Buttons shall be raised 1/8 inch from surrounding surface with square shoulders. Operation of car or hall button shall cause button to illuminate.
 - c. Switches: Toggle type typically or key operated where noted.
 - d. Provide four (4) keys for each elevator keyed device, with proper labeled identification upon turnover of elevator.

- e. Cabinets: Provide with pulls, concealed hinges and doors mounted flush with hairline joints to adjacent surface.
 - f. Arrangement: Arrangement of fixtures shall generally conform to that specified, but components may be rearranged, if desired, subject to Owner's Representative's approval.
 - g. Engraving: Of size indicated; color backfill with epoxy paint in contrasting color as selected. No applied engraved plates.
 - h. Lamps: Miniature LED type.
 - i. Audible Chimes: Electronic adjustable audible chimes; bell type gong not acceptable.
 - j. Provide floor passing signal of the adjustable electronic audible chime type.
 - k. Tactile Markings: Provide raised Braille and alpha characters, numerals or symbols adjacent to operating buttons and devices used by the public according to local codes. Indications may be engraved directly on faceplates or separate plates flush mounted with hairline joints and concealed mechanical fasteners. Plates shall be of same size and shape as buttons or integral "fishtail" type.
 - l. Acceptable manufacturers: ERM, fixtures with 5/8" engraved identifications. Operation of car or hall button shall cause button to illuminate. Response of car to car or hall call shall cause corresponding button to extinguish.
 - m. Faceplates: Provide of material and finish as indicated and specified; 1/8 inch minimum thickness with sharp edges relieved. Faceplates shall be sized to cover holes left by removal of existing fixtures where new fixtures are provided and provided with engraved fire sign, per A17.1.
 - n. Audible chimes: Electronic adjustable audible chimes from 75 to 85 dB in elevator lobby 3' - 0" above floor and 3' - 0" away from elevator entrance; bell type gong not acceptable.
- B. Car operating panels:
- 1. General: Provide buttons numbered to conform to floors served and the following:
 - a. Locate top operating button at 48 inches above floor.
 - b. Locate emergency stop switch and illuminated alarm button in bottom row at 35 inches above floor.
 - c. Provide "Door Open", "Door Close", and for booking elevator, "Door Hold" buttons located above emergency stop and alarm of same design as car button.
 - d. All signage required by local codes shall be engraved and painted as directed by Owner's representative.
 - e. Provide fire emergency features, per code. Provide FEO-F1 key switch for fire service unless local code requires different.
 - 2. Elevator No. Public and Booking: Provide one new panels per car; integrate cabinets, buttons and engraving into hinged single piece faceplate mounted to front return panel.
 - 3. Elevator No. Release: Provide new to match existing.
- C. Car position indicators:
- 1. Provide car position indicators with 2 inch indications corresponding to floor designations with matching direction arrows. Provide "X" or "E" indications for elevators with express zones.
 - a. Elevator No. Booking and Release: Provide new digital alpha numeric type segmented LED readout indicator with minimum two-inch high indications mounted integral with each car operating panel.

1. Elevator No. Public: Digital Display Screen with Position Indicator; Passenger Elevators: Provide a combination position indicator and digital display screen in passenger elevator front return panel (one per car). Display shall utilize a 10.4" active matrix TFT screen and be powered by a computer with enough memory to support customer specific text and graphics. System shall be equal to CE Electronics Elite Series Displays. Contractor shall coordinate with all sub-contractors for completion and coordination of all related wiring and testing at no additional cost to the Owner.

D. Service cabinet:

1. Provide new cabinet, door with a lock and concealed hinge as an integral part of car operating panel mounted with flush hairline joints. Cabinet door shall be provided with a flush glazed window of required size to hold elevator-operating permit, mounted horizontally. Service cabinet shall contain the following :
 - a. Independent service switch
 - b. Two-speed ventilation switch (Hi-Off-Low)
 - c. Light switch as applicable
 - d. Inspection switch, key operated
 - e. Duplex GFI convenience outlet
 - f. Buzzers as required
 - g. Constant pressure test switch for emergency car lighting
 - h. Card reader over-ride switch-key operated

E. Communication equipment:

1. Elevator No. All: Provide a new complete communication system in compliance with ADA regulations consisting of a combination speaker/microphone, amplifier, automatic dialer with 4 number rollover capability and matching car station push button with telephone symbol to activate system and acknowledgment lights. Mount in car operating panel behind a pattern of holes, wire to machine room and program automatic dialer as directed by Owner's Representative.
2. Jail emergency personnel communication system , Retain Existing:

F. Hall button fixtures:

1. Each fixture shall contain buttons, which light to indicate hall call registration and extinguish when call is answered. Provide intermediate fixtures with two buttons and terminal fixtures with one. Engrave fire-exiting instructions on faceplates. Provide minimum of two fasteners at top and bottom of faceplate.
 - a. Elevator No. Public: Provide each elevator group of elevators with one riser of hall button stations.
 - b. Elevator No. Booking: Provide each elevator group of elevators with one riser of hall stations.
 - c. Elevator No. Release: Retain existing push button stations.

G. Car lanterns: Passenger Elevator

1. Manufacturer's standard dual car riding lantern mounted at a maximum height above floor. Lens shall be flush with faceplate or face of jamb. I usually use the vandal type with the protruding pins so it can be seen from all angles and have a less chance of being damaged..
2. Lantern illuminates and chimes as doors open. Provide single chime for up direction and double chime for down direction.

- H. Remote control stations: Booking and Release Elevator.
 - 1. Provide interface between remote station and controller as specified.
 - a. Provide inputs in the controller to activate door open, door close, Emergency stop and car calls to level 1 and level 3.
 - b. Provide all conduit runs as needed.
- I. Disabled access requirements Public Elevator Only:
 - 1. Provide to meet local codes having jurisdiction including handrail and button configuration.
 - a. Car operating panels: Provide raised Braille and alpha characters, numerals or symbols to the left of operating buttons and devices used by the public. Indications may be engraved directly on faceplates or separate plates flush mounted with hairline joints and concealed mechanical fasteners. Plates shall be of same size and shape as buttons. Raised characters shall be white on a black background with Braille designations directly below the character. Provide "star" at main egress landing.
 - b. Entrances: Provide raised Braille and alpha characters, numerals or symbols similar to those for car stations of size required by governing authority. Locate on each entrance jamb at 60 inches above floor indicating floor designation. Material and finish of plates shall match hall button station faceplates. Provide with contrasting background and mounting means similar to those on car panels. Braille designation shall be to the bottom of the raised character. Provide "star" at main egress landing.
 - c. Entrances: Provide plate with elevator number for first floor entrance. Character shall be a minimum of 3". For Destination Dispatching Systems, Braille shall include the elevator number or letter designation as well as the floor designation.

2.08 WIRING:

- A. General:
 - 1. Provide all necessary wiring and 25% spares between cars and controllers and to all remote control stations; minimum of eight. Furnish shielded wires in cables for all communications card readers, cameras, digital displays, and speakers. Include eight additional pairs of shielded spares and two RG-6 coaxial cables or equivalent, for each car. Electrical wire runs will be free of splices or connection unless at designated junction points.
- B. Traveling Cables:
 - 1. Use minimum number of traveling cables. Include shielded wires and spares as noted above. Cord thoroughly and protect cables from rubbing against hoistways or car items. Provide with steel cable core and properly anchored to relieve strain on individual conductors.
 - 2. All traveling cables shall be wired from machine to elevator, without junction box or spliced connections.
- C. Hoistway Wiring:
 - 1. All wiring shall be neatly terminated, tied within a junction box and properly marked as to its content.
 - 2. If junction boxes are used, NEC approved terminal strips shall be used and properly identified.
 - 3. No splices shall be allowed.

- D. Work light and GFCI convenience outlet:
 - 1. Provide on top of car with protective plastic lamp guard. Provide compact fluorescent type (CFL)
- E. Stop switch:
 - 1. Provide in each pit. Provide NEMA 4 enclosure.
 - 2. Provide on each top of car.
- F. Alarm gong:
 - 1. Provide on top of each car and to be actuated by corresponding alarm button or emergency stop switch.
- G. Auxiliary disconnect switches:
 - 1. Provide as required in remote controller rooms or at remote equipment not in view of mainline switches; include all wiring and conduit.
- H. CCTV circuit:
 - 1. Provide provisions for closed circuit television camera with 2-way audio in elevators. Run from elevator car top to outside of the elevator machine room, mount in location as directed by Owner at no additional cost to the Owner.

2.09 CAR ENCLOSURES:

- A. General:
 - 1. Fabricate finish work smooth and free from warps, buckles, squeaks and rattles; joints lightproof. Car shall be sound isolated from car frame. Paint outside of car with 3/16-inch thick sound deadener. No visible fastenings except as indicated. All stainless surfaces are to have the 3M anti-graffiti material applied.
 - 2. Provide new crosshead data as required by ASME and local code authorities.
- B. Emergency lighting; All elevators:
 - 1. Elevator No. All: Provide an emergency car lighting unit mounted on top of car, battery driven and self-rechargeable. Upon outage of normal power the unit shall, within 5 seconds, light two lamps as part of normal car lighting. The unit shall have sufficient capacity to keep the lights in continuous operation for four hours and the alarm bell for one hour. Provide a readily accessible means for testing the unit in service cabinet. Light fixtures mounted in car front returns or operating panels are not acceptable. Illuminate lights directly over car operating panels.
- C. Elevator No. Booking and Release: Retain existing shell enclosure and rehabilitate as follows:

1. Front returns:	Clad
2. Car operating panels:	Provide new
3. Wall panels:	Refinish (replace any damaged panels)
4. Transom:	Clad
5. Hand rails:	Provide new CA, ADA Compliant Public Elevator only
6. Ceiling and lighting:	Provide new Provide a suspended aluminum frame and tee bar ceiling grid with LED light fixtures to provide uniform illumination of lay-in panels and 25

foot-candles at handrail height. Lay-in panels shall be manufacturer's standard Stainless Steel..

- | | | |
|-----|------------------|--|
| 7. | Ventilation: | Provide new Retain two-speed squirrel cage exhaust blower (Morrison OE, Toshiba FV40) with sound isolation mounting on canopy. |
| 8. | Emergency exit: | Retain, provide code compliant switch (if req.) |
| 9. | Car Doors: | Provide new |
| 10. | Finish flooring: | Provide new resilient rubber flooring of owners choice |

D. Elevator No. Public: Retain existing shell enclosure and rehabilitate as follows:

- | | | |
|-----|-----------------------|---|
| 1. | Front returns: | Clad |
| 2. | Car operating panels: | Provide new |
| 3. | Wall panels: | Provide New |
| 4. | Transom: | Clad |
| 5. | Hand rails: | Provide new CA, ADA Compliant Public Elevator only |
| 6. | Ceiling and lighting: | Provide new Provide a suspended aluminum frame and tee bar ceiling grid with LED light fixtures to provide uniform illumination of lay-in panels and 25 foot-candles at handrail height. Lay-in panels shall be manufacturer's standard Stainless Steel.. |
| 7. | Ventilation: | Provide new Retain two-speed squirrel cage exhaust blower (Morrison OE, Toshiba FV40) with sound isolation mounting on canopy. |
| 8. | Emergency exit: | Retain, provide code compliant switch (if req.) |
| 9. | Car Doors: | Provide new |
| 10. | Finish flooring: | Provide new resilient rubber flooring of owners choice |

2.10 HOISTWAY ENTRANCES; PASSENGER TYPE:

A. General:

1. Retain existing

B. Hangers and Tracks:

1. Elevator No. Public: Provide all new door tracks and hanger assemblies. Sheave type with two-point suspension. Steel sheaves with flanged groove and resilient sound-absorbing tires. Minimum 2-1/2 inch diameter for hoistway, 3 inch for car. Manufacturer's heavy-duty tracks and ball or roller bearing with adjustable up thrusts.
2. Elevator No. Booking and Release: Retain existing door tracks; resurface to provide for smooth operation. Provide new Steel sheaves with flanged groove and resilient sound absorbing tires. Minimum 2-1/2 inch diameter for hoistway, 3 inch for car. Provide with ball or roller bearing with adjustable up thrusts.

- C. Hanger headers:
 - 1. Elevator No. All: Retain existing.
- D. Struts:
 - 1. Elevator No. All: Retain existing and clean.

- E. Closers:
1. Elevator No. All: Provide new cable relating torsion spring mechanical type or broken arm jack knife type as required for door assembly.
- F. Dust and hanger covers:
1. Elevator No. All: Retain existing, clean and refinish with black paint. Replace damaged and missing dust covers.
- G. Fascia, toe and head guards:
1. Elevator No. All: Retain existing, modify to comply with code, refinish with black paint and refasten for greater rigidity.
- H. Interlocks:
1. Elevator No. All: Provide all new. Equip each hoistway door with a tamper-proof interlock which shall prevent operation of the car until doors are locked in the close position as defined by the Code and shall prevent opening of doors at landing from corridor side unless car is at rest at landing in leveling zone or, hoistway access switch is used. Provide all new type "SF" high temperature wiring for interlock circuits.
- I. Pick-up roller assemblies:
1. Elevator No. Booking and Release: Retain existing, replace worn rollers, lubricate linkages and pivot points.
 2. Elevator No. Public: Provide all new pick-up roller assemblies as required for door operating equipment furnished.
- J. Door restrictor:
1. Elevator No. All: Provide new, door restrictor device compatible with new door equipment.
- K. Sills:
1. Elevator No. All: Retain existing, power clean to metal and refinish, full length of sill.
- L. Limit Switches:
1. Elevator No. All: Provide new
- M. Frames:
1. Elevator No..Booking and Release, clad in Stainless Steel
 2. Elevator No. Public: Retain existing. Paint as scheduled.
- N. Hoistway doors:
1. Elevator No. All: Retain existing, re-hang to remove all twists, provide two new gibs per panel and one fire gib per panel which will remain engaged in sill if guiding member is destroyed.
 2. Provide new full height astragals and missing or damaged non vision wings matching finish of door panels. Contractor must use the original reinforcing on existing hoistway and car doors for mounting hangers, pickup rollers, drive vanes, etc. If original reinforcing is not reusable for drive vanes and pickup rollers, Contractor shall furnish new reinforcing (minimum of 1/4" thick plate) welded to the door face. A minimum of four (4) 5/16" threaded bolts is to be used for attachment to the reinforcing plate. Where slotted holes are provided in the attachment block, a 1/4" dowel pin is to be fitted after doors locks are set up. Clean and refinish door panels as scheduled. Door panels to be refinished by others. Vandal resistant paint. Remove door panels before painting.

O. Passenger Elevator Entrance Schedule:

1. Elevator No. Public:

- a. Size: 3' - 6" wide by 7' - 0" high.
- b. Type: Side opening, Single speed
- c. Frames:
 - 1) Main floor: Paint color of Owners choice
 - 2) Typical floors: Paint color of Owners choice
- d. Doors
 - 1) Main floor: Paint color of Owners choice
 - 2) Typical floors: Paint color of Owners choice
- e. Sills:
 - 1) Main floor: Re-finish
 - 2) Typical floors: Re-finish

2. Elevator No. Booking and Release:

- a. Size: 3'-6" wide by 7'-0" high.
- b. Type: Side opening, Single speed
- c. Frames:
 - 1) Main floor: Clad Stainless Steel
 - 2) Typical floors: Clad Stainless Steel
- d. Doors
 - 1) Main floor: New Stainless Steel
 - 2) Typical floors: New Stainless Steel
- e. Sills:
 - 1) Main floor: Re-finish
 - 2) Typical floors: Re-finish

2.11 HYDRAULIC ELEVATOR EQUIPMENT:

A. Design Criteria:

1. Performance:

- a. Contract Speed: Maximum ten percent (10%) speed variation under any loading condition in the up direction.
- b. Motion Time: From start to stop of elevators motion as measured in both directions for a typical one floor run under any loading condition.
 - 1) Elevator No. : 8.0 seconds
- c. Door Open Times:
 - 1) Elevator No. : 2.3 seconds
- d. Door close times: Minimum, without exceeding kinetic energy and closing force, allowed by code.

- e. Door dwell times: Comply with A.D.A. formula and provide separate adjustable timers with initial settings as follows:
 - 1) Main lobby hall call: 5.0 to 6.0 seconds.
 - 2) Upper lobby hall call: 5.0 to 6.0 seconds.
 - 3) Car call: 5.0 to 6.0 seconds. Choose one.
 - 4) Interruption of door protective device: Reduce dwell to 1 second.
 - f. Leveling: Within 1/4 inch under any loading condition. Level into floor at all times, do not overrun floor and level back.
 - g. Hydraulic pressure: Hydraulic components shall be factory tested for 600 PSI. Maximum operating pressure shall be 425 PSI.
2. Operating qualities: Owner's Representative will judge riding qualities of cars and enforce the following requirements. Make all necessary adjustments.
- a. Acceleration and deceleration: Starting and stopping shall be smooth and comfortable, without obvious steps of acceleration. Slowdown, stopping and leveling shall be without jars or bumps. Elevator shall start movement within .5 seconds of fully closed doors. Stopping upon operation of emergency stop switch shall be rapid but not violent.
 - b. Horizontal Acceleration (ISO A95 Scaling): Maximum 10 mg peak-to-peak measured at full speed for full travel in both directions.
 - c. Vertical Vibration: Ride shall be free of vibration throughout acceleration, full speed and deceleration for full travel in both directions.
3. Sound control: (A Scaled – fast – Lmax over the duration of the operation).
- a. Vibration: Sound isolate machines and motor drives from beams and building structure to prevent objectionable noise and vibration transmission to occupied building spaces.
 - b. Airborne noise: Maximum acoustical output level of:
 - 1) 65 dB measured in machine room. With the meter located 3' - 0" from each machine room door at floor level
 - 2) 55 dB measured in elevator cars during all sequences of operation.
 - 3) 50 dB measured in elevator lobbies. From the nearest staff work station to the elevator lobby

2.12 HYDRAULIC HOISTWAY EQUIPMENT:

A. Guide rails and brackets:

- 1. Elevator No. All: Retain existing rails, realign, clean, check, tighten and replace Code non-complying brackets, fishplates and bolts. Provide log of the alignment corrections to the Owner's Representative.

B. Guide shoes:

- 1. Elevator No. All: Provide new guide shoes of the roller type with neoprene tires, minimum 3/4 inch wide and fully adjustable spring loaded to provide continuous contact with rail surfaces. Balance car to insure equal guide shoe pressure on all wheels and not exceed manufacturer's recommendations. Nominal roller diameter shall be 4" 6".
 - a. Static balance car.

C. Buffers:

- 1. Retain existing.

- D. Car frame and platform:
1. Elevator No. All: Retain existing car frame. Clean down and tighten frame bolts. Static balance weight to be added as required.
- E. Platen isolation:
1. Provide minimum 3/4 inch thick steel plates between top of plunger and car frame with 1 inch rubber or neoprene isolation material between.
 - a. Packing: Provide packing, which inhibits leaking of oil with drip ring and means to collect any oil leakage. Example, 5-gallon bucket.
 2. Piping:
 - a. Reuse existing.
 - b. Provide new gaskets for victaulic fittings and test for leaks.
 3. Isolation coupling
 - a. Provide at least two isolation coupling one in the machine room and one in the pit.
- F. Pit Valves:
- 1) Provide in each elevator pit a gate valve to shut off oil between cylinder and pumping plant.
 - 2) Provided new a pressure type line rupture safety valve to shut off oil between cylinder head and pit valve. Activation of safety valve shall not void operation of lowering valve.
- G. Oil:
1. Hydraulic Fluid: USDA certified bio-based product, ultra-low toxicity, "readily" biodegradable, high performing fluid made from rapidly renewable plant stock; with antioxidant, anticorrosive, antifoaming, and metal passivating additives. Hydraulic fluid is approved by elevator manufacture for use with elevator equipment.
 - a. USDA certified bio-based product, >90% bio-based content, per ASTM D6866
 - b. Classified "Readily" biodegradable, per OECD 301B
 - c. >70% Biodegradability, per ASTM D5864
 - d. >20,000 ppm Aquatic toxicity, per EPA-821-R-02-012
 - e. >220 Viscosity Index, ASTM D2270
 - f. 25 Viscosity at 400C, cSt., per ASTM D445
 - g. >2200C, Flash Point, per ASTM D92

2.13 MACHINE ROOM EQUIPMENT:

- A. General:
1. Provide equipment to fit existing space and structural limitations. Coordinate related electrical, structural and mechanical work with other trades.
- B. Pumping plant: Public Elevator Only
1. Provide new.
 - a. General: Self-contained unit with sound reducing cabinet and sound isolated base.

- b. Pump: IMO, Roper or accepted equal for 150 SSU oil, belt driven or submersible. Maximum speed 3600 RPM. Maximum pressure 425 pounds per square inch.
 - c. Tank: Capacity equal to plunger displacement plus 50%. Provide strainers, oil level gauge and device to maintain uniform oil temperature.
 - d. Valves: Integral type by Elevator Equipment Company, Maxton Company or by elevator manufacturer. Provide conveniently located manual lowering valve accessible without removing pumping plant enclosure panels.
 - e. Motor: General Electric, Imperial, Westinghouse or accepted equal; maximum speed 1800 RPM for belt driven and 3600 RPM for submersible. Provide minimum 80 start heavy-duty motor, continuous rated, 50 degrees C. temperature rise, Class A insulation or 70 degrees C. rise for Class B insulation.
 - f. Muffler: Blow-out proof type between pumping plant and cylinder.
- C. Pumping plant: Booking and Public Elevator Only.
1. Retain existing.
 - a. Drain system thoroughly, clean all components, replace worn parts, fill tank to maximum oil level, and adjust for proper operation.
- D. Controller:
1. Integral, floor or wall mounted as applicable to space conditions. Include door operating relays combined with controller. Provide solid state soft starting with starting switches rated at minimum 57% of horsepower rating. IEC method of line starter application is unacceptable. Provide three (3) manual reset overload relays, one in each line and reverse phase relay. Provide externally mounted permanently identified junction boxes on controller cabinets for termination of communication circuits. Pre-approved controllers:
 - a. Motion Control Engineering HMC-2000
- E. Hydraulic elevator protective circuit:
1. In the event the car should stall due to low oil in the system or, if for other cause the car fails to reach the top landing within a predetermined time while traveling "up", a special circuit shall be provided which shall automatically return the car to the bottom landing and open the doors for 10 seconds after which the elevator will close doors and completely shut down. Recycling the mainline switch shall restore Service.
- F. Hydraulic elevator battery emergency lowering operation: Public Elevator Only.
1. Provide a battery driven unit which will initiate operation of the Protective Circuit and lower elevator to bottom landing in the event of a power failure.
 2. Service shall be restored automatically upon restoration of normal power supply.
 3. Arrange with an exposed method of testing.
 4. Arrange circuitry so that, if the mainline switch is open when the power transfer takes place, the elevator will not respond to the operation of the protective circuit.
 5. Provide a double pole-isolating switch on the battery unit to disconnect the battery output.

PART 3 - EXECUTION:

3.01 INSTALLATION:

- A. General:
 - 1. Install per manufacturer's requirements, those of regulatory agencies and as specified.
- B. Welded Construction:
 - 1. Provide welded connections for installation of elevator work where bolted connections are not required for subsequent removal or for normal operation, adjustments, inspection, maintenance and replacement of worn parts.
 - 2. Comply with AWS standards for workmanship and for qualifications of welding operators.
- C. Sound Isolation:
 - 1. Mount rotating and vibrating elevator equipment and components on vibration-absorption mounts, designed to effectively prevent transmission of vibrations to structure and thereby, eliminate sources of structure-borne noise from elevator system.
- D. Lubrication:
 - 1. Lubricate operating parts of systems as recommended by manufacturer.
- E. Hazardous Disposal Certification:
 - 1. Contractor to provide oil and hazardous waste removal documentation per required EPA standards. Provide copy of documentation to Owner.
- F. Alignment:
 - 1. Coordinate alignment of hoistway entrances with elevator guide rails, for accurate alignment of entrances with cars. Where possible, delay final adjustment of sills and doors until car is operable in shaft. Reduce clearances to minimum, safe workable dimensions at each landing.
 - 2. Align guide rails plumb and parallel with maximum deviation of 1/16 inch. Anchorage of guide rails in pits shall not compromise waterproofing.
- G. Graphics:
 - 1. Provide graphics visible to public as selected by Owner's Representative.
- H. Manufacturer's nameplates:
 - 1. Manufacturer's nameplates, trademarks or logos not permitted on surfaces visible to public.
- I. Cleaning of the installation:
 - 1. After the installation of each elevator has been completed and immediately prior to the carrying out of the tests, the machine room and all equipment therein, the elevator hoistways including outside of car and all ledges and similar areas, the elevator pit and equipment therein, and all door hanger runners, guides, tracks and sills shall be thoroughly cleaned down, preferably with vacuum cleaning equipment, and all dust, fluff, dirt, grit, excessive oil and grease and rubbish shall be removed from site.
- J. Finish painting after tests:
 - 1. After satisfactory completion of the tests, any damage to the paint work shall be made good and the installation re-cleaned, if necessary, after which at least one final coat of gloss oil resistant or enamelized paint shall be applied by brushing or spraying in Contractor's customary colors to all the existing and new equipment in the machine room and also to such items in the hoistway or elsewhere which have received only a primer coat.

2. Painting shall be performed either during normal working hours or after hours at no additional cost to the Owner.
- K. Painting of machine room floor, walls and pit floors:
1. After the completion of the entire installation, the floor and walls of each machine room and pit areas shall be thoroughly cleaned down and brush painted with one coat of traffic paint having oil resistant properties. Pit floors shall be painted after the completion of the waterproofing. Owner's Representative will advise the color.
 2. Painting shall be performed either during normal working hours or after hours at no additional cost to the Owner.

3.02 NOISE CONTROL:

- A. General:
1. Contractor, in the preparation and the execution of the work, shall recognize the particular and mandatory requirements of the remodeling project due to the character of the work and the use occupancy of the building.
 2. Contractor shall perform all noisy work as directed by Owner's Representative.
- B. Building operations:
1. Noise and vibration generated by this construction for this work may, at times, create a problem for the operations of the building. In the event the noise produced by the construction work conflicts with the building function, Contractor, at the request of the Owner's Representative, shall reduce or stop the noise.
 2. All disruptive work including removal of old materials and deliveries of new materials shall be done on overtime at no additional cost to Owner.
 3. All disruptive work will be performed after hours at no additional cost to Owner.
- C. Measurement:
1. The noise level shall be measured on the "A" Scale of a sound level meter as follows:
 - a. With the meter located 3' - 0" from the nearest staff work station to the elevator lobby, the sound level shall not exceed 65 db.
 - b. With the meter located 3' - 0" from outside of each machine room door at floor level, the sound level shall not exceed 70 db.
 - c. With the meter located 3' - 0" from any hoistway door at any level, the sound level shall not exceed 70 db.
- D. Types of noise generating work:
1. All heavy demolition (concrete walls and floors).
 2. All grinding, chipping, pounding, sanding and cutting of holes and core drilling.

3.03 FIELD QUALITY CONTROL:

- A. Regulatory agencies inspection:
1. Upon completion of elevators, Contractor shall provide instruments, weights and personnel to conduct test required by regulatory agencies. Contractor shall submit a complete report describing the results of the tests.
- B. Examination and testing:
1. When installation is ready for final acceptance, notify and assist Owner's Representative in making a walk-through inspection of entire installation to assure workmanship and

equipment complies with contract documents. Provide equipment to perform the following tests:

- a. One-hour heat and run test with full load in car. Perform for one car of each duty.
 - 1) Stop car at each floor in each direction.
 - 2) Verify that temperatures do not exceed manufacturer's motor ratings.
 - 3) Performance and leveling tests shall be made before and after heat and run test.
 - b. Check and verify operation of all safety features and special operations.
 - 1) Measure horizontal acceleration.
 - 2) Measure acoustical output levels in machine room, lobbies and cars.
- C. Correction:
1. Make corrections to defects or discrepancies at no cost to Owner's Representative. Should discrepancies be such that re-examination and retesting is required, Contractor shall pay for all costs including those of Owner's Representative's fees.
- D. Final acceptance:
1. Final acceptance of the installation will be made only after all corrections are complete, final submittals and certificates received and the Owner's Representative is satisfied and the installation is complete in all respects. Final payment will not be made until the above is completed.

3.04 INSTRUCTIONS:

- A. Instruct Owner's personnel in proper use of each system.

3.05 PROJECT RECORD DOCUMENTS:

- A. As-built drawings:
 1. Contractor shall maintain at the job site a separate and complete set of contract drawings which will be used solely for the purpose of recording changes made in any portion of the work during the course of construction, regardless of the reason for such change.
 2. Changes, as they occur, will be marked on the record set of drawings on a daily basis.
 3. The monthly payment will be withheld until the Owner's Representative has verified that "as-built" corrections are current. Before final payment is authorized, Contractor shall certify that all changes in the work are included on the drawings and will deliver such to the Owner's Representative.
- B. Record drawings:
 1. Contractor shall prepare "as-built" drawings in duplicate of any changes to electrical work on prints supplied by the Owner's Representative. During the course of construction, actual locations to scale shall be shown for all runs of mechanical and electrical work, installed in walls and floors or otherwise concealed. This shall cover all piping, electrical wiring; whether in conduit or cable, duct work, etc. shall be located, in addition, by dimension. All services shall be identified in ink on the prints.
 2. In addition, Contractor shall keep a complete record copy of the plans and specifications for the use in preparing "as-built" plans and specifications at the end of the job. Contractor shall sign and date the prints and deliver them to the Owner's Representative.

3.06 MAINTENANCE:

- A. General: No 12 month warranty maintenance to be provided. Warranty parts and warranty call backs and repairs only.
- B. Call-Backs: In event of failures, provide 24 hour call-back service at no additional cost to Owner.
- C. Elevator Shutdowns:
 - 1. Should any elevator become inoperative, repair within 24 hours of notification of such failure. Breakdown of major components shall be completed and service restored within 72 hours.
 - 2. Failure to comply with above, Owner may order the work done by other contractors at the Contractor's expense.
 - 3. Devices repaired or replaced by others shall, nevertheless, become provided with maintenance by the Contractor who shall become completely responsible for correct operation of such devices for lifetime of this contract.
- D. Quotation: Base bid shall include cost of maintenance and materials as described above.

END OF SECTION