	STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES **Division of Facilities Construction and Management**	**DFCM**

STANDARD LOW BID PROJECT INVITATIONAL

September 27, 2007

ELEVATOR UPGRADE ADMINISTRATION BUILDING

OFFICE OF EDUCATION
SALT LAKE CITY, UTAH

DFCM Project Number 07055200

Lerch Bates and Associates
8089 South Lincoln, Suite 300
Littleton, Colorado 80122

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Current copies of the following documents are hereby made part of these contract documents by reference. These documents are available on the DFCM web site at http://dfcm.utah.gov or are available upon request from DFCM.

DFCM General Conditions dated May 25, 2005.
DFCM Application and Certification for Payment dated May 25, 2005.

Technical Specifications : Lerch Bates and Associates
Drawings:

The Agreement and General Conditions dated May 25, 2005 have been updated from versions that were formally adopted and in use prior to this date. The changes made to the General Conditions are identified in a document entitled Revisions to General Conditions that is available on DFCM's web site at http://dfcm.utah.gov

INVITATION TO BID

Only firms that have been invited to submit bids on this project are allowed to bid on this project.

Sealed bids will be received by the Division of Facilities Construction and Management (DFCM) for:

ELEVATOR UPGRADE – ADMINISTRATION BUILDING
OFFICE OF EDUCATION - SALT LAKE CITY, UTAH
DFCM PROJECT NO: 07055200

Company	Contact	Fax
Otis Elevator	Alan Samson	801-466-1217
Schindler Elevator Corporation	Diane Rawson	801-487-0308
ThyssenKrupp Elevator	Gregg Fowler	801-908-7437

Bids will be in accordance with the Contract Documents that will be available at 4:00 PM on Thursday, September 27, 2007, and distributed in electronic format only on CDs from DFCM, 4110 State Office Building, Salt Lake City, Utah and on the DFCM web page at http://dfcm.utah.gov. For questions regarding this project, please contact Robert Franson, DFCM, at 801-652-2099. No others are to be contacted regarding this bidding process. The construction budget for this project is $529,000.

A **mandatory** pre-bid meeting will be held at 10:00 AM on Tuesday, October 2, 2007 at the Office of Education Administration Building, 250 East 500 South, Salt Lake City, Utah. All bidders wishing to bid on this project are required to attend this meeting.

Bids will be received until the hour of 3:00 PM on Thursday, October 11, 2007 at DFCM, 4ll0 State Office Building, Salt Lake City, Utah 84114. Bids will be opened and read aloud in the DFCM Conference Room, 4110 State Office Building, Salt Lake City, Utah. NOTE: Bids must be received at 4110 State Office Building by the specified time.

A bid bond in the amount of five percent (5%) of the bid amount, made payable to the Division of Facilities Construction and Management on DFCM's bid bond form, shall accompany the bid.

The Division of Facilities Construction and Management reserves the right to reject any or all bids or to waive any formality or technicality in any bid in the interest of DFCM.

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT
Marla Workman, Contract Coordinator
4110 State Office Building, Salt Lake City, Utah 84114

PROJECT DESCRIPTION

Modernize two hydraulic elevators.

Provide all labor, engineering, tools, transportation, services, supervision, materials, equipment and related building work necessary for and incidental to satisfactory completion of required work as indicated in contract documents.

Provide all required staging, hoisting and movement of new equipment, reused equipment, or removal of existing equipment.

PROJECT SCHEDULE

PROJECT NAME:	**ELEVATOR UPGRADE – ADMINISTRATION BUILDING OFFICE OF EDUCATION – SALT LAKE CITY, UTAH**
DFCM PROJECT NO.	**07055200**

Event	Day	Date	Time	Place
Bidding Documents Available	Thursday	September 27, 2007	4:00 PM	DFCM 4110 State Office Bldg SLC, UT and the DFCM web site *
Mandatory Pre-bid Site Meeting	Tuesday	October 2, 2007	10:00 AM	Administration Building Office of Education 250 East 500 South SLC, UT
Last Day to Submit Questions	Friday	October 5, 2007	4:00 PM	Robert Franson – DFCM E-mail robertfranson@utah.gov Fax 801-538-3267
Addendum Deadline (exception for bid delays)	Tuesday	October 9, 2007	2:00 PM	DFCM web site *
Prime Contractors Turn In Bid and Bid Bond	Thursday	October 11, 2007	3:00 PM	DFCM 4110 State Office Bldg SLC, UT
Sub-contractor List Due	Friday	October 12, 2007	3:00 PM	DFCM 4110 State Office Bldg SLC, UT Fax 801-538-3677
Substantial Completion Date	Thursday	July 31, 2008	5:00 PM	

* **NOTE: DFCM's web site address is http://dfcm.utah.gov**

BID FORM

NAME OF BIDDER _____ DATE _____

To the Division of Facilities Construction and Management
4110 State Office Building
Salt Lake City, Utah 84114

The undersigned, responsive to the "Notice to Contractors" and in accordance with the "Instructions to Bidders", in compliance with your invitation for bids for the **ELEVATOR UPGRADE – ADMINISTRATION BUILDING OFFICE OF EDUCATION – SALT LAKE CITY, UTAH – DFCM PROJECT NO. 07055200** and having examined the Contract Documents and the site of the proposed Work and being familiar with all of the conditions surrounding the construction of the proposed Project, including the availability of labor, hereby proposes to furnish all labor, materials and supplies as required for the Work in accordance with the Contract Documents as specified and within the time set forth and at the price stated below. This price is to cover all expenses incurred in performing the Work required under the Contract Documents of which this bid is a part:

I/We acknowledge receipt of the following Addenda: _____

For all work shown on the Drawings and described in the Specifications and Contract Documents, I/we agree to perform for the sum of:

_____ DOLLARS ($_____)
(In case of discrepancy, written amount shall govern)

I/We guarantee that the Work will be Substantially Complete by **July 31, 2008**, should I/we be the successful bidder, and agree to pay liquidated damages in the amount of **$500.00** per day for each day after expiration of the Contract Time as stated in Article 3 of the Contractor's Agreement.

This bid shall be good for 45 days after bid opening.

Enclosed is a 5% bid bond, as required, in the sum of _____

The undersigned Contractor's License Number for Utah is _____.

Upon receipt of notice of award of this bid, the undersigned agrees to execute the contract within ten (10) days, unless a shorter time is specified in the Contract Documents, and deliver acceptable Performance and Payment bonds in the prescribed form in the amount of 100% of the Contract Sum for faithful performance of the contract.

The Bid Bond attached, in the amount not less than five percent (5%) of the above bid sum, shall become the property of the Division of Facilities Construction and Management as liquidated damages for delay and additional expense caused thereby in the event that the contract is not executed and/or acceptable l00% Performance and Payment bonds are not delivered within the time set forth.

Type of Organization:

_____
(Corporation, Partnership, Individual, etc.)

Any request and information related to Utah Preference Laws:

_____

Respectfully submitted,

_____
Name of Bidder

ADDRESS:

_____

_____

_____
Authorized Signature

INSTRUCTIONS TO BIDDERS

1. Drawings and Specifications, Other Contract Documents

Drawings and Specifications, as well as other available Contract Documents, may be obtained as stated in the Invitation to Bid.

2. Bids

Before submitting a bid, each contractor shall carefully examine the Contract Documents, shall visit the site of the Work; shall fully inform themselves as to all existing conditions and limitations; and shall include in the bid the cost of all items required by the Contract Documents. If the bidder observes that portions of the Contract Documents are at variance with applicable laws, building codes, rules, regulations or contain obvious erroneous or uncoordinated information, the bidder shall promptly notify the DFCM Representative and the necessary changes shall be accomplished by Addendum.

The bid, bearing original signatures, must be typed or handwritten in ink on the Bid Form provided in the procurement documents and submitted in a sealed envelope at the location specified by the Invitation to Bid prior to the deadline for submission of bids.

Bid bond security, in the amount of five percent (5%) of the bid, made payable to the Division of Facilities Construction and Management, shall accompany bid. THE BID BOND MUST BE ON THE BID BOND FORM PROVIDED IN THE PROCUREMENT DOCUMENTS IN ORDER TO BE CONSIDERED AN ACCEPTABLE BID.

If the bid bond security is submitted on a bid bond form other than DFCM's required bid bond form, and the bid security meets all other legal requirements, the bidder will be allowed to provide an acceptable bid bond by the close of business on the next business day following notification by DFCM of submission of a defective bid bond security. **NOTE: A cashier's check cannot be used as a substitute for a bid bond.**

3. Contract and Bond

The Contractor's Agreement will be in the form found in the specifications. The Contract Time will be as indicated in the bid. The successful bidder, simultaneously with the execution of the Contract Agreement, will be required to furnish a performance bond and a payment bond, both bearing original signatures, upon the forms provided in the procurement documents. The performance and payment bonds shall be for an amount equal to one hundred percent (100%) of the contract sum and secured from a company that meets the requirements specified in the requisite forms. Any bonding requirements for subcontractors will be specified in the Supplementary General Conditions.

4. Listing of Subcontractors

Listing of Subcontractors shall be as summarized in the "Instructions and Subcontractor's List Form", which are included as part of these Contract Documents. The Subcontractors List shall be delivered to DFCM or faxed to DFCM at (801)538-3677 within 24 hours of the bid opening. Requirements for listing additional subcontractors will be listed in the Contract Documents.

DFCM retains the right to audit or take other steps necessary to confirm compliance with requirements for the listing and changing of subcontractors. Any contractor who is found to not be in compliance with these requirements is subject to a debarment hearing and may be debarred from consideration for award of contracts for a period of up to three years.

5. Interpretation of Drawings and Specifications

If any person or entity contemplating submitting a bid is in doubt as to the meaning of any part of the drawings, specifications or other Contract Documents, such person shall submit to the DFCM Project Manager a request for an interpretation thereof. The person or entity submitting the request will be responsible for its prompt delivery. Any interpretation of the proposed documents will be made only by addenda posted on DFCM's web site at http://dfcm.utah.gov. Neither the DFCM nor A/E will be responsible for any other explanations or interpretations of the proposed documents. A/E shall be deemed to refer to the architect or engineer hired by DFCM as the A/E or Consultant for the Project.

6. Addenda

Addenda will be posted on DFCM's web site at http://dfcm.utah.gov. Contractors are responsible for obtaining information contained in each addendum from the web site. Addenda issued prior to the submittal deadline shall become part of the bidding process and must be acknowledged on the bid form. Failure to acknowledge addenda may result in disqualification from bidding.

7. Award of Contract

The Contract will be awarded as soon as possible to the lowest, responsive and responsible bidder, based on the lowest combination of base bid and acceptable prioritized alternates, provided the bid is reasonable, is in the interests of the State of Utah to accept and after applying the Utah Preference Laws in U.C.A. Title 63, Chapter 56. DFCM reserves the right to waive any technicalities or formalities in any bid or in the bidding. Alternates will be accepted on a prioritized basis with Alternate 1 being highest priority, Alternate 2 having second priority, etc.

8. DFCM Contractor Performance Rating

As a contractor completes each DFCM project, DFCM, the architect/engineer and the using agency will evaluate project performance based on the enclosed "DFCM Contractor Performance Rating" form. The ratings issued on this project will not affect this project but may affect the award on future projects.

9. Licensure

The Contractor shall comply with and require all of its subcontractors to comply with the license laws as required by the State of Utah.

10. Permits

In concurrence with the requirements for permitting in the General Conditions, it is the responsibility of the Contractor to obtain the fugitive dust plan requirements from the Utah Division of Air Quality and the SWPPP requirements from the Utah Department of Environmental Quality and submit the completed forms and pay any permit fee that may be required for this specific project. Failure to obtain the required permit may result in work stoppage and/or fines from the regulating authority that will be the sole responsibility of the Contractor. Any delay to the project as a result of any such failure to obtain the permit or noncompliance with the permit shall not be eligible for any extension in the Contract Time.

11. Right to Reject Bids

DFCM reserves the right to reject any or all Bids.

12. Time is of the Essence

Time is of the essence in regard to all the requirements of the Contract Documents.

13. Withdrawal of Bids

Bids may be withdrawn on written request received from bidder prior to the time fixed for opening. Negligence on the part of the bidder in preparing the bid confers no right for the withdrawal of the bid after it has been opened.

14. Product Approvals

Where reference is made to one or more proprietary products in the Contract Documents, but restrictive descriptive materials of one or more manufacturer(s) is referred to in the Contract Documents, the products of other manufacturers will be accepted, provided they equal or exceed the standards set forth in the drawings and specifications and are compatible with the intent and purpose of

the design, subject to the written approval of the A/E. Such written approval must occur prior to the deadline established for the last scheduled addenda to be issued. The A/E's written approval will be in an issued addendum. If the descriptive material is not restrictive, the products of other manufacturers specified will be accepted without prior approval provided they are compatible with the intent and purpose of the design as determined by the A/E.

15. Financial Responsibility of Contractors, Subcontractors and Sub-subcontractors

Contractors shall respond promptly to any inquiry in writing by DFCM to any concern of financial responsibility of the contractor, subcontractor or sub-subcontractor.

16. Debarment

By submitting a bid, the Contractor certifies that neither it nor its principals, including project and site managers, have been, or are under consideration for, debarment or suspension, or any action that would exclude such from participation in a construction contract by any governmental department or agency. If the Contractor cannot certify this statement, attach to the bid a detailed written explanation which must be reviewed and approved by DFCM as part of the requirements for award of the Project.

BID BOND

(Title 63, Chapter 56, U. C. A. l953, as Amended)

KNOW ALL PERSONS BY THESE PRESENTS:

That _____ hereinafter referred to as the "Principal," and_____, a corporation organized and existing under the laws of the State of _____, with its principal office in the City of _____ and authorized to transact business in this State and U. S. Department of the Treasury Listed, (Circular 570, Companies Holding Certificates of Authority as Acceptable Securities on Federal Bonds and as Acceptable Reinsuring Companies); hereinafter referred to as the "Surety," are held and firmly bound unto the STATE OF UTAH, hereinafter referred to as the "Obligee," in the amount of $_____ (5% of the accompanying bid), being the sum of this Bond to which payment the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted to Obligee the accompanying bid incorporated by reference herein, dated as shown, to enter into a contract in writing for the_____ _____ Project.

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that if the said principal does not execute a contract and give bond to be approved by the Obligee for the faithful performance thereof within ten (10) days after being notified in writing of such contract to the principal, then the sum of the amount stated above will be forfeited to the State of Utah as liquidated damages and not as a penalty; if the said principal shall execute a contract and give bond to be approved by the Obligee for the faithful performance thereof within ten (10) days after being notified in writing of such contract to the Principal, then this obligation shall be null and void. It is expressly understood and agreed that the liability of the Surety for any and all defaults of the Principal hereunder shall be the full penal sum of this Bond. The Surety, for value received, hereby stipulates and agrees that obligations of the Surety under this Bond shall be for a term of sixty (60) days from actual date of the bid opening.

PROVIDED, HOWEVER, that this Bond is executed pursuant to provisions of Title 63, Chapter 56, Utah Code Annotated, 1953, as amended, and all liabilities on this Bond shall be determined in accordance with said provisions to same extent as if it were copied at length herein.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their several seals on the date indicated below, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

DATED this _____ day of _____, 20_____ .

Principal's name and address (if other than a corporation):

_____

_____

By:_____

Title: _____

Principal's name and address (if a corporation):

_____

_____

By:_____

Title: _____

(Affix Corporate Seal)

Surety's name and address:

_____

_____

By: _____

Attorney-in-Fact (Affix Corporate Seal)

STATE OF _____)
) ss.
COUNTY OF _____)

On this ____ day of _____, 20____, personally appeared before me _____, whose identity is personally known to me or proved to me on the basis of satisfactory evidence, and who, being by me duly sworn, did say that he/she is the Attorney-in-fact of the above-named Surety Company, and that he/she is duly authorized to execute the same and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations, and that he/she acknowledged to me that as Attorney-in-fact executed the same.

Subscribed and sworn to before me this _____ day of _____, 20_____.
My Commission Expires: _____
Resides at: _____

_____
NOTARY PUBLIC

Agency: _____
Agent: _____
Address: _____
Phone: _____

Approved As To Form: May 25, 2005
By Alan S. Bachman, Asst Attorney General

INSTRUCTIONS AND SUBCONTRACTORS LIST FORM

The three low bidders, as well as all other bidders that desire to be considered, are required by law to submit to DFCM within 24 hours of bid opening a list of **ALL** first-tier subcontractors, including the subcontractor's name, bid amount and other information required by Building Board Rule and as stated in these Contract Documents, on the following basis:

PROJECTS UNDER $500,000 - ALL SUBS $20,000 OR OVER MUST BE LISTED
PROJECTS $500,000 OR MORE - ALL SUBS $35,000 OR OVER MUST BE LISTED

- Any additional subcontractors identified in the bid documents shall also be listed.
- The DFCM Director may not consider any bid submitted by a bidder if the bidder fails to submit a subcontractor list meeting the requirements of State law.
- List subcontractors for base bid as well as the impact on the list that the selection of any alternate may have.
- Bidder may not list more than one subcontractor to perform the same work.
- Bidder must list "Self" if performing work itself.

LICENSURE:

The subcontractor's name, the type of work, the subcontractor's bid amount, and the subcontractor's license number as issued by DOPL, if such license is required under Utah Law, shall be listed. Bidder shall certify that all subcontractors, required to be licensed, are licensed as required by State law. A subcontractor includes a trade contractor or specialty contractor and does not include suppliers who provide only materials, equipment, or supplies to a contractor or subcontractor.

BIDDER LISTING 'SELF' AS PERFORMING THE WORK:

Any bidder that is properly licensed for the particular work and intends to perform that work itself in lieu of a subcontractor that would otherwise be required to be on the subcontractor list, must insert the term 'Self' for that category on the subcontractor list form. Any listing of 'Self' on the sublist form shall also include the amount allocated for that work.

'SPECIAL EXCEPTION':

A bidder may list 'Special Exception' in place of a subcontractor when the bidder intends to obtain a subcontractor to perform the work at a later date because the bidder was unable to obtain a qualified or reasonable bid under the provisions of U.C.A.Section 63A-5-208(4). The bidder shall insert the term 'Special Exception' for that category of work, and shall provide documentation with the subcontractor list describing the bidder's efforts to obtain a bid of a qualified subcontractor at a reasonable cost and why the bidder was unable to obtain a qualified subcontractor bid. The Director must find that the bidder complied in good faith with State law requirements for any 'Special Exception' designation, in order for the bid to be considered. If awarded the contract, the Director shall supervise the bidder's efforts to obtain a qualified subcontractor bid. The amount of the awarded contract may not be adjusted to reflect the actual amount of the subcontractor's bid. Any listing of 'Special Exception' on the sublist form shall also include amount allocated for that work.

GROUNDS FOR DISQUALIFICATION:

The Director may not consider any bid submitted by a bidder if the bidder fails to submit a subcontractor list meeting the requirements of State law. Director may withhold awarding the contract to a particular bidder if one or more of the proposed subcontractors are considered by the Director to be unqualified to do the Work or for such other reason in the best interest of the State of Utah. Notwithstanding any other provision in these instructions, if there is a good faith error on the sublist form, at the sole discretion of the Director, the Director may provide notice to the contractor and the contractor shall have 24 hours to submit the correction to the Director. If such correction is submitted timely, then the sublist requirements shall be considered met.

CHANGES OF SUBCONTRACTORS SPECIFICALLY IDENTIFIED ON SUBLIST FORM:

Subsequent to twenty-four hours after the bid opening, the contractor may change its listed subcontractors only after receiving written permission from the Director based on complying with all of the following criteria.

(1) The contractor has established in writing that the change is in the best interest of the State and that the contractor establishes an appropriate reason for the change, which may include, but not is not limited to, the following reasons: the original subcontractor has failed to perform, or is not qualified or capable of performing, and/or the subcontractor has requested in writing to be released.
(2) The circumstances related to the request for the change do not indicate any bad faith in the original listing of the subcontractors.
(3) Any requirement set forth by the Director to ensure that the process used to select a new subcontractor does not give rise to bid shopping.
(4) Any increase in the cost of the subject subcontractor work is borne by the contractor.
(5) Any decrease in the cost of the subject subcontractor work shall result in a deductive change order being issued for the contract for such decreased amount.
(6) The Director will give substantial weight to whether the subcontractor has consented in writing to being removed unless the Contractor establishes that the subcontractor is not qualified for the work.

EXAMPLE:

Example of a list where there are only four subcontractors:

TYPE OF WORK	SUBCONTRACTOR, "SELF" OR "SPECIAL EXCEPTION"	SUBCONTRACTOR BID AMOUNT	CONT. LICENSE #
ELECTRICAL	ABCD Electric Inc.	$350,000.00	123456789000
LANDSCAPING	"Self"	300,000.00	123456789000
CONCRETE (ALTERNATE #1)	XYZ Concrete Inc	298,000.00	987654321000
MECHANICAL	"Special Exception" (attach documentation)	Fixed at: 350,000.00	(TO BE PROVIDED AFTER OBTAINING SUBCONTRACTOR)

PURSUANT TO STATE LAW - SUBCONTRACTOR BID AMOUNTS CONTAINED IN THIS SUBCONTRACTOR LIST SHALL NOT BE DISCLOSED UNTIL THE CONTRACT HAS BEEN AWARDED.

STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and

DFCM

SUBCONTRACTORS LIST

FAX TO 801-538-3677

PROJECT TITLE: _____

Caution: You must read and comply fully with instructions.

TYPE OF WORK	SUBCONTRACTOR, "SELF" OR "SPECIAL EXCEPTION"	SUBCONTRACTOR BID AMOUNT	CONT. LICENSE #

We certify that:

1. This list includes all subcontractors as required by the instructions, including those related to the base bid as well as any alternates.
2. We have listed "Self" or "Special Exception" in accordance with the instructions.
3. All subcontractors are appropriately licensed as required by State law.

FIRM: _____

DATE: _____ SIGNED BY: _____

NOTICE: FAILURE TO SUBMIT THIS FORM, PROPERLY COMPLETED AND SIGNED, AS REQUIRED IN THESE CONTRACT DOCUMENTS, SHALL BE GROUNDS FOR DFCMS REFUSAL TO ENTER INTO A WRITTEN CONTRACT WITH BIDDER. ACTION MAY BE TAKEN AGAINST BIDDERS BID BOND AS DEEMED APPROPRIATE BY DFCM. ATTACH A SECOND PAGE IF NECESSARY.

CONTRACTOR'S AGREEMENT

FOR:

_____
_____
_____

THIS CONTRACTOR'S AGREEMENT, made and entered into this ____ day of _____, 20__, by and between the DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT, hereinafter referred to as "DFCM", and _____, incorporated in the State of _____ and authorized to do business in the State of Utah, hereinafter referred to as "Contractor", whose address is _____.

WITNESSETH: WHEREAS, DFCM intends to have Work performed at _____ _____.

WHEREAS, Contractor agrees to perform the Work for the sum stated herein.

NOW, THEREFORE, DFCM and Contractor for the consideration provided in this Contractor's Agreement, agree as follows:

ARTICLE 1. SCOPE OF WORK. The Work to be performed shall be in accordance with the Contract Documents prepared by _____ and entitled "_____."

The DFCM General Conditions ("General Conditions") dated May 25, 2005 on file at the office of DFCM and available on the DFCM website, are hereby incorporated by reference as part of this Agreement and are included in the specifications for this Project. All terms used in this Contractor's Agreement shall be as defined in the Contract Documents, and in particular, the General Conditions.

The Contractor Agrees to furnish labor, materials and equipment to complete the Work as required in the Contract Documents which are hereby incorporated by reference. It is understood and agreed by the parties hereto that all Work shall be performed as required in the Contract Documents and shall be subject to inspection and approval of DFCM or its authorized representative. The relationship of the Contractor to the DFCM hereunder is that of an independent Contractor.

ARTICLE 2. CONTRACT SUM. The DFCM agrees to pay and the Contractor agrees to accept in full performance of this Contractor's Agreement, the sum of _____ _____ DOLLARS AND NO CENTS ($_____.00), which is the base bid, and which sum also includes the cost of a 100% Performance Bond and a 100%

Payment Bond as well as all insurance requirements of the Contractor. Said bonds have already been posted by the Contractor pursuant to State law. The required proof of insurance certificates have been delivered to DFCM in accordance with the General Conditions before the execution of this Contractor's Agreement.

ARTICLE 3. TIME OF COMPLETION AND DELAY REMEDY. The Work shall be Substantially Complete by _____. Contractor agrees to pay liquidated damages in the amount of $_____ per day for each day after expiration of the Contract Time until the Contractor achieves Substantial Completion in accordance with the Contract Documents, if Contractor's delay makes the damages applicable. The provision for liquidated damages is: (a) to compensate the DFCM for delay only; (b) is provided for herein because actual damages can not be readily ascertained at the time of execution of this Contractor's Agreement; (c) is not a penalty; and (d) shall not prevent the DFCM from maintaining Claims for other non-delay damages, such as costs to complete or remedy defective Work.

No action shall be maintained by the Contractor, including its or Subcontractor or suppliers at any tier, against the DFCM or State of Utah for damages or other claims due to losses attributable to hindrances or delays from any cause whatsoever, including acts and omissions of the DFCM or its officers, employees or agents, except as expressly provided in the General Conditions. The Contractor may receive a written extension of time, signed by the DFCM, in which to complete the Work under this Contractor's Agreement in accordance with the General Conditions.

ARTICLE 4. CONTRACT DOCUMENTS. The Contract Documents consist of this Contractor's Agreement, the Conditions of the Contract (DFCM General Conditions, Supplementary and other Conditions), the Drawings, Specifications, Addenda and Modifications. The Contract Documents shall also include the bidding documents, including the Invitation to Bid, Instructions to Bidders/ Proposers and the Bid/Proposal, to the extent not in conflict therewith and other documents and oral presentations that are documented as an attachment to the contract.

All such documents are hereby incorporated by reference herein. Any reference in this Contractor's Agreement to certain provisions of the Contract Documents shall in no way be construed as to lessen the importance or applicability of any other provisions of the Contract Documents.

ARTICLE 5. PAYMENT. The DFCM agrees to pay the Contractor from time to time as the Work progresses, but not more than once each month after the date of Notice to Proceed, and only upon Certificate of the A/E for Work performed during the preceding calendar month, ninety-five percent (95%) of the value of the labor performed and ninety-five percent (95%) of the value of materials furnished in place or on the site. The Contractor agrees to furnish to the DFCM invoices for materials purchased and on the site but not installed, for which the Contractor requests payment and agrees to

safeguard and protect such equipment or materials and is responsible for safekeeping thereof and if such be stolen, lost or destroyed, to replace same.

Such evidence of labor performed and materials furnished as the DFCM may reasonably require shall be supplied by the Contractor at the time of request for Certificate of Payment on account. Materials for which payment has been made cannot be removed from the job site without DFCM's written approval. Five percent (5%) of the earned amount shall be retained from each monthly payment. The retainage, including any additional retainage imposed and the release of any retainage, shall be in accordance with UCA 13-8-5 as amended. Contractor shall also comply with the requirements of UCA 13-8-5, including restrictions of retainage regarding subcontractors and the distribution of interest earned on the retention proceeds. The DFCM shall not be responsible for enforcing the Contractor's obligations under State law in fulfilling the retention law requirements with subcontractors at any tier.

ARTICLE 6. INDEBTEDNESS. Before final payment is made, the Contractor must submit evidence satisfactory to the DFCM that all payrolls, materials bills, subcontracts at any tier and outstanding indebtedness in connection with the Work have been properly paid. Final Payment will be made after receipt of said evidence, final acceptance of the Work by the DFCM as well as compliance with the applicable provisions of the General Conditions.

Contractor shall respond immediately to any inquiry in writing by DFCM as to any concern of financial responsibility and DFCM reserves the right to request any waivers, releases or bonds from Contractor in regard to any rights of Subcontractors (including suppliers) at any tier or any third parties prior to any payment by DFCM to Contractor.

ARTICLE 7. ADDITIONAL WORK. It is understood and agreed by the parties hereto that no money will be paid to the Contractor for additional labor or materials furnished unless a new contract in writing or a Modification hereof in accordance with the General Conditions and the Contract Documents for such additional labor or materials has been executed. The DFCM specifically reserves the right to modify or amend this Contractor's Agreement and the total sum due hereunder either by enlarging or restricting the scope of the Work.

ARTICLE 8. INSPECTIONS. The Work shall be inspected for acceptance in accordance with the General Conditions.

ARTICLE 9. DISPUTES. Any dispute, PRE or Claim between the parties shall be subject to the provisions of Article 7 of the General Conditions. DFCM reserves all rights to pursue its rights and remedies as provided in the General Conditions.

ARTICLE 10. TERMINATION, SUSPENSION OR ABANDONMENT. This Contractor's Agreement may be terminated, suspended or abandoned in accordance with the General Conditions.

ARTICLE 11. DFCM'S RIGHT TO WITHHOLD CERTAIN AMOUNT AND MAKE USE THEREOF. The DFCM may withhold from payment to the Contractor such amount as, in DFCM's judgment, may be necessary to pay just claims against the Contractor or Subcontractor at any tier for labor and services rendered and materials furnished in and about the Work. The DFCM may apply such withheld amounts for the payment of such claims in DFCM's discretion. In so doing, the DFCM shall be deemed the agent of Contractor and payment so made by the DFCM shall be considered as payment made under this Contractor's Agreement by the DFCM to the Contractor. DFCM shall not be liable to the Contractor for any such payment made in good faith. Such withholdings and payments may be made without prior approval of the Contractor and may be also be prior to any determination as a result of any dispute, PRE, Claim or litigation.

ARTICLE 12. INDEMNIFICATION. The Contractor shall comply with the indemnification provisions of the General Conditions.

ARTICLE 13. SUCCESSORS AND ASSIGNMENT OF CONTRACT. The DFCM and Contractor, respectively bind themselves, their partners, successors, assigns and legal representatives to the other party to this Agreement, and to partners, successors, assigns and legal representatives of such other party with respect to all covenants, provisions, rights and responsibilities of this Contractor’s Agreement. The Contractor shall not assign this Contractor’s Agreement without the prior written consent of the DFCM, nor shall the Contractor assign any moneys due or to become due as well as any rights under this Contractor’s Agreement, without prior written consent of the DFCM.

ARTICLE 14. RELATIONSHIP OF THE PARTIES. The Contractor accepts the relationship of trust and confidence established by this Contractor's Agreement and covenants with the DFCM to cooperate with the DFCM and A/E and use the Contractor's best skill, efforts and judgment in furthering the interest of the DFCM; to furnish efficient business administration and supervision; to make best efforts to furnish at all times an adequate supply of workers and materials; and to perform the Work in the best and most expeditious and economic manner consistent with the interests of the DFCM.

ARTICLE 15. AUTHORITY TO EXECUTE AND PERFORM AGREEMENT. Contractor and DFCM each represent that the execution of this Contractor's Agreement and the performance thereunder is within their respective duly authorized powers.

ARTICLE 16. ATTORNEY FEES AND COSTS. Except as otherwise provided in the dispute resolution provisions of the General Conditions, the prevailing party shall be entitled to reasonable attorney fees and costs incurred in any action in the District Court and/or appellate body to enforce this Contractor's Agreement or recover damages or any other action as a result of a breach thereof.

IN WITNESS WHEREOF, the parties hereto have executed this Contractor's Agreement on the day and year stated hereinabove.

CONTRACTOR: _____

_____
Signature Date

Title: _____

State of _____)
)
County of _____)

_____
Please type/print name clearly

On this ____ day of _____, 20____, personally appeared before me, _____, whose identity is personally known to me (or proved to me on the basis of satisfactory evidence) and who by me duly sworn (or affirmed), did say that he (she) is the _____ (title or office) of the firm and that said document was signed by him (her) in behalf of said firm.

_____
Notary Public

(SEAL)

My Commission Expires _____

APPROVED AS TO AVAILABILITY OF FUNDS:

_____
David D. Williams, Jr. Date
DFCM Administrative Services Director

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT

_____
_____- Manager Date
Capital Development/Improvements

APPROVED AS TO FORM:
ATTORNEY GENERAL
November 30, 2006
By: Alan S. Bachman
Asst Attorney General

APPROVED FOR EXPENDITURE:

_____
Division of Finance Date

PERFORMANCE BOND

(Title 63, Chapter 56, U. C. A. 1953, as Amended)

That _____ hereinafter referred to as the "Principal" and _____, a corporation organized and existing under the laws of the State of _____, with its principal office in the City of _____ and authorized to transact business in this State and U. S. Department of the Treasury Listed (Circular 570, Companies Holding Certificates of Authority as Acceptable Securities on Federal Bonds and as Acceptable Reinsuring Companies); hereinafter referred to as the "Surety," are held and firmly bound unto the State of Utah, hereinafter referred to as the "Obligee, " in the amount of _____ _____ DOLLARS ($_____) for the payment whereof, the said Principal and Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Contract with the Obligee, dated the _____ day of _____, 20____, to construct _____ in the County of _____, State of Utah, Project No. _____, for the approximate sum of _____ _____ Dollars ($_____), which Contract is hereby incorporated by reference herein.

NOW, THEREFORE, the condition of this obligation is such that if the said Principal shall faithfully perform the Contract in accordance with the Contract Documents including, but not limited to, the Plans, Specifications and conditions thereof, the one year performance warranty, and the terms of the Contract as said Contract may be subject to Modifications or changes, then this obligation shall be void; otherwise it shall remain in full force and effect.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the state named herein or the heirs, executors, administrators or successors of the Owner.

The parties agree that the dispute provisions provided in the Contract Documents apply and shall constitute the sole dispute procedures of the parties.

PROVIDED, HOWEVER, that this Bond is executed pursuant to the Provisions of Title 63, Chapter 56, Utah Code Annotated, 1953, as amended, and all liabilities on this Bond shall be determined in accordance with said provisions to the same extent as if it were copied at length herein.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20_____.

WITNESS OR ATTESTATION:

_____

PRINCIPAL:

_____

By: _____ (Seal)

Title: _____

WITNESS OR ATTESTATION:

_____

SURETY:

_____

By: _____

Attorney-in-Fact (Seal)

STATE OF _____)
) ss.
COUNTY OF _____)

On this _____ day of _____, 20___, personally appeared before me _____, whose identity is personally known to me or proved to me on the basis of satisfactory evidence, and who, being by me duly sworn, did say that he/she is the Attorney in-fact of the above-named Surety Company and that he/she is duly authorized to execute the same and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations, and that he/she acknowledged to me that as Attorney-in-fact executed the same.

Subscribed and sworn to before me this _____ day of _____, 20_____.

My commission expires: _____
Resides at: _____

_____
NOTARY PUBLIC

Agency: _____
Agent: _____
Address: _____
Phone: _____

Approved As To Form: May 25, 2005
By Alan S. Bachman, Asst Attorney General

PAYMENT BOND

(Title 63, Chapter 56, U. C. A. l953, as Amended)

KNOW ALL PERSONS BY THESE PRESENTS:

That _____ hereinafter referred to as the "Principal," and _____ _____, a corporation organized and existing under the laws of the State of _____authorized to do business in this State and U. S. Department of the Treasury Listed (Circular 570, Companies Holding Certificates of Authority as Acceptable Securities on Federal Bonds and as Acceptable Reinsuring Companies); with its principal office in the City of _____, hereinafter referred to as the "Surety," are held and firmly bound unto the State of Utah hereinafter referred to as the "Obligee," in the amount of _____ Dollars ($_____) for the payment whereof, the said Principal and Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Contract with the Obligee, dated the _____ day of _____, 20____, to construct _____ in the County of _____, State of Utah, Project No. _____ for the approximate sum of _____ _____ Dollars ($_____), which contract is hereby incorporated by reference herein.

NOW, THEREFORE, the condition of this obligation is such that if the said Principal shall pay all claimants supplying labor or materials to Principal or Principal's Subcontractors in compliance with the provisions of Title 63, Chapter 56, of Utah Code Annotated, l953, as amended, and in the prosecution of the Work provided for in said Contract, then, this obligation shall be void; otherwise it shall remain in full force and effect.

That said Surety to this Bond, for value received, hereby stipulates and agrees that no changes, extensions of time, alterations or additions to the terms of the Contract or to the Work to be performed thereunder, or the specifications or drawings accompanying same shall in any way affect its obligation on this Bond, and does hereby waive notice of any such changes, extensions of time, alterations or additions to the terms of the Contract or to the Work or to the specifications or drawings and agrees that they shall become part of the Contract Documents.

PROVIDED, HOWEVER, that this Bond is executed pursuant to the provisions of Title 63, Chapter 56, Utah Code Annotated, 1953, as amended, and all liabilities on this Bond shall be determined in accordance with said provisions to the same extent as if it were copied at length herein.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20____.

WITNESS OR ATTESTATION:

_____

PRINCIPAL:

_____

By: _____
(Seal)

Title: _____

WITNESS OR ATTESTATION:

_____

SURETY:

_____

By: _____
Attorney-in-Fact (Seal)

STATE OF _____)
) ss.
COUNTY OF _____)

On this _____ day of _____, 20_____, personally appeared before me _____ _____, whose identity is personally known to me or proved to me on the basis of satisfactory evidence, and who, being by me duly sworn, did say that he/she is the Attorney-in-fact of the above-named Surety Company, and that he/she is duly authorized to execute the same and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations, and that he/she acknowledged to me that as Attorney-in-fact executed the same.

Subscribed and sworn to before me this _____ day of _____, 20_____.

My commission expires: _____
Resides at: _____

_____
NOTARY PUBLIC

Agency: _____
Agent: _____
Address: _____
Phone: _____

Approved As To Form: May 25, 2005
By Alan S. Bachman, Asst Attorney General

STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and Management

DFCM

CERTIFICATE OF SUBSTANTIAL COMPLETION

PROJECT _____ PROJECT NO: _____
AGENCY/INSTITUTION _____

AREA ACCEPTED _____

The Work performed under the subject Contract has been reviewed on this date and found to be Substantially Completed as defined in the General Conditions; including that the construction is sufficiently completed in accordance with the Contract Documents, as modified by any change orders agreed to by the parties, so that the State of Utah can occupy the Project or specified area of the Project for the use for which it is intended.

The DFCM - (Owner) accepts the Project or specified area of the Project as Substantially Complete and will assume full possession of the Project or specified area of the Project at _____ (time) on _____ (date).

The DFCM accepts the Project for occupancy and agrees to assume full responsibility for maintenance and operation, including utilities and insurance, of the Project subject to the itemized responsibilities and/or exceptions noted below:

_____

_____

The Owner acknowledges receipt of the following closeout and transition materials:

As-built Drawings | O & M Manuals | Warranty Documents | Completion of Training Requirements

A list of items to be completed or corrected (Punch List) is attached hereto. The failure to include an item on it does not alter the responsibility of the Contractor to complete all the Work in accordance with the Contract Documents, including authorized changes thereof. The amount of _____(Twice the value of the punch list work) shall be retained to assure the completion of the punch list work.

The Contractor shall complete or correct the Work on the list of (Punch List) items appended hereto within _____ ____calendar days from the above date of issuance of this Certificate. The amount withheld pending completion of the list of items noted and agreed to shall be: $_____. If the list of items is not completed within the time allotted the Owner has the right to be compensated for the delays and/or complete the work with the help of independent contractor at the expense of the retained project funds. If the retained project funds are insufficient to cover the delay/completion damages, the Owner shall be promptly reimbursed for the balance of the funds needed to compensate the Owner.

_____ by: _____
CONTRACTOR (include name of firm) (Signature) DATE

_____ by: _____
A/E (include name of firm) (Signature) DATE

_____ by: _____
USING INSTITUTION OR AGENCY (Signature) DATE

_____ by: _____
DFCM (Owner) (Signature) DATE

4110 State Office Building, Salt Lake City, Utah 84114 cc: Parties Noted
telephone 801-538-3018 • facsimile 801-538-3267 • http://dfcm.utah.gov DFCM, Director

STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and Management

DFCM

General Contractor Performance Rating Form

Project Name:		DFCM Project#	
Contractor: (ABC Construction, John Doe, 111-111-1111)	A/E: (ABC Architects, Jane Doe, 222-222-2222)	Original Contract Amount:	Final Contract Amount:
DFCM Project Manager:		Contract Date:	
Completion Date:		Date of Rating:	

Rating Guideline	QUALITY OF PRODUCT OR SERVICES	COST CONTROL	TIMELINESS OF PERFORMANCE	BUSINESS RELATIONS
5-Exceptional	Contractor has demonstrated an exceptional performance level in any of the above four categories that justifies adding a point to the score. Contractor performance clearly exceeds the performance levels described as "Very Good"			
4-Very Good	Contractor is in compliance with contract requirements and/or delivers quality product/service.	Contractor is effective in managing costs and submits current, accurate, and complete billings	Contractor is effective in meeting milestones and delivery schedule	Response to inquiries, technical/service/ administrative issues is effective
3-Satisfactory	Minor inefficiencies/errors have been identified	Contractor is usually effective in managing cost	Contractor is usually effective in meeting milestones and delivery schedules	Response to inquires technical/ service/administrative issues is somewhat effective
2-Marginal	Major problems have been encountered	Contractor is having major difficulty managing cost effectively	Contractor is having major difficulty meeting milestones and delivery schedule	Response to inquiries, technical/service/administrative issues is marginally effective
1-Unsatisfactory	Contractor is not in compliance and is jeopardizing achievement of contract objectives	Contractor is unable to manage costs effectively	Contractor delays are jeopardizing performance of contract objectives	Response to inquiries, technical/service/administrative issues is not effective

1. Rate Contractors quality of workmanship, management of sub contractor performance, project cleanliness, organization and safety requirement.	**Score**
Agency Comments:	
A & E Comments:	
DFCM Project Manager Comments:	

2. Rate Contractor administration of project costs, change orders and financial management of the project budget.	Score
Agency Comments:	
A & E Comments:	
DFCM Project Manager Comments:	

3. Rate Contractor's performance and adherence to Project Schedule, delay procedures and requirements of substantial completion, inspection and punch-list performance.	Score
Agency Comments:	
A & E Comments:	
DFCM Project Manager Comments:	

4. Evaluate performance of contractor management team including project manager, engineer and superintendent also include in the rating team's ability to work well with owner, user agency and consultants.	Score
Agency Comments:	
A & E Comments:	
DFCM Project Manager Comments:	

5. Rate success of Contractor's management plan, completion of the plans mitigation of project risks and performance of value engineering concepts.	Score
Agency Comments:	
A & E Comments:	
DFCM Project Manager Comments:	

Signed by:	Date:	Mean Score

Additional Comments:

HYDRAULIC ELEVATOR MODERNIZATION DRAFT BID SPECIFICATION

BOARD OF EDUCATION BUILDING
SALT LAKE CITY, UTAH

JULY 23, 2007

Prepared For:

MR. BOB ANDERSON
STATE OF UTAH DFCM HAZ-MAT MANAGER
STATE OF UTAH OFFICE BUILDING NO. 4110
SALT LAKE CITY, UT 84114
801 538-3624, FAX 801 538-3267

Prepared By:

V. QUENTIN BATES, JR., P.E.
PRINCIPAL
LERCH, BATES & ASSOCIATES INC.
8089 S. LINCOLN, SUITE 300
LITTLETON, CO 80122
303 795-7956, FAX 303 797-7109

LBA Project No. 0100000456-01

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SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

A. Base Bid: Modernize two hydraulic passenger elevators.

B. Provide all labor, engineering, tools, transportation, services, supervision, materials and equipment necessary for and incidental to satisfactory completion of required work as indicated in Contract Documents.

C. Provide all required staging, hoisting and movement of new equipment, reused equipment, or removal of existing equipment.

D. Applicable conditions of DFCM invitation to bid, instructions to bidders and other bid/construction requirements.

E. Scope of Contract includes, but is not limited to, the following:
1. Coordination, scheduling and management of work of component suppliers and subcontractors.
2. Modernize or furnish and install equipment as specified utilizing existing hoistways and machine rooms.
3. Specific item of required work which cannot be determined to be included in another contract is thereby determined to be included in this contract.
4. Coordinating and assisting other Contractors or Owner's forces in completing work not included in the elevator modernization contract.
5. All associated building work.

1.02 ELEVATOR CONTRACTOR'S USE OF PREMISES

A. Confine operations at site to areas permitted by law, ordinances, permits, Contract Documents, and Owner's specific instructions.

B. Do not unreasonably encumber site with materials or equipment. Staging area will be located as directed by Owner.

C. Do not load structure with weight that will endanger structure. Coordinate with Owner.

D. Assume full responsibility for protection and safekeeping of tools and products stored on or off premises.

E. Move stored products which interfere with operations of building or the operations of other trades.

F. Obtain and pay for use of additional storage or work areas needed for operations.

1.03 CONCURRENT MODERNIZATION WORK AND BUILDING OPERATION

A. This project is an elevator modernization in existing buildings which are open for public business which will continue to operate throughout all phases of required work. It is essential that Elevator Contractor give special attention and priority to all matters concerning project safety, protection from dust and

loose materials, reduction of noise level, protection from water and air infiltration into building, and maintenance of neat, sightly conditions in and around work areas inside and outside of building. Packaging, scrap materials and demolition debris shall be promptly removed from buildings and sites on a daily basis.

B. At all times, Elevator Contractor shall provide clearly visible warning and directions signs, barricades, temporary lighting, overhead protection and hazard-free walking surfaces throughout public area. At all times, special attention must be given to building entrances, exits and proper safe exiting through work areas as required by law.

Elevator Contractor shall consult Owner and other Contractors to establish and maintain safe temporary routes including, but not limited to, proper barricades, walking surfaces, lighting, fire protection, exiting, warning and directional signs and general protection of persons from all hazards in accordance with OSHA Standards due wholly or partially to its operations.

1.04 WORK SCHEDULE REQUIREMENTS

Only one elevator may be out of service for modernization at a time.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

SECTION 01030

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SECTION 01030

ALTERNATES

PART 1 GENERAL

1.01 SCOPE

A. Provide material and labor required for complete execution of accepted alternates. Comply with all provisions of the Contract Documents.

1.02 ALTERNATES

A. Alternate No. 1: Overlay existing steel frames with no lighter than 18 gage brushed stainless steel. Modify door gap so that overlay does not scrape door panel face when doors are in motion.

B. Alternate No. 2: Replace existing wood car enclosures as follows:
1. Shell: Reinforced 14 gauge furniture steel formed panels with baked enamel interior finish. Apply sound-deadening mastic to exterior.
2. Canopy: Reinforced 12 gauge furniture steel formed panels with lockable, hinged emergency exit. Interior finish white reflective baked enamel.
3. Front Return Panels and Integral Entrance Columns: Reinforced 14 gauge stainless steel satin finish with cutouts for car operating panel.
4. Transom: Reinforced 14 gauge stainless steel, satin finish full width of enclosure.
5. Car Door Panels: Reinforced minimum 16 gauge stainless steel, satin finish. Same construction as hoistway door panels. Architectural metal cladding shall wrap around leading and trailing edge of panel and return a minimum of ½" on rear side of leading edge of panel.
6. Base: Brushed stainless steel with concealed ventilation cutouts.
7. Interior Wall Finish: Removable panels, faced and edged on sides and lower edge, with burnished stainless steel sheet not less than 16 gauge thickness with 3/8"± stainless steel reveal between and above panels. Submit minimum 12" x 12" samples of burnished pattern for approval
8. Ventilation: Two-speed type OE exhaust blower mounted to car canopy on isolated rubber grommets. Exhaust blower shall meet requirements of Item 2.03, I.
9. Lighting: Provide direct incandescent fixture in drop ceiling faced with mirror finish stainless steel or material of similar appearance with wiring and hookup. Coordinate with emergency lighting requirements. Provide emergency lighting integral with portion of normal car lighting system. Include required transformer.
10. Handrails: Minimum 1-1/4" diameter stainless steel tubular grab bar across rear wall.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

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SECTION 01040

PROJECT PROCEDURES

PART 1 GENERAL

1.01 APPLICABLE CODES

A. Compliance with Regulatory Agencies: Comply with most stringent applicable provisions of following Codes, laws, and/or Authorities, including revisions and changes being enforced by the Governing Jurisdiction;
1. Safety Code for Elevators and Escalators, ASME A17.1
2. Guide for Inspection of Elevators, Escalators, and Moving Walks, ASME A17.2
3. Elevator and Escalator Electrical Equipment, ASME A17.5
4. National Electrical Code, NFPA 70
5. Americans with Disabilities Act, ADA
6. Local Fire Authority
7. Requirements of IBC and all other Codes, Ordinances and Laws applicable within the governing jurisdiction
8. Life Safety Code, NFPA 101.

1.02 STAGING AREA

The Owner will designate an equipment staging area in each building. Elevator Contractor shall restrict usage to area designated and shall notify Owner/ prior to storing of any large equipment which will impose heavy concentrated loading on floor area. Do not store such equipment until approval is received.

1.03 OCCUPANCY AND WORK BY OTHERS

A. Elevator Contractor expressly affirms Owner's rights to let other contracts and employ other Contractors in connection with required work. Elevator Contractor will afford other Contractors and their workmen reasonable opportunity for introduction and storage of materials and equipment, for execution of their work and will properly connect and coordinate his work with theirs. Elevator Contractor will also incorporate comparable provisions in all its subcontracts.

B. Elevator Contractor declares that other Contractors employed by Owner on basis of separate contracts may proceed at such times as necessary to install items of work required by Owner.

C. Elevator Contractor declares that it will cooperate with Owner's work force and other Contractors employed by Owner and, in addition to other coordination and expediting efforts, will coordinate their work by written notices regarding necessity of such work to be done on or before certain dates.

D. Elevator Contractor declares that it is responsible for review, stamped and signed approval of all shop drawings for required work.

E. Elevator Contractor hereby declares that content of foregoing paragraphs, and influence they may have on project:
1. Shall not cause a change in stipulated Contract Sum
2. Shall not cause a change in Construction Time Schedule

END OF SECTION

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SECTION 01300

SUBMITTALS

PART 1 GENERAL

1.01 SUBMITTALS

A. Within 30 calendar days after award of contract and before beginning equipment fabrication, submit shop drawings and required material samples for review. Allow 15 days for response to initial submittal.
   1. Scaled or Fully Dimensioned Layout: Plan of machine room indicating equipment arrangement and details of all new fixtures.
   2. Power Confirmation Information: Verify existing and design for those conditions.
   3. Fixtures: Cuts, samples, or shop drawings.
   4. Finish Material: Submit samples of finished material if requested. Compliance with other requirements is the exclusive responsibility of the Elevator Contractor. Include, if requested, samples of fixtures, lights, graphics, Braille plates, and detail of mounting provisions.
   5. Design Information: Provide calculations verifying the adequacy of existing electrical provisions.

B. Submittal review shall not be construed as an indication that submittal is correct or suitable, or that the work represented by submittal complies with the Contract Documents. Compliance with Contract Documents, Code requirements, dimensions, fit, and interface with other work is Elevator Contractor's responsibility.

C. Acknowledge and/or respond to review comments within 14 calendar days of return. Promptly incorporate required changes due to inaccurate data or incomplete definition so that delivery and installation schedules are not affected. Identify and cloud drawing revisions, including Elevator Contractor elective revisions on each re-submittal. Elevator Contractor's revision response time is not justification for equipment delivery or installation delay.

1.02 FINAL CONTRACT DOCUMENTS

See Section 01700, Project Closeout.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

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SECTION 01600

MATERIAL AND HANDLING

PART 1 GENERAL

1.01 SITE CONDITION INSPECTION

A. Prior to beginning installation of equipment, examine hoistways and machine room areas. Verify that no irregularities exist which affect execution of work specified.

B. Do not proceed with installation until work in place conforms to project requirements.

1.02 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver material in Elevator Contractor's original, unopened protective packaging.

B. Store material in original protective packaging. Prevent soiling, physical damage, or moisture damage.

C. Protect equipment and exposed finishes from damage and stains during transportation, erection, and construction.

D. Allocate available site storage areas and coordinate their use with Owner and other Contractors.

E. Provide suitable temporary weather-tight storage facilities as may be required for materials that will be stored in the open.

1.03 INSTALLATION REQUIREMENTS

A. Install all equipment in accordance with Elevator Contractor's instructions, referenced Codes, specification and approved submittals.

B. Install machine room equipment with clearances in accordance with referenced Codes and specification.

C. Install all equipment so it may be easily removed for maintenance and repair.

D. Install all equipment for ease of maintenance.

E. Install all equipment to afford maximum accessibility, safety, and continuity of operation.

F. Remove oil, grease, scale, and other foreign matter from the following equipment and apply one coat of field-applied machinery enamel.
   1. All exposed equipment and metal work installed as part of this work which does not have architectural finish.
   2. Machine room equipment, hoistway equipment including guide rails, guide rail brackets, and pit equipment.
   3. Neatly touch up damaged retained components with factory-painted surfaces with original paint color. Protect machine-finish surfaces against corrosion.

1.04 MANUFACTURER'S NAMEPLATES

A. Manufacturer's name plates and other identifying markings shall not be affixed on surfaces exposed to public view. This requirement does not apply to Underwriter's Laboratories and code required labels.

B. Each major component of mechanical and electrical equipment shall have identification plate with the Manufacturer's name, address, model number rating and any other information required by Governing Codes.

1.05 COLORS OF FACTORY-FINISHED EQUIPMENT

A. All colors will be selected from the Manufacturer's standard range unless custom colors are specified herein.

B. Submit samples of all standard colors available and/or specified custom colors for review and approval. See Section 01300, Submittals

C. Submit samples of all specified architectural metals specified for review and approval. See Section 01300, Submittals.

1.06 MATERIALS AND FINISHES

A. Steel:
1. Sheet Steel (Furniture Steel for Exposed Work): Stretcher-leveled, cold-rolled, commercial quality carbon steel, complying with ASTM A366, matte finish.
2. Sheet Steel (for Unexposed Work): Hot-rolled, commercial quality carbon steel, pickled and oiled, complying with ASTM A568/A568M-03.
3. Structural Steel Shapes and Plates: ASTM A36.

B. Stainless Steel: Type 304 or 316 complying with ASTM A240, with standard tempers and hardness required for fabrication, strength and durability. Apply mechanical finish on fabricated work in the locations shown or specified, (Federal Standard and NAAMM nomenclature). Protect with adhesive paper covering.
1. Satin: Directional polish finish (US 32D). Graining directions as shown or, if not shown, in longest dimension.
2. Burnished: Non-directional, random abrasion pattern.

C. Plastic Laminate: ASTM E84 Class A and NEMA LD3.1, Fire-Rated Grade (GP-50), Type 7, 0.050" ±.005" thick, color and texture as follows;
1. Exposed Surfaces: Color and texture selected by Architect.
2. Concealed Surfaces: Elevator Contractor's standard color and finish.

D. Fire-Retardant Treated Particle Board Panels: Minimum 3/4" thick backup for natural finished wood and plastic laminate veneered panels, edged and faced as shown, provided with suitable anti-warp backing; meet ASTM E84 Class "I" rating with a flame-spread rating of 25 or less, registered with Local Authorities for elevator finish materials.

E. Paint: Clean exposed metal parts and assemblies of oil, grease, scale, and other foreign matter and factory paint one shop coat of standard rust-resistant primer. After erection, provide one finish coat of industrial enamel paint. Galvanized metal need not be painted.

F. Prime Finish: Clean all metal surfaces receiving a baked enamel paint finish of oil, grease, and scale. Apply one coat of rust-resistant primer followed by a filler coat over uneven surfaces. Sand smooth and apply final coat of primer.

G. Baked Enamel Finish: Prime finish per above. Unless specified "prime finish" only, apply and bake three (3) additional coats of enamel in the selected solid color.

H. Entrance Support Equipment within Hoistway: Include strut angles, headers, sill support angles, fascia, hanger covers, etc. Clean, remove and or check for corrosive activity. Replace components that exhibit severe deterioration. Tighten all fastenings.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

SECTION 01700

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SECTION 01700

FINAL CONTRACT COMPLIANCE REVIEW

PART 1 GENERAL

1.01 FINAL CLEANING

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

1.02 CONSULTANT'S FINAL OBSERVATION AND REVIEW REQUIREMENTS

A. Review procedure shall apply to the individual elevator being modernized.

B. Elevator Contractor shall perform review and evaluation of all aspects of its work prior to requesting Consultant's substantial completion review. Work shall be considered ready for Consultant's final contract compliance review when copies of Elevator Contractor's test and review sheets are available for Consultant's review and all elements of work or a designated portion thereof are in place and elevator is deemed ready for service as intended.

C. Furnish labor, materials, and equipment necessary for Consultant's review. Notify Consultant five (5) working days in advance when ready for final review of elevator.

D. Consultant's written list of observed deficiencies of materials, equipment and operating systems will be submitted to Elevator Contractor for corrective action. Consultant's review shall include as a minimum:
1. Workmanship and equipment compliance with Contract Documents.
2. Contract speed, capacity, floor-to-floor, and door performance comply with Contract Documents.
3. Performance of following is satisfactory:
   a. Starting, accelerating, running
   b. Decelerating, stopping accuracy
   c. Door operation and closing force
   d. Equipment noise levels
   e. Signal fixture utility
   f. Overall ride quality
   g. Performance of door control devices
4. Test Results: In all test conditions, obtain specified contract speed, performance times, stopping accuracy without re-leveling, and ride quality to satisfaction of Owner and Consultant. Tests shall be conducted under both no load and full load condition.

E. Performance Guarantee: Should Consultant's review identify defects, poor workmanship, variance or noncompliance with requirements of specified Codes and/or ordinances, or variance or noncompliance with the requirements of Contract Documents, Elevator Contractor shall complete corrective work in an expedient manner to satisfaction of Owner and Consultant at no cost as follows;

1. Replace equipment that does not meet Code or Contract Document requirements.
2. Perform work and furnish labor, materials and equipment necessary to meet specified operation and performance.
3. Perform retesting required by Governing Code Authority, Owner and Consultant.

F. A follow-up final contract compliance review shall be performed by Consultant after notification by Elevator Contractor that all deficiencies have been corrected. Provide Consultant with copies of the initial deficiency report marked to indicate items which Elevator Contractor considers complete.

1.03 OWNER'S INFORMATION

A. Provide three sets of neatly bound written information necessary for proper maintenance and adjustment of equipment within 30 days following final acceptance. Final retention will be withheld until data is received by Owner and reviewed by Consultant. Include the following as minimums:
1. Straight-line wiring diagrams of "as-installed" elevator circuits, with index of location and function of components. Provide one set reproducible master. Mount one set wiring diagrams on panels, racked, or similarly protected, in elevator machine room. Provide remaining set rolled and in a protective drawing tube. Maintain all drawing sets with addition of all subsequent changes. These diagrams are Owner's property.
2. Lubrication instructions, including recommended grade of lubricants.
3. Parts catalogs for all replaceable parts on new equipment including ordering forms and instructions.
4. Four sets of keys for all switches and control features properly tagged and marked.
5. Neatly bound instructions explaining all operating features including all apparatus in the car and lobby control panels.
6. Neatly bound maintenance and adjustment instructions explaining areas to be addressed, methods and procedures to be used, and specified tolerances to be maintained for all equipment.
7. Diagnostic equipment complete with access codes, adjusters manuals and set-up manuals for adjustment, diagnosis and troubleshooting of elevator system and performance of routine safety tests.

B. Non-Proprietary Equipment Design: Provide three sets of neatly bound written information necessary for proper maintenance and adjustment for equipment of within 30 days following final acceptance. Final retention will be withheld until data is received by Owner and reviewed by Consultant. Include the following as minimums;
1. Straight-line wiring diagrams of "as-installed" elevator circuits, with index of location and function of components. Provide one set reproducible master. Mount one set wiring diagrams on panels, racked, or similarly protected, in elevator machine room. Provide remaining set rolled and in a protective drawing tube. Maintain all drawing sets with addition of all subsequent changes. These diagrams are Owner's property. A legend sheet shall be furnished with each set of drawings to provide the following information;
   a. Name and symbol of each relay, switch, or other apparatus.
   b. Location on drawings, drawing sheet number and area, and location of all contacts.
   c. Location of apparatus, whether on controller or on car.
2. Printed instructions explaining all operating features.
3. Complete software documentation for all installed equipment.
4. Lubrication instructions, including recommended grade of lubricants.
5. Parts catalogs listing all replaceable parts including Elevator Contractor's identifying numbers and ordering instructions.
6. Four sets of keys for all switches and control features properly tagged and marked.
7. Diagnostic test devices together with all supporting information necessary for interpretation of test data and troubleshooting of elevator system, and performance of routine safety tests.

8. The elevator installation shall be a design that can be maintained by any licensed elevator maintenance company employing journeymen mechanics, without the need to purchase or lease additional diagnostic devices, special tools, or instructions from the original equipment Elevator Contractor.
    a. Provide on site capability to diagnose faults to the level of individual circuit boards and individual discreet components for the solid state elevator controller.
    b. Provide a separate, detachable device as part of this installation if the equipment for fault diagnosis is not completely self-contained within the controller. Such device shall be in possession of and become property of the Owner. With a vision screen with maximum dimension of 9”.
    c. Installed equipment not meeting this requirement shall be removed and replaced with conforming equipment at no cost to the Owner.
9. Provide upgrades and/or revisions of software during the progress of the work, warranty period and the term of the ongoing maintenance agreement between the Owner and Elevator Contractor.

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

END OF SECTION

SECTION 01800

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SECTION 01800

MAINTENANCE

PART 1 GENERAL

1.01 MAINTENANCE GENERAL

Provide all maintenance in accordance with the contract form included in Section 14325.

1.02 INTERIM MAINTENANCE

A. Provide preventive maintenance and regular time call backs commencing as agreed upon with State as soon after notification of award as practical. Include in modernization cost quotation.

B. Use competent personnel, acceptable to the Owner, employed and supervised by Elevator Contractor.

1.03 WARRANTY MAINTENANCE

A. Quote monthly cost for twelve (12) month warranty maintenance commencing upon final acceptance of the modernized elevators. Submit quote based upon terms and conditions of the Owner's Preventive Maintenance Agreement included with these specifications.

B. Use competent personnel, acceptable to the Owner, employed and supervised by Elevator Contractor.

END OF SECTION

SECTION 14250

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SECTION 14250

HYDRAULIC ELEVATOR MODERNIZATION

PART 1 GENERAL

1.01 WORK INCLUDED

A. Three hydraulic passenger elevator with microprocessor based, operation and motion control systems with field diagnostic capability.

B. All engineering, equipment, labor, and permits required to satisfactorily complete elevator modernization required by Contract Documents.

C. Preventive maintenance as described in this Section and Section 14325.

D. Cartage and Hoisting: All required staging, hoisting and movement to, on and from the site including new equipment, reused equipment, or dismantling and removal of existing equipment.

E. Unless specifically identified as “Reuse,” “Retain,” or “Refurbish,” provide new equipment.

F. Lobby barricades as required.

1.02 RELATED WORK PROVIDED BY ELEVATOR CONTRACTOR

See Section 01900, Related Work

1.03 DEFINITIONS

A. Terms used are defined in the edition of the Safety Code for Elevators and Escalators, ASME A17.1. Enforced by the local jurisdiction.

B. Reference to a device or a part of the equipment applies to the number of devices or parts required to complete the installation.

1.04 QUALITY ASSURANCE

A. Approved Providers: Alternate Providers must receive approval of the Owner or Consultant at least 14 calendar days prior to bid date.
   1. Hydraulic Elevator: CEMCOlift Elevator Systems, KONE, Minnesota Elevator Inc., Otis, Schindler, ThyssenKrupp.
   2. Car Enclosure: Eklund's Inc., Gunderlin, Ltd., Hauenstein & Burmeister, KONE, Otis, Schindler, ThyssenKrupp, Tyler.

B. Compliance with Regulatory Agencies: See Section 01040, Project Procedures.

C. Warranty:
   1. Material and workmanship of installation shall comply in every respect with Contract Documents. Correct defective material or workmanship which develops within one (1) year from date of final acceptance of all work to satisfaction of the Owner and Consultant at no additional cost, unless due to ordinary wear and tear, or improper use or care by performing maintenance as specified..
   2. Defective is defined to include, but not limited to; operation or control system failures, car performance below required minimum, excessive wear, unusual deterioration or aging of

materials or finishes, unsafe conditions, the need for excessive maintenance, abnormal noise or vibration, and similar unsatisfactory conditions.

3. Retained Equipment: All retained components, parts, and materials shall be cleaned, checked, modified, repaired or replaced, so each component and its parts are in like new operating condition. Retained equipment must be compatible for integration with new systems. All retained equipment shall be covered under the warranty provisions, of Article 1.04, D., 1. & 2. above. No prorations of equipment or parts shall be allowed on preventive maintenance contract.
4. Make modifications, requirements, adjustments and improvements to meet performance requirements of Sections 01700 and 14250.

1.05 DOCUMENT AND SITE VERIFICATION

In order to discover and resolve conflicts or lack of definition which might create problems, Elevator Contractor must review Contract Documents and site conditions for compatibility with its product prior to submittal of quotation. Review existing structure, electrical and mechanical provisions for compatibility with Elevator Contractor's products. Owner will not pay for change to structural, mechanical, electrical, or other systems required to accommodate Elevator Contractor’s equipment.

1.06 SUBMITTALS

See Section 01300, Submittals, and Section 01700, Final Contract Compliance Review, Article 1.03.

1.07 PERMIT, TEST AND INSPECTION

A. Obtain and pay for permit, license, and inspection necessary to complete installation.

B. Perform tests required by Governing Authority in accordance with procedure described in ASME A17.2 Guide for Inspection of Elevators, Escalators, and Moving Walks in the presence of Authorized Representative of governing authority.

C. Supply personnel and equipment for test and final review by Consultant, as required in Section 01700.

1.08 MAINTENANCE

A. Interim: See Section 01800, Maintenance, Article 1.02, A.

B. Warranty: See Section 01800, Maintenance, Article 1.03, A.

C. Conditions: See Section 14325.

PART 2 PRODUCTS

2.01 SUMMARY

Unless specifically identified as “retain existing,” provide new equipment.

A. Redwood Road Campus – Construction Trades Building

	EXISTING EQUIPMENT	DISPOSITION
NUMBER:	TWO	TWO

	EXISTING EQUIPMENT	DISPOSITION
CAPACITY:	2000#	2000#
CLASS LOADING:	PASSENGER CLASS A	RETAIN EXISTING
CONTRACT SPEED:	125 F.P.M.	125 F.P.M.
MACHINE:	DOVER HYDRAULIC TYPE	NEW HYDRAULIC POWER UNIT
MACHINE LOCATION:	ROOM NEAR HOISTWAY AT LOWEST FLOOR	RETAIN EXISTING
OPERATION:	DUPLEX SELECTIVE COLLECTIVE	MICROPROCESSOR BASED DUPLEX SELECTIVE COLLECTIVE
MOTOR CONTROL:	SINGLE SPEED AC	SINGLE SPEED AC WITH ELECTRONIC SOFT START
MOTOR HORSEPOWER:	FIELD VERIFY	NOT MORE THAN EXISTING
POWER CHARACTERISTICS:	FIELD VERIFY	RETAIN EXISTING (VERIFY)
STOPS:	3 FRONT 0 REAR	RETAIN EXISTING
OPENINGS:	3 FRONT 0 REAR	RETAIN EXISTING
FLOORS SERVED:	B, 1 AND 2	RETAIN EXISTING
TRAVEL:	FIELD VERIFY	RETAIN EXISTING
PLATFORM SIZE:	FIELD VERIFY	RETAIN EXISTING
MINIMUM CLEAR INSIDE CAR:	FIELD VERIFY	TO SUIT NEW CAR ENCLOSURE DESIGN IF MODIFIED
ENTRANCE SIZE:	3’-0” WIDE X 7’-0” HIGH FIELD VERIFY	RETAIN EXISTING
ENTRANCE TYPE:	SINGLE SPEED, CENTER OPENING	RETAIN EXISTING
DOOR OPERATION:	DOVER DC-68 TYPE, MEDIUM SPEED, MEDIUM DUTY	NEW HIGH SPEED, HEAVY-DUTY, MINIMUM OPENING SPEED 2-F.P.S. WITH CLOSED LOOP CONTROL
DOOR PROTECTION:	PANA40 SCREEN TYPE DETECTOR	NEW INFRARED, FULL SCREEN 3D DEVICE

	EXISTING EQUIPMENT	DISPOSITION
ELEVATOR TYPE:	DIRECT PLUNGER, HYDRAULIC	SAME
GUIDE RAILS:	PLANED STEEL TEES	RETAIN EXISTING
BUFFERS:	SPRING	RETAIN EXISTING
CAR ENCLOSURE:	WOOD SHELL TYPE	RETAIN EXISTING (ALTERNATE FOR NEW)
SIGNAL FIXTURES:		LED ILLUMINATION. PROVIDER'S STANDARD OR CUSTOM DESIGN AS SELECTED BY OWNER
HALL PUSHBUTTON STATIONS:	SURFACE MOUNTED	RETAIN EXISTING
CAR POSITION INDICATORS:	REMOVE EXISTING	DIGITAL WITH DIRECTION ARROWS IN NEW CAR STATION
HALL POSITION INDICATOR:	NONE	DIGITAL WITH DIRECTION ARROWS AT FIRST FLOOR COMBINED WITH NEW HALL LANTERNS
COMMUNICATION SYSTEM:	NONE	SELF-DIALING, VANDAL RESISTANT, PUSH TO CALL, TWO-WAY COMMUNICATION SYSTEM WITH RECALL, TRACKING AND VOICELESS COMMUNICATION IN NEW CAR STATION
FIXTURE SUBMITTAL:		SUBMIT BROCHURE DEPICTING PROVIDER'S PROPOSED DESIGNS WITH BID
ADDITIONAL FEATURES –		CAR GUIDE SHOES (RETAIN EXISTING)
		CAR TOP INSPECTION STATION (NEW)
		FIREFIGHTERS' SERVICE, PHASE I AND II, INCLUDING ALTERNATE FLOOR RETURN (NEW)
		BATTERY PACK STANDBY POWER PROVISION (NEW)
		ACCESSIBILITY SIGNAGE (AS REQUIRED TO MEET ADA)

EXISTING EQUIPMENT	DISPOSITION
	PLATFORM ISOLATION JACK TO PLATEN CONNECTION (RETAIN EXISTING)
	INDEPENDENT SERVICE FEATURE (NEW)
	TAMPER RESISTANT FASTENERS FOR ALL FASTENINGS EXPOSED TO THE PUBLIC (NEW)
	ONE YEAR WARRANTY MAINTENANCE WITH REGULAR HOUR CALL-BACK SERVICE (NEW)
	SEISMIC SAFETY VALVE
	SIGNAGE ENGRAVING FILLED WITH BLACK PAINT OR APPROVED ETCHING PROCESS
	WIRING DIAGRAMS, OPERATING INSTRUCTIONS, AND PARTS ORDERING INFORMATION
	SYSTEM DIAGNOSTIC MEANS AND INSTRUCTIONS

ALTERNATES – SEE SECTION 01030

2.02 CAR AND GROUP PERFORMANCE

A. Car Speed: ± 10% of contract speed under any loading condition.

B. Car Capacity: Safely lower, stop and hold 125% of rated load.

C. Car Stopping Zone: ±3/8" under any loading condition.

D. Door Opening Time: Center Opening: 2.0 maximum seconds from start of opening to fully open.

E. Door Closing Time: 2.8 maximum seconds from start of closing to fully closed:

F. Car Floor-to-Floor Performance Time: 14.0 – 16.0 seconds from start of doors closing until doors are 3/4 open and car level and stopped at next successive floor under any loading condition or travel direction.

G. Pressure: Fluid system components shall be designed and factory tested for 500 p.s.i.

H. Car Ride Quality:
   1. Horizontal acceleration within car during all riding and door operating conditions. Not more than 20 mg peak to peak (adjacent peaks) in the 1 - 10 Hz range.

2. Acceleration and Deceleration: Smooth and constant.

I. Noise and Vibration Control:
1. Airborne Noise: Measured noise level of elevator equipment during operation shall not exceed 50 dBA in elevator lobbies and 60 dBA inside car under any condition including door operation and car ventilation exhaust blower on its highest speed.
2. Vibration Control: All elevator equipment provided under this contract, including power unit, controller, oil supply lines and their support shall be mechanically isolated from the building structure and electrically isolated from the building power supply and to each other to minimize the possibility of objectionable noise and vibrations being transmitted to occupied areas of the building of the car.
3. Limit noise level in the machine room relating to elevator equipment and its operation to no more than 80 dBA.
4. All dBA readings to be taken three (3) feet off the floor and three (3) feet from the equipment using the “A” weighted scale.

2.03 OPERATION

A. Group Automatic (Two Car Group):
1. Approved microprocessor-based, group dispatch, car and motion control systems as follows:
   a. KONE: Resolve KCM 831
   b. Otis: Elevonic
   c. Schindler: 330A
   d. ThyssenKrupp: TAC 20
2. Include as a minimum, the following features:
   a. Operate cars as a group, capable of balancing service and providing continuity of group operation with one car removed from the system.
   b. Register service calls from pushbuttons located at each floor and in each car. Slow cars and stop automatically at floors corresponding to registered calls. Make stops at successive floors for each direction of travel irrespective of order in which calls are registered except when bypassing hall calls to balance and improve overall service; stop only one car in response to a particular hall call. Assign hall calls to specific cars and continually review and modify those assignments to improve service. Simultaneous to initiation of slow down of a car for a hall call, cancel that call. Render hall pushbutton ineffective until car doors begin to close after passenger transfer. Cancel car calls in the same manner. Give priority to coincidental car and hall calls in car assignment.
   c. Operate system to meet changing traffic conditions on a service demand basis. Include provisions for handling traffic which may be heavier in either direction, intermittent or very light. As traffic demands change, automatically and continually modify group and individual car assignment to provide the most-effective means to handle current traffic conditions. Provide means to sense long-wait hall calls and preferentially serve them. Give priority to coincidental car and hall calls in hall call assignment. Accomplish car direction reversal without closing and reopening doors.
   d. Use easily reprogrammable system software. Design basic algorithm to optimize service based on equalizing system response to registered hall calls and equalizing passenger trip time to shortest possible time.
   e. Serve floors below main floor in a manner which logically minimizes delay in passing or stopping at main floor in both directions of travel. Provide manual means to force a stop at the main floor when passing to or from lower levels.
   f. Required Features:
      1) Dispatch Protection: Backup dispatching shall function in the same manner as the primary dispatching.
      2) Delayed Car Removal: Automatically remove delayed car from group operation.
      3) Position Sensing: Update car position when passing or stopping at each landing.

4) Hall Pushbutton Failure: Provide multiple power sources and separate fusing for pushbutton risers.
5) Communication link: Provide serial or duplicate communication link for all group and individual car computers.

B. Other Items:
1. Low Oil Control: In the event oil level is insufficient for travel to the top floor, provide controls to return elevator to the main level and park until oil is added.
2. Independent Service: Provide controls for operation of each car from its pushbuttons only. Close doors by constant pressure on desired destination floor button or door close button. Open doors automatically upon arrival at selected floor.

C. Firefighters' Service: Provide equipment and operation in accordance with Code requirements.

D. Automatic Car Stopping Zone: Stop car within 3/8" above or below the landing sill. Maintain stopping zone regardless of load in car, direction of travel, distance between landings, hoist rope slippage and/or stretch.

E. Remote Monitoring and Diagnostics: Equip controller with standard ports, interface boards, and drivers to accept maintenance, data logging, fault finding diagnostic, and monitoring computers, keyboards, modems, and programming tools. The system shall be capable of driving remote color CRT monitor(s) that continually scan and display the status of car and call(s).

F. Motion Control: AC type with unit valve suitable for operation specified and capable of providing smooth, comfortable car acceleration and retardation. Limit the difference in car speed between full load and no load to not more than ±10% of the contract speed in each direction.

G. Door Operation: Automatically open doors when car arrives at main floor. At expiration of normal dwell time, close doors. Provide "heavy door/variable air pressure" feature for consistent specified door operation within appropriate speed and inertia limits.

H. Standby Lighting and Alarm: Car mounted battery unit with solid-state charger to operate alarm bell and car emergency lighting. Battery to be rechargeable with minimum 5-year life expectancy. Include required transformer. Provide constant pressure test button in car operating panel.

I. Battery Standby Power Transfer: Upon loss of normal power, provide controls to automatically run the car(s) at inspection speed to the nearest landing, up or down, depending upon load in the car. Upon arrival at the nearest landing, the elevator doors shall open automatically and remain open until regular door time has expired. The elevator shall then become deactivated. The standby power source shall be provided via 12-volt D.C. battery units installed in machine room, including solid-state charger and testing means mounted in a common metal container. Battery to be rechargeable lead acid or nickel cadmium with a 10-year life expectancy.

Upon restoration of normal power, the elevator shall automatically resume normal operation.

2.04 MACHINE ROOM EQUIPMENT

A. Arrange equipment in existing machine room enclosure.

B. Pump Unit:
1. Remove and dispose of existing oil and pump unit.
2. Provide new unit consisting of positive displacement pump, induction motor, master-type control valves combining safety features, holding, direction, bypass, stopping, manual lowering functions, shut off valve, oil reservoir with protected vent opening, oil level gauge, outlet strainer,

drip pan, muffler, all mounted on isolating pads. Enclose entire unit with removable sheet steel panels lined with sound-absorbing material. Provide SCR soft start with closed transition. Design unit for 80 upstarts/hour.

C. Landing Systems: Solid-state, magnetic or optical type.

D. Controller: UL/CSA labeled.
1. Compartment: Securely mount all assemblies, power supplies, chassis switches, relays, etc., on a substantial, self-supporting steel frame. Completely enclose equipment with covers. Provide means to prevent overheating.
2. Relay Design: Magnet operated with contacts of design and material to insure maximum conductivity, long life and reliable operation without overheating or excessive wear. Provide wiping action and means to prevent sticking due to fusion. Contacts carrying high inductive currents shall be provided with arc deflectors or suppressors.
3. Microprocessor-Related Hardware
   a. Provide built-in noise suppression devices which provide a high level of noise immunity on all solid-state hardware and devices.
   b. Provide power supplies with noise suppression devices.
   c. Isolate inputs from external devices (such as pushbuttons) with opto-isolation modules.
   d. Design control circuits with one leg of power supply grounded.
   e. Safety circuits shall not be affected by accidental grounding of any part of the system.
   f. System shall automatically restart when power is restored.
   g. System memory shall be retained in the event of power failure or disturbance.
   h. Equipment shall be provided with Electro Magnetic Interference (EMI) shielding within FCC guidelines.
4. Wiring: CSA labeled copper for factory wiring. Neatly route all wiring interconnections and securely attach wiring connections to studs or terminals.
5. Permanently mark components (relays, fuses, PC boards, etc.) with symbols shown on wiring diagrams.
6. Monitoring System Interface: Provide controller with serial data link through RJ45 Ethernet connection and install all devices necessary to monitor items outlined in Section 2.13. Elevator contractor responsible to connect monitoring system interface to machine room monitoring compartment and LAN. Wiring from the LAN to the machine room monitoring compartment by others.
7. Provide controller or pump unit mounted auxiliary, lockable “open,” disconnect if mainline disconnect is not in sight of controller and/or pump unit.

E. Muffler: Provide in discharge oil line near pump unit. Design shall dampen and absorb pulsation and noise in the flow of hydraulic fluid.

F. Piping and Oil: Provide exposed piping, connections and oil for the system. A minimum of two (2) sound isolation couplings shall be provided between the pump unit and oil line and the oil line and jack unit. Provide isolated pipe stands or hangers as required.

G. Shutoff Valve: Manual valve in line adjacent to pump unit. Provide second valve in pit adjacent to jack unit.

H. Pressure Switch: Provide oil pressure sensitive switch in line to automatically close and prevent loss of oil in cylinder upon loss of pressure in oil supply line.

I. Noise/Vibration Isolation: All elevator equipment including their supports and fastenings to building, shall be mechanically and electrically isolated from the building structure and main line power feeders to minimize objectionable noise and vibration transmission to car, building structure, or adjacent occupied areas of building.

2.05 HOISTWAY EQUIPMENT

A. Guide Rails: Retain main guide rails in place.
   1. Clean rails and brackets. Remove rust.
   2. Check all rail and bracket fastenings and tighten.
   3. Realign rails as required to provide smooth car ride.

B. Buffers, Car: Retain existing.

C. Hydraulic Jack Assembly: Retain existing. Check existing isolation between jack unit and car frame; replace if hardening or deterioration is occurring.

D. Pit Ladder: Retain existing. Locate pit stop switch and light switch to suit ladder location per code.

E. Jack Support: Retain existing steel pit channels to support jack assembly and transmit loads to building structure.

F. Overspeed Valve: Provide a pressure sensitive, mechanically-actuated seismic safety valve, conforming to ASME A17.1, Rule 3.19.4.7., connect valve directly to jack assembly inlet on each elevator.

G. Terminal Stopping: Provide normal and final devices per code.

H. Electrical Wiring and Wiring Connections:
   1. Conductors and Connections: Copper throughout with individual wires coded and connections on identified studs or terminal blocks. Use no splices or similar connections in wiring except at terminal blocks, control compartments, or junction boxes. Provide 10% spare conductors throughout. Run spare wires from car connection points to individual elevator controllers in the machine room. Provide two (2) pairs of spare shielded communication wires in addition to those required to connect specified items. Tag spares in machine room.
   2. Conduit: Painted or galvanized steel conduit, EMT or duct. Conduit size, 1/2" minimum. Flexible heavy-duty service cord may be used between fixed car wiring and car door switches for door protective devices.
   3. Traveling Cables: Flame and moisture-resistant outer cover. Prevent traveling cable from rubbing or chafing against hoistway or equipment within hoistway.
   4. Auxiliary Wiring: Connect fire alarm initiating devices, emergency two-way communication system, in car controller in machine room.

I. Entrance Equipment:
   1. If retained, refurbish/replace and adjust assemblies to ensure smooth and quiet mechanical open and close of doors.
   2. If new, meet the following requirements
      a. Door Hangers: Two point hanger roller with neoprene roller surface and suspension with eccentric upthrust roller adjustment.
      b. Door Tracks: Bar or formed, cold-drawn removable steel tracks with smooth roller contact surface.
      c. Door Interlocks: Operable without retiring cam.
      d. Door Closers: Spring, spirator or jamb/strut mounted counterweight type. Design and adjust to insure smooth, quiet mechanical close of doors.

J. Hoistway Door Unlocking Device: Retain existing if suitable for new equipment.

2.06 HOISTWAY ENTRANCES

A. Frames: Retain existing. Replace missing or non-conforming floor designation plates on entrance jambs.

B. Door Panels: Retain existing. Inspect existing gibs and replace worn or damage.

C. Sight Guards: Retain existing. Replace any damaged sight guards.

D. Sills: Retain existing. Clean and polish. Check and tighten all fastenings.

E. Sill Supports: Retain existing. Check and tighten all fastenings.

F. Fascia, Toe Guards and Hanger Covers: Retain existing. Provide as required where damaged or missing. Check and tighten all fastenings.

G. Struts and Headers: Retain existing. Check and tighten all fastenings.

H. Finish of Frames and Doors: Retain existing. (Note: Alternate bid to clad frames with brushed stainless steel.)

2.07 CAR EQUIPMENT

A. Frame: Retain Existing. Check and tighten all fastenings.

B. Platform: Retain existing. Reinforce if required. Check and tighten all fastenings.

C. Platform Apron: Retain existing. Check and tighten al fastenings. Replace damaged or missing sections.

D. Guide Shoes: Retain existing. Check and tighten all fastenings. Replace worn rollers or inserts.

E. Sills: Retain existing. Clean and polish. Check and tighten all fastenings.

F. Doors: Existing may be retained and reused if suitable. If provided new, use brushed stainless sheet on car interior face..

G. Door Hangers and Rollers: Retain existing. Replace roller or complete hanger assembly as required. Check and tighten all fastenings.

H. Door Track: Retain existing if suitable. If provided new, meet the following requirements: Bar or formed, cold-drawn removable steel track with smooth roller contact surface.

I. Door Header: Retain existing if suitable. If replaced, meet the following requirements. Construct of minimum 12 gauge steel, shape to provide stiffening flanges.

J. Door Electrical Contact: Provide new to prohibit car operation unless car door is closed.

K. Door Clutch: Provide new heavy-duty clutch, linkage arms, drive blocks and pickup rollers or cams to provide positive, smooth, quiet door operation. Design clutch so car doors can be closed, while hoistway doors remain open.

L. Restricted Opening Device: Restrict opening of car doors outside unlocking zone. Plunger type restrictors not acceptable.

M. Door Operator: High speed, heavy-duty door operator capable of opening doors at no less than 2-1/2 f.p.s. Accomplish reversal in no more than 2-1/2" of door movement. Provide solid-state door control with closed loop circuitry to constantly monitor and automatically adjust door operation based upon velocity, position, and motor current. Maintain consistent, smooth and quiet door operation at all floors, regardless of door weight or varying air pressure.

Acceptable closed-loop door operators:

1.	KONE	Renova 2.0 or Renova 1.5
2.	Otis	AT 400
3.	Schindler	QKS 15
4.	ThyssenKrupp	HD03

N. Door Control Device:
1. Infrared Reopening Device: Black, fully enclosed device with full screen infrared matrix or multiple beams extending vertically along leading edge of each door panel to minimum height of 7'-0" above finished floor. Device shall prevent doors from closing and reverse doors at normal opening speed if beams are obstructed while doors are closing, except during nudging operation. In event of device failure, provide for automatic shutdown of car at floor level with doors open
   a. Acceptable Infrared Reopening Device:
      1) Cegard/MAX-154 by CEDES
      2) Gatekeeper by Adams
      3) Lambda II by Otis
      4) Magic Edge by Tri-Tronics
      5) Microlite by ThyssenKrupp
      6) Microscan E by T.L. Jones
      7) Pana40 Plus by Janus
2. Nudging Operation: After beams of door control device are obstructed for a predetermined time interval (minimum 20.0 - 25.0 seconds), warning signal shall sound and doors shall attempt to close with a maximum of 2.5 foot pounds kinetic energy. Activation of the door open button shall override nudging operation and reopen doors.
3. Interrupted Beam Time: When beams are interrupted during initial door opening, hold door open a minimum of 3.0 seconds.
4. Differential Door Time: Provide separately adjustable timers to vary time that doors remain open after stopping in response to calls.
   a. Car Call: Hold open time adjustable between 3.0 and 5.0 seconds.
   b. Hall Call: Hold open time adjustable between 4.0 - to 6.0 and 8.0 seconds. Use hall call time when car responds to coincidental calls.
5. Existing may be reused at Bidder's option.

O. Car Operating Panel. Provide new as follows:
1. One car operating panel with faceplate, consisting of a metal box containing operating fixtures, mounted behind the car stationary front return panel. Faceplate shall be hinged and constructed of stainless steel, satin finish.
2. Suitably identify floor buttons, alarm button, door open button, door close button and emergency push-to-call button with cast tactile symbols surface, recessed flush or rear mounted. Configure plates per local building code accessibility standards including Braille. Locate operating controls no higher than 48" above the car floor; no lower than 35" for emergency push-to-call alarm button.
3. Provide minimum 3/4" diameter raised floor pushbuttons which illuminate to indicate call registration.
4. Provide alarm button to ring bell located on car.. Illuminate button when actuated.
5. Provide keyed stop switch. Mark device to indicate "run" and "stop" positions.
6. Provide "door open" button to stop and reopen doors or hold doors in open position.

7. Provide “door close” button to activate door close cycle. Cycle shall not begin until normal door dwell time for a car or hall call has expired, except firefighters’ operation.
8. Provide firefighters’ Phase II lockable compartment per Code.
9. Include the following keyed controls car station faceplate with function and operating positions identified by permanent signage or engraved legend:
   a. Inspection switch.
   b. Light switch.
   c. Blower switch.
   d. Independent service switch.
   e. Constant pressure test switch for battery pack emergency lighting.
   f. Stop switch.
   g. Switch to select either floor voice annunciation or floor passing tone.
10. Provide black paint filled (except as noted), engraved or approved etched signage as follows with approved size and font:
   a. “No Smoking”.
   b. Car capacity in pounds.

P. Provide 120-volt, AC, GFCI protected electrical convenience outlet in car base or front return with protective cover of brushed stainless steel.

Q. Car Top Control Station: Mount to provide safe access and utilization while standing in an upright position on car top.

R. Work Light and Duplex Plug Receptacle: GFCI protected outlet at top of car. Include on/off switch and lamp guard.

S. Communication System:
1. “Push to Call,” two-way communication instrument in car with automatic dialing, tracking and recall features with shielded wiring to car controller in machine room. Provide dialer with automatic rollover capability with minimum two numbers.
   a. “Push to Call” button or adjacent light jewel shall illuminate and flash when call is acknowledged. Button shall match car operating panel pushbutton design.
   b. Provide “Push to Call” button tactile symbol, engraved signage, and Braille adjacent to button mounted integral with car front return panel.
2. Install remote speaker(s) behind front return panel with drilled speaker pattern, and shielded wiring to machine room junction box.
3. Provide two-way communication between car and machine room if required.

2.08 CAR ENCLOSURE

A. Reuse existing.

2.09 HALL CONTROL STATIONS

A. Provide new stations with brushed stainless steel faceplates sized to cover existing wall cutouts. Include pushbuttons for each direction of travel which illuminate to indicate call registration. Include approved engraved message and pictorial representation prohibiting use of elevator during fire or other emergency situation as part of faceplate. Pushbutton design shall match car operating panel pushbuttons. Stations may be surface mounted type or flush.

2.10 SIGNALS

A. Hall Lantern: Provide new with arrow lenses. Size brushed cover existing. Opening above entrances. Combine with digital readout car position indicator at first floor.

B. Floor Passing Tone: Provide an audible tone of no less than 20 decibels and frequency of no higher than 1500 Hz to sound as the car passes or stops at a floor serviced.

C. Voice Announcing: Provide electronic device with easily reprogrammable message and female voice to announce car direction, floor, emergency exiting instructions, etc.

D. Include keyed switch in car station to select tone or voice system.

2.11 SEISMIC OPERATIONS AND EQUIPMENT

Provide design, components and operation per governing authority.

PART 3 EXECUTION

3.01 SITE CONDITION INSPECTION

A. Prior to beginning installation of equipment, examine hoistway and machine room areas. Verify that no irregularities exist which affect execution of work specified.

B. Do not proceed with installation until work in place conforms to project requirements.

3.02 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver material in Provider's original, unopened protective packaging.

B. Store material in original protective packaging. Prevent soiling, physical damage, or moisture damage.

C. Protect equipment and exposed finishes from damage and stains during transportation, erection, and construction.

3.03 INSTALLATION

A. Install all equipment in accordance with Provider's instructions, referenced Codes, specification and approved submittals.

B. Install machine room equipment with clearances in accordance with referenced Codes and specification.

C. Install all equipment so it may be easily removed for maintenance and repair.

D. Install all equipment for ease of maintenance.

E. Install all equipment to afford maximum accessibility, safety, and continuity of operation.

F. Remove oil, grease, scale, and other foreign matter from the following equipment and apply one coat of field-applied machinery enamel.
   1. All exposed equipment and metal work installed as part of this work which does not have architectural finish.
   2. Machine room equipment, hoistway equipment including guide rails, guide rail brackets, and pit equipment.
   3. Neatly touch up damaged factory-painted surfaces with original paint color. Protect machine-finish surfaces against corrosion.

3.04 FIELD QUALITY CONTROL

A. Work at jobsite will be checked during course of installation. Full cooperation with reviewing personnel is mandatory. Accomplish corrective work required prior to performing further installation.

B. Have Code Authority acceptance inspection performed and complete corrective work.

3.05 ADJUSTMENTS

A. Install hydraulic jack assembly and guide rails plumb and align vertically with tolerance of 1/16" in 100'-0". Secure guide rail joints without gaps and file any irregularities to a smooth surface.

B. Static balance car to equalize pressure of guide shoes on guide rails.

C. Lubricate all equipment in accordance with Provider's instructions.

D. Adjust motors, valves, controllers, leveling switches, limit switches, stopping switches, door operators, interlocks, and safety devices to achieve required performance levels.

3.06 CLEANUP

A. Keep work areas orderly and free from debris during progress of project. Remove packaging materials on a daily basis.

B. Remove all loose materials and filings resulting from work.

C. Clean machine room equipment and floor.

D. Clean hoistways, car, car enclosure, entrances, operating and signal fixtures.

3.07 ACCEPTANCE REVIEW AND TESTS

See Section 01700, Article 1.02, Consultant's Final Observation and Review Requirements.

3.08 PURCHASER'S INFORMATION

See Section 01700, Article 1.03, Final Contract Compliance Review.

END OF SECTION

SECTION 14325

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SECTION 14325

PREVENTIVE MAINTENANCE

PART 1 GENERAL

1.01 WORK INCLUDED

A. Full preventive maintenance from notice to proceed until 12 months following final acceptance in accordance with included agreement form.

PART 2 PRODUCTS

NOT USED.

PART 3 EXECUTION

Maintenance performed in accordance with agreement form included as exhibit with this Section.

END OF SECTION

SECTION 14235

ELEVATOR MAINTENANCE
REQUIREMENTS

PART 1 GENERAL

1.01 BONDS AND INSURANCE REQUIREMENTS

A. Provide with your Proposal, a copy of your certificate of insurance. The following are the minimum liability limits:

General Liability	$1,000,000
Occurrence Liability	$1,000,000
Personal Injury	$1,000,000
Workers Compensation	$100,000

B. A letter from your bonding company confirming that your company will be able to supply a Performance Bond at 100% of the current contract year amount. This will need to be renewed yearly.

PART 2 – PRODUCTS

2.01 DESCRIPTION OF WORK

A. Company shall supply trained, qualified, and technically skilled journeymen directly employed and supervised by Company. All supervision, installed repair parts, consumable materials, equipment, tools, and each and every item of expense necessary for elevator maintenance, including all preventative maintenance, repairs, or parts and trouble call service.

B. For specific information on elevator(s) covered under this specification, Refer to SECTION 14236.

PART 3 EXECUTION

3.01 WORK INCLUDED

Regularly and systematically examine, adjust, lubricate, clean and, when conditions warrant, repair or replace the following items and all other mechanical or electrical equipment:

A. Hydraulic Elevators
   1. Hydraulic power unit and accessories: pump, motor, valves, operating valves, pulleys, drive belts, flexible hose and fitting assemblies, oil tank, muffler, strainer, sound isolating coupling, plunger, packing gland, scavenger system, piping and other components.
   2. Controller, selector, and dispatching equipment: All components including all relays, solid state components, resistors, condensers, transformers, contacts, leads, computer

devices, selector switches, mechanical or electrical driving equipment, coils, magnet frames, contact switch assemblies, springs, solenoids, resistance grids, hoistway vanes, magnets and inductors.

3. Hoistway door interlocks or locks and contacts, hoistway door hangers, tracks, bottom door gibs, cams and rollers.
4. Hoistway limit switches, slowdown switches, leveling switches and associated cams, vanes and electronic components.
5. Guide shoes including rollers.
6. Automatic power operated door operators, door protective devices, car door hangers, tracks and car door contacts.
7. Automatic power operated door operators, door protective devices, car door hangers, tracks and car door contacts.
8. Elevator control wiring in hoistway and machine room.
9. Buffers.
10. Fixture contacts, pushbuttons, key switches, locks, lamps and sockets or button stations (car and hall), hall lanterns, position indicators, direction indicators.
11. The guide rails shall be kept free or rust and dry.
12. Examine all safety devices, and conduct an annual no load test, and every fifth year perform a full load, full speed test of the buffers. The car balance shall be checked. All tests shall be performed in accordance with the provisions of the American National Standard, Safety Code for Elevators and Escalators (ANSI/ASME A17.2), current edition.
13. Furnish lubricants compounded specifically for elevator usage.
14. All preventative maintenance and adjusting shall meet the minimum standards established by the original equipment manufacturer of the elevator equipment.

B. Traction Elevators

1. Machine: Worm, gear, thrust bearings, lateral bearings, shaft bearings, drive sheave, and other machine components.
2. Brake pulley, brake coil, brake pins, brake contacts, linings and other brake components.
3. Motor and motor generator: Motor windings, rotating elements, commutators, brushes, brush holders, bearings field coils, rotators, stator slip rings.
4. Controller and dispatching equipment: All components including all relays solid state components, resistors, condensers, transformers, contacts, leads, computer devices, mechanical or electrical driving equipment, coils magnet frames, contact switch assemblies, springs, solenoids, resistance grids, hoistway vanes, magnets and inductors.
5. Governor: Including governor sheave, shaft assembly gears, bearing contacts, jaws and pit tension assembly.
6. Sheaves: Including defector sheaves, shafts, bearings, grease retainers, contacts and hold down devices.
7. Hoistway door interlocks or locks and contacts, hoistway door hangers, tracks, bottom door gibs, cams and rollers.
8. Hoistway limit switches, slowdown switches, leveling switches and associated cams, vanes and electronic components.
9. Guide shoes including rollers.
10. Automatic power operated door operators, door protective devices, car door hangers, tracks and car door contacts.
11. Traveling cables.

12. Elevator control wiring in hoistway and machine room.
13. Hoist cables, governor cables, compensating chains, including adjustment of tension on all cables.
14. Car safety mechanism and load weighing equipment.
15. Buffers.
16. Fixture contacts, pushbuttons, key switches, locks, lamps and sockets or button stations (car and hall), hall lanterns, position indicators, direction indicators.
17. The guide rails shall be kept free of rust and dry.
18. Examine all safety devices and governors, and conduct an annual no load test, and every fifth year perform a full load, full speed test of safety mechanism, overhead speed governors, car and counterweight buffers. The car balance shall be checked and governor set. If required, the governor shall be calibrated and sealed for proper tripping speed. All tests shall be performed in accordance with provisions of the American National Standard, Safety Code for Elevators and Escalators (ANSI/ASME A17.2), current edition.
19. Furnish lubricants compounded specifically for elevator usage.

C. The Contractor will be financially responsible for the job they do and DFCM will call for damages for extended shutdowns or repeated shutdowns. If there are more than two shutdowns for the same reason within a one month period, there will also be a $300 charge.

3.02 WORK NOT INCLUDED

A. The Elevator Contractor shall not be required to install new attachments on the elevator whether or not recommended or directed by insurance companies or by governmental authorities, nor make any replacements with parts of a different design. The Contractor shall not be required to make renewals or repairs necessitated by reason of negligence or misuse of the equipment or by reason of any other cause beyond the Contractor's control except ordinary wear and tear unless the Contractor receives just compensation.

B. The Elevator Contractor shall not be responsible for the following items of elevator equipment: car enclosure (including removable panels, door panels, hung ceilings, light diffusers, light tubes and bulbs, handrails, and carpets), hoistway enclosure, hoistway doors, frames and sills.

C. Elevator Contractor shall not be responsible for building items related to the elevator which are not installed by elevator mechanics such as electrical disconnect switches, etc.

3.03 CONDITIONS OF THE WORK

A. All work is to be performed during regular working hours of regular working days. Emergency calls shall be answered at all hours of the day or night. Should overtime work be required, DFCM will pay only the actual amount of the premium portion of the wage, the Contractor will pay the basic hourly rate.

B. The Contractor shall check the operation and control and make necessary tests to insure that all circuits and time settings are properly adjusted, and that the system performs as designed and installed.

C. The Contractor shall keep the elevator maintained to operate at the original contract speed, keeping the original performance times, including acceleration and retardation as designed and installed by the manufacturer. The door operation shall be adjusted as required to maintain the original door opening and door closing times, within legal limits.

D. DFCM reserves the right to make a thorough inspection and test as and when deemed advisable. If it is found that the elevator and associated equipment are deficient either electrically or mechanically, the Contractor will be notified of these deficiencies in writing, and it shall be his responsibility to make corrections within 30 days, DFCM may terminate the contract and employ a Contractor to make the corrections at the original Contractor's expense.

E. Approximately six months prior to the end of the contract term, DFCM will make a thorough maintenance inspection of all elevators covered under the contract. At the conclusion of this inspection, DFCM shall give the Contractor written notice of any deficiencies found. The Contractor shall be responsible for correction of these deficiencies within 30 days after receipt of such notice.

3.04 PARTS INVENTORY REQUIREMENTS

Contractor agrees to the following requirements and authorization of parts used.

A. One complete set of all diagnostic tools and equipment required for the complete maintenance of all aspects of the control and dispatch system and solid-state motor drive units. The diagnostic system shall be an integral part of the controller or a portable device provided to DFCM at transfer of maintenance to another company, and provide user-friendly interaction between the serviceman and the controls. All such systems shall be free from secret codes and decaying circuits that must be periodically reprogrammed by the manufacturer.

B. All parts need to be readily available within five (5) working days.

C. Major Components Parts (Electrical): If Company does not have motors, pumps, valves, etc., or should repairs be repaired by a qualified motor shop, Company must cause the repairs to be completed within two (2) working days, or less.

D. Major Components Parts: If Company does not have machine components, frames, sheaves, cabs, rails, and similar mechanical components in stock, they must provide DFCM within two working days. If this exceeds two working days, the Company will need to supply DFCM with the source for the repair or replacement, as well as, the approximate schedule to complete the repairs.

E. Special Electrical Parts: Company acknowledges that elevator control systems contain solid state printed circuit modules. Company agrees to maintain in inventory, a sufficient amount of modules and component parts to replace and or repair any of these units should failure occur. SCR Drive Components are to be inventoried in Companies warehouse.

F. Job Site Elevator Inventory: Company will maintain a supply of contacts, coils, car and hall pushbuttons, lantern gongs, door detectors, safety edges, lubricants, wiping cloths, and

minor parts in each elevator machine room, properly stored in an approved parts cabinet.

G. Spare Parts Inventory: Company will maintain a supply of genuine Original Equipment Manufacturer's replacement parts in their warehouse inventory. This inventory will include, but not be limited to, door operator motors, controller boards, switch contacts, tapes, door hangers, rollers, hoistway limit switches. Such replacement parts will be kept in warehouse inventory or available from their manufacturing facilities. Regardless of the location of the stored parts, they shall be available on the jobsite within forty-eight (48) hours from the time of need.

H. Replacement Parts Policy: Company will not alter equipment parts and original design with other manufacturers' parts or design unless the original manufacturer has discontinued the item and the parts are no longer available from the manufacturer or other DFCM approved suppliers. Parts manufactured by companies other the original manufacturer, but supplied to the manufacturer as part of their overall product may be acceptable if said part is of a similar design and character boards, relays, coils, rollers, buttons, proximity edges, and various other parts are duplicated by other national recognized manufacturers and, upon written authorization from DFCM or DFCM's representative, may be used in lieu of the manufacturers parts. Company agrees to maintain a diagnostic tool to remain on the job site, and one set of spare boards, as required, on the job site or in Companies local branch office for the entire length of the Agreement. Any boards used out of stock will be replaced within twenty-four (24) hours.

3.05 MODIFICATION APPROVALS:

Should Contractor request or wish to make any change, modification, or addition to the existing elevator equipment, the Contractor must submit a written "Request to Modify" proposal to DFCM for approval. A "Request to Modify" must state the reason why the Company wishes to change a component. Complete information of the new proposed component and a guarantee of responsibility by Company for said component change is required. DFCM will get back with the Company within 30 days of receiving this request.

3.06 EMERGENCY RESPONSE

In the case of entrapment by an individual inside an elevator, the Company will respond within an hour of receiving the call.

3.07 CODE TESTING REQUIRED

Company shall perform all State, City, Local and ANSI A17.1 required testing. Only those Codes that are in force as of the Commencement Date of this Agreement are applicable. Company will give DFCM at least a one day notice prior to any testing being performed.

A. ASME A17.1 (Latest edition enforced in the State of Utah): Company shall test Fireman's Return Phase I and II, a minimum of once a year, and notify DFCM prior to conducting such test. Any and all required corrections shall be the responsibility of Company and shall be corrected at no additional charge to DFCM. The results of these tests shall be submitted in writing to DFCM within 30 days after test is completed. Company shall train, provide forms and advise recording requirements for monthly testing, DFCM designated personnel.

B. Earthquake Device Testing: Company shall test earthquake derailment and seismic safety devices a minimum of once a year only in areas where applicable. Notification shall be given to DFCM prior to such test. Any and all required corrections shall be the responsibility of Company and shall be corrected at no additional charge to DFCM.

3.08 PERFORMANCE REQUIREMENTS

Contractor agrees to maintain the following minimum requirements of each as described per manufacturer's original installation criteria. (Note: Bidder submit proposed standards if they differ from those specified in the elevator modernization section.)

A. Floor-to Floor Time: (In Seconds)
Floor to floor time shall be measured from the time the elevator starts to the time the elevator stops during a one floor run in either direction and under any load condition.

B. Door-Open Time: (In Seconds)
Door-opening times are measured by the distance of the door travel less 1" for center-opening doors and 2" for side-opening doors from each end of the door travel.

C. Door-Close Time: (In Seconds)
Not to exceed 30 pounds of kinetic force.
Door closing times are measured by the distance of the door travel less 1" for center-opening doors and 2" for side-opening doors from each end of the door travel.

D. Car/Hall Dwell Time: (In Seconds)
Standing door open times are measured from the time the doors are fully open, without demand, until the doors start to close.

E. Nudging Close Time: (In Seconds)
Nudging close time is measured the same as the door close time.

F. Stopping Zone
3/8" for hydraulic elevators and open loop traction elevators.
1/4" for closed loop traction elevators.
The accuracy of leveling shall be plus or minus the 3/8" and 1/4" mentioned above under all load conditions. Leveling shall be consistent with OEM installation and Code Requirements.

G. Variance from the rated contract speed, regardless of load conditions shall not exceed five percent (5%).

H. Maintain vertical alignment of guide rails to a tolerance of 1/16 in. at 100'.
To accomplishing this, Company shall maintain a comfortable elevator ride with smooth acceleration, retardation and a soft stop. Door operation shall be quiet and positive, with smooth checking at the extremes of travel. Company shall assign a Supervisor to examine all equipment yearly as a minimum requirement. Results of the inspection shall be submitted to DFCM within thirty (30) days from completion of Supervisor's Inspection.

3.09 MINIMUM MAN HOURS AT PREMISES

A. Company shall furnish a mechanic to provide preventive maintenance services at the premises for a minimum of two and a half (2 ½) hours per calendar month per traction elevator, one (1) hour per calendar month per hydraulic elevator, 2 hours per quarter for residence elevators. **Callbacks and nonscheduled repair labor are not considered service time.** Failure to provide the preventative maintenance services set forth , shall be cause for retention of monthly fees by DFCM equal to the reduction of Company services and shall continue until full, normal service is restored. Company may choose to make up time lost at the conclusion of any period of interruption of service and be reimbursed for same if agreed to in writing by DFCM. Time tickets for routine maintenance shall be presented to the appropriate on site personnel or building representative at the conclusion of each visit and shall only show the time spent for preventative maintenance. Any other work completed, such as repairs or call back service shall be listed and accounted for on a separate time ticket. It is understood that such minimum service hours do not limit labor required to maintain the elevator equipment in top running condition.

B. All preventative maintenance service, repairs, routine adjusting and service procedures will be performed during regular working hours of regular working days of the elevator trade referring to the hours of 8:00 a.m. to 4:30 p.m., Monday through Friday. If DFCM demands that needed two-man repair work be completed during overtime hours, Company will bill the difference between their straight time billing rate and the appropriate overtime billing rate. Notification to DFCM must be made prior to removal of the elevators from normal service for maintenance, testing and adjustment.

END OF SECTION