



**LANDMARK ELEVATOR CONSULTANTS – SOUTH**  
*A QUALITY ASSURANCE CORPORATION*

10300 186<sup>TH</sup> COURT SOUTH, BOCA RATON, FL 33498-6320  
PHONE (954) 785-1947 ~ FAX (954) 785-8634

FIRST DRAFT

***VERTICAL TRANSPORTATION  
SPECIFICATIONS***

*for the*

***ELEVATOR MODERNIZATION  
AND  
MAINTENANCE***

*at*

***WATERFORD POINT CONDOMINIUM  
801 SOUTH FEDERAL HIGHWAY  
POMPANO BEACH, FLORIDA 33062***

*Prepared  
for  
Waterford Point  
Condominium Association, Inc.*

*January 4, 2011*

CONSTRUCTION ♦ MODERNIZATION ♦ MAINTENANCE

DESIGN ♦ MODERNIZATION MANAGEMENT ♦ PLANNING ♦ ADA INSPECTION ♦ CONTRACT AUDIT ♦ NEW INSTALLATION AUDIT

**TABLE OF CONTENTS**

<b><u>TERMS OF AGREEMENT AND GENERAL CONDITIONS</u></b>		<b><u>PAGE</u></b>
1.	INSPECTION OF SITE(S).....	6
2.	MATERIAL SAFETY DATA SHEETS .....	6
3.	STATE AND LOCAL SALES TAX AND FILING FEES .....	6
4.	INSURANCE.....	6-7
5.	WORKERS' COMPENSATION AND EMPLOYERS LIABILITY .....	8
6.	OPTIONAL EXCESS LIABILITY INSURANCE .....	8
7.	OPERATIONS PERFORMED OR SERVICES PROVIDED .....	8
8.	AWARD OF CONTRACT .....	8
9.	SUBSTITUTIONS.....	8
10.	ACCEPTANCE OF BID .....	8
11.	PRICE(S) .....	9
12.	PAYMENT .....	9
13.	GUARANTEE .....	9
 <b><u>BID DOCUMENTS</u></b>		
14.	REFERENCES .....	10
15.	SUBMISSION OF BID SPECIFICATION DOCUMENT .....	11
16.	ADDITIONAL TECHNICAL INFORMATION .....	11
17.	NON-COLLUSIVE BIDDING CERTIFICATION .....	12
18.	EXCEPTIONS TO BID REQUIREMENTS .....	13
19.	BASE BID PROPOSAL .....	14
20.	INTERIM MAINTENANCE PRICING.....	14-15
21.	ALTERNATE NUMBER ONE.....	16
22.	ALTERNATE NUMBER TWO.....	16
23.	ALTERNATE NUMBER THREE.....	16
24.	ALTERNATE NUMBER FOUR .....	16
25.	ADDITIONAL INFORMATION.....	17
 <b><u>TECHNICAL BID INFORMATION</u></b>		
	DEFINITIONS OF TERMS .....	18
	GENERAL DATA.....	19
	SCOPE OF WORK.....	20
	SPECIFICATIONS.....	20
	INSTRUCTIONS.....	21
	BID EVALUATIONS .....	21-22
	ADDITIONAL REQUIREMENTS.....	22

**TABLE OF CONTENTS**

	<b><u>PAGE</u></b>
PAINTING AND FINISHES .....	23
SUBMITTALS .....	23
CONTRACTORS WORK FORCE .....	24
CHANGES, CHARGES AND EXTRA WORK.....	24
PROGRESS OF WORK.....	24
CERTIFICATES OF INSPECTION .....	24
GUARANTEE OF WORK.....	25
DRAWINGS AND DIAGRAMS .....	25
KEYS .....	25
TOOLS.....	26
PROJECT COMPLETION.....	26
REMOVAL OF EXISTING EQUIPMENT .....	26

**SPECIFICATION**

OUTLINE DATA .....	27-28
POWER SUPPLY.....	28
NEW MACHINE.....	28
HOIST MOTOR .....	28
UP-DIRECTION SAFETY .....	29
POWER CONVERTER SUCCESSIVE STARTING.....	29
AUTOMATIC SELF-LEVELING .....	29
CONTROLLER VVVF AC.....	29-30
LANDING SYSTEM.....	30
QUALIFIED CONTROL SYSTEMS .....	30
OPERATION-SIMPLEX SELECTIVE COLLECTIVE .....	30
OPERATION.....	31
INDEPENDENT SERVICE .....	31
EMERGENCY DISPATCH.....	31
EMERGENCY POWER.....	31
OUT OF SERVICE.....	31
LOADED CAR DISPATCH .....	31
LOADED CAR BY-PASS .....	32
FIREMAN’S EMERGENCY SERVICE .....	32
COMMUNICATIONS .....	32
INSPECTION OPERATION.....	32
ANTI-NUISANCE .....	33
QUALIFIED FIXTURE MANUFACTURER .....	33
APPLIED CAR OPERATING PANEL .....	33

**TABLE OF CONTENTS**

	<b><u>PAGE</u></b>
AUDIBLE SIGNAL .....	34
HANDICAPPED MARKINGS .....	34
CAR POSITION INDICATOR .....	34
IN CAR DIRECTION LANTERNS.....	34
EMERGENCY CAR LIGHTING .....	34
COMBINATION CAR POSITION INDICATOR AND HALL LANTERN.....	34
HALL BUTTONS .....	35
DOOR HOLD BUTTON.....	35
FIRE CONTROL PANEL .....	35
HOISTWAY OPERATING DEVICES.....	35
CAR AND COUNTERWEIGHT ROLLER GUIDES.....	36
COUNTERWEIGHT .....	36
COMPENSATION .....	36
CAR FRAME AND SAFETY .....	36
GOVERNOR .....	36
BUFFERS .....	36
PLATFORM AND SOUND ISOLATION .....	37
ROPES .....	37
DOOR OPERATORS.....	37
CAR DOOR PROTECTIVE DEVICE.....	38
HOISTWAY DOOR PANELS AND FRAMES .....	38
CAR DOOR/HANGER/TRACKS/GUIDES/BUMPERS.....	38
HOISTWAY ENTRANCE TRACKS/HANGERS/GUIDES/BUMPERS .....	39
HOISTWAY DOOR INTERLOCKS .....	39
HOISTWAY ENTRANCES CLOSURES .....	39
DUST COVERS/FASCIA/HEADERS/STRUTS .....	39
HOISTWAY WALL/DOOR MARKINGS.....	39
CAB UPGRADING PASSENGER ELEVATORS.....	39
CAB UPGRADING PASSENGER ELEVATORS.....	40
CAB UPGRADING SERVICE ELEVATOR .....	40
CAB REMODELING ALL ELEVATORS.....	40-41
FLOORING .....	41
CAB SADDLE.....	41
PIT SWITCH .....	41
SMOKE VENTS.....	41
PIT LADDER .....	41
PAINTING AND CLEANING.....	42
SCREENING .....	42
WIRING.....	42
MAIN LINE DISTRIBUTION SYSTEM .....	43

**TABLE OF CONTENTS**

	<b><u>PAGE</u></b>
EMERGENCY POWER OPERATION .....	43
CODE COMPLIANCE OF ELECTRICAL SYSTEM .....	43
EQUIPMENT MARKINGS .....	43
ENGINEERING DESIGN .....	43
PERMITS AND INSPECTION .....	44
CODE AND LAWS .....	44
GUARANTEE .....	44
GENERAL .....	44
MAINTENANCE .....	44
REMOVAL OF MATERIAL AND HOISTING .....	44
STORAGE .....	44
ASBESTOS IN HOISTWAY DOORS .....	45
PATCHING .....	45
PERFORMANCE TIMES AND ADJUSTING .....	45
ALTERNATE PRICES .....	45
ALTERNATE NUMBER ONE .....	45
ALTERNATE NUMBER TWO .....	45
ALTERNATE NUMBER THREE .....	46
DOOR OPERATORS .....	46
CAR DOOR PROTECTIVE DEVICE .....	47
HOISTWAY DOOR PANELS/FRAMES .....	47
CAR DOOR/HANGER/TRACKS/GUIDES/BUMPERS .....	47
HOISTWAY ENTRANCE TRACKS/HANGERS/GUIDES/BUMPERS .....	48
HOISTWAY DOOR INTERLOCKS .....	48
HOISTWAY ENTRANCES CLOSURES .....	48
DUST COVERS/FASCIA/HEADERS/STRUTS .....	48
HOISTWAY WALL/DOOR MARKINGS .....	48
CAB EMERGENCY SIGNALING DEVICES .....	48-49
PLATFORM GUARDS .....	49
CAPACITY PLATES .....	49
MACHINE ROOM LIGHTING .....	49
EMERGENCY IDENTIFICATION NUMBERING .....	49
PIT ACCESS/ILLUMINATION .....	50
BUFFERS .....	50
FIREMAN EMERGENCY SERVICE .....	50
WIRING .....	51
NOTES ON A 17.3 UPGRADE .....	51
ALTERNATE NUMBER FOUR .....	51
PUNCH LIST .....	51
PROCEDURE .....	52

**TERMS OF AGREEMENT AND GENERAL CONDITIONS**

**1. INSPECTION OF SITE**

Contractor shall inspect the site and its equipment before bidding in order to verify all field conditions and be completely familiar with all phases of the work herein specified. All work shall be performed in a good workmanlike manner and shall comply with all Occupation Safety & Health Administration (OSHA) standards and applicable National, State, City, and local codes and ordinances of agencies having jurisdiction.

**2. MATERIAL SAFETY DATA SHEETS**

Prior to commencement of work, and in accordance with the Florida State Right To Know Law, the Official Codes of the State of Florida and the OSHA Hazard Communication Standard, contractor is required to provide the Owner, within fifteen (15) days following notification of recommendation to award the work under this specification, a list of chemicals and copies of **Material Safety Data Sheets (MSDS)** for any chemicals that will be used or stored on the Owners property. A purchase order will not be issued unless the contractor is in compliance with the provisions in this section.

**3. STATE AND LOCAL SALES TAX AND FILING FEES**

The Contractor shall attain and pay for all Federal, State and Local Taxes and filing fees.

**4. INSURANCE**

a) Contractor shall purchase and maintain during the life of the contract the insurance described in the following sections. this insurance must be purchased from a Florida State licensed, A.M. Best Rated "A" or "A+" carrier. Waterford Point Condominium Association, Inc. as Owners, and Landmark Elevator Consultants South Inc., as Elevator Consultants, with the exception of Workers' Compensation and Employers Liability Insurance, shall be named as additional insured.

b) Within fifteen (15) days after notification of recommendation to award the work under this specification, a copy of the insurance certificate(s) shall be mailed to the following, with a provision that in the event the policies are either canceled or diminished, at least thirty (30) days prior written notice by certified mail, return receipt requested, thereof shall be given:

Mr. Joe Vito - Manager  
Waterford Point Condominium  
801 South Federal Highway  
Pompano Beach, Florida 33062

**INSURANCE** (Continued)

c) A purchase order shall not be issued and the contractor shall not commence work under this specification until all insurance has been obtained as required and such insurance has been approved by the Owners and their representatives.

d) Contractor shall require any subcontractor(s) to provide all of the insurance requirements prior to commencement of work. In addition, all subcontractors must carry statutory Workers' Compensation, Employers Liability and Disability Benefits Insurance for their employees.

e) For All Coverages - Any deductibles or self-insured retention must be declared to and approved by the Owners and their Representatives. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Owner and its Representatives.

f) Commercial General Liability Insurance - "Occurrence" form, including Premises-Operations, Products-Completed Operations, Contractual, Personal Injury, Owner-Contractor Protective and Fire Damage Legal Liability. Coverage shall be in the amount of \$2,000,000 per occurrence, \$5,000,000 aggregate.

g) Comprehensive Automobile Liability Insurance - On owned, hired, leased or non-owned vehicles in the amount of \$1,000,000 per occurrence, Combined Single Limit. Policy should include Code 1 - "any auto" and Insurance Services Office (I.S.O.) endorsement CA0029 (Edition 12/88) - Changes in Business Auto and Truckers Coverage.

h) With regard to Comprehensive Automobile, Commercial General Liability and Optional Excess Liability coverages, the policies shall be endorsed to contain the following provisions:

1. Contractor's insurance coverage shall be primary insurance as respects the Owners and their Representatives.
2. Any insurance or self-insurance maintained by the Owners and its Representatives shall be in excess of the Contractor's insurance and shall not contribute to it.
3. The Owners and its Representatives shall enjoy all rights and privileges of the policy contract without the responsibility of paying premiums.
4. Contractor shall provide a copy of the endorsements amending the policies, listing the Owners and their Representatives additional insured.

**5. WORKERS' COMPENSATION AND EMPLOYERS LIABILITY**

Statutory Workers' Compensation and Employers Liability Insurance for all of the Contractor's employees to be engaged in work under the contract and, if such work is sublet, the contract shall require subcontractor(s) to maintain similar coverage for all of the employees.

**6. OPTIONAL EXCESS LIABILITY INSURANCE**

If Excess Liability ("following form") Insurance is provided with a minimum of \$-5,000,000, underlying limits can be reduced to \$500,000.

**7. OPERATIONS PERFORMED OR SERVICES PROVIDED**

Contractor hereby agrees to defend, indemnify, and hold harmless the Owners and their Representatives from and against any and all liability, loss, damage, claim or action, to the extent permissible by Law, arising out of the operations performed or services provided by the contractor under the contract.

**8. AWARD OF CONTRACT**

Award of contract will be made to the lowest qualified bidder, split between two or more contractors or make no award, as will best promote the Owner's interest, taking into consideration the reliability of the bidders, quality of the materials, equipment or supplies to be furnished, their conformity with the specifications, the purposes for which required, and the terms of delivery, installation, or other performance of the work.

**9. SUBSTITUTIONS**

In the event the bidder proposes to furnish substitution for a product/service specified, this information shall be identified in writing, including full technical description, catalog cut and sample as appropriate, submitted with the bid. The Owners and or their Representatives reserves the right to request a representative sample of the item(s) quoted, either prior to bid award or before shipment is made. The determination of equality shall be made by the Owners and or their Representatives. Any costs involved in product testing or other evaluation to determine equality shall be borne by the bidder. If the sample or other technical description is not in accordance with the specification or otherwise deemed not to be an equal to that specified, the Owners and or their Representatives may reject the bid, or, if award has been made, cancel the contract at the expense of the bidder.

**10. ACCEPTANCE OF BID**

The Owners and or their Representatives reserves the right to accept this bid by item, section or as a whole, or in its discretion to reject all bids. Also reserved is the right to reject, for cause, any bids in whole or in part, to waive technical defects, qualifications, irregularities, and omissions if in its judgment the best interest of the Owners will be served.

**11. PRICE(S)**

The price(s) submitted on the Bid Proposal Form must include all delivery and installation charges, and applicable sales and use tax, unless otherwise required by the Owners.

**12. PAYMENT**

Payment will be made by the Owners or their Representatives only upon presentation of correctly itemized invoice. Payments of any claim shall not preclude the Owners and or their Representatives from making claim for adjustment on any item found not to have been in accordance with the general conditions and specific requirements of the contract. The Owners or their Representatives may withhold ten (10) percent of the total contract value as retainage for correction of punch list items.

**13. GUARANTEE**

Contract shall provide a one (1) year guarantee against defects in materials or work upon completion of installation, as applicable. Any materials or work which is or becomes defective during the guarantee period shall be replaced by the contractor with the understanding that all replacements shall carry the same guarantee as the original equipment. Such replacement shall be made immediately upon receiving notification from the Owners and or their Representatives.

**END OF THE TERMS OF AGREEMENT AND GENERAL CONDITIONS SECTION**



**15. SUBMISSION OF BID SPECIFICATION DOCUMENT**

a) The entire bid specification document, which includes the General Conditions, Scope of Work, Bid Proposal, Exceptions to Bid Requirements, References, and Non-Collusive Bidding Certification, shall be submitted to Mr. Joe Vito, Manager, Waterford Point Condominium, 801 South Federal Highway, Pompano Beach, Florida 33062 **in a sealed envelope marked "Sealed Bid Number WPLEC1411, Elevator Modernization and Maintenance" and endorsed on its face with the name of the person, firm or corporation making such proposal, with date of mailing presentation.** Bid proposal shall be considered null and void based on failure to submit completed/signed proposal documents/ certifications.

b) Bidding documents must be received by the Owner's Representatives via mail, messenger, or walk-in on or before **April 8, 2011 NO LATER THAN 3PM**, at which time the bids will be opened. Contract will be awarded as soon as practicable following the bid opening, adhering to the Owners bid/award cycle.

**16. ADDITIONAL TECHNICAL INFORMATION**

If additional technical information regarding the specification is required, please contact Mr. Craig Faux, Landmark Elevator Consultants S., 10300 186th Court South, Boca Raton, Florida 954-785-1947.

**INTENTIONALLY LEFT BLANK**

**17. NON-COLLUSIVE BIDDING CERTIFICATION**

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party hereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

- a) The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
- b) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to the bid opening, directly or indirectly, to any other bidder or to any competitor;
- c) No attempt has been made or will be made by the bidder to induce any person, partnership, or corporation to submit or not to submit a bid for the purpose of restricting competition.

---

Company Name Date

---

Name of Bidder Title

---

Address Telephone

---

Signature of Bidder



**19. BASE BID PROPOSAL**

Contractor agrees to provide all labor and materials necessary for Modernization of the referenced project as specified herein for the lump sum of:

\$ \_\_\_\_\_

\_\_\_\_\_ Dollars

**19 (A). MANUFACTURERS ALTERNATE DISCOUNT**

Contractor agrees to provide all labor and materials necessary for Modernization of the referenced project as specified herein except that the contractor's own manufactured controls and machine may be substituted for the lump sum discount of:

\$ \_\_\_\_\_

\_\_\_\_\_ Dollars

**PREVENTIVE MAINTENANCE BID**

Contractor agrees to provide all labor and materials necessary for the Preventive Maintenance of the referenced project as specified herein (a separate document attached) for 60 months commencing on the expiration of the one year warranty maintenance period for the Monthly lump sum of:

\$ \_\_\_\_\_

\_\_\_\_\_ Dollars per Month

**20. INTERIM MAINTENANCE PRICING:**

**Pre-Modernization Maintenance**

Contractor shall provide all the labor and materials necessary to perform preventive maintenance as specified in the preventive maintenance agreement (a separate document attached) during the period prior to the modernization of the elevators for the lump sum of:

\$ \_\_\_\_\_

\_\_\_\_\_ Dollars per Month.

**During Modernization Maintenance**

Contractor shall provide all the labor and materials necessary to perform preventive maintenance as specified in the preventive maintenance agreement (a separate document attached) during the modernization of the elevators for the lump sum of:

\$ \_\_\_\_\_

\_\_\_\_\_ Dollars per Month.

**Post Modernization Maintenance**

Contractor shall provide all the labor and materials necessary to perform preventive maintenance during the warranty period one year after the final acceptance of the elevators as specified in the preventive maintenance agreement (a separate document attached) for the lump sum of:

\$ \_\_\_\_\_

\_\_\_\_\_ Dollars per Month

Notes on Maintenance:

1. Contractor is to supply parts at the site for the existing elevators during the modernization. Components from the first elevator removed from service are to remain at the site as spares until the modernization is complete.
2. During Modernization Maintenance. - Contractor is to charge for service only for elevators in operation until the last elevator is placed back into service at which time Post Modernization Service will commence.
3. Post Modernization Maintenance is to commence the first day of the following month after the last elevator is complete and placed into service.

**21. ALTERNATE NUMBER ONE:**

The contractor shall provide all labor and material to upgrade or replace the emergency generator transfer switch (if required) as specified herein for the lump sum of:

\$ \_\_\_\_\_

\_\_\_\_\_ Dollars

**22. ALTERNATE NUMBER TWO:**

The contractor shall provide all labor and material to furnish and install flush mounted hall push button stations as specified herein for the lump sum of:

\$ \_\_\_\_\_

\_\_\_\_\_ Dollars

**23. ALTERNATE NUMBER THREE:**

The contractor shall provide all labor and material to perform the General Contracting work as specified herein for the lump sum of:

\$ \_\_\_\_\_

\_\_\_\_\_ Dollars

**24. ALTERNATE NUMBER FOUR:**

The contractor shall provide the cost per thousand of contract value to furnish a Performance Bond for the full value of the Contract:

Cost per Thousand \$ \_\_\_\_\_

**25. ADDITIONAL INFORMATION**

a) The Contractor shall be substantially completed on the project no later than Thirty Nine (39) weeks after the elevator is removed from service.

**b) During the modernization of the elevators all calls for service from the building shall be considered an emergency situation i.e. passenger entrapment, and the service company shall dispatch mechanics immediately at any time and hour seven days per week at no charge to the owner.**

c) Lead time to fabricate and deliver the equipment from executed contract. \_\_\_\_\_ weeks.

d) Installation time Elevator Number 1 \_\_\_\_\_ weeks.

e) Installation time Elevator Number 2 \_\_\_\_\_ weeks.

f) Installation time Elevator Number 3 \_\_\_\_\_ weeks.

g) Total time required from execution of contract document to completion of the project. \_\_\_\_\_ weeks.

**END OF BID DOCUMENT SECTION**

**TECHNICAL BID INFORMATION**

**DEFINITIONS OF TERMS**

1. The term, ELEVATOR CONSULTANT, as used herein, refers to Landmark Elevator Consultants South, 10300 186th Court South, Boca Raton, Florida.

2 The term, OWNERS REPRESENTATIVES, as used herein, refers to the Manager acting on the Owners behalf.

3. The term, CONTRACT or CONTRACT DOCUMENTS, as used herein, consists of the Agreements, Bidding Information, Conditions of Contract, Specifications and includes any Alternates or Addenda issued during the bidding period.

4. The term, CONTRACTOR OR ELEVATOR CONTRACTOR, as used herein, refers to any persons, partners, firm or corporation having a contract with the Owner to furnish labor and materials for the execution of the work herein described.

5. The term, SUBCONTRACT, as used herein, refers to any persons, partners, firm or corporation having a contract with the Contractor to furnish labor and materials for the execution of the work herein described.

6. Words in the singular shall include the plural whenever applicable or the context so indicates.

7. All terms in these specifications have the definition given in the latest edition and supplements of the American National Standard Safety Code for Elevators, Dumbwaiters, Escalators and Moving Walks, ASME A17.1 and the local and state codes and laws.

8. Elevator Consultant's Status: The Elevator Consultant shall act as the Owners representative on matters pertaining to the elevator work. He shall interpret the specifications, review technical details and construction procedure and inspect and test the completed work for compliance with the specifications prior to acceptance by the Owners.

**GENERAL DATA**

The Work shall be performed and completed in a good, first class, and workmanlike manner and to the owners satisfaction and all work and material required for such performance and completion shall strictly conform to the work data. Anything called for on drawings and not mentioned in specifications, or vice versa, and any work or material necessary to and usually included in the completed finished work shall, together with all such incidental services and processes as are usual and proper in the performance of such work, be furnished by contractor as a part of the work without any extra charge as though the same were specified in the work data.

Contractor, at its expense, shall promptly prepare and furnish to the owners for its approval, all specifications, working drawings, templates, reverse templates, patterns, and models, if any, as required herein or in the work data and such other usual, proper, and necessary working drawings for the work as may be required from time to time by the owners, but the owners written approval thereof shall be obtained by contractor before the work called for therein is executed and all such models shall be made by artists approved in writing by the owners. Each specification or working drawing furnished by contractor shall be marked for identification as the owners may direct. The owners approval of any such specification, working drawing, template, pattern, or model shall not relieve contractor from responsibility (a) for deviations or omissions from any of the work as otherwise called for by the work data unless, prior to owner's said approval, contractor shall have called such deviation or omission to owners attention in writing, or (b) for any errors in specifications and working drawings furnished by Contractor. Contractor shall promptly furnish to the owners such number of copies of said specifications and working drawings as the owners may order for its own use or that of any architect, engineer, or any other contractor engaged in performance of any related work. The owners will furnish contractor such number of copies of the work data prepared by the owners or any architect or engineer as contractor shall require but contractor shall pay to the owners the cost to owner of any copies in excess of two.

Drawings and details to larger scales shall take precedence over those at smaller scales. Contractor shall, in no case, "scale" drawings, but shall work from figured dimensions and all measurements shall be verified at the premises and any failure of the work to fit in place shall be remedied by contractor at its expense.

Where inconsistencies exist in the work data, necessary measurements are missing, work or material called for by the work data is incorrect or impossible of execution, figures fail to check or owner or any architect or engineer shall fail to supply sufficient or clear information to enable contractor to proceed with a part of the work, contractor shall immediately notify the owners and their representatives in writing thereof and conform to owners written directions with respect to the work or material affected thereby lack of information. Failure to understand any of the work data, ignorance of the contents thereof, will not excuse contractor for improper or inferior design, workmanship or material, or for any delay in performing the work, or as a justification for any claim of Contractor for additional compensation.

Contractor, without additional compensation, (at owners request, at any time and either verbally or in writing as the owners directs, will report to the owners on the progress of the Work, including the preparation and delivery of material, and (b) will attend meetings of such places and at such times as the owners shall request for the purpose of reporting to the owners on the progress of the work and/or discussion of its relation to the progress of any other work being performed in or for the premises.

**SCOPE OF WORK**

Furnishing of all necessary labor, tools, transportation, services, supervision, materials, and equipment required to complete the Modernization and Maintenance as outlined in this specification, including any alternates, and the Maintenance of the following elevators:

<b>Number</b>	<b>Classification</b>	<b>Capacity/Speed</b>	<b>Floors Served</b>	<b>Stops/ Openings</b>
South Car 1	Passenger	2500 Lbs. @ 350 FPM	1 to 11; PH	12/12
Center Car 2	Passenger	2500 Lbs. @ 350 FPM	1 to 11; PH	12/12
North Car 3	Passenger	2500 Lbs. @ 350 FPM	1 to 11; PH	12/12

Note: Contractor is to confirm all duties. Contractor is to properly number elevators for code compliance.

**SPECIFICATIONS**

1. It is intended that the contract includes all labor and material to accomplish a complete installation in every respect. Bidders are cautioned to familiarize themselves with existing conditions on the premises and to include all incidental work that might occur during the job. **After the contract has been signed there will be no extra charges allowed for any labor or material necessary to complete the work whether exactly described in these specifications herein or not, as long as such work, labor and material are required in order to obtain the desired effect and results.**

2. Any discrepancies or ambiguities found in the specifications shall be reported to the Elevator Consultant prior to bid for resolution.

3. Information and Drawings: Any drawings, measurements, or information included with the bidding material shall be for the convenience of the bidders. Complete responsibility for detailed dimensions lies with the Contractor. In the execution of the work on the job, the Contractor is to verify all dimensions with the actual conditions. Where the work of the elevator Contractor is to join another trade, the shop drawings shall show the actual dimensions and the method of joining the work of the two trades.

4. Codes and Ordinances: All the work covered by these specification is to be done in full accordance with the Federal, State and Local Codes, Laws, Ordinances and elevator safety orders as are in effect at the time of the execution of the contract. All of the requirements of the Governmental Authorities are to be fulfilled by the Contractor and his subcontractors. The entire elevator plant, including all elevator equipment and work, shall be in accordance with the latest edition and supplements of the American National Standard Safety Code for Elevators, Dumbwaiters, Escalators and Moving Walks, ASME A17.1, the National Electrical Code (NFPA 70), and the requirements set forth by the State of Florida, local (i.e.: County or City) authority, and the Federal ADA requirements.

**INSTRUCTIONS**

1. Submission of Bid:

a) Bids must be submitted on the bid form issued with the specifications and should be in strict accordance with the specifications.

b) Submission of bid will be considered evidence that the bidder is conversant with local facilities and conditions, the requirements of the documents and of pertinent state and local codes, state of labor and material markets and has made due allowance in his bid for all contingencies. Should bidder's investigation of local codes or rules reveal stipulations contrary to the specifications, he should advise the Elevator Consultant in writing prior to the due date.

c) Should a bidder find any discrepancies in or omissions from any of the specifications or be in doubt as to their meaning, he shall contact the Elevator Consultant for clarifications.

d) No oral explanation in regard to the meaning of the specifications will be made and no oral instructions will be given before the award of the contract.

e) Bidders should act promptly and allow sufficient time for a reply to reach them before the submission of their bids. Any required interpretation will be in the form of an addendum to the specifications which will be forwarded to all bidders by the Elevator Consultant.

f) If the bidder desires to furnish any item different from that specifically mentioned in the specifications, he shall notify the elevator Consultant of his intentions prior to the submission of his bid and shall supply the Elevator Consultant with information, data, pictures, cuts, designs, etc., of the materials he desires to furnish so as to enable the Elevator Consultant to decide whether or not the article intended to be furnished by the bidder is, in fact, the equal of that specified. Any deviation from the specifications shall be stated by the bidder as an exception to the specifications in a transmittal letter submitted together with, and as a part of, his bid.

**BID EVALUATION**

1. Demonstration of Similar Work: Each bidder may be requested to demonstrate to the Owners and/or the Elevator Consultant completed jobs similar to the one herein specified.

2. Voluntary Alternate Quotations: Bidders may offer any alternate suggestions or quotations for consideration. Such alternates should be outlined in a cover letter accompanying the executed Bid form.

3. Evaluation of Proposals: The Owners analysis and evaluation of proposals for the purpose of making a contract award will include the following (not necessarily listed in the order of importance):

- a) Total cost of the Modernization and Maintenance.
- b) Completeness of the bidder's proposal, including all information and material required to be submitted therewith.
- c) Completion schedule.
- d) Payment terms.

**ADDITIONAL REQUIREMENTS**

1. Permits: The Contractor shall obtain and pay for all municipal and state permits necessary for execution of the modernization, including the cab interior modernization.

2. Protection of Work and Property: The Contractor shall continuously maintain adequate protection of all his work from damage and shall protect the Owners property from injury or loss arising out of this contract. The Contractor shall make good any such damages, injury or loss, except such as may be directly caused by agents or employees of the Owners. The Contractor shall provide all barricades required to protect open hoistways or shafts per OSHA regulations. The owner requires that dust not be emitted into the lobby areas, accordingly, protective fire-rated material must be installed at each landing while a car is being modernized to control airborne dust into tenant and lobby areas.

3 Storage of Materials: Contractor shall confine storage of materials on job site to limits approved by the Owners Representatives and shall not unnecessarily encumber the premises or overload any portion with materials to a greater extent than the structure design load.

4. Removal of Equipment and Rubbish: The Contractor shall remove all rubbish as fast as it accumulates, keeping the building and premises clean during the progress of the work and leave the premises at completion in perfect condition, as far as his work is concerned, to the Owners Representative's complete satisfaction.

5. Cartage, Hoisting, and Equipment Installation: All elevator equipment installed under this contact shall be delivered to the job site and hoisted into place by the Contractor.

6. Materials and Workmanship: All materials and equipment furnished shall be new and the best of their respective kinds. Installation shall be in a neat, accurate, workmanlike manner and be subject to the approval of the Elevator Consultant. All materials and equipment furnished shall conform to the regulations of the bodies having jurisdiction and installation shall conform to the regulations of the bodies having jurisdiction over such installation. The Contractor shall furnish for approval all samples as directed and material shall be in accordance with approved samples.

**PAINTING AND FINISHES**

1. All natural metals shall be of the best grade and shall have the grain of belting in the direction of the longest dimension with a fine, brushed or mirror finish. All surfaces shall be perfectly smooth and without waves. Painting of unfinished metal will be of the highest quality enamel and rust resistant paint.
2. Any equipment in the machine room or the hoistway that is rusting shall be wire brush clean and field painted with the highest quality rust inhibitor enamel.
3. Machines, machine room floor, shall be field painted with the highest quality enamel. Components in the elevator shaft including but not limited to car top, crosshead, top and back of doors, platform, hoistway side of door frames, pit equipment shall have any rust removed and painted with the highest quality rust inhibitor paint.
4. All painting in the elevator hoistway shall be as per Sherwin Williams Paint Company Specifications SSPC-SP1 specification utilizing Cured Polyurethane Primer and one finished coat of High Build Epoxy Mastic Finish coat.

**SUBMITTALS**

1. Prior to the beginning of the work, the Contractor shall submit and have approved copies of layouts(if required by code authorities for filing), shop drawings and standard cuts. These items should include cab drawings (if included under these specifications) and all accessories and fixtures. The Elevator Consultant shall pass on the submittals with reasonable promptness and the Contractor shall be responsible to insure that there will be no delay in his work or that of any other trade involved.
2. Samples of wood, metal, plastic, paint, or other architectural finish material shall be submitted for approval to the Owners.
3. It shall be distinctly understood that approval of the drawings and cuts shall be for general arrangement only and does not include measurements and code compliance which are the Contractor's responsibility or approval of variations from the contract documents.
4. The consultant will have a kick off meeting with the successful contractor prior the beginning of the work. The contractor's sales representative and field manager responsible for the job shall be in attendance. The contractor shall provide the following information at this meeting:
  - A) Shop drawings as required including fixture drawings.
  - B) A catalogue of the fixtures being supplied and samples that may be required.
  - D) A complete installation bar schedule.
  - E) Insurance certificates if not already submitted.

**CONTRACTORS WORK FORCE**

The Contractor shall keep a competent installers at the job site continuously during the work progress all satisfactory to the Owners. The superintendent and or the Lead Mechanic shall represent the Contractor and all instructions given to him shall be as binding as if given to the Contractor. If the Lead Mechanic does not cooperate fully with the Owners Representative he shall be removed from the job upon notification of the owner and replaced with a competent Lead Mechanic to the owners satisfaction. If the contractor removes the work force from the site without the expressed written consent of the owner or consultant he shall be subject to a penalty of \$150.00 per day for each day the work force is removed.

**CHANGES, CHARGES AND EXTRA WORK**

The Owners may at any time make changes in the specifications, plans and drawings, omit work, and require additional work to be performed or require portions of work to be completed after normal working hours by the Contractor. For such additional work performed hereunder, the Owners shall pay Contractor on the basis of a mutually agreed formula; Real cost of the labor (direct and fringes) and material, multiplied by ten percent for burden and 10% for profit. For work which is part of the original specification performed on overtime payment will be the premium portion only, the straight time will be part of the contracts responsibility. The contractor shall make no additions, changes, alterations or omissions, or perform extra work, except on prior written authorization of the Owners.

**PROGRESS OF WORK**

1. Upon signing of the contract, the Contractor shall submit a complete starting, progress, and completion schedule, including equipment delivery dates, downtime and return to service dates per unit based on the information submitted on the bid form.
  
2. The Contractor, monthly, shall submit in writing the following information to the Owners throughout the Modernization period:
  - a) A updated progress schedule, including equipment delivery times, work completed the previous week and scheduled work to be performed the following month.
  
  - b) A progress report with submission of payment request, showing the progress being made and the percentage of the job completed and shall certify to the Owners that labor and materials listed on the request for payment have been performed and or installed. The form of invoice shall be the standard AIA including a lien waiver for the invoiced values.

**CERTIFICATES OF INSPECTION**

Contractor shall arrange and pay for any necessary inspections by governing authorities, certifications of inspection, and permits necessary for operation of the elevators by the Owners.

**GUARANTEE OF WORK**

1. The Contractor shall guarantee that the materials and workmanship of the apparatus installed or rehabilitated by him under this contract shall be first class in every respect and that he will make good any defects not due to ordinary wear and tear or improper use, which may develop with one year from the date of final acceptance of all equipment. Neither the final payment nor any provision of the contract documents shall relieve the Contractor of the extent and period provided by law and upon written notice he shall remedy any defects due thereto and pay all expenses for any damage to other work resulting therefrom.

2. The same guarantee shall be applicable to the total job in the event equipment is reused or modified.

3. The one-year guarantee, as outlined above, for all elevators shall start from the date of final acceptance of the complete job by the elevator Consultant and the Owners.

4. If a new hydraulic jack unit is installed the warranty for repair or replacement shall be five years.

**DRAWINGS AND DIAGRAMS**

1. The Contractor shall submit four copies of all drawings and details to the Elevator Consultant for approval. One copy shall be returned to the elevator Contractor by the Elevator Consultant marked APPROVED, APPROVED AS NOTED, SUBMIT SPECIFIC ITEM, or REVISE, AND RESUBMIT. Drawings marked APPROVED AS NOTED, REJECTED, or REVISE AND RESUBMIT shall be resubmitted for approval no later than 10 working days after the drawings are returned to the contractor.

2. At the conclusion of the job, a final set of drawings shall be submitted incorporating all changes which have been made.

3. Three complete sets of AS INSTALLED straight-line wiring diagrams. (One set of diagrams shall be reproducible master.)

4. Two complete lubrication charts listing the types of lubricants recommended by the manufacturer of the equipment and the frequency of such lubrication.

5. Two complete parts catalogs for all replaceable parts of the equipment installed.

6. Copies of all approved or approved as noted shop drawings shall be retained at the site.

**KEYS**

Six sets of keys to operate all keyed switches and locks shall be furnished upon completion. Keys shall be properly tagged. All keying shall be arranged with the Owners and or their Representatives.

**TOOLS**

Any special tools required in the normal maintenance of the equipment installed shall be supplied to the owner by the contractor as part of the specification and installation. The tools shall become the property of the Owner.

**PROJECT COMPLETION**

The Project completion date submitted is extremely important to the award of the project. Should, during the installation, the consultant, at their sole discretion, believe the contractor is failing to maintain a schedule of work which will meet the completion date, the contractor shall, at no cost to the owners, supply what ever manpower or additional time is required to complete the project as originally submitted.

**REMOVAL OF EXISTING EQUIPMENT**

All existing elevator equipment which is not to be used in the new installation shall be removed by the Contractor prior to the new equipment installation. All equipment that is not to be retained by the Owner shall become the property of the Contractor and shall be removed, by him, from the premises. The unused material shall be removed as the work progresses as to keep the site clear of debris.

**END OF THE TECHNICAL BID INFORMATION SECTION**

**OUTLINE DATA:**

<b>NUMBER &amp; TYPE:</b>	Three (3) overhead geared traction.
<b>CAPACITY:</b>	Present shall be retained.
<b>SPEED:</b>	Present shall be retained. (Original Design Speed)
<b>MACHINE:</b>	New as specified.
<b>MOTOR:</b>	New AC hoist motor.
<b>STOPS/OPENINGS:</b>	Present shall be retained.
<b>CONTROL:</b>	New Microprocessor with VVVF AC Motor Drive
<b>OPERATION:</b>	New Microprocessor – Simplex selective collective with independent service feature.
<b>DOOR EQUIPMENT:</b>	Refurbish as specified.
<b>CAR PLATFORM:</b>	Retain and refurbish as specified.
<b>CAR ENCLOSURE:</b>	New interior. Allowance of \$12,000 each elevator cab.
<b>SIGNAL FIXTURES:</b>	New as specified.
<b>COUNTERWEIGHT:</b>	Retain and refurbish as specified.
<b>CAR FRAME:</b>	Retain and refurbish as specified.
<b>CAR SAFETY:</b>	Retain and refurbish as specified.
<b>GUIDE RAILS:</b>	Retain and refurbish as specified.
<b>BUFFERS:</b>	Retain and refurbish as specified

**OUTLINE DATA:** (Continued)

- WIRING:** New as specified.
- GOVERNOR:** New as specified.
- ROLLER GUIDES:** New as specified.
- CABLES:** New as specified.
- ENTRANCES:** Refurbish as specified.

**POWER SUPPLY:**

The new equipment will be arranged for the present power supply.

**NEW MACHINE:**

The machine shall be of the overhead geared traction type with motor, brake and traction drive sheave compactly mounted on a continuous bed plate and set on steel beams. Sound isolation pads shall be installed beneath the machine bed plate to reduce vibration and noise transmission to the building. New hoist cables shall be installed. A new brake switch shall be furnished and installed. The wiring to the hoist motor shall be in ridged conduit and be securely fastened. The machine and motor shall be adjusted for smooth quiet operation.

New secondary deflector sheave shall be furnished and installed.

Provide up direction safety per code requirements.

Note: Include all cost of hoisting and cutting and patching of machine room walls if required.

**HOIST MOTOR: QUALIFIED MANUFACTURER - IMPERIAL OR APPROVED EQUAL**

The Contractor shall furnish and install a new AC Motor compatible with the new machine which maintains the operating characteristics of the existing elevators.

The motor control will be fully digital, micro-processor based, A.C. Servo with direct drive . It shall employ an optical digital encoder to provide feedback from the variable speed A.C. hoist motor. Acceleration and deceleration are accurately controlled at all times resulting in smooth and step less operation. The static portion of the system shall be a network of solid state devices that are used in controlling motor speed.

The elevator motor will operate as a three phase induction motor with good variable speed characteristics. The motor will provide full torque at zero speed.

**UP-DIRECTION SAFETY:**

The contractor shall furnish and install an up direction safety device for code compliance. Include all components and wiring for un-intended car movement. The safety shall be securely mounted to the building structure. On completion the safety shall be tested for proper operation.

**POWER CONVERTER SUCCESSIVE STARTING:**

When both power converters in a group are shutdown due to lack of demand, only a single converter shall be allowed to start up at any given time.

**AUTOMATIC SELF-LEVELING:**

The elevator shall be provided with automatic self-leveling that shall bring the elevator car level with the floor landings, typically within +1/8", and no more than +1/4" regardless of load or direction travel. The automatic self-leveling shall correct for over travel or under travel and rope stretch.

**CONTROLLER VVVF AC:**

A microprocessor-based closed loop control system shall be provided to perform all the functions of safe elevator motion and elevator door control. This shall include all the hardware required to connect, transfer and interrupt power, and protect the motor against overloading, contain line spike protection and operate through line voltage reduction of up to 10%. The system shall also perform group operational control.

The system shall be specifically designed to meet the particular needs of modernizing UMV traction elevators. The system shall be a network of microprocessor control units and solid state performance measurement devices and shall be fully digital. The system shall be integrated by communications over serial links and discrete wiring. Measurement transducers shall constantly monitor the performance of every controlled elevator function. The control units shall evaluate this performance data and automatically adjust performance as necessary, so as to correct any deviations within milliseconds. The system response software dispatches elevators based upon real time response to actual demands on the elevator group. The software shall be designed to maintain optimum elevator system performance by evaluating and reassigning hall calls within milliseconds of changes in elevator demand or performance.

Each controller cabinet containing memory equipment shall be properly shielded from line pollution. The microcomputer system shall be designed to accept reprogramming with minimum system down time.

A Microprocessor based control system will be provided to perform all of the functions of safe elevator motor control. This will include all of the hardware required to connect, transfer and interrupt power and protect the motor against overloading. The system will also perform car and group operational control.

**CONTROLLER VVVF AC:**

The controller will be fully digital, micro-processor based, A.C. Servo with direct drive. It employs optical digital encoder for feedback from the variable speed A.C. hoist motor. Acceleration and deceleration are accurately controlled at all times resulting in smooth and step-less operation. The static portion of the system is a network of solid state devices that are used in controlling motor speed.

An isolation transformer shall be furnished and installed on each elevator. The cabinets shall have bi-parting doors.

Provide Surge Protection and automatic re-set feature in the event of temporary power interruption.

**LANDING SYSTEM:**

The new hoistway landing system shall be designed to provide the controller with the precise information as to the absolute position of the car in the hoistway. With the car at the landing, the landing system shall indicate to the controller the actual floor number, so that no movement to terminal landings or specific floors shall be necessary to establish car location within the building.

Car position shall be obtained by utilizing a wheel mounted encoder or stainless steel tape with a car mounted reader.

**QUALIFIED CONTROL SYSTEMS: MCE- 4000 CONTROL**

MCE is the qualified manufacturer of the control system to be installed. Manufacturer's of Control Equipment may submit their equipment as an alternate providing they can provide a list of at least three (3) qualified local elevator service companies who are currently providing maintenance to the type of equipment proposed as an alternate in addition to providing the owner a written guarantee as part of this contract that all parts, service tools, wiring diagrams, sequence of operation manuals and technical support, will be provided in the event the owner desires to change the service company.

**OPERATION - SIMPLEX SELECTIVE COLLECTIVE**

Simplex selective collective automatic operation shall be provided. Operation of one or more car or hall call push-buttons shall cause the car to start and run automatically, provided the hoistway door interlocks and car door contacts are made up. The car shall stop at the first car or hall call in the direction of travel. Car stops shall be made in the order the calls are reached, regardless of the order in which they were registered. If only hall calls for the opposite direction of travel exist ahead of the car, the car shall proceed to the most distant hall call, reverse direction, and start collecting the calls.

**OPERATION**

The controller shall have field programmable inputs/outputs to activate different functions based on the customer needs. These functions shall include but not be limited to Fire Phase I Return Complete Signal, Fire Phase II Output Signal, Hall Call Reject Signal, Emergency Power Return, Fire Phase I Bypass Input, Fire Phase II Call Cancel Input, Fire Phase II Hold Input, and parking floor.

**INDEPENDENT SERVICE:**

A switch shall be provided in each car operating panel which, when actuated, shall cancel previously registered car calls, disconnect the elevator from the hall buttons, and allow operation from the car buttons only. When on independent service a jewel light in the hall push button stations ("Out of Service") shall illuminate to indicate that the car is out of service.

**EMERGENCY DISPATCH:**

In case of a malfunction of the group system communication network, the computers operating the individual car computers shall detect the malfunction and provide emergency dispatching of all in-service cars.

**EMERGENCY POWER:**

When an emergency power situation is detected by an input, the cars shall be returned to the main lobby one at a time, and remain there with doors open. Once all cars have been returned to the lobby, one or more cars may be selected to run under emergency power. Selection of the cars that will run under emergency power shall be done automatically by the group system. This automatic selection may be overridden through manual selection. The actual number of cars allowed to run under emergency power shall be a pre-programmed value and the group system computer shall not allow any more than the pre-programmed number of cars to run on emergency power. Include wiring and contacts to the transfer switch as required.

**OUT OF SERVICE:**

The system shall automatically remove any car from the group operation if the car is delayed from responding to its demand within a field adjustable time period. The system shall automatically restore any car back to system operation when the reason for the delay has been corrected.

**LOADED CAR DISPATCH:**

All waiting time shall be removed from the main lobby dispatching interval when a car becomes loaded to a predetermined adjustable level (set to 60%).

**LOADED CAR BY-PASS:**

An elevator filled to 60% of rated capacity shall by pass hall calls.

**FIREMAN'S EMERGENCY SERVICE:**

Special Emergency Service operation shall be provided in compliance with the latest revision of the ANSI/ASME A17.1 and all local codes. Special Emergency Service Phase I to return the elevator(s) non-stop to a designated floor shall be initiated by an elevator smoke detector system or a key switch provided in a lobby fixture. The smoke detector system is to be furnished by others. The elevator contractor shall provide contacts on the elevator controller to receive signals from the smoke detector system.

A key switch in the car shall be provided for in-car control of each elevator when on Phase II of Special Emergency Service. If an elevator is on independent service when the elevators are recalled on Phase I operation, a buzzer shall sound in the car and a jewel shall be illuminated.

The car operating panel and the lobby floor push button station plate shall contain engraved signs to indicate the proper operation of Phase I & II.

If required, the elevator contractor shall assist in modifications to the fire alarm by pulling wiring up the hoistway to the machine room in a conduit or wire trough and stubbing the wiring out into the landing at each floor.

**COMMUNICATIONS:**

The Contractor shall furnish and install an auto dial communications system. The system shall be capable of hands free operation. The system shall have a visual signal to inform the passenger that communications has been requested and when communications is open in the new car operational panel. It shall be mounted in the new car operation panel with only the call button and acknowledgment signals visible. The speaker grille shall be incorporated into the new panel.

The contractor shall assist in the installation telephone lines by pulling wire up the hoistway in the wire trough to the machine room. Wiring shall be terminated outside of the elevator hoistway at a floor convenient for the installation to the building telephone terminals and clearly labeled. Final wire installation shall be performed by the telephone installation company.

The phone shall be programmed to call the Contractors emergency dispatch center at no additional cost to the Owner.

**INSPECTION OPERATION:**

A new top of the car operating fixture toggle switch shall make the fixture operable and, at the same time, makes the door operator and car and hall buttons inoperable. The new top of car operating station shall all features required by code.

**ANTI-NUISANCE:**

An anti-nuisance feature shall be provided which will reset car buttons and require re-registration if an excessive number of calls are registered for the measured load.

**QUALIFIED FIXTURE MANUFACTURER:**

The qualified fixture manufacturers are EPCO, Monitor Controls, Innovation Industries. The car operating panel and lobby floor hall push button station shall be WGH Signature Series. The car direction indicators shall be the SSL Tamper Resistant design. **The hall push buttons shall be surface mounted at all floors.** All fixture illumination shall be by means of LED lighting. Include fire evacuation engraving in the hall push-button fixture face plates or a separate plate as selected by the Owner. Key operated switches that are keyed to the building master key system or used for floor lock out shall be provided. Blank or engraved plates necessary to cover old fixture cut outs shall be provided and engraved if required by the Owner and Consultant. Hall fixture face plates shall be properly sized to minimize decorating around the fixtures. Contractor shall be responsible for all fixture dimensions, cutting and patching and code compliance.

**All fixtures are to be satin finish stainless steel.**

**Hall push buttons are to be stainless steel surrounded by a halo call acknowledgement light.**

**APPLIED CAR OPERATING PANEL:**

A new applied car operating panel shall be furnished and installed. It shall contain a bank of mechanical stainless steel buttons with surrounded by a LED halo. The floor marking shall correspond to the landings served.

Furnish and install an emergency call button, digital read out car position indicator, a key operated stop switch, door open and door close buttons, emergency light and test key switch, auto dial communications system, independent key switch, light and fan switches, door hold button and certificate frame.

Engrave the international no smoking symbol and words, car number, AHJ I.D. number and engraving for all key devices.

Provide a locked compartment for fire service devices for code compliance.

The panel shall conform to all ADA and handicap requirements including Braille and floor numeral markings and code required height for all devices.

The Florida State size certificate frame shall be incorporated into the bottom of the car operating panel.

**AUDIBLE SIGNAL:**

An audible signal (chime) shall sound in the car to tell passengers that the car is either stopping or passing a landing served by the elevator.

**HANDICAPPED MARKINGS:**

Raised markings shall be furnished for the and jamb tags affixed to the landing door frames in compliance with the latest revision of the ANSI A 17.1, Federal, State And Local Handicapped Requirements including the Americans with Disabilities act of 1990.

**CAR POSITION INDICATOR:**

A new digital read out type car position indicator shall be furnished and installed in the car operating panel. The size of the read out size shall be as approved by the consultant and owner. A blank or engraved plate shall be furnished and installed to cover the old cutout if required.

**IN CAR DIRECTION LANTERNS:**

Two new in car direction lantern (SSL Tamper Proof), which are visible from the corridor Hall Station, shall be mounted in the car entrance jamb. When the car stops and the doors are opening, the lanterns shall indicate the direction in which the car is to travel. A chime shall also be furnished on the car which will sound once for "UP" and twice for "DOWN" as the doors are opening.

**VOICE ANNUNCIATOR:**

A voice annunciated system (woman's voice) shall also be furnished on the car which shall announce the "UP" and "DOWN" and floor designation as the doors are opening.

**EMERGENCY CAR LIGHTING:**

A new battery operated code compliant emergency car light shall be installed in the car operating panel. The battery shall be charged by means of a continuous 110 volt power supply. If power fails cab illumination shall be provided for a minimum of four hours. A key operated test key switch shall be incorporated into the car operating panel.

**HALL BUTTONS:**

Furnish and install new surface mounted hall button stations which comply with all the Federal, State and Local Code requirements, including the Americans with Disabilities Act of 1990. Provide halo illuminating buttons with LED type lighting as selected by the owner. An up and down button shall be provided at each intermediate landing and a single button at each terminal landing. When a call is registered by momentary pressure on the button that button shall become illuminated and remain illuminated until the call is answered.

Fire emergency evacuation engraving shall be provided in each fixture or a separate plaque above the hall station as approved by the Owner.

Lobby Hall Button Station Only. The lobby floor fixture shall be surface mounted as outlined above. Furnish and install Phase I fire service switch with instructions engraved, the emergency power selector switch, jewel light and engraving if required. Face plates shall be sized to minimize redecorating around the fixtures face plates.

Furnish and install a key operated car call switch at floor 1 on elevators 1 & 3. Switch is to be a MEDCO. Coordinate the installation of the new switch with the Owner.

Furnish and install digital read out position indicator in all hall buttons.

Furnish and install new engraved stainless steel plates at the lobby to cover the old lobby floor position indicators. Engraving shall be as selected by the Owner.

**DOOR HOLD BUTTON:**

Furnish and install a door hold button in the car operating panel. When activated, the door shall remain open for an adjustable period of time. The timer shall be adjustable from 0 to 30 seconds and initially set to 15 seconds. Activation of a floor button or the door close button shall eliminate the time and close the door.

**FIRE CONTROL PANEL:**

Furnish and install a separate fire control panel containing all code required features. Include digital read out position indicators for each elevator, communication phone, code required key switches and jewel lights, and emergency power devices. The fixture shall be fully compliant with current code. The panel shall be located as required by code.

**HOISTWAY OPERATING DEVICES:**

New normal terminal stopping devices shall be provided to slow down and stop the car automatically at the terminal landings and to automatically cut off the power and apply the brake, should the car travel beyond the terminal landings.

**CAR AND COUNTERWEIGHT ROLLER GUIDES:**

New ELSCO roller guide shoes shall be furnished and installed. The car guides shall be Model "B" and the counterweight shall be Model "D". Adapter plates shall be supplied if necessary. The guide shoes shall be properly aligned to the guide rails for smooth quiet operation. Adapter plates shall be field painted.

**COUNTERWEIGHT:**

The existing counterweight shall be carefully examined. Repairs or replacement for quiet operation shall be performed. Include all cost for properly re-balancing elevators.

**COMPENSATION:**

Not required. The contractors engineering department shall confirm the requirement for compensation.

**CAR FRAME AND SAFETY:**

The existing car safety device, which is designed to stop the car in case it should attain excessive descending speed, will be retained, tested and overhauled as required. Parts that are rusted shall be painted with the highest quality rust inhibitor paint providing that they do not impede proper safety application.

**GOVERNOR:**

A new over speed governors shall be furnished and installed including a pit tension sheave and cable on each elevator. The pit tension sheave shall be field painted with the highest quality rust inhibitor paint. The governor shall be calibrated, test for proper tripping speed and sealed.

Properly fill in with masonry the machine room floor around the new governors.

**BUFFERS:**

The buffers shall be retained, wire brushed clean of any rust, checked for proper operation, repaired as necessary, piston blued, tested, test tag affixed, rust removed and painted with the highest quality rust inhibitor paint.

Remove rust and field paint the buffer channels with two coats of rust inhibitor paint. Remove rust and paint the counterweight guard.

**PLATFORM AND SOUND ISOLATION:**

The platform will rest on new rubber pads which are supported by an auxiliary steel frame fastened to the car frame. This arrangement forms an isolating cushion between the car and steel car frame.

Secure and modify as required fire proofing to the bottom of the platform for code compliance.

**ROPES:**

New hoist cables shall be furnished and installed on each elevator. New governor cables shall be furnished and installed on each elevator. Hoist cable spin out restrictors and shackle springs on the car and counterweight shall be provided. Cable tags shall be affixed to the cables. Hoist cable tension shall be checked and properly equalized. The contractor shall be responsible to shorten the hoist cables as necessary.

**DOOR OPERATORS:  
QUALIFIED MANUFACTURER GAL OR APPROVED EQUAL.**

The contractor shall furnish and install a new GAL MOVFRW waterproof closed loop door operator including a new clutch, and door contact on each elevator. The doors on the car and at the hoistway entrances shall be power operated by means of an operator mounted on top of the car. The motor shall be at least 1/3 HP and have positive control over door movement for smooth quiet operation.

Door operation shall be automatic at each landing with opening being initiated as the car arrives at the landing and closing taking place upon expiration of a predetermined adjustable time interval. Doors shall remain open for a time period sufficient to meet ANSI A 17.1, ADA and State and Local handicapped Requirements. Door close shall start after a minimum time, consistent with ANSI A 17.1, ADA and State and Local handicapped Requirements, from notification that a car is answering a hall call. The time interval for which the elevator doors remain open when a car stops at a landing shall be independently adjustable for response to car calls and response to hall calls. A car door electric contact shall prevent starting the elevator away from the landing unless the car door is closed.

The operator shall employ closed loop feedback and a torque limiting drive in order to insure safe operation. A digital feedback tachometer directly coupled to the motor shall be employed. Speed shall be continuously monitored by the tachometer checking actual speed to desired speed to ensure that desired speed is maintained for smooth and quiet operation. If an obstruction is detected during closing cycle, a door reversal will occur. The obstruction force shall be adjustable and limited to code requirements. Speed zones for closing and opening shall be adjustable. The door operator shall be fully code compliant.

All car and hoistway door surfaces shall be reinforced for the door opening assemblies. All operating levers shall be constructed of heavy steel members. All brackets and other supports required to support door operating mechanism shall be furnished and installed.

**CAR DOOR PROTECTIVE DEVICE: TRI-TRONIC OR APPROVED EQUAL**

A new water proof proximity-type infra-red car door protective device having the following operation shall be furnished and installed. The control unit shall be mounted in a water proof box on a bracket vertically on the car top or to the cross head. When in their full open position, the doors shall be unable to initiate closing if a person comes within the detection zone. The detection zone moves with the doors, so that if a person or object enters the zone after the doors have begun to close, the doors shall stop, then reverse to reopen. The doors shall re-close after a brief time. A passenger entering or leaving the cars shall not cause the doors to reopen unless the doors reach a predetermined proximity to the passenger. After a stop is made, the doors shall remain open for a time to permit passenger transfer, after which they shall close automatically. This time interval shall be less for a car call than for a hall call or a coincident car/hall call.

The new detector edge shall be fully compliant with all prevailing codes. The car top control and all wiring shall be properly secured.

**HOISTWAY DOOR PANELS - FRAMES:****Doors:**

Remove the present hoistway door panels. Furnish and install new code compliant fire rated hoistway doors on each opening. Door finish shall be satin finish stainless steel at the first floor. At all floors above the first floor the doors finish shall be stainless steel or plastic laminate as selected by the Owner. If the doors are plastic laminate provide a stainless steel binder on the leading edge around the sight guard.

Furnish and install two new door gibs and fire tabs on each door panel. Furnish and install new hanger rollers on each door panel. Provide emergency key holes with escutcheon tubes in each door panel. Replace any missing or damaged door bumpers. Field paint the back and edge of the new door panels.

**Frames:**

At the first floor clad the door frames in new satin finish stainless steel. At all upper floors polish the door frames to a new number four satin finish stainless steel.

New code compliant handicap tags shall be affixed to each door frame.

**CAR DOOR/HANGER/TRACKS/GUIDES/BUMPERS:**

Furnish and install new car door hangers, galvanized track and gate switch. Two new car door guides (Gibs) shall be installed on each door. The car door shall be adjusted for proper clearances and smooth quiet operation. Provide two new bumpers.

**HOISTWAY ENTRANCE TRACKS/HANGERS/GUIDES/BUMPERS:**

Remove the existing door tracks. Furnish and install new (GAL) galvanized door tracks. The tracks and headers shall be cleaned of all rust and painted. Furnish and install new hoistway door hanger rollers on each hoistway door. Furnish and install two new door guides and fire tabs on each door panel. Furnish and install new door bumpers on each door opening.

**HOISTWAY DOOR INTERLOCKS:**

Furnish and install new interlocks (GAL), interlock pick up rollers and interlock breaker bar assemblies. These approved positive interlocks shall prevent operation of the elevator unless all doors for that elevator are closed and shall maintain the doors in their closed position while the elevator is away from the landing. Interlock assemblies shall be pinned when adjustment is completed which shall prevent the interlock or any of it's components from moving out of adjustment. Emergency access to the hoistway as required by governing codes shall be provided. If required, plug existing key holes with approved plugs and install new emergency key holes and escutcheon tubes

**HOISTWAY ENTRANCES CLOSURES:**

New spirator closure devices shall be furnished installed on each door. The closure device shall be properly adjusted to insure full closing of the door when the car is not at the floor.

**DUST COVERS - FASCIA - HEADERS - STRUTS:**

Retain existing. Remove rust and paint with rust inhibitor paint.

**HOISTWAY WALL/DOOR MARKINGS:**

Remove rust from the back of each hoistway door. Paint each door with rust inhibitor paint. Apply code compliant floor decals/or painted markings on each door panel.

**CAB UPGRADING: PASSENGER ELEVATORS**

The Contractors include in the base bid price (separate from cab allowance) the following upgrading:

- Clad the front return, entrance columns panel and transom in new satin finish stainless steel.
- Modify the front return panel and transom to eliminate projected transom. Transom and front return are to be in the same plain.
- Furnish and install new cab doors. Finish is to be satin finish stainless steel.
- Furnish and install new two speed exhaust fan.

**CAB UPGRADING:**

- Repair or replace the cab steady plates.
- Furnish and install new code compliant bulletin boards in each cab.
- Furnish and install new cab corner mirrors.
- Furnish and install three new sets of full protection pads and pad hooks.

**CAB REMODELING: ALL ELEVATORS**

The contractor shall include in the base bid an allowance of \$12,000.00 net each for a new elevator cab interior in each elevator cab. The elevator contractor shall include in his bid all mandated filing for this work, co-ordination and scheduling during the modernization of the elevator system, removal and re-installation of doors and appurtenances, furnishing and installing all operating and safety equipment, re-balancing and static balancing of the elevator system, wiring, cutouts, and other cab associated apparatus that may be designated or required by codes and laws. One set of full protection pads and hooks shall be provided prior to turning the car over to operation. The material and cab shall be compliant with all code requirements.

The contractor shall provide the owner all assistance necessary (including providing samples if necessary) in obtaining a cab design. Cab detail drawing shall be furnished to the owners for approval prior to fabrication. The cab re-modeling may be performed during or immediately after the completion of the elevator modernization. If the cab selected exceeds or is less than the specified allowance amount the contract price will be adjusted by change order.

The owner reserves the right to remove the elevator cab allowance from the elevator contract. In this event the contractor shall return to the owner the full value of the cab allowance. This does not relieve the contractor of the obligation to properly co-ordinate and assist with other work that may be required including re-balancing of the elevator cabs .

**FLOORING:**

Remove the present cab flooring. Furnish and install new cab flooring under an allowance of \$2,000 each cab. Provide the Owner all assistance necessary in selecting the new floor material. Submit samples as may be required. Flooring is to be flush with the cab saddle.

**CAB SADDLE:**

Furnish and install new extruded aluminum cab saddles.

The new flooring is to be set flush with the cab saddle.

**PIT SWITCH:**

A new emergency stop switch shall be located in the pit accessible from the pit access door.

**SMOKE VENTS:**

Retain existing vents. Modify as required for code compliance. Replace missing vent hoods.

**Center Elevator:**

Hoistway vents shall be equipped with motorized dampers that are capable of being automatically closed during normal building operation and are interlocked to be opened by fire and smoke detection systems; as required by all Florida codes. Provide a separate exterior vent assembly with a goose neck hood to protect the interior motorized vent system and hoistway. Vents are to include both an inset and bird screens.

Co-ordinate with Fire Alarm Contractor and install all wiring that may be required for proper operation.

**PIT LADDER:**

If required for code compliance, furnish and install new pit ladders. Pit access shall be modified as required to conform to all codes and rules.

**CLEANING AND PAINTING:**

The machine room floor and all retained and new equipment shall receive a final field coat of the highest quality enamel. All pit equipment including channels, ladders, buffers shall receive two coats of the highest quality rust inhibitor paint. The top of cab and cross head shall be wire brushed clean of all rust and receive two coats of the highest quality enamel. Remove rust from headers, fascia, toe guard, back of hoistway doors, bottom of platform and safety and paint with rust inhibitor paint. Field paint the back and sides of the hoistway door panels. New bare metal shall be painted with the highest quality rust inhibitor paint.

All components and the hoistway shall be thoroughly cleaned.

**SCREENING:**

Furnish and install the necessary suitable temporary screening between the elevators, extending the full length of the hoistway. Contractor should include any and all overtime required to perform this task as only one elevator shall be removed from service at a time. Screening shall be removed by the contractor at the completion of the job and removed from the premises.

**WIRING:**

All new machine room and hoistway wiring and electrical interconnections which complies with the governing codes shall be provided. Insulated wiring shall have flame retardant and moisture-proof outer covering, and shall be run in galvanized conduit, tubing or electrical wire-ways.

New traveling cables shall be provided and include 20% spares and four pair of twisted shielded cables. Furnish and install new wiring for security cameras in the pit and on the car top. Clearly label the box "Security Camera Wires).

A new earth ground wire shall be installed from the elevator machine room down the hoistway in a separate conduit. All equipment shall be properly grounded to this new ground wire.

The contractor shall pull wiring for the telephone up the hoistway to the machine room. The wiring shall be terminated outside of the hoistway at floor convenient for the telephone installer to pull to the telephone vault. If required, the contractor shall pull wiring for smoke detectors up the hoistway and stub wiring out at each floor as required by the fire alarm contractor.

Furnish and install new wiring and contacts to the emergency generator transfer switch for proper operation on emergency power.

**MAIN LINE DISTRIBUTION SYSTEM:**

The contractor shall examine and if necessary test the existing electrical main supply components including the wire size, disconnect switches, grounding circuits and any other electrical components required for a reliable elevator operation with the new equipment. If, any modifications, additions and or replacement is required the contractor shall furnish that information with his bid submittal. Failure to do so will make the contractor responsible for the associated cost which may be required to be performed on the main line distribution system to provide a reliable elevator operation or fail to meet required codes and laws.

**EMERGENCY POWER OPERATION:**

The elevators shall be equipped to operate from the existing emergency generator. The contractor shall carefully review the operation with the Association and arrange for testing that may be required with the emergency power generator company.

Include the cost of contacts and wiring as required for proper operation including to the emergency generator transfer switch.

**FLOAT SWITCH:**

Furnish and install a float switch in the pit. When activated by excessive water the elevators shall park at the second floor.

**CODE COMPLIANT ELECTRICAL:**

The contractor shall have the existing power supply (feeders, main disconnect switches, ground, car light disconnect switches, pit lights and receptacles) examined by a licensed electrician for adequacy and code compliance. The contractor's electrician shall include the cost of all labor and material to bring the present equipment to compliance with current code. New code compliant machine room lighting shall be provided. Provide power supply and wiring as required for the machine room air-conditioning system including on emergency power.

Wiring from the telephone switch gear to the hoistway shall be provided and wiring to the machine room for phone lines shall be provided.

Provide code compliant roof lighting.

Provide shunt trips if required for code compliance.

**MACHINE ROOM AIR-CONDITIONING**

The contractor shall supply all labor and material to provide a new air-conditioning unit of sufficient BTU's for the two machine rooms. The units shall be of adequate size taking into consideration ambient temperature from heat load and the heat emission of the equipment to maintain an operating environment not to exceed 80 degrees Fahrenheit with non condensing humidity up to 80%.

The unit may be a split system or tied into the existing cooling tower.  
All necessary piping and wiring shall be provided.  
All existing vents in the machine room shall be sealed and water tight.  
Mount compressor on aluminum brackets with stainless steel fasteners.  
Provide all wiring for proper operation including in emergency power.

**EQUIPMENT MARKINGS:**

The main machine, controller, main line disconnect and pit equipment shall be identified and marked by the installation of the building and state identification number. Identification numbers shall be stenciled on the components.

Properly re-number the elevators for code compliance.

**ENGINEERING DESIGN:**

All new material furnished will be specifically designed to operate with the original elevator equipment being retained, thus assuring maximum performance.

**PERMITS AND INSPECTION:**

The elevator contractor shall furnish all licenses and permits in accordance with ANSI A-17.1 and State and local Elevator Safety Code. The contractor shall pay for and arrange for and make all inspections and tests required by all code authorities.

**CODE AND LAWS:**

The elevator equipment shall comply with all applicable Federal, State and Local codes and laws including the Americans with Disabilities Act of 1990.

**GUARANTEE:**

The contractor shall guarantee the materials and workmanship of the apparatus furnished under these specifications and will make good any defects not due to ordinary wear and tear or improper use or carelessness which may develop within one (1) year from the completion of the project.

**GENERAL:**

General arrangement drawings covering the elevator machine room equipment layout shall be provided if required by code authorities. No work should commence before these drawings and/or approvals are approved by the owners, code authorities or their agents.

**MAINTENANCE:**

Maintenance will be furnished on the elevator equipment provided for under a separate contract for a period of 60 months commencing on the date of the expiration of the one year warranty maintenance period.

If, for any reason, a mutually agreeable modernization contract cannot be concluded, the Owner reserves the right to select another contractor at no consequence to the Owner.

**REMOVAL OF MATERIAL AND HOISTING:**

The elevator contractor shall take down and remove from the elevator shaft and from the motor room all elevator equipment no longer required by work conducted in this contract. The contractor shall then remove the equipment from the building.

The contractor shall arrange for all hoisting that may be required for the installation and removal of material including permits for cranes if utilized. If new machines are installed the contractor shall arrange for any cutting and patching of the machine room walls that may be necessary.

**STORAGE:**

The Contractor shall include the cost for all storage of new material at the site.

**ASBESTOS IN HOISTWAY DOORS:**

The contractor shall perform all door upgrading as to not disturb and make air-borne asbestos in the hoistway doors should asbestos exist. No extra will be allowed if asbestos in the hoistway door panels. If the contractor has included costs in the bid price for this condition it shall be separately defined with bid clarifications.

**PATCHING:**

The contractor shall include the cost of all patching in the hoistway for code compliance.

**PERFORMANCE TIMES AND ADJUSTING:**

The elevators shall be adjusted for smooth step less acceleration and deceleration. Cars shall be properly balanced and ride quality shall include smooth and quiet operation. Doors shall be adjusted for quiet and smooth operation.

Performance time shall be as follows:

<b>Elevators</b>	<b>Flight Time</b>	<b>Door Open</b>	<b>Door Close</b>	<b>Car Speed</b>
1 - 2 - 3	11.0 to 12.0 seconds	2.5 seconds maximum	3.5 seconds maximum	+/- 5% of original design speed

**ALTERNATE PRICES:**

The contractors are to provide separate prices for the following work. The work shall be fully code compliant and include the cost of all permits and filing fees and warranty as previously specified herein:

**ALTERNATE NUMBER ONE: GENERATOR TRANSFER SWITCH**

The Contractor shall have the emergency generator transfer switch examined by a licensed electrician. The switch shall be upgraded or replaced for proper operation of the elevators on emergency power.

**ALTERNATE NUMBER TWO: FLUSH MOUNT HALL BUTTONS**

In lieu of surface mounted hall buttons the contractor shall furnish and install new flush mounted hall buttons. Button design shall be the same as that specified with extended face plate to minimize cutting and patching. The Contractor shall include the cost of all cutting and patching.

**ALTERNATE NUMBER THREE: GENERAL CONTRACTING WORK**

The Contractor shall perform the following work:

Furnish and install new code compliant aluminum machine room access stairs and hand rails. Co-ordinate with the Owner the location of new pitch pockets on the roof. Pitch pockets by the Owner.

Modify all top access platforms as required for code compliance. Furnish and install new aluminum hand rails.

Furnish and install new code compliant galvanized fire rated machine room access door and frames. Door is to be water tight and contain a new saddle. The door shall be self locking and self closing and contain a danger warning sign.

Furnish and install a step riser at the bottom of the roof access door for code compliance.

**ALTERNATE NUMBER FOUR:**

The Contractor shall provide the cost per thousand of contract value to provide a Performance Bond.

**PUNCH LIST:**

The Elevator Consultant will inspect each elevator and provide the contractor with a punch list for work not in compliance with the contract and specifications. The Contractor is to inform the Owner and Consultant on completion of punch list work. The Consultant will perform a re-inspection to insure all work is complete. In the event there is work that is not complete the Consultant will inform the Contractor.

The Contractor will be billed by the Consultant the sum of \$800 for each additional inspection required. Final payment will be withheld until all punch list work is complete and the contractor has paid the Consultant for the additional inspections required.

Additionally, prior to receiving final payment the Contractor shall attend a close out meeting with the Consultant and Owner to provide all required job documentation to the Owner.

**PROCEDURE:**

The modernization of the elevators shall be one at a time. The contractor should allow sufficient overtime in the agreement to perform any work which requires the removal of the elevators. This work shall be performed at the convenience of the Owners.

It is understood and agreed that the contractor shall provide the schedule of installation as part of their submittal which indicates the events which shall occur and length of said events together with a start and completion date on each elevators modernization. Further it is understood the contractor shall supply whatever resources are required as part of this agreement and at no additional cost to the owner to maintain the submitted schedule. The contractor shall not be liable for conditions which are outside their control.

Being the primary Contractor the contractor shall work in harmony and co-ordinate with all other trades.

**END OF THE SPECIFICATION SECTION**