



**COUNTY OF ERIE
DIVISION OF PURCHASE
MEMORANDUM**

To: All Using Departments

From: Jamie Kucewicz, Buyer

Date: June 1, 2023

Subject: ELEVATOR & ESCALATOR MAINTENANCE – LIBRARY

Bid No.: 230063-002

Effective Dates: June 1, 2023 through May 31, 2025

Vendor #: 117789

Vendor: BISON ELEVATOR SERVICE, INC.
295 Main Street, Suite 932
Buffalo, NY 14203

Contact: Randall Pawlik

Telephone: (716) 852-3031

Pricing: Per attached document



**COUNTY OF ERIE
DIVISION OF PURCHASE
INVITATION TO BID**

Bids, as stated below, will be received and publicly opened by the Division of Purchase in accordance with the attached specifications. FAX bids are unacceptable. Bids must be submitted in a sealed envelope to:

County of Erie
Division of Purchase
Attention: JAMES D. KUCEWICZ, BUYER (716) 858-6336
95 Franklin Street, Room 1254
Buffalo, New York 14202-3967

NOTE: Lower left-hand corner of envelope MUST indicate the following:

BID NUMBER: 230063-002

OPENING DATE: MAY 10, 2023 TIME: 11:00AM

FOR: ELEVATOR & ESCALATOR MAINTENANCE - LIBRARY

NAME OF BIDDER: Bison Elevator Service Inc.

If you are submitting other Invitations to Bid, each bid must be enclosed in a separate envelope.

Following EXHIBITS are attached to and made a part of the bid specifications, and part of any agreement entered into pursuant to this Invitation to Bid:

- EXHIBIT "A" - Assignment of Public Contracts
- EXHIBIT "B" - Purchases by Other Local Governments or Special Districts
- EXHIBIT "C" - Construction/Reconstruction Contracts
- EXHIBIT "D" - Bid Bond (Formal Bid)
- EXHIBIT "E" - Bid Bond (Informal Bid)
- EXHIBIT "EP" - Equal Pay Certification
- EXHIBIT "F" - Standard Agreement
- EXHIBIT "G" - Non-Collusive Bidding Certification
- EXHIBIT "H" - MBE/ WBE Commitment
- EXHIBIT "IC" - Insurance **CLASSIFICATION "A"**
- EXHIBIT "P" & EXHIBIT "PBI" - Performance Bond
- EXHIBIT "Q" - Confined Space Program Certification
- EXHIBIT "PW" - NYS Prevailing Wage
- EXHIBIT "V" - Vendor Federal Compliance Certification

County of Erie
 DIVISION OF PURCHASE
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 thereto certifies as to its own organization, under penalty of perjury, that to the best of his knowledge and belief:

- (1) 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 any competitor;
- (2) 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 opening, directly or indirectly, to any other bidder or to any competitor; and
- (3) no attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

NOTICE

(Penal Law, Section 210.45)

IT IS A CRIME, PUNISHABLE AS A CLASS A MISDEMEANOR UNDER THE LAWS OF THE STATE OF NEW YORK, FOR A PERSON, IN AND BY A WRITTEN INSTRUMENT, TO KNOWINGLY MAKE A FALSE STATEMENT, OR TO MAKE A FALSE STATEMENT, OR TO MAKE A STATEMENT WHICH SUCH PERSON DOES NOT BELIEVE TO BE TRUE.

BID NOT ACCEPTABLE WITHOUT FOLLOWING CERTIFICATION:

Affirmed under penalty of perjury this 9th day of May, 20 23
 TERMS Net 30 DELIVERY DATE AT DESTINATION 6-1-23
 FIRM NAME Bison Elevator Service, Inc
 ADDRESS 295 Main St., Suite 937
Buffalo, N.Y. ZIP 14203
 AUTHORIZED SIGNATURE 
 TYPED NAME OF AUTHORIZED SIGNATURE Randall Pawlik
 TITLE President. TELEPHONE NO. 716 852-3031

(Rev.1/2000)

ERIE COUNTY OFFICE BUILDING, 95 FRANKLIN STREET, BUFFALO, NEW YORK 14202 (716) 858-6336

County of Erie
DIVISION OF PURCHASE
BID SPECIFICATIONS

BID NO. 230063-002

Ship to:
 Attention:
 Address:

Ship Via:
 Date Required at Destination:

ITEM NO.	QUAN -TITY	U/M	CATALOG NO./DESCRIPTION	UNIT PRICE	TOTAL PRICE
			Proposal to cover Elevator Maintenance for period		
			June 1, 2023 through May 31, 2025.		
			Please provide pricing on "Contractor Bid Sheet".		
			Vendor must list the monthly and annual cost per elevator, as		
			as requested – do not list the total cost for an entire building. Each		
			individual elevator must be quoted.		
			Any of the elevators or escalators on the Contractor Bid Sheet may be		
			removed from the list at any time. Payment will be made only for		
			actual maintenance/service provided.		

NOTE: Bid results cannot be given over the phone. All requests for bid results should be submitted in writing or faxed to:

ERIE COUNTY DIVISION OF PURCHASE
 Freedom of Information Officer
 95 Franklin Street, Rm. 1254
 Buffalo, NY 14202
 FAX #: 716/858-6465

NAME OF BIDDER Bison Elevator Service Inc.

Contractor Bid Sheet

County Library
Lafayette Square

6/1/23-5/31/24

6/1/24-5/31/25

Elevator #	Type	Manu.	Location	Monthly Cost	Annual Cost	Monthly Cost	Annual Cost
1	Pass./Traction	Otis	Ellicott Lobby	<u>190</u>	<u>2280</u>	<u>199</u>	<u>2388</u>
2	Frnt./Traction	Otis	Oak Street	<u>190</u>	<u>2280</u>	<u>199</u>	<u>2388</u>
3	Book Lifts/Traction	Otis		<u>115</u>	<u>1380</u>	<u>119</u>	<u>1428</u>
4	Book Lifts/Traction	Otis		<u>115</u>	<u>1380</u>	<u>119</u>	<u>1428</u>
5	Book Lifts/Traction	Otis		<u>115</u>	<u>1380</u>	<u>119</u>	<u>1428</u>
8	Book Lifts/Traction	Otis		<u>115</u>	<u>1380</u>	<u>119</u>	<u>1428</u>
9	Book Lifts/Traction	Otis		<u>115</u>	<u>1380</u>	<u>119</u>	<u>1428</u>
10	Escalator	Mont.	Ellicott Lobby	<u>280</u>	<u>3360</u>	<u>289</u>	<u>3468</u>
11	Escalator	Mont.	Ellicott Lobby	<u>280</u>	<u>3360</u>	<u>289</u>	<u>3468</u>
16	Pass./Hydraulic	Schindler	Washington St	<u>115</u>	<u>1380</u>	<u>119</u>	<u>1428</u>
17	Pass./Traction	Smart Rise	Ellicott St	<u>190</u>	<u>2280</u>	<u>199</u>	<u>2388</u>

City Branches	Type	Manu	Monthly Cost	Annual Cost	Monthly Cost	Annual Cost
Gonzalez-Soto Branch 280 Porter Ave	Pass/ChainLift & Hydraulic	Wheel-O-Vator	<u>49</u>	<u>588</u>	<u>54</u>	<u>648</u>
Coles Branch 1187 East Delavan Ave	Pass/Hydraulic	Otis	<u>134</u>	<u>1608</u>	<u>134</u>	<u>1608</u>
*Crane Branch 633 Elmwood Ave	Pass/Hydraulic	Schindler	<u>134</u>	<u>1608</u>	<u>134</u>	<u>1608</u>

*location is closed due to construction. Monthly billing will not start until building is open to the public.

TOTAL COST \$ 25,644 23-24 TOTAL COST \$ 26,532 24-25

Any work required beyond the scope of the above specifications requires a quote submitted to County Representative for approval and charged at the following rates:

Labor: Prevailing wage + 175 %

Materials: Cost + 20 % (material invoices must be provided)

NAME OF BIDDER Bison Elevator Service Inc

SPECIFICATIONS

ARTICLE I GENERAL PROVISIONS

- 1001 The services to be performed by the contractor under this specification shall consist of furnishing all material, parts, labor, tools, and equipment necessary to provide complete elevator maintenance of the elevators, wheelchair lifts and similar equipment as above listed and hereinafter specified.
- 1002 This agreement requires the Contractor to become fully responsible for the maintenance as specified elsewhere herein of elevators, including the replacement of all parts, except those parts listed in the clause entitled 8009.5 "Component Exclusion" and all labor required to continually keep the elevators in compliance with the applicable ASME A17.1 Elevators and Escalator Safety Code, ANSI/ICC A117.1 1996 and the A18.1 Safety Code for Safety Standard for Platform Lifts and Stairway Chairlifts and the applicable State of New York Building Code and local laws.
- 1003 These Specifications require the doing of all things necessary, or proper for, or incidental to, the matter referred to in the immediately preceding paragraphs. In addition, all things not expressly mentioned in the specifications but involved in carrying out their intent and, in the complete and proper execution of the matter referred to in the immediately preceding paragraphs are required by these specifications and the Contractor shall perform the same as though they were specifically described.
- 1004 PERSONNEL UNIFORMS AND BADGES -The Contractor shall provide for its personnel all necessary distinctive uniforms and identification badges or woven identification insignia of a type and style which shall be subject to approval of the Owner, and the Contractors employees shall wear these uniforms and identification badges or insignia at all times when performing the operations hereunder.
- Employees without proper identification shall not be permitted to work. The uniforms must be worn by the Contractor's personnel at all times while working at the Building. The Contractor shall be responsible to ensure that its employees are wearing proper shoes for the task being performed and follow proper safety precautions established for the trade.
- The Owner shall have the right to require removal of any employee who shall fail to wear the proper uniform and shoes or fails to follow proper safety precautions and exercise of this right shall not limit the obligations of the Contractor to perform the Work.
- 1005 HIGH SECURITY AREAS - Work under this Contract may be required in high security areas as such may be designated, at any time, by the Owner. The Owner will require observance of certain security procedures with respect to the performance of such Work which procedures may include the escort to, at and or, from such high security areas for personnel working therein.
- 1006 TRASH REMOVAL
- (a) The Contractor shall arrange to dispose of all liquid and solid refuse in a lawful, safe and efficient and anti-pollutant manner subject to the approval of the Owner. All items deemed by the Contractor to be scrap and not economically reusable shall first be examined by the Owner and record of same for inventory control purposes shall be maintained. The Designated Representative shall have the option to have the Contractor dispose of same or cause to have the item turned over to the Owner for disposal.
 - (b) The Contractor shall remove monthly from the Building by means provided by the Owner, all garbage, debris, and other waste materials (whether solid or liquid) arising out of or in connection with its operations hereunder, and any such garbage, debris and other waste materials not immediately removed shall be temporarily stored in a clean and sanitary condition, approved by the Owner, in suitable garbage and waste receptacles.
 - (c) Removal of waste and/or hazardous materials by the Elevator Contractor shall be accomplished in accordance with local laws, state and federal standards applicable.

- 1007 GRATUITIES/LOST AND FOUND - No personnel employed in performing the Work shall solicit or accept gratuities, for any reason whatsoever, from passengers, tenants, customers or other persons at the Site of the Work. Any articles found by such employees at the Site of the Work shall be immediately turned over to the Designated Representative. The Contractor shall instruct its employees (and shall cause any subcontractors to instruct their employees) in the provision of this numbered clause.
- 1008 VACATING THE SITE OF THE WORK - Upon the expiration or earlier termination or revocation of this Contract, the Contractor shall remove its equipment, materials, supplies, and other personal property from the Site of the Work. If the Contractor shall fail to remove its property on or before the expiration, termination or revocation of this Contract, the Owner may remove such property to a public warehouse for deposit or retain the same in its own possession, and sell the same at public auction, the proceeds of which shall be applied first to any expenses of removal, storage and sale and second, to any sums owed by the Contractor to the Owner. If the expenses of such removal, storage and sale exceed the proceeds of sale, the Contractor shall pay such excess to the Owner upon demand.
- 1009 USE OF PATENTED MATERIALS -The right to use all patented material, composition of matter, manufacturers, apparatus or appliances required in-connection with this Contract shall be obtained by the Contractor without separate or additional compensation. The Contractor shall indemnify the Owner and its Designated Representative against and save them harmless from all loss and expense incurred in the defense, settlement or satisfaction of any claims in the nature of patent infringement arising out of or in connection with the Owner's use, in accordance with the preceding paragraph of this clause, of such patentable subject matter or patented material, composition of matter, manufacturers, apparatus or appliances. If requested by the Owner, and if notified promptly in writing of any such claim, the Contractor shall conduct all negotiations with respect to and defend such claim without expense to the Owner or its Designated Representative.
- 1010 GENERAL OBLIGATIONS
- (a) Except with the prior written approval of the Owner, or as specifically authorized or required elsewhere herein, the Contractor shall not erect, maintain or display any signs, posters or advertising at the Site of the Work except those mandated by governing authorities for local law compliance.
- (b) In order to effectuate the policy of the Owner, the Contractor shall comply with all provisions of federal, state, municipal, local and departmental laws, ordinances, rules, regulations and orders which would affect the Contract and the performance thereof and those engaged therein, except where stricter requirements are contained in these Specifications, in which event the latter requirements shall apply. However, the Contractor shall apply for any permits, licenses or variances in the name of or on behalf of the Owner where required by law and pay all associated fees or other charges.

ARTICLE II COMPETENCY of BIDDER

- 2001 The contractor shall have had a qualified service organization in active operation for a minimum of five years. This organization must have had a history of competent service experience in maintaining the specific types of automatic elevator systems described in these specifications, and must have on its payroll sufficient qualified experienced supervisory personnel to guarantee satisfactory performance of this contract. The bidder shall furnish, with his bid, a statement that he has in his employ and under his supervision the necessary personnel and organization, and that he possesses facilities, located within the County of Erie, to properly fulfill all the services and conditions required under these specifications. All maintenance personnel used in fulfilling the requirements of this contract must be qualified to maintain this type of equipment. The bidder's statement shall also include specific locations which have been serviced by the bidder and the dates during which the service has been performed. Consideration will not be given to bids submitted by an individual, firm, or corporation who has established on former projects, either government or commercial, an unsatisfactory record of performance in connection with repair of elevators. The County reserves the right to determine the competency of contractors being considered for the award of this contract. The County will take into consideration all factors which are deemed pertinent to the satisfactory execution of this contract.

- 2002 The Contractor (and any subcontractor) shall furnish competent and adequately trained personnel to perform the Work required hereunder. Maintenance shall be performed by Journeypersons, competently supervised, who shall be qualified to keep the elevators adjusted and repaired and in proper operating condition. If, in the opinion of the Designated Representative, any employee so assigned is performing its functions unsatisfactorily, he shall be replaced by the Contractor within twenty-four hours following the Contractor's receipt of the Designated Representative request for such replacement.
- 2003 Journeypersons providing maintenance and repairs of elevators under this agreement shall have, successfully completed an industry accredited course covering maintenance and repairs of elevators and must possess a minimum of five years' previous Journeypersons experience maintaining elevators of similar type and complexity to those covered under this agreement.

ARTICLE III CONTRACT TERM

- 3001 The services to be performed under this contract at the quoted price shall be provided for a period of two years starting June 1, 2023 at 12:01 A.M.
- 3002 The County may, at its sole option, terminate or suspend any part of the services described herein when conditions change, operation of a County facility is reduced or is discontinued, or other similar circumstances take place. In the event of such termination or suspension, payments for services shall be suspended without penalty.

ARTICLE IV PAYMENTS

- 4001 Payments in the amounts stipulated in the contract shall be made monthly in arrears, upon submission of properly certified vouchers and invoices. Upon notice from the County that there is the need for termination or addition of any individual service requirement under this contract, payment shall be made for any fractional part of a month's service at the rate of one-thirtieth (1/30) of the monthly charge for each day of service rendered.

ARTICLE V LIABILITY

- 5001 The contractor shall not be liable for injury to persons or damage to the property except that which is directly due to his own acts or omissions. The responsibility of the County for injuries to persons or damage to property while on or about the elevators referred to is in no way affected by this agreement. The contractor shall not be liable for any loss, damage, or delay caused by fire, explosion, theft, flood, riot, civil commotion, war, malicious mischief, vandalism, act of God or any causes beyond his reasonable control.

ARTICLE VI FAILURE TO COMPLY

- 6001 In the event that the contractor fails to maintain the elevator equipment in accordance with these specifications, or violates any of the provisions hereof, the County of Erie may, upon ten days notice in writing to the contractor, engage the services of others to perform all work necessary to bring the equipment up to good operating standards. The cost of this work shall be at the contractor's expense.

ARTICLE VII SCOPE OF WORK

- 7001 The work to be performed by the contractor under this specification shall consist of the hereinafter specified elevator and escalator inspection and maintenance service. Incomplete descriptions and/or omissions shall not abrogate the Contractor's responsibility to provide full comprehensive all-inclusive full coverage maintenance service.
- 7002 WORKING HOURS Normal maintenance work under these specifications shall be performed during normal working hours and on regular working days established for the trade.

- 7003 **PREVENTIVE MAINTENANCE SERVICE** The contractor shall cause one of his competent mechanics to report, as specified below, to the Chief Engineer or person assigned by the Department Head at such facility and said mechanic shall proceed at once to make all the repairs and adjustments which in his opinion are required to keep the elevator and escalator equipment in safe and first-class operating condition. This work shall also include regular and systematic inspection of the elevator and escalator equipment in accordance with the manufacturer's recommendations as reflected on original equipment manufacturer's recommended maintenance procedure check charts. The contractor shall make adjustments or replacement of all worn or deteriorated parts. It is the Contractor's responsibility to provide full comprehensive all-inclusive full coverage maintenance service. Semi-monthly (24 times per year) inspections shall be made.
- 7004 **CALL BACK SERVICE** In the event that an elevator or escalator is shut down during working hours due to the failure of the controls or mechanical parts, the contractor shall cause one of his competent mechanics to be on the premises within one hour after notice by telephone, and said mechanic shall proceed at once, and continue without stopping during working hours only, to make necessary repairs or adjustments to place the elevator in safe and first class operating condition under the terms of this service contract and at no additional charge to the County of Erie.
- 7005 **EMERGENCY OVERTIME SERVICE** The contractor shall provide emergency adjustment call service outside of normal working hours for the trade on any day of the week at any hour, day or night, holidays included. The contractor shall cause one of his competent mechanics to be on the premises within one hour after notice by telephone, and said mechanic shall proceed at once, and continue without stopping, if necessary, to make repairs or adjustments to place the elevator in safe and first-class operating condition. Such emergency call service is to be billed separately at the appropriate prevailing overtime labor rate minus the normal straight time prevailing labor rate.
- 7006 **TELEPHONE SERVICE** The contractor shall maintain a continuous telephone service where he can be reached twenty-four (24) hours each day, seven days each week, Sundays and holidays included.

ARTICLE VIII EXTENT OF WORK

- 8001 The work described herein shall be performed by the contractor and unless otherwise specified, applies to all parts of the equipment of the listed elevators and escalator systems, including, but not limited to all machines, motors, motor generators, controllers, governors, sheaves, selectors, worms, gears, thrusts, bearings, brake magnet coils, brake shoes, brushes, windings, commutators, rotating elements, contacts, oil buffers, coil resistors, fuses for operating circuits and for motor circuits, magnet frames, cams, car door and hoistway door hangars, tracks and guides, car and counterweight guide rails, counterweights, door operating devices, interlocks and contacts, push buttons, traveling cables, electronic tubes, semi-conductors, hall lanterns and indicators, all wire ropes and cables, shackle springs, bulb replacements in signal systems, programmers, computers or other electronic control systems, all elevator signal and accessory equipment including power cables, all fan and ventilating equipment for elevator cars, elevator lighting and emergency lighting systems, and floor tile covering.
- 8002 The contractor shall provide constant high-quality service to properly protect all elevator equipment from deterioration. Equipment must be capable of constant peak performance, resulting in a minimum of downtime for any portion of the system.
- (a) The Contractor shall maintain each elevator and escalator in proper adjustment for smooth, quiet operation. Elevator and escalator manufacturer's approved lubricants and cleaning materials or the equivalent approved by the Designated Representative shall be furnished by the Contractor.
- (b) The preventative maintenance specified herein is considered the minimum for all equipment. If specific equipment covered by this Contract requires additional preventative maintenance for safe reliable operation, as specified by the manufacturer or by ASME A17.1 standards, the Contractor shall perform the required additional preventative maintenance without added cost to the Owner.
- 8003 Elevators and escalators shall not be taken out of service for maintenance inspection during rush hours, Mondays through Fridays, except where an unsound operating condition exists. This rush hour period may be changed as required by the Department Head at such facility.
- 8004 If for any reason an elevator or escalator should be out of service for more than the usual troubleshooting time of "30-60 minutes", then the contractor shall notify the engineer in charge when the elevator was taken out of service, the reason "why", and "what time" the elevator or escalator is expected to be put back into service for proper and safe operation.

8005

The contractor shall make regularly scheduled examinations and adjustments to the elevator and escalator systems in accordance with the manufacturer's recommended maintenance procedure check charts. The maintenance records shall record the following activities:

- Description of maintenance task performed and dates;
- The record shall be legible and clearly indicate the activity that occurred. Abbreviations and "codes" shall be clearly defined. The usage of vague entries such as "P/M" or "preventative maintenance" without an associating action with a portion of the equipment will not be considered adequate record keeping;
- Description and dates of examinations, tests, adjustments, repairs, and replacements;
- Description and dates of call backs (trouble calls) or reports that are reported to elevator personnel by any means, including corrective action taken;
- The record shall be readily available. If the records are maintained on the premises other than in the elevator machine room, there shall be a sign in the elevator machine room clearly indicating where the record can be found;
- If the record is maintained electronically, then a sign indicating the directions for obtaining the electronic maintenance records shall be in the machine room. The electronic format shall be either web based, e-mail or faxed. If these conditions cannot be met, then a hard-copy maintenance log will be required to be maintained in the machine room.
- The records shall be maintained to show the activity for not less than the previous 12 months.

The contractor shall maintain a proper Elevator Check Chart for each elevator in the machine room for that elevator. The contractor shall also maintain a proper Escalator Check Chart for each escalator in the machine room for that escalator. Each Check Chart must be kept up to date at all times so as to reflect the scheduled items of maintenance. Upon completion of maintenance, the contractor must properly initial the chart to indicate the work has been accomplished.

In addition to check charts, the contractor shall maintain on the premises, a log on each and every elevator outlining cleaning, repairs, replacement, or adjustments performed on the equipment. These logs shall be available at all times for Erie County inspection and upon termination of the contract shall become the property of Erie County.

At the completion of each repair, regular inspection, or test the contractor shall furnish a copy of the signed job ticket or results of test thereof, to Erie County DPW Elevator Review Department, 45 Oak Street, Buffalo, NY 14203 and the Buffalo and Erie County Public Library.

8006 SCHEDULE OF INSPECTIONS AND SERVICES

The Contractor shall make as a minimum; the following scheduled inspections, checks and services to each of the elevators/escalators and all their individual components, and at the indicated frequencies as further specified:

Elevators

Minimum Semi-Monthly Requirements: (24 times per year)

- 1) See Owner representative - Investigate and correct all complaints.
- 2) Operate Elevator: (From inside the car under normal operation.)
 - a) Check for any unusual noise or operation function.
 - b) Check floor stopping accuracy/leveling/pre-door opening.
 - c) Check alarm bell/stop switch.
 - d) Check door protection/operational appurtenances.
 - e) Perform necessary, immediate repairs/adjustments.
 - f) Check operating and signal equipment.
- 3) Machine Room and Secondary:
 - a) Observe controllers and relay panels. Check contactors for burning and wear. Inspect wiring and physical condition of components for deterioration, heating and contamination.
 - b) Motors and/or Generators - Check for proper lubrication of bearings. Inspect brushes and commutation with car in operation. Check each unit for noise, vibration and heating and clearances between rotating elements and poles.
 - c) Hoisting Machines and Brakes - Check all lubrication provisions, empty drip pans and wipe down equipment. Observe worm gears for back lash and thrust play where applicable. Inspect brake components for wear and operation. Observe physical conditions in standing and operating modes.

- d) Drive Sheaves and Wire Ropes - Observe physical conditions in standing and operating modes. Overspeed Governor and Auxiliary Sheaves - Check for any unusual noise, vibrations or other physical deterioration.
- e) Pump units and hydraulic valves - Check for proper tension or wear on pump motor belts, oil leakage from valves, pump unit or tank. Check each unit for noise, vibration, or low oil condition. Repair or replace to correct any deficiency found.
- f) Perform necessary immediate repairs/adjustments

Minimum Monthly: (12 times per year)

- 1) Perform general inspection of machinery, traction motor, generator, brushes, gear box, pulleys, brakes, governor, selectors, or floor controllers. Lubricate as required.
- 2) Empty drip pans, discard oil, check reservoir oil level.
- 3) Inspect and lubricate machinery, contacts, linkage and gearing.
- 4) Clean and inspect controller, selectors, relays, connectors, contacts.
- 5) Ride car and observe operation of doors, leveling, reopening devices, and smoothness.
- 6) If rails are lubricated, check condition and lubrication. Service lubricators.
- 7) Check operation of all hoistway door interlocks.
- 8) Inspect all lighting associated with the elevators, including, but not limited to pit lights, equipment room lights, shaftway lights, floor indication lights, car and hall station push button lights, interior and exterior direction lights, arrow lights, signal lantern lights, underfloor lights, cab, entrance and roof lights. Replace as needed. The Contractor shall relamp all inoperative lights and so indicate in the checklist of the "Service Maintenance Form" specified hereinafter. Check all alarms and maintain in proper working order.
- 9) Remove litter, dust, oil and other extraneous materials from all machine room equipment, door saddles and other areas of the elevators not accessible from elevator lobby.
- 10) Clean trash from pit and empty drip pans, discard oil. Examine plunger seals and correct excess leakage.

Minimum Quarterly: (4 times per year)

- 1) Observe operation of elevator throughout its full range and at all floors it serves to test controls, safety devices, leveling, releveling, and other devices.
- 2) Check door operation. Clean, lubricate and adjust brake checks, linkages, gears, wiring, motor, check keys, set screws, contacts, chains and cams.
- 3) Inspect interior of cab. Test telephone or communication system, normal and emergency lights, fan, emergency call system or alarm, miscellaneous hardware, control panel and emergency lights.
- 4) Inspect hoistway and pit. Clean and lubricate equipment as required. Service guide rail lubrication.
- 5) Test mechanism. Observe operation of motor, generator, brakes, governor, traction machinery and sheaves.
- 6) Test manual and emergency control applicable to systems.
- 7) Check oil level in car and counterweight oil buffers, oil hydraulic systems, add oil as required.
- 8) Visually inspect controller, selector, contacts and relays. Check adjustments and replace contact as required.
- 9) Check hallway doors. Clean, lubricate and adjust tracks, hangers and upthrust, eccentrics, linkage, gibs and interlocks.

- 10) Clean, adjust and lubricate car door or gate tracks, pivots, hangers, car grille and stile channels.
- 11) See building representative. Correct all complaints and conditions recorded. Perform necessary immediate repairs and adjustments.
- 12) Operate Elevator: (From inside the car under normal operations)
 - a) Check for any unusual noise or operation function.
 - b) Check floor stopping accuracy/leveling/pre-door opening.
 - c) Check alarm bell/stop switch.
 - d) Check door protection/operational appurtenances.
 - e) Check all operating and signal fixtures for illumination and audible functions.
 - f) Check interior ventilation provisions, emergency lighting, light controls and auxiliary equipment.
 - g) Check and observe door operations. Inspect door alignment, guides and closing pressure.
- 13) Machine Room and Secondary:
 - a) Observe controllers and relay panels. Check contactors for burning and wear. Inspect wiring and physical condition of components for deteriorations, heating and contamination.
 - b) Check all controller resistance tubes, grids and connections for obvious deficiencies.
 - c) Remove controller fuses. Clean fuses and holders.
 - d) Inspect selector and/or encoder drive components and operating functions. Lubricate components per the O.E.M. specifications.
 - e) Motors and/or Generators - Check for proper lubrication of bearings. Inspect brushes and commutation with car in operation. Check each unit for noise, vibration and heating. Check brush tensioning and wear. Perform a visual inspection of armature, field coils and interpole windings, connections, leads and commutator risers for physical deterioration and damaged insulation.
 - f) Hoisting Machines and Brakes - Check all lubrication provisions, empty drip pans and wipe down equipment. Observe worm gears for back lash and thrust play. Inspect brake components for wear and operation. Check all machine component fastenings to include drive sheave and ring gear bolts, machine hold-downs, couplings, brake drum pulleys, isolation mounts and covers. Inspect brake linings and drum surfaces.
 - g) Drive Sheaves and Wire Ropes - Observe physical conditions in standing and operating modes. Inspect position of wire ropes in traction drive sheave grooves. Monitor rope slippage under normal operating modes. Inspect all speed monitoring and control apparatus.
 - h) Overspeed Governor/Auxiliary Sheaves - Check for any unusual noise, vibrations or other physical deterioration. Ensure seals and tags are properly affixed and legible. Check governor(s), selector drives and auxiliary sheave components in accordance with O.E.M. specifications.
- 14) Car Top:
 - a) Clean, lubricate and adjust master door operator when conditions warrant.
 - b) Inspect car guides for wear and alignment. (Lubricate sliding shoe systems.) Adjust guide tensioning and observe operation.
 - c) Inspect car and counterweight cable hitches.
 - d) Inspect counterweight assembly, alignment and cable tensioning/wear.
 - e) Inspect door engaging equipment, car and shaftway door top track assemblies, safety interlock switches and operating linkages for physical wear, dirt or other deteriorations. Clean, lubricate, repair and adjust systems when conditions warrant.
 - f) Observe condition of upper slow-down, directional and final limit switch devices.

- g) Inspect wire rope conditions and equalization at a minimum of six (6) points in shaftway.
 - h) Inspect hoistway landing, leveling and encoding equipment for alignment, operation and physical condition.
 - i) Inspect top of car operating station, emergency exit cover, work lighting, auxiliary safety switches, tapes and appurtenances.
- 15) Pit Area:
- a) Clean and lubricate governor tension sheave assembly. Check weighted clearance. Inspect cable condition.
 - b) Observe condition of buffer equipment and mountings, strikers, plates, switches and blocking.
 - c) Check stop switch and lighting provisions.
 - d) Inspect compensation equipment. Lubricate applicable component parts and check electrical or other safety provisions for physical deterioration.
 - e) Inspect bottom car guides for wear, alignment and tensioning.
 - f) Inspect bottom of car, safety mechanism, electrical traveling cables and component hitch connections.
 - g) Observe condition of bottom terminal slow-down, directional and final limit switch devices.
 - h) Sweep pit area and remove all trash and debris.
- 16) Miscellaneous:
- a) Check all indicating lights, lanterns, gongs, audible and visible signals for proper operation.
 - b) Check all hall push buttons for proper operation.
 - c) Verify that mandated emergency operation testing has been performed per local law requirements or governing authority regulations as directed under this Agreement.
 - d) Record all inspection and lubrication procedures completed and issue copy of check sheets or other recorded data to Designated Representative with written recommendations for work procedures to be done by others or an extra cost to the Owner by the Elevator Contractor.
- 17) Perform immediate repairs/adjustments. Notify the Designated Representative and schedule major procedures necessitating extended out-of-service time within forty-eight (48) regular working hours of the preventative maintenance inspection.

Minimum-Semi-Annual : (Two times per year)

- 1) Check leveling operation. Clean and adjust leveling switches, hoistway vanes, magnets and inductors. Repair and/or adjust for proper leveling.
- 2) Inspect car-safety mechanism, clean and keep free of rust and dirt, and lubricate as necessary.
- 3) Monitor sequence of operation and compare same to the O.E.M. design specification.
- 4) Check and record individual car performance levels:
 - a) Door open cycle time.
 - b) Door close cycle time. Long door non-interference dwell time.
 - c) Short door non-interference dwell time.
 - d) Reduced door non-interference dwell time.
 - e) Brake to brake time.
 - f) Flight time.

- g) Door closing pressure.
 - h) Tached speed up direction.
 - i) Tached speed down direction.
- 5) Check fire control Phase I and II manual operations in conjunction with ASME A17.1 requirements.
 - 6) Check all safety switches for doors, gates or other passenger protection devices.
 - 7) Ensure hoistway doors are properly aligned, set and self-closing.
 - 8) Check emergency cab interior lighting system and communication device operations.
 - 9) Check car door locking, safety switches and passenger protections for proper operation.
 - 10) Observe elevator operation for quality of ride, acceleration, deceleration, noise and floor stopping accuracy. Pre-opening, re-leveling or other operational features checked from inside each car.
 - 11) Perform immediate minor adjustments or repairs to maintain O.E.M. performance standards.
 - 12) Prepare a written report for all examinations performed and issue same to the Owner.

Minimum Annual:

- 1) Check controllers and selectors. Clean with blower, check alignment of switches, relays, timers, contacts, hinge pins, and other controller components, adjust and lubricate. Check all resistance tubes and grids. Check oil in overload relays, settings, and operation of overloads. Clean and inspect fuses and holders and all controller connections.
- 2) In hoistway, examine guide rails, cams and fastenings, hoist and governor wire ropes and counterweight. Inspect and test limit and terminal switches. Check and adjust car shoes, gibs or roller guides. Adjust or replace as needed. Lubricate hoist wire ropes in accordance with A17.1 - Section 1206.
- 3) Clean all overhead beams, sills, bottom of platform, car tops and hoistway walls.
- 4) Clean car light fixtures.
- 5) Thoroughly clean car and counterweight guide rails using a nonflammable or high flash point solvent to remove lint, dust and excess lubricant in accordance with ANSI/ASME A17.1 Section 1206.
- 6) Thoroughly clean the machine room, pit, top and bottom of car and all other elevator components and areas.
- 7) Dismantle machine brake assembly. Inspect all pivot pins, bushings, collars, sleeves, guides, bearings or other operating apparatus for wear. Replace worn component parts; provide new spacers, washers, fittings, etc., to ensure unrestrictive operation. Readjust assembly in accordance with O.E.M. design criteria.
- 8) Drain and flush machine housings, oil hydraulic storage tanks, bearings and lubrication parts. Inspect all exposed equipment for wear. Replace worn or damaged bearings, seals, packings and gaskets.
- 9) Blow out or vacuum windings in rotational equipment, inspect apparatus for internal damages, overheating or other deteriorations. Clean and service contaminated brush riggings, inspect bearings and shafts for wear. Apply insulating varnish to exposed windings and ensure all leads, connections or other electrical apparatus are properly insulated. Inspect grounding provisions and take necessary actions to correct deficiencies. Adjust brush settings, compounding and/or other apparatus to ensure proper operation and efficiencies are maintained.
- 10) Inspect all systems in accordance with A17.1, Rule 1002.2 and every fifth (5th) year per Rule 1002.3, 1002.3C and any additional local law requirements applicable.
- 11) Inspect all systems in accordance with A17. 1, Rule 1005.1 to 1005.4 at the time intervals specified therein.

- 12) Record all procedures completed under the annual preventative maintenance program and issue an annual report to the Owner incorporating extraordinary repairs/adjustments necessary, suggested modifications, component upgrades or other recommendations for improved safety, reliability and performance.

Niagara Branch Lift

Minimum-Semi-Annual :(Two times per year)

- 1) See Owner representative - Investigate and correct all complaints.
- 2) Operate Elevator: (From inside the car under normal operation.)
 - a) Check for any unusual noise or operation function.
 - b) Check floor stopping accuracy/leveling/pre-door opening.
 - c) Check alarm bell/stop switch.
 - d) Check door protection/operational appurtenances.
 - e) Perform necessary, immediate repairs/adjustments.
 - f) Check operating and signal equipment.
- 3) Perform general inspection of machinery
Lubricate as required.
- 4) Inspect and lubricate machinery, contacts, linkage.
- 5) Ride car and observe operation of doors, leveling, reopening devices, and smoothness.
- 6) If rails are lubricated, check condition and lubrication. Service lubricators.
- 7) Check operation of all hoistway door interlocks.

Escalators

Minimum Semi-Monthly Requirements: (24 times per year)

- 1) Check Skirt to Step clearances, Tread and Tooth indexing.
- 2) Adjust for smooth operation and synchronized speed as necessary.
- 3) The Contractor shall systematically examine, adjust, lubricate, as required, and if in the Owner's Opinion, conditions warrant, repair or replace: Controller, Brake, Drive Motor/Gear Box, Hand Rail Drive, Steps, Combplates, Skirts, Handrails, Safety Devices and Chains.

Minimum-Semi-Annual :(Two times per year)

- 1) The contractor will provide a team twice per year, at no additional expense, to pull escalator steps for third-party maintenance evaluations.

Minimum Annual:

- 1) At least once every year, and more frequently if required by job conditions or by Owner's consultant or city inspector, Contractor will perform a total clean down of escalator equipment, including pits and pans, balustrade interiors, and including waxing handrails.

Contractor shall perform all necessary tests as required by the authorities having jurisdiction.

8007

The contractor shall make all repairs necessary as disclosed as a result of the aforementioned inspections or the inspection of other contractor employees, the County of Erie, or joint inspections as hereinafter defined in Article 9.

8008 The contractor must have available for immediate delivery and installation a sufficient supply of emergency parts for repair of the elevator system covered by the contract, as determined by the Commissioner of Public Works.

All replacement parts must be new and shall be specifically designed for the elevators on which they are used. The contractor shall provide replacement parts furnished by the original manufacturer of the elevator system, or the sub-supplier of such original manufacturer's parts; except that, as an alternative to supplying the original parts, new parts from other source of supply which have been demonstrated to be commercially acceptable and have been successfully supplied under past government contracts, may be used.

In the event that the contractor purchases any replacement parts from sources other than the original manufacturer of the elevator system or his suppliers, the contractor shall submit a list of such parts and suppliers with his bid at the time of bidding, for approval. If so requested by the County, sufficient substantiation of commercial acceptability of a new supply of parts for the make of elevator in service in County facilities shall be made by an independent testing laboratory. Such tests shall be authorized by the Commissioner of Public Works and the contractor. All costs for such tests shall be borne by the contractor.

8009 The Commissioner of Public Works or his agent, prior to the award of a contract, and during the term of the contract, shall have the right to inspect the supply of parts maintained by the contractor, and to inquire into the methods to be used by the contractor to obtain parts when they become necessary, to the end that the commissioner of Public Works must be satisfied prior to the execution of the contract and during the term of the contract that the contract will be able to satisfactorily perform the requirements of his contract, without undue delay.

The successful bidder must identify in his bid by name, address, and telephone number, a source in Erie County for immediate stator rewinding of all a/c motors.

It being understood that the contractor shall have available at all times for immediate delivery and installation a sufficient supply of emergency spare parts for the repair of each elevator, the contractor shall have in his inventory at all times at least one of each of the following, for each size and type used, for elevators which have these particular features:

- A. Door operator motors and gear reduction units.
- B. Transformers and rectifiers for each type and size used.
- C. Brake magnets, cores, coils, and related items for the repair of the brake.
- D. Generator and motor brush sets for each type and size used.
- E. Controller and selector switch contacts and coils for each size and type used.
- F. Selector tapes and selector motors.
- G. Door interlocks.
- H. Car door safety edge (complete).
- I. Car door electronic safety device.
- J. Car door photo electric safety device.
- K. Hangar rollers for both car and hall doors.
- L. Limit switches and terminal stopping switches.
- M. Roller guides for car and counterweight.
- N. Electronic tubes for each type and size used.
- O. Car and counterweight guide shoes.
- P. Escalator steps, comb plates and hand rail.
- Q. Hydraulic elevator pumps, packing, seals, glands, V-belts, and sheaves.
- R. Hydraulic elevator valves (complete).
- S. Standard pushbuttons, lamps and related signal fixtures.

It is further understood that these parts are included as part of the cost of this contract and are to be provided as required, at no additional cost to the County of Erie, within the limitations as set forth in Section 8013.

8009.5 The following list of equipment is provided as a means to establish the full comprehensive intent of this agreement. Coverage shall include all associated parts, appurtenances and procedures whether specifically defined or not and shall include the necessary hoisting, rigging or other procedures required for execution of the repair, replacement, adjustment and service of equipment covered under this agreement.

Elevators

- (a) Hoisting Machinery Complete:
Geared and gearless units, shafts, bearings, drive sheaves, deflector sheaves, auxiliary sheaves, pulleys, couplings, worms, gears, thrust assemblies, packings, seals, lubrication devices, brake coils, brake shoes, brake drums, brake linkages, brake contactors; and all associated sleeves, bushings, "O" rings, castings, hardware, guards, mounting apparatus and support structures, wire ropes and related attachments and supporting elements.
- (b) Motors, Motor Generators and Power Drives Complete:
Windings, insulations, lamination, coils, commutators, shafts, bearings, leads, cast members, lubrication devices, seals, gaskets, brush riggings, tensioning devices, carbon brushes, connectors, terminals, rotating elements, stators, armatures, field coils, interpoles, isolation mounts, solid mounts, hardware, solid-state components, isolation transformers, sound chokes, wiring and all control apparatus located outside the primary signal or motion control enclosures necessary or a part of these systems for control and operation.
- (c) Hydraulic Systems Complete:
Hydraulic pump motor, pump, valves, all above ground hydraulic piping, fittings, and seals, hydraulic cylinder packing gland, hydraulic oil in system, hydraulic piston.
- (d) Signal and Motion Speed Control Apparatus Complete:
Controllers, dispatching equipment, selectors, selector drives, valve assemblies, encoders, tapes and cables with related driving equipment, tachometers and associated control input and monitoring devices, relays, solid-state devices, microprocessor equipment, resistors, solenoids, grids, insulators, arc shields, leads, coils, timers, protection devices, circuitry, dashpots, condensers, transducers, mounting apparatus, hardware, cabinets and associated regulators, excitors or electrical and mechanical driving equipment with safety switches.
- (e) Door Operating and Safety Apparatus Complete: (Car and Hoistway)
Power operators, top track assemblies, hangers, rollers, stops, guides, bumpers, electromechanical interlocks, safety switches, auxiliary door closing mechanisms, clutch engaging devices, safe-edges, photoelectric eye systems, infrared protection systems, power modules, transformers, control apparatus, mechanical locking systems, wiring and all associated mounting or operating apparatus.
- (f) Car Equipment:
Frames, safety plank, crosshead, hitch assemblies, safety mechanisms, safety switches, platforms, guides, wire rope connectors and related apparatus, load weighing devices, operating stations, ventilation equipment, exterior work lighting, rope ladders, top and side exit cover locks and switches, toe guards, electrical equipment, cams, rollers, tensioning devices, sheaves, shafts, bearings and auxiliary component systems mounted on or attached to the elevator car which are not specifically excluded under this agreement.
- (g) Hoistway, Secondary and Pit Equipment:
Car and counterweight guide rails, brackets, fishplates, mounting apparatus and hardware. Car and counterweight overspeed governors and related safety apparatus, tension sheave assemblies, guards, wire ropes, switches, wiring and attachment hardware. Wire rope hoisting cables, deflector sheaves, 2:1 sheaves, double-wrap sheaves, shafts, bearings, castings, hardware appurtenances.

Followers, sheaves, cables, switches, and hardware. Buffer assemblies, guides, rollers, extensions, strike plates, mounting apparatus and all related hardware. Electrical wiring, traveling cables, conduits, boxes, terminals, attachment and/or enclosure apparatus, hardware and protection equipment.

Compensation equipment, wire ropes, chains, sheaves, shafts, bearings, weights, cams, switches, castings, attachment and/or mounting hardware with all associated electrical and mechanical apparatus. Counterweight assembly, frames, rods, guides, fillers, support structures, extensions, safety mechanisms, castings and hardware complete.

Hoistway fascias, guards, dust covers, speed limiting devices, limit switches, landing and leveling apparatus, safety switches, door access provisions, tensioning devices, tapes, cables and auxiliary equipment necessary for, operation of other systems covered under this agreement.

- (h) **Operating and Signal Fixtures Complete:**
Car and hall stations, push button devices, visible and audible signals, communication devices inside the cars and wiring in hoistways, car ventilation equipment, emergency lighting apparatus, direction indicators, floor position indicators, monitors and remote control or recording apparatus together with all associated wiring and systems inside cars, hoistways and remote areas of the building. Emergency power elevator interlocking controls, lobby stations, signaling and monitoring apparatus, CRTs, keyboards, key switches, toggle switches, indicators and related components.
- (i) **Component Exclusions:**
The following elevator components are excluded for normal wear and tear repairs or replacements: Car enclosures (including removable panels, suspended ceilings, lighting fixtures, light diffusers, floor coverings, entrance thresholds, trim and car panel doors). Hoistway enclosures, entrance frames, door panels and sills.
- Machine room power disconnect switches together with fuses, power wiring located before the means of primary disconnect, power fuses or circuit breakers located in the primary means of disconnect, elevator machine room general lighting and ventilation, emergency power switching or other apparatus not included in the elevator control panels or related remote operating and signal stations.
- Underground hydraulic piping and buried hydraulic cylinders. Support structures for machine beams or other apparatus normally provided by others and not subject to preventative maintenance procedures by the Elevator Contractor, machine room or other equipment access doors with associated locks and closers.
- (j) **Subsequent Equipment Modernizations/Alternations/Upgradings:**
- 1) Full comprehensive service and repair coverage shall be included under the terms of this agreement when equipment and/or component systems represented herein are modified or upgraded.
 - 2) Such changes in equipment necessitating continuing full maintenance coverage may be initiated by the Owner under a separate voluntary extra cost upgrading agreement with or without this Contractor's permission or direct authorization and involvement before the work is performed.
 - 3) All non-elective changes or modifications necessitated due to obsolescence, parts unavailability or the Contractor's inability to maintain these systems in accordance with the contract specifications shall be fully covered under this agreement regardless of application, method or cost assignment for the life of the contract.
 - 4) Modernized or otherwise upgraded systems and parts thereof shall automatically be included under the terms of this full comprehensive agreement whether such components are specifically identified or not. The maintenance of which will take place after completion of manufacturer's warranty period and modernizing contractor's responsibility period as negotiated in the modernization contract.

Escalators

- (a) Control Wiring Harness, Main Disconnect to Controller Wire, Controller to Motor Wire.
- (b) Relays, Magnet Coils, Magnet Frames, Contacts, Shunts, Springs, Fuses, Insulators, Resistors, Switches Rectifiers, Condensers, Capacitors, Timing Devices, Solid State Devices, Overload Heaters, Transformers, Reverse Phase Devices, Auxiliary Brake, Emergency Brake.
- (c) Brake Setting, Linings, Shoes, Magnet Coils, Link Pins, Bushings, Plungers, Adjustment Screws.
- (d) Worm Shaft Bearings, Thrusts, Bearings, Inner Bearings, Worm Gears, Gear Oil, Seals, Stators, Windings, Rotating Elements, Mounts, Motor Thermal Protection Switch, Escalator Drive Machines, Commutators, Rotating Elements.
- (e) Tractor Rollers, Drive Rollers, Drive Sheaves, Hand Rail Tracks, Bend Guides, Entry Devices.
- (f) Assemblies, Stop Wheels, Rollers and Bearings, Treads, Cleats, Riser Surfaces, Chains, Chain Rollers, Axle Pins, Bushings. Spacing with Combs as necessary.
- (g) Proper step indexing with Combplate Teeth, Upthrust Switches, Stop/Start Key Switches, Deck Plates, Machine Room Covers, Combs, Combplates, Landing Plates.
- (h) Step Chains, Handrail Drive Chains, Main Drive Chains, Counter Shaft Chains, V-Belts, Springs,

Step Wheels, Frame and Sprockets, Steps, Risers, Rollers, Demarcation Strips, Step Tracks, Handrails Tracks, Drive Belts, Timing Belts, Tension Devices, Lubricators, Comb Lighting, Under Steps.

- (i) Non-Reversal Devices, Main Drive Chain Switches, Pawls, Sprockets, Sliding Plates, Skirt Guard Safety Switches, Micro Switches, Stop Buttons, Start/Stop Key Switches, Step Safeties, Pulleys, Gears, Limits, Upthrust Safety Switches, Safety Switches, Guard Safety Switches. Adjust step to Skirt clearance as necessary. Tension Carriages, Settings on Springs.
- (j) The Contractor will supply necessary oils, grease and other lubricants, cleaning materials and cotton waste.

8010 The contractor shall be responsible for repairing and/or replacing all electrical wiring, traveling cables and conductors extending to the elevator system from the circuit breakers and main line switches in machine rooms and from outlets in the hoistways. The circuit breakers and main line switches, together with main line fuses for same are excluded.

8010.5 Wire ropes will be renewed as often as necessary to maintain an adequate factor of safety and to equalize tension in all hoist ropes. The American Standard Practice for the inspection of elevators given in the Inspector's Manual A17.2-1985, or it's latest revision (and its supplements), will be followed in determining when ropes should be replaced for either broken wire strands and/or crown wear. This includes the hoisting cables, the governor cable, and compensating cables.

8011 The contractor shall be responsible for keeping the exterior of the elevator and escalator machinery and any other parts of the equipment subject to rust, properly painted, and presentable at all times. The motor windings shall be treated as needed with proper insulating compound which has been approved by the motor manufacturer. Cleaning and refinishing of the interior of cars, walls and ceilings and exterior of hoistway doors and frames are excluded from this contract. The contractor shall maintain: hoistways, elevator pits, sump pump pits, machine rooms, and assigned elevator/escalator contractor work space in a clean orderly condition free of dirt and debris. Pits and machine spaces shall be kept dry at all times.

8011.5 Requirements for all Drawings & Prints

- The contractor shall maintain on the premises, all drawings and prints on each and every elevator and escalator.
- Up-to-date wiring diagrams detailing circuits of all electrical protective devices (see ASME A17.1 item 2.26.2) and critical operating circuits (see ASME A17.1 item 2.26.3) shall be available in the machine room. As such, an entire set of prints is not required. The prints shall be legible, and specific for the elevator. The diagram is to use commonly used symbols and labeling to allow the circuits to be easily read. In addition, wiring numbers, relay designations and wiring terminals are to be properly labeled to allow for the tracing of the circuit and to ensure that the circuits are not in violation for the usage of "jumpers". Hand drawn diagrams, if accurate, are permitted. The wiring diagrams must be available to both the elevator maintenance mechanic and the elevator inspector. As such, diagrams no longer will be permitted to be unavailable to the inspector due to being secured in a lock cabinet. If there are security issues, then the prints may be stored in a secured area with signage that directs the inspector to the location. The prints must be available on demand.
- The interiors of controllers and their components shall be cleaned when necessary to the accumulation of foreign matter that can interfere with the operation of the equipment.
- Temporary wiring and insulators or blocks in the armatures or poles of magnetically operated switches, contactors, or relays on equipment in service are prohibited.
- When jumpers are used during maintenance, repair, or testing, all jumpers shall be removed and the equipment tested prior to returning it to service. Jumpers shall not be stored in the machine space, hoistway, or pit.
- Control and operating circuits and devices shall be maintained in compliance with applicable Code requirements.
- These drawings and prints shall be available at all times for Erie County inspection and upon termination of the contract shall become the property of Erie County.

8012 Work in connection with this contract, as described in Article 7 Section 7001-7004 and Article 8 Section 8001 shall be performed during regular working hours for the trade. Twenty-four-hour call back service shall be provided seven days per week for all elevators and escalators, to locate and make adjustments and to provide uninterrupted elevator service as described in Article 7 Section 7005.

8013 The contractor shall not be required by this agreement, except as herein noted, to make renewals or repairs necessitated by proved negligence or misuse of the equipment by persons other than the contractor, his representative and employees, or by reason of any other proved cause beyond the control of the contractor, except ordinary wear and tear.

The contractor will be responsible for the repair or replacement of damaged hoistway and elevator door closure mating surface parts and door closure protective devices regardless of cause, except, as where caused by malicious acts, riot, or other irresponsible behavior, as determined by the County of Erie engineer. The contractor shall not be required by this agreement to install new attachments recommended by or directed by insurance companies, federal, state or municipal, or other government authorities without additional compensation. It is agreed that the contractor will provide the County with an estimate, upon request, for the installation of new attachments not covered by this contract. Upon approval by the County, the contractor may proceed with such installations with billing to be made separately from this contract.

8014 No charges shall be assessed to the County of Erie for any examination, adjustments, repairs, or replacements that may occur due to normal wear and tear during the life of the contract. At least ninety (90) days prior to the expiration of the contract, a thorough 3rd party inspection at owner's expense, shall be made of all elevator equipment to determine its condition and performance, as to whether it is performing properly and at its highest peak of efficiency. Any defects found, or replacements required, as a result of this inspection shall be corrected by the contractor at his expense prior to the termination of the agreement.

8015 The standards and tolerances, for determining when adjustments and/or repairs or replacement parts shall be required, shall be provided in the American Standard Safety Code of Elevators, Dumbwaiters, Escalators and Moving Walks A17.1-2000 and American Standard Practice for Inspection of Elevators A17.2-2005 and/or their latest revisions. In any case not covered by specific provision in the above or in any case of discrepancy between provisions, the Commissioner of Public Works shall determine what action is required under this contract and the contractor shall comply therewith.

8016 BASIC OPERATING PERFORMANCE STANDARDS FOR INDIVIDUAL PASSENGER ELEVATORS

The Contractor shall monitor and record the operating performance levels of all elevators per the minimum preventative maintenance procedures specified herein.

- (a) Door open cycle at two (2) FPM, subject to the manufacturer's design criteria.
- (b) Door close cycle at one (1) FPM per code.
- (c) Long door dwell - The non-interference door open duration time that car/corridor doors remain open in response to a corridor call shall be set in accordance with ADA standard 4.10.7.
- (d) Short door dwell - The non-interference door open duration time that car/corridor doors remain open in response to a car call shall be set in accordance with ADA standard 4.10.8.
- (e) Nudging: Reduced door closing speed and force operation initiated in conjunction with an audible signal after an extended door protection device interruption. Set @ 20 to 22 seconds.
- (f) Door close pressure - Measured using compression spring gauge after approximately 1/3 to 1/2 total travel distance of clear opening to determine stall pressure @ maximum 30 lbs. per AI 7.1 code.
- (g) Leveling accuracy @ sill to sill variance measured at multiple landings under varying load condition in both directions of travel maximum 1/2 inches per ADA standards.
- (h) Car speed shall be maintained at $\pm 5\%$ fpm or original design speed.

ARTICLE IX COUNTY RIGHT OF INSPECTION

9001 There shall be at least annually, joint inspections during the period of this contract carried out by representatives of the County of Erie and the contractor. These inspections shall be at times mutually agreed upon, except that one shall be held approximately ninety (90) days prior to the termination of the contract. The County reserves the right to retain an independent 3rd party inspection service to represent the County for the annual, five year, and contract termination inspections as noted in Section 9005 "Requirements for Inspections & Tests".

- 9002 The contractor must maintain at all times the standard of efficiency, safety, capacity, and speeds of the elevators as designed and installed by the manufacturer, including acceleration, retardation, contract speed in feet per minute, with or without full load, floor-to-floor time, and door opening and closing time. Original installation contract standards are maintained on file and are available for inspection in the Erie County DPW Elevator Review Department, 45 Oak Street, Buffalo, NY 14203. It is the intent that interrupted elevator service and depreciation shall be kept to an absolute minimum through an adequate maintenance program including complete replacement of worn parts with genuine identical new parts before failure of the worn parts occurs.
- 9003 The contractor must own and have available, within the County of Erie locale, at all times for immediate use, a complete set of pertinent elevator maintenance and repair tools and instruments. These tools and instruments shall include the following but are not limited to such:
- a. Turning tools capable of turning any of the hoisting machine commutators on the job site.
 - b. Generator turning tools capable of turning the commutator of any of the generator sets without removing rotating elements from the generator.
 - c. Machine tools capable of turning main motor drive sheave grooves on the machine.
 - d. Electronic test instruments capable of checking all electrical circuits of the elevator equipment on a prologue registered scope.
- 9004 The contractor shall supply and maintain on the premises a log of records of arrival and departure times of all contractor employees. The log shall contain columnar line entries for date, employee position classification, employee name, time of arrival, time of departure, and hours worked. Entries shall be maintained current. This log shall be available for periodic review by the Commissioner of Public Works or his designee. This log, upon termination of the contract shall become the property of the County of Erie.

9005 REQUIREMENTS FOR INSPECTIONS & TESTS

Safety Inspections and Tests:

All service and repair work shall be performed in compliance with the American National Standard Safety Code for Elevators, Dumbwaiters, Escalators, and Moving Walks, ANSI A17.1 and its supplements (or most current edition) and shall be subject to safety inspection by the Department of Public Works or its representative. "Periodic" inspection of the elevators as required by the ASME A17.2 Code shall be performed by the QEI Inspector contracted by the county. The contractor (Maintenance Company) shall provide the personnel who are familiar with the equipment to perform tests. The contractor shall periodically examine and test all safety devices.

He shall make formal safety tests and inspections annually as required and outlined in the ANSI A17.1 Code. The tests shall be conducted in the presence of a QEI certified inspector designated by the County of Erie. Tests performed annually, and for five (5) year periods will be scheduled to comply with the annual and five-year intervals as specified in the ANSI Codes. It will be the responsibility of the contractor to determine when these tests are due and coordinate the tests and inspections with the designated inspection service representing the County of Erie. After completion of the required tests, the contractor will submit to the Division of Buildings & Grounds or appropriate County agency, documentation indicating at least the following information as applicable. The document may be the contractor's standard form:

1. Type of test.
2. Name of organization performing the test.
3. Address of the facility being tested.
4. Elevator identification No.
5. Car capacity.
6. Speed
7. Type of elevator.
8. Type of machine.
9. Manufacturer of Safety.
10. Type of safety.
11. Indication that governor has been checked for proper tripping speed and that the overspeed switch is functional.
12. Load at which safety was tested.
13. Speed at which governor was tripped.
14. Length of marks on each guide rail made by safety jaws.
15. Number of turns remaining on the drum.
16. Did car or counterweight set level?
17. Did the governor set satisfactorily?
18. Was the governor calibrated? At what speed?
19. Was the safety test satisfactory?

20. At what speed and load were the buffers tested?
21. Was the oil level satisfactory after test?
22. Indicate plunger compression return time.
23. Indicate the date test was performed.
24. Signature of individual performing test.
25. Any additional remarks that are applicable.
26. Name and Certification Number of the elevator inspector witnessing the tests.

9006 INSPECTIONS AND TESTS FOR ELECTRIC TRACTION ELEVATORS

The following tests shall, as a minimum be performed by the Contractor at the frequencies indicated. The Contractor shall test and inspect all items.

1) Annual No Load Test and Inspection

All applicable tests and inspections in accordance with ASME A17.1 Section 1002, periodic inspections and tests of Electric Traction Elevators shall be performed by the Contractor.

Compensation to the Contractor for the annual tests is included in the Maintenance Base Price.

2) Five Year Full Load Inspection and Test - Traction Units:

A **Full Load** safety test of the safety mechanism and the governor will be performed every fifth year. If this test has not been performed within the last five years, it must be performed within the first 30 days of this agreement. In the years that full load tests were not performed, an annual no-load test will be performed on the elevators. On traction units with oil buffers, the test will be performed at the frequency prescribed in the ANSI Code.

All applicable tests and inspections in accordance with ASME A17.1 Section 1002.3 shall be performed by the Contractor. Compensation to the Contractor for the five-year tests is included in the Maintenance Base Price.

3) Annual Hydraulic Safety Test and Inspection - Hydraulic Elevators:

All applicable tests and inspections in accordance with ASME A17.1 Section 1005, periodic inspections and tests of hydraulic elevators shall be performed by the Contractor.

Due to inherent safety and environmental risks associated with failures of in-ground single bottom hydraulic cylinders, it is required that in the course of regular elevator maintenance and inspection, hydraulic oil levels must be monitored closely and documented. Any loss of hydraulic oil must be reported to the owner for appropriate action and properly documented in an oil usage log.

4) Five Year Inspection and Tests

The five (5) year Inspection and Testing, as required by the ANSI/ASME A17.1, shall be performed by the contractor at a mutually agreeable time as the tests become due, at no time exceeding 60 months between tests. It is the contractor's responsibility to ensure that elevators are Inspected and Tested on a timely basis per the Code, and that all equipment is in proper operating condition before tests are conducted. All elevator testing shall be performed after normal working hours and on weekends at no additional cost to the County of Erie so as not to disrupt elevator service to building occupants. The contractor will coordinate the exact time of testing with the building Chief Engineer and the inspection service representing the County.

5) Prompt Correction of Deficiencies

The contractor shall be responsible for the prompt correction within forty-eight hours of all deficiencies noted during an inspection and/or testing. Any deficiencies that are deemed an "emergency" shall be corrected immediately. Upon completion of the deficiencies, the contractor shall sign and date the inspection report and return it to the building engineer and the main office of the appropriate County agency managing the building. The contractor will then make arrangements for re-inspection with the building Chief Engineer and the inspection service representing the County.

9007 Contract Closeout Examination

- a. On a date generally not later than ninety (90) calendar days prior to the expiration of the contract, the contractor will coordinate with the building Chief Engineer, and the inspection service representing the County to conduct a complete and systematic examination of the units covered by this contract. This examination may be included at the time of the annual examination as noted in Section 9001.
- b. The Dept. of Public Works, Buildings & Grounds Division or applicable agency's site manager, will prepare an "Existing Deficiency Report" listing all deficiencies noted during the examination, and not later than ten (10) working days following the examination, furnish a copy of the report to the contractor.
- c. The contractor will, before the expiration of the contract, correct all deficiencies noted in the "Existing Deficiency Report" that are covered by this contract.

Changes in ANSI/ASME A17.1 A17.2 & A17.3 Code

The contractor shall notify the County contracting officer of any changes in the ANSI/ASME Codes during the term of the contract. These changes shall be incorporated into the contract by contract modification, and an equitable price adjustment made, if appropriate.

9008 The County of Erie reserves the right to make inspections and tests at any time when deemed advisable, to ascertain that the requirements of these specifications are being fulfilled. Should it be found that the standards herein specified are not being satisfactorily maintained, the County of Erie may immediately demand that the contractor place the elevators in condition to meet these requirements. If the contractor fails to comply with such demands, within a reasonable time, the County of Erie may by written notice to the contractor terminate his right to proceed further with the work. In such event, the County of Erie may take over the work and prosecute it to completion by contract or otherwise, and the contractor or their sureties (if any) shall be liable to the County of Erie for any excess cost occasioned.

9009 The County of Erie may terminate the contract if it deems that the contract is not satisfactorily performed in accordance with the standards herein specified. In the event of such termination, the County of Erie may refuse to award future contracts to such contractor.

ARTICLE X PRESENCE of ASBESTOS

10001 The contractor is advised that an inspection of the Central Library and Rath Building indicates the presence of asbestos containing building materials (ACBM). Contractor must obtain a work permit approved by the Asbestos Program Manager which will specify work practices and/or safety measures to be followed. Since it is possible that such asbestos containing material (ACM) may be disturbed, it is recommended that the contractor's personnel receive proper appropriate asbestos training to insure compliance with applicable federal, state and local regulations.