

Proj 10345

**STATE UNIVERSITY COLLEGE
AT OSWEGO, NY
ELEVATOR STUDY**



**HYDRAULIC ELEVATORS
UPGRADE STUDY
JUNE 20, 2008**

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EXECUTIVE SUMMARY:

B. REPORT DESCRIPTION:

CNY Elevator Consultants, LLC (CNYEC) is pleased to provide you with this study for 7 hydraulic elevators located in the State University of New York at Oswego College in Oswego, NY. This evaluation report is based on CNY's field inventory and QEI-1 certified elevator inspection on June 3, 2008. The evaluation contained herein is specific to the locations indicated only and is not intended to be a substitute for required testing, maintenance, or qualified design of new or existing materials, methods, or systems.

C. EQUIPMENT OVERVIEW:

Elevator # Key: Elevator #1 Sheldon Hall, Elevator #2 Lanigan Hall, Elevator #3 Penfield Library, Elevator #4 Cooper Dining Hall, Elevator #5A Hewitt (Passenger), Elevator #5B Hewitt (Service Car), Elevator #6 Tyler.

CNYEC has reviewed the available documentation and evaluated the existing conditions at the site and found the existing seven elevators in service to be in poor condition. Maintenance condition was above average. Based on their current use it is our opinion that all seven elevators should be modernized sooner than later. These elevators are heavily used, therefore a long term shutdown would cause a significant burden on the building occupants. It is recommended that the Owner begin an upgrade program to modernize all seven elevators.

Prior to 1972 elevator hydraulic cylinders were installed with a single bottom end cap which contained the oil at the bottom of the cylinder. Elevators # 2, 3, 4, 5A, 5B and 6 were installed in the mid-1960's. CNY has contacted the original equipment manufacturers at Dover (now Thyssen-Krupp Elevator Co.) and Otis Elevator Co. and both manufacturers have confirmed that they had installed exclusively single bottom end cap cylinders in the mid 1960s. Based on the available documentation, CNY is confident that the cylinders of elevators 2-6 are single bottom cylinders.

In the early 1970's the elevator industry recognized that a single bottom cylinder end cap could cause a catastrophic failure if the cap were to fail due to corrosion (called electrolysis). Unlike roped elevators, hydraulic elevators do not have safety mechanisms that prevent the elevator from falling, so the loss of a bottom end cap would cause the elevator to fall at the rate that the hydraulic fluid is displaced potentially causing a catastrophic failure. In the U.S. in 1971 and Canada in 1977 the elevator code was changed to require that a second end cap be added to the cylinder bottom, commonly called a "safety bulk head" or "double-bottom cylinder." A safety orifice was installed below the original end cap to allow a slow loss of oil in the event of failure of the new bottom end cap.

That type of construction was installed widely in the US and Canada until 2000 when additional requirements were added that included protecting the entire cylinder from corrosion. The 2000 elevator code, adopted in New York State on January 1, 2003 required that all new hydraulic pistons be provided with cylinder corrosion protection and a means to monitor that protection for integrity. Since 2003 all hydraulic elevators in NYS have been installed with new cylinders in PVC liners



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which are intended to prevent corrosion. The adoption of the 2000 elevator code also included the provision to verify maintenance of existing cylinders installed prior to 2003 and a requirement to have a written record of oil usage in the machineroom to assure that inground cylinders were not subject to cylinder failure or leakage due to corrosion.

The New York State Department of State Codes Division subsequently determined that the requirement to verify the integrity of existing inground cylinders was not enforceable under the New York State Constitution. However, it should be understood that the requirement of the Owner to maintain the hydraulic cylinder in a manner consistent with protection of the public from a catastrophic failure is still enforceable under the Property Maintenance Code as well as civil liability. A catastrophic failure of a single bottom cylinder in Toronto on January 27, 2006 injuring 5 people greatly increased the concern nationwide about the need to replace existing single bottom cylinders which are more than 35 years old. Additionally, increased scrutiny of environmental concerns with the loss of oil from leaking underground cylinders has accelerated the push in North America to replace the older cylinders with the new PVC contained cylinder systems.

Based on our own QEI-1 certified periodic inspection it appears that the existing cylinders have not had the State required witnessing of the elevator's annual safety tests. Although it does appear that the maintenance contractor, based on their own maintenance records, has been performing pressure tests on relief valves, it is not clear that the tests included verification of the cylinder integrity. It is strongly recommended that the annual tests be completed and witnessed by an independent QEI certified elevator inspector sooner than later. In the event of future catastrophic failure, the Owner would likely be expected to provide proof that the New York State code requirements for certified inspection and testing had been met, and the tests had been independently verified.

We found most of the remaining components to be in poor but typical condition based on age. Building occupants indicated to CNY that there was a history of problems which is consistent with our field inventory and maintenance reports indicating that the useable life of the controllers, door operators, and support mechanisms were significantly beyond their expected life-span. The existing controllers, intended for about a 20 year lifespan, are now more than 40 years old. Maintenance of equipment this old is difficult and ultimately leads to increased failures and costs. It should be noted that it is not required by building code to replace the controllers as part of the upgrade to the cylinders, however it may be in the Owner's best interest to complete the operational upgrades while the elevators are out of service for the cylinder replacements.

Elevators 3, 4, 5A, 5B, and 6 currently do not meet the standards for Accessibility. It is recommended that any upgrade to the controller equipment include compliance with regulations for barrier free access including call station fixtures, visual and audible signals, and floor leveling.

Elevators 3, 4, 5A, 5B, and 6 do not have fire service functionality. Following several multiple loss of life fires in the early 1970s the elevator codes were changed to improve life safety for the elevator riding public in the event of fire. Any upgrade to the elevator controllers should include the addition of fire service phase one and phase two functionality to protect the public from the dangers which elevators present during a building fire. None of the elevators 1-6 have fire service which meets the current standards for new construction.

In all cases the Cabs were found to be in good to fair condition. Modest improvements to their appearance as part of the upgrade to the car operating panel upgrades could be added at the Owner's discretion.

An opinion of probable cost for elevator work only is provided at the end of each individual study. A complete summary of probable costs and a proposed capital improvement program for the seven elevators included in this study is provided in Part D of this report.

D. OPINION OF PROBABLE COST:

An individual Opinion of Probable Cost for each elevator is provided in each section of this report. Following is a summary of those opinions:

Opinion of Probable Cost for year 2009 construction

Elevator Work Only: \$715,104

Cylinders Only: \$198,400

All work: \$913,504

Opinion of Probable Cost for year 2010 construction

Elevator Work Only: \$438,697

Cylinders Only: \$99,200

All work: \$537,897

Total: \$1,451,401



STATE UNIVERSITY OF NEW YORK AT OSWEGO HYDRAULIC ELEVATOR STUDY

June 20, 2008

OPINION OF PROBABLE ELEVATOR COST ONLY

CNY ELEVATOR ID#	BUILDING NAME	CONSTRUCTION YEAR	LANDINGS	CAPACITY	RATED SPEED	CYLINDER REPLACEMENT	CONTROLLER UPGRADE	POWER UNIT REPLACEMENT	DOORS	SUB-TOTAL	20% CONTINGENCY	4% COST OF LIVING INCREASE YR 2009	4% COST OF LIVING INCREASE YR 2010
1	SHIELDS	2010	4	2000	180	\$0	\$45,000	\$0	\$15,000	\$60,000	\$72,000	\$74,000	\$77,875
2	LANGAN	2009	3	2000	100	\$35,000	\$45,000	\$25,000	\$20,000	\$125,000	\$150,000	\$156,000	\$158,000
3	PENFIELD	2009	4	2500	200	\$40,000	\$45,000	\$35,000	\$23,000	\$143,000	\$171,600	\$178,464	\$178,464
4	COCOPER	2010	2	2000	45	\$50,000	\$48,000	\$20,000	\$18,000	\$136,000	\$163,200	\$171,024	\$174,565
5A	HEWITT PASSENGER	2009	3	2000	150	\$35,000	\$45,000	\$35,000	\$25,000	\$140,000	\$168,000	\$174,720	\$174,720
5B	HEWITT SERVICE	2010	3	5000	100	\$50,000	\$45,000	\$45,000	\$25,000	\$165,000	\$198,000	\$205,920	\$214,157
6	TYLER	2009	3	5000	100	\$50,000	\$45,000	\$45,000	\$25,000	\$165,000	\$198,000	\$205,920	\$205,920
OP COST FOR SINGLE BOTTOM CYLINDER REPLACEMENTS ONLY:						\$198,400							
2009 OP CYLINDER WORK ONLY =						\$68,200							
2010 OP CYLINDER WORK ONLY =						\$130,200							
TOTAL CYLINDER WORK ONLY =						\$198,400							
OP COST FOR ALL ELEVATOR WORK (INCLUDES CYLINDERS):						\$715,104							
2009 OP COST ESTIMATE ALL ELEVATOR WORK =						\$458,897							
2010 OP COST ESTIMATE ALL ELEVATOR WORK =						\$256,207							
TOTAL ALL ELEVATOR WORK =						\$1,133,801							

1. ELEVATOR #1 SHELDON HALL

1.1. EXISTING COMPONENT SUMMARY AND UPGRADE RECOMMENDATIONS:

1.1.1. **CONTROLLER:** The existing Midstate Elevator microprocessor/ice-cube relay based elevator controllers was found to be in poor overall condition and maintenance appeared to be adequate. This controller was installed new in 1987 by Midstate Elevator Company which is no longer in business. The existing microprocessor is difficult to maintain and can fail completely by losing its flash-type memory. It is possible to back up the existing memory to prevent the loss of the entire memory, however finding a qualified individual familiar with Midstate equipment is becoming increasingly difficult. The design of this equipment even new had limited technical support, and that situation is significantly worse now. The controller should be upgraded sooner than later.

1.1.1.1. A 20-year life span for a controller is typical both in terms of the expected lifespan of the specific components but also as it relates to providing optimum efficiency with new technologies. The Midstate controller has reached that age and added to the fact that the manufacturer is no longer in business emphasizes our recommendation to upgrade the controller sooner than later.

1.1.1.2. Its current location is not code compliant. It's location near an open water drain is a potential shock hazard and the surrounding moisture adds to its wear and unreliability. It is recommended that the location of the controller be changed at the time of controller upgrade.

1.1.2. **HOISTING COMPONENTS:** The existing 40-HP submersible motor, valve, and hydraulic reservoir can likely be retained however they should be relocated as part of the controller relocation. The existing inground cylinder appears to be in good condition. Because the cylinder was installed after 1972, it is expected to have a double-bottom cylinder and can likely be retained. However the cylinder was not installed in a PVC jacket which would allow the cylinder integrity to be constantly monitored for corrosion and leaks. A QEI certified witnessing of the cylinder pressure test to verify its integrity should be completed as soon as possible.

1.1.3. **DOORS:** Front and Rear Door operation.

1.1.3.1. The existing light ray and safety edge (boot) type door detection should be upgraded with infrared type door detectors as part of the controller upgrade.

- 1.1.3.2. The existing GAL door operators are in fair condition but should be upgraded as part of the elevator controller upgrade.
- 1.1.3.3. Door restrictors are currently required, however they were not functioning at the time of CNY's inventory.
- 1.1.3.4. It is unlikely that the existing hoistway doors contain ACBM and they can likely be retained.
- 1.1.3.5. The existing hoistway door tracks can likely be retained if the hoistway doors are retained. The existing hoistway door rollers and gibs should be replaced at the time of controller upgrade.
- 1.1.3.6. The GAL interlocks appear to be in good condition and can likely be retained.
- 1.1.3.7. The existing car doors are in fair condition and can likely be retained.
- 1.1.4. CALL STATIONS: The existing hall call stations in the lobbies appear to conform to current ADA standards. The hall call stations appear to be in good condition and well maintained. The recall key station will require modest modification at the time of elevator controller upgrade.
 - 1.1.4.1. The car operating panel will require replacement at the time of the controller upgrade to comply with current elevator codes for fire service.
- 1.1.5. CAB:
 - 1.1.5.1. The cab was found to be in good condition and likely be retained.
 - 1.1.5.2. The existing lighting should be checked to verify that the ballasts are electronic, if not, the fixtures should be replaced. The existing lamps should be provided with a protective cover to prevent breakage at the time of the renovation.
- 1.1.6. ADDITIONAL COMPONENT SUMMARY:
 - 1.1.6.1. The elevator pit is required to have a pit ladder installed.
 - 1.1.6.2. The existing machineroom does not comply with the current elevator code requirements for ventilation, lighting and head clearance. A review of options to relocate the elevator equipment to a new space is recommended. It is unlikely that the existing room would be granted a code variance to permit retention of equipment in the existing space.

1.1.6.3. The existing pit switch is worn and should be replaced at the time of controller upgrade.

1.2. PHOTOS:



Main Lobby Floor
Landing



Existing
Machineroom



Machineroom and
Existing Controller



Bottom of Car and
Existing Piston



Existing Pit



Top of Car and Exist
Door Operator

1.3 SUMMARY OF ANCILLARY SYSTEM UPGRADES:

1.3.1. ELECTRICAL:

- 1.3.1.1. The existing disconnecting means does not have a grounded connection back to the building ground. Any renovation including a new controller will require installation of a properly grounded connection. If the machineroom is provided with sprinklers as part of the renovation project, a new shunt trip breaker would be required.
- 1.3.1.2. The existing cab lighting and fan disconnect could not be tested because their location was not readily apparent. In the event of a modernization, a disconnecting means for the cab lighting and fan would be required in the machineroom. Where possible, the cab lighting and fan should be connected to an emergency generator.
- 1.3.1.3. The existing machineroom lighting is required to be protected against breakage. A new machineroom GFCI protected convenience outlet is required at the time of controller upgrade.
- 1.3.1.4. The existing pit light is required to be protected against breakage. A new pit GFCI protected convenience outlet is required at the time of controller upgrade.

1.3.2. FIRE ALARM:

- 1.3.2.1. Annual testing of the integrated Fire Alarm/Ventilation/and Elevator recall circuits and devices is recommended.
- 1.3.2.2. At the time of the next elevator controller upgrade, it will be necessary to provide the fireman's flashing hat signal to the elevator car from any FAID located in the machineroom or hoistway.

1.3.3. HVAC:

- 1.3.3.1. The existing machineroom does not comply with the current elevator code requirements for ventilation. A review of options to relocate the elevator equipment to a new space is recommended.

1.3.3.2. The existing hoistway vent may not be currently operable. It is recommended that the hoistway vent be tested for proper operation. Unless the building is fully sprinklered, a vent in the shaft for this current occupancy is required.

1.3.3.3. Machineroom ventilation should include smoke and heat dampers to protect openings in the event of fire. A review of the cooling requirements during the summer months is recommended to verify that adequate fresh air can be provided.

1.3.4. COMMUNICATIONS:

1.3.4.1. The existing emergency telephone in the car was working properly at the time of inspection.

1.3.5. PLUMBING:

1.3.5.1. The existing pit appeared to be dry and did not have a sump pump or drain previously installed. A new sump pump or drain is not required in an existing elevator pit as part of a modernization.

1.3.6. GENERAL CONSTRUCTION:

1.3.6.1. General construction upgrades should include any necessary maintenance to ensure that all hoistway and machineroom fire resistance ratings remain in compliance with those fire resistance ratings required at the time of original construction. Opening protectives and fire rated assemblies should be maintained to assure proper seals. The existing hoistway does have some issues with the fire resistance that should be addressed sooner than later.

1.3.6.2. The existing machineroom cannot be made to comply with current elevator codes for clearances and access. It is recommended that alternate locations be considered. It is not likely that a code variance would be granted to allow the existing machineroom to be maintained as part of a renovation.

1.3.7. FIRE PROTECTION:

- 1.3.7.1. The existing elevator machineroom does not have sprinklers, however there is a sprinkler in the hoistway. At the time of the controller upgrade the sprinkler would be required to be removed or a new shunt trip type main line disconnecting means would be required to be integrated into the sprinkler and fire alarm system.
- 1.3.7.2. The existing smoke detector in the hoistway is required if the sprinkler remains in the hoistway or if there is a hoistway vent to be operated by a smoke detector.
- 1.3.7.3. An ABC-type fire extinguisher is required to be located in the machineroom.

1.4. OPINION OF PROBABLE COST ELEVATOR #1 SHELDON HALL:

The following opinion of probable cost (Elevator work only) assumes construction to be completed by December 2010.

Elevator Controller, Door Operators and Infrared detectors: \$60,000-\$72,000

Total for all elevator work: \$78,000

1.5. EQUIPMENT INVENTORY ELEVATOR #1 SHELDON HALL:

Year of Construction: 1987

Manufacturer: Midstate

Type: Passenger

Capacity: 3000 Lbs.

150 FPM (Measured speed NL: 150FPM/up 128FPM/dn)

4 stop: L= Front, 1=Rear, 2=Rear 3=Rear

Fire Service PH 1 & 2

Recall Level: L

Hoisting Type: Direct Acting Inground Cylinder (no PVC)

HP: 40 Submersible

WP= 380 RP= 470

208V/3PH/ 4-wire

Maxton valve

Emergency Power: None

Last Test: 8/07, QEI: No

Doors:

Center Opening: 42" (F & R)

Operator: GAL

Protection: Light-ray/ Safety edge

ADA: Yes

Fixtures: Innovation

Phone: Yes

Cab Dimensions: 6'-8"W x 5'-0"D x 8'-0"H (Drop ceiling at 7'-6")

Finish: Steel with PVC laminate application



1.6. **APPENDIX 3: OEI INSPECTION REPORTS**



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Hydraulic Elevator



Periodic Inspection Report



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Sheldon Hall
Oswego University
Oswego, NY 00000
Owner: Oswego State University of New York

Date of Inspection	6/3/2008
Inspector	Chris Duke
QEI Certification #	S-111
QEI Cert. Issuer	NAESA International
Workorder Designator	080604-00-04D1-I
Authoritative Jurisdiction	State University of New York

Type	Passenger
Rated Load	3000
Year Constructed	1987
Manufacturer	Midstate

Inspection Items Not in Compliance Per ASME A17.1

Inspection Item	Applicable Code Reference	Failure Reason
Operating control devices	Item 1.3	Both Directional Indicators did not function
Car lighting and receptacles	Item 1.5	Emergency lighting could not be checked (power source location unknown)
Restricted opening of car/hoistway doors	Item 1.18	The car and hoistway door must meet the restricted opening requirements when the car is more than 18 inches above or below the landing (front door)
Access to machine space	Item 2.1	Machine room door must be self closing and self locking (Can not unlock door handle from inside machine room)
Headroom	Item 2.2	Machine room or control room does not have minimum overhead clearance
Lighting and receptacles	Item 2.3	Machine room lighting not protected
Machine space	Item 2.4	Machine space appears to have water leaks
Fire Extinguisher	Item 2.7	ABC type fire extinguisher required to be provided in a location convenient to the machine room access door
Disconnecting means and control	Item 2.11	Provide source grounding in power machine room disconnect
Relief valves	Item 2.31	QEI witnessing of annual tests required
Pit access lighting, stop switch and condition	Item 5.1	Provide pit light protection
Pit access lighting, stop switch and condition	Item 5.1	Pit Ladder Required
Fire Service Operation (89-00 ed)	Item 6.4	Provide Phase 1 instructions

Inspector's Signature

continued on next page

This conveyance inspection was performed in compliance with the applicable provisions of ASME A17.2 Guide for Inspection of Elevators, Escalators, and Moving walks. The owner retains full responsibility to maintain this conveyance in compliance with all applicable laws, ordinances and regulations. The Authority Having Jurisdiction retains all rights and responsibilities, as defined by applicable law, regarding verification of compliance.

Checklist for Hydraulic Elevator - Periodic Inspection Report

			OK	NG	NA				OK	NG	NA
Interior of Car						3.9	Floor and emergency identification numbering	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.1	Door reopening device		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.10	Hoistway construction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.2	Stop switches		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.11	Hoistway smoke control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.3	Operating control devices		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.12	Pipes wiring, and ducts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.4	Sills and car floor		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.13	Windows, projections, recesses, and setbacks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.5	Car lighting and receptacles		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.14	Hoistway clearances	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.6	Car Emergency signal		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.15	Multiple hoistways	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.7	Car door/gate		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.16	Traveling cables and junction boxes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.8	Door closing force		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.17	Door and gate equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.9	Power closing of doors/gates		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.18	Car frame and stiles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.10	Power opening of doors/gates		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.19	Guide rails fastening and equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.11	Car vision panels and glass car doors		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.20	Governor rope	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.12	Car enclosure		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.21	Governor releasing carrier	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.13	Emergency exit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.22	Wire rope fastening and hitch plate	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.14	Ventilation		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.23	Suspension rope	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.15	Signs and operating device symbols		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.30	Speed test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.16	Rated load, platform area and data plate		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.31	Slack rope device roped-hydraulic elv 1989 and later	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.17	Standby power operation		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.32	Traveling Sheave roped-hydraulic elv 1989 and later	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.18	Restricted opening of car/hoistway doors		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.33	Counterweight	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.19	Car ride		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Outside Hoistway					
Machine Room						4.1	Car platform guard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.1	Access to machine space		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.2	Hoistway doors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.2	Headroom		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.3	Vision Panels	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2.3	Lighting and receptacles		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.4	Hoistway door locking devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.4	Machine space		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.5	Access to Hoistway	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.5	Housekeeping		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.6	Power closing of hoistway doors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.6	Ventilation		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.7	Sequence operation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.7	Fire Extinguisher		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.8	Hoistway enclosure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.8	Pipes,wiring, and ducts		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.9	Elevator Parking devices	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2.9	Guarding of exposed auxiliary equipment		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.10	Emergency doors blind hoistway	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2.10	Numbering of elevators, machines and disconnect switches		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.12	Standby power selection switch	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2.11	Disconnecting means and control		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Pit					
2.12	Controller wiring, fuses grounding, etc.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.1	Pit access lighting, stop switch and condition	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.13	Governor, overspeed switch and seal		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.2	Bottom clearance, runby and minimum refuge space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.14	Code data plate		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.3	Final and emergency terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.30	Hydraulic Power Unit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.4	Normal terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.31	Relief valves		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.5	Traveling cables	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.32	Control valve		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.6	Governor-rope tension devices	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2.33	Tanks		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.7	Car Frame and platform	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.34	Flexible hydraulic hose and fitting assemblies		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.8	Car safeties and guiding members	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2.35	Supply Line and Shutoff Valve		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.11	Plunger and cylinder	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.36	Hydraulic Cylinders		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.12	Car buffer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.37	Pressure Switch		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.13	Guiding members	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.38	Roped water hydraulic elevators		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.14	Supply piping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Top of Car						Firefighter's Service					
3.1	Top-of-car stop switch		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.1	Fire Service Operation (73-80 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.2	Car top light and outlet		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.2	Fire Service Operation (81-83 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.3	Top-of-car operating device		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.3	Fire Service Operation (84-88 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.4	Top-of-car clearance and refuge space		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.4	Fire Service Operation (89-00 ed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.5	Normal terminal stopping devices		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
3.6	Final and emergency terminal stopping devices		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
3.7	Car leveling and anticreep devices		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
3.8	Top emergency exit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						



Suite 305
126 North Salina Street
Syracuse, NY 13202
Tel (315) 425-0428
Fax (315) 425-1232
inspections@cnyei.com

POSTING INSTRUCTIONS

"The most current certificate of inspection shall be on display at all times within the elevator or attached to the escalator or dumbwaiter; or the certificate shall be available for public inspection in the office of the building operator"

- Property Maintenance Code

Certificate of Inspection



**THIS CERTIFIES THAT AN INDEPENDENT THIRD-PARTY
QEI INSPECTION WAS PERFORMED ON:**

June 3, 2008

For the following Conveyance:

**Sheldon Hall
Oswego University
Oswego, NY 00000**

**SEE ATTACHED REPORT FOR THE
RESULTS OF THIS INSPECTION**

Authority Having Jurisdiction: State University of New York

This Inspection Certificate Expires in:

December 2008

This inspection certificate only indicates that a QEI certified Inspector employed by CNY Elevator Inspections Inc performed a conveyance inspection complying with the requirements of the Building Code and Property Maintenance Code on the date indicated. Where non-compliant items are indicated on the attached report and as required by the Authority Having Jurisdiction and/or as required by law, regulation, or ordinance, the Owner shall correct all deficiencies as soon as possible.

QEI Inspector: Chris Duke

QEI # S-111

CNYEI W.O. # 080604-00-04D1-I

1.7. **ELEVATOR MAINTENANCE REPORT – ELEVATOR #1 SHELDON HALL:**

Oswego College provided CNY with a copy of the last 6-months of elevator maintenance records for this elevator. Based on those reports it appears that concerns with consistent shutdowns is likely a result of failing relays and increases our concern that the controller microprocessor could fail catastrophically. Although the reports show that the elevator maintenance contractor has been attentive to the problems, it is likely that an increased frequency of shutdowns can be expected.



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2. **ELEVATOR #2 LANIGAN HALL**

2.1. **EXISTING COMPONENT SUMMARY AND UPGRADE RECOMMENDATIONS:**

- 2.1.1. **CONTROLLER:** The existing Dover ice-cube relay based elevator controller was found to be in poor overall condition and maintenance appeared to be adequate. This controller was installed new in 1966 by the Dover Elevator Company which was purchased by Thyssen-Krupp Elevator Company in 1999. The existing relay controller is significantly past its expected 20-year life span.
- 2.1.1.1. A 20-year life span for a controller is typical both in terms of the expected life span of the specific components but also as it relates to providing optimum efficiency with new technologies. The Dover controller has exceeded the 20-year life span by more than double. Replacement of the existing controller will provide increased reliability, improve functionality, and enhanced safety through fire service capability.
- 2.1.2. **HOISTING COMPONENTS:** The existing 20-HP belt drive motor, valve and hydraulic reservoir should be replaced at the time of the controller upgrade. The existing cylinder is a single-bottom cylinder and should be replaced as soon as possible. It is not required to do the controller replacement at the time of the cylinder replacement but it is recommended. The existing cylinder should have a QEI certified witnessing of the cylinder pressure test as soon as possible to verify its current integrity.
- 2.1.3. **DOORS:** Front operation.
- 2.1.3.1. The existing light ray and safety edge (boot) type door detection should be replaced with infrared type door detectors as part of the controller upgrade.
- 2.1.3.2. The existing Dover model door operator is in poor condition and should be replaced as part of the next elevator controller upgrade.
- 2.1.3.3. New door restrictors are required to be provided at the time of the door operator replacement.
- 2.1.3.4. The hoistway doors should be tested for ACBM. If the doors contain ACBM, they should be replaced, if not, they can likely be retained.
- 2.1.3.5. The existing hoistway door tracks will be required to be replaced if the hoistway doors are replaced. If the doors are retained the existing

tracks may be retained. The existing door gibs and rollers should be replaced at the time of the controller.

- 2.1.3.6. The existing interlocks and limit switches should be replaced at the time of controller upgrade.
- 2.1.3.7. The existing car doors are in fair condition and likely can be maintained.
- 2.1.4. CALL STATIONS: The existing hall call stations in the lobbies do not conform to current ADA standards and will require replacement at the time of the controller replacement.
 - 2.1.4.1. The car operating panel will require replacement at the time of the controller replacement to comply with current elevator codes for fire service.
- 2.1.5. CAB:
 - 2.1.5.1. The cab was found to be in good condition and can likely be retained.
 - 2.1.5.2. The existing lighting should be checked to verify that the ballasts are electronic, if not, the fixtures should be replaced. The lamps should be provided with a protective cover to prevent breakage.
 - 2.1.5.3. It is recommended that the height of handrails be verified to be installed between 34" and 38" to the top to conform to ADA requirements.
- 2.1.6. ADDITIONAL COMPONENT SUMMARY:
 - 2.1.6.1. The elevator pit is required to have a pit ladder installed.
 - 2.1.6.2. The existing traveling cables should be replaced sooner than later. The cloth covered cables are subject to failure and should be replaced sooner than later.
 - 2.1.6.3. The existing pit switch is worn and should be replaced at the time of modernization.

2.2 PHOTOS:



Main Lobby Floor
Landing



Existing
Machinery Room



Machineroom and Existing
Disconnecting Means.



Existing Pit and
Piston.



Top of Car and Exist
Door Operator.



Exist Car Operating Panel
and Fire Service Add-On
Panel.

2.3. SUMMARY OF ANCILLARY SYSTEM UPGRADES:

2.3.1. ELECTRICAL:

- 2.3.1.1. The existing disconnecting means appears to be in good condition and can be retained. It is recommended that the main line ground be verified prior to replacement of the controller. If fire sprinklers are added to the machineroom or the hoistway, a new shunt-trip type disconnect would be required.
- 2.3.1.2. The existing cab lighting and fan disconnect could not be tested because their location was not readily apparent. In the event of a modernization a disconnecting means for the cab lighting and fan would be required in the machineroom. Where possible the cab lighting and fan should be connected to an emergency generator.
- 2.3.1.3. The existing machineroom lighting is required to be protected against breakage. A new machineroom GFCI protected convenience outlet is required at the time of the controller upgrade.
- 2.3.1.4. The existing pit light is required to be protected against breakage. A new pit GFCI protected convenience outlet is required at the time of the controller upgrade.

2.3.2. FIRE ALARM:

- 2.3.2.1. Annual testing of the integrated Fire Alarm/Ventilation/and Elevator recall circuits is recommended.
- 2.3.2.2. At the time of the controller upgrade it will be necessary to provide the fireman's flashing hat signal to the elevator car from any FAID located in the machineroom or hoistway.
- 2.3.2.3. The existing smoke detector in the hoistway is not permitted unless a new shaft vent is installed which is operated by a smoke detector or if the shaft is provided with fire sprinklers.

2.3.3. HVAC:

- 2.3.3.1. The existing machineroom may require additional ventilation. A review of the current heating and cooling is recommended.
- 2.3.3.2. There is no vent in the hoistway. A vent is not currently required in an elevator shaft that penetrates 3 stories or less, therefore it is not likely that a vent will be required for this shaft unless the occupancy changes.

2.3.4. COMMUNICATIONS:

2.3.4.1. A new hands-free telephone will be required in the car at the time of the controller replacement.

2.3.5. PLUMBING:

2.3.5.1. The existing pit appeared to be dry and did not have a sump pump or drain previously installed. A new sump pump or drain is not required to be added in an existing elevator pit as part of a modernization.

2.3.6. GENERAL CONSTRUCTION:

2.3.6.1. General construction upgrades should include any necessary maintenance to ensure that all hoistway and machineroom fire resistance ratings remain in compliance with those fire resistance ratings required at the time of original construction. Opening protectives and fire rated assemblies should be maintained to assure proper seals.

2.3.6.2. The top of the shaft appears to contain a mudded type of fire proofing. It is recommended that it be tested for ACBM.

2.3.7. FIRE PROTECTION:

2.3.7.1. The existing elevator machineroom is not provided with fire sprinklers. If fire sprinklers are added to the machineroom or hoistway, they should be standard response two hundred (200°) degree Fahrenheit sprinkler heads. They should be arranged to disconnect power from the elevator immediately upon water flow. It is recommended that if sprinklers are added, a pre-action sprinkler system be provided to maximize the ability of the elevator to complete recall prior to loss of power.

2.4. OPINION OF PROBABLE COST ELEVATOR #2 LANIGAN HALL:

The following opinion of probable cost (Elevator work only) assumes construction to be completed by December 2009.

Hydraulic Cylinder Replacement Only: \$35,000-\$40,000

Elevator Controller, Power Unit: \$70,000-\$75,000

New Hoistway and Elevator Car doors and Infrared detectors, Door Operator, \$20,000-\$25,000

Total for elevator work: \$150,000

2.5. EQUIPMENT INVENTORY ELEVATOR #2 LANIGAN HALL:

Year of Construction: 1966

Manufacturer: Dover (Thyssen-Krupp)

Type: Passenger

Capacity: 2000 Lbs.

100 FPM (Measured speed NL: 111 FPM/up 92 FPM/dn)

Serial # E-24554

3 stop: 1, 2, 3 (3rd floor is security access only)

Fire Service: Fire Service Overlay

Recall Level: 1

Hoisting Type: Direct Acting Inground Single Bottom Cylinder

Piston Diameter: 5-7/16"

HP: 20 Belt Drive

NL= 200/ WP= 307/ RP= 320

240V Y-Delta start

Emergency Power: None

Last Test 7/07, QEI: No

Doors:

Center Opening: 42"

Operator: Dover

Protection: Light-ray/ Safety edge

ADA: No

Fixtures: Mechanical push button (FS panel added)

Phone: No

Cab Dimensions: 6'-8"W x 4'-2"D x 8'-0"H (Drop ceiling at 7'-5")

Finish: Steel w/ SS trim

Handrails: 2" SS @ 39"



2.6. APPENDIX 3: QEI INSPECTION REPORTS



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Hydraulic Elevator



Periodic Inspection Report

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 inspections@cnyei.com

**Elevator
 Inspections**

Lanigan Hall #2
 Oswego University
 Oswego, NY 00000
 Owner: Oswego State University of New York

Date of Inspection	6/3/2008
Inspector	Chris Duke
QEI Certification #	S-111
QEI Cert. Issuer	NAESA International
Workorder Designator	080604-00-04D2-I
Authoritative Jurisdiction	State University of New York

Type	Passenger
Rated Load	2000
Year Constructed	1966
Manufacturer	Dover

Inspection Items Not In Compliance Per ASME A17.1

Inspection Item	Applicable Code Reference	Failure Reason
Car lighting and receptacles	Item 1.5	Emergency light could not be checked (power source location unknown)
Car lighting and receptacles	Item 1.5	Fixture cover laying on drop ceiling panel
Relief valves	Item 2.31	QEI witnessing of tests required
Car top light and outlet	Item 3.2	Car Top Light shall be protected
Traveling cables and junction boxes	Item 3.16	Junction box covers missing
Pit access lighting, stop switch and condition	Item 5.1	Pit Ladder Required

Inspector's Signature

continued on next page

This conveyance inspection was performed in compliance with the applicable provisions of ASME A17.2 Guide for Inspection of Elevators, Escalators, and Moving walks. The owner retains full responsibility to maintain this conveyance in compliance with all applicable laws, ordinances and regulations. The Authority Having Jurisdiction retains all rights and responsibilities, as defined by applicable law, regarding verification of compliance.

Checklist for Hydraulic Elevator - Periodic Inspection Report

	OK	NG	NA		OK	NG	NA
Interior of Car				3.9	Floor and emergency identification numbering	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.1 Door reopening device	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.10	Hoistway construction	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2 Stop switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.11	Hoistway smoke control	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.3 Operating control devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.12	Pipes wiring, and ducts	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.4 Sills and car floor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.13	Windows, projections, recesses, and setbacks	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.5 Car lighting and receptacles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.14	Hoistway clearances	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.6 Car Emergency signal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.15	Multiple hoistways	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.7 Car door/gate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.16	Traveling cables and junction boxes	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.8 Door closing force	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.17	Door and gate equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.9 Power closing of doors/gates	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.18	Car frame and stiles	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.10 Power opening of doors/gates	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.19	Guide rails fastening and equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.11 Car vision panels and glass car doors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.20	Governor rope	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.12 Car enclosure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.21	Governor releasing carrier	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.13 Emergency exit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.22	Wire rope fastening and hitch plate	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.14 Ventilation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.23	Suspension rope	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.15 Signs and operating device symbols	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.30	Speed test	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.16 Rated load, platform area and data plate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.31	Slack rope device roped-hydraulic elv 1989 and later	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.17 Standby power operation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.32	Traveling Sheave roped-hydraulic elv 1989 and later	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.18 Restricted opening of car/hoistway doors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.33	Counterweight	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.19 Car ride	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Machine Room				Outside Hoistway			
2.1 Access to machine space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.1	Car platform guard	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.2 Headroom	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.2	Hoistway doors	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.3 Lighting and receptacles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.3	Vision Panels	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.4 Machine space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.4	Hoistway door locking devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.5 Housekeeping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.5	Access to Hoistway	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.6 Ventilation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.6	Power closing of hoistway doors	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.7 Fire Extinguisher	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.7	Sequence operation	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.8 Pipes,wiring, and ducts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.8	Hoistway enclosure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.9 Guarding of exposed auxiliary equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.9	Elevator Parking devices	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.10 Numbering of elevators, machines and disconnect switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.10	Emergency doors blind hoistway	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.11 Disconnecting means and control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.12	Standby power selection switch	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.12 Controller wiring, fuses grounding, etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pit			
2.13 Governor, overspeed switch and seal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.1	Pit access lighting, stop switch and Condition	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.14 Code data plate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.2	Bottom clearance, runby and minimum refuge space	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.30 Hydraulic Power Unit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.3	Final and emergency terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.31 Relief valves	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.4	Normal terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.32 Control valve	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.5	Traveling cables	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.33 Tanks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.6	Governor-rope tension devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.34 Flexible hydraulic hose and fitting assemblies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.7	Car Frame and platform	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.35 Supply Line and Shutoff Valve	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.8	Car safeties and guiding members	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.36 Hydraulic Cylinders	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.11	Plunger and cylinder	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.37 Pressure Switch	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.12	Car buffer	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.38 Roped water hydraulic elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.13	Guiding members	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Top of Car				5.14	Supply piping	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3.1 Top-of-car stop switch	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Firefighter's Service			
3.2 Car top light and outlet	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6.1	Fire Service Operation (73-80 ed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.3 Top-of-car operating device	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.2	Fire Service Operation (81-83 ed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.4 Top-of-car clearance and refuge space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.3	Fire Service Operation (84-88 ed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.5 Normal terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.4	Fire Service Operation (89-00 ed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.6 Final and emergency terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
3.7 Car levelling and anticreep devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
3.8 Top emergency exit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				

cny
Elevator
Inspections

Suite 305
126 North Salina Street
Syracuse, NY 13202

Tel (315) 425-0428
Fax (315) 425-1232
inspections@cnyei.com

POSTING INSTRUCTIONS

"The most current certificate of inspection shall be on display at all times within the elevator or attached to the escalator or dumbwaiter; or the certificate shall be available for public inspection in the office of the building operator"

- Property Maintenance Code

Certificate of Inspection



**THIS CERTIFIES THAT AN INDEPENDENT THIRD-PARTY
QEI INSPECTION WAS PERFORMED ON:**

June 3, 2008

For the following Conveyance:

**Lanigan Hall #2
Oswego University
Oswego, NY 00000**

**SEE ATTACHED REPORT FOR THE
RESULTS OF THIS INSPECTION**

Authority Having Jurisdiction: State University of New York

This Inspection Certificate Expires in:

December 2008

This inspection certificate only indicates that a QEI certified inspector employed by CNY Elevator Inspections Inc performed a conveyance inspection complying with the requirements of the Building Code and Property Maintenance Code on the date indicated. Where non-compliant items are indicated on the attached report and as required by the Authority Having Jurisdiction and/or as required by law, regulation, or ordinance, the Owner shall correct all deficiencies as soon as possible.

QEI Inspector: Chris Duke

QEI # S-111

CNYEI W.O. # 080604-00-04D2-I

2.7. ELEVATOR MAINTENANCE REPORT - ELEVATOR #2 LANIGAN HALL:

Oswego College provided CNY with a copy of the last 6-months of elevator maintenance records for this elevator. Based on those reports it appears that concerns with consistent shutdowns are likely a result of failing ice-cube relays due to age. Ice-cube relays are widely available for replacement, however it's likely that the relays will continue to fail as the age of the equipment increases. An increase in the frequency of shutdowns can be expected.

3. ELEVATOR #3 PENFIELD LIBRARY

3.1. EXISTING COMPONENT SUMMARY AND UPGRADE RECOMMENDATIONS:

- 3.1.1. CONTROLLER: The existing Otis Elevator relay based elevator controller was found to be in very poor overall condition and maintenance appeared to be adequate. This controller was installed new in 1966 by Otis Elevator Company. A 20-year life span for a controller is typical both in terms of the expected life span of the specific components but also as it relates to providing optimum efficiency with new technologies.
- 3.1.1.1. The Otis controller has more than doubled its expected 20-year life span and should be upgraded sooner than later. The addition of a new controller will provide increased reliability, improve functionality, and enhanced safety capability with fire service.
- 3.1.2. HOISTING COMPONENTS: The existing 50-HP belt drive motor, valve and hydraulic reservoir should be replaced at the time of the controller upgrade. Maintenance records indicate that the valve has consistent problems and should be replaced sooner than later. The existing cylinder is a single-bottom and should be replaced as soon as possible. It is not required to upgrade the controller at the time of the cylinder replacement, but it is recommended. It is recommended that a QEI certified witnessing of the cylinder pressure test be performed as soon as possible to verify the integrity of the cylinder.
- 3.1.3. DOORS: Front operation.
- 3.1.3.1. The existing infrared door detector can likely be maintained.
- 3.1.3.2. The existing Otis model door operator is in poor condition and should be replaced as part of the elevator controller upgrade.
- 3.1.3.3. New door restrictors are required to be provided at the time of the door operator replacement
- 3.1.3.4. The existing hoistway doors should be tested for ACBM. If the ACBM is found to be present, the doors should be replaced. If the doors do not contain ACBM, they can likely be retained.
- 3.1.3.5. The existing hoistway door tracks will require replacement if the hoistway doors are replaced. If the doors are retained, they can likely be retained. The door rollers and gibs should be replaced at the time of the controller upgrade.

- 3.1.3.6. The existing interlocks and limit switches should be replaced at the time of controller upgrade.
- 3.1.3.7. The existing car doors are in fair condition and can likely be retained.
- 3.1.4. CALL STATIONS: The existing hall call stations in the lobbies do not conform to current ADA standards and require upgrade.
 - 3.1.4.1. The car operating panel will require replacement at the time of the controller upgrade to comply with current elevator codes for fire service.
- 3.1.5. CAB:
 - 3.1.5.1. The cab was found to be in fair condition and likely be retained, however there appeared to be some rust on the top of the cab which should be cleaned up and repainted to protect against further wear.
 - 3.1.5.2. The existing lighting should be checked to verify that the ballasts are electronic, if not, the fixtures should be replaced. The existing lamps should be provided with a protective cover to prevent breakage at the time of the renovation.
 - 3.1.5.3. The existing handrails should be verified to assure that they are located between 34" and 38" to the top.
- 3.1.6. ADDITIONAL COMPONENT SUMMARY:
 - 3.1.6.1. The elevator pit will be required to have a pit ladder installed at the time of the controller upgrade.
 - 3.1.6.2. The existing pit switch is worn and should be replaced at the time of modernization.
 - 3.1.6.3. The existing traveling cable is cloth covered and subject to failure. The cable should be replaced at the time of the controller replacement.

3.2. PHOTOS:



Main Lobby Floor
Landing



Existing Machine
space



Machine space and
existing piping



Existing Valves and
Pump.



Existing Bottom of
Car and Piston



Existing Piston
and Pit



Existing Top of Car



Existing Car
Operating Panel

3.3. SUMMARY OF ANCILLARY SYSTEM UPGRADES:

3.3.1. ELECTRICAL:

- 3.3.1.1. The existing disconnecting means is knife-blade type and should be replaced sooner than later. A fused disconnect is necessary to prevent the motor from being damaged in the event of a locked rotor condition. It is necessary to verify that there is a proper ground prior to the installation of the controller upgrade. If sprinklers are added to the machineroom or the hoistway, a shunt trip type disconnecting means would be required.
- 3.3.1.2. The existing cab lighting and fan disconnect could not be tested because its location was not readily apparent. In the event of a modernization, a disconnecting means for the cab lighting and fan would be required in the machineroom. Where possible the cab lighting and fan should be connected to an emergency generator.
- 3.3.1.3. The existing machineroom lighting is required to be protected against breakage. A new machineroom GFCI protected convenience outlet is required at the time of the controller upgrade.
- 3.3.1.4. The existing pit light is required to be protected against breakage. A new pit GFCI protected convenience outlet is required at the time of the controller upgrade.

3.3.2. FIRE ALARM:

- 3.3.2.1. The installation of new fire alarm devices for elevator recall will be required to be provided at the time of the controller upgrade.
- 3.3.2.2. The existing hoistway vent is required and should be tested to verify proper operation.

3.3.3. HVAC:

- 3.3.3.1. At the time of the controller upgrade a new machineroom will be required. It will be necessary to provide new ventilation to the room. Machineroom ventilation should include smoke and heat dampers to protect openings in the event of fire.
- 3.3.3.2. The existing hoistway vent may not be currently operable. It is recommended that the hoistway vent be tested for proper operation. A vent would be required in the shaft for this occupancy unless the building were fully sprinklered.

3.3.4. COMMUNICATIONS:

3.3.4.1. A new hands-free telephone will be required in the car at the time of the controller replacement.

3.3.5. PLUMBING:

3.3.5.1. The existing pit appeared to be dry and did not have a sump pump or drain previously installed. A new sump pump or drain is not required in an existing elevator pit as part of a modernization.

3.3.5.2. The existing piping in the machineroom will be required to be removed or separated if the existing machineroom location is maintained.

3.3.6. GENERAL CONSTRUCTION:

3.3.6.1. General construction upgrades should include any necessary maintenance to ensure that all hoistway and machineroom fire resistance ratings remain in compliance with those fire resistance ratings required at the time of original construction. Opening protectives and fire rated assemblies should be maintained to assure proper seals.

3.3.6.2. At the time of modernization it will be required to separate the elevator equipment from the surrounding mechanical room. Separation is required to be by means of 2-hr rated assembly. Where penetrations are required for duct ventilation, they are required to be adequately protected by opening protectives. A fire rated machineroom door will be required with self-closing self-locking hardware.

3.3.7. FIRE PROTECTION:

3.3.7.1. The existing elevator machineroom is not provided with fire sprinklers. If fire sprinklers are added to the machineroom or hoistway, they should be standard response two hundred (200°) degree Fahrenheit sprinkler heads. They should be arranged to disconnect power from the elevator immediately upon water flow. It is recommended that if sprinklers are added to the machine spaces, a pre-action sprinkler system be provided to maximize the ability of the elevator to complete recall prior to loss of power.

3.3.7.2. An ABC type fire extinguisher is required to be in the machineroom.

3.4. OPINION OF PROBABLE COST ELEVATOR #3 PENFIELD:

The following opinion of probable cost (Elevator work only) assumes construction to be completed by December 2009.

Hydraulic Cylinder Replacement Only: \$40,000-\$45,000
Elevator Controller, Power Unit: \$80,000-\$85,000
New Hoistway and Elevator Car doors, Door Operator \$23,000-\$27,000

Total for elevator work: \$178,000

3.5. EQUIPMENT INVENTORY ELEVATOR #3 PENFIELD:

Year of Construction: 1966
Manufacturer: Otis 20 HICL
Type: Passenger
Capacity: 2500 Lbs.
200 FPM (Measured speed NL: 218 FPM/up 181 FPM/dn)
Sales # 206686 Serial # 226685 BP

4 stop: B, 1, 2, 3

Fire Service None

Hoisting Type: Direct Acting Inground Single Bottom Cylinder
Cylinder OD: 5-7/16"
HP: 40 Belt Drive
460V
EECO valve
Emergency Power: None
Last Test 8/07, QEI: No

Doors:
Center Opening: 42"
Operator: Otis
Protection: Infrared detector

ADA: No
Fixtures: Mechanical Pushbutton
Phone: No

Cab Dimensions: 6'-8"W x 4'-3"D x 8'-0"H (Drop ceiling at 7'-4")
Finish: Steel w/ SS trim
Handrails: 2" SS



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3.6. APPENDIX 3: QEI INSPECTION REPORTS



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Hydraulic Elevator



Periodic Inspection Report



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inspections@cnyel.com

Penfield Library #3
Oswego university
Oswego, NY 00000
Owner: Oswego State University of New York

Date of Inspection	6/3/2008
Inspector	Chris Duke
QEI Certification #	S-111
QEI Cert. Issuer	NAESA International
Workorder Designator	080604-00-04D3-I
Authoritative Jurisdiction	State University of New York

Type	Passenger
Rated Load	2500
Year Constructed	1966
Manufacturer	Otis

Inspection Items Not In Compliance Per ASME A17.1

Inspection Item	Applicable Code Reference	Failure Reason
Car lighting and receptacles	Item 1.5	Emergency light could not be checked (power source location unknown)
Signs and operating device symbols	Item 1.15	An approved pictorial sign shall be posted that reads: IN FIRE EMERGENCY, DO NOT USE ELEVATOR, USE EXIT STAIRS
Lighting and receptacles	Item 2.3	Machine room lighting not protected
Fire Extinguisher	Item 2.7	ABC type fire extinguisher required to be provided in a location convenient to the machine room access door
Relief valves	Item 2.31	QEI witnessing of tests required
Flexible hydraulic hose and fitting assemblies	Item 2.34	Flexible hoses require replacement date data tag
Car top light and outlet	Item 3.2	Car Top Light shall be protected
Top-of-car operating device	Item 3.3	Inspection speed is in excess of 150 ft/min - (recorded speed 218 ft/min)
Hoistway enclosure	Item 4.8	Fire-resistive construction must meet building code requirements (missing full concrete block in hoistway between B and 1st floors)
Pit access lighting, stop switch and condition	Item 5.1	Provide pit light protection
Pit access lighting, stop switch and condition	Item 5.1	Pit Light Switch must be accessible from pit access door

Inspector's Signature

continued on next page

This conveyance inspection was performed in compliance with the applicable provisions of ASME A17.2 Guide for Inspection of Elevators, Escalators, and Moving walks. The owner retains full responsibility to maintain this conveyance in compliance with all applicable laws, ordinances and regulations. The Authority Having Jurisdiction retains all rights and responsibilities, as defined by applicable law, regarding verification of compliance.

Checklist for Hydraulic Elevator - Periodic Inspection Report

		OK	NG	NA			OK	NG	NA
Interior of Car					3.9	Floor and emergency identification numbering	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.1	Door reopening device	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.10	Hoistway construction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2	Stop switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.11	Hoistway smoke control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3	Operating control devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.12	Pipes wiring, and ducts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.4	Sills and car floor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.13	Windows, projections, recesses, and setbacks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5	Car lighting and receptacles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.14	Hoistway clearances	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.6	Car Emergency signal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.15	Multiple hoistways	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.7	Car door/gate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.16	Traveling cables and junction boxes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.8	Door closing force	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.17	Door and gate equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.9	Power closing of doors/gates	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.18	Car frame and stiles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.10	Power opening of doors/gates	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.19	Guide rails fastening and equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.11	Car vision panels and glass car doors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.20	Governor rope	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.12	Car enclosure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.21	Governor releasing carrier	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.13	Emergency exit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.22	Wire rope fastening and hitch plate	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.14	Ventilation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.23	Suspension rope	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.15	Signs and operating device symbols	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.30	Speed test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.16	Rated load, platform area and data plate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.31	Slack rope device roped-hydraulic elv 1989 and later	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.17	Standby power operation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.32	Traveling Sheave roped-hydraulic elv 1989 and later	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.18	Restricted opening of car/hoistway doors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.33	Counterweight	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.19	Car ride	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Outside Hoistway				
Machine Room					4.1	Car platform guard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.1	Access to machine space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.2	Hoistway doors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2	Headroom	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.3	Vision Panels	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.3	Lighting and receptacles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.4	Hoistway door locking devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.4	Machine space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.5	Access to Hoistway	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.5	Housekeeping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.6	Power closing of hoistway doors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.6	Ventilation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.7	Sequence operation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.7	Fire Extinguisher	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.8	Hoistway enclosure	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.8	Pipes, wiring, and ducts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.9	Elevator Parking devices	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.9	Guarding of exposed auxiliary equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.10	Emergency doors blind hoistway	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.10	Numbering of elevators, machines and disconnect switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.12	Standby power selection switch	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.11	Disconnecting means and control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pit				
2.12	Controller wiring, fuses grounding, etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.1	Pit access lighting, stop switch and condition	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.13	Governor, overspeed switch and seal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.2	Bottom clearance, runby and minimum refuge space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.14	Code data plate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.3	Final and emergency terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.30	Hydraulic Power Unit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.4	Normal terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.31	Relief valves	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.5	Traveling cables	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.32	Control valve	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.6	Governor-rope tension devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.33	Tanks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.7	Car Frame and platform	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.34	Flexible hydraulic hose and fitting assemblies	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.8	Car safeties and guiding members	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.35	Supply Line and Shutoff Valve	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.11	Plunger and cylinder	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.36	Hydraulic Cylinders	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.12	Car buffer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.37	Pressure Switch	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.13	Guiding members	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.38	Roped water hydraulic elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.14	Supply piping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Top of Car					Firefighter's Service				
3.1	Top-of-car stop switch	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.1	Fire Service Operation (73-80 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.2	Car top light and outlet	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6.2	Fire Service Operation (81-83 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.3	Top-of-car operating device	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6.3	Fire Service Operation (84-88 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.4	Top-of-car clearance and refuge space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.4	Fire Service Operation (89-00 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.5	Normal terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
3.6	Final and emergency terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
3.7	Car leveling and anticreep devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
3.8	Top emergency exit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

This conveyance inspection was performed in compliance with the applicable provisions of ASME A17.2 Guide for Inspection of Elevators, Escalators, and Moving walks. The owner retains full responsibility to maintain this conveyance in compliance with all applicable laws, ordinances and regulations. The Authority Having Jurisdiction retains all rights and responsibilities, as defined by applicable law, regarding verification of compliance.



Suite 305
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Syracuse, NY 13202
Tel (315) 425-0428
Fax (315) 425-1232
inspections@cnyei.com

POSTING INSTRUCTIONS

"The most current certificate of inspection shall be on display at all times within the elevator or attached to the escalator or dumbwaiter; or the certificate shall be available for public inspection in the office of the building operator"

- Property Maintenance Code

Certificate of Inspection



**THIS CERTIFIES THAT AN INDEPENDENT THIRD-PARTY
QEI INSPECTION WAS PERFORMED ON:**

June 3, 2008

For the following Conveyance:

**Penfield Library #3
Oswego university
Oswego, NY 00000**

**SEE ATTACHED REPORT FOR THE
RESULTS OF THIS INSPECTION**

Authority Having Jurisdiction: State University of New York

This Inspection Certificate Expires in:

December 2008

This inspection certificate only indicates that a QEI certified inspector employed by CNY Elevator Inspections Inc performed a conveyance inspection complying with the requirements of the Building Code and Property Maintenance Code on the date indicated. Where non-compliant items are indicated on the attached report and as required by the Authority Having Jurisdiction and/or as required by law, regulation, or ordinance, the Owner shall correct all deficiencies as soon as possible.

QEI Inspector: Chris Duke

QEI # S-111

CNYEI W.O. # 080604-00-04D3-I

3.7. ELEVATOR MAINTENANCE REPORT - ELEVATOR #3 PENFIELD LIBRARY:

Oswego College provided CNY with a copy of the last 6-months of elevator maintenance records for this elevator. Based on those reports it appears that concerns with consistent shutdowns are likely a result of the hydraulic valve. The 40-year old valve has outlived its expected lifespan and should be replaced as part of an overall upgrade to the controller. As the valve continues to age it will become increasingly difficult to maintain the equipment and an increase in shutdowns can likely be expected.

4. **ELEVATOR #4 COOPER DINING HALL**

4.1. **EXISTING COMPONENT SUMMARY AND UPGRADE RECOMMENDATIONS:**

4.1.1. **CONTROLLER:** The existing Dover Elevator relay based elevator controller was found to be in poor overall condition and maintenance appeared to be adequate. This controller was installed new in 1964 by the Dover Elevator Company which was sold to Thyssen-Krupp Elevator Company in 1999. The existing controller has exceeded its expected life span of 20-years and should be replaced sooner than later.

4.1.1.1. A 20-year life span for a controller is typical both in terms of the expected life span of the specific components but also as it relates to providing optimum efficiency with new technologies. The Dover controller exceeded the expectancy by more than double. Upgrading of the controller will provide increased reliability, improved functionality, and enhanced safety with fire service.

4.1.2. **HOISTING COMPONENTS:** The existing 10 HP belt drive motor, valve, and hydraulic reservoir should be replaced at the time of the controller upgrade. The existing cylinder is a single bottom and should be replaced as soon as possible. It is not required to replace the controller at the time of the cylinder replacement, but it is recommended. A QEI certified witnessing of the cylinder pressure test is required as soon as possible to verify the integrity of the cylinder.

4.1.2.1. It is likely that a moderate increase in speed for this elevator could be included as part of the hoisting component upgrade.

4.1.3. **DOORS:** Front Door operation.

4.1.3.1. There is currently no light ray or other electronic detection which is not permitted under the current ADA standards. The existing safety edge (boot) type door detection was found to be damaged as well. The door detection should be upgraded with infrared type door detectors sooner than later.

4.1.3.2. The existing Dover door operator is in poor condition and should be replaced as part of the elevator controller upgrade.

4.1.3.3. New door restrictors are required to be provided at the time of the door operator replacement.

- 4.1.3.4. The existing hoistway doors should be tested for ACBM. If the doors are found to contain ACBM, they should be discarded. If the doors do not contain ACBM, they may be retained.
- 4.1.3.5. The existing hoistway door tracks will require replacement if the hoistway doors are replaced. If the doors are retained, the tracks can likely be retained. The rollers and gibs should be replaced at the time of the controller upgrade.
- 4.1.3.6. The interlocks and limit switches should be replaced at the time of the controller upgrade.
- 4.1.3.7. The existing car doors are in fair condition and can likely be maintained.
- 4.1.4. CALL STATIONS: The existing hall call stations do not conform to current ADA standards and are required to be upgraded at the time of the controller upgrade.
 - 4.1.4.1. The car operating panel will require replacement at the time of the controller upgrade to comply with current elevator codes for fire service.
- 4.1.5. CAB:
 - 4.1.5.1. The cab was found to be in good condition and can likely be retained.
 - 4.1.5.2. The existing lighting should be checked to verify that the ballasts are electronic, if not, the fixtures should be replaced. The existing lamps should be provided with a protective cover to prevent breakage at the time of the renovation.
 - 4.1.5.3. The height of the existing handrails should be verified to be within 34"-38" to the top to comply with current ADA standards.
- 4.1.6. ADDITIONAL COMPONENT SUMMARY:
 - 4.16.1. The existing pit switch is worn and should be replaced at the time of modernization.
 - 4.16.2. The existing traveling cables are cloth covered and subject to failure. The cables should be replaced as part of the elevator controller replacement.

4.16.3. There was no cross head data plate. A verification of the cross head data plate information should be included in the renovation and a data plate installed.

4.2. PHOTOS:



Main Lobby Floor
Landing



Existing
Machineroom and
Motor Starter



Machineroom, Existing
Controller and
Disconnect Switch



Bottom of Car and
Existing Piston



Existing Pit and
Cylinder



Top of Car and Exist
Door Operator



Existing Car
Operating Panel

4.3. SUMMARY OF ANCILLARY SYSTEM UPGRADES:

4.3.1. ELECTRICAL:

- 4.3.1.1. The existing disconnecting means is a knife blade type and should be replaced sooner than later. A fused disconnect is required to prevent damage to the motor in the event of a locked rotor condition. The disconnect also does not have a grounded connection back to the building ground which will be required at the time of the next modernization. If the machineroom is provided with fire sprinklers as part of the renovation project, a new shunt trip breaker would be required.
- 4.3.1.2. The existing cab lighting and fan disconnect could not be tested because their location was not readily apparent. At the time of the controller upgrade a disconnecting means for the cab lighting and fan is required in the machineroom. Where possible, the cab lighting and fan should be connected to an emergency generator.
- 4.3.1.3. The existing machineroom lighting is required to be protected against breakage. A new machineroom GFCI protected convenience outlet is required as part of any modernization
- 4.3.1.4. The existing pit light is required to be protected against breakage. A new pit GFCI protected convenience outlet is required as part of any modernization.

4.3.2. FIRE ALARM:

- 4.3.2.1. Installation of new fire alarm devices for elevator recall will be required at the time of the controller upgrade.

4.3.3. HVAC:

- 4.3.3.1. The existing machineroom may require additional ventilation.
- 4.3.3.2. Currently there is no existing hoistway vent. The current occupancy and height of the building does not require a vent in the shaft.

4.3.4. COMMUNICATIONS:

- 4.3.4.1. A hands-free emergency phone will be required in the car at the time of controller upgrade.

4.3.5. PLUMBING:

4.3.5.1. The existing pit appeared to be dry and did not have a sump pump or drain previously installed. A new sump pump or drain is not required in an existing elevator pit as part of a modernization.

4.3.6. GENERAL CONSTRUCTION:

4.3.6.1. General construction upgrades should include any necessary maintenance to ensure that all hoistway and machineroom fire resistance ratings remain in compliance with those fire resistance ratings required at the time of original construction. Opening protectives and fire rated assemblies should be maintained to assure proper seals.

4.3.7. FIRE PROTECTION:

4.3.7.1. The existing elevator machineroom is not provided with fire sprinklers. If fire sprinklers are added to the machineroom or hoistway, they should be standard response two hundred (200°) degree Fahrenheit sprinkler heads. They should be arranged to disconnect power from the elevator immediately upon water flow. It is recommended that if sprinklers are added to the machine spaces, a pre-action sprinkler system be provided to maximize the ability of the elevator to complete recall prior to loss of power.

4.4. OPINION OF PROBABLE COST ELEVATOR #4 COOPER:

The following opinion of probable cost (Elevator work only) assumes construction to be completed by December 2010.

Hydraulic Cylinder Replacement Only: \$30,000-\$35,000

Elevator Controller, Power Unit: \$65,000-\$70,000

New Hoistway and Elevator Car doors, Door Operator, Infrared detectors \$18,000-\$23,000

Total for elevator work: \$147,000

4.5. EQUIPMENT INVENTORY ELEVATOR #4 COOPER:

Year of Construction: 1964

Manufacturer: Dover (Thyssen-Krupp)

Type: Passenger

Capacity: 2000 Lbs.

65 FPM (Measured speed NL: 72 FPM/up)

Sales # E-22896

2 stop: 1, 2

Fire Service None

Hoisting Type: Direct Acting Inground Single Bottom Cylinder

Cylinder OD: 4-3/8" (Nominal)

HP: 40 (Belt Drive)

460V

EECO valve

Emergency Power: None

Last Test: 7/07, QEI: No

Doors:

RH Side Slide 2 sp. Opening: 30"

Operator: Dover DC 62

Protection: Safety Edge

ADA: No

Fixtures: Mechanical push button

Phone: No

Cab Dimensions: 4'-8"W x 3'-0"D x 7'-6"H

Finish: SS Steel textured

Handrails: 2" SS



4.6. APPENDIX 3: QEI INSPECTION REPORTS



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Hydraulic Elevator



Periodic Inspection Report



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Cooper Dining Hall #4
Oswego University
Oswego, ny 00000
Owner: Oswego State University of New York

Date of Inspection	6/3/2008
Inspector	Chris Duke
QEI Certification #	S-111
QEI Cert. Issuer	NAESA International
Workorder Designator	080604-00-04D4-I
Authoritative Jurisdiction	State University of New York

Type	Passenger
Rated Load	2000
Year Constructed	1964
Manufacturer	Dover

Inspection Items Not In Compliance Per ASME A17.1

Inspection Item	Applicable Code Reference	Failure Reason
Door reopening device	Item 1.1	Broken safety edge boot
Car lighting and receptacles	Item 1.5	Emergency lighting could not be checked (power source location unknown)
Emergency exit	Item 1.13	Exit Cover shall be openable without the use of special tools (currently unsecured)
Rated load, platform area and data plate	Item 1.16	Capacity plate required in car
Relief valves	Item 2.31	QEI witnessing of annual tests required
Control valve	Item 2.32	Valve control shall be sealed & tagged
Tanks	Item 2.33	Excessive oil in drip pan or on floor
Flexible hydraulic hose and fitting assemblies	Item 2.34	Flexible hoses require replacement date data tag
Car top light and outlet	Item 3.2	Car Top Light shall be protected
Pit access lighting, stop switch and condition	Item 5.1	Provide pit light protection
Pit access lighting, stop switch and condition	Item 5.1	Pit Light Switch must be accessible from pit access door

Inspector's Signature

continued on next page

This conveyance inspection was performed in compliance with the applicable provisions of ASME A17.2 Guide for Inspection of Elevators, Escalators, and Moving walks. The owner retains full responsibility to maintain this conveyance in compliance with all applicable laws, ordinances and regulations. The Authority Having Jurisdiction retains all rights and responsibilities, as defined by applicable law, regarding verification of compliance.

Checklist for Hydraulic Elevator - Periodic Inspection Report

		OK	NG	NA			OK	NG	NA
Interior of Car					3.9	Floor and emergency identification numbering	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.1	Door reopening device	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.10	Hoistway construction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2	Stop switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.11	Hoistway smoke control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3	Operating control devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.12	Pipes wiring, and ducts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.4	Sills and car floor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.13	Windows, projections, recesses, and setbacks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5	Car lighting and receptacles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.14	Hoistway clearances	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.6	Car Emergency signal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.15	Multiple hoistways	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.7	Car door/gate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.16	Traveling cables and junction boxes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.8	Door closing force	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.17	Door and gate equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.9	Power closing of doors/gates	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.18	Car frame and stiles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.10	Power opening of doors/gates	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.19	Guide rails fastening and equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.11	Car vision panels and glass car doors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.20	Governor rope	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.12	Car enclosure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.21	Governor releasing carrier	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.13	Emergency exit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.22	Wire rope fastening and hitch plate	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.14	Ventilation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.23	Suspension rope	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.15	Signs and operating device symbols	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.30	Speed test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.16	Rated load, platform area and data plate	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.31	Slack rope device roped-hydraulic elv 1989 and later	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.17	Standby power operation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.32	Traveling Sheave roped-hydraulic elv 1989 and later	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.18	Restricted opening of car/hoistway doors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.33	Counterweight	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.19	Car ride	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Outside Hoistway				
Machine Room					4.1	Car platform guard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.1	Access to machine space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.2	Hoistway doors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2	Headroom	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.3	Vision Panels	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.3	Lighting and receptacles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.4	Hoistway door locking devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.4	Machine space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.5	Access to Hoistway	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.5	Housekeeping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.6	Power closing of hoistway doors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.6	Ventilation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.7	Sequence operation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.7	Fire Extinguisher	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.8	Hoistway enclosure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.8	Pipes, wiring, and ducts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.9	Elevator Parking devices	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.9	Guarding of exposed auxiliary equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.10	Emergency doors blind hoistway	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.10	Numbering of elevators, machines and disconnect switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.12	Standby power selection switch	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.11	Disconnecting means and control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pit				
2.12	Controller wiring, fuses grounding, etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.1	Pit access lighting, stop switch and condition	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.13	Governor, overspeed switch and seal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.2	Bottom clearance, runby and minimum refuge space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.14	Code data plate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.3	Final and emergency terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.30	Hydraulic Power Unit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.4	Normal terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.31	Relief valves	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.5	Traveling cables	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.32	Control valve	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.6	Governor-rope tension devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.33	Tanks	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.7	Car Frame and platform	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.34	Flexible hydraulic hose and fitting assemblies	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.8	Car safeties and guiding members	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.35	Supply Line and Shutoff Valve	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.11	Plunger and cylinder	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.36	Hydraulic Cylinders	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.12	Car buffer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.37	Pressure Switch	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.13	Guiding members	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.38	Roped water hydraulic elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.14	Supply piping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Top of Car					Firefighter's Service				
3.1	Top-of-car stop switch	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.1	Fire Service Operation (73-80 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.2	Car top light and outlet	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6.2	Fire Service Operation (81-83 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.3	Top-of-car operating device	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.3	Fire Service Operation (84-88 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.4	Top-of-car clearance and refuge space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.4	Fire Service Operation (89-00 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.5	Normal terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
3.6	Final and emergency terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
3.7	Car leveling and anticreep devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
3.8	Top emergency exit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					



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Syracuse, NY 13202
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Fax (315) 425-1232
inspections@cnyei.com

POSTING INSTRUCTIONS

"The most current certificate of inspection shall be on display at all times within the elevator or attached to the escalator or dumbwaiter; or the certificate shall be available for public inspection in the office of the building operator"

- Property Maintenance Code

Certificate of Inspection



**THIS CERTIFIES THAT AN INDEPENDENT THIRD-PARTY
QEI INSPECTION WAS PERFORMED ON:**

June 3, 2008

For the following Conveyance:

**Cooper Dining Hall #4
Oswego University
Oswego, ny 00000**

**SEE ATTACHED REPORT FOR THE
RESULTS OF THIS INSPECTION**

Authority Having Jurisdiction: State University of New York

This Inspection Certificate Expires in:

December 2008

This inspection certificate only indicates that a QEI certified inspector employed by CNY Elevator Inspections Inc performed a conveyance inspection complying with the requirements of the Building Code and Property Maintenance Code on the date indicated. Where non-compliant items are indicated on the attached report and as required by the Authority Having Jurisdiction and/or as required by law, regulation, or ordinance, the Owner shall correct all deficiencies as soon as possible.

QEI Inspector: Chris Duke

QEI # S-111

CNYEI W.O. # 080604-00-04D4-1

4.7. ELEVATOR MAINTENANCE REPORT - ELEVATOR #4 COOPER:

Maintenance Reports were not available at the time this report was completed.



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5A. ELEVATOR #5A HEWITT (Passenger)

5a.1 EXISTING COMPONENT SUMMARY AND UPGRADE RECOMMENDATIONS:

5a.1.1. CONTROLLER: The existing Dover ice-cube relay based elevator controller was found to be in poor overall condition and maintenance appeared to be adequate. This controller was installed new in 1966 by Dover Elevator Company which was purchased by Thyssen-Krupp Elevator Company in 1999. The controller's expected 20-year lifespan has been far exceeded and should be replaced sooner than later.

5.1.1.1. A 20-year life span for a controller is typical both in terms of the expected life span of the specific components but also as it relates to providing optimum efficiency with new technologies. The controller has more than doubled that life expectancy. The installation of a new controller will increase reliability, improve functionality, and enhance safety with fire service capability.

5a.1.2. HOISTING COMPONENTS: The existing 30-HP belt drive motor, valve, and hydraulic reservoir should be replaced at the time of the controller upgrade. The existing cylinder is a single bottom and should be replaced as soon as possible. It is not necessary to upgrade the controller at the time of cylinder replacement but it is recommended. A QEI certified witnessing of the cylinder pressure test should be performed as soon as possible to verify cylinder integrity.

5a.1.3. DOORS: Front Door operation.

5.1.3.1. The existing infrared door detector can likely be retained.

5.1.3.2. The existing Dover door operator is in poor condition and should be replaced as part of the elevator controller upgrade.

5.1.3.3. New door restrictors are required to be provided at the time of the door operator replacement.

5.1.3.4. Testing of the existing hoistway doors for ACBM is required. If the doors are found to be ACBM, the doors should be replaced. If the doors do not contain ACBM, they can likely be retained.

5.1.3.5. The existing hoistway door tracks will require replacement if the hoistway doors are replaced. If the doors are retained the rollers and gibs should be replaced at the time of controller upgrade.

- 5.1.3.6. The interlocks and limit switches should be replaced at the time of the controller upgrade.
- 5.1.3.7. The existing car doors are in fair condition and can likely be retained.
- 5a.1.4. CALL STATIONS: The existing hall call stations in the lobbies do not conform to the current requirements for ADA and will be required to be upgraded at the time of the controller upgrade.
 - 5.1.4.1. The car operating panel will require replacement at the time of the controller upgrade to comply with current elevator codes for fire service.
- 5a.1.5. CAB:
 - 5.1.5.1. The cab was found to be in fair condition and can likely be retained, however the cab top had significant rust damage and should be reviewed for necessary repairs.
 - 5.1.5.2. The existing lighting should be checked to verify that the ballasts are electronic, if not, the fixtures should be replaced. The existing lamps should be provided with a protective cover to prevent breakage at the time of the renovation.
 - 5.1.5.3. The height of the existing handrails should be verified to be between 34" and 38" to the top to comply with current ADA standards.
- 5a.1.6. ADDITIONAL COMPONENT SUMMARY:
 - 5.1.6.1. The elevator pit is required to have a pit ladder installed.
 - 5.1.6.2. The existing pit switch is worn and should be replaced at the time of the controller upgrade.
 - 5.1.6.3. The existing cloth covered traveling cables are subject to failure and should be replaced sooner than later.

5a.2. PHOTOS - ELEVATOR #5A :



Main Lobby Floor
Landing



Existing
Machineroom



Existing machineroom,
controller, and Disconnect



Bottom of Car and
Existing Piston



Existing Pit and
Cylinder Jack Head



Top of Car and Exist
Door Operator



Existing Car
Operating Panel



Smoke Vent

5a.3. SUMMARY OF ANCILLARY SYSTEM UPGRADES – ELEVATOR #5A:

5a.3.1. ELECTRICAL:

- 5.3.1.1. The existing disconnecting means is knife-blade type and should be replaced sooner than later. A fused disconnect is necessary to prevent damage to the motor in the event of a locked rotor condition. It is recommended that a test of the ground be completed prior to installation of the upgraded controller. If the machineroom is provided sprinklers as part of the any renovation project, a new shunt trip type breaker would be required.
- 5.3.1.2. The existing cab lighting and fan disconnect could not be tested because its location was not readily apparent. In the event of a modernization, a disconnecting means for the cab lighting and fan would be required in the machineroom. Where possible the cab lighting and fan should be connected to an emergency generator.
- 5.3.1.3. A new machineroom GFCI protected convenience outlet is required at the time of the controller upgrade.
- 5.3.1.4. The existing pit light is required to be protected against breakage. A new pit GFCI protected convenience outlet is required at the time of the controller upgrade.

5a.3.2. FIRE ALARM:

- 5.3.2.1. Installation of new elevator recall circuits will be required at the time of controller upgrade.

5a.3.3. HVAC:

- 5.3.3.1. The existing machineroom may require additional ventilation.
- 5.3.3.2. The existing hoistway vent may not be currently operable. It is recommended that the hoistway vent be tested for proper operation. A vent in the shaft for this building occupancy and height may not be required.

5a.3.4. COMMUNICATIONS:

- 5.3.4.1. A new hands-free emergency telephone is required to be provided at the time of modernization.

5a.3.5. PLUMBING:

- 5.3.5.1. The existing pit appeared to be dry and did not have a sump pump or drain previously installed. A new sump pump or drain is not required in an existing elevator pit as part of a modernization.

5a.3.6. GENERAL CONSTRUCTION:

- 5.3.6.1. General construction upgrades should include any necessary maintenance to ensure that all hoistway and machineroom fire resistance ratings remain in compliance with those fire resistance ratings required at the time of original construction. Opening protectives and fire rated assemblies should be maintained to assure proper seals.
- 5.3.6.2. The top of the hoistway appears to have a mudded-type fire proofing that should be tested for ACBM.
- 5.3.6.3. The existing machineroom contains equipment not required for the elevator which will be required to be removed at the time of renovation.

5a.3.7. FIRE PROTECTION:

- 5.3.7.1. The existing elevator machineroom is not provided with fire sprinklers. If fire sprinklers are added to the machineroom or hoistway they should be standard response two hundred (200°) degree Fahrenheit sprinkler heads. They should be arranged to disconnect power from the elevator immediately upon water flow. It is recommended that if sprinklers are added to the machine space, a pre-action sprinkler system be provided to maximize the ability of the elevator to complete recall prior to loss of power.

5a.4. OPINION OF PROBABLE COST ELEVATOR #5A HEWITT:

The following opinion of probable cost (Elevator work only) assumes construction to be completed by December 2009.

Hydraulic Cylinder Replacement Only: \$35,000-\$40,000

Elevator Controller, Power Unit: \$80,000-\$85,000

New Hoistway and Elevator Car doors, Door Operator, Infrared detectors \$25,000-\$30,000

Total for elevator work: \$175,000

5a.5. EQUIPMENT INVENTORY ELEVATOR # 5A HEWITT:

Year of Construction: 1966

Manufacturer: Dover (Thyssen-Krupp)

Type: Passenger

Capacity: 2000 Lbs

150 FPM (Measured speed NL: 162 FPM/up 104 FPM/dn)

Sales # E-24555

3 stop: L, 1, 2

Fire Service None

Hoisting Type: Direct Acting Inground Single Bottom Cylinder

HP: 30 (Belt Drive)

Emergency Power: None

Last Test: 7/07, QEI: No

Doors:

Center Opening: 42"

Operator: Dover DC 62

Protection: Infra-red

ADA: No

Fixtures: Mechanical push button

Phone: No

Cab Dimensions: 6'-8" W x 4'-1"D x 8'-0"H (7'-4" Drop)

Finish: Steel w/SS trim

Handrails: 2" SS



5a.6. APPENDIX 3: QEI INSPECTION REPORTS



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Hydraulic Elevator



Periodic Inspection Report

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#1Hewitt Union #5A
 Oswego University
 Oswego, NY 00000
 Owner: Oswego State University of New York

Type	Passenger
Rated Load	2000
Year Constructed	1966
Manufacturer	Dover

Date of Inspection	6/3/2008
Inspector	Chris Duke
QEI Certification #	S-111
QEI Cert. Issuer	NAESA International
Workorder Designator	080604-00-04D5-I
Authoritative Jurisdiction	State University of New York

Inspection Items Not In Compliance Per ASME A17.1

Inspection Item	Applicable Code Reference	Failure Reason
Car lighting and receptacles	Item 1.5	Emergency lighting could not be checked (power source location unknown)
Ventilation	Item 1.14	Fan did not function
Relief valves	Item 2.31	QEI witnessing of annual tests required
Tanks	Item 2.33	Excessive oil in drip pan or on floor
Flexible hydraulic hose and fitting assemblies	Item 2.34	Flexible hoses require replacement date tag
Car top light and outlet	Item 3.2	Car Top Light shall be protected
Top emergency exit	Item 3.8	Emergency exit required to be hinged and locked from the outside
Pit access lighting, stop switch and condition	Item 5.1	Pit Ladder Required
Pit access lighting, stop switch and condition	Item 5.1	Provide pit light protection

Inspector's Signature

continued on next page

This conveyance inspection was performed in compliance with the applicable provisions of ASME A17.2 Guide for Inspection of Elevators, Escalators, and Moving walks. The owner retains full responsibility to maintain this conveyance in compliance with all applicable laws, ordinances and regulations. The Authority Having Jurisdiction retains all rights and responsibilities, as defined by applicable law, regarding verification of compliance.

Checklist for Hydraulic Elevator - Periodic Inspection Report

		OK	NG	NA			OK	NG	NA
Interior of Car					3.9	Floor and emergency identification numbering	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.1	Door reopening device	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.10	Hoistway construction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2	Stop switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.11	Hoistway smoke control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3	Operating control devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.12	Pipes wiring, and ducts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.4	Sills and car floor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.13	Windows, projections, recesses, and setbacks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5	Car lighting and receptacles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.14	Hoistway clearances	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.6	Car Emergency signal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.15	Multiple hoistways	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.7	Car door/gate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.16	Traveling cables and junction boxes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.8	Door closing force	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.17	Door and gate equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.9	Power closing of doors/gates	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.18	Car frame and stiles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.10	Power opening of doors/gates	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.19	Guide rails fastening and equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.11	Car vision panels and glass car doors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.20	Governor rope	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.12	Car enclosure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.21	Governor releasing carrier	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.13	Emergency exit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.22	Wire rope fastening and hitch plate	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.14	Ventilation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.23	Suspension rope	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.15	Signs and operating device symbols	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.30	Speed test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.16	Rated load, platform area and data plate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.31	Slack rope device roped-hydraulic elv 1989 and later	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.17	Standby power operation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.32	Traveling Sheave roped-hydraulic elv 1989 and later	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.18	Restricted opening of car/hoistway doors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.33	Counterweight	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.19	Car ride	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Outside Hoistway				
Machine Room					4.1	Car platform guard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.1	Access to machine space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.2	Hoistway doors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2	Headroom	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.3	Vision Panels	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.3	Lighting and receptacles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.4	Hoistway door locking devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.4	Machine space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.5	Access to Hoistway	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.5	Housekeeping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.6	Power closing of hoistway doors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.6	Ventilation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.7	Sequence operation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.7	Fire Extinguisher	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.8	Hoistway enclosure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.8	Pipes,wiring, and ducts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.9	Elevator Parking devices	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.9	Guarding of exposed auxiliary equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.10	Emergency doors blind hoistway	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.10	Numbering of elevators, machines and disconnect switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.12	Standby power selection switch	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.11	Disconnecting means and control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pit				
2.12	Controller wiring, fuses grounding, etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.1	Pit access lighting, stop switch and condition	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.13	Governor, overspeed switch and seal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.2	Bottom clearance, runby and minimum refuge space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.14	Code data plate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.3	Final and emergency terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.30	Hydraulic Power Unit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.4	Normal terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.31	Relief valves	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.5	Traveling cables	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.32	Control valve	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.6	Governor-rope tension devices	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.33	Tanks	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.7	Car Frame and platform	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.34	Flexible hydraulic hose and fitting assemblies	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.8	Car safeties and guiding members	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.35	Supply Line and Shutoff Valve	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.11	Plunger and cylinder	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.36	Hydraulic Cylinders	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.12	Car buffer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.37	Pressure Switch	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.13	Guiding members	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.38	Roped water hydraulic elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.14	Supply piping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Top of Car					Firefighter's Service				
3.1	Top-of-car stop switch	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.1	Fire Service Operation (73-80 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.2	Car top light and outlet	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6.2	Fire Service Operation (81-83 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.3	Top-of-car operating device	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.3	Fire Service Operation (84-88 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.4	Top-of-car clearance and refuge space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.4	Fire Service Operation (89-00 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.5	Normal terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
3.6	Final and emergency terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
3.7	Car leveling and anticreep devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
3.8	Top emergency exit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					



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POSTING INSTRUCTIONS

"The most current certificate of inspection shall be on display at all times within the elevator or attached to the escalator or dumbwaiter; or the certificate shall be available for public inspection in the office of the building operator"
- Property Maintenance Code

Certificate of Inspection



**THIS CERTIFIES THAT AN INDEPENDENT THIRD-PARTY
QEI INSPECTION WAS PERFORMED ON:**

June 3, 2008

For the following Conveyance:

**#1Hewitt Union #5A
Oswego University
Oswego, NY 00000**

**SEE ATTACHED REPORT FOR THE
RESULTS OF THIS INSPECTION**

Authority Having Jurisdiction: State University of New York

This Inspection Certificate Expires in:

December 2008

This inspection certificate only indicates that a QEI certified inspector employed by CNY Elevator Inspections Inc performed a conveyance inspection complying with the requirements of the Building Code and Property Maintenance Code on the date indicated. Where non-compliant items are indicated on the attached report and as required by the Authority Having Jurisdiction and/or as required by law, regulation, or ordinance, the Owner shall correct all deficiencies as soon as possible.

QEI Inspector: Chris Duke

QEI # S-111

CNYEI W.O. # 080604-00-04D5-I

5a.7. ELEVATOR MAINTENANCE REPORT – ELEVATOR #5A HEWITT UNION:

Maintenance Reports were not available at the time this report was completed.

5B. ELEVATOR #5B HEWITT (Service Car)

5b.1. EXISTING COMPONENT SUMMARY AND UPGRADE RECOMMENDATIONS:

5b.1.1. CONTROLLER: The existing Dover ice-cube relay based elevator controller was found to be in poor overall condition and maintenance appeared to be adequate. This controller was installed new in 1965 by the Dover Elevator Company which was purchased by Thyssen Krupp in 1999. The expected 20-year life span for the elevator controller has been significantly exceeded and the controller should be modernized sooner than later.

5.1.1.1. A 20-year life span for a controller is typical both in terms of the expected life span of the specific components but also as it relates to providing optimum efficiency with new technologies. A new controller will provide increased reliability, improved functionality, and additional safety functions for fire service.

5b.1.2. HOISTING COMPONENTS: The existing 40-HP belt drive motor, valve, and hydraulic reservoir should be replaced at the time of controller upgrade. The cylinder is a single bottom and should be upgraded as soon as possible. It is not required to upgrade the controller at the time of the cylinder replacement, but it is recommended. A QEI certified witnessing of the cylinder pressure test is required as soon as possible to verify the integrity of the existing cylinder.

5b.1.3. The existing capacity plate in the car is incorrectly stated as 2000 lbs. At the time of construction the size of the platform was the determining factor for the minimum carrying capacity of the elevator. Based on the dimensions of the car, the capacity should be 5000 lbs. The capacity is also required to be shown on the cross head data plate which is also missing. It will be necessary to do a full-load test using 5000 lbs to verify that the existing system can meet the required minimum load carrying capacity. This test should be done as soon as possible as part of the required QEI certified witnessing of the cylinder pressure test. The corrected data plate information is required prior to planning a replacement of the current inground cylinder.

5b.1.4. DOORS: Front Door operation.

5.1.4.1. The existing infrared door detection can likely be retained.

5.1.4.2. The existing Dover door operator is in poor condition and should be upgraded at the time of the controller modernization.

- 5.1.4.3. New door restrictors are required to be provided at the time of the door operator replacement.
 - 5.1.4.4. The existing hoistway doors should be tested for ACBM. In the event that the doors contain ACBM they are required to be replaced at the time of door operator replacement. If the doors do not contain ACBM, they can likely be retained.
 - 5.1.4.5. The existing hoistway door tracks will be required to be replaced if the hoistway doors are replaced. Maintenance reports indicated that the doors are worn and should be replaced sooner than later.
 - 5.1.4.6. The interlocks and limit switches appear to be worn and should be replaced sooner than later.
 - 5.1.4.7. The existing car door can likely be retained. The existing door return panel is damaged and should be repaired.
- 5b.1.5. CALL STATIONS: The existing hall call stations in the lobbies do not conform to current ADA standards and require upgrades.
- 5.1.5.1. The car operating panel will require upgrade at the time of the controller upgrade to comply with current elevator codes for fire service.
- 5b.1.6. CAB:
- 5.1.6.1. The cab was found to be in good condition and can likely be retained.
 - 5.1.6.2. The existing lighting should be checked to verify that the ballasts are electronic, if not, the fixtures should be replaced. The existing lamps should be provided with a protective cover to prevent breakage at the time of the renovation.
 - 5.1.6.3. The height of the handrails should be verified to be installed between 34" and 38" to the top for ADA compliance.
- 5b.1.7. ADDITIONAL COMPONENT SUMMARY:
- 5.1.7.1. The elevator pit is required to have a pit ladder installed.
 - 5.1.7.2. The existing pit switch is worn and should be replaced at the time of the controller replacement.
 - 5.1.7.3. The existing cloth covered traveling cables are subject to failure and should be replaced sooner than later.

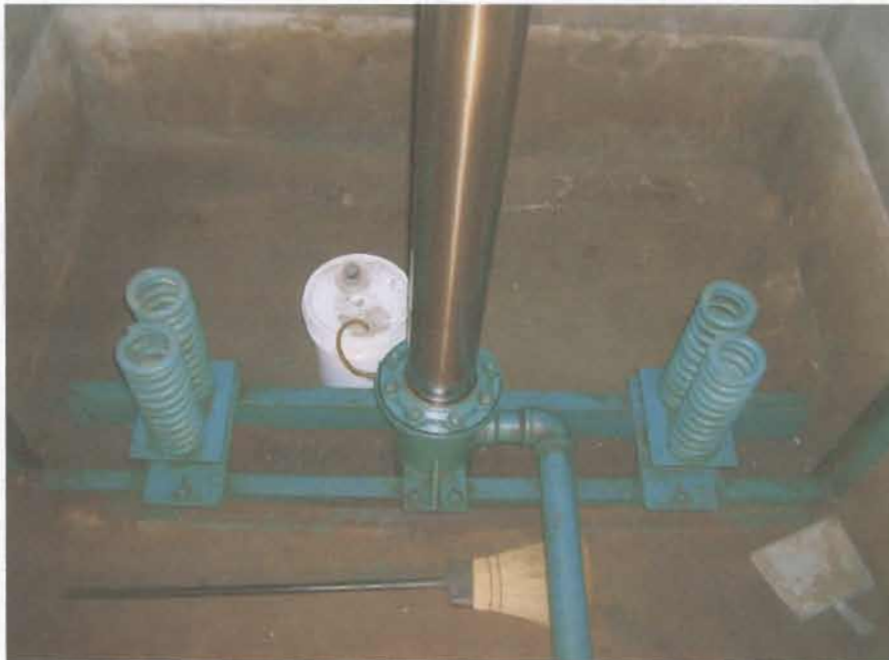
5b.2. PHOTOS - ELEVATOR #5B:



Main Lobby Floor
Landing



Existing Bottom of
Car and Piston



Existing Pit and
Cylinder Jack Head



Existing Door
Operator



Existing Top of
Car



Existing Car
Operating Panel

5b.3. SUMMARY OF ANCILLARY SYSTEM UPGRADES - ELEVATOR #5B:

5b.3.1. ELECTRICAL:

- 5.3.1.1. The existing disconnecting means appears to be acceptable. A test of the ground should be completed prior to installation of the new controller. If the machineroom is provided sprinklers as part of the any renovation project, a new shunt trip breaker would be required.
- 5.3.1.2. The existing cab lighting and fan disconnect could not be tested because its location was not readily apparent. In the event of a modernization, a disconnecting means for the cab lighting and fan would be required in the machineroom. Where possible, the cab lighting and fan should be connected to an emergency generator.
- 5.3.1.3. A new machineroom GFCI protected convenience outlet is required at the time of the controller upgrade.
- 5.3.1.4. The existing pit light is required to be protected against breakage. A new pit GFCI protected convenience outlet is required at the time of the controller upgrade.

5b.3.2. FIRE ALARM:

- 5.3.2.1. The installation of new Fire Alarm devices for elevator recall will be required at the time of controller upgrade.

5b.3.3. HVAC:

- 5.3.3.1. The existing machineroom may require additional ventilation.
- 5.3.3.2. The existing hoistway vent should be tested for proper operations. A vent in the shaft in this building's occupancy may not be required.

5b.3.4. COMMUNICATIONS:

- 5.3.4.1. A new hands-free emergency telephone will be required in the car at the time of the controller upgrade.

5b.3.5. PLUMBING:

- 5.3.5.1. The existing pit appeared to be dry and did not have a sump pump or drain previously installed. A new sump pump or drain is not required in an existing elevator pit as part of a modernization.

5b.3.6. GENERAL CONSTRUCTION:

- 5.3.6.1. General construction upgrades should include any necessary maintenance to ensure that all hoistway and machineroom fire resistance ratings remain in compliance with those fire resistance ratings required at the time of original construction. Opening protectives and fire rated assemblies should be maintained to assure proper seals.
- 5.3.6.2. The top of the shaft contains a mudded-type fire proofing which should be tested for ACBM.
- 5.3.6.3. Mechanical systems not required for the elevator are not permitted in the machineroom and will require removal or separation at the time of the controller upgrade.

5b.3.7. FIRE PROTECTION:

- 5.3.7.1. The existing elevator machineroom is not provided with fire sprinklers. If fire sprinklers are added to the machineroom or hoistway, they should be standard response two hundred (200°) degree Fahrenheit sprinkler heads. They should be arranged to disconnect power from the elevator immediately upon water flow. It is recommended that if sprinklers are added to the machine space, a pre-action sprinkler system be provided to maximize the ability of the elevator to complete recall prior to loss of power.

5b.4 OPINION OF PROBABLE COST ELEVATOR #5B HEWITT:

The following opinion of probable cost (Elevator work only) assumes construction to be completed by December 2010.

Hydraulic Cylinder Replacement Only: \$50,000-\$55,000

Elevator Controller, Power Unit: \$90,000-\$95,000

New Hoistway and Elevator Car doors, Door Operator, Infrared detectors \$25,000-30,000

Total for all elevator work: \$214,000

5b.5. EQUIPMENT INVENTORY ELEVATOR #5B HEWITT:

Year of Construction: 1966

Manufacturer: Dover (Thyssen-Krupp)

Type: Passenger/Service

Capacity: 5000 Lbs (No Data or Capacity Tags)

100 FPM (Measured speed NL: 114 FPM/up 88 FPM/dn)

Sales # E-24555

3 stop: L, 1, 2

Fire Service None

Hoisting Type: Direct Acting Inground Single Bottom Cylinder

Cylinder OD: 6-1/2" (nominal)

HP: 30 (Belt Drive)

NL: 190/ FL: 370/ RP: 460

Emergency Power: None

Last Test: 7/07, QEI: No

Doors:

Center Opening: 42"

Operator: Dover DC 62

Protection: Infra-red

ADA: No

Fixtures: Mechanical push button

Phone: No

Cab Dimensions: 6'-8"W x 7'-6"D x 8'-0"H (Inside Platform = 49.5 sf)

Finish: Steel w/ SS trim

Handrails: 2" SS



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5b.6. APPENDIX 3: OEI INSPECTION REPORTS



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Hydraulic Elevator



Periodic Inspection Report

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#2 Hewitt Union #5B
 Oswego University
 Oswego, NY 00000
 Owner: Oswego State University of New York

Date of Inspection	6/3/2008
Inspector	Chris Duke
QEI Certification #	S-111
QEI Cert. Issuer	NAESA International
Workorder Designator	080604-00-04D6-I
Authoritative Jurisdiction	State University of New York

Type	Passenger
Rated Load	4000
Year Constructed	1966
Manufacturer	Dover

Inspection Items Not In Compliance Per ASME A17.1

Inspection Item	Applicable Code Reference	Failure Reason
Operating control devices	Item 1.3	Broken button, switch or lens (fan switch)
Car lighting and receptacles	Item 1.5	Emergency lighting could not be checked (power source location unknown)
Signs and operating device symbols	Item 1.15	Missing Phase 1, Phase 2 Signs
Rated load, platform area and data plate	Item 1.16	Capacity plate required in car (incorrect capacity designation)
Relief valves	Item 2.31	QEI witnessing of annual tests required
Car top light and outlet	Item 3.2	Car Top Light shall be protected
Pipes wiring, and ducts	Item 3.12	Only pipes wiring and ducts used in connection with the elevator may be installed in the hoistway (Wires hanging in hoistway)
Pit access lighting, stop switch and condition	Item 5.1	Pit Ladder Required
Pit access lighting, stop switch and condition	Item 5.1	Provide pit light protection

Inspector's Signature

continued on next page

This conveyance inspection was performed in compliance with the applicable provisions of ASME A17.2 Guide for Inspection of Elevators, Escalators, and Moving walks. The owner retains full responsibility to maintain this conveyance in compliance with all applicable laws, ordinances and regulations. The Authority Having Jurisdiction retains all rights and responsibilities, as defined by applicable law, regarding verification of compliance.

Checklist for Hydraulic Elevator - Periodic Inspection Report

		OK	NG	NA			OK	NG	NA
Interior of Car					3.9	Floor and emergency identification numbering	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.1	Door reopening device	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.10	Hoistway construction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2	Stop switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.11	Hoistway smoke control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3	Operating control devices	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.12	Pipes wiring, and ducts	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.4	Sills and car floor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.13	Windows, projections, recesses, and setbacks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5	Car lighting and receptacles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.14	Hoistway clearances	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.6	Car Emergency signal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.15	Multiple hoistways	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.7	Car door/gate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.16	Traveling cables and junction boxes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.8	Door closing force	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.17	Door and gate equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.9	Power closing of doors/gates	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.18	Car frame and stiles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.10	Power opening of doors/gates	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.19	Guide rails fastening and equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.11	Car vision panels and glass car doors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.20	Governor rope	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.12	Car enclosure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.21	Governor releasing carrier	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.13	Emergency exit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.22	Wire rope fastening and hitch plate	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.14	Ventilation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.23	Suspension rope	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.15	Signs and operating device symbols	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.30	Speed test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.16	Rated load, platform area and data plate	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.31	Slack rope device roped-hydraulic elv 1989 and later	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.17	Standby power operation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.32	Traveling Sheave roped-hydraulic elv 1989 and later	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.18	Restricted opening of car/hoistway doors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.33	Counterweight	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.19	Car ride	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Outside Hoistway				
Machine Room					4.1	Car platform guard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.1	Access to machine space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.2	Hoistway doors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2	Headroom	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.3	Vision Panels	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.3	Lighting and receptacles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.4	Hoistway door locking devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.4	Machine space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.5	Access to Hoistway	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.5	Housekeeping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.6	Power closing of hoistway doors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.6	Ventilation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.7	Sequence operation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.7	Fire Extinguisher	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.8	Hoistway enclosure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.8	Pipes,wiring, and ducts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.9	Elevator Parking devices	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.9	Guarding of exposed auxiliary equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.10	Emergency doors blind hoistway	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.10	Numbering of elevators, machines and disconnect switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.12	Standby power selection switch	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.11	Disconnecting means and control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pit				
2.12	Controller wiring, fuses grounding, etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.1	Pit access lighting, stop switch and condition	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.13	Governor, overspeed switch and seal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.2	Bottom clearance, runby and minimum refuge space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.14	Code data plate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.3	Final and emergency terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.30	Hydraulic Power Unit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.4	Normal terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.31	Relief valves	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.5	Traveling cables	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.32	Control valve	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.6	Governor-rope tension devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.33	Tanks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.7	Car Frame and platform	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.34	Flexible hydraulic hose and fitting assemblies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.8	Car safeties and guiding members	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.35	Supply Line and Shutoff Valve	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.11	Plunger and cylinder	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.36	Hydraulic Cylinders	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.12	Car buffer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.37	Pressure Switch	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.13	Guiding members	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.38	Roped water hydraulic elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.14	Supply piping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Top of Car					Firefighter's Service				
3.1	Top-of-car stop switch	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.1	Fire Service Operation (73-80 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.2	Car top light and outlet	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6.2	Fire Service Operation (81-83 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.3	Top-of-car operating device	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.3	Fire Service Operation (84-88 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.4	Top-of-car clearance and refuge space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.4	Fire Service Operation (89-00 ed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.5	Normal terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
3.6	Final and emergency terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
3.7	Car leveling and anticreep devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
3.8	Top emergency exit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					



Suite 305
126 North Salina Street
Syracuse, NY 13202
Tel (315) 425-0428
Fax (315) 425-1232
inspections@cnyei.com

POSTING INSTRUCTIONS

"The most current certificate of inspection shall be on display at all times within the elevator or attached to the escalator or dumbwaiter; or the certificate shall be available for public inspection in the office of the building operator"
- Property Maintenance Code

Certificate of Inspection



**THIS CERTIFIES THAT AN INDEPENDENT THIRD-PARTY
QEI INSPECTION WAS PERFORMED ON:**

June 3, 2008

For the following Conveyance:

**#2 Hewitt Union #5B
Oswego University
Oswego, NY 00000**

**SEE ATTACHED REPORT FOR THE
RESULTS OF THIS INSPECTION**

Authority Having Jurisdiction: State University of New York

This Inspection Certificate Expires in:

December 2008

This inspection certificate only indicates that a QEI certified inspector employed by CNY Elevator Inspections Inc performed a conveyance inspection complying with the requirements of the Building Code and Property Maintenance Code on the date indicated. Where non-compliant items are indicated on the attached report and as required by the Authority Having Jurisdiction and/or as required by law, regulation, or ordinance, the Owner shall correct all deficiencies as soon as possible.

QEI Inspector: Chris Duke

QEI # S-111

CNYEI W.O. # 080604-00-04D6-I

5b.7. ELEVATOR MAINTENANCE REPORT – ELEVATOR #5B HEWITT UNION:

Oswego College provided CNY with a copy of the last 6-months of elevator maintenance records for this elevator. Based on those reports it appears that concerns with consistent shutdowns are likely a result of the door operator and hoistway doors. The door operator is past its expected lifespan and should be replaced sooner than later. The hoistway doors are worn, which is not uncommon for a service elevator that is often exposed to impact while moving freight on and off the car. It is suggested that the elevator contractor review the existing gibs, rollers, and hangers to see if they should be replaced. Additionally the doors should be tested for ACBM and if they test positive they should be replaced at the time of controller upgrade.



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6. ELEVATOR #6 TYLER ARTS

6.1. EXISTING COMPONENT SUMMARY AND UPGRADE RECOMMENDATIONS:

6.1.1. CONTROLLER: The existing Dover ice-cube type relay based elevator controller was found to be in poor overall condition and maintenance appeared to be adequate. This controller was installed new in 1966 by the Dover Elevator Company which was purchased by Thyssen-Krupp Elevator Company in 1999. The controller has far exceeded its expected life span of about 20 years.

6.1.1.1. A 20-year life span for a controller is typical both in terms of the expected life span of the specific components but also as it relates to providing optimum efficiency with new technologies. The Dover controller has more than doubled that expectancy and should be upgraded sooner than later. A new controller will provide increased reliability, improved functionality, and enhanced safety capability with fire service.

6.1.2. HOISTING COMPONENTS: The existing 40-HP belt drive motor, valve, and hydraulic reservoir should be replaced at the time of the controller upgrade. The existing cylinder is a single bottom type and should be replaced as soon as possible. It is not required to upgrade the controller at the time of the cylinder replacement, but it is recommended. A QEI certified independent witnessing of the cylinder pressure test to verify cylinder integrity is required as soon as possible.

6.1.2.1. The existing capacity plate in the car is incorrectly stated as 2000 lbs. At the time of construction the size of the platform was the determining factor for the minimum carrying capacity of the elevator. Based on the dimensions of the car the capacity should be 5000 lbs. The capacity is also required to be shown on the cross head data plate which appears to be incorrectly labeled as 4,015 lbs. It will be necessary to do a full-load test using 5000 lbs to verify that the existing system can meet the required minimum load carrying capacity. This test should be done as soon as possible as part of the required QEI certified witnessing of the cylinder pressure test. The corrected data plate information is required prior to planning a replacement of the current inground cylinder

6.1.3. DOORS: Front Door operation.

6.1.3.1. The existing infrared door detector is in fair condition and can likely be retained.

- 6.1.3.2. New door restrictors are required to be provided at the time of the door operator replacement.
- 6.1.3.3. The existing hoistway doors should be tested for ACBM. If the doors contain ACBM, they should be replaced, if not, they can likely be retained. It is recommended that the Owner consider the appearance of the existing hoistway doors prior to making a decision on retaining them.
- 6.1.3.4. The existing hoistway door tracks will require replacement if the hoistway doors are replaced. If the doors are retained, the tracks can likely be retained. Hoistway door rollers and gibs should be replaced at the time of controller upgrade.
- 6.1.3.5. The interlocks and limit switches should be replaced at the time of controller upgrade.
- 6.1.3.6. The existing car doors are in fair condition and can likely be maintained.
- 6.1.4. CALL STATIONS: The existing hall call stations in the lobbies do not conform to current ADA standards and will require upgrades at the time of controller upgrade.
 - 6.1.4.1. The car operating panel will require upgrade at the time of the controller upgrade to comply with current elevator codes for fire service.
- 6.1.5. CAB:
 - 6.1.5.1. The cab was found to be in good condition and likely be retained.
 - 6.1.5.2. The existing lighting should be checked to verify that the ballasts are electronic, if not, the fixtures should be replaced. The existing lamps should be provided with a protective cover to prevent breakage at the time of the renovation.
 - 6.1.5.3. The handrails will require lowering to between 34"-38" to the top of the handrail at the time of the controller upgrade.
- 6.1.6. ADDITIONAL COMPONENT SUMMARY:
 - 6.1.6.1. The elevator pit ladder will require an extension to a minimum of 48" above the lowest landing at the time of the controller upgrade.

- 6.1.6.2. The existing pit switch is worn and should be replaced at the time of modernization.
- 6.1.6.3. The existing cloth cover traveling cables are subject to failure and should be replaced sooner than later.
- 6.1.6.4. The top of car operating device was found to be inoperable in the down direction. The device is required to be replaced as soon as possible.

6.2. PHOTOS:



Main Lobby Floor
Landing



3rd Level Lobby
Landing



Machineroom and
Mainline Disconnect



Machineroom and
Machine Starter Panel.



Existing Bottom of
Car and Piston



Exist Pit and Pit
Ladder



Pit and Cylinder
Jack Head



Existing Top of Car



Existing Door
Operator



Car Operating Panel

6.3. SUMMARY OF ANCILLARY SYSTEM UPGRADES:

6.3.1. ELECTRICAL:

- 6.3.1.1. The existing disconnecting means appears to be acceptable. It is recommended that tests of the ground be conducted prior to installation of a new controller. If the machineroom is provided with fire sprinklers as part of any renovation project, a new shunt trip breaker would be required.
- 6.3.1.2. The existing cab lighting and fan disconnect could not be tested because its location was not readily apparent. In the event of a modernization, a disconnecting means for the cab lighting and fan would be required in the machineroom. Where possible, the cab lighting and fan should be connected to an emergency generator.
- 6.3.1.3. A new machineroom GFCI protected convenience outlet is required at the time of controller upgrade.
- 6.3.1.4. The existing pit light is required to be protected against breakage. A new pit GFCI protected convenience outlet is required at the time of controller upgrade.

6.3.2. FIRE ALARM:

- 6.3.2.1. New fire alarm devices for elevator recall will be required as part of the elevator controller upgrade.

6.3.3. HVAC:

- 6.3.3.1. The existing machineroom may require additional ventilation.
- 6.3.3.2. The existing hoistway vent may not be currently operable. It is recommended that the hoistway vent be tested for proper operation. A vent in the shaft for this building's occupancy may not be required.

6.3.4. COMMUNICATIONS:

- 6.3.4.1. A new hands-free emergency telephone will be required in the car at the time of the controller upgrade.

6.3.5. PLUMBING:

6.3.5.1. The existing pit appeared to be dry and did not have a sump pump or drain previously installed. A new sump pump or drain is not required in an existing elevator pit as part of a modernization.

6.3.6. GENERAL CONSTRUCTION:

6.3.6.1. General construction upgrades should include any necessary maintenance to ensure that all hoistway and machineroom fire resistance ratings remain in compliance with those fire resistance ratings required at the time of original construction. Opening protectives and fire rated assemblies should be maintained to assure proper seals.

6.3.7. FIRE PROTECTION:

6.3.7.1. The existing elevator machineroom is not provided with fire sprinklers. If fire sprinklers are added to the machineroom or hoistway, they should be standard response two hundred (200°) degree Fahrenheit sprinkler heads. They should be arranged to disconnect power from the elevator immediately upon water flow. It is recommended that if sprinklers are added to the machine space a pre-action sprinkler system be provided to maximize the ability of the elevator to complete recall prior to loss of power.

6.4. OPINION OF PROBABLE COST ELEVATOR #6 TYLER:

The following opinion of probable cost (Elevator work only) assumes construction to be completed by December 2009.

Hydraulic Cylinder Replacement Only: \$50,000-\$55,000

Elevator Controller, Power Unit: \$90,000-\$95,000

New Hoistway and Elevator Car doors, Door Operator, Infrared detectors \$25,000-30,000

Total for all elevator work: \$206,000

6.5. EQUIPMENT INVENTORY ELEVATOR #6 TYLER:

Year of Construction: 1965

Manufacturer: Dover (Thyssen-Krupp)

Type: Passenger

Capacity: 5000 Lbs (crosshead data plate indicates 4,015 lbs)

100 FPM (Measured speed NL: 114 FPM/up 80 FPM/dn)

Sales # E-244558

3 stop: L, 1, 2

Fire Service None

Hoisting Type: Direct Acting Inground Single Bottom Cylinder

Cylinder OD: 6-1/2" (nominal)

HP: 40 (Belt Drive)

208V

NL: 190/ FL: 310/ RP: 330

Emergency Power: None

Last Test 7/07, QEI: No

Doors:

Center Opening: 42"

Operator: Dover DC 62

Protection: Infra-red

ADA: No

Fixtures: Mechanical push button

Phone: No

Cab Dimensions: 6'-8"W x 7'-8"D x 8'-0"H (Inside Platform = 50 sf)

Finish: Steel w/SS trim

Handrails: 2" SS @ 39"



6.6. APPENDIX 3: OEI INSPECTION REPORTS



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Hydraulic Elevator



Periodic Inspection Report

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 Fax (315) 425-1232
 inspections@cnyei.com

Tyler Hall #6
 Oswego University
 Oswego, NY 00000
 Owner: Oswego State University of New York

Date of Inspection	6/3/2008
Inspector	Chris Duke
QEI Certification #	S-111
QEI Cert. Issuer	NAESA International
Workorder Designator	080604-00-04D7-I
Authoritative Jurisdiction	State University of New York

Type	Passenger
Rated Load	4000
Year Constructed	1966
Manufacturer	Dover

Inspection Items Not In Compliance Per ASME A17.1

Inspection Item	Applicable Code Reference	Failure Reason
Operating control devices	Item 1.3	Broken button, switch or lens (fan switch)
Car lighting and receptacles	Item 1.5	Emergency lighting could not be checked (power source location unknown)
Rated load, platform area and data plate	Item 1.16	Capacity plate required in car (existing 2000 lb plate in car is incorrect)
Relief valves	Item 2.31	Relief Valve shall be sealed
Relief valves	Item 2.31	QEI witnessing of annual tests required
Tanks	Item 2.33	Excessive oil in drip pan or on floor
Flexible hydraulic hose and fitting assemblies	Item 2.34	Flexible hoses require replacement date data tag
Car top light and outlet	Item 3.2	Car Top Light shall be protected
Top-of-car operating device	Item 3.3	TOC inspection not functioning properly (down operation)
Pit access lighting, stop switch and condition	Item 5.1	Provide pit light protection

Inspector's Signature

continued on next page

This conveyance inspection was performed in compliance with the applicable provisions of ASME A17.2 Guide for Inspection of Elevators, Escalators, and Moving walks. The owner retains full responsibility to maintain this conveyance in compliance with all applicable laws, ordinances and regulations. The Authority Having Jurisdiction retains all rights and responsibilities, as defined by applicable law, regarding verification of compliance.

Checklist for Hydraulic Elevator - Periodic Inspection Report

	OK	NG	NA		OK	NG	NA
Interior of Car				3.9	Floor and emergency identification numbering	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.1 Door reopening device	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.10	Hoistway construction	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2 Stop switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.11	Hoistway smoke control	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.3 Operating control devices	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.12	Pipes wiring, and ducts	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.4 Sills and car floor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.13	Windows, projections, recesses, and setbacks	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.5 Car lighting and receptacles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.14	Hoistway clearances	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.6 Car Emergency signal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.15	Multiple hoistways	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.7 Car door/gate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.16	Traveling cables and junction boxes	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.8 Door closing force	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.17	Door and gate equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.9 Power closing of doors/gates	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.18	Car frame and stiles	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.10 Power opening of doors/gates	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.19	Guide rails fastening and equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.11 Car vision panels and glass car doors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.20	Governor rope	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.12 Car enclosure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.21	Governor releasing carrier	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.13 Emergency exit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.22	Wire rope fastening and hitch plate	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.14 Ventilation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.23	Suspension rope	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.15 Signs and operating device symbols	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.30	Speed test	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.16 Rated load, platform area and data plate	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.31	Slack rope device roped-hydraulic elv 1989 and later	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.17 Standby power operation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.32	Traveling Sheave roped-hydraulic elv 1989 and later	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.18 Restricted opening of car/hoistway doors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.33	Counterweight	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.19 Car ride	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Machine Room				Outside Hoistway			
2.1 Access to machine space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.1	Car platform guard	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.2 Headroom	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.2	Hoistway doors	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.3 Lighting and receptacles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.3	Vision Panels	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.4 Machine space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.4	Hoistway door locking devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.5 Housekeeping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.5	Access to Hoistway	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.6 Ventilation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.6	Power closing of hoistway doors	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.7 Fire Extinguisher	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.7	Sequence operation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.8 Pipes,wiring, and ducts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.8	Hoistway enclosure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.9 Guarding of exposed auxiliary equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.9	Elevator Parking devices	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.10 Numbering of elevators, machines and disconnect switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.10	Emergency doors blind hoistway	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.11 Disconnecting means and control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.12	Standby power selection switch	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.12 Controller wiring, fuses grounding, etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pit			
2.13 Governor, overspeed switch and seal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.1	Pit access lighting, stop switch and condition	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.14 Code data plate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.2	Bottom clearance, runby and minimum refuge space	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.30 Hydraulic Power Unit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.3	Final and emergency terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.31 Relief valves	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.4	Normal terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.32 Control valve	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.5	Travelling cables	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.33 Tanks	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.6	Governor-rope tension devices	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.34 Flexible hydraulic hose and fitting assemblies	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.7	Car Frame and platform	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.35 Supply Line and Shutoff Valve	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.8	Car safeties and guiding members	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.36 Hydraulic Cylinders	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.11	Plunger and cylinder	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.37 Pressure Switch	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.12	Car buffer	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.38 Roped water hydraulic elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.13	Guiding members	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Top of Car				5.14	Supply piping	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3.1 Top-of-car stop switch	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Firefighter's Service			
3.2 Car top light and outlet	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6.1	Fire Service Operation (73-80 ed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.3 Top-of-car operating device	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6.2	Fire Service Operation (81-83 ed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.4 Top-of-car clearance and refuge space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.3	Fire Service Operation (84-88 ed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.5 Normal terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.4	Fire Service Operation (89-00 ed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.6 Final and emergency terminal stopping devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
3.7 Car leveling and anticreep devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
3.8 Top emergency exit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				



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POSTING INSTRUCTIONS

"The most current certificate of inspection shall be on display at all times within the elevator or attached to the escalator or dumbwaiter; or the certificate shall be available for public inspection in the office of the building operator"

- Property Maintenance Code

Certificate of Inspection



**THIS CERTIFIES THAT AN INDEPENDENT THIRD-PARTY
QEI INSPECTION WAS PERFORMED ON:**

June 3, 2008

For the following Conveyance:

**Tyler Hall #6
Oswego University
Oswego, NY 00000**

**SEE ATTACHED REPORT FOR THE
RESULTS OF THIS INSPECTION**

Authority Having Jurisdiction: State University of New York

This Inspection Certificate Expires in:

December 2008

This inspection certificate only indicates that a QEI certified inspector employed by CNY Elevator Inspections Inc performed a conveyance inspection complying with the requirements of the Building Code and Property Maintenance Code on the date indicated. Where non-compliant items are indicated on the attached report and as required by the Authority Having Jurisdiction and/or as required by law, regulation, or ordinance, the Owner shall correct all deficiencies as soon as possible.

QEI Inspector: Chris Duke

QEI # S-111

CNYEI W.O. # 080604-00-04D7-1

6.7. **ELEVATOR MAINTENANCE REPORT – ELEVATOR #6 TYLER:**

Oswego College provided CNY with a copy of the last 6-months of elevator maintenance records for this elevator. Based on those reports it appears that concerns with consistent shutdowns are likely a result of failing icecube relays due to age. Ice-cube relays are widely available for replacement; however it's likely that the relays will continue to fail as the age of the equipment increases and an increase in the frequency of shutdowns can likely be expected.

PART S-1 Accessibility Upgrades

Under the Authority of the Department of Justice the American with Disabilities Act of 1990 (28 CFR Part 36) was issued as a design and construction guide to mandate equivalent access to required facilities for the physically impaired. Based on the ICC/ANSI A117.1-1980 edition, the guide provided strict standards for removing barriers that prevented individuals with special needs from accessing public facility and building services. Commonly referred to as "ADA" the act is effectively civil rights legislation and should not be confused with building codes.

At the time of the publication of the ADA guidelines, it was required that all public facilities provide an accessible path from a point of entry to any point where a public service is provided, referred to as the "accessible path." This could be accomplished by simply removing barriers or by providing equivalent access. Part 4.10 of the ADA guide covers specifically the use of those elevators and wheelchair lifts which are considered to be within the accessible path. Part 4.10 is directed at the removal of barriers to the elevator in relation to door operation, leveling, clear floor space, and access to controls.

Door operation can be generally described in two parts: part one provides standards for protection against making physical contact with closing doors, part two provides standards for allowing adequate time for person(s) with physical impairments to access the car before the doors close and the elevator attends to another call. Most passenger elevators are able to meet the standards for door operation. An exception that allows a "safety edge" which is a mechanical door protective device on existing elevators, has allowed many elevators to avoid upgrades to the door protection since the legislation passed 18 years ago. It should be noted however that safety edge door protection can still be a liability issue and should be replaced when feasible to prevent contact with the doors by persons who may not be physically capable of protecting themselves from injury in the event they are impacted by closing doors. It should also be noted that the current ICC/ANSI A117.1-2003 edition requires that all doors in passenger elevators open horizontally for them to be considered as part of an accessible path.

Automatic operation, and leveling within 1/2" is required for passenger elevators on an accessible path. It should be noted that not all elevators are capable of providing that standard of precise leveling and would require upgrading to be considered accessible.

Floor space requirements are intended to provide sufficient space for wheel chair access and provide proper reach to controls from inside the car. There are many options for floor space requirements on existing elevators to avoid the need for enlarging a hoistway.

Control access is broken down into three parts: visible, audible, and access. In general access is assumed to be considered "reachable" from a wheel chair but also includes the ability to locate necessary controls and information for the vision impaired. Visible elements are required to

indicate that a call has been placed, that a call has been received and that a car is traveling to those persons who can see but not hear. Audible elements are required to mimic the visual elements for persons who can hear but not see. The ICC/ANSI A117.1 2003 edition has also added the additional requirement to provide a voice announcement of each floor and direction of travel on elevators that travel in excess of 200 feet per minute.

The most common misconception regarding ADA is that the requirements are tied to building renovation and upgrades similar to the building code requirements. In fact the requirements apply to any element that constitutes a barrier whether existing or new construction. There is no exception for elevators. While the ideal time to apply the necessary upgrades to ADA compliance may be more feasible during a controller system upgrade, the requirement to provide barrier free access on any elevator which is designated as part of accessible path became effective when the legislation passed. It is recommended that all elevators on an accessible path be upgraded to ADA compliance, however it is recognized that some elements may have barriers that are technically or financially more difficult to accomplish than others. In many cases technical infeasibility permits exceptions to such modifications, for example it is not expected that elevator hoistway is required to be enlarged to accommodate a larger elevator. On the other hand, elements like Braille tags on entrance frames and lowering of call buttons can usually be accomplished without a great deal of expense or difficulty. It should be a policy that where any single barrier element can be removed, it should be, even if it's not possible to remove all barriers at that time.

We recommend a review of the following checklist for each elevator. In some cases upgrades to full ADA compliance may be better at the time of any proposed upgrades to the elevator controllers. Where controller upgrades are not necessarily planned in the short term it is suggested that, where modest upgrades to removing barrier elements are practicable, they should be upgraded to the extent possible.

SUMMARY:

ELEVATOR #1: Sheldon

Sheldon elevator is nearly ADA compliant and could be made ADA compliant with only minor modifications.

ELEVATOR #2: Lanigan

Lanigan elevator is partly ADA compliant and should be upgraded to full compliance at the time of the controller upgrade. Modest improvements could be made prior to renovation.

ELEVATOR #3: Penfield

Penfield elevator is partly ADA compliant and should be upgraded to full compliance at the time of the controller upgrade. Modest improvements could be made prior to renovation.

ELEVATOR #4: Cooper

Lanigan elevator is not ADA compliant and should be upgraded to full compliance at the time of the controller upgrade. The existing cab size cannot meet the requirements of even the exceptions for technical infeasibility. It is recommended that the existing car be reviewed to see if it can be considered as providing “equivalent facilitation” by demonstrating that the car can be shown to be adequately accessible to wheel chairs. If the car cannot be shown to be large enough to provide wheelchair access, the elevator should not be considered as a part of accessible path.

ELEVATOR #5A: Hewitt Passenger

Hewitt passenger elevator is partly ADA compliant and should be upgraded to full compliance at the time of the controller upgrade. Modest improvements could be made prior to renovation.

ELEVATOR # 5B: Hewitt Service

Hewitt passenger elevator is partly ADA compliant and should be upgraded to full compliance at the time of the controller upgrade. Modest improvements could be made prior to renovation.

ELEVATOR #6: Tyler

Tyler elevator is partly ADA compliant and should be upgraded to full compliance at the time of the controller upgrade. Modest improvements could be made prior to renovation.

ADA CHECKLIST

Elevator: SHELDON ELEV #1

Date 7/1/08

ADA ITEM #	DESCRIPTION	COMPLIANT ? YES	NO	NOTE
ADA STANDARDS 28CFR Part 36				
X 4.85.5(5)	Handrails 34" min 38" max to top		X	32"
X 4.10.1	Automatic Operation	X		
	Self Leveling within 1/2" at rated/ unrated load	X		
X 4.10.3	Hall Call Buttons	X		
	42" Center Line	X		
	3/4" min raised or flush	X		
	visual call registered	X		
	No object projects more than 4" below call station	X		
X 4.10.4	Hall Lanterns	X		NONE
	Passing audible 1 up / 2 dwn	X		
	72" min	X		
	Visual Element at least 2-1/2	X		
	Visible from hall call button	X		
X 4.10.5	Hoistway entrance Braille both jambs	X		NONE
	60 in. center line	X		
X 4.10.6	Door Protection	X		Safety edge exception 4.1.6(1)(k)(ii)(3)(c)(i)
	20 sec delay min			NOT TESTED
X 4.10.7	Hoistway Door Timing 5 sec. min	X		NOT TESTED
X 4.10.8	Car Door Delay 3 sec. min	X		NOT TESTED
X 4.10.9	Floor Plan (Fig. 22)	X		EXISTING
	Floor plan exception 4.1.6(1)(k)(ii)(3)(c)(ii) applies? (48" x 48" min or equivalent access provided)	X		
	Door Opening 36" min	X		
X 4.10.10	Floor Surfaces comply with 4.5	X		
	1/4" max level	X		
	carpeting secured			N/A
X 4.10.11	Lighting Sfc min.	X		EMERG. NOT TESTED
X 4.10.12	Car Controls	X		
	Buttons 3/4" min. raised or flush	X		
	Braille	X		
	Visual Call Registered	X		
	Height 54" max. (side) 48" max (front)	X		
	Emergency buttons 35" min	X		
	Location front on center opening/ side on or front or side opening (fig 23 c and d)	X		
X 4.10.13	In-Car Position Indicator	X		
X 4.10.14	Emergency Communication	X		
	48 " max	X		
	Bell	X		
	Handset cord 29" min	X		
Additional ICC requirements				
X 407.3.1	Hoistway Door horizontal opening	X		
X 407.4.6.2.2	Buttons arranged in ascending order	X		
X 407.4.9.2.1	PI audible vocal over 200 fpm	X		N/A

ADA CHECKLIST

Elevator: LANIGAN ELEV #2

Date 7/1/08

ADA ITEM #	DESCRIPTION	COMPLIANT ? YES	NO	NOTE
ADA STANDARDS 28CFR Part 36				
X 4.85.5(5)	Handrails 34" min 38" max to top		X	38"
X 4.10.1	Automatic Operation	X		
	Self Leveling within 1/2" at rated/ unrated load	X		
X 4.10.3	Hall Call Buttons	X		
	42" Center Line		X	38"
	3/4" min raised or flush	X		
	visual call registered	X		
	No object projects more than 4" below call station	X		
X 4.10.4	Hall Lanterns		X	NONE
	Passing audible 1 up / 2 dwn			
	72" min			
	Visual Element at least 2-1/2			
	Visible from hall call button			
X 4.10.5	Hoistway entrance Braille both jambs		X	NONE
	60 in. center line			
X 4.10.6	Door Protection	X		
	20 sec delay min	X		
X 4.10.7	Hoistway Door Timing 5 sec. min	X		
X 4.10.8	Car Door Delay 3 sec. min	X		
X 4.10.9	Floor Plan (Fig. 22)	X		EXISTING
	Floor plan exception 4.16(1)(k)(ii)(3)(c)(ii) applies? (48" x 48" min or equivalent access provided)	X		
	Door Opening 36" min	X		
X 4.10.10	Floor Surfaces comply with 4.5	X		
	1/4" max level	X		
	carpeting secured			N/A
X 4.10.11	Lighting 5fc min.	X		EMERG. NOT TESTED
X 4.10.12	Car Controls		X	
	Buttons 3/4" min. raised or flush	X		
	Braille		X	
	Visual Call Registered		X	
	Height 54" max. (side) 48" max (front)		X	
	Emergency buttons 35" min	X		
	Location front on center opening/ side on or front or side opening (fig 23 c and d)	X		
X 4.10.13	In-Car Position Indicator	X		
X 4.10.14	Emergency Communication		X	
	48" max		X	
	Bell	X		
	Handset cord 29" min	X		N/A NO PHONE INSTALLED
Additional ICC requirements				
X 407.3.1	Hoistway Door horizontal opening	X		
X 407.4.6.2.2	Buttons arranged in ascending order	X		
X 407.4.9.2.1	PI audible vocal over 200 fpm	X		N/A

ADA CHECKLIST

Elevator: PENFIELD ELEV # 3

Date 7/1/09

ADA ITEM #	DESCRIPTION	COMPLIANT ? YES	NO	NOTE
	ADA STANDARDS 28CFR Part 36			
X 4.85.5(5)	Handrails 34" min 38" max to top	X		37"
X 4.10.1	Automatic Operation	X		
	Self Leveling within 1/2" at rated/ unrated load	X		
X 4.10.3	Hall Call Buttons		X	
	42" Center Line		X	
	3/4" min raised or flush	X		
	visual call registered		X	
	No object projects more than 4" below call station	X		
X 4.10.4	Hall Lanterns		X	NONE
	Passing audible 1 up / 2 dwn			
	72" min			
	Visual Element at least 2-1/2"			
	Visible from hall call button			
X 4.10.5	Hoistway entrance Braille both jambs		X	NONE
	60 in. center line			
X 4.10.6	Door Protection	X		
	20 sec delay min	X		
X 4.10.7	Hoistway Door Timing 5 sec. min	X		
X 4.10.8	Car Door Delay 3 sec. min	X		
X 4.10.9	Floor Plan (Fig. 22)	X		EXISTING
	Floor plan exception 4.16(1)(k)(II)(3)(c)(II) applies? (48" x 48" min or equivalent access provided)	X		
	Door Opening 36" min	X		
X 4.10.10	Floor Surfaces comply with 4.5	X		
	1/4" max level	X		
	carpeting secured			N/A
X 4.10.11	Lighting 5fc min.	X		EMERG. NOT TESTED
X 4.10.12	Car Controls		X	
	Buttons 3/4" min. raised or flush	X		
	Braille		X	
	Visual Call Registered		X	
	Height 54" max. (side) 48" max (front)		X	
	Emergency buttons 35" min	X		
	Location front on center opening/ side on or front or side opening (fig 23 c and d)	X		
X 4.10.13	In-Car Position Indicator	X		
X 4.10.14	Emergency Communication		X	
	48" max		X	
	Bell	X		
	Handset cord 29" min	X		N/A NO PHONE INSTALLED
	Additional ICC requirements			
X 407.3.1	Hoistway Door horizontal opening	X		
X 407.4.6.2.2	Buttons arranged in ascending order	X		
X 407.4.9.2.1	PI audible vocal over 200 fpm	X		N/A

ADA CHECKLIST

Elevator: COOPER ELEV #4

Date 7/1/08

ADA ITEM #	DESCRIPTION	COMPLIANT ? YES	NO	NOTE
ADA STANDARDS 28CFR Part 36				
X 4.85.5(5)	Handrails 34" min 38" max to top		X	39"
X 4.10.1	Automatic Operation	X		
	Self Leveling within 1/2" at rated/ unrated load	X		
X 4.10.3	Hall Call Buttons		X	
	42" Center Line		X	
	3/4" min raised or flush	X		
	visual call registered		X	
	No object projects more than 4" below call station	X		
X 4.10.4	Hall Lanterns		X	NONE
	Passing audible 1 up / 2 dwn			
	72" min			
	Visual Element at least 2-1/2			
	Visible from hall call button			
X 4.10.5	Hoistway entrance Braille both jambs		X	NONE
	60 in. center line			
X 4.10.6	Door Protection	X		Safety edge exception 4.1.6(1)(k)(ii)(3)(c)(i)
	20 sec delay min			
X 4.10.7	Hoistway Door Timing 5 sec. min	X		
X 4.10.8	Car Door Delay 3 sec. min	X		
X 4.10.9	Floor Plan (Fig. 22)	X		EXISTING (36"D x 56"W)
	Floor plan exception 4.1.6(1)(k)(ii)(3)(c)(ii) applies? (48" x 48" min or equivalent access provided)	X		(36"D x 56"W) Equivalent protection 4.1.6(1)(k)(ii)(3)(c)(iii)
	Door Opening 36" min	X		
X 4.10.10	Floor Surfaces comply with 4.5	X		
	1/4" max level	X		
	carpeting secured			N/A
X 4.10.11	Lighting 5fc min.	X		EMERG. NOT TESTED
X 4.10.12	Car Controls		X	
	Buttons 3/4" min. raised or flush	X		
	Braille		X	
	Visual Call Registered		X	
	Height 54" max. (side) 48" max (front)		X	
	Emergency buttons 35" min		X	
	Location front on center opening/ side on or front or side opening (fig 23 c and d)	X		
X 4.10.13	In-Car Position Indicator	X		
X 4.10.14	Emergency Communication		X	
	48" max		X	
	Bell	X		
	Handset cord 29" min	X		N/A NO PHONE INSTALLED
Additional ICC requirements				
X 407.3.1	Hoistway Door horizontal opening	X		
X 407.4.6.2.2	Buttons arranged in ascending order	X		
X 407.4.9.2.1	PI audible vocal over 200 fpm	X		N/A

ADA CHECKLIST

Elevator: **HEWITT PASS ELEV # 5A**

Date 7/1/08

ADA ITEM #	DESCRIPTION	COMPLIANT ? YES	NO	NOTE
ADA STANDARDS 28CFR Part 36				
X 4.85.5(5)	Handrails 34" min 38" max to top		X	38"
X 4.10.1	Automatic Operation	X		
	Self Leveling within 1/2" at rated/ unrated load	X		
X 4.10.3	Hall Call Buttons		X	
	42" Center Line		X	
	3/4" min raised or flush	X		
	visual call registered	X		
	No object projects more than 4" below call station	X		
X 4.10.4	Hall Lanterns		X	NONE
	Passing audible 1 up / 2 dwn			
	72" min			
	Visual Element at least 2-1/2			
	Visible from hall call button			
X 4.10.5	Hoistway entrance Braille both jams		X	NONE
	60 in. center line			
X 4.10.6	Door Protection	X		
	20 sec delay min		X	CHECK ADJUSTMENT
X 4.10.7	Hoistway Door Timing 5 sec. min		X	CHECK ADJUSTMENT
X 4.10.8	Car Door Delay 3 sec. min		X	CHECK ADJUSTMENT
X 4.10.9	Floor Plan (Fig. 22)	X		EXISTING
	Floor plan exception 4.16(1)(k)(ii)(3)(c)(ii) applies? (48" x 48" min or equivalent access provided)	X		
	Door Opening 36" min	X		
X 4.10.10	Floor Surfaces comply with 4.5	X		
	1/4" max level	X		
	carpeting secured			N/A
X 4.10.11	Lighting 5fc min.	X		EMERG. NOT TESTED
X 4.10.12	Car Controls		X	
	Buttons 3/4" min. raised or flush	X		
	Braille		X	
	Visual Call Registered		X	
	Height 54" max. (side) 48" max (front)		X	
	Emergency buttons 35" min		X	
	Location front on center opening/ side on or front or side opening (fig 23 c and d)	X		
X 4.10.13	In-Car Position Indicator	X		
X 4.10.14	Emergency Communication		X	
	48" max		X	
	Bell	X		
	Handset cord 29" min	X		N/A NO PHONE INSTALLED
Additional ICC requirements				
X 407.3.1	Hoistway Door horizontal opening	X		
X 407.4.6.2.2	Buttons arranged in ascending order	X		
X 407.4.9.2.1	PI audible vocal over 200 fpm	X		N/A

ADA CHECKLIST

Elevator: HEWITT SRVC ELEV #5B

Date 7/1/08

ADA ITEM #	DESCRIPTION	COMPLIANT ? YES	NO	NOTE
<u>ADA STANDARDS 28CFR Part 36</u>				
X 4.85.5(5)	Handrails 34" min 38" max to top		X	39"
X 4.10.1	Automatic Operation	X		
	Self Leveling within 1/2" at rated/ unrated load	X		
X 4.10.3	Hall Call Buttons		X	
	42" Center Line		X	
	3/4" min raised or flush	X		
	visual call registered	X		
	No object projects more than 4" below call station	X		
X 4.10.4	Hall Lanterns		X	NONE
	Passing audible 1 up / 2 dwn			
	72" min			
	Visual Element at least 2-1/2			
	Visible from hall call button			
X 4.10.5	Hoistway entrance Braille both jambs		X	NONE
	60 in. center line			
X 4.10.6	Door Protection	X		
	20 sec delay min		X	CHECK ADJUSTMENT
X 4.10.7	Hoistway Door Timing 5 sec. min		X	CHECK ADJUSTMENT
X 4.10.8	Car Door Delay 3 sec. min		X	CHECK ADJUSTMENT
X 4.10.9	Floor Plan (Fig. 22)	X		EXISTING
	Floor plan exception 4.16(1)(k)(ii)(3)(c)(ii) applies? (48" x 48" min or equivalent access provided)	X		
	Door Opening 36" min	X		
X 4.10.10	Floor Surfaces comply with 4.5	X		
	1/4" max level	X		
	carpeting secured			N/A
X 4.10.11	Lighting 5fc min.	X		EMERG. NOT TESTED
X 4.10.12	Car Controls		X	
	Buttons 3/4" min. raised or flush	X		
	Braille		X	
	Visual Call Registered		X	
	Height 54" max. (side) 48" max (front)		X	
	Emergency buttons 35" min		X	
	Location front on center opening/ side on or front or side opening (fig 23 c and d)	X		
X 4.10.13	In-Car Position Indicator	X		
X 4.10.14	Emergency Communication		X	
	48" max		X	
	Bell	X		
	Handset cord 29" min	X		N/A NO PHONE INSTALLED
<u>Additional ICC requirements</u>				
X 407.3.1	Hoistway Door horizontal opening	X		
X 407.4.6.2.2	Buttons arranged in ascending order	X		
X 407.4.9.2.1	PI audible vocal over 200 fpm	X		N/A

ADA CHECKLIST

Elevator TYLER ELEV #6

Date 7/1/08

ADA ITEM #	DESCRIPTION	COMPLIANT ? YES	NO	NOTE
	<u>ADA STANDARDS 28CFR Part 36</u>			
X 4.85.5(5)	Handrails 34" min 38" max to top		X	39"
X 4.10.1	Automatic Operation	X		
	Self Leveling within 1/2" at rated/ unrated load	X		
X 4.10.3	Hall Call Buttons		X	
	42" Center Line		X	
	3/4" min raised or flush	X		
	visual call registered	X		
	No object projects more than 4" below call station	X		
X 4.10.4	Hall Lanterns		X	NONE
	Passing audible 1 up / 2 dwn			
	72" min			
	Visual Element at least 2-1/2			
	Visible from hall call button			
X 4.10.5	Hoistway entrance Braille both jambs		X	NONE
	60 in. center line			
X 4.10.6	Door Protection	X		
	20 sec delay min		X	CHECK ADJUSTMENT
X 4.10.7	Hoistway Door Timing 5 sec. min	X		
X 4.10.8	Car Door Delay 3 sec. min	X		
X 4.10.9	Floor Plan (Fig. 22)	X		EXISTING
	Floor plan exception 4.16(1)(k)(ii)(3)(c)(ii) applies? (48" x 48" min or equivalent access provided)	X		
	Door Opening 36" min	X		
X 4.10.10	Floor Surfaces comply with 4.5	X		
	1/4" max level	X		
	carpeting secured			N/A
X 4.10.11	Lighting 5fc min.	X		EMERG. NOT TESTED
X 4.10.12	Car Controls		X	
	Buttons 3/4" min. raised or flush	X		
	Braille		X	
	Visual Call Registered		X	
	Height 54" max. (side) 48" max (front)		X	
	Emergency buttons 35" min		X	
	Location front on center opening/ side on or front on side opening (fig 23 c and d)	X		
X 4.10.13	In-Car Position Indicator	X		
X 4.10.14	Emergency Communication		X	
	48" max		X	
	Bell	X		
	Handset cord 29" min	X		N/A NO PHONE INSTALLED
	<u>Additional ICC requirements</u>			
X 407.3.1	Hoistway Door horizontal opening	X		
X 407.4.6.2.2	Buttons arranged in ascending order	X		
X 407.4.9.2.1	PI audible vocal over 200 fpm	X		N/A

CAB RENOVATION UPGRADES:

The following opinion of probable costs for upgrades to the interior finishes of each of seven (7) elevators is based on standard finishes and assumes the retention of the existing elevator cab enclosure (shell). Interior finishes costs can vary widely based on the types and textures of finishes. In forming an opinion of the probable costs CNYEC has assumed the finishes and materials recently used at Seneca Hall will be similar to those used for the following cabs. Pictures of the typical finishes are included at the end of this section for general reference.

Notes:

OpCost for call fixtures have been included in this Opinion of Probable Cost, however the fixture costs were also included in the cost for controller upgrade. If controllers are replaced as part of an overall upgrade deduct the cost for fixtures as noted below.

OpCost for cab doors is not included in the probable cost. Cab doors can often be retained, however if the car doors are replaced a value is also noted below.

ELEVATOR #1: Sheldon

Existing Cab Finish: Applied Laminate

Existing Call Fixtures: Stainless Steel

Existing Dimensions: 4-Stop (Front and Rear) 6'-8"W x 5'-0"D x 8'-0"H

Opinion of Probable Cost: \$10,000

If controller is replaced deduct \$4,000

If car doors are replaced add \$6,000

ELEVATOR #2: Lanigan

Existing Cab Finish: Painted Steel Shell

Existing Call Fixtures: Stainless Steel

Existing Dimensions: 3-stop 6'-8"W x 4'-2"D x 8'-0"H

Opinion of Probable Cost: \$16,000

If controller is replaced deduct \$3,000

If car doors are replaced add \$3,000

ELEVATOR #3: Penfield

Existing Cab Finish: Painted steel shell
Existing Call Fixtures: Stainless steel
Existing Dimensions: 4-Stop 6'-8"W x 4'-3"D x 8'-0"H

Opinion of Probable Cost: \$16,000

If controller is replaced deduct \$4,000
If car doors are replaced add \$3,000

ELEVATOR #4: Cooper

Existing Cab Finish: Textured stainless steel
Existing Call Fixtures: Stainless steel
Existing Dimensions: 2-stop 4'-8"W x 3'-0"D x 7'-6"H

Opinion of Probable Cost: \$10,000

If controller is replaced deduct \$3,000
If car doors are replaced add \$3,000

ELEVATOR #5A: Hewitt Passenger

Existing Cab Finish: Painted steel shell
Existing Call Fixtures: Stainless steel
Existing Dimensions: 3-stop 6'-8"W x 4'-1"D x 8'-0"H

Opinion of Probable Cost: \$16,000

If controller is replaced deduct \$3,000
If car doors are replaced add \$3,000

ELEVATOR # 5B: Hewitt Service

Existing Cab Finish: Painted steel shell
Existing Call Fixtures: Stainless steel
Existing Dimensions: 3-stop 6'-8"W x 7'-6"D x 8'-0"H

Opinion of Probable Cost: \$17,000

If controller is replaced deduct \$3,000
If car doors are replaced add \$3,000

ELEVATOR #6: Tyler

Existing Cab Finish: Painted steel finish

Existing Call Fixtures: Stainless steel

Existing Dimensions: 3-stop 6'-8"W x 7'-8"D x 8'-0"H

Opinion of Probable Cost: \$17,000

If controller is replaced deduct \$3,000

If car doors are replaced add \$3,000

PICTURES FROM SENECA HALL





SUPPLEMENTAL REPORT
Oswego College
Elevator Upgrade Study
#003291G





