

0099

UNDERGRADUATE LIBRARY1402 WEST GREGORY DRIVE
URBANA, ILLINOIS 61801

SYSTEM CONDITION INDEX	BUILDING SYSTEM REPLACEMENT COST	BUILDING GROSS SQUARE FEET	NUMBER OF BUILDING STORIES	ORIGINAL YEAR OF CONSTRUCTION
.539	\$ 7,242,900	95,906	2	1969
PRIMARY BUILDING USE	CLASSROOMS / LIBRARY	BUILDING SURVEY DATE		2/7/2013
BUILDING SURVEY TEAM	CCJM: Josh Polasky (M), Stanley Panek (E)			

BUILDING DISCIPLINE REPLACEMENT COST SUMMARY

TRADE	EXPECTED REMAINING SERVICE LIFE				TOTAL (\$)	\$/GSF	PERCENT OF BUILDING TOTAL (%)
	POOR (\$) (1-5 YEARS)	FAIR (\$) (5-10 YEARS)	GOOD (\$) (10-20 YEARS)	EXCELLENT (\$) (20+ YEARS)			
MECHANICAL	1,549,000		1,185,300		2,734,300	28.51	37.8
PLUMBING	355,700	472,500			828,100	8.63	11.4
FIRE PROTECTION	187,400		5,100		192,500	2.01	2.7
ELECTRICAL	1,715,500	250,100	35,600	585,200	2,586,400	26.97	35.7
COMMUNICATIONS	96,200		805,300		901,500	9.40	12.4
TOTAL	3,903,700	722,600	2,031,400	585,200	7,242,900	75.52	
% OF TOTAL	53.9	10.0	28.0	8.1			
NO CRITICAL ITEMS IDENTIFIED FOR THIS BUILDING							
NOTE: Cost Estimates are Construction Costs are in 2013 dollars to Replace in Kind unless otherwise noted.							



M E C H A N I C A L D I S C I P L I N E R E P L A C E M E N T C O S T S U M M A R Y

SYSTEM/COMPONENT	EXPECTED REMAINING SERVICE LIFE				TOTAL
	POOR (1-5 YEARS)	FAIR (5-10 YEARS)	GOOD (10-20 YEARS)	EXCELLENT (20+ YEARS)	
<u>CHILLED WATER SYSTEM</u>					
Cooling System	153,700				153,700
<u>STEAM AND CONDENSATE SYSTEM</u>					
Steam and Condensate System			465,700		465,700
<u>SUPPLY AIR SYSTEM</u>					
Air Handling System	1,378,900				1,378,900
<u>TOILET EXHAUST SYSTEM</u>					
Toilet Exhaust Fan #1 and #2	16,400				16,400
<u>HVAC CONTROLS SYSTEM</u>					
HVAC Controls			719,600		719,600
MECHANICAL TOTAL	1,549,000		1,185,300		2,734,300
% OF TOTAL	56.7		43.3		



C O O L I N G S Y S T E M A S S E S S M E N T D A T A

Item ID	299838	
Description	Building was connected to campus chilled water loop in 2009. Piping and coils are original from 1969.	
Overall Condition	Poor	
Date Installed	1/1/1969	
Remaining Useful Life	Exceeded	Nominal Useful Life: 30 Years
Equipment Tag	-	
Manufacturer	-	
Model Number	-	
Serial Number	-	
Size/Capacity	-	
HP/kW	-	
Voltage	-	
Material	-	
Recommendation	-	
Replacement Cost	\$153,700	





Chilled water connection to AHU unit



Chilled water piping



S T E A M A N D C O N D E N S A T E S Y S T E M A S S E S S M E N T D A T A

Item ID	299854	
Description	Campus steam is reduced to 8 psi at pressure reducing station. From pressure reducing station steam is distributed to heating coils located within air handling unit heat exchanger for domestic water, cabinet heaters and unit heaters. There are (4) four duplex condensate pumps.	
Overall Condition	Good	
Date Installed	1/1/1995	
Remaining Useful Life	12 Years	Nominal Useful Life: 30 Years
Equipment Tag	CP-1,2,3,4	
Manufacturer	-	
Model Number	-	
Serial Number	-	
Size/Capacity	50 Gal and 10 Gal	
HP/kW	3 and 1/3	
Voltage	480 and 120V	
Material	Black steel piping	
Recommendation	-	
Replacement Cost	\$465,700	



STEAM AND CONDENSATE SYSTEM SURVEY PHOTOGRAPHS



Condensate pump



Condensate pump CP-2



Condensate pump CP-2 motor-3HP



Replaced(new) condensate pump



A I R H A N D L I N G S Y S T E M A S S E S S M E N T D A T A

Item ID	299835	
Description	(4) multi-zone AHUs with VFDs serve entire building and contain both cooling and heating coils. The AHUs are approximately 33,000 CFM each. AHU-4 and AHU- 5 serve East and North entry lobby and are 3100 and 5600 CFM respectively.	
Overall Condition	Poor	
Date Installed	1/1/1969	
Remaining Useful Life	Exceeded	Nominal Useful Life: 30 Years
Equipment Tag	AHU-1 through AHU-6	
Manufacturer	American Air Filter	
Model Number	-	
Serial Number	-	
Size/Capacity	-	
HP/kW	-	
Voltage	-	
Material	-	
Recommendation	Install filters on returns near café. Install vestibule at tunnel between Undergraduate and Main Libraries to prevent air-flow related pressure issues.	
Replacement Cost	\$1,378,900	
Comments	There is a strong air current flowing through the tunnel from the Main Library toward the Undergraduate Library which interferes with pressure in both buildings. Foot traffic through the tunnel is heavy and doors are constantly propped open. Coffee grounds from café area migrate into return ducts.	



A I R H A N D L I N G S Y S T E M S U R V E Y P H O T O G R A P H S



Typical supply fan



Another typical supply fan



Typical VFD



Typical return fan



T O I L E T E X H A U S T F A N # 1 A N D # 2 A S S E S S M E N T D A T A

Item ID	299858	
Description	Utility type fans serving toilet rooms.	
Overall Condition	Poor	
Date Installed	1/1/1969	
Remaining Useful Life	Exceeded	Nominal Useful Life: 30 Years
Equipment Tag	EF-8 and E-9	
Manufacturer	Peerless	
Model Number	-	
Serial Number	-	
Size/Capacity	1250 CFM	
HP/kW	1/2	
Voltage	277	
Material	-	
Recommendation	-	
Replacement Cost	\$16,400	





UIUC/UIS MEP CONDITION ASSESSMENT
UIUC PROJECT NUMBER U12151
CANNON DESIGN PROJECT NUMBER 4009.01

H V A C C O N T R O L S A S S E S S M E N T D A T A

Item ID	299848	
Description	Siemens DDC controls were installed in 2010 during project retrocommissioning. Existing thermostats were recalibrated. CO2 sensors were installed to control outside air quantities in common spaces. Occupancy schedule was implemented to control speed of fans related to building activities.	
Overall Condition	Good	
Date Installed	1/1/2010	
Remaining Useful Life	15 Years	Nominal Useful Life: 18 Years
Equipment Tag	-	
Manufacturer	Siemens	
Model Number	-	
Serial Number	-	
Size/Capacity	-	
HP/kW	-	
Voltage	-	
Material	-	
Recommendation	-	
Replacement Cost	\$719,600	





Standard thermostat



Compressor system



Compressor system angle #2



Building automation control panel

P L U M B I N G D I S C I P L I N E R E P L A C E M E N T C O S T S U M M A R Y

SYSTEM/COMPONENT	EXPECTED REMAINING SERVICE LIFE				TOTAL
	POOR (1-5 YEARS)	FAIR (5-10 YEARS)	GOOD (10-20 YEARS)	EXCELLENT (20+ YEARS)	
<u>DOMESTIC COLD WATER SYSTEM</u>					
Domestic Cold Water Piping		75,400			75,400
<u>PUMPS</u>					
Sewage Ejector Pumps	32,700				32,700
<u>DOMESTIC HOT WATER SYSTEM</u>					
Domestic Hot Water System		114,900			114,900
<u>PLUMBING FIXTURES SYSTEM</u>					
Plumbing Fixtures		177,400			177,400
<u>STORM DRAINAGE SYSTEM</u>					
Storm Drainage System	322,900				322,900
<u>SUB-SOIL DRAINAGE SYSTEM</u>					
Sub-Soil Drainage		104,700			104,700
PLUMBING TOTAL	355,700	472,500			828,100
% OF TOTAL	42.9	57.1			



D O M E S T I C C O L D W A T E R P I P I N G A S S E S S M E N T D A T A

Item ID	299839	
Description	6" pipe enters building serving domestic water and fire protection. 3" pipe and goes through meter and is routed to water heater and plumbing fixtures.	
Overall Condition	Fair	
Date Installed	1/1/1969	
Remaining Useful Life	10 Years	Nominal Useful Life: 50 Years
Equipment Tag	-	
Manufacturer	-	
Model Number	-	
Serial Number	-	
Size/Capacity	-	
HP/kW	-	
Voltage	-	
Material	Galvanized steel pipe	
Recommendation	-	
Replacement Cost	\$75,400	
Comments	Approximately 65 fixtures served.	



D O M E S T I C C O L D W A T E R P I P I N G S U R V E Y P H O T O G R A P H S



Domestic cold water piping and water meter



Water piping to water closets





UIUC/UIS MEP CONDITION ASSESSMENT
UIUC PROJECT NUMBER U12151
CANNON DESIGN PROJECT NUMBER 4009.01

D O M E S T I C H O T W A T E R S Y S T E M A S S E S S M E N T D A T A

Item ID	299840	
Overall Condition	Fair	
Date Installed	1/1/1969	
Remaining Useful Life	10 Years	Nominal Useful Life: 50 Years
Manufacturer	-	
Model Number	-	
Serial Number	-	
Size/Capacity	-	
HP/kW	-	
Voltage	-	
Material	-	
Recommendation	Verify size of circulating pump.	
Replacement Cost	\$114,900	
Comments	Hot water to West side of building is frequently unavailable; staff suspects circulation pump is undersized.	





Steam to hot water heat exchanger and hot water circulating pump



P L U M B I N G F I X T U R E S A S S E S S M E N T D A T A

Item ID	299852	
Description	Water closets, bathroom sinks, janitor sinks, and urinals throughout building. Approx. 64 fixtures.	
Overall Condition	Fair	
Date Installed	1/1/1969	
Remaining Useful Life	5 Years	Nominal Useful Life: 50 Years
Equipment Tag	-	
Manufacturer	-	
Model Number	-	
Serial Number	-	
Size/Capacity	-	
HP/kW	-	
Voltage	-	
Material	-	
Recommendation	-	
Replacement Cost	\$177,400	





Typical water closet



Men's bathroom fixtures



Typical bathroom sinks



S T O R M D R A I N A G E S Y S T E M A S S E S S M E N T D A T A

Item ID	299855	
Description	Large duplex sump pump located in basement mechanical room #100. Two 7.5 HP motors.	
Overall Condition	Poor	
Date Installed	1/1/1969	
Remaining Useful Life	5 Years	Nominal Useful Life: 50 Years
Equipment Tag	-	
Manufacturer	-	
Model Number	-	
Serial Number	-	
Size/Capacity	-	
HP/kW	7.5	
Voltage	480	
Material	Cast iron drainpipes and drains.	
Recommendation	-	
Replacement Cost	\$322,900	
Comments	Remaining useful life applicable for sump pump only. Piping has longer life. Oversized sump pump was installed in lowered area of basement mechanical room with the expectation that a below-ground building would have flooding issues, this has turned out to not be the case.	



S T O R M D R A I N A G E S Y S T E M S U R V E Y P H O T O G R A P H S



Area drain



Sump pump



Sump pump Pic #2



Sump pump Pic #3



S U B - S O I L D R A I N A G E A S S E S S M E N T D A T A

Item ID	299856	
Description	Drainage for this building is reported as good. Duplex sump pump is located in basement mechanical room #100 – two (2) 7.5 HP motors.	
Overall Condition	Fair	
Date Installed	1/1/1969	
Remaining Useful Life	10 Years	Nominal Useful Life: 50 Years
Equipment Tag	-	
Manufacturer	-	
Model Number	-	
Serial Number	-	
Size/Capacity	7.5 HP	
HP/kW	-	
Voltage	-	
Material	Cast iron pipes	
Recommendation	-	
Replacement Cost	\$104,700	
Comments	Staff reports deep puddles and water shedding problems on some areas of plaza above building, but no leaks or seepage problems.	





UIUC/UIS MEP CONDITION ASSESSMENT
UIUC PROJECT NUMBER U12151
CANNON DESIGN PROJECT NUMBER 4009.01

F I R E P R O T E C T I O N D I S C I P L I N E R E P L A C E M E N T C O S T S U M M A R Y

SYSTEM/COMPONENT	EXPECTED REMAINING SERVICE LIFE				TOTAL
	POOR (1-5 YEARS)	FAIR (5-10 YEARS)	GOOD (10-20 YEARS)	EXCELLENT (20+ YEARS)	
<u>FIRE ALARM SYSTEM</u>					
Fire Alarm System	187,400				187,400
Fire Suppression System			5,100		5,100
FIRE PROTECTION TOTAL	187,400		5,100		192,500
% OF TOTAL	97.3		2.7		



F I R E A L A R M S Y S T E M A S S E S S M E N T D A T A

Item ID	299845	
Description	Original fire alarm system was replaced in 1996 with an addressable type fire alarm system. New devices include horns, heat detectors, pull stations, smoke detectors, and strobes. The panel is located in the upper lobby.	
Overall Condition	Poor	
Date Installed	1/1/1996	
Remaining Useful Life	3 Years	Nominal Useful Life: 20 Years
Equipment Tag	Nor applicable	
Manufacturer	Pyrotronics/Siemens	
Model Number	MXL	
Serial Number	Not Applicable	
Size/Capacity	Not Applicable	
HP/kW	Not Applicable	
Voltage	12 V	
Material	Not Applicable	
Recommendation	Migration to XLS system	
Replacement Cost	\$187,400	
Critical Issues	Smoke detectors are outdated and should be replaced or refurbished.	



F I R E A L A R M S Y S T E M S U R V E Y P H O T O G R A P H S



Fire alarm panel



Horn and strobe



Typical pull station



Smoke detector



F I R E S U P P R E S S I O N S Y S T E M A S S E S S M E N T D A T A

Item ID	299846	
Description	Fire suppression system consists of standpipes and sprinklers throughout entire building. Fire protection water separates from domestic water in basement mechanical room and has backflow preventer. Sprinkler system tags indicate pressure and zone coverage area.	
Overall Condition	Good	
Date Installed	1/1/2009	
Remaining Useful Life	16 Years	Nominal Useful Life: 20 Years
Equipment Tag	-	
Manufacturer	-	
Model Number	-	
Serial Number	-	
Size/Capacity	3" Black steel piping to standpipes	
HP/kW	-	
Voltage	-	
Material	Black steel	
Recommendation	Replace doors from cafe to recess air exhaust pit.	
Replacement Cost	\$5,100	
Critical Issues	The sprinkler heads near café doors (going out to recess air exhaust pit) are at risk for freezing. Doors don't close properly and leak air.	





Fire protection piping



Fire protection zone with piping



Sprinkler head near café door



E L E C T R I C A L D I S C I P L I N E R E P L A C E M E N T C O S T S U M M A R Y

	SYSTEM/COMPONENT	EXPECTED REMAINING SERVICE LIFE				TOTAL
		POOR (1-5 YEARS)	FAIR (5-10 YEARS)	GOOD (10-20 YEARS)	EXCELLENT (20+ YEARS)	
<u>SUBSTATION</u>						
	Main Substation	8,100				8,100
<u>LOW VOLTAGE SYSTEM</u>						
	Low Voltage Distribution	548,200				548,200
<u>EMERGENCY POWER SYSTEM</u>						
	Emergency Power System	906,800				906,800
<u>GENERATOR</u>						
	Emergency Generator	45,400				45,400
<u>INTERIOR LIGHTING</u>						
	Interior lighting System				569,500	569,500
<u>EMERGENCY LIGHTING SYSTEM</u>						
	Emergency lighting System			35,600		35,600
<u>EXIT LIGHTING SYSTEM</u>						
	Exit lighting				15,700	15,700
<u>LIGHTING CONTROL SYSTEM</u>						
	Lighting Control System	207,000				207,000
<u>EXTERIOR LIGHTING SYSTEM</u>						
	EXTERIOR LIGHTING		250,100			250,100
	ELECTRICAL TOTAL	1,715,500	250,100	35,600	585,200	2,586,400
	% OF TOTAL	66.3	9.7	1.4	22.6	



M A I N S U B S T A T I O N A S S E S S M E N T D A T A

Item ID	299857	
Description	4160/277/480 V Substation with 500 KVA HAVI-DUTY Transformer, (6) 600 A air draw out breakers, Kirk interlock switches, 25,000 A short circuit, Metering Section and KWH Meter # 30-855-427.	
Overall Condition	Poor	
Date Installed	1/1/1969	
Remaining Useful Life	Exceeded	Nominal Useful Life: 40 Years
Equipment Tag	No tag	
Manufacturer	ITE	
Model Number	Not Available	
Serial Number	Custom Unit	
Size/Capacity	600/85 A switch/fuse	
HP/kW	Not Applicable	
Voltage	4160V	
Material	Copper bus	
Recommendation	Maintain and test of breakers per manufacturer recommendation.	
Replacement Cost	\$8,100	



M A I N S U B S T A T I O N S U R V E Y P H O T O G R A P H S



Main substation



Substation transformer



Med voltage switch



Metering section



L O W V O L T A G E D I S T R I B U T I O N A S S E S S M E N T D A T A

Item ID	299851	
Description	Load side of the substation consists of breakers serving 277/480 V distribution panelboards . 150 KVA transformer serves 120/208 Volt load. In 1989 an additional 225 KVA transformer and panelboards were installed to provide power to new receptacles located in reading area.	
Overall Condition	Poor	
Date Installed	1969 and 1989	
Remaining Useful Life	Exceeded for 1969 equipment. 15 Years left for 1989 equipment.	Nominal Useful Life: 40 Years
Equipment Tag	Not Applicable	
Manufacturer	Kinney	
Model Number	AJ,PRL1A,45	
Serial Number	Not Applicable	
Size/Capacity	Varies	
HP/kW	Not Applicable	
Voltage	120/208 V and 277/480 V	
Material	Cooper Bus	
Recommendation	-	
Replacement Cost	\$548,200	
Comments	Condition poor due to age of equipment.	





Distribution panelboard



120/208 V panelboard



Original paneboards



Transformer and distribution panelboard (1989)



E M E R G E N C Y P O W E R S Y S T E M A S S E S S M E N T D A T A

Item ID	299842	
Description	100 KW Generator serves as emergency power source during utility power loss. Distribution consists of 200 A transfer switches, two distribution panelboards , a transformer, and two lighting panelboards. Emergency lights, fire alarm, sump pumps, sewer pumps and elevators are connected to emergency power.	
Overall Condition	Poor	
Date Installed	1/1/1969	
Remaining Useful Life	Exceeded	Nominal Useful Life: 25 Years
Equipment Tag	Not Applicable	
Manufacturer	Not Applicable	
Model Number	Not Applicable	
Serial Number	Not Applicable	
Size/Capacity	200A	
HP/kW	Not Applicable	
Voltage	277/480V	
Material	Not Applicable	
Recommendation	-	
Replacement Cost	\$906,800	



E M E R G E N C Y P O W E R S Y S T E M S U R V E Y P H O T O G R A P H S



Emergency panelboard directory



Emergency generator



Emergency panelboard



E M E R G E N C Y G E N E R A T O R A S S E S S M E N T D A T A

Item ID	299847	
Description	Diesel generator and day tank (50 Gal) - located in Rm #144.	
Overall Condition	Poor	
Date Installed	1/1/1971	
Remaining Useful Life	Exceeded	Nominal Useful Life: 25 Years
Equipment Tag	Not Applicable	
Manufacturer	Onan	
Model Number	115DFC-4xR8/26971	
Serial Number	9709890970	
Size/Capacity	100 KW	
HP/kW	300	
Voltage	277/480 V	
Material	Not Applicable	
Recommendation	Replacement or reconditioning.	
Replacement Cost	\$45,400	
Comments	Poor condition is due to age only.	





Generator label



Generator and day Tank

I N T E R I O R L I G H T I N G S Y S T E M A S S E S S M E N T D A T A

Item ID	299849	
Description	Majority of fixtures are original 2x4 fluorescent lay-in type with acrylic prismatic diffuser. Lamp/ballast replacement was completed in 2010.	
Overall Condition	Excellent	
Date Installed	4/9/2010	
Remaining Useful Life	22 Years	Nominal Useful Life: 25 Years
Equipment Tag	Not Applicable	
Manufacturer	Not Applicable	
Model Number	No applicable	
Serial Number	Not Applicable	
Size/Capacity	Not Applicable	
HP/kW	Not Applicable	
Voltage	277 V	
Material	Not Applicable	
Recommendation	Replace with indirect type lighting at the end fixture life.	
Replacement Cost	\$569,500	



I N T E R I O R L I G H T I N G S Y S T E M S U R V E Y P H O T O G R A P H S



Reading area lighting



Library lighting



Lobby lighting



Mech room lighting



E M E R G E N C Y L I G H T I N G S Y S T E M A S S E S S M E N T D A T A

Item ID	299841	
Description	Emergency lighting consists of selected fixtures connected to emergency lighting panelboards. Approx. 10% of light fixtures are connected to emergency system. Generator provides power to emergency lighting during loss of utility power.	
Overall Condition	Good	
Date Installed	1/1/2010	
Remaining Useful Life	20 Years	Nominal Useful Life: 25 Years
Equipment Tag	Not Applicable	
Manufacturer	Not Applicable	
Model Number	Not Applicable	
Serial Number	Not Applicable	
Size/Capacity	Not Applicable	
HP/kW	Not Applicable	
Voltage	120V and 277 V	
Material	Not applicable	
Recommendation	-	
Replacement Cost	\$35,600	



E M E R G E N C Y L I G H T I N G S Y S T E M S U R V E Y P H O T O G R A P H S



Approx. 10% of general lighting is connected to
Emergency circuit



E X I T L I G H T I N G A S S E S S M E N T D A T A

Item ID	299843	
Description	LED Exit Sign	
Overall Condition	Excellent	
Date Installed	1/1/2009	
Remaining Useful Life	20 Years	Nominal Useful Life: 25 Years
Equipment Tag	Not Applicable	
Manufacturer	Not Available	
Model Number	Not Applicable	
Serial Number	Not Applicable	
Size/Capacity	Standard	
HP/kW	Not Applicable	
Voltage	277 V	
Material	Not Applicable	
Recommendation	-	
Replacement Cost	\$15,700	



E X I T L I G H T I N G S U R V E Y P H O T O G R A P H S



Typical exit sign



Sign at the door



Sign in reading area



L I G H T I N G C O N T R O L S Y S T E M A S S E S S M E N T D A T A

Item ID	299850	
Description	Two switches per floor control library area lighting. Control contactors are located within lighting panels. Exterior lighting is controlled by photocell and timers.	
Overall Condition	Poor	
Date Installed	1/1/1969	
Remaining Useful Life	Exceeded	Nominal Useful Life: 20 Years
Equipment Tag	Not Applicable	
Manufacturer	ASCO	
Model Number	Not Applicable	
Serial Number	Not Applicable	
Size/Capacity	100 A	
HP/kW	Not Applicable	
Voltage	277 V	
Material	Not applicable	
Recommendation	-	
Replacement Cost	\$207,000	
Comments	Condition poor due to age of equipment.	



L I G H T I N G C O N T R O L S Y S T E M S U R V E Y P H O T O G R A P H S



Switches for reading areas and circulation area 81



Lighting panelboard with contactor



E X T E R I O R L I G H T I N G A S S E S S M E N T D A T A

Item ID	299844	
Description	Exterior lighting was upgraded in 1993 to include 8 light pole fixtures in each Pavilion Entry and 20 wall type fixtures casted in planters walls.	
Overall Condition	Fair	
Date Installed	1/1/1993	
Remaining Useful Life	5 Years	Nominal Useful Life: 25 Years
Equipment Tag	Not Applicable	
Manufacturer	Not Applicable	
Model Number	Not Applicable	
Serial Number	Not Applicable	
Size/Capacity	Not Applicable	
HP/kW	Not Applicable	
Voltage	277V and 120 V	
Material	Not Applicable	
Recommendation	-	
Replacement Cost	\$250,100	





Plaza lighting



Ornamental poles



Canopy lighting



Planter wall light



COMMUNICATIONS DISCIPLINE REPLACEMENT COST SUMMARY

SYSTEM/COMPONENT	EXPECTED REMAINING SERVICE LIFE				TOTAL
	POOR (1-5 YEARS)	FAIR (5-10 YEARS)	GOOD (10-20 YEARS)	EXCELLENT (20+ YEARS)	
<u>DATA SYSTEM</u>					
Communication Infrastructure System			654,600		654,600
<u>CCTV SYSTEM</u>					
Security access Control System			150,700		150,700
<u>PAGING SYSTEM</u>					
Intercom /paging	96,200				96,200
COMMUNICATIONS TOTAL	96,200		805,300		901,500
% OF TOTAL	10.7		89.3		



C O M M U N I C A T I O N I N F R A S T R U C T U R E S Y S T E M A S S E S S M E N T D A T A

Item ID 301809

Description The building is fed with 12 strands of single mode fiber, multimode fiber and 200 copper pairs with each pair grounded and individually protected by a fuse/surge arrestor. Fiber and copper originate from Node #4. The building IDF is located in room 261E on the second level. Fiber distributes radially from the building IDF to hub rooms (telecommunication rooms) to within 100 meters of end-use equipment and lands at rack mounted fiber switches within the hub room.

Two hub rooms in the building were surveyed (the report lists three rooms, although only two were reviewed) - hub B in room 261E is located on the second level and feeds the west side of the building, hub C in room 253 is located on the second level and feeds the east side of the building. Each hub room is equipped with free standing racks (three racks in hub B and two racks in hub C) and wire management. The hub rooms have sprinkler protection. The hub rooms have dedicated free standing portable cooling systems with remote condensing units (Movin Cool Office Pro 24).

Outlet standards typically have 1" C stubbed to cable management (did not view above the ceiling). Standard outlet consists of two network cables and two data jacks. Station cable consists of Cat 6 and Cat 6e (Mohawk Advancenet). The building is typically equipped with WIFI throughout (coverage not noted).

Overall Condition Good

Date Installed UIUC network upgrade complete (date range 2006 to 2012)

Remaining Useful Life 20 Years Nominal Useful Life: 20 Years

Replacement Cost \$654,600



COMMUNICATION INFRASTRUCTURE SYSTEM SURVEY PHOTOGRAPHS



Building 99 Hub Room



Building 99 Data Rack Receptacles



Building 99 Hub Room Cooling System



Building 99 IDF



S E C U R I T Y A C C E S S C O N T R O L S Y S T E M A S S E S S M E N T D A T A

Item ID	299836	
Description	Not Available	
Overall Condition	Good	
Date Installed	1/1/2008	
Remaining Useful Life	Not Available	Nominal Useful Life: 20 Years
Equipment Tag	Security	
Manufacturer	Not Available	
Model Number	Not Available	
Serial Number	Not available	
Size/Capacity	Not Available	
HP/kW	Not Available	
Voltage	Not Applicable	
Material	Not Available	
Recommendation	-	
Replacement Cost	\$150,700	





Door security system



I N T E R C O M / P A G I N G A S S E S S M E N T D A T A

Item ID	299837	
Description	Paging System	
Overall Condition	Poor	
Date Installed	1/1/1970	
Remaining Useful Life	Exceeded	Nominal Useful Life: 20 Years
Equipment Tag	Not Applicable	
Manufacturer	Realistic	
Model Number	Not Applicable	
Serial Number	Not Applicable	
Size/Capacity	Not Applicable	
HP/kW	Not Applicable	
Voltage	Not Applicable	
Material	Not Applicable	
Recommendation	Poor rating is due to age of equipment, the system is functional.	
Replacement Cost	\$96,200	
Comments	Room with sound equipment was not accessible	





Paging Microphone



Typical speaker in Library Area



LEGACY ASSET DESCRIPTION: UNDERGRADUATE LIBRARY

The Undergraduate Library is a three level structure, with the two primarily occupied levels below grade. The third level, at grade, is primarily access and exit discharge. The building consists of mechanical and electrical rooms, building service storage, study rooms, administrative offices, library stack areas, a mercantile area, and conference rooms. The Life Safety Code classifies the building as Mixed Occupancy (part business and part assembly). Assembly occupancy is located on the upper level (Room 250 and 254) and the lower level (Room 150).

The Undergraduate Library has a manual and automatic fire alarm system. Manual pull stations are located at all exits in all levels and throughout Room 250 and 150. Automatic fire detection is located in the plaza level, upper level (Room 250, 251B, and 254), and lower level (Room 150). Occupant notification is by visual alarms and is located throughout all areas in all levels of the building. The fire alarm control panel for the building, located on the west plaza level vestibule, is a Cerebus Pytronics Model MXL.

A diesel fuel Onan emergency generator (located in Room 144) supplies emergency power to the lighting system.

The Undergraduate Library is a non-sprinklered building with a Class I standpipe system located in the upper and lower level. The two fire department connections are located on the northwest and southeast side of the building approximately 100 feet from the plaza vestibules.

OCCUPANT LOAD/EXITING

Plaza Level (LED): 35 occupants; 2 exits required (8 exits provided); 7" exit door width required (528" provided); door and corridor widths are sufficient for occupants served.

Upper Level: 537 occupants; three exits required (4 exits provided); the exit width including stairs/doors provides capacity for 793 occupants. Door and stair widths are sufficient for occupants served.

Second Floor: 432 occupants; two exits required (6 exits provided); the exit width including stairs/doors provides capacity for 1092 occupants. Door and stair widths are sufficient for occupants served.



UNDERGRADUATE LIBRARY LEGACY ASSESSMENT SUMMARY

Item ID	REQUIREMENT NUMBER	INSPECTION DATE	IDENTIFIED ISSUE	LEGACY VALUE	PERCENT COMPLETE	POOR	FAIR	CODE	TOTAL
GENERAL LEGACY ITEMS ITEMS									
304718	REQ-52093	10/8/2002	ADA: Lacking Detectable Warning Strips	15,700	0.0		15,700		15,700
304717	REQ-54614	10/8/2002	Doors: Replace Non ADA Compliant Hardware	123,500	0.0		123,500		123,500
304725	REQ-61276	10/8/2002	ADA Signage: Existing Signs are Not Braille Type	33,800	0.0		33,800		33,800
304714	REQ-42290	11/13/2006	Windows: Aged-Recondition	215,700	0.0	215,700			215,700
304713	REQ-42294	11/13/2006	Exterior Wall: Re-point & Repair Brick	116,500	0.0	116,500			116,500
304712	REQ-51787	11/13/2006	Exterior Doors: Aged	11,700	0.0	11,700			11,700
304716	REQ-52334	11/13/2006	Roof: Copestone Repair	21,100	0.0	21,100			21,100
304726	REQ-61313	12/1/2006	Storm Drain: Building Drainage Poor	956,300	0.0		956,300		956,300
304719	REQ-56592	3/11/2005	Means of Egress: Lower Level Stair Discharge	1,100	0.0	1,100			1,100
304721	REQ-61299	11/15/2006	Conveying: Dumbwaiter Aged and Worn	68,100	0.0	68,100			68,100
304720	REQ-42241	11/13/2006	Flooring- Repair Terrazo Floor 1	14,700	0.0	14,700			14,700
304715	REQ-42293	11/13/2006	Roof - Leak	89,600	0.0	89,600			89,600
GENERAL LEGACY ITEMS TOTALS				1,667,900	0.0	538,500	1,129,400		1,667,900
MEP LEGACY ITEMS ITEMS									
304724	REQ-51785	10/8/2002	ADA: Non-Compliant Payphones	14,200	0.0		14,200		14,200
304722	REQ-54369	10/8/2002	ADA: Restrooms ADA Non-Compliant	69,700	0.0		69,700		69,700
304723	REQ-52200	1/16/2007	Storm Drainage: Leaks to Interior	746,100	0.0	746,100			746,100
MEP LEGACY ITEMS TOTALS				829,900	0.0	746,100	83,900		829,900
TOTALS				2,497,800	0.0	1,284,600	1,213,300		2,497,800
% OF LEGACY VALUE						51.4	48.6		100.0
<p>Poor = VFA Priorities 1,2, and 3; Fair – VFA Priority 4; and Code – VFA Priority 5</p>									



L E G A C Y A S S E S S M E N T D A T A : R E Q - 5 1 7 8 5

Date Inspected	10/8/2002
Description	There are a number of payphones in the building. None of the installations are ADA compliant and there are no TTY units as required per ADAAG 4.1.3 .
Requirement Category	Accessibility
Requirement Name	ADA: Non-Compliant Payphones (Legacy)
Condition	Fair
Percent Complete	0.0
Recommendation	Install ADA compliant payphones. One each in central location in general circulation area per floor (2) with signage indicating location of ADA payphones A difficulty factor of 20% has been applied to represent typical costs associated with working in older buildings or confined areas, such as higher staging costs, additional demolition, addition physical and equipment resources and may not account for project specific items such as timing requirements, hidden conditions, and the organizing of multiple deficiencies corrections where issues other than costs are the prime considerations.
Estimated Cost	14,161.00 Estimated Remaining Cost: 14,161.00

L E G A C Y A S S E S S M E N T D A T A : R E Q - 5 2 0 9 3

Date Inspected	10/8/2002
Description	Stairs and hazardous vehicular areas are required to have a detectable warning surface per ADAAG 4.29.4 and 4.29.5
Requirement Category	Accessibility
Requirement Name	ADA: Lacking Detectable Warning Strips (Legacy)
Condition	Fair
Percent Complete	0.0
Recommendation	ADAAG 4.29.4 & 5 require a detectable warning strip at stairs and vehicular entrance areas. At stair landings install adhesive detectable strips. At sidewalks, saw cut reliefs per ADAAG 4.29.2. A difficulty factor of 20% has been applied to represent typical costs associated with working in older buildings or confined areas, such as higher staging costs, additional demolition, addition physical and equipment resources and may not account for project specific items such as timing requirements, hidden conditions, and the organizing of multiple deficiencies corrections where issues other than costs are the prime considerations.
Estimated Cost	15,705.00 Estimated Remaining Cost: 15,705.00



L E G A C Y A S S E S S M E N T D A T A : R E Q - 5 4 3 6 9

Date Inspected 10/8/2002

Description ADAAG 4.1.3 (11) requires that if toilet facilities are provided then each common use toilet shall be wheelchair handicapped accessible. The common restrooms are not all handicapped accessible per UFAS, ADAAG, and State of Illinois Accessibility requirements. They must be in compliance with ADA Section 4 and 9 - 9.1.1. and Illinois Accessibility Codes.

Requirement Category Accessibility

Requirement Name ADA: Restrooms ADA Non-Compliant (Legacy)

Condition Fair

Percent Complete 0.0



Recommendation Existing fixtures in restrooms should be replaced with UFAS, ADAAG compliant sinks, blade faucets, toilets, grab bars etc. In addition, remaining fixtures, in some cases made partially handicapped accessible, are either too old or should be replaced with water saving devices. Architectural and mechanical work includes repositioning of water closets and/or wall partitions to accommodate handicap accessibility.

Mens Room 84: water closet centerline, grab bars, urinal height, sink and faucet, pipe insulation, mirror height, accessible reach, door width, petition removal and reset, new accessories;

Mens Room 103 HP: urinal height, pipe insulation;

Mens Room 159: water closet, urinal height, sink and faucet, pipe insulation, mirror height, accessible reach, door width, petition removal and reset, new accessories,

Mens Room 203: water closet, urinal height, sink and faucet, pipe insulation, mirror height, accessible reach, door width, petition removal and reset, new accessories,

Mens Room 253: water closet, urinal height, sink and faucet, pipe insulation, mirror height, accessible reach, door width, petition removal and reset, new accessories,

Mens Room 303: water closet centerline, urinal height, sink and faucet, pipe insulation, mirror height, accessible reach, door width, petition removal and replacement (rusting), new accessories,

Mens Room 353: water closet, urinal height, sink and faucet, pipe insulation, mirror height, accessible reach, door width, petition removal and reset, new accessories,

Mens Room 435: water closet, grab bars, sink and faucet, pipe insulation, mirror height, accessible reach, door width, petition removal and reset, new accessories,

Ladies Room 80A; water closet centerline, grab bars, sink and faucet, pipe insulation, mirror height, accessible reach, door width, petition removal and reset, new accessories,

Ladies Room 129; water closet centerline, grab bars, sink and faucet, pipe insulation, mirror height, accessib

Estimated Cost 69,699.00 Estimated Remaining Cost: 69,699.00



L E G A C Y A S S E S S M E N T D A T A : R E Q - 5 4 6 1 4

Date Inspected	10/8/2002	
Description	Interior doors generally have knob style hardware which should be replaced with lever type hardware in accordance with ADA Section 4.26.	
Requirement Category	Accessibility	
Requirement Name	Doors: Replace Non ADA Compliant Hardware (Legacy)	
Condition	Fair	
Percent Complete	0.0	
Recommendation	<p>Replace hardware on Accessible Doors in compliance with ADAAG Section 4.13.9 Door Hardware.</p> <p>A difficulty factor of 20% has been applied to represent typical costs associated with working in older buildings or confined areas, such as higher staging costs, additional demolition, addition physical and equipment resources and may not account for project specific items such as timing requirements, hidden conditions, and the organizing of multiple deficiencies corrections where issues other than costs are the prime considerations.</p>	
Estimated Cost	123,546.00	Estimated Remaining Cost: 123,546.00

L E G A C Y A S S E S S M E N T D A T A : R E Q - 6 1 2 7 6

Date Inspected	10/8/2002	
Description	The signs, which designate permanent rooms and spaces, do not comply with requirements for raised or brailled characters, mounting locations or heights. See BOCA section 1007.5.4 under room identification and ADAAG section 16-4.1.2(7).	
Requirement Category	Accessibility	
Requirement Name	ADA Signage: Existing Signs are Not Braille Type (Legacy)	
Condition	Fair	
Percent Complete	0.0	
Recommendation	<p>Add or replace room signs to comply with BOCA and ADAAG regulations. Each sign is approximately \$75.00 x the number of rooms. Note: Type of sign selected for budgetary purposes only.</p> <p>A difficulty factor of 20% has been applied to represent typical costs associated with working in older buildings or confined areas, such as higher staging costs, additional demolition, addition physical and equipment resources and may not account for project specific items such as timing requirements, hidden conditions, and the organizing of multiple deficiencies corrections where issues other than costs are the prime considerations.</p>	
Estimated Cost	33,836.00	Estimated Remaining Cost: 33,836.00



L E G A C Y A S S E S S M E N T D A T A : R E Q - 4 2 2 9 0

Date Inspected	11/13/2006
Description	The windows are operable aluminum framed with single glazed, non-insulating glass. These units are in poor condition due to age, deteriorated sealant and glazing compound, some water infiltration, and peeling paint. Many of the windows leak air and water and exhibit frame deterioration. The building is considered architecturally significant and replacement of the windows is not a viable option. Therefore the windows should be scraped, reglazed as necessary and repainted.
Requirement Category	Integrity
Requirement Name	Windows: Aged-Recondition (Legacy)
Condition	Poor
Percent Complete	0.0
Recommendation	This building is considered historically significant. The existing metal framed windows can not be replaced and must be reconditioned. Frames should be blasted, primed, and painted. Glass should be replaced in the existing sash with modern glass to look like the original. Allowance for damaged trim and sashes. A difficulty factor of 10% has been applied to represent typical costs associated with working in older buildings or confined areas, such as higher staging costs, additional demolition, additional physical and equipment resources and may not account for project specific items such as timing requirements, hidden conditions, and the organizing of multiple deficiencies corrections where issues other than costs are the prime considerations.
Estimated Cost	215,678.00 Estimated Remaining Cost: 215,678.00
Action Date	11/13/2009



L E G A C Y A S S E S S M E N T D A T A : R E Q - 4 2 2 9 4

Date Inspected	11/13/2006
Description	Within the courtyards several of the mortar joints in the exterior masonry walls have aged to a point where they appear porous and ineffective in repelling moisture. Upon field inspection much of the tuck-pointing appears to be deteriorating and a section of wall at the northeast corner appears to have been damaged by an impact. This has left the wall in an unsafe condition and needs to be corrected. These joints have exceeded their designed life expectancy and the mortar should be replaced and sealed.
Requirement Category	Integrity
Requirement Name	Exterior Wall: Re-point & Repair Brick (Legacy)
Condition	Poor
Percent Complete	0.0
Recommendation	Clean, repair and tuckpoint all exterior walls. Coordinate with window replacement to avoid masking all windows. A difficulty factor of 10% has been applied to represent typical costs associated with working in older buildings or confined areas, such as higher staging costs, additional demolition, addition physical and equipment resources and may not account for project specific items such as timing requirements, hidden conditions, and the organizing of multiple deficiencies corrections where issues other than costs are the prime considerations.
Estimated Cost	116,535.00 Estimated Remaining Cost: 116,535.00
Action Date	11/13/2007

L E G A C Y A S S E S S M E N T D A T A : R E Q - 5 1 7 8 7

Date Inspected	11/13/2006
Description	The exterior door shows signs of extreme wear and tear. An excessive amount of maintenance has been required to keep the doors in operation. These units have exceeded their design life expectancy and should be replaced. All are missing emergency egress hardware and ADA compliance. See correction for locations.
Requirement Category	Integrity
Requirement Name	Exterior Doors: Aged (Legacy)
Condition	Poor
Percent Complete	0.0
Recommendation	Replace exterior doors along the northwest and south west courtyards. Replace all doors, hardware, and weather-stripping with insulated hollow metal doors and new metal frames.
Estimated Cost	11,687.00 Estimated Remaining Cost: 11,687.00
Action Date	11/13/2007



L E G A C Y A S S E S S M E N T D A T A : R E Q - 5 2 2 0 0

Date Inspected	1/16/2007
Description	The plaza storm drainage along the south end appears to be leaking into the interior space. Repairs and sealing to the drains in needed.
Requirement Category	Integrity
Requirement Name	Storm Drainage: Leaks to Interior (Legacy)
Condition	Poor
Percent Complete	0.0
Recommendation	Inspect and repair the storm water trench drains along the south and north ends of the plaza for existing leaks and potential leak spots. Repair up to cost of replacement.
Estimated Cost	746,070.00 Estimated Remaining Cost: 746,070.00
Action Date	1/16/2010

L E G A C Y A S S E S S M E N T D A T A : R E Q - 5 2 3 3 4

Date Inspected	11/13/2006
Description	The limestone copestone around the perimeter of the building roofline is in need of sealant at the joints. Coordinate this repair with possible repairs or cleaning of the copestone.
Requirement Category	Integrity
Requirement Name	Roof: Copestone Repair (Legacy)
Condition	Poor
Percent Complete	0.0
Recommendation	Remove the existing sealant by scrapping and replace with new butyl type sealant. (include locations) A difficulty factor of 10% has been applied to represent typical costs associated with working in older buildings or confined areas, such as higher staging costs, additional demolition, addition physical and equipment resources and may not account for project specific items such as timing requirements, hidden conditions, and the organizing of multiple deficiencies corrections where issues other than costs are the prime considerations.
Estimated Cost	21,133.00 Estimated Remaining Cost: 21,133.00
Action Date	11/13/2009



L E G A C Y A S S E S S M E N T D A T A : R E Q - 6 1 3 1 3

Date Inspected	12/1/2006
Description	<p>Foundation leaks and basement / ground floor damage has been observed and reported to be caused by localized flooding due to inadequate storm water drainage around the building.</p> <p>In addition this flooding around the building during storms has created hazardous conditions for students and staff members on the walkways.</p> <p>At the request of the facilities planning office the action provided is an approximation for the piping and surge reservoir required for the quick collection and controlled release of storm water to the City Storm system. A comprehensive Civil Engineering design and review is required to provide an actual resolution to the storm drainage issues.</p>
Requirement Category	Integrity
Requirement Name	Storm Drain: Building Drainage Poor (Legacy)
Condition	Fair
Percent Complete	0.0
Recommendation	<p>Improve the storm drainage system for the building and its connection to the primary storm drainage system around the Champaign / Urbana campus main quad. Consideration should be made to insure proper drainage of the building roof and immediate surrounding site (25 feet) and the water flow that is expected during the 24 hour rainfall in a 100 year storm.</p> <p>This estimate is for budgetary purposes only and not intended for contract review.</p> <p>example: Building SF = 111,000 with 3 stories = 37,000 SF foot print, plus immediate site 25 ft around the 750 foot perimeter = 19,000 SF for total drainage 56,000 SF with Rain fall of approximately 6.5 inches per 24 hour 100 year storm = 30,000 cubic feet or 230,000 gallons per day. (7.48gal/ft3)</p> <p>Estimated excavation for piping is 100 ft from bldg and 250 feet from street storm main.</p>
Estimated Cost	956,308.00 Estimated Remaining Cost: 956,308.00



L E G A C Y A S S E S S M E N T D A T A : R E Q - 5 6 5 9 2

Date Inspected	3/11/2005
Description	There exists stairs, Stair 4 and 1 located on the lower level, that do not discharge to the level of exit discharge but to the upper level. This is not compliant with NFPA 101 Section 7.1.3.2.2.
Requirement Category	Life Safety
Requirement Name	Means of Egress: Lower Level Stair Discharge (Legacy)
Condition	Poor
Percent Complete	0.0
Recommendation	Install "NO EXIT" signs on doors for aforementioned stairs. Lower level has adequate number of required exits without this capacity. Adjustment factor of 3.0 used to account for additional costs typically associated with retrofit work, working with existing construction, limited-access conditions, and/or small size jobs (less than \$1,000).
Estimated Cost	1,114.00 Estimated Remaining Cost: 1,114.00
Action Date	3/11/2006

L E G A C Y A S S E S S M E N T D A T A : R E Q - 6 1 2 9 9

Date Inspected	11/15/2006
Description	The dumbwaiter used for book movement is aged and worn. At the time of the VFA reassessment it appeared to be out of service. Repair or replacement should be scheduled.
Requirement Category	Obsolescence
Requirement Name	Conveying: Dumbwaiter Aged and Worn (Legacy)
Condition	Poor
Percent Complete	0.0
Recommendation	Repair up to the cost of replacement. If no longer needed the unit should be removed as abandoned equipment.
Estimated Cost	68,092.00 Estimated Remaining Cost: 68,092.00
Action Date	11/15/2009



L E G A C Y A S S E S S M E N T D A T A : R E Q - 4 2 2 4 1

Date Inspected	11/13/2006
Description	The terrazzo floor in the ground floor foyer area is cracked and deteriorated. Repairs are warranted.
Requirement Category	Reliability
Requirement Name	Flooring- Repair Terrazo Floor 1 (Legacy)
Condition	Poor
Percent Complete	0.0
Recommendation	Repair or replace approximately 100 sq feet of terrazzo flooring on the foyer of the 1st floor.
Estimated Cost	14,692.00 Estimated Remaining Cost: 14,692.00
Action Date	11/13/2011

L E G A C Y A S S E S S M E N T D A T A : R E Q - 4 2 2 9 3

Date Inspected	11/13/2006
Description	An active leak was observed in the library offices coming from where the pavers an drainage system adjoin. Resealing this section is warranted.
Requirement Category	Reliability
Requirement Name	Roof - Leak (Legacy)
Condition	Poor
Percent Complete	0.0
Recommendation	The roof (pavers) in the southwest corner of the library above Room 243 requires resealing due to an active leak. Recommend removing drainage system and reseal concrete beneath pavers.A difficulty factor of 10% has been applied to represent typical costs associated with working in older buildings or confined areas, such as higher staging costs, additional physical and equipment resources and may not account for project specific items such as timing requirements, hidden conditions, and the organizing of multiple deficiencies corrections where issues other than costs are the prime considerations.
Estimated Cost	89,579.00 Estimated Remaining Cost: 89,579.00
Action Date	11/13/2007

