

FACILITY AUDIT REPORT  
COCKINS HALL, Bldg 063  
FEBRUARY 16, 1993

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**EXECUTIVE SUMMARY AND PROJECT LIST FOR COCKINS HALL**

Cockins Hall is in good condition, structurally, but the building mechanical systems are worn out and building finishes are out dated. The windows were replaced in 1991 and are in good condition. The exterior masonry should be cleaned and sealed. Most building systems have reached the age and state where replacement or upgrading is required. The roof is functioning adequately at this point but has exceeded its life expectancy and should be replaced in the near future. The elevator does not meet today's standards and should be replaced.

The Department of Physical Facilities commissioned an evaluation of the mechanical and electrical systems of the building in February of 1990 by Robert H. Fuller and Associates. The study recommended replacement of the existing plumbing system including the domestic and heating hot water system. It went on to recommend that the existing, disjointed, aging HVAC systems be replaced with a central system. It also recommended that the electrical system be expanded to accommodate additional user demand. Energy conservation projects recommended included adding double doors to the west entrance and insulating the attic. The projects recommended by this study were all proposed by the Department of Physical Facilities within its Repair and Renovation Program but have not been funded as yet. The building condition audit has confirmed that the deficiencies identified in this study still exist.

**PROPOSED MAINTENANCE PROJECTS:**

<b>A. Corrective Maintenance Projects:</b>	<b>Control #</b>
1. Replace domestic plumbing system....\$ 88,000	* 1353
2. Replace hot water heating system.....201,650	** 1354
3. Renovate restroom finishes.....34,500	
4. Replace elevator.....180,000	* 1691
5. Clean and reseal masonry, replace sealants..... 54,000	
<b>Sub Total</b>	<b>\$558,150</b>
<b>B. Building Improvement/Addition Project:</b>	
1. Install new central HVAC for entire building.....\$1,230,500	** 1355
2. Increase electrical distribution system capacity.....200,500	* 1356
3. Modernize exit and emergency lighting 55,000	* 1357
4. Insulate attic.....15,000	* 1358
5. Install draft barrier at west entr....18,000	* 1359
<b>Sub Total</b>	<b>\$1,519,000</b>
<b>C. Projected (over the next 5 yrs) Component Replacement Projects:</b>	
1. Replace copper roof.....\$233,000	
<b>Sub Total</b>	<b>\$ 233,000</b>

**Total cost for estimated projects = \$ 2,310,150**

\* These projects are currently on our departmental project list as proposed.

\*\* These projects are currently proposed on our department project list at lower estimated costs.

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GENERAL BUILDING INFORMATION

COCKINS HALL #063

BUILDING ADDRESS: 1958 NEIL AVENUE

GROSS SQ. FT.: 60,454

NET ASSIGNABLE SQ. FT.: 38,052

MECHANICAL/CUSTODIAL AREA SQ. FT.: 5,319

YEAR OF CONSTRUCTION: 1929

YEAR OF LAST RENOVATION: 1971

NUMBER OF STORIES/BASEMENT: 4 STORIES AND A BASEMENT

AIR CONDITIONING (Percentage): 80%

CURRENT USE: OFFICES, CLASSROOMS AND LABS FOR MATH, STATISTICS AND GEODETIC SCIENCES DEPARTMENTS

TYPE OF CONSTRUCTION: CAST-IN-PLACE STRUCTURE WITH MASONRY VENEER

ESTIMATED REPLACEMENT COST: \$7,751,000 \*

WHEELCHAIR ACCESSIBILITY: BUILDING IS ACCESSIBLE VIA A RAMP LOCATED ON THE EAST SIDE OF THE BUILDING. THE ELEVATOR IS NOT LARGE ENOUGH TO ACCOMMODATE A WHEELCHAIR. THE BASEMENT AND FIRST FLOORS ARE ACCESSIBLE FROM THE MATH BUILDING.

OVERALL BUILDING CONDITION: MINOR REHABILITATION \*\*

NUMBER OF EXIT STAIRWAYS: TWO

\* Replacement Cost assigned November, 1991 by The Office of Campus Planning and Space Utilization.

\*\* Office of Campus Planning and Space Utilization C-1 Report Condition Code.

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**BUILDING SYSTEMS INFORMATION**

COCKINS HALL #063

**HEATING:**

Source UNIVERSITY POWER PLANT

Type Heating System HOT WATER

Steam (Line size, valve location) 1-1/2" SUPPLY, 3/4" RETURN IN TUNNEL

Building Htg Water (line size, valve location) 8" SUPPLY & RETURN TUNNEL

**VENTILATION SYSTEM:**

MULTIZONE WITH TR, 2 DX SYSTEMS, WINDOW AIR CONDITIONERS

**COOLING:**

Bldg % 80 Chillers 40 TON RECIPROCATING CARRIER UNIT - 1972

Window Units 48 Thru-the-wall 3 Direct exp. units 3

**HVAC CONTROL SYSTEM:** BARBER-COLEMAN (ELECTRIC AND PNEUMATIC)

**ELECTRIC:** Source Size(KVA) Primary/Secondary Switchgear & Main Disc. (Rm)

1. BUCKEYE(PGN9/PGS3) 750 13,200/(208/120) VAULT ON WEST SIDE OF BLDG

**PLUMBING:**

Water (size, valve location) 3" - RM 027

Gas (size, valve location) 1-1/2" EAST TUNNEL

Domestic Hot Water (size, valve location) 4" SUPPLY, 2-1/2" RET., TUNNEL

Compressed Air (size, location) 2", EAST - WEST TUNNEL

**SEWERS:** Storm 0 Sanitary 0 Combination 1 @ 5", 1 @ 10"

**METERS:**

Gas (size, location) N/A

Water (size, location) N/A

Electric (size, location) RM 028M

**ALARM SYSTEMS:**

Fire Alarm YES Panel Location RM 023, MATH BUILDING

Fire Pump NO Pump Location N/A

Sprinklers NO Panel Location N/A

Other Alarms NONE

**ELEVATORS:**

Number ONE Type (passenger, freight) PASSENGER

Manufacturer OTIS Size 1000 LB CAPACITY, 39" X 32"

**EMERGENCY GENERATOR:** Size N/A Location N/A

**KEY BOX LOCATION:** INSIDE DOOR AT DOCK AT MATH BUILDING

**ASBESTOS SURVEY (1986):**

LAYERED PAPER AND PREFORMED BLOCK INSULATION ON PIPING THROUGHOUT THE BUILDING.

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## COCKINS HALL NARRATIVE

### HISTORY

Cockins Hall was completed in 1929. Originally built to house the Pharmacy and Microbiology Departments, it contained classrooms and laboratories. In 1971, the building was remodeled. The laboratory plumbing fixtures and the lines servicing them were removed. The electrical system was updated, and the building was converted to a classroom and office building. Air conditioning was added to the fourth floor.

Several single zone air conditioning systems have been installed throughout the building since the remodeling. The facility now contains offices of the Mathematics, Statistics and the Geodetic Sciences and Surveying Departments and a few classrooms and computer labs.

### PRIMARY SYSTEMS

Cockins Hall has a reinforced concrete frame. The exterior is composed of brick, limestone, and concrete. The roof consists of copper sheathing on a wooden deck resting on steel trusses. There are four stories and a basement in the building. The structure appears to be in good condition. There were no signs of structural stress or deflection other than some old, stable cracks in the basement hallway floor.

The exterior brick and limestone should be cleaned and resealed. The building sealants are drying out and are cracked requiring replacement. The original windows in Cockins Hall were replaced with single-hung thermal break windows throughout in 1991. The newer windows operate easily for the most part and fit the openings well.

The roof of Cockins Hall is covered with copper sheathing that was installed when the building was constructed. Many of its seams are covered with mastic. There appears to be a leak on the east side of the roof below an area where a vent had been removed. We observed a tarp hung below the patch with a bucket to catch water. The stairway walls exhibit some damage to the plaster and paint at the ceiling from roof leaks in this area. The wooden decking below the roof covering appears to be in good condition. The roof is now 64 years old and should be replaced within the next five to ten years.

### SECONDARY SYSTEMS

The original interior partitions are plastered concrete block. The interior doors and hardware are original for the most part and are showing their age. The fire doors at the stairways are worn and require repairs and hardware replacement in some cases. Wall surfaces require new paint in several areas and the tile in some of the restrooms has reached an age where replacement is required. Cracks and missing plaster are evident in the south stairway.

Floor finishes range from terrazzo at the first floor and in some of the restrooms to cut stone and vinyl tile in the other hallways. Carpeting can be found in departmental areas.

Most of the hallway ceilings consist of the original plaster. The ceiling above the south stairwell is cracked and there is some missing plaster. The painted hallway ceilings generally require new paint. A suspended acoustical tile ceiling was installed in the fourth floor hallway during the renovation in 1972. The grid is now very yellow and the ceiling should be cleaned.

## SERVICE SYSTEMS

The building has one elevator which cannot accommodate a wheelchair and does not meet any ADA requirements. It is original and the doors are subject to constant problems. The Department of Physical Facilities has proposed a project to add a modern elevator to the building. Placement of a new elevator will require relinquishing some existing space by the current building occupants. As a result, a new elevator should be not be installed prior to a whole-building renovation.

The building is served by several HVAC systems including an electric terminal reheat system which serves the fourth floor. The fourth floor system was reported to be aging and unreliable. The electric reheats are not energy efficient. There are three thru-wall units and a large number of window air conditioners located throughout the building to provide local cooling and augment the larger systems. There are several smaller department-owned direct expansion systems in various locations throughout the building.

Building heating is supplied by a heating hot water radiation system. The system is original and is in poor condition requiring complete replacement.

The plumbing system is original and has reached the end of its useful life. The restrooms require new fixtures and the remaining supply system should be replaced along with the complete renovation of the restroom finishes.

## ELECTRICITY

The building transformer has a primary voltage of 13,200 volts, secondary voltage of 208Y/120 volts and a 750 KVA capacity. Physical Facilities Utility Division records indicate that peak demand is approximately 50% of capacity. Physical Facilities Utility Division personnel report that transformer capacity is more than adequate for any future use of the building.

Most of the building was rewired and additional circuits were provided in the 1972 renovation. Fluorescent lights were also installed at that time. There is little to no expansion capability left in most of the existing panels.

## SAFETY STANDARDS

The building is equipped with lighted exit signs, portable fire extinguishers, a standpipe system and firehose cabinets. An annunciator is located in the Math Building that serves both Cockins Hall and the Math Building. The building is equipped with one elevator that is too small to accommodate wheelchairs.

## ASBESTOS

The Ohio Board of Regents Facilities Asbestos Inspection and Risk Assessment Program's report: Inventory of Friable Asbestos-Containing Materials in Buildings of the Ohio State University (Main and Branch Campuses) and Recommendations for Corrective Action by PEI Associates, September 1986, identifies asbestos containing materials in pipe insulation throughout the building. There were no records of asbestos abatement in the building.

## BUILDING PERIMETER

The sidewalks and curbs along the west side of the building require attention. We observed that there are several areas of lawn requiring reseeding and the

shrubby require trimming. The caulking on the west entrance steps should be removed and new caulking applied.

**MAINTENANCE PROJECTS (LESS THAN \$5000)**

1. Repair curbing and sidewalks along Neil Avenue.  
Work order # 01-5063-003562-51
2. Repair window in room 032.  
Work order # 01-5064-050430-71
3. Paint classroom, room 032.  
Work order # 01-5064-050431-65
4. Repair door closer on north fire door in basement.  
Work order # 01-5064-050432-72
5. Repair hinges on door to room 033T.  
Work order # 01-5064-050433-72
7. Repair plaster and paint walls and ceiling in south stairway.  
Work order # 01-5064-050434-65
8. Replace ceiling tile in fourth floor hallway and clean grid.  
Work order # 01-5063-003564-45
9. Replace caulking on steps at west entry.  
Work order # 01-5064-050457-60
10. Repair roof on east side at tarp.  
Work order # 01-5064-050457-71

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**BUILDING EVALUATION SUMMARY**

**I. BUILDING INFORMATION**

FAC # 063 FACILITY NAME: COCKINS HALL  
 DATE: 1/14/93 INSPECTOR: JAMES P. HERTENSTEIN  
 YEAR CONSTRUCTED: 1929, REMODELED IN 1971  
 GROSS SQ FT: 60,261 NET SQ FT: 38,052  
 REPLACEMENT COST \$ 7,751,000 X .9 = \$6,976,000 \*

**II. COMPONENT RATING**

COMPONENT	BUILDING COMPONENT PERCENTAGE OF TOTAL COST **	BUILDING COMPONENT REPLACEMENT COST	CONDITION VALUE MULTIPLIER FOR BLDG. COMPONENT	BUILDING COMPONENT CURRENT VALUE
Foundation	5.2	362,752	.79	286,574
Columns and Beams	20.0	1,395,200	.79	1,102,208
Exterior Walls	10.0	697,600	.62	432,512
Windows & Doors	2.4	167,424	.95	159,053
Roofing	8.2	572,032	.60	343,219
Partitions & Drs.	10.7	746,432	.68	507,574
Wall Finishes	2.6	181,376	.53	96,129
Floor Finishes	5.0	348,800	.47	163,936
Ceilings & Finish	3.1	216,256	.58	125,428
Conveying	1.7	118,592	.27	32,020
Plumbing	2.2	153,472	.47	72,132
Heating	5.5	383,680	.47	180,330
Cooling & Vent.	10.0	697,600	.57	397,632
Elec. Ser. & Dist	1.0	69,760	.93	64,877
Lighting & Power	10.0	697,600	.76	530,176
Safety Standards	2.4	167,424	.65	108,826
TOTALS	100.00	6,976,000		4,602,626

**III. BUILDING RATING SUMMARY**

Overall Building Rating = 66%

\* Replacement Cost assigned September, 1991 by The Office of Campus Planning and Space Utilization without the furnishings and fixed equipment allocation.

\*\* Percent allocation of each building component is calculated from The Means Standard Construction Cost data for College Classroom Buildings.

**FOUNDATIONS**

FAC # 063      DATE 1/16/93      INSPECTOR: JPH

**A. SYSTEM DESCRIPTION**

	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
<b>a. Footings:</b>			
Individual Footings & Piers _____	[ ]	[X]	[ ]
Continuous Footings _____	[ ]	[X]	[ ]
Grade Beams _____	[X]	[ ]	[ ]
Piles _____	[X]	[ ]	[ ]
Caissons _____	[X]	[ ]	[ ]
<b>b. Foundation Wall Materials:</b>			
Steel _____	[X]	[ ]	[ ]
Concrete Cast-in-place _____	[ ]	[X]	[ ]
Concrete Block _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]
<b>c. Waterproofing and Underdrain:</b>			
Coating _____	[X]	[ ]	[ ]
Membrane _____	[X]	[ ]	[ ]
Board _____	[X]	[ ]	[ ]
Drain Tile _____	[X]	[ ]	[ ]
<b>d. Slab on Grade (floor):</b>			
Plain _____	[X]	[ ]	[ ]
Reinforced _____	[ ]	[X]	[ ]
<b>e. Special Substructures:</b>			
_____	[X]	[ ]	[ ]

**B. COMMENTS:**

NO PROBLEMS WERE OBSERVED.

**C. COMPONENT RATING:**    (\$362,800 ) X ( 79 %) = \$286,600  
                                  Possible      Condition      Component  
                                  Value      Value Multiplier      Value

**COLUMNS AND BEAMS**

FAC # 063      DATE 1/16/93      INSPECTOR: JPH

**A. SYSTEM DESCRIPTION**

**a. Columns and Beams:**

	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
Concrete-in-place <u>USED THROUGHOUT</u>	[ ]	[X]	[ ]
Precast Concrete _____	[X]	[ ]	[ ]
Steel _____	[X]	[ ]	[ ]
Steel Fireproofing _____	[X]	[ ]	[ ]
Wood _____	[X]	[ ]	[ ]
Other _____	[ ]	[ ]	[ ]

**b. Floors:**

Concrete Slab <u>USED THROUGHOUT</u>	[ ]	[X]	[ ]
Precast Slab _____	[X]	[ ]	[ ]
Metal Deck _____	[X]	[ ]	[ ]
Metal Deck w/concrete fill _____	[X]	[ ]	[ ]
Wood _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]

**c. Roof System:**

Flat _____	[X]	[ ]	[ ]
Pitched <u>COPPER ROOF</u>	[ ]	[X]	[ ]
Concrete _____	[X]	[ ]	[ ]
Steel <u>TRUSSES</u>	[ ]	[X]	[ ]
Wood <u>DECKING</u>	[ ]	[X]	[ ]
Other _____	[X]	[ ]	[ ]

**B. COMMENTS:**

NO DEFLECTION OR MAJOR FAULTS OBSERVED.

**C. COMPONENT RATING:**    (\$1,395,000) X ( 79 %) = \$1,102,000  
                                  Possible      Condition      Component  
                                  Value      Value Multiplier      Value

**EXTERIOR WALLS**

FAC # 063      DATE 1/16/93      INSPECTOR: JPH

**A. SYSTEM DESCRIPTION**

**a. Walls:**

	N/A	Sat	Att
Concrete <u>EXPOSED FOUNDATION ONLY</u>	[ ]	[X]	[ ]
Masonry <u>BRICK AND LIMESTONE TRIM</u>	[ ]	[ ]	[X]
Metal Siding _____	[X]	[ ]	[ ]
Wood Siding _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]

**b. Finishes:**

Stucco _____	[X]	[ ]	[ ]
Paint _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]

**B. COMMENTS:**

BUILDING SEALANTS (CAULKING) ARE DRYING OUT AND CRACKING. MASONRY IS SOILED. SEALANTS SHOULD BE REPLACED IN NEAR FUTURE AND MASONRY SHOULD BE CLEANED AND SEALED.

**C. COMPONENT RATING:**    (\$697,600 ) X ( 62 %) = \$432,500  
                                  Possible      Condition      Component  
                                  Value      Value Multiplier      Value

**EXTERIOR WINDOWS & DOORS**

FAC # 063      DATE 1/16/93      INSPECTOR: JPH

**A. SYSTEM DESCRIPTION**

<b>a. Windows type &amp; number:</b>	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
Wood _____	[X]	[ ]	[ ]
Steel _____	[X]	[ ]	[ ]
Alum <u>146</u> SINGLE-HUNG WINDOWS	[ ]	[X]	[ ]
Other _____	[X]	[ ]	[ ]
<b>b. Window glazing:</b>			
Single pane _____	[X]	[ ]	[ ]
Double pane <u>USED IN ALL WINDOWS</u>	[ ]	[X]	[ ]
Other _____	[X]	[ ]	[ ]
<b>c. Doors type &amp; number:</b>			
Wood _____	[X]	[ ]	[ ]
Steel _____	[X]	[ ]	[ ]
Alum <u>2</u> SETS OF GLAZED DOUBLE DOORS	[ ]	[X]	[ ]
Other _____	[X]	[ ]	[ ]
<b>d. Shading Devices:</b>			
Types _____	[X]	[ ]	[ ]

**B. COMMENTS:**

WINDOWS WERE REPLACED THROUGHOUT THE BUILDING IN 1991.

**C. COMPONENT RATING:**    (\$167,400 ) X ( 95 %) = \$159,000  
                                     Possible      Condition      Component  
                                     Value            Value Multiplier    Value

**ROOFING**

FAC # 063      DATE 1/16/93      INSPECTOR: JPH

**A. SYSTEM DESCRIPTION**

<b>a. Roof Covering:</b>	N/A	Sat	Att
Built-up <u>GUTTERS ONLY NO EVIDENCE OF CURRENT LEAKS</u>	[ ]	[ ]	[X]
Built-up w/gravel _____	[X]	[ ]	[ ]
Asphalt Shingle _____	[X]	[ ]	[ ]
Copper <u>13,246 SF INSTALLED IN 1929</u>	[ ]	[ ]	[X]
Glass (Skylight) _____	[X]	[ ]	[ ]
Slate _____	[X]	[ ]	[ ]
Spanish Tile _____	[X]	[ ]	[ ]
Metal _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]

**c. Flashing:**

Base & Counter _____	[ ]	[X]	[ ]
Cap _____	[ ]	[X]	[ ]
Through Wall _____	[X]	[ ]	[ ]
Valley & Ridge _____	[ ]	[X]	[ ]

**d. Gravel Stop & Edge Strips:**

Type _____	[X]	[ ]	[ ]
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**e. Drainage:**

Gutters w/ Exterior Downspouts _____	[X]	[ ]	[ ]
Scuppers w/ Exterior Downspouts _____	[X]	[ ]	[ ]
Drains w/ Interior Storm Drains _____	[ ]	[X]	[ ]

**f. Parapets:**

Concrete _____	[X]	[ ]	[ ]
Brick _____	[ ]	[X]	[ ]
Block _____	[X]	[ ]	[ ]
Precast _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]

**g. Insulation:**

Type _____	[X]	[ ]	[ ]
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**B. COMMENTS**

ORIGINAL COPPER ROOF IS NOW 63 YEARS OLD. MAINTENANCE PERSONNEL REPORTED THERE HAVE BEEN NO MAJOR PROBLEMS. ROOF IS PAST REPLACEMENT AGE AND IS BEGINNING TO SHOW SIGNS OF WEAR. IT WILL REQUIRE REPLACEMENT WITHIN THE NEXT 5 TO 10 YEARS. THERE IS EVIDENCE OF LEAKS ON THE EAST SIDE WHERE TWO VENTS WERE REMOVED.

**C. COMPONENT RATING:**    (\$572,000 ) x ( 60 % ) = \$343,200  
                                  Possible      Condition      Component  
                                  Value      Value Multiplier      Value

**PARTITIONS & DOORS**

FAC # 063      DATE 1/16/93      INSPECTOR: JPH

**A. SYSTEM DESCRIPTION**

<b>a. Partition Framing:</b>	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
Concrete Block <u>PREDOMINANT</u>	[ ]	[X]	[ ]
Glazed Block _____	[X]	[ ]	[ ]
Wood Stud _____	[X]	[ ]	[ ]
Metal Stud <u>LIMITED USE</u>	[ ]	[X]	[ ]
Structural Tile _____	[X]	[ ]	[ ]
Rated _____	[X]	[ ]	[ ]
Other <u>PREFABRICATED METAL PANELS</u>	[ ]	[X]	[ ]
<b>b. Special partitions and Walls:</b>			
Toilet <u>MARBLE</u>	[ ]	[X]	[ ]
Screen Walls _____	[X]	[ ]	[ ]
Gate _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]
<b>c. Wall Material:</b>			
Plaster <u>PREDOMINANT - USED ON ORIGINAL PARTITIONS</u>	[ ]	[X]	[ ]
Plaster Board <u>USED WITH METAL STUDS</u>	[ ]	[X]	[ ]
Glass _____	[X]	[ ]	[ ]
Plywood _____	[X]	[ ]	[ ]
Paneling _____	[X]	[ ]	[ ]
Trim & Wainscot _____	[X]	[ ]	[ ]
Tile/Glazed <u>TILE IS IN POOR CONDITION</u>	[ ]	[ ]	[X]
Other _____	[X]	[ ]	[ ]
<b>d. Interior Doors &amp; Frames:</b>			
Met Door/Met Frame <u>ELEVATOR DOOR</u>	[ ]	[X]	[ ]
Wood Door/Wood Frame <u>FIRE DOORS IN POOR CONDITION</u>	[ ]	[ ]	[X]
Wood Door/Metal Frame <u>ORIGINAL DOORS</u>	[ ]	[X]	[ ]
Glazing <u>THROUGHOUT</u>	[ ]	[X]	[ ]
Rollup _____	[X]	[ ]	[ ]
Sliding _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]
<b>e. Hardware:</b>			
Door Closers <u>ORIGINAL AND VERY WORN</u>	[ ]	[ ]	[X]
Lock Sets _____	[ ]	[X]	[ ]
Kick/Push Plates _____	[X]	[ ]	[ ]
Thresholds _____	[X]	[ ]	[ ]
Panic Devices <u>EXIT DOORS ONLY</u>	[ ]	[X]	[ ]
Security & Detection <u>DEPARTMENT COMPUTER LABS ONLY</u>	[X]	[ ]	[ ]
Automatic Openers _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]

**B. COMMENTS:**

FIRE DOORS AT STAIRWAYS ARE HEAVILY WORN INCLUDING DOOR CLOSERS REQUIRING REPLACEMENT.

**C. COMPONENT RATING:**    (\$ 746,400 ) X ( 68 % ) = \$507,600  
                                  Possible      Condition      Component  
                                  Value            Value Multiplier    Value

**WALL FINISHES**

FAC # 063      DATE 1/16/93      INSPECTOR: JPH

<b>A. SYSTEM DESCRIPTION</b>	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
a. Paint <u>STAIRWAYS REQUIRE PATCHING AND PAINTING</u>	[ ]	[ ]	[X]
b. Wall Coating _____	[X]	[ ]	[ ]
c. Wall Coverings _____	[X]	[ ]	[ ]
d. Paneling			
Prefinished _____	[X]	[ ]	[ ]
Plank _____	[X]	[ ]	[ ]
e. Cork _____	[X]	[ ]	[ ]
f. Wallpaper _____	[X]	[ ]	[ ]
g. Ceramic Tile <u>RESTROOMS TILE IN POOR CONDITION</u>	[ ]	[ ]	[X]
h. Trim & Wainscot _____	[X]	[ ]	[ ]
i. Decoration _____	[X]	[ ]	[ ]
j. Glass _____	[X]	[ ]	[ ]
k. Other _____	[X]	[ ]	[ ]

**B. COMMENTS**

CLASSROOM (RM 032) REQUIRES PAINTING. SOUTH STAIRWAY REQUIRES PLASTER PATCHING AND PAINTING.

**C. COMPONENT RATING:**    (\$181,400 ) X ( 53 % ) = \$ 96,100  
                                  Possible      Condition      Component  
                                  Value      Value Multiplier      Value

**FLOOR FINISHES**

FAC # 063      DATE 1/16/93      INSPECTOR: JPH

**A. SYSTEM DESCRIPTION**

	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
<b>a. Carpet:</b>			
Rolled <u>DEPARTMENT SPACE ONLY</u>	[ ]	[ ]	[X]
Tile _____	[X]	[ ]	[ ]
<b>b. Composition:</b>			
Epoxy _____	[X]	[ ]	[ ]
Synthetic _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]
<b>c. Concrete Topping:</b>			
Clear Sealant <u>BASEMENT AND BORDER-UPPER FLOORS HALLWAYS</u>	[ ]	[X]	[ ]
Abrasive _____	[X]	[ ]	[ ]
Epoxy _____	[X]	[ ]	[ ]
Aggregate _____	[X]	[ ]	[ ]
<b>d. Resilient:</b>			
Vinyl Tile <u>HALLWAYS, CLASSROOMS AND DEPARTMENTAL AREAS</u>	[ ]	[X]	[ ]
Linoleum _____	[X]	[ ]	[ ]
Vinyl _____	[X]	[ ]	[ ]
Rubber _____	[X]	[ ]	[ ]
Cork _____	[X]	[ ]	[ ]
<b>e. Ceramic Tile</b> _____	[X]	[ ]	[ ]
<b>f. Masonry</b> <u>CUT LIMESTONE EDGING ALONG 1ST FLOOR HALLWAY</u>	[X]	[ ]	[ ]
<b>g. Terrazzo</b> <u>RESTROOMS, 1ST FLOOR HALLWAY AND STAIR LANDING</u>	[ ]	[X]	[ ]
<b>h. Wood</b> _____	[X]	[ ]	[ ]
<b>i. Metal</b> _____	[X]	[ ]	[ ]

**B. COMMENTS**

FLOORS ARE IN SERVICEABLE CONDITION ALTHOUGH FINISHES ARE AGING.

**C. COMPONENT RATING:**    (\$348,800) X (47 %) = \$163,900  
                                  Possible      Condition      Component  
                                  Value      Value Multiplier      Value

**CEILINGS AND FINISHES**

FAC # 063      DATE 1/16/93      INSPECTOR: JPH

**A. SYSTEM DESCRIPTION**

<b>a. System Type:</b>	N/A	Sat	Att
Exposed <u>BASEMENT CEILINGS ARE PAINTED</u>	[ ]	[X]	[ ]
Applied to Structure _____	[X]	[ ]	[ ]
Suspended <u>LATHE AND PLASTER, AND MINERAL FIBER BOARD</u>	[ ]	[ ]	[X]

<b>b. Materials:</b>			
Drywall _____	[X]	[ ]	[ ]
Plaster <u>PLASTER IS CRACKING-REQUIRES REPAIR SOUTH STAIR</u>	[ ]	[ ]	[X]
Mineral Fiber Board <u>4TH FL HALL CEILING - CLEAN</u>	[ ]	[ ]	[X]
Metal Pan _____	[X]	[ ]	[ ]
Luminous Panels _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]

<b>c. Finishes:</b>			
Paint <u>2ND FLOOR AND SOUTH STAIRWAY CEILINGS - PAINT</u>	[ ]	[ ]	[X]
Fabric _____	[X]	[ ]	[ ]
Prefinished _____	[ ]	[X]	[ ]
Other _____	[X]	[ ]	[ ]

<b>d. Openings &amp; Inserts:</b>			
Air Distribution _____	[ ]	[X]	[ ]
Lighting Fixtures _____	[ ]	[X]	[ ]
Access Panels _____	[X]	[ ]	[ ]
Skylights _____	[X]	[ ]	[ ]
Fire Protection _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]

**B. COMMENTS:**

SUSPENDED CEILING INSTALLED IN 1971 IN FOURTH FLOOR HALLWAY IS YELLOWING AND SHOULD BE CLEANED.

**C. COMPONENT RATING:**    (\$216,300 ) X ( 58 %) = \$ 125,400  
                                  Possible      Condition      Component  
                                  Value              Value Multiplier      Value

**CONVEYING**

FAC # 063      DATE 1/16/93      INSPECTOR: JPH

**A. SYSTEM DESCRIPTION**

**a. Elevators:**

	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
Number <u>ONE</u>	[ ]	[X]	[ ]
Type <u>OTIS, PASSENGER, ELECTRIC</u>	[ ]	[X]	[ ]
Speed <u>100 FPM</u>	[ ]	[X]	[ ]
Capacity (lbs) <u>1000 LBS</u>	[ ]	[X]	[ ]
Dimensions <u>39" X 32"</u>	[ ]	[ ]	[X]
Door Operation:			
Center	[X]	[ ]	[ ]
To Side <u>GATE AND SWINGING DOOR</u>	[ ]	[ ]	[X]
Handicapped-accessible controls <u>NO CONTROLS</u>	[ ]	[ ]	[X]

**b. Lifts and Hoists:**

Number _____	[X]	[ ]	[ ]
Type _____	[X]	[ ]	[ ]

**c. Moving Stairs and Walks:**

Number _____	[X]	[ ]	[ ]
Type _____	[X]	[ ]	[ ]

**d. Conveyors:**

Number _____	[X]	[ ]	[ ]
Type _____	[X]	[ ]	[ ]

**e. Pneumatic Tubes:**

Number _____	[X]	[ ]	[ ]
Type _____	[X]	[ ]	[ ]

**B. COMMENTS:**

ELEVATOR IS ORIGINAL. IT DOES NOT MEET ANY OF THE CURRENT ADA REQUIREMENTS DOOR OPERATION IS A CONTINUING SOURCE OF PROBLEMS. THE ELEVATOR IS TOO SMALL TO ACCOMMODATE WHEELCHAIRS. A NEW ELEVATOR IS REQUIRED TO ALLOW WHEELCHAIR ACCESS TO ALL FLOORS. MAINTENANCE PERSONNEL REPORTED THAT A NEW ELEVATOR WOULD HAVE TO BE ADDED INTERNALLY REQUIRING OCCUPYING DEPARTMENTS TO RELINQUISH SPACE.

**C. COMPONENT RATING: ( \$118,600 ) X ( 27 % ) = \$32,000**  
                             Possible      Condition      Component  
                             Value      Value Multiplier      Value

**MECHANICAL/PLUMBING**

FAC # 063      DATE 1/16/93      INSPECTOR: JPH

**A. SYSTEM DESCRIPTION**

<b>a. Services Available:</b>	N/A	Sat	Att
Cold Water <u>3" SUPPLY IN RM 027</u>	[ ]	[X]	[ ]
Hot Water <u>4" SUPPLY, 2-1/2" RETURN</u>	[ ]	[X]	[ ]
Acid Waste _____	[X]	[ ]	[ ]
Oxygen _____	[X]	[ ]	[ ]
Natural Gas <u>1-1/2" LINE IN TUNNEL</u>	[ ]	[X]	[ ]
Vacuum _____	[X]	[ ]	[ ]
Distilled Water _____	[X]	[ ]	[ ]
Compressed Air <u>2" LINE IN TUNNEL</u>	[ ]	[X]	[ ]
Other _____	[X]	[ ]	[ ]
<b>b. Piping &amp; Fittings:</b>			
Cast Iron <u>SANITARY WASTE VENTS</u>	[ ]	[ ]	[X]
Copper Tubing <u>LIMITED USE</u>	[ ]	[X]	[ ]
Plastic _____	[ ]	[X]	[ ]
Steel <u>ORIGINAL GALVANIZED PIPING</u>	[ ]	[ ]	[X]
Glass _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]
<b>c. Water Heaters:</b>			
Electric _____	[X]	[ ]	[ ]
Gas _____	[X]	[ ]	[ ]
Oil _____	[X]	[ ]	[ ]
Steam Converter _____	[X]	[ ]	[ ]
Other <u>SUPPLIED FROM UNIVERSITY POWER PLANT</u>	[ ]	[X]	[ ]
<b>d. Drainage:</b>			
Storm Drains _____	[X]	[ ]	[ ]
Sanitary Drainage _____	[X]	[ ]	[ ]
Combined Storm/San. <u>1 @ 5", 1 @ 10"</u>	[ ]	[X]	[ ]
Floor Drains _____	[X]	[ ]	[ ]
<b>e. Fixtures:</b>			
Water Closets <u>17 - ORIGINAL FIXTURES</u>	[ ]	[ ]	[X]
Urinals <u>10 - ORIGINAL FIXTURES</u>	[ ]	[ ]	[X]
Lavatories <u>16 - ORIGINAL FIXTURES</u>	[ ]	[ ]	[X]
Showers _____	[X]	[ ]	[ ]
Kitchen Sinks _____	[X]	[ ]	[ ]
Service Sinks <u>6 - ORIGINAL FIXTURES</u>	[ ]	[ ]	[X]
Drinking Fountains _____	[X]	[ ]	[ ]
Electric Water Coolers _____	[ ]	[X]	[ ]
<b>f. Sprinkler Systems:</b>			
Wet _____	[X]	[ ]	[ ]
Dry _____	[X]	[ ]	[ ]
<b>g. Standpipe Systems:</b>			
Wet <u>SERVES HOSE CABINETS</u>	[ ]	[X]	[ ]
Dry _____	[X]	[ ]	[ ]
Valves _____	[X]	[ ]	[ ]
Hose Cabinets <u>LOCATED IN HALLWAYS</u>	[ ]	[X]	[ ]

**B. COMMENTS:**

ORIGINALLY A LABORATORY BUILDING, LAB PLUMBING WAS REMOVED IN 1971. RESTROOMS HAVE NOT BEEN UPDATED AND THE BUILDING PLUMBING SYSTEM IS IN POOR CONDITION. RESTROOMS SHOULD BE UPDATED AND PLUMBING SYSTEM REQUIRES REPLACEMENT INCLUDING FIXTURES. THERE IS AN EXISTING UNFUNDED PROJECT.

**C. COMPONENT RATING:**    (\$153,500 ) x ( 47 %) = \$72,100  
                                  Possible      Condition      Component  
                                  Value            Value Multiplier    Value

**MECHANICAL/HEATING**

FAC # 063      DATE 1/16/93      INSPECTOR: JPH

**A. SYSTEM DESCRIPTION**

	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
Heat Source:			
Central Plant Steam _____	[X]	[ ]	[ ]
Central Plant Hot Water <u>8" SUPPLY &amp; RETURN IN TUNNEL</u>	[ ]	[X]	[ ]
Boilers: Type _____	[X]	[ ]	[ ]
Size _____	[X]	[ ]	[ ]
Furnace: Type _____	[X]	[ ]	[ ]
Size _____	[X]	[ ]	[ ]
Heat Pump: Type _____	[X]	[ ]	[ ]
Size _____	[X]	[ ]	[ ]

**b. System Type:**

Steam _____	[X]	[ ]	[ ]
Hot Water <u>PIPING IS ORIGINAL - REQUIRES REPLACEMENT</u>	[ ]	[ ]	[X]
Air _____	[X]	[ ]	[ ]
Multizone _____	[X]	[ ]	[ ]
Dual Duct _____	[X]	[ ]	[ ]
Terminal Reheat _____	[X]	[ ]	[ ]
Variable Volume _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]

**c. Space Equipment:**

Radiators <u>ORIGINAL EQUIPMENT - REQUIRES REPLACEMENT</u>	[ ]	[ ]	[X]
Convectors _____	[X]	[ ]	[ ]
2-Pipe Fan Coil _____	[X]	[ ]	[ ]
Unit Heaters _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]

**d. Control Type:**

Pneu _____	[X]	[ ]	[ ]
Electric _____	[X]	[ ]	[ ]
DDC _____	[X]	[ ]	[ ]
Manual Valves _____	[ ]	[ ]	[X]

**B. COMMENTS:**

DISTRIBUTION PIPING IS IN POOR CONDITION AS ARE THE RADIATORS. PHYSICAL FACILITIES HAS AN UNFUNDED PROJECT PROPOSED TO REPLACE THE HEATING SYSTEM AND UPGRADE THE CONTROLS.

**C. COMPONENT RATING:**    (\$383,700 ) X ( 47 %) = \$180,300  
                                  Possible      Condition      Component  
                                  Value      Value Multiplier      Value

**COOLING & VENTILATING**

FAC # 063      DATE 1/16/93      INSPECTOR: JPH

**A. SYSTEM DESCRIPTION**

	N/A	Sat	Att
<b>a. System:</b>			
Type <u>TERMINAL REHEAT, SINGLE ZONE, WINDOW A/C, THRU-WALL</u>	[ ]	[ ]	[X]
Capacity <u>117 TONS TOTAL FOR ALL SYSTEMS</u>	[ ]	[X]	[ ]
<b>b. Chillers:</b>			
Centrifugal _____	[X]	[ ]	[ ]
Reciprocating <u>CARRIER, 40 TONS, INSTALLED: 1972</u>	[ ]	[X]	[ ]
Absorption _____	[X]	[ ]	[ ]
<b>c. Cooling Towers:</b>			
Type _____	[X]	[ ]	[ ]
Capacity _____	[X]	[ ]	[ ]
<b>d. Condensers:</b> <u>2 AIR COOLED CONDENSERS, LIEBERT &amp; CARRIER</u>	[ ]	[X]	[ ]
<b>e. Space Equipment:</b>			
Direct Expansion -			
Window units <u>48 UNITS, PROVIDE BACK-UP COOLING</u>	[ ]	[X]	[ ]
Thru-the-wall <u>3 NESBITT UNITS</u>	[ ]	[X]	[ ]
Single zone <u>LIEBERT &amp; MCQUAY SPLIT SYSTEMS</u>	[ ]	[X]	[ ]
Single zone con. vol. _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]
Air/Water -			
2-pipe fan coil _____	[X]	[ ]	[ ]
Unit ventilators _____	[X]	[ ]	[ ]
Terminal reheat <u>4TH FLOOR - ELECTRIC REHEATS</u>	[ ]	[ ]	[X]
Variable volume _____	[X]	[ ]	[ ]
Dual Duct _____	[X]	[ ]	[ ]
Multizone <u>TERMINAL REHEAT SYSTEM IS MULTIZONE</u>	[ ]	[ ]	[X]
<b>f. Special Systems:</b>			
Type _____	[X]	[ ]	[ ]
Capacity _____	[X]	[ ]	[ ]
<b>g. Control Systems:</b>			
Pneu _____	[ ]	[X]	[ ]
Electric <u>BARBER-COLEMAN</u>	[ ]	[X]	[ ]
Electronic _____	[X]	[ ]	[ ]
<b>h. Fans:</b>			
Exhaust <u>7 EXHAUST FANS</u>	[ ]	[X]	[ ]
Recirculating <u>4 SUPPLY, 1 RETURN AIR</u>	[ ]	[X]	[ ]

**B. COMMENTS:**

THERE WERE A LARGE NUMBER OF WORKORDERS FOR THE HVAC SYSTEM. THE TERMINAL REHEAT SYSTEM IS UNRELIABLE AND THE OCCUPANTS KEEP WINDOW AIR CONDITIONERS AS BACK-UP OR TO AID IN COOLING. ROBERT H. FULLER & ASSOC. STUDY RECOMMENDED REPLACEMENT AND UPGRADING SYSTEM TO COOL ENTIRE BUILDING.

**C. COMPONENT RATING:**    (\$697,600 ) X ( 57 % ) = \$397,600  
                                  Possible      Condition      Component  
                                  Value          Value Multiplier      Value

ELECTRICAL/SERVICE & DISTRIBUTION

FAC # 063      DATE 1/16/93      INSPECTOR: JPH

**A. SYSTEM DESCRIPTION**

**(a) Service:**

Substation BUCKEYE (PGN9/PGS3)  
 Primary Voltage 13,200 VOLTS  
 Transformer:  
 Manufacture                      Type                      KVA                      Secondary Voltages  
MCGRAW                      OIL                      750                      208/120

**(b) Distribution System:**

Panelboard (type) CIRCUIT BREAKER  
 Voltage 208/120  
 Amperage 2500 AMPS  
 Conduit ALUMINUM, STEEL  
 Conductor COPPER  
 Wire (type) VARIES  
 Armored Cable LIMITED TO EQUIPMENT  
 Other

**(c) Emergency System:**

General or (type & capacity) N/A

**B. COMMENTS:**

PEAK DEMAND, ACCORDING TO UTILITY DEPARTMENT RECORDS, IS APPROXIMATELY 52%. THE TRANSFORMER WAS INSTALLED IN 1972. NO PROBLEMS WERE OBSERVED WITH THE SERVICE. THERE IS 600-800 AMPS OF ADDITIONAL CAPACITY AVAILABLE AT THE MAIN DISTRIBUTION PANEL.

**C. COMPONENT RATING:**    (\$69,760 ) x ( 93 % ) = \$64,880  
    Possible                      Condition                      Component  
    Value                      Value Multiplier                      Value



**SAFETY STANDARDS**

FAC # 063      DATE 1/16/93      INSPECTOR: JPH

**A. SYSTEM DESCRIPTION**

	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
<b>(a) Exits:</b>			
Stair Construction:			
concrete _____	[X]	[ ]	[ ]
steel _____	[ ]	[X]	[ ]
wood _____	[X]	[ ]	[ ]
Number of exits <u>2</u>	[ ]	[X]	[ ]
<b>(b) Fire Rating:</b>			
Construction Type: <u>I X</u> II ___    III ___    IV ___    V ___    VI ___			
Building Height: _____ <u>52</u> ft., <u>4</u> STORIES AND BASEMENT			
<b>(c) Extinguishing Systems:</b>			
Portable _____	[ ]	[X]	[ ]
Standpipe <u>SERVES HOSE CABINETS</u>	[ ]	[X]	[ ]
Hose Cabinets <u>LOCATED IN HALLWAY, EACH FLOOR</u>	[ ]	[X]	[ ]
Sprinklers _____	[X]	[ ]	[ ]
Suppression _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]
<b>(d) Detection &amp; Alarm Systems:</b>			
Manual Alarm _____	[X]	[ ]	[ ]
Annunciator <u>IN MATH BUILDING</u>	[ ]	[X]	[ ]
Smoke Detectors _____	[X]	[ ]	[ ]
<b>(e) Lighting Systems:</b>			
Exit Signs <u>LIGHTED EXIT SIGNS</u>	[ ]	[X]	[ ]
Exit Lighting <u>EXIT SIGNS AND NATURAL LIGHT</u>	[ ]	[X]	[ ]
Emergency Lighting _____	[X]	[ ]	[ ]
Emergency Generator _____	[X]	[ ]	[ ]

**B. COMMENTS:**

SYSTEMS WILL REQUIRE UPDATING IF ANY MAJOR BUILDING RENOVATIONS ARE ACCOMPLISHED.  
A PROJECT WAS IDENTIFIED IN THE ROBERT H. FULLER STUDY TO MODERNIZE THE EXIT  
SIGNS AND EMERGENCY LIGHTING. THERE IS AN UNFUNDED PROJECT PROPOSED TO  
ACCOMPLISH THIS IN THE REPAIR AND RENOVATION PROGRAM.

**C. COMPONENT RATING:**    (\$167,400 ) X ( 65 %) = \$108,800  
                                  Possible    Condition            Component  
                                  Value            Value Multiplier    Value

**BUILDING PERIMETER EVALUATION**

FAC # 063      DATE 1/16/93      INSPECTOR: JPH

**A. SYSTEM DESCRIPTION**

	N/A	Sat	Att
1. Building Access:			
Driveway <u>THERE IS A DRIVEWAY ALONG THE EAST SIDE</u>	[ ]	[X]	[ ]
Loading Dock <u>SERVICES MATH BUILDING AND COCKINS HALL</u>	[ ]	[X]	[ ]
Sidewalks			
Front <u>ASPHALT AND CURB ALONG WEST REQUIRE REPAIRS</u>	[ ]	[ ]	[X]
Side <u>ASPHALT AT SOUTH STEPS REQUIRE REPAIRS</u>	[ ]	[ ]	[X]
Rear _____	[ ]	[X]	[ ]
Steps			
Front <u>WEST STEPS REQUIRE NEW CAULK</u>	[ ]	[ ]	[X]
Side <u>SOUTH SIDE</u>	[ ]	[X]	[ ]
Rear <u>LOCATED AT LOADING DOCK</u>	[ ]	[X]	[ ]
Handicap Ramp <u>ACCESSES LOADING DOCK AREA</u>	[ ]	[X]	[ ]
2. Lawn and Landscaping:			
Lawn <u>THERE ARE SOME BARE SPOTS TO THE WEST AND SOUTH</u>	[ ]	[ ]	[X]
Shrubs <u>EVERGREEN SHRUBS REQUIRE TRIMMING</u>	[ ]	[ ]	[X]
Trees <u>MATURE TREES ON NORTH, WEST AND SOUTH SIDES</u>	[ ]	[X]	[ ]
Undesirable Insect _____	[X]	[ ]	[ ]
Bedding Material _____	[X]	[ ]	[ ]
Watering System _____	[X]	[ ]	[ ]
3. General Site Information:			
Signage <u>ATTACHED TO BUILDING AND FREE-STANDING</u>	[ ]	[X]	[ ]
Address Identification <u>BUILDING AND SIGN</u>	[ ]	[X]	[ ]
Security Lights <u>LIGHTS ON EITHER SIDE OF WEST ENTRANCE</u>	[ ]	[X]	[ ]
Street Lights <u>LOCATED ON ADJACENT STREETS</u>	[ ]	[X]	[ ]
Drainage <u>NO SIGNS OF DRAINAGE PROBLEMS OBSERVED</u>	[ ]	[X]	[ ]
Storm Drains _____	[ ]	[X]	[ ]

**B. COMMENTS:**

ASPHALT SIDEWALK IS CRACKED AND BROKEN BY FIRE HYDRANT ON WEST SIDE. CURBING ALONG NEIL AVENUE IN FRONT OF THE BUILDING IS BROKEN AND SHOULD BE REPLACED IN AREAS. THE ASPHALT SIDEWALK AT THE SOUTH STEPS IS CRACKED AND SHOULD BE REPAIRED.

**The Ohio State University  
Department of Physical Facilities**

**BUILDING AUDIT METHODOLOGY**

1. GENERAL

This Building Audit was conducted by Physical Facilities for the purpose of evaluating the present condition of those aspects of the building for which Physical Facilities has a budgetary responsibility. This audit describes the current physical condition of those aspects of the facility and identifies existing corrective maintenance repairs and building component system replacement requirements. It has been assumed that the program needs of the tenant departments are being met by the facility.

2. BUILDING AUDIT PROGRAM OBJECTIVE

To provide a building-by-building inventory, including maintenance deficiencies that currently exist, for the OSU buildings that the Department of Physical Facilities has budgetary responsibility for. These audits will be used to establish corrective maintenance projects and budget cost estimates.

3. BUILDING AUDIT APPROACH

A five-step procedure is used to meet the program objectives:

1. Collect Historical and Inventory Data on each building.
2. Interview Building Occupants.
3. Perform a Building Inspection.
4. Complete Building Evaluation Forms.
5. Issue Written Report.

4. DATA ORGANIZATION

The data collected is stored by hard copy with field notes in a building file established for each building. The report data is being stored in a database program that allows retrieval of specific data as it is needed. The "Building Evaluation" forms contain ratings for the condition of each building component and a description of any deficiencies for those components. The "Building Information" sheets provide data on the utilities to the buildings and the type of systems in each building.

5. COST ESTIMATES

Costs are for budgeting purposes only and are based on The Means Standard Construction Cost data, auditor experience, industry sources and OSU project cost data. Costs are reported current to the year of the audit. The building component values assigned in the "Building Evaluation" forms are not cost estimates. These values are calculated from the replacement cost provided by The Office of Campus Planning and Space Utilization for each OSU building.

6. LIMITATIONS

(1) All inspections are visual and do not include physical tests, instrumentation or metering measurements, sampling, or monitoring.

(2) Only random typical offices or laboratories are entered. Typical spaces

are deemed to be representative of average conditions throughout each building.

(3) The scope of the analysis does not include complete OSHA, energy, or physical impaired access study. Buildings and components are inspected for condition and general safety requirements rather than specialized code conformance.

(4) It is assumed that the buildings inspected were approved by the State of Ohio Division of Factory and Building Inspection at the time of construction. The recommendations listed in the reports are not an attempt to bring these existing buildings up to present day code standards. Rather, the intent is to eliminate obvious problems and to upgrade the buildings in a reasonable manner in regard to occupant safety.

(5) Cost estimates are in current year dollars and include contractor mark-ups, construction administration costs, and architectural/engineering costs where applicable. Escalation factors must be applied for future work. Combining of projects should serve to decrease costs. These estimates are strictly for purposes of budgeting, and final pricing will be required when the specific scope of work for the project is defined.

(6) The building inspections are defined to include the following:

- (a) Includes general repainting, redecorating and wholesale replacement of building and system components. Ongoing maintenance, replacement and renovation projects are included.
- (b) Includes exterior building walls and attached items.
- (c) Includes the entrance steps at all entries. Ramps outside the buildings are included. Plantings around the building exterior are included.
- (d) Movable furniture is not included.
- (e) Fixed equipment inside the buildings that is installed and maintained by a specific academic department or using agency is not included.
- (f) Utility lines supplying the buildings are not included.
- (g) The program needs of the using department are assumed to be satisfied. No consideration has been given to anticipate any changes in current occupant space needs.

## ABBREVIATIONS

ATT.....	ATTENTION
BLDG.....	BUILDING
BUR.....	BUILT UP ROOF
COND.....	CONDENSATE WATER
DD.....	DUAL DUCT AIR HANDLING SYSTEM
DDHV.....	DUAL DUCT HIGH VELOCITY
DHWR.....	DOMESTIC HOT WATER RETURN
DHWS.....	DOMESTIC HOT WATER SUPPLY
DX.....	DIRECT EXPANSION AIR CONDITIONER
FPM.....	FEET PER MINUTE
HID.....	HIGH INTENSITY DISCHARGE LIGHT
HPS.....	HIGH PRESSURE STEAM (125 PSI)
HVAC.....	HEATING, VENTILATING AND AIR CONDITIONING SYSTEM
KV.....	KILOVOLTS
KVA.....	KILOVOLTS AMPS
KW.....	KILOWATTS
LC.....	LIQUID COOLED
LPS.....	LOW PRESSURE STEAM (15 PSI)
MPS.....	MEDIUM PRESSURE STEAM (50 PSI)
MZ.....	MULTIZONE AIR HANDLING SYSTEM
N/A.....	NOT APPLICABLE
PSI.....	POUNDS PER SQUARE INCH
RM.....	ROOM
SAT.....	SATISFACTORY
SR.....	STEAM RETURN LINE
SS.....	STEAM SUPPLY LINE
TR.....	TERMINAL REHEAT AIR HANDLING SYSTEM
V.....	VOLTS
VAV.....	VARIABLE AIR VOLUME SYSTEM

**APPENDIX**  
Reduced Scale Building Floor Plans  
C-1 Building Space Assignments