

FACILITY AUDIT REPORT
ARCHER HOUSE, Bldg 261
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**EXECUTIVE SUMMARY AND PROJECT LIST FOR
ARCHER HOUSE**

Archer House is a 28-year-old building. It was constructed as a men's dormitory but after the first year of occupancy, part of the building was converted to office space. This conversion continued throughout the years and today the entire building is used as office facilities. Over the years, the facility was shared by various departments but now is totally occupied by The Office of Human Resources. The building has had no renovations over the years but the interior was refurbished with new carpeting and paint in the last two years.

The roof, the plumbing and the air conditioning are the main concerns with the building. The roof is original and is getting to the point where it will need to be replaced in the next 5-10 years. The plumbing in the basement area shows signs of leakage. Maintenance personnel report that the joints need to be replaced. The air conditioning system is original and eight years past its life expectancy. The chillers, the condensers and the fan coil units should be replaced.

The incandescent lights in the hallways should be replaced with fluorescent fixtures. There is an unfunded project identified to upgrade the elevator to conform to present day requirements.

PROPOSED MAINTENANCE PROJECTS:

A. Corrective Maintenance Projects:		Control #
1. Replace faucets and domestic plumbing..\$	12,000	2284
2. Replace HVAC system	270,000	2285
3. Elevator modernization.....	<u>75,000</u>	1531
	\$ <u>357,000</u>	
B. Building Improvement/Addition Projects:		
1. Replace corridor lighting.....\$	<u>15,500</u>	0309
	\$ 15,500	
C. Projected Component Replacement Projects:		
1 Replace roof	\$ <u>48,000</u>	2291
	\$ 48,000	
Total cost for estimated projects	\$ <u>420,500</u>	

5-16-94

GENERAL BUILDING INFORMATION

ARCHER HOUSE #261

BUILDING ADDRESS: 2130 NEIL AVE.

GROSS SQ. FT.: 33,435

NET ASSIGNABLE SQ. FT.: 19,196

MECHANICAL/CUSTODIAL AREA SQ. FT.: 3,748

YEAR OF CONSTRUCTION: 1966

YEAR OF LAST RENOVATION: NONE

NUMBER OF STORIES/BASEMENT: FOUR PLUS GROUND FLOOR

AIR CONDITIONING (Percentage): 90%

CURRENT USE: OCCUPIED BY THE OFFICE OF HUMAN RESOURCES

TYPE OF CONSTRUCTION: REINFORCED CONCRETE FRAME WITH A BRICK VENEER

ESTIMATED REPLACEMENT COST: \$ 4,058,000 *

WHEELCHAIR ACCESSIBILITY: RAMP AND AUTOMATIC DOOR LOCATED AT THE SOUTH/WEST CORNER OF THE BUILDING. ALL FLOORS ARE ACCESSIBLE BY ELEVATOR.

OVERALL BUILDING CONDITION: SATISFACTORY**

NUMBER OF EXIT STAIRWAYS: 2

* 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.

BUILDING SYSTEMS INFORMATION

ARCHER HOUSE #261

HEATING:

Source THREE BOILERS IN SCOTT HOUSE

Type Heating System HOT WATER

Steam (Line size, valve location) N/A

Building Htg Water (line size, valve location) 3" HWS, RM 013M

VENTILATION SYSTEM: LC SYSTEM, TWO WINDOW UNITS, 4-PIPE FAN COILS

COOLING:

Bldg % 90 Chillers 2 ELECTRIC RECIPROCATING, 30 TON EACH

Window Units NONE Thru-the-wall NONE Direct exp. units TWO

HVAC CONTROL SYSTEM: JOHNSON, ELECTRIC

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

1. FEED FROM SCOTT HOUSE, 1000KVA, SEC. 208/120, RM 013M

PLUMBING:

Water (size, valve location) 4" RM 013M

Gas (size, valve location) NONE

Domestic Hot Water (size, valve location) 3" DHWS, 1" DHWR RM 013M

Compressed Air (size, location) LOCAL COMPRESSOR IN RM 013M

SEWERS: Storm 2 @ 4" Sanitary 3 @ 6"

METERS:

Gas (size, location) N/A

Water (size, location) 4", RM 013M

Electric (size, location) RM 013M

ALARM SYSTEMS:

Fire Alarm YES Panel Location RM 013M

Fire Pump NO Pump Location N/A

Sprinklers NO Panel Location N/A

Other Alarms NONE

ELEVATORS:

Number 1 Type (passenger, freight) PASSENGER

Manufacturer OTIS Size 51"X 80", 2500 LB CAPACITY

EMERGENCY GENERATOR: Size N/A Location N/A

KEY BOX LOCATION: INSIDE SOUTH/WEST ENTRANCE (NEW KEY)

ASBESTOS SURVEY (1986): PIPE INSULATION RM 013M

ARCHER HOUSE

HISTORY

Archer House was completed in 1966 to be a men's dormitory. As early as 1967 some of the rooms were converted to offices. The Personnel Department and various other departments occupied the building until the Math Tower was completed in 1993. The Math Department vacated the fourth floor and the Office of Human Resources now occupies the entire building. The building has had no additions since its construction and the basic systems are still as constructed in 1966. The Office of Human Resources has installed new carpeting throughout the building and has repainted the wall surfaces. The facility use by category is: 84% office and related uses and 16% mechanical/custodial/toilet.

PRIMARY SYSTEMS

The building is composed of poured concrete and concrete block walls. The structure is supported by continuous perimeter footings and cast in place concrete foundation walls. The foundation, walls and floors are in satisfactory condition.

The roof consists of concrete with 2" roof insulation. The surface is coal tar built-up, tarred felt and gravel. The roof has a pitch of 2" per foot. The roof is the original installed in 1966 and has surface cracks, splits, tunnel blisters, exposed felt, patch work and alligating throughout. Because of its age and condition the roof needs to be replaced.

The exterior of the building is in satisfactory condition except for the painted stucco surfaces and the evidence of flashing leaks on the south side of the building. The double-hung windows with thermal breaks were replaced approximately six years ago and are in good condition.

SECONDARY SYSTEMS

The interior partitions are composed of concrete block walls. The walls are in good condition throughout the building.

Floor surfaces consist of carpeting throughout except in the ground floor entrance area and the ground floor corridor, which have vinyl tiles. Overall, the surface finishes are in good condition.

The acoustical ceiling tiles are directly applied to the ceiling except in the ground floor entrance and hallway. There are tiles missing throughout the building and the ground floor ceiling shows signs of leaks.

SERVICE SYSTEMS

There is one elevator in the building that is recommended for modernization. Included in the project is the air conditioning of the mechanical room to accommodate the upgraded electrical service.

The cooling system consists of two reciprocating units with a total capacity of 60 tons and two roof mounted air cooled condensers. The chillers are at the end of their life expectancy and are recommended for replacement. Air is vented through the restrooms to eight exhaust units on the roof.

The building heating is supplied by hot water boilers located in Scott House. Each

room is equipped with a 4-pipe fan coil unit that provides both heating and cooling. Each area is individually controlled by local thermostats.

The plumbing system is original and there are continual problems with leaks on the ground floor. The maintenance personnel report that the leaks are due to failing joints. The horizontal plumbing lines should be examined and replaced as needed. There have been numerous service calls pertaining to leaking faucets that appear to open on their own with potential for extensive water damage. Domestic hot water is supplied the hot water boilers in Scott House.

ELECTRICITY

Building power is provided by a secondary feed from Scott House that has a 1000 KVA transformer, with a primary voltage of 13,200. The secondary voltage is 208/120. The Physical Facilities Department's Utilities Division reports that transformer capacity is adequate for the demand at both Scott House and Archer House.

The building lighting system is predominantly 2-tube fluorescent fixtures, which are in good condition. There is an adequate supply and distribution of convenience outlets throughout the building.

There is an unfunded project to replace the incandescent lights in the corridors. When funds become available, these lights should be replaced.

SAFETY STANDARDS

The building is equipped with a manual fire alarm system. There are lighted exit signs and emergency lights in the hallways and stairways. A ramp at the south/west entrance provides wheelchair access to the ground floor. Automatic door openers have been installed at this entrance. The elevator provides access to all floors of the building.

ASBESTOS

The Ohio Board of Regents Facilities Asbestos Inspection and Risk Assessment Program's report: Inventory of Friable Asbestos Containing Material in Buildings of the Ohio State University (Main and Branch Campuses) and the Recommendations for Corrective Action by PEI Associates, Sept. 1986, identifies asbestos containing materials on the pipe insulation in room 013M.

BUILDING PERIMETER

There are cracks in the concrete at the south/west side of the building. The sidewalk of the north side has a hole in it. A downspout on the east side is split open about ten feet above ground level. The concrete wall on the north/east side and the west side show water damage from leaks in the basement faucets. Flashing leaks on the south side of the building have created black streaks down the wall. Security and lighting around the building are adequate.

MAINTENANCE PROJECTS (LESS THAN \$5000)

1. Repaint all painted exterior surfaces.
Work Order # 01-5064-111328-60
2. Repair broken and cracked concrete sidewalks.
Work Order # 01-5063-008231-51
3. Trim shrubs around the building.
Work Order # 01-5063-008232-52
4. Repair spalling concrete on the north/east wall.
Work Order # 01-5064-111332-60
5. Repair loose concrete block at the south/east entrance.
Work Order # 01-5064-111332-60
6. Repair flashing leaks and clean dark streaks on south wall.
Work Order # 01-5064-111332-60
7. Repair faucet leaks on north and west basement walls.
Work Order # 01-5064-111332-60
8. Repair damaged down spout on east side of building.
Work Order # 01-5061-000707-20
9. Replace missing ceiling tiles as per list to be provided by Archer House.
Work Order # 01-5064-111387-65
10. Paint railings in the stairwells.
Work Order # 01-5064-111389-65

BUILDING EVALUATION SUMMARY

I. BUILDING INFORMATION

FAC # 261 FACILITY NAME: ARCHER HOUSE
 DATE: 5-15-94 INSPECTOR: A.J.R. VAN BUREN
 YEAR CONSTRUCTED: 1966
 GROSS SQ FT: 33,435 NET SQ FT: 19,196
 REPLACEMENT COST \$ 4,058,000 *

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	4.0	162,320	.91	147,711
Columns and Beams	11.7	474,786	.91	432,055
Exterior Walls	7.8	316,524	.81	256,384
Windows & Doors	3.1	125,798	.93	116,992
Roofing	1.7	68,986	.62	42,771
Partitions & Drs.	12.6	511,308	.87	444,838
Wall Finishes	2.3	93,334	.96	89,601
Floor Finishes	7.6	308,408	.95	292,988
Ceilings & Finish	6.7	271,886	.70	190,320
Conveying	2.5	101,450	.57	57,827
Plumbing	13.7	555,946	.68	378,043
Heating	4.0	162,320	.75	121,740
Cooling & Vent.	10.8	438,264	.62	271,724
Elec. Ser. & Dist	1.0	40,580	.81	32,870
Lighting & Power	10.0	405,800	.75	304,350
Safety Standards	0.5	20,290	.65	13,189
TOTALS	100.00	4,058,000		3,193,403

III. BUILDING RATING SUMMARY

Overall Building Rating = 79%

* 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 # 261 DATE 5-15-94 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

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

B. COMMENTS:

MOST OF THE BASEMENT WALL IS EXPOSED ON THE WEST SIDE, NO PROBLEMS WERE OBSERVED OTHER THAN THE WALL NEEDS TO BE PAINTED

C. COMPONENT RATING: (\$ 162,320) X (91 %) = \$ 147,711
 Possible Condition Component
 Value Value Multiplier Value

COLUMNS AND BEAMS

FAC # 261 DATE 5-15-94 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. Columns and Beams:

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

b. Floors:

Concrete Slab _____	[]	[X]	[]
Precast Slab _____	[X]	[]	[]
Metal Deck _____	[X]	[]	[]
Metal Deck w/concrete fill _____	[X]	[]	[]
Wood _____	[X]	[]	[]
Other _____	[X]	[]	[]

c. Roof System:

Flat <u>2" SLOPE PER FOOT</u>	[]	[X]	[]
Pitched _____	[X]	[]	[]
Concrete <u>THROUGHOUT EXCEPT THE LOUNGE ROOF</u>	[]	[X]	[]
Steel <u>1 1/2" METAL OVER THE LOUNGE AREA</u>	[]	[X]	[]
Wood _____	[X]	[]	[]
Other _____	[X]	[]	[]

B. COMMENTS:

NO FAULTS WERE OBSERVED

C. COMPONENT RATING: (\$ 474,786) X (91 %) = \$ 432,055

Possible	Condition	Component
Value	Value Multiplier	Value

EXTERIOR WALLS

FAC # 261 DATE 5-15-94 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. Walls:

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

b. Finishes:

Stucco <u>SMALL SECTION NEXT TO SOUTH/WEST ENTRANCE</u>	[]	[]	[X]
Paint _____	[]	[]	[X]
Other _____	[X]	[]	[]

B. COMMENTS:

THE STUCCO AT THE SOUTH/WEST ENTRANCE HAS A 2' SECTION MISSING EXTERIOR PAINTED SURFACES REQUIRE REPAINTING. THE SOUTH WALL SHOWS EVIDENCE OF FLASHING FAULTS AT THE ROOF.

C. COMPONENT RATING: (\$ 316,524) X (81 %) = \$ 256,384
 Possible Condition Component
 Value Value Multiplier Value

EXTERIOR WINDOWS & DOORS

FAC # 261 DATE 5-15-94 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. Windows type & number:	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
Wood _____	[X]	[]	[]
Steel _____	[X]	[]	[]
Alum <u>129 DOUBLE HUNG, 5 FIXED</u>	[]	[X]	[]
Other _____	[X]	[]	[]
b. Window glazing:			
Single pane <u>5 UNITS IN THE LOUNGE AREA</u>	[]	[X]	[]
Double pane <u>129 UNITS</u>	[]	[X]	[]
Other _____	[X]	[]	[]
c. Doors type & number:			
Wood _____	[X]	[]	[]
Steel <u>3 EXTERIOR DRS. WITH METAL FRAMES</u>	[]	[X]	[]
Alum <u>HANDICAP DOOR AT THE SOUTH ENTRANCE</u>	[]	[X]	[]
Other _____	[X]	[]	[]
d. Shading Devices:			
Types <u>VENETIAN BLINDS</u>	[]	[X]	[]

B. COMMENTS:

ALL THE WINDOWS WERE REPLACED WITH DOUBLE PANE UNITS ABOUT THREE YEARS AGO.

C. COMPONENT RATING: (\$ 125,798) x (93 %) = \$ 116,992

Possible	Condition	Component
Value	Value Multiplier	Value

ROOFING

FAC # 261 DATE 5-15-94 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. Roof Covering:	N/A	Sat	Att
Built-up _____	[X]	[]	[]
Built-up w/gravel <u>4 PLY, COAL TAR</u>	[]	[]	[X]
Asphalt Shingle _____	[X]	[]	[]
Copper _____	[X]	[]	[]
Glass (Skylight) _____	[X]	[]	[]
Slate _____	[X]	[]	[]
Spanish Tile _____	[X]	[]	[]
Metal _____	[X]	[]	[]
Other _____	[X]	[]	[]

c. Flashing:

Base & Counter <u>FELT WITH ALUMINUM</u>	[]	[]	[X]
Cap _____	[X]	[]	[]
Through Wall _____	[X]	[]	[]
Valley & Ridge _____	[X]	[]	[]

d. Gravel Stop & Edge Strips:

Type <u>A;UMINUM EDGE STRIP</u>	[]	[]	[X]
---------------------------------	-----	-----	-----

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 <u>2" RIDGED AND IMPREGNATED ROOF BOARD</u>	[]	[X]	[]
--	-----	-----	-----

B. COMMENTS

THE ROOF IS ORIGINAL AND IN POOR CONDITION WITH ALLIGATORING AND PITCH POCKET PROBLEMS. ONE DOWNSPOUT IS SPLIT OPEN ON THE EAST SIDE OF BLDG. THE ROOF IS 28 YEARS OLD AND GENERALLY IN POOR CONDITION. FLASHING ON THE LOUNGE ROOF ON THE SOUTH SIDE SHOW SIGNS OF LEAKS.

C. COMPONENT RATING: (\$ 68,986) X (62 %) = \$ 42,771
 Possible Condition Component
 Value Value Multiplier Value

PARTITIONS & DOORS

FAC # 261 DATE 5-15-94 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. Partition Framing:

	N/A	Sat	Att
Concrete Block <u>PAINTED BLOCKS</u>	[]	[X]	[]
Glazed Block _____	[X]	[]	[]
Wood Stud _____	[X]	[]	[]
Metal Stud _____	[]	[X]	[]
Structural Tile _____	[X]	[]	[]
Rated _____	[X]	[]	[]
Other _____	[X]	[]	[]

b. Special partitions and Walls:

Toilet _____	[X]	[]	[]
Screen Walls _____	[X]	[]	[]
Gate _____	[X]	[]	[]
Other _____	[X]	[]	[]

c. Wall Material:

Plaster _____	[X]	[]	[]
Plaster Board _____	[]	[X]	[]
Glass _____	[X]	[]	[]
Plywood _____	[X]	[]	[]
Paneling _____	[X]	[]	[]
Trim & Wainscot _____	[X]	[]	[]
Tile/Glazed <u>IN RESTROOMS</u>	[]	[X]	[]
Other _____	[X]	[]	[]

d. Interior Doors & Frames:

Met Door/Met Frame <u>MECH. RM. AND AT THE HALLWAY ENTRANCE</u>	[]	[X]	[]
Wood Door/Wood Frame _____	[X]	[]	[]
Wood Door/Metal Frame <u>PREDOMINANTLY - WITH LOUVERS</u>	[]	[X]	[]
Glazing _____	[X]	[]	[]
Rollup _____	[X]	[]	[]
Sliding _____	[X]	[]	[]
Other _____	[X]	[]	[]

e. Hardware:

Door Closers _____	[]	[X]	[]
Lock Sets _____	[]	[X]	[]
Kick/Push Plates _____	[]	[X]	[]
Thresholds _____	[]	[X]	[]
Panic Devices _____	[]	[X]	[]
Security & Detection _____	[X]	[]	[]
Automatic Openers <u>HANDICAP ENTRANCE - SOUTH/WEST DOOR</u>	[]	[X]	[]
Other _____	[X]	[]	[]

B. COMMENTS:

THE PARTITIONS AND DOORS ARE IN GOOD CONDITION. ALL PARTITIONS ARE OF CONCRETE BLOCK EXCEPT FOR A FEW ORIGINAL WALLS THAT SEPARATED THE STUDY AREA FROM THE BEDROOMS.

C. COMPONENT RATING: (\$ 511,308) X (87 %) = \$ 444,838
 Possible Condition Component
 Value Value Multiplier Value

WALL FINISHES

FAC # 261 DATE 5-15-94 INSPECTOR: AJR

A. SYSTEM DESCRIPTION	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
a. Paint _____	[]	[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</u> _____	[]	[X]	[]
h. Trim & Wainscot _____	[X]	[]	[]
i. Decoration _____	[X]	[]	[]
j. Glass _____	[X]	[]	[]
k. Other _____	[X]	[]	[]

B. COMMENTS

THE BUILDING HAS BEEN REDECORATED IN THE LAST TWO YEARS AND IS IN GOOD CONDITION.

C. COMPONENT RATING: (\$ 93,334) X (96 %) = \$ 89,601
 Possible Condition Component
 Value Value Multiplier Value

FLOOR FINISHES

FAC # 261 DATE 5-15-94 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

	N/A	Sat	Att
a. Carpet:			
Rolled _____	[]	[X]	[]
Tile _____	[X]	[]	[]
b. Composition:			
Epoxy _____	[X]	[]	[]
Synthetic _____	[X]	[]	[]
Other _____	[X]	[]	[]
c. Concrete Topping:			
Clear Sealant _____	[X]	[]	[]
Abrasive _____	[X]	[]	[]
Epoxy _____	[X]	[]	[]
Aggregate _____	[X]	[]	[]
d. Resilient:			
Vinyl Tile <u>IN PART OF GROUND FLOOR HALLWAY</u> _____	[]	[X]	[]
Linoleum _____	[X]	[]	[]
Vinyl _____	[X]	[]	[]
Rubber _____	[X]	[]	[]
Cork _____	[X]	[]	[]
e. Ceramic Tile _____	[X]	[]	[]
f. Masonry _____	[X]	[]	[]
g. Terrazzo <u>IN PART OF GROUND FLOOR HALLWAY</u> _____	[]	[X]	[]
h. Wood _____	[X]	[]	[]
i. Metal _____	[X]	[]	[]

B. COMMENTS

FLOOR FINISHES ARE IN EXCELLENT CONDITION.

C. COMPONENT RATING: (\$ 308,408) X (95 %) = \$ 292,988
 Possible Condition Component
 Value Value Multiplier Value

CEILING AND FINISHES

FAC # 261 DATE 5-15-94 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. System Type:	N/A	Sat	Att
Exposed _____	[X]	[]	[]
Applied to Structure <u>PREDOMINANTLY</u>	[]	[X]	[]
Suspended <u>IN THE LOUNGE AREA</u>	[]	[X]	[]
 b. Materials:			
Drywall _____	[]	[X]	[]
Plaster _____	[X]	[]	[]
Mineral Fiber Board <u>IN THE LOUNGE AREA</u>	[]	[]	[X]
Metal Pan _____	[X]	[]	[]
Luminous Panels _____	[X]	[]	[]
Other <u>ACOUSTIC TILES</u>	[]	[X]	[]
 c. Finishes:			
Paint _____	[]	[X]	[]
Fabric _____	[X]	[]	[]
Prefinished _____	[]	[X]	[]
Other _____	[X]	[]	[]
 d. Openings & Inserts:			
Air Distribution <u>GROUND FLOOR ONLY</u>	[]	[X]	[]
Lighting Fixtures _____	[]	[X]	[]
Access Panels _____	[]	[X]	[]
Skylights _____	[X]	[]	[]
Fire Protection _____	[X]	[]	[]
Other _____	[X]	[]	[]

B. COMMENTS:

A FEW TILES WERE REMOVED IN THE LOUNGE AND THE GROUND FLOOR HALLWAY.

C. COMPONENT RATING: (\$ 271,886) X (70 %) = \$ 190,320
 Possible Condition Component
 Value Value Multiplier Value

CONVEYING

FAC # 261 DATE 5-15-94 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. Elevators:

	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
Number <u>ONE</u>	[]	[]	[X]
Type <u>OTIS PASSENGER</u>	[]	[]	[X]
Speed <u>100' PER MINUTE</u>	[]	[X]	[]
Capacity (lbs) <u>2500</u>	[]	[X]	[]
Dimensions <u>51" X 80"</u>	[]	[X]	[]
Door Operation:			
Center	[X]	[]	[]
To Side	[]	[X]	[]
Handicapped-accessible controls _____	[]	[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:

THE ELEVATOR HAS BEEN IDENTIFIED AS ONE THAT NEEDS TO BE UPGRADED TO COMPLY WITH TODAY'S ADA REQUIREMENTS.

C. COMPONENT RATING: (\$ 101,450) x (57 %) = \$ 57,827
 Possible Condition Component
 Value Value Multiplier Value

MECHANICAL/PLUMBING

FAC # 261 DATE 5-15-94 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. Services Available:	N/A	Sat	Att
Cold Water <u>4" RM 013M</u>	[]	[X]	[]
Hot Water <u>3" DHWS. 1" DHWR.</u>	[]	[X]	[]
Acid Waste _____	[X]	[]	[]
Oxygen _____	[X]	[]	[]
Natural Gas _____	[X]	[]	[]
Vacuum _____	[X]	[]	[]
Distilled Water _____	[X]	[]	[]
Compressed Air <u>LOCAL COMPRESSOR</u>	[]	[X]	[]
Other _____	[X]	[]	[]
b. Piping & Fittings:			
Cast Iron <u>SANITARY AND VENTS</u>	[]	[X]	[]
Copper Tubing <u>LIMITED USE</u>	[]	[X]	[]
Plastic _____	[X]	[]	[]
Steel <u>LEAKS REPORTED IN THE GROUND FLOOR AREA</u>	[]	[]	[X]
Glass _____	[X]	[]	[]
Other _____	[X]	[]	[]
c. Water Heaters:			
Electric _____	[X]	[]	[]
Gas _____	[X]	[]	[]
Oil _____	[X]	[]	[]
Steam Converter _____	[X]	[]	[]
Other <u>BOILERS LOCATED IN SCOTT HOUSE</u>	[]	[X]	[]
d. Drainage:			
Storm Drains <u>2 @ 4"</u>	[]	[X]	[]
Sanitary Drainage <u>3 @ 6"</u>	[]	[X]	[]
Combined Storm/San. <u>3 @ 6"</u>	[]	[X]	[]
Floor Drains _____	[]	[X]	[]
e. Fixtures:			
Water Closets <u>62 ORIGINAL FIXTURES</u>	[]	[X]	[]
Urinals _____	[X]	[]	[]
Lavatories <u>FAUCETS SHOULD BE REPLACED</u>	[]	[]	[X]
Showers <u>60 ORIGINAL FIXTURES</u>	[]	[X]	[]
Kitchen Sinks <u>ONE</u>	[]	[X]	[]
Service Sinks <u>FIVE</u>	[]	[X]	[]
Drinking Fountains _____	[X]	[]	[]
Electric Water Coolers <u>FIVE</u>	[]	[X]	[]
f. Sprinkler Systems:			
Wet _____	[X]	[]	[]
Dry _____	[X]	[]	[]
g. Standpipe Systems:			
Wet <u>TO SERVE THE HOSE CABINETS</u>	[]	[X]	[]
Dry _____	[X]	[]	[]
Valves _____	[X]	[]	[]
Hose Cabinets <u>TWO PER FLOOR</u>	[]	[X]	[]

B. COMMENTS:

LEAKS WERE REPORTED ALONG THE GROUND FLOOR CORRIDOR AND THE FAUCETS IN THE RESTROOMS TURNED ON WITHOUT ASSISTANCE.

C. COMPONENT RATING: (\$ 555,946) X (68 %) = \$ 378,043
 Possible Condition Component
 Value Value Multiplier Value

MECHANICAL/HEATING

FAC # 261

DATE: 5-15-94

INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. Heat Source:

	N/A	Sat	Att
Central Plant Steam _____	[X]	[]	[]
Central Plant Hot Water _____	[X]	[]	[]
Boilers: Type <u>3 CLEAVER-BROOKS, IN SCOTT HOUSE</u>	[]	[X]	[]
Size <u>8.375 MBTU/HR EA.</u>	[]	[X]	[]
Furnace: Type _____	[X]	[]	[]
Size _____	[X]	[]	[]
Heat Pump: Type _____	[X]	[]	[]
Size _____	[X]	[]	[]

b. System Type:

Steam _____	[X]	[]	[]
Hot Water <u>3" HWS , 3" HWR RM 013M</u>	[]	[X]	[]
Air _____	[X]	[]	[]
Multizone _____	[X]	[]	[]
Dual Duct _____	[X]	[]	[]
Terminal Reheat _____	[X]	[]	[]
Variable Volume _____	[X]	[]	[]
Other _____	[X]	[]	[]

c. Space Equipment:

Radiators _____	[X]	[]	[]
Convectors _____	[X]	[]	[]
2-Pipe Fan Coil <u>FOUR PIPE UNITS, ONE PER ROOM</u>	[]	[]	[X]
Unit Heaters _____	[X]	[]	[]
Other _____	[X]	[]	[]

d. Control Type:

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

B. COMMENTS:

HOT WATER IS SUPPLIED BY THE BOILERS LOCATED IN SCOTT HOUSE EACH ROOM IS INDIVIDUALLY HEATED BY A 4-PIPE FAN COIL UNIT NO PROBLEMS WERE OBSERVED.

C. COMPONENT RATING: (\$ 162,320) X (75 %) = \$ 121,740
 Possible Condition Component
 Value Value Multiplier Value

ELECTRICAL/SERVICE & DISTRIBUTION

FAC # 261 DATE: 5-15-94 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

(a) Service:

Substation FEED FROM SCOTT HOUSE
Primary Voltage 208/120
Transformer:
Manufacture Type KVA Secondary Voltages
N/A

(b) Distribution System:

Panelboard (type) CIRCUIT BREAKER
Voltage 208/120
Amperage 600 AMPS
Conduit ALUMINUM AND STEEL
Conductor COPPER
Wire (type) VARIES
Armored Cable LIMITED TO EQUIPMENT
Other

(c) Emergency System:

General or (type & capacity) NONE

B. COMMENTS:

THE ELECTRICAL FEED IS FROM SCOTT HOUSE WHERE THE PRIMARY IS 13.2 KV AND THE SECONDARY IS 208/120 V

C. COMPONENT RATING: (\$ 40,580) X (81 %) = \$ 32,870
 Possible Condition Component
 Value Value Multiplier Value

ELECTRICAL/LIGHTING & POWER

FAC # 261

DATE: 5-15-94

INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. Lighting (lamp type):

	N/A	Sat	Att
Fluor <u>TWO TUBE</u>	[]	[X]	[]
Incand <u>IN THE HALLWAYS</u>	[]	[X]	[]
HID _____	[X]	[]	[]
Other _____	[X]	[]	[]

b. Receptacles & Switches:

Type & Capacity <u>GROUNDING DUPLEX, 120 VOLT</u>	[]	[X]	[]
---	-----	-----	-----

c. Special:

Baseboard Heat _____	[X]	[]	[]
Lightning Protection _____	[X]	[]	[]
Communication & Alarm _____	[X]	[]	[]
Data Systems <u>LOCAL AREA NETWORK</u>	[]	[X]	[]

B. COMMENTS:

THE ELECTRICAL SYSTEM IS ADEQUATE AND NO COMPLAINTS WERE RECEIVED FROM THE BUILDING OCCUPANTS.

C. COMPONENT RATING: (\$ 405,800) X (75 %) = \$ 304,350
 Possible Condition Component
 Value Value Multiplier Value

SAFETY STANDARDS

FAC # 261

DATE: 5-15-94

INSPECTOR: AJR

A. SYSTEM DESCRIPTION

	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
(a) Exits:			
Stair Construction:			
concrete _____	[X]	[]	[]
steel _____	[]	[X]	[]
wood _____	[X]	[]	[]
Number of exits <u>2</u>	[]	[X]	[]
(b) Fire Rating:			
Construction Type: <u>I X</u> <u>II</u> <u>III</u> <u>IV</u> <u>V</u> <u>VI</u>			
Building Height: _____ <u>44</u> ft., <u>4</u> & GR.FL. _____ stories			
(c) Extinguishing Systems:			
Portable _____	[]	[X]	[]
Standpipe <u>SERVES HOSE CABINETS</u>	[]	[X]	[]
Hose Cabinets <u>TWO PER FLOOR</u>	[]	[X]	[]
Sprinklers _____	[X]	[]	[]
Suppression _____	[X]	[]	[]
Other _____	[X]	[]	[]
(d) Detection & Alarm Systems:			
Manual Alarm _____	[]	[X]	[]
Annunciator _____	[X]	[]	[]
Smoke Detectors _____	[X]	[]	[]
(e) Lighting Systems:			
Exit Signs _____	[]	[X]	[]
Exit Lighting <u>SIGNS ARE LIGHTED</u>	[]	[X]	[]
Emergency Lighting _____	[X]	[]	[]
Emergency Generator _____	[X]	[]	[]

B. COMMENTS:

NO PROBLEMS WERE OBSERVED.

C. COMPONENT RATING: (\$ 20,290) x (65 %) = \$ 13,189
 Possible Condition Component
 Value Value Multiplier Value

BUILDING PERIMETER EVALUATION

FAC # 261 DATE: 5-15-94 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

	N/A	Sat	Att
1. Building Access:			
Driveway <u>CRACKED CONCRETE AT SOUTH/WEST ENTRANCE</u>	[]	[]	[X]
Loading Dock _____	[X]	[]	[]
Sidewalks			
Front _____	[]	[X]	[]
Side <u>NORTH SIDE-HOLE IN CONCRETE SIDE WALK</u>	[]	[]	[X]
Rear _____	[X]	[]	[]
Steps			
Front _____	[]	[X]	[]
Side _____	[]	[X]	[]
Rear _____	[]	[X]	[]
Handicap Ramp <u>AT THE SOUTH/WEST ENTRANCE</u>	[]	[X]	[]
2. Lawn and Landscaping:			
Lawn _____	[]	[X]	[]
Shrubs <u>OVERGROWN</u>	[]	[]	[X]
Trees _____	[]	[X]	[]
Undesirable Insect _____	[X]	[]	[]
Bedding Material <u>ON WEST SIDE OF BUILDING</u>	[]	[]	[X]
Watering System _____	[X]	[]	[]
3. General Site Information:			
Signage <u>ATTACHED TO BUILDING AND FREE STANDING</u>	[]	[X]	[]
Address Identification _____	[]	[X]	[]
Security Lights _____	[]	[X]	[]
Street Lights _____	[]	[X]	[]
Drainage <u>NO PROBLEMS OBSERVED</u>	[]	[X]	[]
Storm Drains _____	[]	[X]	[]

B. COMMENTS:

CONCRETE ON THE NORTH AND SOUTH/WEST SIDE OF THE BUILDING SHOULD BE REPAIRED. THE SHRUBS SHOULD BE TRIMMED. MOST OF THE MULCH ON THE WEST SIDE HAS BEEN BLOWN AWAY AND SHOULD BE REPLACED.

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

BUILDING AUDIT METHODOLOGY

1. BUILDING AUDIT PROGRAM OBJECTIVE

The primary objective of this program is to provide a building-by-building inventory and current list of building maintenance deficiencies. This analysis is limited to the buildings for which the Department of Physical Facilities has budgetary responsibility. These audits will be used to establish corrective maintenance projects and budget cost estimates.

2. 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.

3. 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" forms provide data on the utilities to the buildings and the type of systems in each building.

4. 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.

5. 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 regarding 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) General repainting, redecorating, wholesale replacement of building and system components, on-going maintenance, replacement, and renovation projects.
- (b) Exterior building walls and attached items.
- (c) Entrance steps at all entries, ramps outside the buildings, and a limited evaluation of plantings around the building exterior.

(7) The building inspections do not include:

- (a) Movable furniture.
- (b) Fixed equipment inside the buildings that is installed and maintained by a specific academic department or using agency.
- (c) Utility lines supplying the buildings.

(8) 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 11