

FACILITY AUDIT REPORT  
**INDEPENDENCE HALL**  
Building #338

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GENERAL BUILDING INFORMATION

INDEPENDENCE HALL #338

BUILDING ADDRESS: 1923 NEIL AVE MALL

GROSS SQ. FT.: 15,905

NET ASSIGNABLE SQ. FT.: 8,082

MECHANICAL/CUSTODIAL AREA SQ. FT.: 1,127

YEAR OF CONSTRUCTION: 1975

YEAR OF LAST RENOVATION: N/A

NUMBER OF STORIES/BASEMENT: ONE STORY, NO BASEMENT

AIR CONDITIONING (Percentage): 90 %

CURRENT USE: LECTURE HALL AND OFFICES FOR ACADEMIC AFFAIRS

TYPE OF CONSTRUCTION: STEEL FRAME, MASONRY SKIN

ESTIMATED REPLACEMENT COST: \$2,009,000 \*

BUILDING APPEARANCE: INTERIOR FINISHES ARE SHOWING SOME WEAR AND THE EXTERIOR IS IN GOOD CONDITION, BUT NEEDS CLEANED.

HANDICAPPED ACCESSIBILITY: THE NORTHEAST DOOR HAS AN AUTOMATIC DOOR OPENER AND HAS A RAMP FROM 17TH AVENUE.

OVERALL BUILDING CONDITION: SATISFACTORY \*\*

NUMBER OF EXIT STAIRWAYS: FOUR

\* Replacement Cost assigned September 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

INDEPENDENCE HALL #338

**HEATING:**

Source POWER PLANT HOT WATER  
Type Heating System HOT WATER  
Steam (Line size, valve location) N/A  
Building Htg Water (line size, valve location) 3 INCH LINE RM 110M

**VENTILATION SYSTEM:**

SINGLE ZONE CHILLED WATER COOLING SYSTEM

**COOLING:**

Bldg % 90 % Chillers 95 TON, ELECTRIC RECIPROCATING, RHEEM MANF.  
Window Units N/A Thru-the-wall N/A Direct exp. units ONE SYS.

**HVAC CONTROL SYSTEM:** PNEUMATIC THERMOSTATS AND DDC CENTRAL MONITORING SYSTEM

**ELECTRIC:** Source Size(KVA) Primary/Secondary Switchgear & Main Disc. (Rm)  
1. PGN9/PGS3 500 13,200 / 208Y/120 NIAGARA RM 110M

**PLUMBING:**

Water (size, valve location) 2" LINE, RM 110M  
Gas (size, valve location) NONE  
Domestic Hot Water (size, valve location) 1" LINE, RM 110M  
Compressed Air (size, location) LOCAL AIR COMPRESSOR, RM 110M

**SEWERS:** Storm NONE Sanitary NONE Combination 2 @ 8"

**METERS:**

Gas (size, location) NONE  
Water (size, location) 2 " WATER METER LOCATED IN RM 110M  
Electric (size, location) LOCATED WITH TRANSFORMER IN RM 110M

**ALARM SYSTEMS:**

Fire Alarm YES Panel Location RM 110M  
Sprinklers NO Panel Location NONE  
Other Alarms SMOKE DETECTOR IN ROOM 110M

**ELEVATORS:**

Number NONE Type (passenger, freight)  
Manufacturer \_\_\_\_\_ Size

**EMERGENCY GENERATOR:** Size NONE Location

**KEY BOX LOCATION:** NORTHWEST ENTRANCE DOOR

**ASBESTOS SURVEY (1986):**

THE PEI ASSOCIATES SURVEY DID NOT IDENTIFY ANY ASBESTOS CONTAINING MATERIALS IN INDEPENDENCE HALL.

## INDEPENDENCE HALL NARRATIVE

### GENERAL

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

Audit objectives and methodology are described in greater detail in the "Building Audit Methodology" section of this report.

### HISTORY

Construction of Independence Hall was completed in 1975. Independence Hall was built as part of the University Hall Complex that included with the reconstruction of University Hall and the construction of Dulles Hall. Independence Hall includes an auditorium that seats 740 and 6 offices. The current building use is as follows: Classroom 78%, Offices 10%, and Mechanical 12%.

The six offices were added by enclosing the original lobby area in 1987. The office space is currently occupied by the Office of Academic Affairs and The President's Office. A new roof cover was installed in 1984 to replace the original built-up roof. The auditorium is used as a lecture hall and has a projection room, televisions, microphone system, and overhead projector. A direct digital control system was installed in the late 1980's to provide central control of the HVAC system. There were no energy conservation modifications made to Independence Hall because the building was considered to have incorporated many energy conservation features.

The building has experienced abnormal wear and tear on the finish surfaces because of the large number of students in and out of the building between classes. The seat cushions, carpeting, door finishes, and painted walls are all in need of repair or replacement. The building systems are functioning satisfactorily.

### PRIMARY SYSTEMS

The foundation, substructure, and superstructure all appear to be in good condition. The foundation consists of concrete footings and piers. The floor is a poured concrete slab on grade. The exterior walls are concrete block with brick veneer. The ivy vines were recently removed from the exterior brick, but there are still several areas of the brick that need to be cleaned.

The double glazed aluminum frame windows are a fixed glass type and do not open. There are several windows with leaking seals allowing moisture to collect between the panes of glass. These windows need to be reglazed. There are two different types of exterior doors. The four primary entrances have aluminum frames with full glazing and are in good condition. The solid metal doors that provide access to the mechanical room and trash room need to be painted.

The roof for Independence Hall was replaced in 1984 with a Carlisle Sure Seal Design 'A' EPDM membrane roof system. The replacement roofing system

construction consists of a vapor retardant, 3/4" perlite and 2½" to 13" tapered expanded polystyrene laminated to 1/2" thick wood fiber board. The roof system has a 10-year guarantee on the complete roof system and a 20-year warranty on all materials. This roof system is presently 8 years old. The roof had been painted with a hypalon coating and silica sand to provide the proper fire rating. This treatment has eroded away and should be replaced.

## **SECONDARY SYSTEMS**

The partitions, doors, walls, floors, and ceilings are in fair condition. The interior wear surfaces are showing signs of wear and tear. The upholstered auditorium seats have several cushions that are worn and the foam rubber showing. These seats should be reupholstered.

The corridors from the auditorium are constructed of concrete block, but the finish surfaces are marked and should be painted. There are shelves installed in the corridors that have been damaged from vandalism. They do not serve any purpose and should be removed. The doors that exit from the auditorium to the vestibules are worn down to the bare wood from backpacks and book bags rubbing. These door should be refinished and protective plates installed to provide a better wear surface.

The floors in the corridors are vinyl tile. The auditorium has carpet in the aisles and exposed concrete in the seating area. The stage has a wood parquet floor. The floors are generally in good condition. The concrete floor should be cleaned and sealed and the carpet has few frayed ends.

## **SERVICE SYSTEMS**

The major service systems all appear to be functioning adequately. The plumbing system does not appear to have any problems. There have been the normal stopped-up drains, but no water line breaks or restrictions. The HVAC system consists of two single zone air handlers. The heating coils are supplied with hot water directly from the power plant. The cooling system has two reciprocating compressors with two air cooled condensers that provide chilled water to the cooling coils that supply the auditorium and corridors. The cooling system is 17 years old, but is performing adequately.

There is also a Carrier DX unit that was installed in 1987 to provide cooling for the offices that were constructed in the lobby area of Independence Hall. This is a single zone unit that supplies 5 office areas, so it is difficult to balance the air flow to satisfy the occupants in all the offices.

## **ELECTRICITY**

The electric service for Independence Hall is supplied by a 500 KVA transformer and a three 400 amp disconnects. The main distribution panels and individual circuit breaker panels are also located in room 110M. The only change to the building that has required additional electric service was the construction of the 6 offices in the lobby area.

There was more than adequate electric capacity to handle this building modification. There is still spare breaker space in the panel boxes to add new circuits. The electric circuits that supply room 119 have had several work orders to reset the breaker. This appeared to be the result of occupants using

electric space heaters to supplement the HVAC system and overloading the circuit.

The auditorium has incandescent recessed lighting that is controlled by a dimming system located in room 110M. The corridors have ceiling recessed circular fluorescent fixtures. The offices have the standard 4-tube fluorescent fixtures. There are battery packs that supply back-up power for emergency lighting and exit lights.

#### **SAFETY STANDARDS**

Independence Hall is equipped with a manual fire alarm system, smoke detectors for the air handlers, and portable fire extinguishers. The Ohio Board of Regents Facilities Asbestos Inspection and Risk Assessment Program's report by PEI Associates, did not identify any asbestos containing materials in Independence Hall.

#### **BUILDING PERIMETER**

The sidewalks on Neil, 17th, and Millikin are in good condition. The walkway on the south of the building next to Townshend Hall has loose asphalt that should be repaired. There is no driveway directly to the building. There is a driveway between Larkins Hall and Independence that is constructed of brick pavers that have some uneven areas. The streets on the north and the east have recently been repaved.

The building sign is located at the corner of 17th and Neil. The street lights provide adequate exterior lighting for the building. The shrubs and trees were recently trimmed and appear to be healthy. The lawn on the north side has several areas that are bare and need to be seeded. The area around the exterior of the building is in good condition.

#### **CONCLUSION**

Independence Hall is in good condition. Existing maintenance deficiencies consists of replacing worn-out seat cushion covers, painting the corridors, and refinishing the exit doors. The roof was replaced in 1984 and has a 20-year warranty. The reciprocating chiller is 17 years old but performing adequately.

The brick exterior of the building has recently had the ivy removed, but still needs to be cleaned to eliminate the dirt and debris left from the ivy vines. The lawn area is in poor condition primarily due to the dry weather we have experienced the last couple of years.

**PROPOSED MAINTENANCE PROJECTS**  
(R&R or CAPITAL FUNDED)

**A. Corrective Maintenance Projects:**

- 1. Clean and paint corridor walls. Remove damaged shelving and patch holes.....\$7,763
- 2. Replace hypalon coating and silica sand on the EPDM roof membrane.....5,000 \*

**B. Building Improvements/Addition Projects:**

No projects identified.

**C. Building Component Replacements expected within the next 5 Years:**

- 1. Reupholster 240 auditorium seat cushions.....\$9,600

**Total cost for all projects = \$ 22,363**

\* This repair should be covered under the 10 year written guarantee provided by C.R. Huffer and Carlisle.

## **MAINTENANCE PROJECTS**

(Less than \$5,000)

1. Clean the front exterior of the building to remove the debris and dirt remaining from the removal of the ivy.
2. Replace seven (7) double glazed insulated windows that have leaking seals.
3. Clean and seal the concrete floors in the auditorium.
4. Clean ceiling supply registers and wall mounted return air grilles in the auditorium area.
5. Replace missing covers for the aisle floor lights in the auditorium.
6. Repair asphalt walk on the south side of the building.
7. Refinish wood exit doors and install metal protectors on the doors.

**BUILDING EVALUATION SUMMARY**

**I. BUILDING INFORMATION**

FAC # 338 FACILITY NAME: INDEPENDENCE HALL  
 DATE: 3-24-92 INSPECTOR: RDL  
 YEAR CONSTRUCTED: 1975  
 GROSS SQ FT: 15,905 NET SQ FT: 6,209  
 REPLACEMENT COST \$ \$2,009,000 X 94% = 1,888,460 \*

**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	8.87	167,506	0.95	159,131
Columns and Beams	15.80	298,377	0.95	283,458
Exterior Walls	11.81	223,027	0.93	207,415
Windows & Doors	5.74	108,398	0.74	80,215
Roofing	4.47	84,414	0.88	74,284
Partitions & Drs.	4.55	85,925	0.91	78,192
Wall Finishes	4.16	78,560	0.82	64,419
Floor Finishes	9.58	180,914	0.84	151,968
Ceilings & Finish	2.51	47,400	0.79	37,446
Conveying	0.00	0	0.00	0
Plumbing	3.99	75,350	0.91	68,569
Heating	7.09	133,892	0.85	113,808
Cooling & Vent.	6.57	124,072	0.77	95,535
Elec. Ser. & Dist	1.59	30,027	0.89	26,724
Lighting & Power	9.06	171,094	0.86	147,141
Safety Standards	4.21	79,504	0.78	62,013
TOTALS	100.00	1,888,460	0.87	1,650,318

**III. BUILDING RATING SUMMARY**

**Overall Building Rating = 87.0 %**

\* Replacement Cost assigned November 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.







**EXTERIOR WINDOWS & DOORS**

FAC # 338      DATE: 3-24-92      INSPECTOR: RDL

**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>ALUMINUM FRAME FIXED GLASS WINDOWS</u>	[ ]	[X]	[ ]
Other _____	[X]	[ ]	[ ]
<b>b. Window glazing</b>			
Single pane _____	[X]	[ ]	[ ]
Double pane <u>FIXED GLASS, 7 WINDOWS HAVE BAD SEALS</u>	[ ]	[ ]	[X]
Other _____	[X]	[ ]	[ ]
<b>c. Doors type &amp; number:</b>			
Wood _____	[X]	[ ]	[ ]
Steel <u>MECHANICAL ROOM DOORS AND TRASH ROOM DOORS</u>	[ ]	[ ]	[X]
Alum <u>ENTRANCE DOORS</u>	[ ]	[X]	[ ]
Other _____	[X]	[ ]	[ ]
<b>d. Shading Devices:</b>			
Types <u>VENETIAN BLINDS &amp; DRAPERIES</u>	[ ]	[X]	[ ]

**B. COMMENTS:**

1. THE METAL EXTERIOR DOORS NEED PAINT.
2. SEVEN OF THE DOUBLE SEAL WINDOWS NEED TO BE REPAIRED TO ELIMINATE MOISTURE BUILD-UP BETWEEN GLASS PANELS.

**C. COMPONENT RATING:**     $( \$ 108,398 ) \times ( 0.74 ) = \$ 80,215$

Possible	Condition	Component
Value	Value Multiplier	Value

**ROOFING**

FAC # 338      DATE: 3-24-92      INSPECTOR: RDL

**A. SYSTEM DESCRIPTION**

<b>a. Roof Covering:</b>	N/A	Sat	Att
Built-up _____	[X]	[ ]	[ ]
Built-up w/gravel _____	[X]	[ ]	[ ]
Asphalt Shingle _____	[X]	[ ]	[ ]
Copper _____	[X]	[ ]	[ ]
Glass (Skylight) _____	[X]	[ ]	[ ]
Slate _____	[X]	[ ]	[ ]
Spanish Tile _____	[X]	[ ]	[ ]
Metal _____	[X]	[ ]	[ ]
Other <u>SINGLE PLY EPDM MEMBRANE ROOF SYSTEM (1984)</u>	[ ]	[ ]	[X]

**b. Flashing:**

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

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

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

Gutters _____	[X]	[ ]	[ ]
Drains <u>LOCATED NEAR PARAPETS ON EACH ROOF SECTION</u>	[ ]	[X]	[ ]
Scuppers _____	[X]	[ ]	[ ]
Downspouts _____	[X]	[ ]	[ ]

**f. Parapets:**

Concrete _____	[X]	[ ]	[ ]
Brick _____	[X]	[ ]	[ ]
Block <u>CONCRETE BLOCK USED FOR PARAPET WITH BRICK VENEER</u>	[ ]	[X]	[ ]
Precast _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]

**g. Insulation:**

Type <u>3/4" PERLITE AND TAPERED WOOD FIBER BOARD</u>	[ ]	[X]	[ ]
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**B. COMMENTS**

1. EPDM MEMBRANE ROOF COVER HAD A HYPALON COATING WITH SILICA SAND TO PROVIDE THE PROPER FIRE RATING. THIS COATING HAS WEATHERED AND THE SAND HAS COME LOOSE AND COLLECTED IN THE CORNERS OF THE ROOF.
2. THERE IS A TOTAL OF 19,283 SF OF ROOF AREA.

**C. COMPONENT RATING:**     $( \$ 84,414 ) \times ( 0.88 ) = \$ 74,284$

Possible                      Condition                      Component

Value                          Value Multiplier              Value



**WALL FINISHES**

FAC # 338      DATE: 3-24-92      INSPECTOR: RDL

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

**B. COMMENTS**

1. CORRIDOR WALLS SHOULD BE CLEANED AND PAINTED.
2. BOOK SHELVES ON CORRIDOR WALLS ARE DAMAGED. THERE IS A QUESTION AS TO WHETHER THE SHELVES ARE EVER USED. THEY COULD PROBABLY BE REMOVED AND NEVER MISSED.

**C. COMPONENT RATING:**    ( \$ 78,560 ) x ( 0.82 ) = \$ 64,419

Possible	Condition	Component
Value	Value Multiplier	Value

**FLOOR FINISHES**

FAC # 338      DATE: 3-24-92      INSPECTOR: RDL

**A. SYSTEM DESCRIPTION**

	N/A	Sat	Att
<b>a. Carpet:</b>			
Rolled <u>AISLES OF LECTURE HALL HAVE CARPET</u>	[ ]	[ ]	[X]
Tile _____	[X]	[ ]	[ ]
<b>b. Composition:</b>			
Epoxy _____	[X]	[ ]	[ ]
Synthetic _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]
<b>c. Concrete Topping:</b>			
Clear Sealant <u>SEATING AREA OF LECTURE HALL NEEDS SEALED</u>	[ ]	[ ]	[X]
Abrasive _____	[X]	[ ]	[ ]
Epoxy _____	[X]	[ ]	[ ]
Aggregate _____	[X]	[ ]	[ ]
<b>d. Resilient:</b>			
Vinyl Tile <u>CORRIDORS, LOBBY AREAS, AND RESTROOMS</u>	[ ]	[X]	[ ]
Linoleum _____	[X]	[ ]	[ ]
Vinyl _____	[X]	[ ]	[ ]
Rubber _____	[X]	[ ]	[ ]
Cork _____	[X]	[ ]	[ ]
<b>e. Ceramic Tile</b> _____	[X]	[ ]	[ ]
<b>f. Masonry</b> _____	[X]	[ ]	[ ]
<b>g. Terrazzo</b> _____	[X]	[ ]	[ ]
<b>h. Wood</b> _____	[X]	[ ]	[ ]
<b>i. Metal</b> _____	[X]	[ ]	[ ]

**B. COMMENTS**

1. CARPET IN LECTURE HALL SHOULD BE REPAIRED BEFORE FURTHER DAMAGE IS DONE TO CARPETING. SOME CARPET SEAMS ARE FRAYED.
2. CONCRETE FLOORING IN THE LECTURE HALL NEEDS TO BE CLEANED AND SEALED.
3. FIXED SEATING IN LECTURE HALL HAS SEVERAL TEARS AND WORN AREAS IN THE UPHOLSTERED SEAT CUSHIONS.

**C. COMPONENT RATING:**    ( \$ 180,914 ) X ( 0.84 ) = \$ 151,968

Possible                      Condition                      Component  
Value                      Value Multiplier                      Value







**MECHANICAL/HEATING**

FAC # 338      DATE: 3-25-92      INSPECTOR: RDL

**A. SYSTEM DESCRIPTION**

	N/A	Sat	Att
<b>a. Heat Source:</b>			
Central Plant Steam _____	[X]	[ ]	[ ]
Central Plant Hot Water <u>SUPPLIED FROM POWER PLANT</u>	[ ]	[X]	[ ]
Boilers: Type _____	[X]	[ ]	[ ]
Size _____	[X]	[ ]	[ ]
Furnace: Type _____	[X]	[ ]	[ ]
Size _____	[X]	[ ]	[ ]
Heat Pump: Type _____	[X]	[ ]	[ ]
Size _____	[X]	[ ]	[ ]
Burners: gas _____	[X]	[ ]	[ ]
oil _____	[X]	[ ]	[ ]
 <b>b. System Type:</b>			
Steam _____	[X]	[ ]	[ ]
Hot Water <u>HEATING COILS LOCATED IN AIR HANDLING SYSTEMS</u>	[ ]	[X]	[ ]
Air _____	[X]	[ ]	[ ]
Electric _____	[X]	[ ]	[ ]
Solar _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]
 <b>c. Space Equipment:</b>			
Radiators _____	[X]	[ ]	[ ]
Convectors <u>LOCATED UNDER WINDOWS IN FRONT OFFICES</u>	[ ]	[X]	[ ]
Finned Tube _____	[X]	[ ]	[ ]
Baseboard _____	[X]	[ ]	[ ]
2-Pipe Fan Coil _____	[X]	[ ]	[ ]
Unit Ventilators <u>LOCATED IN VESTIBULES &amp; MECHANICAL RMS.</u>	[ ]	[X]	[ ]
Multizone _____	[X]	[ ]	[ ]
Double Duct _____	[X]	[ ]	[ ]
Terminal Reheat _____	[X]	[ ]	[ ]
Other <u>SINGLE ZONE CONSTANT VOLUME AIR HANDLERS</u>	[ ]	[X]	[ ]
 <b>d. Control Type:</b>			
Pneu THERMOSTATS AND VALVE CONTROLLERS _____	[ ]	[X]	[ ]
Electric _____	[X]	[ ]	[ ]
Electronic _____	[X]	[ ]	[ ]
DDC <u>ELECTRIC CONTROLS FOR CENTRAL MONITORING</u>	[ ]	[X]	[ ]
Manual Valves _____	[X]	[ ]	[ ]

**B. COMMENTS:**

1. THERE ARE SEVERAL BOXES OF NEW AIR FILTERS STORED IN MECHANICAL RMS.

**C. COMPONENT RATING:**    ( \$ 133,892 ) X ( 0.85 ) = \$ 113,808  
                                  Possible                    Condition                    Component  
                                  Value                    Value Multiplier            Value



**ELECTRICAL/SERVICE & DISTRIBUTION**

FAC # 338 DATE: 3-25-92 INSPECTOR: RDL

**A. SYSTEM DESCRIPTION**

**(a)Service:**

Substation BUCKEYE PGN9/PGS3

Primary Voltage 13,200 VOLTS

Transformer:

Manufacture	Type	KVA	Secondary Voltages
<u>NIAGARA</u>	<u>DRY</u>	<u>500</u>	<u>208Y/120</u>

**(b)Distribution System:**

Panelboard (type) CIRCUIT BREAKERS

Voltage 13,200

Amperage 400 AMP DISCONNECTS

Conduit ALUMINUM AND STEEL

Conductor COPPER

Wire (type) VARIOUS TYPES

Armored Cable N/A

Other N/A

**(c)Emergency System:**

General or (type & capacity) BATTERY EMERGENCY LIGHTS

**B. COMMENTS:**

**C. COMPONENT RATING:** 
$$\frac{(\$ 30,027)}{\text{Possible Value}} \times \frac{(0.89)}{\text{Condition Value Multiplier}} = \frac{\$ 26,724}{\text{Component Value}}$$

**ELECTRICAL/LIGHTING & POWER**

FAC # 338      DATE: 3-25-92      INSPECTOR: RDL

**A. SYSTEM DESCRIPTION**

<b>a. Lighting (lamp type):</b>	N/A	Sat	Att
Fluor <u>USED IN CORRIDORS, OFFICES, AND RESTROOMS</u>	[ ]	[X]	[ ]
Incand <u>RECESSED CAN LIGHT FIXTURES ON DIMMER SYSTEM</u>	[ ]	[X]	[ ]
HID _____	[X]	[ ]	[ ]
Other <u>AISLES HAVE INCANDESCENT LIGHTS AT FLOOR LEVEL</u>	[ ]	[ ]	[X]
<b>b. Receptacles &amp; Switches</b>			
Type & Capacity <u>STANDARD GROUNDED RECEPTACLES</u>	[ ]	[X]	[ ]
<b>c. Special:</b>			
Baseboard Heat _____	[X]	[ ]	[ ]
Lightning Protection _____	[X]	[ ]	[ ]
Communication & Alarm _____	[X]	[ ]	[ ]
Data Systems _____	[X]	[ ]	[ ]

**B. COMMENTS:**

1. AISLE FLOOR LIGHTS HAVE PROTECTIVE COVERS MISSING.

**C. COMPONENT RATING:**     $\frac{(\$ 171,094)}{\text{Possible Value}} \times \left( \frac{0.86}{\text{Condition Value Multiplier}} \right) = \frac{\$ 147,141}{\text{Component Value}}$

**SAFETY STANDARDS**

FAC # 338                      DATE: 3-26-92                      INSPECTOR: RDL

**A. SYSTEM DESCRIPTION**

**(a) Exits:**

Stair Construction:	N/A	Sat	Att
concrete _____	[X]	[ ]	[ ]
steel _____	[X]	[ ]	[ ]
wood _____	[X]	[ ]	[ ]
Number of exits <u>FOUR EXITS</u>			

**(b) Fire Rating:**

Construction Type: I \_\_\_ II \_\_\_ III \_\_\_ IV X V \_\_\_ VI  
 Building Height: 20 FEET, TWO STORIES

**(c) Extinguishing Systems:**

Portable <u>LOCATED AT EXITS AND IN MECHANICAL RMS.</u>	[ ]	[X]	[ ]
Standpipe _____	[X]	[ ]	[ ]
Hose Cabinets _____	[X]	[ ]	[ ]
Sprinklers _____	[X]	[ ]	[ ]
Suppression _____	[X]	[ ]	[ ]
Other _____	[X]	[ ]	[ ]

**(d) Detection & Alarm Systems:**

Manual Alarm <u>LOCATED AT EXIT DOORS</u>	[ ]	[X]	[ ]
Annunciator <u>LOCATED IN RM 110M</u>	[ ]	[X]	[ ]
Smoke Detectors <u>LOCATED IN AIR HANDLERS</u>	[ ]	[X]	[ ]

**(e) Lighting Systems:**

Exit Signs <u>LOCATED ABOVE EXIT DOORS</u>	[ ]	[X]	[ ]
Exit Lighting <u>HAS BATTERY BACK-UP</u>	[ ]	[X]	[ ]
Emergency Lighting <u>LOCATED IN CORRIDORS</u>	[ ]	[X]	[ ]
Emergency Generator _____	[X]	[ ]	[ ]

**B. COMMENTS:**

**C. COMPONENT RATING:**    ( \$ 79,504 ) x ( 0.78 ) = \$ 62,013  
                                  Possible                      Condition                      Component  
                                  Value                      Value Multiplier                      Value

**BUILDING PERIMETER EVALUATION**

FAC # 338      DATE: 3-26-92      INSPECTOR: RDL

**A. SYSTEM DESCRIPTION**

	N/A	Sat	Att
1. Structural Access:			
Driveway <u>LOCATED ON 3 SIDES, NONE ON THE SOUTH</u>	[ ]	[X]	[ ]
Loading Dock _____	[X]	[ ]	[ ]
Sidewalks			
Front <u>EAST SIDE ALONG NEIL AVENUE</u>	[ ]	[X]	[ ]
Side <u>NORTH SIDE ALONG W. 17TH STREET</u>	[ ]	[X]	[ ]
Rear <u>SOUTH SIDE BETWEEN INDEPENDENCE &amp; TOWNSEND HALL</u>	[ ]	[ ]	[X]
Steps			
Front <u>SOUTHEAST ENTRANCE HAS 3 STEPS FROM SIDEWALK</u>	[ ]	[X]	[ ]
Side _____	[X]	[ ]	[ ]
Rear _____	[X]	[ ]	[ ]
Handicap Ramp <u>NORTHEAST ENTRANCE IS AT GRADE LEVEL</u>	[ ]	[X]	[ ]
2. Lawn and Landscaping:			
Lawn <u>SEVERAL BARE AREAS ON THE NORTH SIDE</u>	[ ]	[ ]	[X]
Shrubs <u>HAVE BEEN TRIMMED</u>	[ ]	[X]	[ ]
Trees <u>HAVE BEEN TRIMMED</u>	[ ]	[X]	[ ]
Undesirable Insect _____	[X]	[ ]	[ ]
Bedding Material <u>FULL OF LEAVES AND TRASH</u>	[ ]	[ ]	[X]
Watering System _____	[X]	[ ]	[ ]
3. General Site Information:			
Signage <u>LOCATED AT THE NORTHEAST CORNER OF BUILDING</u>	[ ]	[X]	[ ]
Address Identification <u>LOCATED ON THE SIGN</u>	[ ]	[X]	[ ]
Security Lights _____	[X]	[ ]	[ ]
Street Lights <u>LOCATED ON NEIL AND 17TH</u>	[ ]	[X]	[ ]
Drainage <u>AREA SLOPES TO THE WEST AND DRAINS INTO 17TH</u>	[ ]	[X]	[ ]
Storm Drains <u>LOCATED IN NEIL AND 17TH</u>	[ ]	[X]	[ ]

**B. COMMENTS:**

1. ASPHALT WALK ON SOUTH SIDE HAS AN AREA WHERE ASPHALT HAS COME LOOSE.
2. THE PLANTING BEDS HAVE DEAD LEAVES AND TRASH THAT SHOULD BE REMOVED AND MULCH ADDED.

**The Ohio State University  
Department of Physical Facilities  
BUILDING AUDIT METHODOLOGY**

1. 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 is 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" sheets 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, engineer's 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 and redecorating, wholesale replacement of building and system components. Ongoing maintenance, replacement and renovation projects are not included.

(b) Includes exterior building walls and attached items.

(c) Includes the first step up at all entries. Ramps outside the buildings 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**

**Building Floor Plans  
C-1 Building Space Assignment**