FACILITY AUDIT REPORT
DRINKO HALL, Bldg 049
AUGUST 1995

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EXECUTIVE SUMMARY AND PROJECT LIST FOR DRINKO HALL

Drinko Hall was built in three stages. The original building was built in 1956. In 1959 two additions were added to the building, housing a library on the south side and an auditorium on the north/west side of the original building. Then in 1992 the futuristic looking building was wrapped around the north and west side of the existing structure. The original sections are in relatively good condition except for the brick of the first building that should be cleaned and tuck pointed. Also the windows in the first two buildings should be recaulked. The roof on the old section of the building was being replaced as of the writing of this report and should alleviate the many roof leaks reported in recent years. There were reports from the building occupants of some minor leaks not related to the roof. Also the auditorium was excessively humid to the point that mildew was forming on the wood panelling. There were also some occasions when the building was not adequately cooled in the summer months. By raising the older cooling tower to the level of the new tower, both chillers should be operable at the same time and give adequate cooling capacity. The interiors of both the old section and the new section are in good condition. Seven air handlers supply most of the building with adequate cooling; however, because of the age of units 1,2 and 3 they should be replaced in the next five to ten years. The heat exchangers in rooms 148 and 164 are at the end of their life expectancy and should be replaced. The old section is heated by fin-tubed radiators and convection units. The new section is heated with radiant panels which do not supply adequate heat in the north/west part of the new building on extremely cold days. Because the new building prohibits return air relief, there is inadequate ventilation in room 148. The room should be vented to the lower level roof. A project has been identified to replace the ceiling and upgrade the lighting in room 380 of the library . New diffusers are recommended in the auditorium to reduce noise levels. The elevators were upgraded during the new construction except for one elevator in the old section which will need minor attention to meet ADA standards. All other services are functioning adequately.

PROPOSED MAINTENANCE PROJECTS:

A. Corrective Maintenance Projects:		**Control #**
Clean and seal bricks on the original building.	$ 15,000	3043
Recaulk windows in old section.	10,000	3044
Replace indirect lights.	50,000	3045
Replace front steps.	50,000	3046
Replace the metal pan ceiling and upgade lighting in room 380	338,000	3047
Vent room 148 to lower roof.	6,000	3069
Sub Total	**$469,000**	
B. Building Improvement/Addition Project:		
New diffusers in auditorium.	$ 7,000	3048
Modernize old elevator to ADA requirements. 315-94-911		
Sub Total	**$ 7,000**	
C. Projected Component Replacement Projects:		
Modify two York Chillers to R-123.	$ 60,000	3049
Replace air handling units # 1,2,3.	240,000	3050
Replace heat exchangers in rooms 148m and 164M.	32,000	3051
Replace old cooling tower	60,000	3070
Sub Total	**$392,000**	

Total cost for estimated projects = $868,000

AUGUST 1995

GENERAL BUILDING INFORMATION

DRINKO HALL #049

BUILDING ADDRESS: 55 WEST 12 TH AVE

GROSS SQ. FT.: 210,519

NET ASSIGNABLE SQ. FT.: 159,349

MECHANICAL/CUSTODIAL AREA SQ. FT.: 15,772

YEAR OF CONSTRUCTION: 1956, 1959, 1992

YEAR OF LAST RENOVATION: 1992

NUMBER OF STORIES/BASEMENT: 4 FLOORS AND A PENTHOUSE

AIR CONDITIONING (Percentage): 95%

CURRENT USE: OFFICES, CLASSROOMS, AND LAW LIBRARY

TYPE OF CONSTRUCTION: REINFORCED CONCRETE FRAME WITH MASONRY, GRANITE ALUMINUM AND GLASS EXTERIOR

ESTIMATED REPLACEMENT COST: $ 29,353,000 *

WHEELCHAIR ACCESSIBILITY: AT THE EAST, NORTH AND WEST ENTRANCES WITH ACCESS TO ALL LEVELS VIA ELEVATORS

OVERALL BUILDING CONDITION: SATISFACTORY**

NUMBER OF EXIT STAIRWAYS: 5

AREA SHOP RESPONSIBILITY: SOUTHEAST SHOP

* Replacement Cost assigned June 1993 by The Office of University Resource Planning and Institutional Analysis.

** Office of University Resource Planning and Institutional Analysis Code.

BUILDING SYSTEMS INFORMATION

DRINKO HALL # 049

HEATING:
Source STEAM FROM THE UNIVERSITY POWER PLANT TO LOCAL CONVERTER
Type Heating System HOT WATER
Steam (Line size, valve location) 4" SUPPLY IN RM 148M AND RM 164M
Building Htg Water (line size, valve location) LOCAL CONV. IN RM 154 & 148

VENTILATION SYSTEM:
2-VAV, 1-DUAL DUCT, 1-MULTI ZONE AND 4-CONSTANT VOLUME SYSTEMS

COOLING:
Bldg % 95 Chillers 2 YORK,1 CARRIER UNITS 300TONS EACH, ALL R-11
Window Units 0 Thru-the-wall 0 Direct exp. units 0

HVAC CONTROL SYSTEM: DIRECT DIGITAL CONTROL AND PNEUMATIC

ELECTRIC:

	Source	Size(KVA)	Primary/Secondary	Switchgear & Main Disc. (Rm)
1.	BUCKEYE 102/206	300	13,200/(208/120)	148M
2.	BUCKEYE 102/206	300	13,200/(480/DELTA	164M
3.	BUCKEYE 102/206	500	13,200/(208/120)	164M
4.	BUCKEYE 102/206	2667	13,200/(480/277)	124M

PLUMBING:
Water (size, valve location) 4" RM 154M, 8" FIRE PROTECTION
Gas (size, valve location) 1 1/2" RM 154M
Domestic Hot Water (size, valve location) 2" FROM LOCAL CONVERTER, RM 154M
Compressed Air (size, location) 1 1/2" NORTH/EAST SIDE OF BUILDING

SEWERS: Storm 6", 8" AND 10" Sanitary 4" AND 6"

METERS:
Gas (size, location) 1 1/2" , RM 154M
Water (size, location) 4", RM 154M
Electric (location) N/A

ALARM SYSTEMS:
Fire Alarm YES Panel Location AT RM 127T
Fire Pump YES Pump Location RM 154M
Sprinklers PARTIAL Panel Location AT RM 127T
Other Alarms

ELEVATORS:
Number 3 Type (passenger, freight) 3 PASSENGER
Manufacturer 2-MOSELEY 1-OTIS Size 2 @ 75" X 84", 1 @ 51" X 66"

EMERGENCY GENERATOR: Size NONE Location N/A

KEY BOX LOCATION: INSIDE NORTH/EAST ENTRANCE

ASBESTOS SURVEY (1986):
ASBESTOS IDENTIFIED IN 1986 WAS PARTIALLY REMOVED IN 1992.
ASBESTOS REMAINS IN ROOMS 164M AND 148M.

DRINKO HALL BUILDING NARRATIVE

HISTORY

The current Drinko Hall was built in three stages. The first building was built in 1956, the second building attached to the first, was completed in 1959 and the third building was added to the north and west side of the original buildings in 1992. The building is now occupied by the Law School and the Law Library. The building was expanded from 115,022 square feet to 210,519 square feet in 1992. Facility use by category is: 48% library space, 22% office and office-related use, 15% classroom, 10% mechanical and custodial and 5% lounge and locker space.

PRIMARY SYSTEMS

The four-story structure is supported by concrete piers. Concrete footers support load-bearing concrete walls. Cast-in-place concrete columns support concrete floors throughout. The exterior consists of brick, limestone, granite and aluminum panels. The roof deck is structural concrete with a glued down EPDM cover. The new section has gravel for ballast. The roof was being replaced on the old sections of the building at the time of this report.

The exterior of the building is in good condition except for some cracks observed in the parapet coping on the south side of the old section. There were two panels of limestone on the west side of the new section that had cracked and need to be replaced.

The building glazing in the new section has some awning windows but has mainly fixed-pane with curtain walls on the north side of the new building. The old section of the building has sliding windows and the glazing needs to be resealed.

SECONDARY SYSTEMS

Interior partition walls are composed of concrete block, bricks, glazed blocks, wood panels and metal stud and drywall walls. Surface finishes are generally in good condition and consist primarily of paint on the drywall and some wallpaper in the faculty lounge. There are some water stained ceiling tiles that should be replaced and the metal pan ceiling in the library area needs to be repainted in several locations. The wood paneling in the auditorium has bowed and split in several places and should be reworked.

The primary floor covering in the old sections of the building is asphalt vinyl tile with a terrazzo floor at the east entrance. There is also a terrazzo floor at the north main entrance area. The predominant floor covering in the new section is carpeting in the corridors, library and the office areas. The restroom floors and walls are covered with ceramic tile. The floors are generally in good condition except in the classrooms on the third floor where the nosing on the carpeting is separating from the floors in these rooms.

SERVICE SYSTEMS

The building has three passenger elevators. Two of the elevators are in good condition. The third elevator needs some updating to comply with current ADA standards.

The original building's perimeter is heated with a hot water fin-tubed heating

system and the new building is heated by radiant panels. The building is cooled by eight air handlers. One unit is zoned, one is dual duct, two are variable air volume and the rest are constant volume. Two York chillers with 300 tons capacity each provide cooling capacity to the building with the old Carrier unit used as backup for emergencies. However, the new cooling tower lacks the capacity to allow both chillers to operate at the same time and in effect the building can only rely on one chiller at a time. The old cooling tower is at a different elevation than the new tower and will need to be raised to allow both towers to be used and give greater cooling capacity to the building.

Building HVAC systems are controlled by Direct Digital Control and pneumatic systems with DDC integration.

Heating hot water is supplied by steam converters. The steam converters in the basement supply heating hot water for the radiation system, the radiant panels and unit heaters. There were no major plumbing problems identified in the maintenance workorder system. Plumbing fixtures are still serviceable throughout the facility although some timed faucets have shown leaks that should be corrected.

ELECTRICITY

The building is equipped with two 300 KVA transformers, one 500 KVA transformer and one 2000 KVA transformer. Each has a primary voltage of 13,200. Two have secondary voltage of 480/277 and two have secondary voltage of 208/120. The Physical Facilities Department's Utilities Division's records indicate that the transformers have sufficient capacity. There is an adequate supply of electrical power available. There is adequate electrical capacity and ample spare circuit space in all panels.

The building lighting system is predominantly 3-tube fluorescent fixtures which are clean and in good condition throughout. A problem has been identified with changing light tubes and bulbs in areas that are not accessible by ladder because of the height of the ceilings in certain areas inside and outside the building. The exterior recessed HID fixtures allow bugs to penetrate and cause light to be diffused by the accumulation of dead insects. There is an adequate supply and distribution of convenience outlets throughout the building.

SAFETY STANDARDS

The building is equipped with portable fire extinguishers and standpipes in all stairways and sprinklers are located on the first floor of the new section of the building. Smoke detectors are located in the HVAC ductwork and at the elevators. The building has lighted exit signs and an emergency lighting system.

The entrances on the east side and the west side of the building are at grade level and have doors that are equipped with automatic openers. There is a ramp at the north side of the building that gives access to the north entrance that is also equipped with an automatic opener. All floors are accessible from the elevators.

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 the steam pipes and heat exchanger in rooms 5 and 21. Most of the

asbestos was removed during the recent addition and renovation, however some remains in room 154m as pipe insulation.

BUILDING PERIMETER

There is a drive to a set of double delivery doors on the west side of the building but no dock exists at this building. The sidewalks on the south side and the east side of the building have many cracks and should be repaired once the roof replacement project has been completed. The lawn on the east and south side needs attention in several places because of the recent roof replacement. There is a light post on the north/east side of the building that has part of its base missing, leaving wires exposed. The steps at the main north entrance are spalling and need to be repaired or replaced. The entrances to the facility are well lighted and secure. The landscaping around the west and north/west side of the building was planted after the recent addition and is in good condition. The landscaping on the east, south and west side should be trimmed and mulched in the appropriate places. There are deep tire marks at the Eleventh Avenue side walk that need to be filled and reseeded.

Maintenance Projects (LESS THAN $5000)

1. Repair sidewalks on east and south side.
   Workorder # 01-5063-018450-51

2. Replace ceiling tiles where needed.
   Workorder # 01-5064-211670-68

3. Adjust fixtures in restrooms with timed faucets.
   Workorder # 01-5064-211670-68

4. Damp elevator motor noise in rm 127M.
   Workorder # 01-5064-211670-74

5. Relay pavers at base of column at west delivery doors.
   Workorder # 01-5063-018450-51

6. Repair nose strips in classrooms on 2nd and 3rd floor.
   Workorder # 01-5061-002128-20

7. Repair leaks at glass block windows on third floor.
   Workorder # 01-5061-002128-20

8. Repair sagging soffit and cracked limestone panels.
   Workorder # 01-5061-002128-20

BUILDING EVALUATION SUMMARY

I. BUILDING INFORMATION

FAC # 049 FACILITY NAME: DRINKO HALL
DATE: 8/95 INSPECTOR: AUGUSTUS VAN BUREN
YEAR CONSTRUCTED: 1956, 1959, 1992
GROSS SQ FT: 210,519 NET SQ FT: 159,349
REPLACEMENT COST $ 29,353,000 *

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	4.9	1,438,297	.96	1,380,765
Columns and Beams	12.8	3,757,184	.96	3,606,897
Exterior Walls	7.9	2,318,887	.90	2,086,998
Windows & Doors	3.8	1,115,414	.79	881,177
Roofing	2.5	733,825	.97	711,810
Partitions & Drs.	6.5	1,907,945	.93	1,774,389
Wall Finishes	2.5	733,825	.83	609,075
Floor Finishes	6.5	1,907,945	.91	1,736,230
Ceilings & Finish	6.8	1,996,004	.81	1,616,763
Conveying	1.8	528,354	.81	427,967
Plumbing	7.8	2,289,534	.86	1,968,999
Heating	8.3	2,436,299	.84	2,046,491
Cooling & Vent.	9.5	2,788,535	.81	2,258,713
Elec. Ser. & Dist	1.7	499,001	.89	444,111
Lighting & Power	11.0	3,228,830	.87	2,809,082
Safety Standards	5.7	1,673,121	.81	1,355,228
TOTALS	100.00	29,353,000		25,714,695

III. BUILDING RATING SUMMARY

Overall Building Rating = 88%

* Replacement Cost assigned September 1991 by The Office of University Resource Planning and Institutional Analysis 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 #049 DATE 8/95 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. Footings:	N/A	Sat	Att
Individual Footings & Piers UNDER COLUMNS	[ ]	[X]	[ ]
Continuous Footings LOCATED UNDER WALLS AT THE PERIMETER	[ ]	[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 INTO SUMP	[ ]	[X]	[ ]
d. Slab on Grade (floor):			
Plain	[X]	[ ]	[ ]
Reinforced 6" SLAB	[ ]	[X]	[ ]
e. Special Substructures:			
	[X]	[ ]	[ ]

B. COMMENTS:

NO PROBLEMS OBSERVED.

C. COMPONENT RATING: ($1,438,300) X (96 %) = $1,380,800

Possible Value	Condition Value	Multiplier	Component Value

COLUMNS AND BEAMS

FAC #049 DATE 8/95 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. Columns and Beams:	N/A	Sat	Att
Concrete-in-place THROUGHOUT	[ ]	[X]	[ ]
Precast Concrete	[X]	[ ]	[ ]
Steel BEAMS	[ ]	[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	[ ]	[X]	[ ]
Pitched	[X]	[ ]	[ ]
Concrete	[ ]	[X]	[ ]
Steel	[X]	[ ]	[ ]
Wood	[X]	[ ]	[ ]
Other	[X]	[ ]	[ ]

B. COMMENTS:

NO PROBLEMS OBSERVED.

C. COMPONENT RATING: ($3,757,200) X (96 %) = $3,606,900

Possible Value	Condition Value	Multiplier	Component Value

EXTERIOR WALLS

FAC #049 DATE 8/95 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. Walls:	N/A	Sat	Att
Concrete	[X]	[ ]	[ ]
Masonry BRICK	[ ]	[ ]	[X]
Metal Siding ALUMINUM CURTAIN WALL-NEW SECTION	[ ]	[ ]	[X]
Wood Siding	[X]	[ ]	[ ]
Other LIME STONE AND GRANITE	[ ]	[ ]	[X]
b. Finishes:			
Stucco	[X]	[ ]	[ ]
Paint	[X]	[ ]	[ ]
Other	[X]	[ ]	[ ]

B. COMMENTS:

THE BRICKS ON THE ORIGINAL BUILDING NEED TO BE CLEANED AND TUCKED. OPEN JOINTS IN SEAMS OF ALUMINUM CURTAIN WALL. LIMESTONE HAS WATER STAINS AND MOSS AT VARIOUS LOCATIONS.

C. COMPONENT RATING: ($2,318,900) X (90 %) = $2,087,000

Possible Value	Condition Value	Multiplier	Component Value

EXTERIOR WINDOWS & DOORS

FAC #049 DATE 8/95 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. Windows type & number:	N/A	Sat	Att
Wood	[X]	[ ]	[ ]
Steel STAINLESS STEEL IN OLD SECTION	[ ]	[ ]	[X]
Alum NEED TO BE RECAULKED IN THE OLD SECTION	[ ]	[ ]	[X]
Other	[X]	[ ]	[ ]
b. Window glazing:			
Single pane SOME IN OLD SECTION	[ ]	[X]	[ ]
Double pane IN OLD AND NEW SECTIONS	[ ]	[X]	[ ]
Other BLOCK GLASS, VERY LIMITED USE	[ ]	[X]	[ ]
c. Doors type & number:			
Wood	[X]	[ ]	[ ]
Steel STAINLESS STEEL IN OLD SECTION AND SERVICE ENTRAN	[ ]	[X]	[ ]
Alum AT ENTRANCES	[ ]	[X]	[ ]
Other	[X]	[ ]	[ ]
d. Shading Devices:			
Types CURTAINS AND VENETIAN BLINDS	[ ]	[X]	[ ]

B. COMMENTS:

THE WINDOWS AND FRAMES SHOULD BE RESEALED IN THE TWO OLDER BUILDINGS.

C. COMPONENT RATING: ($1,115,400) X (79 %) = $ 959,300

Possible Value	Condition Multiplier	Component Value

ROOFING

FAC #049 DATE 8/95 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. Roof Covering:	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 MEMBRANE - EPDM, BALLAST ON NEW	[ ]	[ ]	[X]
c. Flashing:			
Base & Counter COPPER AND ALUMINUM	[ ]	[X]	[ ]
Cap ALUMINUM	[ ]	[X]	[ ]
Through Wall	[X]	[ ]	[ ]
Valley & Ridge	[X]	[ ]	[ ]
d. Gravel Stop & Edge Strips:			
Type	[X]	[ ]	[ ]
e. Drainage:			
Gutters w/ Exterior Downspouts	[X]	[ ]	[ ]
Scuppers w/No Exterior Downspouts	[ ]	[X]	[ ]
Drains w/ Interior Storm Drains	[ ]	[X]	[ ]
f. Parapets:			
Concrete	[X]	[ ]	[ ]
Brick	[X]	[ ]	[ ]
Block	[X]	[ ]	[ ]
Precast	[X]	[ ]	[ ]
Other LIMESTONE IN OLD AND ALUMINUM IN NEW SECTION	[ ]	[X]	[ ]
g. Insulation:			
Type 1" RIGID AND ISOCYANURATE FOR THE 1995 ROOF	[ ]	[X]	[ ]

B. COMMENTS

WITH THE NEW ROOF INSTALLED ON THE OLD SECTION IN 1995 AND THE NEW BUILDING COMPLETED IN 1992, THE ROOF IS IN GOOD CONDITION, HOWEVER, SEVERAL LEAKS HAVE IN THE LIBRARY AREA HAVE BEEN NOTED AND SHOULD BE REPAIRED.

C. COMPONENT RATING: ($733,800) X (97 %) = $609,100

Possible Value	Condition Value	Multiplier	Component Value

PARTITIONS & DOORS

FAC#049 DATE 8/95 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

	N/A	Sat	Att
a. Partition Framing:			
Concrete Block LIMITED	[ ]	[X]	[ ]
Glazed Block AT THE 2ND AND 3RD FLOOR CLASSROOMS	[ ]	[X]	[ ]
Wood Stud	[X]	[ ]	[ ]
Metal Stud EXTENSIVELY	[ ]	[X]	[ ]
Structural Tile	[X]	[ ]	[ ]
Rated	[X]	[ ]	[ ]
Other BRICK AT THE EAST ENTRANCE	[ ]	[X]	[ ]
b. Special partitions and Walls:			
Toilet METAL	[ ]	[X]	[ ]
Screen Walls AT THE COOLING TOWER	[ ]	[X]	[ ]
Gate	[X]	[ ]	[ ]
Other	[X]	[ ]	[ ]
c. Wall Material:			
Plaster	[X]	[ ]	[ ]
Plaster Board USED WITH METAL STUDS	[ ]	[X]	[ ]
Glass LIMITED USE IN THE ADMINISTRATIVE AREAS	[ ]	[X]	[ ]
Plywood	[X]	[ ]	[ ]
Paneling AT THE MAIN ENTRANCE AND IN THE AUDITORIUM	[ ]	[X]	[ ]
Trim & Wainscot	[X]	[ ]	[ ]
Tile/Glazed RESTROOMS	[ ]	[X]	[ ]
Other GLAZED BRICK IN THE OLD BUILDINGS	[ ]	[X]	[ ]
d. Interior Doors & Frames:			
Met Door/Met Frame MAINTENANCE AND FIRE DOORS AT STAIRS	[ ]	[X]	[ ]
Wood Door/Wood Frame	[X]	[ ]	[ ]
Wood Door/Metal Frame PREDOMINANT, SOME FIRE DOORS	[ ]	[ ]	[X]
Glazing LIMITED	[ ]	[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 FOR THE LIBRARY AREAS	[ ]	[X]	[ ]
Automatic Openers HANDICAPPED ENTRANCE DOORS	[ ]	[X]	[ ]
Other	[X]	[ ]	[ ]

B. COMMENTS:

PARTITIONS AND DOORS ARE IN GOOD CONDITION EXCEPT THE FIRE DOORS that DO NOT ACTIVATE WHEN THE FIRE ALARMS ARE INITIATED.

C. COMPONENT RATING: ($1,907,900) X (93 %) = $1,774,400

Possible Value	Condition Value	Multiplier	Component Value

WALL FINISHES

FAC #049 DATE 8/95 INSPECTOR: AJR

A. SYSTEM DESCRIPTION	N/A	Sat	Att
a. Paint PREDOMINANT FINISH	[ ]	[X]	[ ]
b. Wall Coating	[X]	[ ]	[ ]
c. Wall Coverings	[X]	[ ]	[ ]
d. Paneling			
Prefinished ENTRANCE AND AUDITORIUM	[ ]	[X]	[ ]
Plank	[X]	[ ]	[ ]
e. Cork	[X]	[ ]	[ ]
f. Wallpaper IN THE FACULTY LOUNGE	[ ]	[X]	[ ]
g. Ceramic Tile RESTROOMS	[ ]	[X]	[ ]
h. Trim & Wainscot	[X]	[ ]	[ ]
i. Decoration	[X]	[ ]	[ ]
j. Glass	[X]	[ ]	[ ]
k. Other	[ ]	[X]	[ ]

B. COMMENTS

THE PRIMARY WALL FINISHES IN THE OLD PART OF THE LAW SCHOOL IS GLAZED BRICK AND PAINTED PLASTER BOARD. IN THE NEW SECTION THERE IS PREFINISHED PANELING AT THE MAIN ENTRANCE ON THE NORTH SIDE AND PAINTED PLASTER BOARD THROUGHOUT THE REST OF THE BUILDING.

C. COMPONENT RATING: ($733,800) X (83 %) = $609,100

Possible Value	Condition Value	Multiplier	Component Value

FLOOR FINISHES

FAC #049 DATE 8/95 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

	N/A	Sat	Att
a. Carpet:			
Rolled OFFICES, CORRIDORS AND LIBRARY IN NEW SECTION	[ ]	[X]	[ ]
Tile	[X]	[ ]	[ ]
b. Composition:			
Epoxy	[X]	[ ]	[ ]
Synthetic	[X]	[ ]	[ ]
Other	[X]	[ ]	[ ]
c. Concrete Topping:			
Clear Sealant MAINTENANCE ROOMS	[ ]	[X]	[ ]
Abrasive	[X]	[ ]	[ ]
Epoxy IN NEW PENTHOUSE	[ ]	[ ]	[X]
Aggregate	[X]	[ ]	[ ]
d. Resilient:			
Vinyl Tile ASPHALT IN THE OLDER SECTIONS	[ ]	[X]	[ ]
Linoleum	[X]	[ ]	[ ]
Vinyl	[X]	[ ]	[ ]
Rubber	[X]	[ ]	[ ]
Cork	[X]	[ ]	[ ]
e. Ceramic Tile RESTROOMS	[ ]	[X]	[ ]
f. Masonry	[X]	[ ]	[ ]
g. Terrazzo AT EAST ENTRANCE AND LOBBY OF NEW SECTION	[ ]	[X]	[ ]
h. Wood	[X]	[ ]	[ ]
i. Metal	[X]	[ ]	[ ]

B. COMMENTS

ALL FLOORS ARE IN GOOD CONDITION EXCEPT THE NOSING STRIPS IN THE CLASSROOMS IN THE ORIGINAL BUILDING. THESE STRIPS HAVE COME LOOSE AND CAN CAUSE A SAFETY CONCERN. THE FLOOR IN PENTHOUSE ALLOWS WATER TO LEAK INTO THE LIBRARY AREA AND SHOULD BE RESEALED.

C. COMPONENT RATING: ($1,907,900) X (91 %) = $1,736,200

Possible Value	Condition Value	Multiplier	Component Value

CEILINGS AND FINISHES

FAC #049 DATE 8/95 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. System Type:	N/A	Sat	Att
Exposed MAINTENANCE ROOMS	[ ]	[X]	[ ]
Applied to Structure	[X]	[ ]	[ ]
Suspended PREDOMINANT	[ ]	[X]	[ ]
b. Materials:			
Drywall RESTROOMS	[ ]	[X]	[ ]
Plaster	[X]	[ ]	[ ]
Mineral Fiber Board SUSPENDED CEILING	[ ]	[X]	[ ]
Metal Pan IN THE OLD SECTION AND IN THE LIBRARY AREA	[ ]	[ ]	[X]
Luminous Panels	[X]	[ ]	[ ]
Other	[X]	[ ]	[ ]
c. Finishes:			
Paint METAL PAN	[ ]	[ ]	[X]
Fabric	[X]	[ ]	[ ]
Prefinished CEILING TILES	[ ]	[ ]	[X]
Other	[X]	[ ]	[ ]
d. Openings & Inserts:			
Air Distribution	[ ]	[X]	[ ]
Lighting Fixtures	[ ]	[X]	[ ]
Access Panels	[ ]	[X]	[ ]
Skylights	[X]	[ ]	[ ]
Fire Protection	[ ]	[X]	[ ]
Other	[X]	[ ]	[ ]

B. COMMENTS:

THE CEILINGS HAVE STAINED TILES THROUGHOUT THE BUILDING AND THE METAL PAN CEILINGS NEEDED TO BE REPAINTED OR REPLACED IN SEVERAL AREAS.

C. COMPONENT RATING: ($1,996,000) X (81 %) = $1,836,300

Possible Value	Condition Value	Multiplier	Component Value

CONVEYING

FAC #049 DATE 8/95 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. Elevators:	N/A	Sat	Att
Number 3	[ ]	[X]	[ ]
Type 3 PASSENGER	[ ]	[X]	[ ]
Speed 100 FT/MIN	[ ]	[X]	[ ]
Capacity (lbs) ONE AT 2000 LBS AND TWO AT 3500 LBS	[ ]	[X]	[ ]
Dimensions ONE AT 51"X 66" AND TWO AT 75"X 84"	[ ]	[X]	[ ]
Door Operation:			
Center TWO	[ ]	[X]	[ ]
To Side ONE	[ ]	[X]	[ ]
Handicapped-accessible controls NOT IN ONE ELEVATOR	[ ]	[ ]	[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:

ONE PASSENGER ELEVATOR NEEDS TO BE UPGRADED TO MEET ADA STANDARDS.

C. COMPONENT RATING: ($528,400) X (81 %) = $475,500

Possible Value	Condition Value	Multiplier	Component Value

MECHANICAL/PLUMBING

FAC #049 DATE 8/95 INSPECTOR: ARJ

A. SYSTEM DESCRIPTION

	N/A	Sat	Att
a. Services Available:			
Cold Water 4" SUPPLY IN ROOM 154M	[ ]	[X]	[ ]
Hot Water 2" IN ROOM 154M	[ ]	[X]	[ ]
Acid Waste	[X]	[ ]	[ ]
Oxygen	[X]	[ ]	[ ]
Natural Gas 1 1/2" IN ROOM 148M	[ ]	[X]	[ ]
Vacuum	[X]	[ ]	[ ]
Distilled Water	[X]	[ ]	[ ]
Compressed Air LOCAL COMPRESSOR IN RM 148M	[ ]	[X]	[ ]
Other	[X]	[ ]	[ ]
b. Piping & Fittings:			
Cast Iron WATER, SANITARY AND VENTS	[ ]	[X]	[ ]
Copper Pipe DOMESTIC WATER AND COMPRESSED AIR	[ ]	[X]	[ ]
Plastic	[X]	[ ]	[ ]
Steel WATER, STEAM/CONDENSATE AND GALVANIZED IN OLD SECT.	[ ]	[X]	[ ]
Glass	[X]	[ ]	[ ]
Other	[X]	[ ]	[ ]
c. Water Heaters:			
Electric	[X]	[ ]	[ ]
Gas	[X]	[ ]	[ ]
Oil	[X]	[ ]	[ ]
Steam Converter RM 154M AND RM 148M	[ ]	[X]	[ ]
Other	[X]	[ ]	[ ]
d. Drainage:			
Storm Drains 10", 8" 6" AND 4"	[ ]	[X]	[ ]
Sanitary Drainage 6", 6" AND 6"	[ ]	[X]	[ ]
Combined Storm/San.	[X]	[ ]	[ ]
Floor Drains RESTROOMS AND MECHANICAL	[ ]	[X]	[ ]
e. Fixtures:			
Water Closets 68	[ ]	[X]	[ ]
Urinals 25	[ ]	[X]	[ ]
Lavatories 55	[ ]	[X]	[ ]
Showers	[X]	[ ]	[ ]
Kitchen Sinks 2	[ ]	[X]	[ ]
Service Sinks 6	[ ]	[X]	[ ]
Drinking Fountains	[X]	[ ]	[ ]
Electric Water Coolers 18	[ ]	[X]	[ ]
f. Sprinkler Systems:			
Wet IN NEW SECTION	[ ]	[X]	[ ]
Dry	[X]	[ ]	[ ]
g. Standpipe Systems:			
Wet 4" PIPES - ONE AT EACH STAIRWAY	[ ]	[X]	[ ]
Dry	[X]	[ ]	[ ]
Valves LOCATED AT EACH STAIRWAY LANDING	[ ]	[X]	[ ]
Hose Cabinets 16	[ ]	[X]	[ ]

B. COMMENTS:

MAINTENANCE PERSONNEL DID NOT IDENTIFY ANY EXISTING PROBLEMS OTHER THAN NORMAL MAINTENANCE ITEMS.

C. COMPONENT RATING: ($2,289,500) X (86 %) = $1,969,000

Possible Value	Condition Value	Multiplier	Component Value

MECHANICAL/HEATING

FAC #049 DATE 8/95 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. Heat Source:	N/A	Sat	Att
Central Plant Steam 4" & 3" SUPPLY WITH 3" & 2 1/2" RT.	[ ]	[X]	[ ]
Central Plant Hot Water	[X]	[ ]	[ ]
Boilers: Type	[X]	[ ]	[ ]
Size	[X]	[ ]	[ ]
Furnace: Type	[X]	[ ]	[ ]
Size	[X]	[ ]	[ ]
Heat Pump: Type	[X]	[ ]	[ ]
Size	[X]	[ ]	[ ]
b. System Type:			
Steam	[X]	[ ]	[ ]
Hot Water FROM STEAM CONVERTORS	[ ]	[X]	[ ]
Air	[ ]	[X]	[ ]
Multizone	[ ]	[X]	[ ]
Dual Duct CONSTANT VOLUME	[ ]	[X]	[ ]
Terminal Reheat IN SOME PARTS OF THE NEW BUILDING	[ ]	[X]	[ ]
Variable Volume 2 MAIN AIR HANDLERS	[ ]	[X]	[ ]
Other	[X]	[ ]	[ ]
c. Space Equipment:			
Radiators FIN-TUBE RADIATOR, IN THE OLD SECTION	[ ]	[X]	[ ]
Convectors IN LOCKER AREA	[ ]	[X]	[ ]
2-Pipe Fan Coil AT ENTRANCES AND EAST AND SOUTH PERIM.	[ ]	[X]	[ ]
Unit Heaters MECHANICAL ROOMS	[ ]	[X]	[ ]
Other RADIANT PANELS IN THE NEW SECTION	[ ]	[X]	[ ]
Other ELECTRIC REHEAT IN THE NEW RESTROOMS	[ ]	[X]	[ ]
d. Control Type:			
Pneu IN OLD SECTION	[ ]	[X]	[ ]
Electric	[X]	[ ]	[ ]
DDC POWERS	[ ]	[X]	[ ]
Manual Valves	[X]	[ ]	[ ]

B. COMMENTS:

HEATING HOT WATER IS PROVIDED FOR THE RADIATORS SYSTEM AND THE RADIANT PANELS BY A STEAM CONVERTOR LOCATED IN ROOM 154M.

C. COMPONENT RATING: ($2,436,300) X (84 %) = $2,046,500

Possible Value	Condition Value	Multiplier	Component Value

COOLING & VENTILATING

FAC #049 DATE 8/95 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

	N/A	Sat	Att
a. System:			
Type VAV, CONSTANT VOL. AND ZONE UNITS	[ ]	[X]	[ ]
Capacity TOTAL 600 TONS, WITH 285 TONS BACKUP	[ ]	[X]	[ ]
b. Chillers:			
Centrifugal 2 YORK R-11 UNITS, 300 T EACH INSTALLED 1992	[ ]	[ ]	[X]
Reciprocating 1 CARRIER 1966, FOR STAND-BY 285	[X]	[ ]	[ ]
Screw	[X]	[ ]	[ ]
c. Cooling Towers:			
Type 1 MARLEY, INSTALLED 1992, MARLEY 1966	[ ]	[X]	[ ]
Capacity 400 TONS CAPACITY PLUS 285 TONS	[ ]	[ ]	[X]
d. Condensers:	[X]	[ ]	[ ]
e. Space Equipment:			
Direct Expansion -			
Window units	[X]	[ ]	[ ]
Thru-the-wall	[X]	[ ]	[ ]
Single zone	[X]	[ ]	[ ]
Single zone con. vol.	[X]	[ ]	[ ]
Other	[X]	[ ]	[ ]
Air/Water -			
2-pipe fan coil IN OLD SECTION AT EAST AND SOUTH WALL	[ ]	[X]	[ ]
Unit ventilators	[X]	[ ]	[ ]
Terminal reheat	[ ]	[X]	[ ]
Variable volume IN THE NEW SECTION	[ ]	[X]	[ ]
Dual Duct	[ ]	[X]	[ ]
f. Special Systems:			
Type	[X]	[ ]	[ ]
Capacity	[X]	[ ]	[ ]
g. Control Systems:			
Pneu ACTUATORS	[ ]	[X]	[ ]
Electric	[X]	[ ]	[ ]
Electronic DDC	[ ]	[X]	[ ]
h. Fans:			
Exhaust 14	[ ]	[X]	[ ]
Recirculating	[X]	[ ]	[ ]

B. COMMENTS:

EIGHT MAIN AIR HANDLERS SUPPLY MOST OF THE COOLING AND VENTILATING FOR BOTH THE NEW AND OLD SECTION OF DRINKO HALL. THERE ARE FIVE CONSTANT VOLUME UNITS, ONE DUAL DUCT UNIT AND TWO VARIABLE VOLUME UNITS. THE COOLING TOWER DOES NOT HAVE ADEQUATE CAPACITY TO ALLOW BOTH CHILLERS TO OPERATE AT THE SAME TIME, THEREFORE SOME MODIFICATION IS RECOMMENDED TO ADD CAPACITY TO THIS UNIT. THE NEW R-11 UNITS WILL NEED TO BE MODIFIED IN THE NEXT FIVE TO TEN YEARS. ROOM 148 NEEDS AN EXHAUST SYSTEM TO DISSIPATE EXCESSIVE HEAT.

C. COMPONENT RATING: ($2,788,500) X (81 %) = $ 2,258,700

Possible Value	Condition Value	Multiplier	Component Value

ELECTRICAL/SERVICE & DISTRIBUTION

FAC #049 DATE 8/95 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

(a)Service:

Substation BUCKEYE - CIRCUIT (102/206)
Primary Voltage 13,200 VOLTS
Transformer:

Manufacture	Type	KVA	Secondary Voltages
GENERAL ELECTRIC	OIL	300	208/120
GENERAL ELECTRIC	SILICONE	300	480/DELTA
GENERAL ELECTRIC	SILICONE	500	208/120
SIEMEN	DRY	2667	480/277

(b)Distribution System:

Panelboard (type) CIRCUIT BREAKERS
Voltage 480/277 & 208/120
Amperage 3000 AMPS
Conduit STEEL AND ALUMINUM
Conductor COPPER
Wire (type) VARIES
Armored Cable LIMITED USE
Other N/A

(c)Emergency System:

General or (type & capacity) N/A

B. COMMENTS:

FOUR TRANSFORMERS SUPPLY THE BUILDING WITH 480/277 AND 208/120 VOLT SERVICE. UTILITY RECORDS INDICATE ADEQUATE SUPPLY FOR THE DEMAND OF THE BUILDING.

C. COMPONENT RATING: ($499,000) X (89 %) = $444,100

Possible Value	Condition Value	Multiplier	Component Value

ELECTRICAL/LIGHTING & POWER

FAC #049 DATE 8/95 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

a. Lighting (lamp type):	N/A	Sat	Att
Fluor TWO AND THREE LAMP UNITS	[ ]	[X]	[ ]
Incand	[X]	[ ]	[ ]
HID INDIRECT LIGHTS AT STAIRWAY AND EXTERIOR	[ ]	[X]	[ ]
Other	[X]	[ ]	[ ]
b. Receptacles & Switches:			
Type & Capacity GROUNDED DUPLEX, 120 VOLTS	[ ]	[X]	[ ]
c. Special:			
Baseboard Heat	[X]	[ ]	[ ]
Lightning Protection	[X]	[ ]	[ ]
Communication & Alarm ALARMS AT LIBRARY EXITS	[ ]	[X]	[ ]
Data Systems	[X]	[ ]	[ ]

B. COMMENTS:

THE ELECTRICAL DISTRIBUTION BREAKER BOXES THROUGHOUT THIS BUILDING ARE ADEQUATE. NO PROBLEMS WERE IDENTIFIED BY MAINTENANCE PERSONNEL OR OCCUPANTS OTHER THAN THE DIFFICULTY IN CHANGING BULBS AND TUBES IN AREAS WHERE THE LIGHTS WERE TOO HIGH FOR LADDERS.

C. COMPONENT RATING: **($3,228,800)** X **(87 %)** = **$2,809,100**

Possible Value		Condition Value Multiplier		Component Value

SAFETY STANDARDS

FAC #049 DATE 8/95 INSPECTOR: AJR

	N/A	Sat	Att
(a)Exits:			
Stair Construction:			
concrete	[ ]	[X]	[ ]
steel	[X]	[ ]	[ ]
wood	[X]	[ ]	[ ]
Number of exits 7	[ ]	[X]	[ ]
(b)Fire Rating:			
Construction Type: I X II III IV V VI			
Building Height: 57 ft., 4 stories			
(c)Extinguishing Systems:			
Portable CO-2 AND ABC THROUGHOUT	[ ]	[X]	[ ]
Standpipe 4" LOCATED AT STAIRWAYS	[ ]	[X]	[ ]
Hose Cabinets LOCATED THROUGHOUT	[ ]	[X]	[ ]
Sprinklers IN THE NEW SECTION	[ ]	[X]	[ ]
Suppression	[X]	[ ]	[ ]
Other	[X]	[ ]	[ ]
(d)Detection & Alarm Systems:			
Manual Alarm	[ ]	[X]	[ ]
Annunciator LOCATED AT ROOM 127T	[ ]	[X]	[ ]
Smoke Detectors IN DUCTWORK AND AT ELEVATORS	[ ]	[X]	[ ]
(e)Lighting Systems:			
Exit Signs	[ ]	[X]	[ ]
Exit Lighting	[ ]	[X]	[ ]
Emergency Lighting WITH BATTERY PACKS	[ ]	[X]	[ ]
Emergency Generator N/A	[X]	[ ]	[ ]

B. COMMENTS:

NO PROBLEMS OBSERVED.

C. COMPONENT RATING: **($1,673,100) X (81 %) = $1,355,200**

Possible Value	Condition Value	Multiplier	Component Value

BUILDING PERIMETER EVALUATION

FAC #049 DATE 8/95 INSPECTOR: AJR

A. SYSTEM DESCRIPTION

1. Building Access:	N/A	Sat	Att
Driveway	[ ]	[X]	[ ]
Loading Dock	[X]	[ ]	[ ]
Sidewalks			
Front ON NORTH AND WEST ARE ALL NEW SINCE 1992	[ ]	[ ]	[X]
Side EAST AND SOUTH NEEDS EXTENSIVE REPAIRS	[ ]	[ ]	[X]
Rear SOME PAVERS NEED TO BE RELAID ON WEST SIDE	[ ]	[ ]	[X]
Steps			
Front AT NORTH ENTRANCE NEED TO BE RESURFACED	[ ]	[ ]	[X]
Side AT EAST SIDE	[ ]	[X]	[ ]
Rear	[X]	[ ]	[ ]
Handicap Ramp AT THE NORTH/EAST/ AND WEST ENTRANCES	[ ]	[X]	[ ]

2. Lawn and Landscaping:			
Lawn NEEDS ATTENTION ON THE SOUTH AND EAST SIDES	[ ]	[ ]	[X]
Shrubs	[ ]	[X]	[ ]
Trees	[ ]	[X]	[ ]
Undesirable Insect	[X]	[ ]	[ ]
Bedding Material NEEDED AROUND SHRUBS AND TREES	[ ]	[ ]	[X]
Watering System	[X]	[ ]	[ ]

3. General Site Information:			
Signage LOCATED ON 12 TH AVE	[ ]	[X]	[ ]
Address Identification ON SIGN	[ ]	[X]	[ ]
Security Lights ADEQUATE	[ ]	[X]	[ ]
Street Lights NEW LIGHTS AT NORTH AND WEST SIDE	[ ]	[X]	[ ]
Drainage	[ ]	[X]	[ ]
Storm Drains	[ ]	[X]	[ ]

B. COMMENTS:

THE SIDE WALKS ON THE EAST AND SOUTH SIDES OF THE BUILDING HAVE MANY CRACKS AND SOME DAMAGED AREAS CAUSED BY THE RECENT CONSTRUCTION AND ROOF REPAIRS.

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