

FACILITY AUDIT REPORT
GALBREATH EQUINE CENTER

#282

October 30, 1998



GALBREATH EQUINE CENTER

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GALBREATH EQUINE CENTER

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EXECUTIVE SUMMARY FOR GALBREATH EQUINE CENTER

The Galbreath Equine Center houses offices, operating and treatment rooms and stables for the Department of Veterinary Medicine. The two story building was constructed in 1996/97 and occupied in the spring of 1997 by the Department of Veterinary Medicine with a gross area of 40,823 SF. The Galbreath Equine Center was built on the west side of the Veterinary Hospital. The buildings share various utilities, such as electrical power, chilled water and entrances and exits to the heated breezeway. Some problems with automatic windows, the emergency electrical system and the make-up air handling system were noted and repairs or replacement are required.

PROPOSED MAINTENANCE PROJECTS

GALBREATH EQUINE CENTER #282

A. Corrective Maintenance Projects:	Control No
1. <i>Install modulating heating control valves on AH-4&5 and adjust face and bypass controls.</i> \$	8,000 3559
2. <i>Test and repair the automatic window system above the stables.....</i> \$	8,000 3560
Sub Total \$	16,000
B. Building Improvement/Addition Projects:	
1. <i>Areas with wet sprinklers where potential freezing can occur need to be switched to the dry pipe system.....</i> \$	8,000 3566
Sub Total..... \$	8,000
C. Building Component Replacements expected within the next 5-10 years:	
1. <i>none.</i> \$	0
Sub Total..... \$	0
 Total Cost for all Projects..... \$	 24,000

RENOVATION PROJECTS IN PROGRESS OR COMPLETED SINCE LAST AUDIT

GALBREATH EQUINE CENTER #282

Projects:	Project No
<i>none</i>	

GENERAL BUILDING INFORMATION

GALBREATH EQUINE CENTER #282

BUILDING ADDRESS: *685 Tharp Street*

GROSS SQ. FT.: *40,823*

NET ASSIGNABLE SQ. FT.: *37,792*

MECHANICAL/CUSTODIAL AREA SQ. FT.: *11,390*

YEAR OF CONSTRUCTION: *1995/1996*

YEAR OF LAST RENOVATION: *none*

NUMBER OF STORIES/BASEMENT: *Two stories without basement*

AIR CONDITIONING (Percentage): *50%*

CURRENT USE: *The Department of Veterinary Medicine*

TYPE OF CONSTRUCTION: *Reinforced Concrete Block and Wood Structure with Masonry Skin*

ESTIMATED REPLACEMENT COST: *\$ 8,385,000 **

COST PER GROSS SQUARE FEET: *\$205.37*

WHEELCHAIR ACCESSIBILITY: *From the south or north side of the building to the breezeway and the elevator.*

OVERALL BUILDING CONDITION: *Satisfactory ***

NUMBER OF EXIT STAIRWAYS: *Two (2)*

NUMBER OF OTHER EXITS: *Twelve (12)*

AREA SHOP RESPONSIBILITY: *Kinnear Road*

* *Replacement Cost assigned June 1998 by The Office of University Resource Planning & Institutional Analysis.*

** *The Office of University Resource Planning & Institutional Analysis C-I Report Condition Code.*

BUILDING SYSTEMS INFORMATION

GALBREATH EQUINE CENTER #282

HEATING:

Source – *Power plant*

Type Heating System – *Hot water*

Main Steam Feed (Line size, valve location) – *3” HPS to room 2436M*

Building Htg. Water (line size, valve location) – *6” in room 2436M*

VENTILATION SYSTEM: *Powered and Natural exhaust and VAV systems*

COOLING:

BLDG. 50%, One Trane: *120 Ton screw chiller, R-22, 1996 in room 2000M, 4” tie-in to the complexes chilled water loop to the building*

Window Units: *none*, Thru-the-wall: *none*, Direct expansion units: *none*

HVAC CONTROL SYSTEM: *Electric controls with DDC*

ELECTRIC:

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

201/306 1500 13,200/ 480/277 600 amp 2000M in the Veterinary Hospital

PLUMBING SERVICES:

Water (size, valve location) – *8” fire, 4” to domestic water in room 1405M*

Gas (size, valve location) – *none*

Domestic Hot Water (size, valve location) – *3” DHWS, 1” DHWR room 2421M*

Compressed Air (size, location) – *1” HP from room 2400M*

SEWERS:

Storm - *2@8”, 2@4” to the west, Sanitary -1@6” to the north, Combined Storm/San-0*

METERS:

Gas (size, location) – *none*

Water (size, location) – *3” in room 1405M*

Electric (location) – *none*

ALARM SYSTEMS:

Fire Alarm Panel room *1401A*, Remote Panel Location at Room *1400B*

Fire Pump @ GPM, Pump Location- Room

Sprinkler, Valve Location Room *14051M*, 100%, Partial, Limited

Strobes, Horns, Bells in Halls, Rooms

Other Alarms – *medical gas*

ELEVATORS:

Number- *One*, Type (passenger/freight)- *Freight/Passenger*
Manufacturer – *Dover*, Size- *2,500#, 50”x60”*

EMERGENCY GENERATOR:

Size- *200 amp from the Veterinary Hospital emergency circuit in room 2000M*

ASBESTOS SURVEY (1986): *Asbestos containing materials were not identified since this building was built in 1996.*

GALBREATH EQUINE CENTER NARRATIVE

HISTORY

The Galbreath Equine Center houses offices, operating and treatment rooms and stables for the Department of Veterinary Medicine. The two story building was constructed in 1996/97 and occupied in the spring of 1997 by the Department of Veterinary Medicine with a gross area of 40,823 SF. The Galbreath Equine Center was built on the west side of the Veterinary Hospital. The building shares various utilities, such as electrical power, chilled water and entrances and exits to the heated breezeway. Some problems with automatic windows, the emergency electrical system and the make-up air handling units were noted and repairs or replacement are required.

The building appears to be functioning as designed, at this time. However, some items noted in this report need to be repaired or replaced. These items when completed will protect and enhance the building performance and create a satisfying visual environment for students, faculty, staff and visitors.

More than normal maintenance problems are showing up in the stable temperature controls and electrical breakers.

In an interview with the building coordinator, it was learned that the occupants are basically satisfied with the overall condition and performance of the building systems, however, the items noted above and herein are of concern.

Occupancy of the building, reported by The Office of University Resource Planning & Institutional Analysis in the C-1 Building Space Assignment Report dated June 1998 for a Net Assignable Area of 37,792 SF, is as follows; Stables 24.3%, Diagnostic and Treatment 19.2%, Faculty offices 11%, Mechanical 6.3% Custodial/Toilet 3.2%, and Circulation 36%.

PRIMARY SYSTEMS

The structural components of this building consist of reinforced concrete footers and spread footers on the perimeter and interior. The footers carry the concrete block loadbearing walls with bond beams on top that support wood, steel beams or trusses. These support the reinforced concrete second floor, flat roof or sloped roof structure. The second floor consists of steel trusses that span the loadbearing walls and support the metal deck with concrete fill. The flat roofs consist of steel trusses and purlins that support the metal deck roof structure. The sloped roofs consists of wood trusses and purlins that support the wood deck roof structure. A combination of wood trusses, scissors trusses or stick trusses with insulation and tongue and groove barn wood panel on the underside span the breezeway. These form the basic skeletal components of this two-story building.

There are no major signs of settlement or movement in the building foundation or structural walls and supports.

A brick veneer, architectural concrete block, drivit or aluminum clapboard siding was installed on concrete block to form the exterior walls. Openings in the walls for windows, glass block windows, louvers and entrance doors are accented with brick arches or aluminum siding that forms the head, sill and jambs. Cut limestone, brick arches, architectural concrete block, drivit and limestone shapes are used for wall, soffit, entrance and roof trim. The upper areas of the stables have aluminum walls with windows or louvers.

The exterior masonry brick is in good condition. Control and expansion joints were originally installed and appear to be in good condition. The aluminum walls appear to be bowing at seams where the panels do not appear to be expanding and contracting properly.

The circular double glazed windows are installed in fixed type aluminum frames and the awning type windows in the upper areas of the stables are installed in wood frames that automatically open to control interior temperature. Glass block windows are installed on the west wall.

Two wooden garage doors are installed on the north and south ends of the breezeway. The north end of the breezeway has an entryway on each side of the garage door that have single aluminum doors with glass inserts and storefront glass panels forming a vestibule to the brick wall. The inner doors are also aluminum with glass inserts. Five double doors at the south, west and north stable entries are wooden with tongue and groove barn siding and are in good condition. There are three single steel exit doors off the south stable and recovery rooms on the west side. Double steel doors are used as service exits at the south and north ends of the breezeway. Stair exit doors, office doors, stable doors and treatment room doors off the breezeway are wood, steel or aluminum. The doors are in good condition.

The flat roof areas are of the metal deck type with insulation board and asphalt felt built up roof installed with hot asphalt and pea gravel. The sloped roofs consist of wood trusses and purlins with a wood underlayment and an asphalt architectural shingle roof on the exterior and insulation and tongue and groove wood barn siding installed on the interior. The roofs are 2 years old and are in good condition. Gutters with leaders or roof drains remove water from the roofs. Emergency roof drains or scuppers are installed around the perimeter of the building. The limestone parapet cap with aluminum cap and aluminum counterflashing around the building are in good condition. Cupolas with skylights or circular windows and brick chimneys with intake louvers accent the building roof.

INTERIOR SYSTEMS

The building is enclosed with loadbearing concrete block, wood studs with tongue and groove wood barn siding or studs and drywall that form interior walls, halls, rooms or stairwells. Perimeter and interior rooms in the building have painted concrete block walls. Partitions have studs and drywall with a painted surface. Restrooms have studs and drywall with a ceramic tile surface. The partitions and walls are in good condition. Sound absorption panels on the walls in some halls, diagnostic rooms and the treadmill room consist of a painted composition wood fiber panel and are in good condition.

The second floor and office doors in this building are wood doors in metal frames and are in good condition. The second floor doors have keypad locks on all office doors. Steel fire doors in steel frames are used at mechanical rooms and stairwells. Steel sliding doors in steel frames are used at diagnostic rooms and some stable access points. The steel sliding door to room 1402 failed and had to be welded in several areas. The metal fire doors in this building are in good condition. Some door and/or door hardware problems are showing up in maintenance calls.

The floors in this building are concrete with carpet in offices, 2x2 vinyl tiles, ceramic tile in restrooms and rubber matting or composition vinyl roll goods in diagnostic and operating rooms. The equipment rooms and stable floors have exposed concrete floors that have been sealed. The breezeway has blacktop and concrete floors. The floors throughout the building are in good condition and have been well maintained. The stairs and landings are metal framed with concrete fill and are in good condition. Minor cracking was noted in the concrete ground floors throughout the building.

The ceilings on the second floor, halls and offices consist of a suspended aluminum 2x4 grid with prefinished 2x4 mineral fiber ceiling tiles. The mineral fiber tile ceilings are in good condition. Some ceiling tiles need to be cleaned or replaced where leaks have occurred. The ceilings in the stables, treadmill room and the breezeway consist of tongue and groove wood barn siding. The ceilings in some halls, diagnostic rooms and operating rooms consist of composition drywall panel with rubber gaskets and are in good condition.

SERVICE SYSTEMS

The major service systems, domestic cold, hot water, sprinkler system, compressed air, vacuum, sanitary and storm drainage all appeared to be in good condition and functioning at this time. The plumbing drainage system did not appear to have any problems. Maintenance records did indicate a large number of reoccurring problems with clogged drains in the stable area and malfunctioning flush valves and sink faucets. The domestic cold and hot water, compressed air and vacuum piping appears to have copper pipe and is in good condition. The main domestic water supply and sprinkler system appears to be cast iron and galvanized steel pipe with

victaulic fittings. A backflow preventer and water meter on the domestic water and wet and dry pipe indicator valves on the sprinkler system are located in room 1405M. The Domestic Hot Water system is connected to an instantaneous steam converter in room 2421M and has hot water return piping and a pump. There was adequate water pressure at the faucets and fixtures on all of the floors. The restroom fixtures are in good condition.

The passenger/freight elevator is 2 years old and is in good condition. The elevator meets present access and fire codes.

The 3" HPS line that feeds the building is tapped into the High Pressure Steam located at the north stairwell in the Veterinary Hospital mechanical room 2000M. The 3" HPS steam line feeds the 180/85 PSI pressure reducing station in room 2436M. The desuperheater pump, located in the steam pit at the entrance to the south stables, feeds the line after the pressure reducing station. The (MPS) Medium Pressure Steam is piped to the 85/25 PSI pressure reducing station and then to the heat exchanger in the room. Low pressure steam feeds the heating hot water heat exchangers, steam humidifiers and the Domestic Hot Water heater. The heating system pumps hot water to the air handling units' hot water preheat or reheat coils, VAV reheat coils, fan coil units at entrances and unit heaters throughout the building. The heating system was operating at the time of the site visits.

One 1996 Trane 120 Ton, R-22, dual screw chiller located in room 2000M supplies the complexes chilled water loop with a 4" tap to air handling unit cooling coils in the Galbreath Equine Center. A Marley 1000 ton cooling tower cools the condensing water for all of the chillers located in this room.

The office and second floor heating, ventilation, and air conditioning system is a variable air volume (VAV) system with hot water heating and chilled water coils, filters and steam humidifiers. A variable speed motor controller determines the systems fan air volumes. Air is distributed to VAV boxes with reheat coils located in the areas served. Constant air volume (CAV) air handling units with hot water heating and chilled water coils and filters supply conditioned air to the treadmill room and treatment rooms. A constant air volume (CAV) air handling unit with hot water heating and chilled water coils, HEPA filters and humidifiers supply conditioned air to the operating and recovery rooms on the first floor. Two constant air volume (CAV) air handling units with hot water heating and filters supply heated make-up air to the stables. A ducted return air system returns air to the air handling units or through a return air fan on two units. The cooling and ventilation system appeared to be operating at the time of the site visits.

Controls for the heating and cooling system are electric and DDC control that has been tied into the campus DDC control system.

There are eighteen general exhaust fans located throughout the building. Each system serves stables, storage rooms or special exhaust requirements. Other fans

remove air from restrooms, equipment rooms, common areas and conference rooms.

ELECTRIC

The Buckeye substation circuit number 201/306 feeds the 1500 KVA 480/277 volt transformer located in room 2000M that supplies the 480/277 volt 600 amp electrical service to the Galbreath Equine Center. The 480 volt emergency switchgear located in room 2000M of the Veterinarian Hospital feeds 200 amp power to the emergency distribution panels located in room 1409 and 2400M. The emergency distribution panel feeds emergency lighting and a 480/208 transformer that feed receptacles and some isolated ground systems in the building. The 600 amp 480/277 volt circuit feeds the MCC panels in room 2421M and 2400M and the lighting distribution panels located throughout the building. A 480/208 transformer feeds distribution panels for receptacles and the isolated ground system in the building. Panel sizes vary throughout the building depending on the load. At about 16.3 watts per square foot the building appears to have an adequate power supply in all circuits. A ground fault on one of the 200 amp legs occurred in the conduit from the Veterinary Hospital mechanical room. It appeared that the wire was chaffed due to the excessively long pull from room 2000M to room 2400M.

The building has 40 watt surface and recessed fluorescent tube light fixtures throughout most of the building. A program to replace the 40 watt fixtures with 32 watt fluorescent fixtures would save energy. Second floor areas are illuminated with fluorescent recessed can fixtures. Entrance areas and the breezeway are illuminated with HPS ceiling hung fixtures. There are an adequate number of convenience outlets throughout the building.

SAFETY STANDARDS

Galbreath Equine Center is equipped with a fire alarm system consisting of pull stations at exits and stairwells and smoke detectors that provide central fire annunciation from the panel in room 1401A to strobes and horns in all areas. A remote fire annunciation panel at the north entrance 1400B displays the systems status. The 4" wet sprinkler piping covers entrance ways, breezeways, office areas and attic areas. A dry pipe limited sprinkler systems covers exterior entrance ways and interior areas. The walkway area on the west side has had a frozen sprinkler pipe. Areas with wet sprinklers where potential freezing could occur need to be switched to the dry pipe system. There are portable fire extinguishers located throughout the building.

There are lighted exit signs at each exit, stairwell lighting and hall lighting that is on the emergency system that is tied into the emergency generator located in the Veterinary Hospital. Emergency lights located in the corridors, life safety systems, and sump pumps are fed from the emergency generator panel located in room

2000M of the Veterinary Hospital. The emergency generator in room 1327M is a 162 KVA natural gas driven generator.

ASBESTOS

Asbestos containing materials were not identified since this building was built in 1996. Generally buildings constructed during this time are basically asbestos free, however, in some cases the use of asbestos containing materials in floor tiles, mastics, caulking, gaskets, lab hoods etc. could have been used. Consideration should be given to a survey of products that may potentially contain asbestos materials within the limits of the building and, if identified, should be removed during any renovation or repairs.

PERIMETER

All of the sidewalks around the building are in good condition.

All of the shrubbery and trees need to be mulched.

Bike racks need to be installed in the southwest corner of the building.

Entrances to the building are well lighted and area, flood and street lighting appear to be distributed properly. The building signs are in good condition.

Minor Maintenance Projects (Less Than \$5000) EXTERIOR

GALBREATH EQUINE CENTER #282

- 1 Mulch the trees and shrubs around the building.
Workorder #01-5063-031497-55
- 2 Repair the card reader that has been removed at the south door to the breezeway.
Workorder #01-5064-329873-72
- 3 Install access ladders to the roof from room 2400M and 2421M.
Workorder #01-5064-327982-73
- 4 Clean the roof drains and materials off the roof at the penthouse level.
Workorder #01-5064-329882-69

Minor Maintenance Projects (Less Than \$5000) INTERIOR

GALBREATH EQUINE CENTER #282

1. Replace stained ceiling tiles throughout the building.
Workorder #01-5064-329882-69
2. Locate the problem in the fire alarm system and repair as required.
Workorder #01-5064-329714-69
3. Test and/or repair the automatic windows.
Workorder #01-5064-322723-69

BUILDING EVALUATION SUMMARY

BUILDING INFORMATION

Fac # 282, Facility Name: *GALBREATH EQUINE CENTER*

Date: 11/30/98, Inspector: JAO, Year Constructed: 1996/97, Gross Sq. Ft: 40,823

Net Sq. Ft: 37,792, Replacement Cost: \$ 8,385,000 *

COMPONENT RATING

COMPONENT	BUILDING COMPONENT PERCENTAGE OF TOTAL COST **	BUILDING COMPONENT REPLACEMENT COST	BUILDING COMPONENT CONDITION VALUE MULTIPLIER	BUILDING COMPONENT CURRENT VALUE
Foundation	3.99	333,618	96	320,305
Columns and Beams	6.62	553,688	96	531,594
Exterior Walls	6.39	533,788	96	511,302
Ext. Windows & Doors	3.19	266,894	95	254,465
Roofing & Flashing	5.95	497,500	94	469,908
Partitions & Doors	8.22	687,135	95	655,135
Wall Finishes	2.03	169,735	93	158,435
Floor Finishes	5.99	501,012	95	477,679
Ceilings & Finishes	4.75	396,829	95	378,349
Conveying	1.29	107,694	95	102,679
Plumbing	16.96	1,417,582	95	1,351,564
Heating	6.72	561,882	92	516,985
Cooling and Vent.	10.92	913,059	94	862,419
Elect. Serv. & Dist.	2.73	228,265	95	217,634
Lighting and Power	10.50	877,941	92	807,788
Safety Standards	3.73	311,376	94	294,107
TOTALS	100.00	8,358,000	95	7,910,348

BUILDING RATING SUMMARY

Overall Building Rating = **95%**

* Replacement Cost assigned June 1998 by The Office of University Resource Planning & 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 #: 282

DATE: 10/30/98

INSPECTOR: JAO

COMPONENT RATING: (\$ <u>333,618</u>) x (<u>96%</u>) = \$ <u>320,305</u> <div style="display: flex; justify-content: space-around; font-size: small;"> Possible Value Condition Value Multiplier Component Value </div>

SYSTEM DESCRIPTION

Sat Att

- a. Footings:**
- [] [] Interior Footings/Piers
- [X] [] Interior Footings/Bearing Walls *on spread footers*
- [X] [] Perimeter Footings..... *on spread footers*
- [] [] Grade Beams
- [] [] Piles
- [] [] Caissons.....
- b. Foundation Wall Materials:**
- [] [] Concrete Cast-in-place
- [X] [] Concrete Block
- [] [] Stone
- [] [] Brick
- [] [] Other.....
- c. Waterproofing and Underdrain:**
- [] [] Coating
- [] [] Membrane.....
- [] [] Board
- [X] [] Drain Pipe..... *around perimeter*
- d. Slab on Grade:**
- [] [] Plain.....
- [X] [] Reinforced
- e. Ground/Basement Floor Slab:**
- [] [] Plain.....
- [] [] Reinforced
- f. Special Substructures:**
- [] []

COMMENTS:

none

COLUMNS AND BEAMS

FAC #: 282

DATE: 10/30/98

INSPECTOR: JAO

COMPONENT RATING: (\$ 553,688) x (96%) = \$ 531,594

Possible	Condition	Component
Value	Value Multiplier	Value

SYSTEM DESCRIPTION

Sat Att

a. Columns and Beams:

- Reinforced Concrete
- Precast Concrete.....
- Steel *framing support between walls*
- Fireproofing
- Wood.....
- Other *concrete block loadbearing walls*

b. Floor Joists:

- Concrete
- Steel *trusses under second floor*
- Wood
- Other

d. Floor Decks:

- Concrete Slab.....
- Precast Slab.....
- Metal Deck w/concrete *reinforced concrete*
- Wood

e. Roof Joists:

- Concrete
- Steel *trusses under flat roof*
- Wood *on sloped roofs*

f. Pitched Roof System:

- Pitch []3/12, [X]4.5/12, []10/12.....
- Dormers
- Steel Purlins
- Wood Rafters
- Fireproofing
- Underlayment.....
- Insulation..... *6" batts between rafters*
- Ventilation *roof and ridge vents*
- Other

g. Flat Roof System:

- Slope *0.25" per foot*
- Concrete Deck.....
- Precast Slab.....
- Metal Deck w/concrete fill.....

- Metal Deck w/insulation.....
- Wood Deck.....
- Insulation *2.5" & 3" insulation*
- Other

COMMENTS:

Some fine-line cracking in the concrete floors in some of the stalls was noted.

EXTERIOR WALLS

FAC #: 282

DATE: 10/30/98

INSPECTOR: JAO

COMPONENT RATING: (\$ <u>533,788</u>) x (<u>96%</u>) = \$ <u>511,302</u> <div style="display: flex; justify-content: space-around; font-size: small;"> Possible Value Condition Value Multiplier Component Value </div>

SYSTEM DESCRIPTION

Sat Att

a. Walls:

- Concrete CIP PRECAST.....
- Concrete Block/brick*architectural concrete block*
- Brick MASONRY VENEER.....
- Veneer.....
- Window/Curtainwall.....
- Metal Siding.....*Aluminum on concrete block*
- Other *Drivit walls and soffits*

b. Wall Lintels Over Openings:

- Concrete PRECAST CIP.....
- Limestone.....
- Brick Masonry *arches*
- Steel
- Wood*at windows*
- Other

c. Wall Trim:

- Limestone..... *wall panels and roof trim*
- Brick.....*perimeter recessed band every sixth course*
- Marble.....
- Wood.....
- Other*architectural concrete block*
- Other *PVC trim columns*

d. Finishes:

- Plain
- Stucco.....
- Paint
- Parging
- Exposed Aggregate
- Drivit.....*soffits and panels*
- Other

e. Exterior Wall Backing System:

- Concrete
- Concrete Block.....
- Brick Masonry.....
- Ceramic Glazed Clay Tiles
- Metal Studs

Wood Studs . *at some aluminum, Drivit walls and soffits*

COMMENTS:

The metal siding appears to be bowing due to expansion and contraction.

EXTERIOR WINDOWS AND DOORS

FAC #: 282

DATE: 10/30/98

INSPECTOR: JAO

COMPONENT RATING: (\$ <u>266,894</u>) x (<u>95%</u>) = \$ <u>254,465</u>						
<table style="margin: auto; border: none;"> <tr> <td style="padding: 0 10px;">Possible</td> <td style="padding: 0 10px;">Condition</td> <td style="padding: 0 10px;">Component</td> </tr> <tr> <td style="padding: 0 10px;">Value</td> <td style="padding: 0 10px;">Value Multiplier</td> <td style="padding: 0 10px;">Value</td> </tr> </table>	Possible	Condition	Component	Value	Value Multiplier	Value
Possible	Condition	Component				
Value	Value Multiplier	Value				

SYSTEM DESCRIPTION

Sat Att

a. Window materials:

- Wood.....*upper stable windows*
- Steel
- Alum *window frames*
- PVC.....
- Other *glass block on west facade*

b. Windows type & number:

- Double Hung.....
- Awning.....*upper stable windows 36 EA*
- Casement.....
- Pivoted
- Sliding.....
- Fixed *round and bowed glass windows 11 EA*
- Other

c. Window glazing:

- Single pane
- Double pane*on all windows*

d. Window Wall and/or Store Front:

- Store Front
- Vestibule *at north entrances*
- Single pane.....
- Double pane
- Other

e. Door Materials:

- Wood..... *stable doors and garage doors*
- Steel *equipment room doors and exit*
- Alum*entrance doors*

f. Doors type & number:

- Vestibule Single..... *two aluminum at north entrance*
- Double.....*five sets of wood doors at stable entrances*
- Double.. *two sets of steel doors at north/south breezeway*
- Exit..... *three steel doors from stables and various rooms*
- Stair Exits..... *to the breezeway*
- Garage..... *two on the north and south side of breezeway*
- Special.....

g. Hardware:

- Automatic opener
- Push Bar Openers wt Closures
- Key Cards

COMMENTS:

none.

ROOFING

FAC #: 282

DATE: 10/30/98

INSPECTOR: JAO

COMPONENT RATING: (\$ <u>497,500</u>) x (<u>94%</u>) = \$ <u>469,908</u> <div style="display: flex; justify-content: space-around; font-size: small;"> Possible Value Condition Value Multiplier Component Value </div>

SYSTEM DESCRIPTION

Sat Att

a. Roof Covering:

- [] [] Built-up []asphalt []Coal Tar []Modified
- [X] [] Built-up w/gravel [X]asphalt []Coal Tar 5,160 SF
- [] [] Modified asphalt Roll
- [X] [] Asphalt Shingle..... *architectural shingles* 36,030 SF
- [] [] Copper.....
- [] [] EPDM
- [] [] Other

b. Flashing:

- [X] [] Materials: []Cu []Galv [X]Al []EPDM []SS []PVC
- [X] [] Base & Counter 1554 LF
- [] [] Cap.....
- [X] [] Reglet.....*in walls* 446 LF
- [X] [] Valley & Ridge 130 LF

c. Gravel Stop & Edge Strips:

- [X] [] Type []SS []Galv [X]Al []Cu []PVC

d. Drainage:

- [X] [] Gutters w/ Exterior Downspouts..... 1117 LF
- [X] [] Scuppers w/o Exterior Downspouts
- [X] [] Drains w/ Interior Storm Drains *drains*
- [X] [] Emergency Overflow*next to drains*

e. Parapets:

- [] [] Concrete
- [X] [] Brick *and metal siding*
- [] [] Precast
- [] [] Other

f. Parapet Caps:

- [X] [] Metal []SS []Galv [X]Al []Cu []PVC
- [] [] Tile
- [X] [] Limestone 343 LF *with aluminum cap*
- [] [] Precast
- [] [] Other

h. Roof accessories:

- [] Lightning Protection
- [] Roof Curbs
- [] Equipment Frames.....
- [] Pitch Pockets
- [] Other *Cupolas with skylights or windows*

COMMENTS:

The roofs are 2 years old and are in good condition.

Some leaks were noted in the maintenance reports that need to be repaired.

PARTITIONS AND DOORS

FAC #: 282

DATE: 10/30/98

INSPECTOR: JAO

COMPONENT RATING: (\$ <u>687,135</u>) x (<u>95%</u>) = \$ <u>655,135</u>						
<table style="margin: auto; border: none;"> <tr> <td style="padding: 0 10px;">Possible</td> <td style="padding: 0 10px;">Condition</td> <td style="padding: 0 10px;">Component</td> </tr> <tr> <td style="padding: 0 10px;">Value</td> <td style="padding: 0 10px;">Value Multiplier</td> <td style="padding: 0 10px;">Value</td> </tr> </table>	Possible	Condition	Component	Value	Value Multiplier	Value
Possible	Condition	Component				
Value	Value Multiplier	Value				

SYSTEM DESCRIPTION

Sat Att

a. Partition Framing:

- Concrete Block.....
- Clay Tile Block.....
- Glazed Clay Tile Block.....
- Masonry
- Wood Stud
- Metal Stud.....
- Other

b. Special partitions and Walls:

- Demountable.....
- Toilet.....
- Screen Walls
- Glass.....
- Gate.....
- Other*Mineral Fiber Board sound attenuation panels*

c. Wall Material:

- Concrete Block.....
- Plaster.....
- Drywall*throughout the building*
- Glass.....
- Wood Tongue and Groove..... *in stable & breezeway*
- Composite Paneling.....
- Steel Panels
- Tile/Glazed.....
- Other *Sound absorbent panels*

d. Interior Doors & Frames:

- Met Door/Met Frame*fire doors and to some rooms*
- Wood Door/Wood Frame*at stables*
- Wood Door/Metal Frame.....*predominate throughout*
- Glazing.....
- Roll-up
- Sliding..... *steel*
- Other

e. Hardware:

- Door []Knobs [X]Levers.....
- Door Closures

- Kick/Push Plates.....
- Security & Detection *door key pad locks*
- Automatic Openers.....
- Fire Door Magnets.....
- Other.....

COMMENTS:

Maintenance records indicate that door and/or door hardware are being adjusted and/or repaired on a continual basis.

WALL FINISHES

FAC #: 282

DATE: 10/30/98

INSPECTOR: JAO

COMPONENT RATING: (\$ 169,735) x (93%) = \$ 158,435

Possible	Condition	Component
Value	Value Multiplier	Value

SYSTEM DESCRIPTION

Sat Att

a. Wall Finishes:

- | | | | |
|-------------------------------------|--------------------------|--|---------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | | Paint..... |
| <input type="checkbox"/> | <input type="checkbox"/> | | Vinyl Wall Coverings..... |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | | Prefinished Paneling..... |
| <input type="checkbox"/> | <input type="checkbox"/> | | Cork..... |
| <input type="checkbox"/> | <input type="checkbox"/> | | Wallpaper |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | | Ceramic Glazed Tile..... |
| <input type="checkbox"/> | <input type="checkbox"/> | | Marble |
| <input type="checkbox"/> | <input type="checkbox"/> | | Stone..... |
| <input type="checkbox"/> | <input type="checkbox"/> | | Trim & Wainscot..... |
| <input type="checkbox"/> | <input type="checkbox"/> | | Decoration |
| <input type="checkbox"/> | <input type="checkbox"/> | | Glass |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | | Other..... <i>brick</i> |

COMMENTS:

none

FLOOR FINISHES

FAC #: 282

DATE: 10/30/98

INSPECTOR: JAO

COMPONENT RATING: (\$ <u>501,012</u>) (<u>95%</u>) = \$ <u>477,679</u>						
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Possible	Condition	Component				
Value	Value Multiplier	Value				

SYSTEM DESCRIPTION

Sat Att

- a. Carpet:**
- Rolled *in offices and conference rooms*
- Tile.....
- b. Concrete Topping:**
- Clear Sealant.....
- Antislip
- Epoxy.....
- c. Resilient:**
- Vinyl Composition Roll Goods *in treatment rooms*
- Vinyl Tile.....
- Asphalt Asbestos Tile.....
- Linoleum Tile
- Vinyl Roll
- Rubber
- Other *asphalt in the breezeway*
- d. Ceramic Tile** Mosaic Quarry Pavers
- f. Masonry** Marble Granite Slate Brick.....
- g. Terrazzo** Marble Granite
- h. Wood** Tiles T&G Hardwood Planking
- i. Pedestal** Vinyl Tiles Grills Supply Air Vent....
- j. Base Molding:**
- Vinyl.....
- Wood
- Terrazzo.....
- Ceramic Tile
- Masonry.....

COMMENTS:

Floor finishes are in good condition.

CEILINGS AND FINISHES

FAC #: 282

DATE: 10/30/98

INSPECTOR: JAO

COMPONENT RATING: (\$ <u>396,829</u>) x (<u>95%</u>) = \$ <u>378,349</u> <div style="display: flex; justify-content: space-around; font-size: small;"> Possible Value Condition Value Multiplier Component Value </div>

SYSTEM DESCRIPTION

Sat Att

a. System Type:

- Exposed..... *in equipment rooms*
- Applied to Structure..... *T&G wood in stables*
- Suspended Stud.....
- Suspended Steel Grid.....
- Suspended Aluminum Grid
- Suspended Sealed Grid
- Suspended Concealed Spline

b. Materials:

- Drywall *composite panels*
- Plaster.....
- Mineral Fiber Board..... *in offices*
- Fiberglas Board.....
- Cementitious Fiber Panels
- Metal Pan Tile.....
- Other *T&G wood*

c. Finishes:

- Paint
- Prefinished Paint vinyl Fabric
- Other *stain/sealer on wood*

d. Openings & Inserts:

- Air Distribution.....
- Lighting Fixtures.....
- Access Panels.....
- Sprinklers.....
- Smoke Detectors.....
- Speakers.....
- Skylights *cupola with four round windows*
- Other

COMMENTS:

Several tiles are stained from water leaks and need to be replaced.

CONVEYING

FAC #: 282

DATE: 10/30/98

INSPECTOR: JAO

COMPONENT RATING: (\$ <u>107,694</u>) x (<u>95%</u>) = \$ <u>102,679</u> <div style="display: flex; justify-content: space-around; font-size: small;"> Possible Value Condition Value Multiplier Component Value </div>

SYSTEM DESCRIPTION

Sat Att

a. Elevators:

- [] Number.....*One Dover*
- [] Type..... *Passenger/Freight*
- [] Speed *100 FPM*
- [] Capacity (lbs.)..... *2,500 Lbs.*
- [] Dimensions.....*66"x80"*
- [] Door Operation: Center To Side
- [] Accessible Codes.....
- [] Fire Codes.....

b. Elevators:

- [] Number.....
- [] Type.....
- [] Speed
- [] Capacity (lbs.).....
- [] Dimensions.....
- [] Door Operation:.....
- [] Door Operation: Center To Side
- [] Accessible Codes.....
- [] Fire Codes.....

c. Lifts and Hoists:

- [] Number.....
- [] Type.....

d. Moving Stairs and Walks:

- [] Number.....
- [] Type.....

e. Conveyors:

- [] Number..... *4 ea.*
- [] Type.....*waste removal conveyors*

COMMENTS:

The elevator is ADA compliant.

The waste removal conveyors tie into the existing Veterinarian Hospital waste removal conveyor on the west side of the building.

MECHANICAL/PLUMBING

FAC #: 282

DATE: 10/30/98

INSPECTOR: JAO

COMPONENT RATING: (\$ 1,417,582) x (95%) = \$ 1,351,564 <div style="display: flex; justify-content: space-around; font-size: small;"> Possible Value Condition Value Multiplier Component Value </div>

SYSTEM DESCRIPTION

Sat Att

a. Services Available:

- Cold Water4" domestic and 8" fire
- Backflow Valve4" in room 1405M
- Hot Water.....3" in room 2421M
- Natural Gas
- Compressed Air 1" medical in room 2400M
- Other 1" medical vacuum 2421M

b. Piping & Fittings:

- Cast Iron.....sanitary and storm
- Duriron
- Copper Pipe ...water piping, compressed air and vacuum
- Copper Tubing
- Steelon heating and chilled water and sprinklers
- Galv. Steel domestic water and sprinkler
- Other

c. Water Heaters:

- Gas
- Steam Converter/Tank
- Steam Instantaneous.....3" DHWS
- Central Hot Water

d. Drainage:

- Storm Drains2@8" 2@4" to the west
- Sanitary Drainage..... 1@6" San to the north
- Floor Drains
- Sump Pump steam condensate pit

e. Fixtures: Number

- Water Closets 11
- Urinals2
- Lavatory Sinks 10
- Kitchen Sinks2
- Service Sinks3
- Showers.....3
- Electric Water Coolers3

f. Sprinkler Systems:

- Wetthroughout building
- Glycol..... at north and west entrances

- Carbon Dioxide
- Halon
- g. Standpipe Systems:**
- Wet Dry
- Fire Hose Valves 2.5" 1.25" *at northeast corner*
- Hose Cabinets, Hoses Installed Removed

COMMENTS:

The main water valve for the domestic water piping is in room 1405M.

The main water valve for the standpipe piping is in room 1405M.

The floor drains in the stable areas clog frequently.

The glycol fire sprinklers have frozen in the past and the problems are in the process of being corrected.

MECHANICAL/HEATING

FAC #: 282

DATE: 10/30/98

INSPECTOR: JAO

COMPONENT RATING: (\$ <u>561,882</u>) x (<u>92%</u>) = \$ <u>516,985</u> <div style="display: flex; justify-content: space-around; font-size: small;"> Possible Value Condition Value Multiplier Component Value </div>

SYSTEM DESCRIPTION

- | Sat | Att | |
|-------------------------------------|--------------------------|--|
| | | a. Heat Source: |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Central Plant Steam3" HPS from room 2000M |
| <input type="checkbox"/> | <input type="checkbox"/> | Central Plant Hot Water..... |
| | | b. System Type: |
| <input type="checkbox"/> | <input type="checkbox"/> | Steam |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Hot Water..... 5" heating hot water |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Warm Air |
| | | c. Air Handling Units: |
| <input type="checkbox"/> | <input type="checkbox"/> | Multizone <input type="checkbox"/> Preheat <input type="checkbox"/> Heating <input type="checkbox"/> Reheat |
| <input type="checkbox"/> | <input type="checkbox"/> | Dual Duct <input type="checkbox"/> Preheat <input type="checkbox"/> Heating <input checked="" type="checkbox"/> Reheat |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Make-up Air <input type="checkbox"/> Preheat <input checked="" type="checkbox"/> Heating <input type="checkbox"/> Reheat |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Variable Volume Air <input type="checkbox"/> Preheat <input checked="" type="checkbox"/> Heating <input type="checkbox"/> Reheat..... |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Constant Volume Air <input type="checkbox"/> Preheat <input checked="" type="checkbox"/> Heating <input type="checkbox"/> Reheat |
| <input type="checkbox"/> | <input type="checkbox"/> | Other |
| | | d. Air Filters: |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Prefilter <input type="checkbox"/> Multi <input type="checkbox"/> DDAHU <input checked="" type="checkbox"/> MUAHU <input checked="" type="checkbox"/> VAVAHU <input checked="" type="checkbox"/> CAV |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Bagfilter <input type="checkbox"/> Multi <input type="checkbox"/> DDAHU <input type="checkbox"/> MUAHU <input checked="" type="checkbox"/> VAVAHU <input checked="" type="checkbox"/> CAV |
| <input type="checkbox"/> | <input type="checkbox"/> | Other |
| | | e. Space Equipment: |
| <input type="checkbox"/> | <input type="checkbox"/> | Radiators |
| <input type="checkbox"/> | <input type="checkbox"/> | Convectors |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Unit Heaters <i>in equipment rooms</i> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Reheat Coils..... |
| <input type="checkbox"/> | <input type="checkbox"/> | DD Boxes..... <i>VAV throughout building</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | CAV Boxes |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 2-Pipe Fan Coil <i>at entrances</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | Other |
| | | f. Control Type: |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Pneu <input checked="" type="checkbox"/> Electric <input checked="" type="checkbox"/> DDC <input type="checkbox"/> DDC upgrade..... |

COMMENTS:

The desuperheater pump is located in the steam pit. The two stable air handling units need have heating valves installed and the face and bypass dampers adjusted.

COOLING/VENTILATING

FAC #: 282

DATE: 10/30/98

INSPECTOR: JAO

COMPONENT RATING: (\$ <u>913,059</u>) x (<u>94%</u>) = \$ <u>862,419</u>						
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Possible	Condition	Component				
Value	Value Multiplier	Value				

SYSTEM DESCRIPTION

Sat Att

- a. System/Capacity:**
 - [] Water *120 ton tied into central chilled water loop*
 - [] Glycol
- b. Chillers Capacity/Year/Refrigerant/Manufacturer:**
 - [] Centrifugal
 - [] Reciprocating.....
 - [] Absorption
 - [] Screw .. *1996 Trane 120 ton R-22 with dual compressors*
- c. Condenser Side:**
 - [] Type/Capacity CW DX *two Marley 500 ton towers*
 - [] Other
- d. Air Handling Units:**
 - [] Multizone CW DX HUMD
 - [] Dual Duct CW DX HUMD
 - [] Make-up Air CW DX HUMD.....
 - [] Variable Volume CW DX HUMD
 - [] Constant Volume CW DX HUMD.....
 - [] Other
- e. Additional Air Filters:**
 - [] Postfilter Multi DDAHU MUAHU VAVAHU CAV
 - [] Other HEPA BAG CARTRIDGE CHARCOAL
- f. Direct Expansion: Number**
 - [] Window units
 - [] Thru-the-wall.....
 - [] Single zone
 - [] Other
- g. Distribution Boxes:**
 - [] VAV FC REHEAT
 - [] CAV FC REHEAT.....
 - [] DUAL DUCT FC REHEAT
- h. Special Systems:**
 - [] Type..... *two stable general exhaust systems*
 - [] Capacity.....
- i. Control Systems:**
 - [] Pneu Electric DDC DDC Upgrade

j. Fans:

- [] Exhaust equipment..... *18 exhaust fans*
- [] Recirculating..... *two RA fans*

COMMENTS:

The 120 ton chiller installed with this project is located in the Veterinary Hospital mechanical room 2000M and supplies the chilled water loop with a 4” tap to the Galbreath Equine Center. The 120 ton chiller was tied into the existing 1000 ton tower for condenser water.

ELECTRICAL SERVICE AND DISTRIBUTION

FAC #: 282

DATE: 10/30/98

INSPECTOR: JAO

COMPONENT RATING: (\$ 228,265) x (95%) = \$ 217,634

Possible Value	Condition Value Multiplier	Component Value
-------------------	-------------------------------	--------------------

SYSTEM DESCRIPTION

a. Service:

Substation: Buckeye, McCracken Power Plant AEP

Primary Voltage: 13,200 Volts, Volts

Switch Gear Circuit No.: 201/306

Transformer:

Manufacture	Type	KVA	Secondary/Voltages	Location
GE	Silicone	1500	480/277 600 AMP	room 2000M

b. Distribution System:

1. Motor Control Center (MCC) Room 2400M & 2421M

Panelboard Fused, Circuit Breakers

Voltage 480/3, 277/3, 208/3, 240/1

Amperage 1600A, 800A, 600A, 400A, 200A

2. Lighting Room 2400M & 2421M

Panelboard Fused, Circuit Breakers

Voltage 480/3, 277/3, 208/3, 240/1

Amperage 800A, 400A, 250A, 200A, 150A, 100A

2. Building Power Room 2400M & 2421M

Panelboard Fused, Circuit Breakers

Voltage 480/3, 277/3, 208/3, 240/1

Amperage 800A, 400A, 250A, 200A, 150A, 100A

4. Isolated Ground Power Room 2400M & 2421M

Panelboard Fused, Circuit Breakers

Voltage 480/3, 277/3, 208/3, 240/1

Amperage 1600A, 250A, 200A, 150A, 100A

c. Conduit and wire:

Conduit Steel, Aluminum, PVC, Flexible

Conductor Copper, Aluminum, MIT

Wire: PVC Cover, Romex, Armored Cable(BX)

d. Emergency System:

Battery backup Room

Emergency Panel Room 2400M and 1409

UPS Room

e. Emergency Generator: *Veterinary Hospital mechanical room 1327M circuit breaker located in room 2000M*

COMMENTS:

The emergency circuit has a ground fault in one of the legs and is being repaired.

ELECTRICAL LIGHTING AND POWER

FAC #: 282

DATE: 10/30/98

INSPECTOR: JAO

COMPONENT RATING: (\$ <u>877,941</u>) x (<u>92%</u>) = \$ <u>807,788</u>						
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Possible	Condition	Component				
Value	Value Multiplier	Value				

SYSTEM DESCRIPTION

Sat Att

a. Lighting (lamp type):

- [] [X] Fluor 40 watt.....
- [] [] Fluor 32 watt.....
- [X] [] Fluor Can*in entrances of the building*
- [] [] Incandescent
- [X] [] HID []Mercury [X]HPS []Metal Halide*in breezeway*
- [X] [] Low Voltage (12V)..... *lighting controls*
- [] [] Other

b. Lighting Levels

- [X] [] Halls.....
- [X] [] Rooms.....
- [X] [] Mechanical Rooms

c. Fixture Condition

- [X] [] Fixtures
- [X] [] Bulbs
- [X] [] Fixture Lens

d. Receptacles & Switches:

- [X] [] Wall Outlet 20A.....
- [X] [] GFIC Breakers
- [X] [] Switches.....
- [X] [] Cover Plates

c. Special:

- [X] [] Lightning Protection
- [X] [] Communication [X]Clock [X]Public Address [X]Bells...
- [X] [] Alarm [X]Fire [X]Security
- [X] [] Telecommunication [X] Phones [X]Data []Cable TV.....
- [X] [] Data Systems.....
- [X] [] Fiber Optics.....

COMMENTS:

40 watt fluorescent lighting fixtures need to be replaced with 32 watt lighting fixtures.

SAFETY STANDARDS

FAC #: 282

DATE: 10/30/98

INSPECTOR: JAO

COMPONENT RATING: (\$ <u>311,376</u>) x (<u>94%</u>) = \$ <u>294,107</u>						
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Possible	Condition	Component				
Value	Value Multiplier	Value				

SYSTEM DESCRIPTION

Sat Att

a. Exits:

Stair Construction:

- [] [] concrete
- [X] [] steel *with concrete fill*
- [] [] wood.....
- [X] [] Number of Exit Stairs *two to the breezeway*
- [X] [] Number of Other Exits *twelve*

b. Fire Rating:

- [] [] Construction Type: I_ II_ III_ IV X V_ VI_..
- Building Height: 32 ft., 2 stories

c. Extinguishing Systems:

- [X] [] Portable.....
- [] [] Standpipe
- [] [] Hose Cabinets.....
- [] [] Hoses
- [X] [] Sprinklers..... *full coverage*
- [] [] Gas Suppression
- [] [X] Other *glycol*

d. Detection & Alarm Systems:

- [X] [] Pull Stations.....
- [X] [] Bells.....
- [X] [] Horns
- [X] [] Strobes
- [] [X] Annunciator Panel *1401M with remote panel at entrance*
- [X] [] Smoke Detectors.....
- [X] [] Halls
- [X] [] Elevators.....
- [X] [] Rooms
- [X] [] Equip Rooms.....
- [X] [] Ducts

e. Lighting Systems:

- [X] [] Exit Signs []BATTERY [X]EMC
- [X] [] Exit Lighting []BATTERY [X]EMC
- [X] [] Emergency Lighting []BATTERY [X]EMC
- [X] [] Emergency Generator *in room 2000M*

f. Lightning Protection

[X] []

COMMENTS:

There is a fault in the fire alarm system that trips and needs to be located and repaired. Some of the problem appears to be a fault in one of the phases of the electrical feed to the building and is in the process of being repaired.

BUILDING PERIMETER EVALUATION

FAC #: 282

DATE: 10/30/98

INSPECTOR: JAO

SYSTEM DESCRIPTION

Sat Att

a. Building Access:

- | | | | |
|-------------------------------------|--------------------------|--------------------|-----------------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Driveway | <i>north, south and west side</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | Loading Dock | |
| | | Sidewalks..... | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Front | <i>west</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | Side..... | |
| <input type="checkbox"/> | <input type="checkbox"/> | Rear | |
| | | Steps | |
| <input type="checkbox"/> | <input type="checkbox"/> | Front..... | |
| <input type="checkbox"/> | <input type="checkbox"/> | Side..... | |
| <input type="checkbox"/> | <input type="checkbox"/> | Rear | |
| <input type="checkbox"/> | <input type="checkbox"/> | Ramp | |

b. Lawn and Landscaping:

- | | | | |
|-------------------------------------|--------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Lawn | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Shrubs..... | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Trees | |
| <input type="checkbox"/> | <input type="checkbox"/> | Undesirable Insect | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Bedding Material | |
| <input type="checkbox"/> | <input type="checkbox"/> | Watering System..... | |

c. General Site Information:

- | | | | |
|-------------------------------------|--------------------------|-----------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Signage | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Address Identification..... | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Security Lights..... | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Street Lights..... | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Drainage | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Storm Drains..... | |

COMMENTS:

none

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 172 OSU buildings that the Department of Physical Facilities is budgetary responsible. These audits will be used to establish repair and renovation projects, budget cost estimates for these projects, and overall levels of required maintenance funding.

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, 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. This building replacement cost is allocated to each building component to provide an estimated value for each component. Project cost estimates will exceed the building component values in most situations because of tear-out, handling and site limitations that occur in building component replacement projects.

5. DATA USAGE

Repair and Renovation Projects: provided to assist in the budgeting process for the Department of Physical Facilities. Building Evaluation: provided to give a numerical rating for each building on campus quantifying its percentage of deficiency.

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 State of Ohio Division of Factory and Building Inspection at the time of construction approved the buildings inspected. 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 on-going 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; the steps and walks up to the ramps are not included.

(d) Blinds, drapes, light bulbs, and movable furniture are 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

A/C	AIR CONDITIONING
AW	ACID WASTE
AHU	AIR HANDLING UNIT
ATT	ATTENTION
BLDG	BUILDING
BUR.....	BUILT UP ROOF
COND.....	CONDENSATE WATER
CAV	CONSTANT AIR VOLUME
CW	CONDENSER WATER OR CHILLED WATER
DCW	DOMESTIC COLD WATER
DDAHU	DUAL DUCT AIR HANDLING UNIT
DDHV	DUAL DUCT HIGH VELOCITY
DHWH	DOMESTIC HOT WATER HEATER
DHWR.....	DOMESTIC HOT WATER RETURN
DHWS	DOMESTIC HOT WATER SUPPLY
DHWT.....	DOMESTIC HOT WATER TANK
DX	DIRECT EXPANSION AIR CONDITIONER
EWC	ELECTRIC WATER COOLER
EMC	EMERGENCY CIRCUIT
FPM.....	FEET PER MINUTE
GPM	GALLONS PER MINUTE
HID	HIGH INTENSITY DISCHARGE LIGHT
HHW	HEATING HOT WATER
HPS	HIGH PRESSURE STEAM (125 PSI)
HVAC.....	HEATING, VENTILATING AND AIR CONDITIONING
KV	KILOVOLTS
KVA	KILOVOLTS AMPS
KW	KILOWATTS
LF	LINEAL FEET
LPS	LOW PRESSURE STEAM (15 PSI)
MCC	MOTOR CONTROL CENTER
MPS	MEDIUM PRESSURE STEAM (50 PSI)
MZCV	MULTIZONE CONSTANT VOLUME AIR HANDLING
N/A	NOT APPLICABLE
PSI.....	POUNDS PER SQUARE INCH
RM.....	ROOM
RTU.....	ROOF TOP UNIT (HEATING OR A/C)
SF	SQUARE FEET
S/P	STAND PIPE
SY	SQUARE YARDS
TR.....	TERMINAL REHEAT
V	VOLTS
VAV	VARIABLE AIR VOLUME

APPENDIX

Reduced Scale Building Floor Plans
C-1 Building Space Assignments