## **EAST CAROLINA UNIVERSITY**

### **AYCOCK RESIDENCE HALL**

ASSET CODE: AYCO

**FACILITY CONDITION ANALYSIS** 

**OCTOBER 30, 2009** 





## EAST CAROLINA UNIVERSITY Facility Condition Analysis

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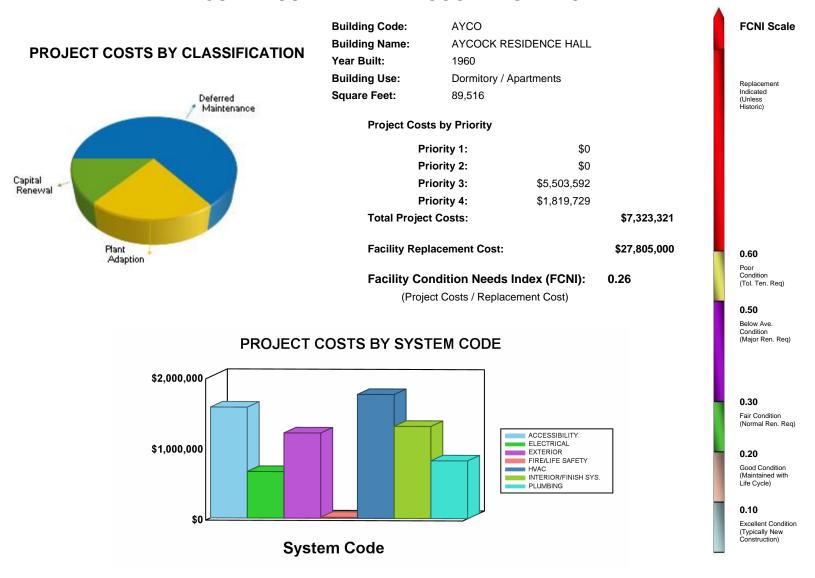
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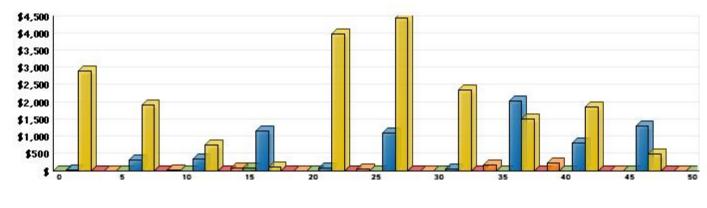
## **GENERAL ASSET INFORMATION**

Renewal Cost (Thousands of Dollars)

#### **EXECUTIVE SUMMARY - AYCOCK RESIDENCE HALL**



#### LIFE CYCLE MODEL EXPENDITURE PROJECTIONS



Average Annual Renewal Cost Per SqFt \$3.23

**Future Year** 



#### **B. ASSET SUMMARY**

Built in 1960, Aycock Residence Hall has four floors and a basement. The building has a concrete structure over a concrete vault basement. The exterior is brick, with a modified bitumen roof. This dormitory is H shaped, with an east and west wing connected by a central wing. The first through fourth floors consist of double occupancy dorm rooms, with bathrooms at the east and west wings. The first floor west wing houses the coordinator's apartment and office space. A basement renovation in the mid-2000s included new interior finishes, a computer lab, study space, and a laundry room. The Aycock Residence Hall totals 89,516 square feet and is located at the main campus of East Carolina University in Greenville, North Carolina.

The information in this report was gathered during a site visit that concluded on September 8, 2009.

#### SITE

Landscaping around the building consists of grassy lawns, ornamental shrubs, and some mature trees. It is in average condition, but should outlast the ten-year scope of this report with routine maintenance. Pedestrian paving systems are in overall good condition and should also outlast the ten-year scope of this report. There is minimal vehicular paving at this dormitory, and the paving that does exist is in good condition.

#### **EXTERIOR STRUCTURE**

Brick veneer is the primary exterior finish. While the brick is fundamentally sound, exposure to the elements has caused some deterioration of the mortar joints and expansion joints. Cleaning, surface preparation, selective repairs, and applied finish or penetrating sealant upgrades are recommended to restore the aesthetics and integrity of the building envelope.

It is recommended that the single-pane, metal windows be upgraded to thermal-pane systems, which will reduce the energy required to operate the building. Repair or replacement of the windowsills and trim may also be necessary.

The built-up roofing system is not expected to outlast the scope of this analysis. Future budget modeling should include a provision for the replacement of all failing roofing systems. Replace this roof with a similar application.

Exterior doors are metal-framed glass units at the primary entrances and painted metal at secondary and emergency exits. The doors appear to be in good condition and should not require replacement within the next ten years.

## EAST CAROLINA UNIVERSITY Facility Condition Analysis Section One



#### INTERIOR FINISHES / SYSTEMS

Interior floor finishes include carpeting, vinyl tile, and ceramic tile. Walls are painted plaster or concrete. Ceiling finishes include lay-in, acoustical tile and painted plaster ceilings. The interior finishes vary in age and condition from area to area. Floor, wall, and ceiling finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

The condition of the interior door systems is such that door system replacements are recommended as part of a comprehensive renovation effort. Complete demolition of the door systems and replacement according to a code compliant plan to properly protect egress passages is recommended. Lever door hardware and Braille signage should be included in this effort.

#### **ACCESSIBILITY**

Handicapped access to the building is provided by a wheelchair ramp to the remodeled basement area on the south facade. Once inside, there is no vertical transportation to the upper floors. Entrances to the first floor level are all via site steps and are not ADA compliant. Except for modifications in the remodeled basement area, there are no accessible amenities inside this dormitory. Interior doors are equipped with a mix of lever and knob hardware and non-complaint signage. The interior door replacement project includes funds to remedy this need.

Current accessibility legislation requires that building entrances be wheelchair accessible. To comply with the intent of this legislation, it is recommended that ADA compliant, painted metal handrails be installed at all entrances as required.

The restroom fixtures and finishes are mostly original to the year of construction or latest major renovation. The fixtures are sound but dated and are spaced such that clearances are not ADA compliant. A comprehensive restroom renovation, including new fixtures, finishes, partitions, accessories, and dual level drinking fountains, is recommended. Restroom expansion may be necessary in order to meet modern minimum fixture counts and accessibility legislation. Each restroom has a step at the entrance. Remove this barrier to allow wheelchair access into the restrooms.

ADA legislation requires wheelchair access to all floors in a building over two stories in height. There is no wheelchair access to the upper floors of this building. The installation of an interior traction elevator within the next ten years is proposed.

Current accessibility legislation requires that stairs have graspable handrails on both sides, that the rails have a specific end geometry, and that the handrails continue horizontally at the landings. In addition, guardrails must prevent the passage of a 4 inch diameter sphere (6 inches in the triangle formed by the lower rail and tread / riser angle). The finishes on the stairs have deteriorated or are otherwise unsafe. Although the stairs are compliant with the code enforced at the time of construction until a major renovation occurs, they are deficient in handrail and guardrail design relative to current standards. Future renovation efforts should include comprehensive stair railing and finish upgrades.

## EAST CAROLINA UNIVERSITY Facility Condition Analysis Section One



#### HEALTH

There were no reports or evidence of any asbestos-containing material or lead based paint. No other health related issues were noted during the inspection.

#### FIRE / LIFE SAFETY

The paths of egress are adequate with regard to fire rating. There are no compromises involving doors, partitions, elevators lobbies, or stairs. However, recommended door upgrades should include properly rated units. No fire / life safety issues related to architectural features were observed during this inspection.

The facility is served by a modern addressable Simplex brand fire alarm system. The model 4100U fire alarm panel was installed in the last five years. The system utilizes pull stations, smoke detectors, and duct smoke detectors for activation, while audible / visible strobes are present for notification. The fire alarm system is in good condition, but some devices that serve the system appear aged. It is recommended that all aged fire alarm devices be replaced. Also install additional units as needed.

The facility is served by a wet-pipe sprinkler system that incorporates fast action sprinkler heads. Additional coverage is provided by manual chemical-type fire extinguishers. The system appears to provide adequate coverage, and no recommendations are made for the extent of this report.

Exit signs are LED illuminated and connected to the emergency power network. Emergency lighting is available through standard interior light fixtures with battery backup ballasts. All egress lighting systems are adequate and in good condition. There are no related projects to recommend at this time.

#### **HVAC**

The facility is connected to the campus steam loop. Steam is supplied to a heat exchanger in the main mechanical room that produces heating hot water. The hot water is circulated to perimeter radiators to heat the individual dorm rooms and some common areas. The equipment appears to be mostly original.

Cooling is provided to dorm rooms by widow air conditioning units that utilize DX refrigerant. Split systems provide additional heating and cooling to common areas on the first and basement floors. These units utilize DX refrigerant and natural gas. The majority of the HVAC equipment was installed in the last five years and appears to be in good condition. Facility exhaust is provided by four mushroom style fans located on the roof. These units are in average condition. Overall, the HVAC system is a combination of new and aged equipment. It is inefficient compared to modern standards and should be replaced.

#### **ELECTRICAL**

Power is fed to the facility through an oil-filled transformer rated at 500 kVA. Voltage is stepped down to 120/208 volts for distribution through a main switchgear device that provides an electrical service rated at 2,000 amps. The equipment is Cutler Hammer brand and has an installation date of 2002. Overall, the main electrical equipment is in good condition and should provide reliable service in the near future.

## EAST CAROLINA UNIVERSITY Facility Condition Analysis Section One



The secondary electrical system consists of panelboards located throughout the facility. Power is fed at a rate of 120/208 volts from the panelboards for lighting, mechanical, and general purpose loads. The system was originally installed in 1960, with some upgrades in the last five years. New panelboards serving the window air conditioning units were observed on each floor, and GFCI receptacles were observed in some wet locations. However, the majority of the secondary electrical system is original and appears to have served beyond its intended life cycle. To maintain reliable service throughout the facility, it is recommended that the electrical distribution network be upgraded.

The interior spaces of this facility are illuminated by fixtures that utilize compact and T8 fluorescent lamps. The fluorescent fixtures are predominantly lay-in applications with acrylic lenses. The interior lighting is in good condition. With proper care, it will outlast the purview of this report.

The exterior areas adjacent to the building are illuminated by building-mounted HID, compact fluorescent, and stanchion-mounted fixtures. The exterior lighting systems are in good condition and provide adequate coverage. It is probable that they will outlast the purview of this report.

Emergency power is produced by a diesel-fired emergency generator located on-site. The unit was manufactured by Generac in 1999. It provides 120/208 volt power and has a capacity of 40 kW. Overall, the unit appears to be in good condition and properly enclosed. It should remain a reliable source of stand-by power throughout scope of this report.

#### **PLUMBING**

The main incoming domestic water is believed to enter the facility on the basement floor through a crawlspace. Copper piping is utilized to distribute water throughout the facility. The system appears to be in average condition, with some new piping observed in renovated restrooms or crawlspaces. However, original piping is still present. An upgrade of the original domestic water piping is recommended. Additionally, no backflow preventer was observed during the inspection. Install backflow protection equipment as needed to protect the water supply from contamination.

The drain piping network is cast-iron and contains bell-and-spigot connections and plastic piping. The piping network appears to be a combination of aged and new piping where repairs or partial renovations have taken place. The majority of the piping network appears original. Remove the existing sanitary and storm drain piping. Install new cast-iron drain piping networks with copper run-outs to all fixtures. Also install new floor drains, roof drains, and traps as needed.

The plumbing fixtures are ceramic and utilize manual devices. The fixtures are mostly original to the construction of the facility. It is recommended that the plumbing fixtures be replaced as part of the previously mentioned accessibility upgrades.

Domestic hot water is produced by a steam to hot water unit manufactured by PVI. The water heater has a storage capacity of 600 gallons and an install date of 1999. Overall, the equipment appears to be in good condition and should continue to provide adequate service for the extent of this report.

## EAST CAROLINA UNIVERSITY Facility Condition Analysis Section One



#### VERTICAL TRANSPORTATION

This five-story facility is not served by vertical transportation equipment. The installation of an elevator is recommended as part of the previously mentioned accessibility upgrades.

Note: The deficiencies outlined in this report were noted from a visual inspection. ISES engineers and architects developed projects with related costs that are needed over the next ten-year period to bring the facility to "like-new" condition. The costs developed do not represent the cost of a complete facility renovation. Soft costs not represented in this report include telecommunications, furniture, window treatment, space change, program issues, relocation, swing space, contingency, or costs that could not be identified or determined from the visual inspection and available building information. However, existing fixed building components and systems were thoroughly inspected. The developed costs represent correcting existing deficiencies and anticipated life cycle failures (within a ten-year period) to bring the facility to modern standards without any anticipation of change to facility space layout or function. Please refer to Section Three of this report for recommended Specific Project Details.



#### **C. INSPECTION TEAM DATA**

**DATE OF INSPECTION:** September 8, 2009

#### **INSPECTION TEAM PERSONNEL:**

<u>NAME</u>	<u>POSITION</u>	<u>SPECIALTY</u>
Thomas Ferguson, AIA, LEED <sup>®</sup> AP	Project Architect	Interior Finishes / Exterior / ADA- Handicapped Accessibility / Site / Fire Safety / Life Safety / Health
Rob Gasaway, Q.E.I.	Facility Analyst	Interior Finishes / Exterior / ADA- Handicapped Accessibility / Site / Fire Safety / Life Safety / Health
John Holder, Q.E.I.	Project Engineer	Mechanical / Electrical / Plumbing / Energy / Fire Safety / Life Safety / Health
Imelda Jordan	Project Engineer	Mechanical / Electrical / Plumbing / Energy / Fire Safety / Life Safety / Health
James Lewis	Project Engineer	Mechanical / Electrical / Plumbing / Energy / Fire Safety / Life Safety / Health
Carl Mason, PE, BSCP	Project Engineer	Interior Finishes / Exterior / ADA- Handicapped Accessibility / Site / Fire Safety / Life Safety / Health
Paul Southwell	Project Engineer	Mechanical / Electrical / Plumbing / Energy / Fire Safety / Life Safety / Health
Norm Teahan, RA, AIA, NCARB	Project Architect	Interior Finishes / Exterior / ADA- Handicapped Accessibility / Site / Fire Safety / Life Safety / Health

#### **FACILITY CONTACTS:**

NAME POSITION

William Bagwell Associate Vice Chancellor, Campus Operations

**REPORT DEVELOPMENT:** 

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Stone Mountain, GA 30087

Contact: Kyle Thompson, Project Manager

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#### D. FACILITY CONDITION ANALYSIS - DEFINITIONS

The following information is a clarification of Asset Report Sections using example definitions.

#### 1. REPORT DESCRIPTION

Section 1: Asset Executive Summary, Asset Summary, and General Report Information

Section 2: Detailed Project Summaries and Totals

- A. Detailed Project Totals Matrix with FCNI Data and Associated Charts
- B. Detailed Projects by Priority Class / Priority Sequence
- C. Detailed Projects by Cost within range [\$0 < \$100,000]
- D. Detailed Projects by Cost within range [≥ \$100,000 < \$500,000 ]
- E. Detailed Projects by Cost within range [≥ \$500,000]
- F. Detailed Projects by Project Classification
- G. Detailed Projects by Project Rating Type Energy Conservation
- H. Detailed Projects by Category / System Code

FCNI = Facility Condition Needs Index, Total Cost vs. Replacement Cost. The FCNI provides a life cycle cost comparison. Facility replacement cost is based on replacement with current construction standards for facility use type, and not original design parameters. This index gives the University a comparison within all buildings for identifying worst case / best case building conditions.

FCNI = Deferred Maintenance / Modernization +

<u>Capital Renewal + Plant Adaption</u>

Plant / Facility Replacement Cost

Section 3: Specific Project Details Illustrating Description / Cost

Section 4: Drawings with Iconography

The drawings for this facility are marked with ICONS (see legend), denoting the specific location(s) for each project. Within each ICON is the last four characters of the respective project number (e.g., 0001IS01 is marked on plan by IS01). There is one set of drawings marked with ICONS representing all priority classes (1, 2, 3, and 4).

Section 5: Life Cycle Model Summary and Projections

Section 6: Photographic Log



#### 2. PROJECT CLASSIFICATION

- A. <u>Plant / Program Adaption</u>: Expenditures required to adapt the physical plant to the evolving needs of the institution and to changing codes or standards. These are expenditures beyond normal maintenance. Examples include compliance with changing codes (e.g. accessibility), facility alterations required by changed teaching or research methods, and improvements occasioned by the adoption of modern technology (e.g., the use of personal computer networks).
- B. <u>Deferred Maintenance</u>: Refers to expenditures for repairs which were not accomplished as a part of normal maintenance or capital repair which have accumulated to the point that facility deterioration is evident and could impair the proper functioning of the facility. Costs estimated for deferred maintenance projects should include compliance with applicable codes, even if such compliance requires expenditures beyond those essential to affect the needed repairs. Deferred maintenance projects represent catch up expenses.
- C. <u>Capital Renewal:</u> A subset of regular or normal facility maintenance which refers to major repairs or the replacement / rebuilding of major facility components (e.g., roof replacement at the end of its normal useful life is capital repair; roof replacement several years after its normal useful life is deferred maintenance).

#### 3. PROJECT SUBCLASS TYPE

A. <u>Energy Conservation</u>: Projects with energy conservation opportunities, based on simple payback analysis.

#### 4. PRIORITY SEQUENCE BY PRIORITY CLASS (Shown in Sections 2 and 3)

All projects are assigned both a Priority Sequence number and Priority Class number for categorizing and sorting projects based on criticality and recommended execution order.

#### Example:

	PRIORITY CLA	SS 1
CODE	PROJECT NO.	PRIORITY SEQUENCE
HV2C	0001HV04	01
PL1D	0001PL02	02
	DDIODITY OL A	00.0
	PRIORITY CLA	<u>55 2</u>
CODE	PROJECT NO.	PRIORITY SEQUENCE
IS1E	0001IS06	03
EL4C	0001EL03	04



#### 5. PRIORITY CLASS (Shown in Sections 2 and 3)

#### PRIORITY 1 - Currently Critical (Immediate)

Projects in this category require immediate action to:

- a. return a facility to normal operation
- b. stop accelerated deterioration
- c. correct a cited safety hazard

#### PRIORITY 2 - Potentially Critical (Year One)

Projects in this category, if not corrected expeditiously, will become critical within a year. Situations in this category include:

- a. intermittent interruptions
- b. rapid deterioration
- c. potential safety hazards

#### PRIORITY 3 - Necessary - Not Yet Critical (Years Two to Five)

Projects in this category include conditions requiring appropriate attention to preclude predictable deterioration or potential downtime and the associated damage or higher costs if deferred further.

#### PRIORITY 4 - Recommended (Years Six to Ten)

Projects in this category include items that represent a sensible improvement to existing conditions. These items are not required for the most basic function of a facility; however, Priority 4 projects will either improve overall usability and / or reduce long-term maintenance.

#### 6. COST SUMMARIES AND TOTALS

The cost summaries and totals are illustrated by Detailed Projects sorted in multiple formats (shown in Sections 2 and 3).

City Index material / labor cost factors: (shown in Sections 2 and 3)

Cost factors are based on the Greenville City Index and are adjusted for material and labor cost factors (2009). Refer to the project related labor report found later in this section.

Global Markup Percentages		R.S. MEANS
Local Labor Index: Local Materials Index:	51.3 % 100.7 %	of National Average of National average
General Contractor Markup: Professional Fees:	20.0 % 16.0 %	Contractor profit & overhead, bonds & insurance Arch. / Eng. Firm design fees and in-house design cost



#### 7. PROJECT NUMBER (Shown in Sections 2 and 3)

#### Example:

Project Number = 0001-EL-04 (unique for each independent project)

0001 - Building Identification Number

EL - System Code, EL represents Electrical

- Sequential Assignment Project Number by Category / System

#### 8. PHOTO NUMBER (Shown in Section 6)

A code shown on the Photographic Log identifies the building number, photo sequence, and architect, engineer, or vertical transportation.

Example: 0001006e

Building Number Photo Sequence Arch / Eng / VT 0001 006 e

#### 9. LIFE CYCLE COST MODEL DESCRIPTION AND DEFINITIONS (Shown in Section 5)

Included in this report is a Life Cycle Cost Model. This model consists of two elements, one is the component listing (starting on page 5.1.1) and the other is the Life Cycle Cost Projections Graph (page 5.2.1). The component list is a summary of all major systems and components within the facility. Each indicated component has the following associated information:

Uniformat Code	This is the standard Uniformat Code that applies to the component
Component Description	This line item describes the individual component
Qty	The quantity of the listed component
Units	The unit of measure associated with the quantity
Unit Cost	The cost to replace each individual component unit (This cost is in
	today's dollars)
Total Cost	Unit cost multiplied by Quantity, also in today's dollars. Note that this is a
	one time renewal / replacement cost
Install Date	Year that the component was installed. Where this data is not available,
	it defaults to the year the asset was constructed
Life Exp	Average life expectancy for each individual component

The component listing forms the basis for the Life Cycle Cost Projections Graph shown on page 5.2.1. This graph represents a projection over a fifty-year period (starting from the date the report is run) of expected component renewals based on each individual item's renewal cost and life span. Some components might require renewal several times within the fifty-year model, while others might not occur at all. Each individual component is assigned a renewal year based on life cycles, and the costs for each item are inflated forward to the appropriate year. The vertical bars shown on the graph represent the accumulated (and inflated) total costs for each individual year. At the bottom of the graph, the average annual cost per gross square foot (\$/GSF) is shown for the facility. In this calculation, all costs are not inflated. This figure can be utilized to assess the adequacy of existing capital renewal and repair budgets.

## EAST CAROLINA UNIVERSITY

Facility Condition Analysis

Section One —



#### 10. CATEGORY CODE (Shown in Sections 2 and 3)

Refer to the following Category Code Report.

Example: Category Code = EL5A

EL = System Description
5 = Component Description
A = Element Description

CATEG	ORY	CODE	SYSTEM DESCRIPTION
AC1A	-	AC4B	ACCESSIBILITY
EL1A	-	EL8A	ELECTRICAL
ES1A	-	ES6E	EXTERIOR STRUCTURE
FS1A	-	FS6A	FIRE / LIFE SAFETY
HE1A	-	HE7A	HEALTH
HV1A	-	HV8B	HVAC
IS1A	-	IS6D	INTERIOR FINISHES / SYSTEMS
PL1A	-	PL5A	PLUMBING
SI1A	-	SI4A	SITE
SS1A	-	SS7A	SECURITY SYSTEMS
VT1A	-	VT7A	VERTICAL TRANSPORTATION



	CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION	
SYSTEM DE	SCRIPTION: ACCESSIBILITY			
AC1A	SITE	STAIR AND RAILINGS	Includes exterior stairs and railings which are not part of the building entrance points.	
AC1B	SITE	RAMPS AND WALKS	Includes sidewalks, grade change ramps (except for a building entrance), curb ramps, etc.	
AC1C	SITE	PARKING	Designated parking spaces including striping, signage, access aisles and ramps, etc.	
AC1D	SITE	TACTILE WARNINGS	Raised tactile warnings located at traffic crossing and elevation changes.	
AC2A	BUILDING ENTRY	GENERAL	Covers all aspects of entry into the building itself including ramps, lifts, doors and hardware, power operators, etc.	
AC3A	INTERIOR PATH OF TRAVEL	LIFTS/RAMPS/ ELEVATORS	Interior lifts, ramps and elevators designed to accommodate level changes inside a building. Includes both installation and retrofitting.	
AC3B	INTERIOR PATH OF TRAVEL	STAIRS AND RAILINGS	Upgrades to interior stairs and handrails for accessibility reasons.	
AC3C	INTERIOR PATH OF TRAVEL	DOORS AND HARDWARE	Accessibility upgrades to the interior doors including widening, replacing hardware power, assisted operators, etc.	
AC3D	INTERIOR PATH OF TRAVEL	SIGNAGE	Interior building signage upgrades for compliance with ADA.	
AC3E	INTERIOR PATH OF TRAVEL	RESTROOMS/ BATHROOMS	Modifications to and installation of accessible public restrooms and bathrooms. Bathrooms, which are an integral part of residential suites, are catalogued under HC4A.	
AC3F	INTERIOR PATH OF TRAVEL	DRINKING FOUNTAINS	Upgrading/replacing drinking fountains for reasons of accessibility.	
AC3G	INTERIOR PATH OF TRAVEL	PHONES	Replacement/modification of public access telephones.	
AC4A	GENERAL	FUNCTIONAL SPACE MODIFICATIONS	This category covers all necessary interior modifications necessary to make the services and functions of a building accessible. It includes installation of assistive listening systems, modification of living quarters, modifications to laboratory workstations, etc. Bathrooms, which are integral to efficiency suites, are catalogued here.	
AC4B	GENERAL	OTHER	All accessibility issues not catalogued elsewhere.	
SYSTEM DE	SCRIPTION: ELECTRICAL			
EL1A	INCOMING SERVICE	TRANSFORMER	Main building service transformer.	
EL1B	INCOMING SERVICE	DISCONNECTS	Main building disconnect and switchgear.	
EL1C	INCOMING SERVICE	FEEDERS	Incoming service feeders. Complete incoming service upgrades, including transformers, feeders, and main distribution panels are catalogued here.	
EL1D	INCOMING SERVICE	METERING	Installation of meters to record consumption and/or demand.	
EL2A	MAIN DISTRIBUTION PANELS	CONDITION UPGRADE	Main distribution upgrade due to deficiencies in condition.	
EL2B	MAIN DISTRIBUTION PANELS	CAPACITY UPGRADE	Main distribution upgrades due to inadequate capacity.	
EL3A	SECONDARY DISTRIBUTION	STEP DOWN TRANSFORMERS	Secondary distribution stepdown and isolation transformers.	
EL3B	SECONDARY DISTRIBUTION	DISTRIBUTION NETWORK	Includes conduit, conductors, sub-distribution panels, switches, outlets, etc. Complete interior rewiring of a facility is catalogued here.	
EL3C	SECONDARY DISTRIBUTION	MOTOR CONTROLLERS	Mechanical equipment motor starters and control centers.	
EL4A	DEVICES AND FIXTURES	EXTERIOR LIGHTING	Exterior building lighting fixtures including supply conductors and conduit.	
EL4B	DEVICES AND FIXTURES	INTERIOR LIGHTING	Interior lighting fixtures (also system wide emergency lighting) including supply conductors and conduits.	
EL4C	DEVICES AND FIXTURES	LIGHTING CONTROLLERS	Motion sensors, photocell controllers, lighting contactors, etc.	



	CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION	
EL4D	DEVICES AND FIXTURES	GFCI PROTECTION	Ground fault protection including GFCI receptacles and breakers.	
EL4E	DEVICES AND FIXTURES	LIGHTNING PROTECTION	Lightning arrestation systems including air terminals and grounding conductors.	
EL5A	EMERGENCY POWER SYSTEM	GENERATION/ DISTRIBUTION	Includes generators, central battery banks, transfer switches, emergency power grid, etc.	
EL6A	SYSTEMS	UPS/DC POWER SUPPLY	Uninterruptible power supply systems and DC motor-generator sets and distribution systems.	
EL7A	INFRASTRUCTURE	ABOVE GROUND TRANSMISSION	Includes poles, towers, conductors, insulators, fuses, disconnects, etc.	
EL7B	INFRASTRUCTURE	UNDERGROUND TRANSMISSION	Includes direct buried feeders, ductbanks, conduit, manholes, feeders, switches, disconnects, etc.	
EL7C	INFRASTRUCTURE	SUBSTATIONS	Includes incoming feeders, breakers, buses, switchgear, meters, CTs, PTs, battery systems, capacitor banks, and all associated auxiliary equipment.	
EL7D	INFRASTRUCTURE	DISTRIBUTION SWITCHGEAR	Stand-alone sectionalizing switches, distribution switchboards, etc.	
EL7F	INFRASTRUCTURE	AREA AND STREET LIGHTING	Area and street lighting systems including stanchions, fixtures, feeders, etc.	
EL8A	GENERAL	OTHER	Electrical system components not catalogued elsewhere.	
SYSTEM DI	ESCRIPTION: EXTERIOR			
ES1A	FOUNDATION/FOOTING	STRUCTURE	Structural foundation improvements involving structural work on foundation wall/footing, piers, caissons, piles including crack repairs, shoring & pointing	
ES1B	FOUNDATION/FOOTING	DAMPPROOFING/ DEWATERING	Foundation/footing waterproofing work including, damp proofing, dewatering, insulation, etc.	
ES2A	COLUMNS/BEAMS/ WALLS	STRUCTURE	Structural work to primary load-bearing structural components aside from floors including columns, beams, bearing walls, lintels, arches, etc.	
ES2B	COLUMNS/BEAMS/ WALLS	FINISH	Work involving restoration of the appearance and weatherproof integrity of exterior wall/structural envelope components including masonry/pointing, expansion joints, efflorescence & stain removal, grouting, surfacing, chimney repairs, etc.	
ES3A	FLOOR	STRUCTURE	Work concerning the structural integrity of the load supporting floors both exposed and unexposed including deformation, delamination, spalling, shoring, crack repair, etc.	
ES4A	ROOF	REPAIR	Work on waterproof horizontal finish (roof) involving repair and/or limited replacement (<40% total) including membrane patching, flashing repair, coping caulk/resetting, PPT wall parging/coating, walkpad installation, skylight and roof hatch R&R, etc.	
ES4B	ROOF	REPLACEMENT	Work involving total refurbishment of roofing system including related component rehab.	
ES5A	FENESTRATIONS	DOORS	Work on exterior exit/access door including storefronts, airlocks, air curtains, vinyl slat doors, all power/manual operating hardware (except handicapped), etc.	
ES5B	FENESTRATIONS	WINDOWS	Work on exterior fenestration closure & related components including glass/metal/wood curtain walls, fixed or operable window sashes, glazing, frames, sills, casings, stools, seats, coatings, treatments, screens, storm windows, etc.	
ES6A	GENERAL	ATTACHED STRUCTURE	Work on attached exterior structure components not normally considered in above categories including porches, stoops, decks, monumental entrance stairs, cupolas, tower, etc.	
ES6B	GENERAL	AREAWAYS	Work on attached grade level or below structural features including subterranean light wells, areaways, basement access stairs, etc.	
ES6C	GENERAL	TRIM	Work on ornamental exterior (generally non-structural) elements including beltlines, quoins, porticos, soffits, cornices, moldings, trim, etc.	
ES6D	GENERAL	SUPERSTRUCTURE	Finish and structural work on non-standard structures with exposed load-bearing elements such as stadiums, bag houses, bleachers, freestanding towers, etc.	



	CATEGORY CODE REPORT				
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION		
ES6E	GENERAL	OTHER	Any exterior work not specifically categorized elsewhere including finish and structural work on		
LSGL	GLINEIVAL	OTTLER	freestanding boiler stacks.		
SYSTEM D	ESCRIPTION: FIRE / LIFE SAFE	TY			
FS1A	LIGHTING	EGRESS LIGHTING/EXIT SIGNAGE	R & R work on exit signage and packaged AC/DC emergency lighting.		
FS2A	DETECTION/ALARM	GENERAL	Repair or replacement of fire alarm/detection system/components including alarms, pull boxes, smoke/heat detectors, annunciator panels, central fire control stations, remote dialers, fire station communications, etc.		
FS3A	SUPPRESSION	SPRINKLERS	Repair or installation of water sprinklers type automatic fire suppressions including wet pipe & dry pipe systems, heads, piping, deflectors, valves, monitors, associated fire pump, etc.		
FS3B	SUPPRESSION	STANDPIPE/HOSE	Repair or installation of standpipe system or components including hardware, hoses, cabinets, nozzles, necessary fire pumping system, etc.		
FS3C	SUPPRESSION	EXTINGUISHERS	Repairs or upgrades to F.E. cabinets/wall fastenings and handheld extinguisher testing/replacement.		
FS3D	SUPPRESSION	OTHER	Other fire suppression items not specifically categorized elsewhere including fire blankets, carbon dioxide automatic systems, Halon systems, dry chemical systems, etc.		
FS4A	HAZARDOUS MATERIALS	STORAGE ENVIRONMENT	Installation or repair of special storage environment for the safe holding of flammable or otherwise dangerous materials/supplies including vented flammables storage cabinets, holding pens/rooms, cages, fire safe chemical storage rooms, etc.		
FS4B	HAZARDOUS MATERIALS	USER SAFETY	Improvements, repairs, installation, or testing of user safety equipment including emergency eyewashes, safety showers, emergency panic/shut-down system, etc.		
FS5A	EGRESS PATH	DESIGNATION	Installation, relocation or repair of posted diagrammatic emergency evacuation routes.		
FS5B	EGRESS PATH	DISTANCE/ GEOMETRY	Work involving remediation of egress routing problems including elimination of dead end corridors, excessive egress distance modifications and egress routing inadequacies.		
FS5C	EGRESS PATH	SEPARATION RATING	Restoration of required fire protective barriers including wall rating compromises, fire rated construction, structural fire proofing, wind/safety glazing, transom retrofitting, etc.		
FS5D	EGRESS PATH	OBSTRUCTION	Clearance of items restricting the required egress routes.		
FS5E	EGRESS PATH	STAIRS RAILING	Retrofit of stair/landing configurations/structure, railing heights/geometries, etc.		
FS5F	EGRESS PATH	FIRE DOORS/ HARDWARE	Installation/replacement/repair of fire doors and hardware including labeled fire doors, fire shutters, closers, magnetic holders, panic hardware, etc.		
FS5G	EGRESS PATH	FINISH/FURNITURE RATINGS	Remediation of improper fire/smoke ratings of finishes and furniture along egress routes.		
FS6A	GENERAL	OTHER	Life/fire safety items not specifically categorized elsewhere.		
SYSTEM D	ESCRIPTION: HEALTH				
HE1A	ENVIRONMENTAL CONTROL	EQUIPMENT AND ENCLOSURES	Temperature control chambers (both hot and cold) for non-food storage. Includes both chamber and all associated mechanical equipment.		
HE1B	ENVIRONMENTAL CONTROL	OTHER	General environmental control problems not catalogued elsewhere.		
HE2A	PEST CONTROL	GENERAL	Includes all measures necessary to control and destroy insects, rodents and other pests.		
HE3A	REFUSE	GENERAL	Issues related to the collection, handling and disposal of refuse.		
HE4A	SANITATION EQUIPMENT	LABORATORY AND PROCESS	Includes autoclaves, cage washers, steam cleaners, etc.		
HE5A	FOOD SERVICE	KITCHEN EQUIPMENT	Includes ranges, grilles, cookers, sculleries, etc.		
HE5B	FOOD SERVICE	COLD STORAGE	Includes the cold storage room and all associated refrigeration equipment.		
		•			



CATEGORY CODE REPORT				
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION	
HE6A	HAZARDOUS MATERIAL	STRUCTURAL ASBESTOS	Testing, abatement and disposal of structural and building finish materials containing asbestos.	
HE6B	HAZARDOUS MATERIAL	MECHANICAL ASBESTOS	Testing, abatement and disposal of mechanical insulation materials containing asbestos.	
HE6C	HAZARDOUS MATERIAL	PCBs	Includes testing, demolition, disposal and cleanup of PCB contaminated substances.	
HE6D	HAZARDOUS MATERIAL	FUEL STORAGE	Includes monitoring, removal and replacement of above and below ground fuel storage and distribution systems. Also includes testing and disposal of contaminated soils.	
HE6E	HAZARDOUS MATERIAL	LEAD PAINT	Testing, removal and disposal of lead-based paint systems.	
HE6F	HAZARDOUS MATERIAL	OTHER	Handling, storage, and disposal of other hazardous materials.	
HE7A	GENERAL	OTHER	Health related issues not catalogued elsewhere.	
SYSTEM D	ESCRIPTION: HVAC	•		
HV1A	HEATING	BOILERS/STACKS/ CONTROLS	Boilers for heating purposes including their related stacks, flues, and controls.	
HV1B	HEATING	RADIATORS/ CONVECTORS	Including cast iron radiators, fin tube radiators, baseboard radiators, etc.	
HV1C	HEATING	FURNACE	Furnaces and their related controls, flues, etc.	
HV1D	HEATING	FUEL SUPPLY/STORAGE	Storage and/or distribution of fuel for heating purposes, including tanks and piping networks and related leak detection/monitoring.	
HV2A	COOLING	CHILLERS/ CONTROLS	Chiller units for production of chilled water for cooling purposes, related controls (not including mods for CFC compliance).	
HV2B	COOLING	HEAT REJECTION	Repair/replacement of cooling towers, dry coolers, air-cooling and heat rejection. (Includes connection of once-through system to cooling tower.)	
HV3A	HEATING/COOLING	SYSTEM RETROFIT/ REPLACE	Replacement or major retrofit of HVAC systems.	
HV3B	HEATING/COOLING	WATER TREATMENT	Treatment of hot water, chilled water, steam, condenser water, etc.	
HV3C	HEATING/COOLING	PACKAGE/SELF-CONTAINED UNITS	Repair/replacement of self-contained/package type units including stand up units, rooftop units, window units, etc; both air conditioners and heat pumps.	
HV3D	HEATING/COOLING	CONVENTIONAL SPLIT SYSTEMS	Repair, installation, or replacement of conventional split systems; both air conditioners and heat pumps including independent component replacements of compressors and condensers.	
HV4A	AIR MOVING/ VENTILATION	AIR HANDLERS/ FAN UNITS	Includes air handlers & coils, fan coil units, unit ventilators, filtration upgrades, etc., not including package/self-contained units, split systems or other specifically categorized systems.	
HV4B	AIR MOVING/ VENTILATION	EXHAUST FANS	Exhaust fan systems including fans, range and fume hoods, controls, and related ductwork.	
HV4C	AIR MOVING/ VENTILATION	OTHER FANS	Supply, return, or any other fans not incorporated into a component categorized elsewhere.	
HV4D	AIR MOVING/ VENTILATION	AIR DISTRIBUTION NETWORK	Repair, replacement, or cleaning of air distribution network including ductwork, terminal reheat/cool, VAV units, induction units, power induction units, insulation, dampers, linkages, etc.	
HV5A	STEAM/HYDRONIC DISTRIBUTION	PIPING NETWORK	Repair/replacement of piping networks for heating and cooling systems including pipe, fittings, insulation, related components, etc.	
HV5B	STEAM/HYDRONIC DISTRIBUTION	PUMPS	Repair or replacement of pumps used in heating and cooling systems, related control components, etc.	
HV5C	STEAM/HYDRONIC DISTRIBUTION	HEAT EXCHANGERS	Including shell and tube heat exchangers and plate heat exchangers for heating and cooling.	
HV6A	CONTROLS	COMPLETE SYSTEM	Replacement of HVAC control systems.	



CATEGORY CODE REPORT					
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION		
		UPGRADE			
HV6B	CONTROLS	MODIFICATIONS/ REPAIRS	Repair or modification of HVAC control system.		
HV6C	CONTROLS	AIR COMPRESSORS/ DRYERS	Repair or modification of control air compressors and dryers.		
HV7A	INFRASTRUCTURE	STEAM/HOT WATER GENERATION	Generation of central steam and/or hot water including boilers and related components.		
HV7B	INFRASTRUCTURE	STEAM/HOT WATER DISTRIBUTION	Distribution system for central hot water and/or steam.		
HV7C	INFRASTRUCTURE	CHILLED WATER GENERATION	Generation of central chilled water including chillers and related components.		
HV7D	INFRASTRUCTURE	CHILLED WATER DISTRIBUTION	Distribution system for central chilled water.		
HV7E	INFRASTRUCTURE	TUNNELS/ MANHOLES/ TRENCHES	Repairs, installation, replacement of utility system access chambers.		
HV7F	INFRASTRUCTURE	OTHER	HVAC infrastructure issues not specifically categorized elsewhere.		
HV8A	GENERAL	CFC COMPLIANCE	Chiller conversions/replacements for CFC regulatory compliance, monitoring, etc.		
HV8B	GENERAL	OTHER	HVAC issues not catalogued elsewhere.		
SYSTEM D	ESCRIPTION: INTERIOR FINI	SHES / SYSTEMS			
IS1A	FLOOR	FINISHES-DRY	R & R of carpet, hardwood strip flooring, concrete coating, vinyl linoleum & tile, marble, terrazzo, rubber flooring, underlayment in predominantly dry areas ("dry" includes non-commercial kitchens)		
IS1B	FLOOR	FINISHES-WET	Flooring finish/underlayment work in predominantly "wet" areas including work with linoleum, rubber, terrazzo, concrete coating, quarry tile, ceramic tile, epoxy aggregate, etc.		
IS2A	PARTITIONS	STRUCTURE	Structural work on full height permanent interior partitions including wood/metal stud & drywall systems, CMU systems, structural brick, tile, glass block, etc.		
IS2B	PARTITIONS	FINISHES	Work on full height permanent interior partitions including R & R to gypsum board, plaster, lath, wood paneling, acoustical panels, wall coverings, column coverings, tile, paint, etc.		
IS3A	CEILINGS	REPAIR	Repair of interior ceilings (<40% of total) including tiles, gypsum board, plaster, paint, etc.		
IS3B	CEILINGS	REPLACEMENT	Major refurbishments (>40% of total) to interior ceiling systems including grid system replacements, structural framing, new suspended systems, paint, plastering, etc.		
IS4A	DOORS	GENERAL	Any work on interior non-fire rated doors, roll-up counter doors, mechanical/plumbing access doors, and all door hardware (except for reasons of access improvement).		
IS5A	STAIRS	FINISH	Any finish restorative work to stair tower walking surfaces including replacement of rubber treads, safety grips, nosings, etc. (except as required to accommodate disabled persons).		
IS6A	GENERAL	MOLDING	R & R to interior trim/molding systems including rubber/vinyl/wood base, crown/chair/ornamental moldings, cased openings, etc.		
IS6B	GENERAL	CABINETRY	R & R work to interior casework systems including cabinets, countertops, wardrobes, lockers, mail boxes, built-in bookcases, lab/work benches, reagent shelving, etc. (except as required for access by the disabled).		
IS6C	GENERAL	SCREENING	Work on temporary or partial height partitioning systems including toilet partitions, urinal/vanity screens, etc.		
IS6D	GENERAL	OTHER	Any work on interior elements not logically or specifically categorized elsewhere including light coves, phone booths, interior light wells, etc.		
SYSTEM DESCRIPTION: PLUMBING					



	CATEGORY CODE REPORT				
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION		
PL1A	DOMESTIC WATER	PIPING NETWORK	Repair or replacement of domestic water supply piping network, insulation, hangers, etc.		
PL1B	DOMESTIC WATER	PUMPS	Domestic water booster pumps, circulating pumps, related controls, etc.		
PL1C	DOMESTIC WATER	STORAGE/ TREATMENT	Equipment or vessels for storage or treatment of domestic water.		
PL1D	DOMESTIC WATER	METERING	Installation, repair, or replacement of water meters.		
PL1E	DOMESTIC WATER	HEATING	Domestic water heaters including gas, oil, and electric water heaters, shell and tube heat exchangers, tank type and instantaneous.		
PL1F	DOMESTIC WATER	COOLING	Central systems for cooling and distributing drinking water.		
PL1G	DOMESTIC WATER	FIXTURES	Plumbing fixtures including sinks, drinking fountains, water closets, urinals, etc.		
PL1H	DOMESTIC WATER	CONSERVATION	Alternations made to the water distribution system to conserve water.		
PL1I	DOMESTIC WATER	BACKFLOW PROTECTION	Backflow protection devices including backflow preventers, vacuum breakers, etc.		
PL2A	WASTEWATER	PIPING NETWORK	Repair or replacement of building wastewater piping network.		
PL2B	WASTEWATER	PUMPS	Pump systems used to lift wastewater including sewage ejectors and other sump systems.		
PL3A	SPECIAL SYSTEMS	PROCESS GAS/FLUIDS	Generation and/or distribution of process steam, compressed air, natural and LP gas, process water, vacuum, etc.		
PL4A	INFRASTRUCTURE	POTABLE WATER STORAGE/ TREATMENT	Storage and treatment of potable water for distribution.		
PL4B	INFRASTRUCTURE	INDUSTRIAL WATER DISTRIBUTION/ TREATMENT	Storage and treatment of industrial water for distribution.		
PL4C	INFRASTRUCTURE	SANITARY WATER COLLECTION	Sanitary water collection systems, sanitary sewer systems; including combined systems.		
PL4D	INFRASTRUCTURE	STORM WATER COLLECTION	Storm water collection systems, storm sewer systems; storm water only.		
PL4E	INFRASTRUCTURE	POTABLE WATER DISTRIBUTION	Potable water distribution network.		
PL4F	INFRASTRUCTURE	WASTEWATER TREATMENT	Wastewater treatment plants, associated equipment, etc.		
PL5A	GENERAL	OTHER	Plumbing issues not categorized elsewhere.		
SYSTEM DE	ESCRIPTION: SITE				
SI1A	ACCESS	PEDESTRIAN	Paved pedestrian surfaces including walks, site stairs, step ramps, paths, pedestrian signage, sidewalk bridges/canopies, pedestrian plaza/mall areas, etc.		
SI1B	ACCESS	VEHICULAR	Paved vehicular surfaces including roads, paths, curbs, guards, bollards, bridges, skyways, joints, shoulder work, culverts, ditches, vehicular signage, etc.		
SI2A	LANDSCAPE	GRADE/FLORA	Landscape related work including new grass/turf refurbishment, grade improvements, catch basins, swales, berms, pruning, new ornamental flora, etc.		
SI3A	HARDSCAPE	STRUCTURE	Permanent hard site features, predominantly ornamental, including terraces, fences, statues, freestanding signage, fountains, benches, etc.		
SI4A	GENERAL	OTHER	Other site work not specifically categorized elsewhere.		
SYSTEM DESCRIPTION: SECURITY SYSTEMS					
SS1A	LIGHTING	EXTERIOR	Fixtures, stanchions, foliage interference, cleanliness, locations, etc.		



	CATEGORY CODE REPORT				
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION		
SS2A	SITE	FENCING	Perimeter campus fencing, individual building fencing, includes both pedestrian and vehicular control fences.		
SS2B	SITE	GENERAL	Hidden areas due to foliage, fencing, parking, walls, etc.		
SS3A	COMMUNICATIONS	EMERGENCY PHONES	Access, locations, visibility, function, reliability, etc.		
SS4A	ACCESS CONTROL	DOORS	Access, locks, keys, two way speakers, reliability, redundancy, etc.		
SS4B	ACCESS CONTROL	WINDOWS	Locks, screens, access, reliability, etc.		
SS4C	ACCESS CONTROL	SYSTEMS	Card key, proximity devices, data control, data use, reliability, system design, etc.		
SS5A	MONITORING	SYSTEMS	Cameras, audio communication, monitoring stations, locations, system design, etc.		
SS6A	CIRCULATION	PEDESTRIAN	On campus as well as to and from off campus housing and class locations, etc.		
SS6B	CIRCULATION	VEHICULAR	Guard gates, access, systems, data control and use, identification, etc.		
SS7A	GENERAL	OTHER	General information/projects pertaining to security issues.		
SYSTEM DE	ESCRIPTION: VERTICAL TRANS	SPORTATION			
VT1A	MACHINE ROOM	GENERAL	Machine, worm gear, thrust bearing, brake, motors, sheaves, generator, controller, selector, governor, pump(s), valves, oil, access, lighting, ventilation, floor.		
VT2A	CAR	GENERAL	Position indicator, lighting, floor, gate-doors, operation devices, safeties, safety shoe, light ray/detection, emergency light, fire fighter service, car top, door operator, stop switch, car frame, car guides, sheaves, phone, ventilation.		
VT3A	HOISTWAY	GENERAL	Enclosure, fascia, interlock, doors, hangers, closers, sheaves, rails, hoistway switches, ropes, traveling cables, selector tape, weights, compensation.		
VT4A	HALL FIXTURES	GENERAL	Operating panel, position indicator, hall buttons, lobby panel, hall lanterns, fire fighter service, audible signals, card/key access.		
VT5A	PIT	GENERAL	Buffer(s), guards, sheaves, hydro packing, floor, lighting, safety controls.		
VT6A	OPERATING CONDITIONS	GENERAL	Door open time, door close time, door thrust, acceleration, deceleration, leveling, dwell time, speed, OFR time, nudging.		
VT7A	GENERAL	OTHER	General information/projects relating to vertical transportation system components.		



# DETAILED PROJECT SUMMARIES AND TOTALS

#### **Detailed Project Totals**

#### **Facility Condition Analysis**

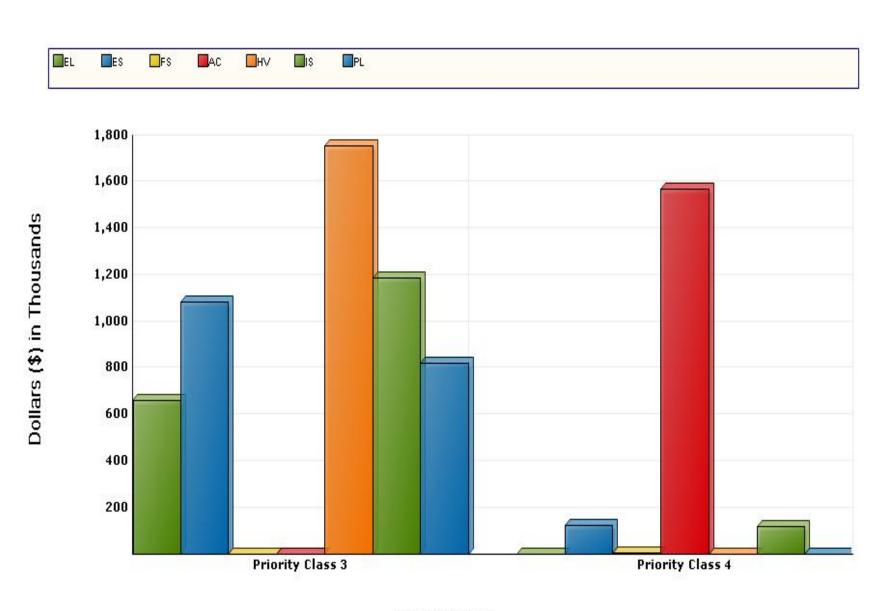
#### **System Code by Priority Class**

Systom	Priority Classes						
System Code	System Description	1	2	3	4	Subtotal	
AC	ACCESSIBILITY	0	0	0	1,569,997	1,569,997	
EL	ELECTRICAL	0	0	659,023	0	659,023	
ES	EXTERIOR	0	0	1,084,582	122,540	1,207,122	
FS	FIRE/LIFE SAFETY	0	0	0	7,375	7,375	
HV	HVAC	0	0	1,755,373	0	1,755,373	
IS	INTERIOR/FINISH SYS.	0	0	1,185,713	119,817	1,305,530	
PL	PLUMBING	0	0	818,901	0	818,901	
	TOTALS	0	0	5,503,592	1,819,729	7,323,321	

Facility Replacement Cost	\$27,805,000
Facility Condition Needs Index	0.26

Gross Square Feet	89,516	Total Cost Per Square Foot	\$81.81
Gloss Squale Feet	09,510	Total Cost Fer Square Foot	φοι.σι

**System Code by Priority Class** 



**Priority Class** 

## Detailed Project Totals Facility Condition Analysis

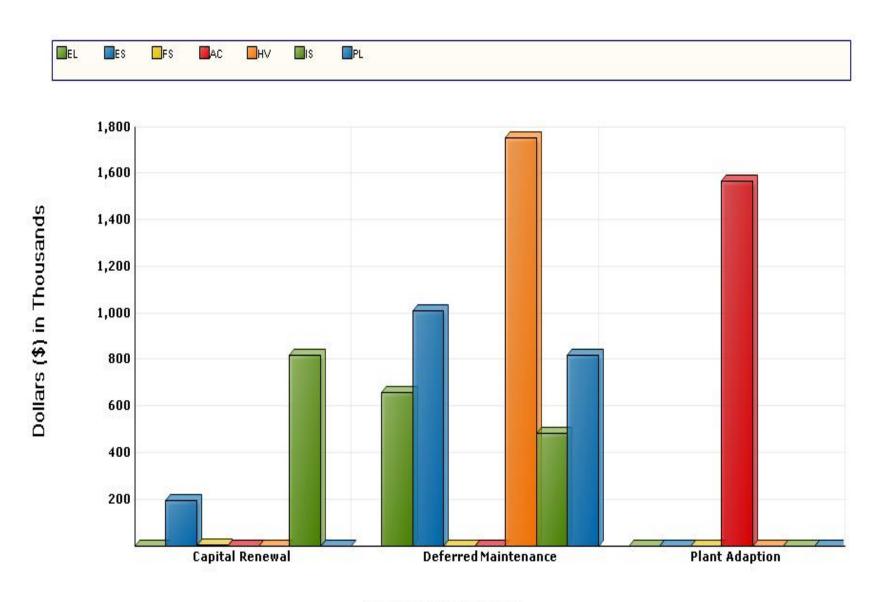
#### System Code by Project Class

		Project Classes				
System Code	System Description	Captial Renewal	Deferred Maintenance	FCAP	Plant Adaption	Subtotal
AC	ACCESSIBILITY	0	0	0	1,569,997	1,569,997
EL	ELECTRICAL	0	659,023	0	0	659,023
ES	EXTERIOR	195,082	1,012,040	0	0	1,207,122
FS	FIRE/LIFE SAFETY	7,375	0	0	0	7,375
HV	HVAC	0	1,755,373	0	0	1,755,373
IS	INTERIOR/FINISH SYS.	818,548	486,982	0	0	1,305,530
PL	PLUMBING	0	818,901	0	0	818,901
	TOTALS	1,021,005	4,732,319	0	1,569,997	7,323,321

Facility Replacement Cost	\$27,805,000
Facility Condition Needs Index	0.26

<b>Total Cost Per Square Foot</b>	\$81.81
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## **System Code by Project Class**



**Project Classification** 

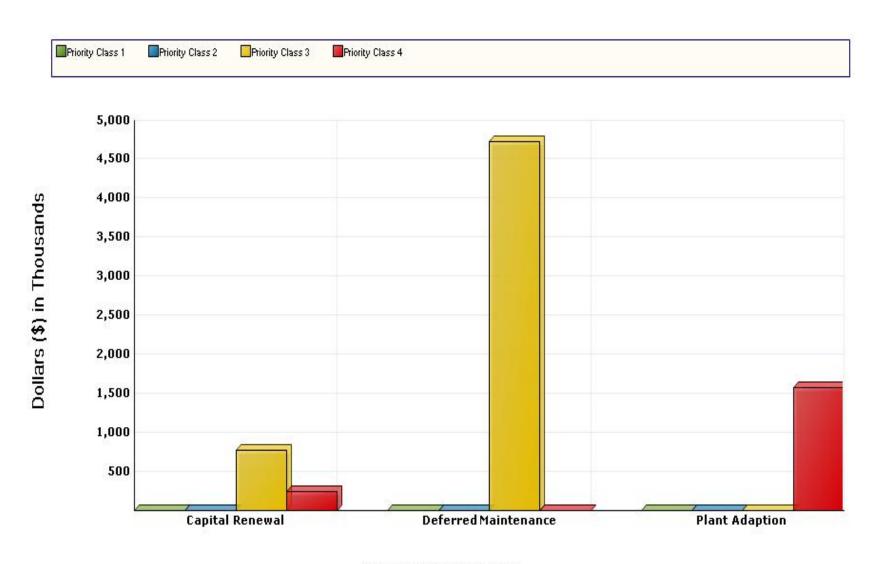
#### Detailed Project Summary Facility Condition Analysis Project Class by Priority Class

	Priority Classes						
Project Class	1	2	3	4	Subtotal		
Capital Renewal	0	0	771,273	249,732	1,021,005		
Deferred Maintenance	0	0	4,732,319	0	4,732,319		
Plant Adaption	0	0	0	1,569,997	1,569,997		
TOTALS	0	0	5,503,592	1,819,729	7,323,321		

Facility Replacement Cost	\$27,805,000
Facility Condition Needs Index	0.26

Gross Square Feet 89,516	Total Cost Per Square Foot \$81.81
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## **Project Class by Priority Class**



**Project Classification** 

#### Detailed Project Summary Facility Condition Analysis

#### **Priority Class - Priority Sequence**

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
ES5B	AYCOES02	3	1	WINDOW REPLACEMENT	872,448	139,592	1,012,040
ES2B	AYCOES01	3	2	RESTORE BRICK VENEER	62,536	10,006	72,542
HV3A	AYCOHV01	3	3	HVAC SYSTEM REPLACEMENT	1,513,253	242,120	1,755,373
EL3B	AYCOEL01	3	4	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	568,123	90,900	659,023
IS4A	AYCOIS04	3	5	REPLACE INTERIOR DOORS	419,812	67,170	486,982
IS1A	AYCOIS01	3	6	REFINISH FLOORING	428,964	68,634	497,599
IS2B	AYCOIS02	3	7	REFINISH WALLS	173,390	27,742	201,132
PL1A	AYCOPL01	3	8	WATER SUPPLY PIPING REPLACEMENT	280,367	44,859	325,226
PL2A	AYCOPL02	3	9	DRAIN PIPING REPLACEMENT	425,582	68,093	493,675
				Totals for Priority Class 3	4,744,476	759,116	5,503,592
FS2A	AYCOFS01	4	10	INSTALL ADDITIONAL FIRE ALARM DEVICES	6,358	1,017	7,375
AC2A	AYCOAC01	4	11	BUILDING ENTRY ACCESSIBILITY UPGRADES	12,146	1,943	14,090
AC3E	AYCOAC02	4	12	RESTROOM RENOVATION	872,838	139,654	1,012,492
AC3A	AYCOAC03	4	13	ELEVATOR INSTALLATION	356,740	57,078	413,819
AC3B	AYCOAC04	4	14	STAIR SAFETY UPGRADES	111,721	17,875	129,597
ES4B	AYCOES03	4	15	BUILT-UP ROOF REPLACEMENT	105,638	16,902	122,540
IS3B	AYCOIS03	4	16	REFINISH CEILINGS	103,291	16,527	119,817
				Totals for Priority Class 4	1,568,732	250,997	1,819,729
				Grand Total:	6,313,208	1,010,113	7,323,321

#### Detailed Project Summary Facility Condition Analysis

#### **Project Cost Range**

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
ES2B	AYCOES01	3	2	RESTORE BRICK VENEER	62,536	10,006	72,542
				Totals for Priority Class 3	62,536	10,006	72,542
FS2A	AYCOFS01	4	10	INSTALL ADDITIONAL FIRE ALARM DEVICES	6,358	1,017	7,375
AC2A	AYCOAC01	4	11	BUILDING ENTRY ACCESSIBILITY UPGRADES	12,146	1,943	14,090
				Totals for Priority Class 4	18,504	2,961	21,464
				Grand Totals for Projects < 100,000	81,040	12,966	94,007

#### Detailed Project Summary Facility Condition Analysis

#### **Project Cost Range**

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
PL1A	AYCOPL01	3	8	WATER SUPPLY PIPING REPLACEMENT	280,367	44,859	325,226
PL2A	AYCOPL02	3	9	DRAIN PIPING REPLACEMENT	425,582	68,093	493,675
IS1A	AYCOIS01	3	6	REFINISH FLOORING	428,964	68,634	497,599
IS2B	AYCOIS02	3	7	REFINISH WALLS	173,390	27,742	201,132
IS4A	AYCOIS04	3	5	REPLACE INTERIOR DOORS	419,812	67,170	486,982
				Totals for Priority Class 3	1,728,115	276,498	2,004,614
AC3A	AYCOAC03	4	13	ELEVATOR INSTALLATION	356,740	57,078	413,819
ES4B	AYCOES03	4	15	BUILT-UP ROOF REPLACEMENT	105,638	16,902	122,540
AC3B	AYCOAC04	4	14	STAIR SAFETY UPGRADES	111,721	17,875	129,597
IS3B	AYCOIS03	4	16	REFINISH CEILINGS	103,291	16,527	119,817
				Totals for Priority Class 4	677,390	108,382	785,772
				Grand Totals for Projects >= 100,000 and < 500,000	2,405,505	384,881	2,790,386

### Detailed Project Summary Facility Condition Analysis

### **Project Cost Range**

AYCO: AYCOCK RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
HV3A	AYCOHV01	3	3	HVAC SYSTEM REPLACEMENT	1,513,253	242,120	1,755,373
EL3B	AYCOEL01	3	4	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	568,123	90,900	659,023
ES5B	AYCOES02	3	1	WINDOW REPLACEMENT	872,448	139,592	1,012,040
				Totals for Priority Class 3	2,953,824	472,612	3,426,436
AC3E	AYCOAC02	4	12	RESTROOM RENOVATION	872,838	139,654	1,012,492
				Totals for Priority Class 4	872,838	139,654	1,012,492
				Grand Totals for Projects >= 500,000	3,826,662	612,266	4,438,928
				Grand Totals For All Projects:	6,313,208	1,010,113	7,323,321

### **Detailed Project Summary Facility Condition Analysis Project Classification**

AYCO: AYCOCK RESIDENCE HALL

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
ES2B	AYCOES01	2	Capital Renewal	3	RESTORE BRICK VENEER	72,542
IS1A	AYCOIS01	6	Capital Renewal	3	REFINISH FLOORING	497,599
IS2B	AYCOIS02	7	Capital Renewal	3	REFINISH WALLS	201,132
FS2A	AYCOFS01	10	Capital Renewal	4	INSTALL ADDITIONAL FIRE ALARM DEVICES	7,375
ES4B	AYCOES03	15	Capital Renewal	4	BUILT-UP ROOF REPLACEMENT	122,540
IS3B	AYCOIS03	16	Capital Renewal	4	REFINISH CEILINGS	119,817
					Totals for Capital Renewal	1,021,005
ES5B	AYCOES02	1	Deferred Maintenance	3	WINDOW REPLACEMENT	1,012,040
HV3A	AYCOHV01	3	Deferred Maintenance	3	HVAC SYSTEM REPLACEMENT	1,755,373
EL3B	AYCOEL01	4	Deferred Maintenance	3	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	659,023
IS4A	AYCOIS04	5	Deferred Maintenance	3	REPLACE INTERIOR DOORS	486,982
PL1A	AYCOPL01	8	Deferred Maintenance	3	WATER SUPPLY PIPING REPLACEMENT	325,226
PL2A	AYCOPL02	9	Deferred Maintenance	3	DRAIN PIPING REPLACEMENT	493,675
					Totals for Deferred Maintenance	4,732,319
AC2A	AYCOAC01	11	Plant Adaption	4	BUILDING ENTRY ACCESSIBILITY UPGRADES	14,090
AC3E	AYCOAC02	12	Plant Adaption	4	RESTROOM RENOVATION	1,012,492
АСЗА	AYCOAC03	13	Plant Adaption	4	ELEVATOR INSTALLATION	413,819
AC3B	AYCOAC04	14	Plant Adaption	4	STAIR SAFETY UPGRADES	129,597
					Totals for Plant Adaption	1,569,997
					Grand Total:	7,323,321

### Detailed Project Summary Facility Condition Analysis

### **Energy Conservation**

AYCO: AYCOCK RESIDENCE HALL

Cat Code	Project Number	Pri Cls	Pri Seq	Project Title	Total Cost	Annual Savings	Simple Payback
ES5B	AYCOES02	3	1	WINDOW REPLACEMENT	1,012,040	2,000	506.02
HV3A	AYCOHV01	3	3	HVAC SYSTEM REPLACEMENT	1,755,373	43,130	40.7
				Totals for Priority Class 3	2,767,413	45,130	61.32
ES4B	AYCOES03	4	15	BUILT-UP ROOF REPLACEMENT	122,540	1,600	76.59
				Totals for Priority Class 4	122,540	1,600	76.59
				Grand Total:	2,889,953	46,730	61.84

### Detailed Project Summary Facility Condition Analysis

## Category/System Code AYCO : AYCOCK RESIDENCE HALL

Cat. Code	Project Number		Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC2A	AYCOAC01	4	11	BUILDING ENTRY ACCESSIBILITY UPGRADES	12,146	1,943	14,090
AC3E	AYCOAC02	4	12	RESTROOM RENOVATION	872,838	139,654	1,012,492
AC3A	AYCOAC03	4	13	ELEVATOR INSTALLATION	356,740	57,078	413,819
AC3B	AYCOAC04	4	14	STAIR SAFETY UPGRADES	111,721	17,875	129,597
				Totals for System Code: ACCESSIBILITY	1,353,446	216,551	1,569,997
EL3B	AYCOEL01	3	4	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	568,123	90,900	659,023
				Totals for System Code: ELECTRICAL	568,123	90,900	659,023
ES5B	AYCOES02	3	1	WINDOW REPLACEMENT	872,448	139,592	1,012,040
ES2B	AYCOES01	3	2	RESTORE BRICK VENEER	62,536	10,006	72,542
ES4B	AYCOES03	4	15	BUILT-UP ROOF REPLACEMENT	105,638	16,902	122,540
				Totals for System Code: EXTERIOR	1,040,622	166,500	1,207,122
FS2A	AYCOFS01	4	10	INSTALL ADDITIONAL FIRE ALARM DEVICES	6,358	1,017	7,375
				Totals for System Code: FIRE/LIFE SAFETY	6,358	1,017	7,375
HV3A	AYCOHV01	3	3	HVAC SYSTEM REPLACEMENT	1,513,253	242,120	1,755,373
				Totals for System Code: HVAC	1,513,253	242,120	1,755,373
IS4A	AYCOIS04	3	5	REPLACE INTERIOR DOORS	419,812	67,170	486,982
IS1A	AYCOIS01	3	6	REFINISH FLOORING	428,964	68,634	497,599
IS2B	AYCOIS02	3	7	REFINISH WALLS	173,390	27,742	201,132
IS3B	AYCOIS03	4	16	REFINISH CEILINGS	103,291	16,527	119,817
				Totals for System Code: INTERIOR/FINISH SYS.	1,125,457	180,073	1,305,530
PL1A	AYCOPL01	3	8	WATER SUPPLY PIPING REPLACEMENT	280,367	44,859	325,226
PL2A	AYCOPL02	3	9	DRAIN PIPING REPLACEMENT	425,582	68,093	493,675
				Totals for System Code: PLUMBING	705,949	112,952	818,901
				Grand Total:	6,313,208	1,010,113	7,323,321

### **FACILITY CONDITION ANALYSIS**



# SPECIFIC PROJECT DETAILS ILLUSTRATING DESCRIPTION / COST

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

#### **Project Description**

Project Number: AYCOES02 Title: WINDOW REPLACEMENT

Priority Sequence: 1

Priority Class: 3

Category Code: ES5B System: EXTERIOR

Component: FENESTRATIONS

Element: WINDOWS

Building Code: AYCO

Building Name: AYCOCK RESIDENCE HALL

Subclass/Savings: Energy Conservation \$2,000

Code Application: Not Applicable

Project Class: Deferred Maintenance

**Project Date:** 10/16/2009

**Project** 

**Location:** Building-wide: Floor(s) 1

### **Project Description**

It is recommended that the single-pane, metal windows be upgraded to thermal-pane systems, which will reduce the energy required to operate the building. Repair or replacement of the windowsills and trim may also be necessary.

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

### **Project Cost**

Project Number: AYCOES02

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Typical standard glazing applications	SF	9,520	\$57.27	\$545,210	\$36.45	\$347,004	\$892,214
Project Tota	ls:			\$545,210		\$347,004	\$892,214

Total Project Cost		\$1,012,040
Professional Fees at 16.0%	+	\$139,592
Construction Cost		\$872,448
General Contractor Mark Up at 20.0%	+	\$145,408
Material/Labor Indexed Cost		\$727,040
Labor Index		51.3%
Material Index		100.7%
Material/Labor Cost		\$892,214

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

#### **Project Description**

Project Number: AYCOES01 Title: RESTORE BRICK VENEER

Priority Sequence: 2

Priority Class: 3

Category Code: ES2B System: EXTERIOR

Component: COLUMNS/BEAMS/WALLS

Element: FINISH

Building Code: AYCO

Building Name: AYCOCK RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: Not Applicable

Project Class: Capital Renewal

**Project Date:** 10/16/2009

**Project** 

Location: Building-wide: Floor(s) 1

### **Project Description**

Brick veneer is the primary exterior finish. While the brick is fundamentally sound, exposure to the elements has caused some deterioration of the mortar joints and expansion joints. Cleaning, surface preparation, selective repairs, and applied finish or penetrating sealant upgrades are recommended to restore the aesthetics and integrity of the building envelope.

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

### **Project Cost**

Project Number: AYCOES01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Cleaning and surface preparation	SF	38,080	\$0.11	\$4,189	\$0.22	\$8,378	\$12,566
Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope)	LF	3,808	\$2.45	\$9,330	\$4.99	\$19,002	\$28,332
Applied finish or sealant	SF	38,080	\$0.22	\$8,378	\$0.82	\$31,226	\$39,603
Project Totals	:			\$21,896	1	\$58,605	\$80,501

Material/Labor Cost		\$80,501
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$52,114
General Contractor Mark Up at 20.0%	+	\$10,423
Construction Cost		\$62,536
Professional Fees at 16.0%	+	\$10,006
Total Project Cost		\$72,542

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

#### **Project Description**

Project Number: AYCOHV01 Title: HVAC SYSTEM REPLACEMENT

Priority Sequence: 3

Priority Class: 3

Category Code: HV3A System: HVAC

Component: HEATING/COOLING

Element: SYSTEM RETROFIT/REPLACE

Building Code: AYCO

Building Name: AYCOCK RESIDENCE HALL

Subclass/Savings: Energy Conservation \$43,130

Code Application: ASHRAE 62-2004

Project Class: Deferred Maintenance

**Project Date:** 10/5/2009

**Project** 

Location: Floor-wide: Floor(s) 1, 2, 3, 4, B, R

### **Project Description**

A complete redesign and replacement of the HVAC system is recommended. Demolish and dispose of existing equipment. Install a new modern HVAC system with variable air volume and constant volume air distribution as needed. This includes new air handlers, exhaust fans, ductwork, terminal units, heat exchangers, pumps, piping, controls, and related electrical components. Specify direct digital controls for the new equipment. Incorporate variable frequency drives into the new HVAC design as applicable.

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

### **Project Cost**

Project Number: AYCOHV01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Air handlers, exhaust fans, ductwork, VAVs, VFDs, DDCs, heat exchangers, pumps, piping, electrical connections, and demolition of existing equipment	SF	89,516	\$8.62	\$771,628	\$10.54	\$943,499	\$1,715,127
Project Total	s:			\$771,628		\$943,499	\$1,715,127

Material/Labor Cost		\$1,715,127
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$1,261,044
General Contractor Mark Up at 20.0%	+	\$252,209
Construction Cost		\$1,513,253
Professional Fees at 16.0%	+	\$242,120
Total Project Cost		\$1,755,373

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

#### **Project Description**

Project Number: AYCOEL01 Title: UPGRADE ELECTRICAL DISTRIBUTION

**NETWORK** 

Priority Sequence: 4

Priority Class: 3

Category Code: EL3B System: ELECTRICAL

Component: SECONDARY DISTRIBUTION

Element: DISTRIBUTION NETWORK

Building Code: AYCO

Building Name: AYCOCK RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: NEC Articles 110, 210, 220, 230

Project Class: Deferred Maintenance

**Project Date:** 10/5/2009

Project

**Location:** Floor-wide: Floor(s) 1, 2, 3, 4, B

#### **Project Description**

An upgrade of the building electrical system is recommended. Aging components, such as the circuit breakers, could serve as fire hazards if they fail to open a circuit in an overload or short circuit condition. Remove existing aged electrical components and branch circuitry. Install new power panels, switches, raceways, conductors, and devices. Provide molded case thermal magnetic circuit breakers and HACR circuit breakers for HVAC equipment. Redistribute the electrical loads to the appropriate areas to ensure safe and reliable power to building occupants. Provide ground fault circuit interrupter (GFCI) protection where required, and clearly label all panels for circuit identification.

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

### **Project Cost**

Project Number: AYCOEL01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Power panels, conductors, raceways, devices, demolition, and cut and patching materials	SF	89,516	\$2.98	\$266,758	\$4.46	\$399,241	\$665,999
Project Totals:				\$266,758		\$399,241	\$665,999

Material/Labor Cost		\$665,999
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$473,436
General Contractor Mark Up at 20.0%	+	\$94,687
Construction Cost		\$568,123
Professional Fees at 16.0%	+	\$90,900
Total Project Cost		\$659,023

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

#### **Project Description**

Project Number: AYCOIS04 Title: REPLACE INTERIOR DOORS

Priority Sequence: 5

Priority Class: 3

Category Code: IS4A System: INTERIOR/FINISH SYS.

Component: DOORS

Element: GENERAL

Building Code: AYCO

Building Name: AYCOCK RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: Not Applicable

Project Class: Deferred Maintenance

**Project Date:** 10/16/2009

Project

**Location:** Floor-wide: Floor(s) 1, 2, 3, 4

### **Project Description**

The condition of the interior door systems is such that door system replacements are recommended as part of a comprehensive renovation effort. Complete demolition of the door systems and replacement according to a code compliant plan to properly protect egress passages is recommended. Lever door hardware and Braille signage should be included in this effort.

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

### **Project Cost**

Project Number: AYCOIS04

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Rated door and rated metal frame, including all hardware and accessible signage	EA	320	\$672	\$215,040	\$812	\$259,840	\$474,880
Project Tota	ls:	,		\$215,040		\$259,840	\$474,880

Material/Labor Cost		\$474,880
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$349,843
General Contractor Mark Up at 20.0%	+	\$69,969
Construction Cost		\$419,812
Professional Fees at 16.0%	+	\$67,170
Total Project Cost		\$486,982

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

#### **Project Description**

Project Number: AYCOIS01 Title: REFINISH FLOORING

Priority Sequence: 6

Priority Class: 3

Category Code: IS1A System: INTERIOR/FINISH SYS.

Component: FLOOR

Element: FINISHES-DRY

Building Code: AYCO

Building Name: AYCOCK RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: Not Applicable

Project Class: Capital Renewal

**Project Date:** 10/16/2009

Project

Location: Floor-wide: Floor(s) 1, 2, 3, 4, B

### **Project Description**

Interior floor finishes include carpeting, vinyl tile, and ceramic tile. The applications vary in age and condition from area to area. Floor finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

### **Project Cost**

Project Number: AYCOIS01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Carpet	SF	17,900	\$5.36	\$95,944	\$2.00	\$35,800	\$131,744
Vinyl floor tile	SF	50,130	\$3.53	\$176,959	\$2.50	\$125,325	\$302,284
	Project Totals:			\$272.903		\$161,125	\$434.028

Material/Labor Cost		\$434,028
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$357,470
General Contractor Mark Up at 20.0%	+	\$71,494
Construction Cost		\$428,964
Professional Fees at 16.0%	+	\$68,634
Total Project Cost		\$497,599

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

#### **Project Description**

Project Number: AYCOIS02 Title: REFINISH WALLS

Priority Sequence: 7

Priority Class: 3

Category Code: IS2B System: INTERIOR/FINISH SYS.

Component: PARTITIONS

Element: FINISHES

Building Code: AYCO

Building Name: AYCOCK RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: Not Applicable

Project Class: Capital Renewal

**Project Date:** 10/16/2009

Project

Location: Floor-wide: Floor(s) 1, 2, 3, 4, B

### **Project Description**

Interior wall finishes are painted plaster or concrete. The applications vary in age and condition from area to area. Wall finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

### **Project Cost**

Project Number: AYCOIS02

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Standard wall finish (paint, wall covering, etc.)	SF	246,270	\$0.17	\$41,866	\$0.81	\$199,479	\$241,345
Project Totals:				\$41,866		\$199,479	\$241,345

Material/Labor Cost		\$241,345
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$144,492
General Contractor Mark Up at 20.0%	+	\$28,898
<b>Construction Cost</b>		\$173,390
Professional Fees at 16.0%	+	\$27,742
Total Project Cost	·	\$201,132

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

#### **Project Description**

Project Number: AYCOPL01 Title: WATER SUPPLY PIPING REPLACEMENT

Priority Sequence: 8

Priority Class: 3

Category Code: PL1A System: PLUMBING

Component: DOMESTIC WATER

Element: PIPING NETWORK

Building Code: AYCO

Building Name: AYCOCK RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: IPC Chapter 6

Project Class: Deferred Maintenance

**Project Date:** 10/5/2009

**Project** 

Location: Floor-wide: Floor(s) 1, 2, 3, 4, B

### **Project Description**

Replacement of the aging water piping network is recommended. Failure to replace the water piping will result in frequent leaks and escalating maintenance costs. Remove the existing water supply network. Install new copper water supply piping with fiberglass insulation. Install isolation valves, pressure regulators, shock absorbers, backflow preventers, and vacuum breakers as needed.

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

### **Project Cost**

Project Number: AYCOPL01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Copper pipe and fittings, valves, backflow prevention devices, insulation, hangers, demolition, and cut and patching materials	SF	89,516	\$1.14	\$102,048	\$2.85	\$255,121	\$357,169
Project Totals:				\$102.048		\$255,121	\$357.169

Material/Labor Cost		\$357,169
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$233,639
General Contractor Mark Up at 20.0%	+	\$46,728
Construction Cost		\$280,367
Professional Fees at 16.0%	+	\$44,859
Total Project Cost		\$325,226

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

#### **Project Description**

Project Number: AYCOPL02 Title: DRAIN PIPING REPLACEMENT

Priority Sequence: 9

Priority Class: 3

Category Code: PL2A System: PLUMBING

Component: WASTEWATER

Element: PIPING NETWORK

Building Code: AYCO

Building Name: AYCOCK RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: IPC Chapters 7-11

Project Class: Deferred Maintenance

**Project Date:** 10/5/2009

Project

Location: Floor-wide: Floor(s) 1, 2, 3, 4, B

### **Project Description**

Replacement of the aging drain piping is recommended throughout the facility. Failure to replace the old piping will result in frequent leaks and escalating maintenance costs. Remove sanitary and storm drain piping as needed. Install new cast-iron drain piping networks with copper run-outs to the fixtures. Install new floor drains, roof drains, and traps.

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

### **Project Cost**

Project Number: AYCOPL02

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Cast-iron drain piping and fittings, copper pipe and fittings, floor / roof drains, traps, hangers, demolition, and cut and patching materials	SF	89,516	\$1.81	\$162,024	\$4.17	\$373,282	\$535,306
Project Totals:				\$162,024		\$373,282	\$535,306

Material/Labor Cost		\$535,306
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$354,652
General Contractor Mark Up at 20.0%	+	\$70,930
Construction Cost		\$425,582
Professional Fees at 16.0%	+	\$68,093
Total Project Cost		\$493,675

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

### **Project Description**

Project Number: AYCOFS01 Title: INSTALL ADDITIONAL FIRE ALARM DEVICES

Priority Sequence: 10

Priority Class: 4

Category Code: FS2A System: FIRE/LIFE SAFETY

Component: DETECTION ALARM

Element: GENERAL

Building Code: AYCO

Building Name: AYCOCK RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: ADAAG 702.1

NFPA 1, 101

Project Class: Capital Renewal

**Project Date:** 10/5/2009

Project

Location: Floor-wide: Floor(s) 1, 2, 3, 4, B

### **Project Description**

The facility is served by a modern fire alarm system. However, some devices, such as smoke detectors and fire alarm strobes, appear to be aged. Replace all aged devices as needed.

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

### **Project Cost**

Project Number: AYCOFS01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Fire alarm strobe (audible / visible)	EA	20	\$105	\$2,100	\$71.00	\$1,420	\$3,520
Ceiling smoke detector	EA	20	\$87.50	\$1,750	\$67.50	\$1,350	\$3,100
Project To	tals:			\$3,850		\$2,770	\$6,620

Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$5,298
General Contractor Mark Up at 20.0%	+	\$1,060
Construction Cost		\$6,358
Professional Fees at 16.0%	+	\$1,017
Total Project Cost		\$7,375

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

#### **Project Description**

Project Number: AYCOAC01 Title: BUILDING ENTRY ACCESSIBILITY

**UPGRADES** 

Priority Sequence: 11

Priority Class: 4

Category Code: AC2A System: ACCESSIBILITY

Component: BUILDING ENTRY

Element: GENERAL

Building Code: AYCO

Building Name: AYCOCK RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: ADAAG 403.6, 505

Project Class: Plant Adaption

**Project Date:** 10/16/2009

Project

Location: Undefined: Floor(s) 1

### **Project Description**

Current accessibility legislation requires that building entrances be wheelchair accessible. To comply with the intent of this legislation, it is recommended that ADA compliant, painted metal handrails be installed at all entrances as required.

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

### **Project Cost**

Project Number: AYCOAC01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Freestanding handrail system, painted	LF	60	\$91.11	\$5,467	\$150	\$9,000	\$14,467
Project Total	s:			\$5,467		\$9,000	\$14,467

Material/Labor Cost		\$14,467
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$10,122
General Contractor Mark Up at 20.0%	+	\$2,024
Construction Cost		\$12,146
Professional Fees at 16.0%	+	\$1,943
Total Project Cost		\$14,090

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

#### **Project Description**

Project Number: AYCOAC02 Title: RESTROOM RENOVATION

Priority Sequence: 12

Priority Class: 4

Category Code: AC3E System: ACCESSIBILITY

Component: INTERIOR PATH OF TRAVEL

Element: RESTROOMS/BATHROOMS

Building Code: AYCO

Building Name: AYCOCK RESIDENCE HALL

Subclass/Savings: Not Applicable

**Code Application:** ADAAG 211, 602, 604, 605, 606, 607, 608

Project Class: Plant Adaption

**Project Date:** 10/16/2009

**Project** 

**Location:** Floor-wide: Floor(s) 1, 2, 3, 4

### **Project Description**

The restroom fixtures and finishes are mostly original to the year of construction or latest major renovation. The fixtures are sound but dated and are spaced such that clearances are not ADA compliant. A comprehensive restroom renovation, including new fixtures, finishes, partitions, accessories, and dual level drinking fountains, is recommended. Restroom expansion may be necessary in order to meet modern minimum fixture counts and accessibility legislation. Each restroom has a step at the entrance. Remove this barrier to allow wheelchair access into the restrooms.

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

### **Project Cost**

Project Number: AYCOAC02

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Major restroom renovation, including fixtures, finishes, partitions, accessories, and expansion if necessary (assumes 55 square feet of restroom area per fixture)	FIXT	243	\$1,969	\$478,467	\$1,699	\$412,857	\$891,324
Dual level drinking fountain	EA	8	\$1,216	\$9,728	\$374	\$2,992	\$12,720
Alcove construction	EA	8	\$877	\$7,016	\$3,742	\$29,936	\$36,952
Project Totals				\$495,211		\$445,785	\$940,996

Material/Labor Cost		\$940,996
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$727,365
General Contractor Mark Up at 20.0%	+	\$145,473
Construction Cost		\$872,838
Professional Fees at 16.0%	+	\$139,654
Total Project Cost		\$1,012,492

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

#### **Project Description**

Project Number: AYCOAC03 Title: ELEVATOR INSTALLATION

Priority Sequence: 13

Priority Class: 4

Category Code: AC3A System: ACCESSIBILITY

Component: INTERIOR PATH OF TRAVEL

Element: LIFTS/RAMPS/ELEVATORS

Building Code: AYCO

Building Name: AYCOCK RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: ASME A17.1

ADAAG 407

Project Class: Plant Adaption

**Project Date:** 10/16/2009

**Project** 

Location: Undefined: Floor(s) 1

### **Project Description**

ADA legislation requires wheelchair access to all floors in a building over two stories in height. There is no wheelchair access to the upper floors of this building. The installation of an interior traction elevator within the next ten years is proposed.

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

### **Project Cost**

Project Number: AYCOAC03

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Elevator installation within the current building footprint (two stops)	SYS	1	\$160,360	\$160,360	\$106,213	\$106,213	\$266,573
Each additional stop	FLR	3	\$9,278	\$27,834	\$34,623	\$103,869	\$131,703
Project Tota	ls:			\$188,194		\$210,082	\$398,276

Material/Labor Cost		\$398,276
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$297,283
General Contractor Mark Up at 20.0%	+	\$59,457
Construction Cost		\$356,740
Professional Fees at 16.0%	+	\$57,078
Total Project Cost		\$413,819

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

#### **Project Description**

Project Number: AYCOAC04 Title: STAIR SAFETY UPGRADES

Priority Sequence: 14

Priority Class: 4

Category Code: AC3B System: ACCESSIBILITY

Component: INTERIOR PATH OF TRAVEL

Element: STAIRS AND RAILINGS

Building Code: AYCO

Building Name: AYCOCK RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: IBC 1003.3

ADAAG 505

Project Class: Plant Adaption

**Project Date:** 10/16/2009

Project

Location: Floor-wide: Floor(s) 1, 2, 3, 4, B

### **Project Description**

Current accessibility legislation requires that stairs have graspable handrails on both sides, that the rails have a specific end geometry, and that the handrails continue horizontally at the landings. In addition, guardrails must prevent the passage of a 4 inch diameter sphere (6 inches in the triangle formed by the lower rail and tread / riser angle). The finishes on the stairs have deteriorated or are otherwise unsafe. Although the stairs are compliant with the code enforced at the time of construction until a major renovation occurs, they are deficient in handrail and guardrail design relative to current standards. Future renovation efforts should include comprehensive stair railing and finish upgrades.

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

### **Project Cost**

Project Number: AYCOAC04

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Wall-mounted handrail system per floor	FLR	21	\$573	\$12,033	\$521	\$10,941	\$22,974
Center handrail / guardrail system per floor	FLR	21	\$1,297	\$27,237	\$833	\$17,493	\$44,730
Stair tread and landing finish upgrades per floor	FLR	21	\$1,449	\$30,429	\$773	\$16,233	\$46,662
Project Totals	s:		-	\$69,699	-	\$44,667	\$114,366

Material/Labor Cost		\$114,366
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$93,101
General Contractor Mark Up at 20.0%	+	\$18,620
Construction Cost		\$111,721
Professional Fees at 16.0%	+	\$17,875
Total Project Cost		\$129,597

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

#### **Project Description**

Project Number: AYCOES03 Title: BUILT-UP ROOF REPLACEMENT

Priority Sequence: 15

Priority Class: 4

Category Code: ES4B System: EXTERIOR

Component: ROOF

Element: REPLACEMENT

Building Code: AYCO

Building Name: AYCOCK RESIDENCE HALL

Subclass/Savings: Energy Conservation \$1,600

Code Application: Not Applicable

Project Class: Capital Renewal

**Project Date:** 10/16/2009

**Project** 

Location: Floor-wide: Floor(s) R

### **Project Description**

The built-up roofing system is not expected to outlast the scope of this analysis. Future budget modeling should include a provision for the replacement of all failing roofing systems. Replace this roof with a similar application.

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

### **Project Cost**

Project Number: AYCOES03

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Built-up roof	SF	17,900	\$3.06	\$54,774	\$3.58	\$64,082	\$118,856
	Project Totals:			\$54,774		\$64,082	\$118,856

Total Project Cost		\$122,540
Professional Fees at 16.0%	+	\$16,902
Construction Cost		\$105,638
General Contractor Mark Up at 20.0%	+	\$17,606
Material/Labor Indexed Cost		\$88,031
Labor Index		51.3%
Material Index		100.7%
Material/Labor Cost		\$118,856

### Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

#### **Project Description**

Project Number: AYCOIS03 Title: REFINISH CEILINGS

Priority Sequence: 16

Priority Class: 4

Category Code: IS3B System: INTERIOR/FINISH SYS.

Component: CEILINGS

Element: REPLACEMENT

Building Code: AYCO

Building Name: AYCOCK RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: Not Applicable

Project Class: Capital Renewal

**Project Date:** 10/16/2009

Project

Location: Floor-wide: Floor(s) 1, 2, 3, 4, B

### **Project Description**

Ceiling finishes include lay-in, acoustical tile and painted plaster ceilings. The applications vary in age and condition from area to area. Ceiling finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

### **Specific Project Details**

## Facility Condition Analysis Section Three

AYCO: AYCOCK RESIDENCE HALL

### **Project Cost**

Project Number: AYCOIS03

#### **Task Cost Estimate**

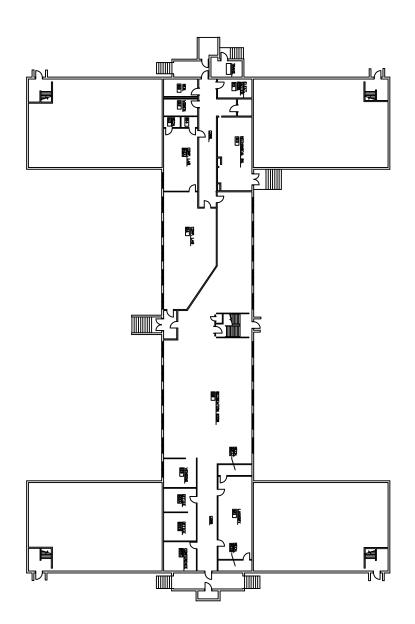
Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Acoustical tile ceiling system	SF	14,320	\$2.12	\$30,358	\$2.98	\$42,674	\$73,032
Painted ceiling finish application	SF	57,290	\$0.17	\$9,739	\$0.81	\$46,405	\$56,144
Project To	otals:			\$40.098		\$89.079	\$129,176

Material/Labor Cost		\$129,176
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$86,076
General Contractor Mark Up at 20.0%	+	\$17,215
Construction Cost		\$103,291
Professional Fees at 16.0%	+	\$16,527
Total Project Cost		\$119,817

### **FACILITY CONDITION ANALYSIS**

SECTION 4

DRAWINGS AND PROJECT LOCATIONS



AYCOCK RESIDENCE HALL

BLDG NO. AYCO



#### CORPORATION

FACILITY CONDITION ANALYSIS

2165 West Park Court Suite N Stone Mountain GA 30087 770.879.7376



PROJECT NUMBER APPLIES TO ONE ROOM ONLY



PROJECT NUMBER APPLIES TO ONE ITEM ONLY



PROJECT NUMBER ENTIRE BUILDING



PROJECT NUMBER APPLIES TO ENTIRE FLOOR

PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS



PROJECT NUMBER APPLIES TO AREA AS NOTED

Date:

10/30/09 Drawn by: J.T.V.

Project No. 09-041

BASEMENT FLOOR PLAN

Sheet No.

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AYCOCK RESIDENCE HALL

BLDG NO. AYCO



CORPORATION

FACILITY CONDITION ANALYSIS

2165 West Park Court Suite N Stone Mountain GA 30087 770.879.7376



PROJECT NUMBER APPLIES TO ONE ROOM ONLY



PROJECT NUMBER APPLIES TO ONE ITEM ONLY



PROJECT NUMBER
APPLIES TO
ENTIRE BUILDING



APPLIES TO ENTIRE FLOOR

PROJECT NUMBER
APPLIES TO A SITUATION
OF UNDEFINED EXTENTS



PROJECT NUMBER APPLIES TO AREA AS NOTED

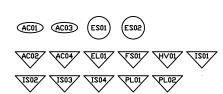
Date: 10/30/09
Drawn by: J.T.V.

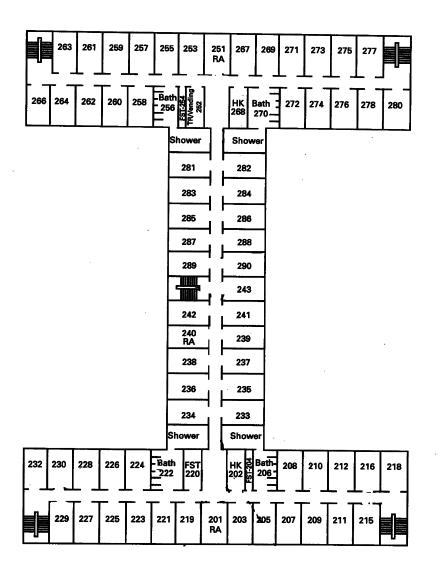
Project No. 09-041

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FIRST FLOOR PLAN

Sheet No.





AYCOCK RESIDENCE HALL

BLDG NO. AYCO



CORPORATION

FACILITY CONDITION ANALYSIS

2165 West Park Court Suite N Stone Mountain GA 30087 770.879.7376



APPLIES TO ONE ROOM ONLY



PROJECT NUMBER

ENTIRE BUILDING

PROJECT NUMBER APPLIES TO ENTIRE FLOOR

PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS



PROJECT NUMBER APPLIES TO AREA AS NOTED

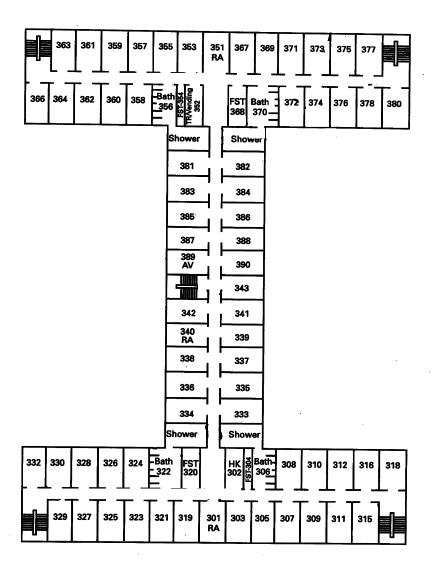
Date: 10/30/09 Drawn by: J.T.V.

Project No. 09-041

SECOND FLOOR PLAN

Sheet No.





AYCOCK RESIDENCE HALL

BLDG NO. AYCO



CORPORATION

FACILITY CONDITION ANALYSIS

2165 West Park Court Suite N Stone Mountain GA 30087 770.879.7376

> PROJECT NUMBER APPLIES TO

APPLIES TO ONE ROOM ONLY

PROJECT NUMBER APPLIES TO ONE ITEM ONLY

PROJECT NUMBER APPLIES TO ENTIRE BUILDING

PROJECT NUMBER

APPLIES TO ENTIRE FLOOR

PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS



PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 10/30/09 Drawn by: J.T.V.

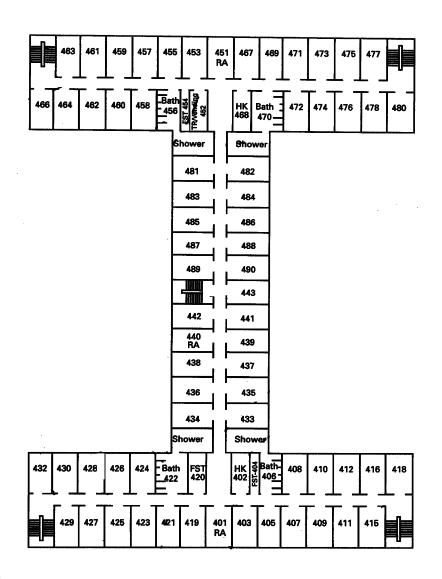
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Project No. 09-041

THIRD FLOOR PLAN

Sheet No.





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AYCOCK RESIDENCE HALL

BLDG NO. AYCO



CORPORATION

FACILITY CONDITION ANALYSIS

2165 West Park Court Suite N Stone Mountain GA 30087 770.879.7376

> PROJECT NUMBER APPLIES TO

ONE ROOM ONLY

PROJECT NUMBER APPLIES TO ONE ITEM ONLY

PROJECT NUMBER APPLIES TO ENTIRE BUILDING

PROJECT NUMBER APPLIES TO ENTIRE FLOOR

PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS



PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 10/30/09 Drawn by: J.T.V.

Project No. 09-041

FOURTH FLOOR PLAN

Sheet No.

**FACILITY CONDITION ANALYSIS** 

SECTION 5

LIFE CYCLE MODEL SUMMARY AND PROJECTIONS

### Life Cycle Model

### **Building Component Summary**

Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
B2010	EXTERIOR FINISH RENEWAL	38,080	SF	\$1.30	.31	\$15,389	1960	10
B2020	STANDARD GLAZING AND CURTAIN WALL	9,520	SF	\$104.04		\$990,428	1960	55
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	2	LEAF	\$4,311.24		\$8,622	2000	20
B2030	LOW TRAFFIC EXTERIOR DOOR SYSTEM	6	LEAF	\$2,863.29		\$17,180	2000	40
B3010	BUILT-UP ROOF	17,900	SF	\$6.70		\$119,977	1995	20
C1020	RATED DOOR AND FRAME INCLUDING HARDWARE	320	LEAF	\$1,489.06		\$476,499	1960	35
C1020	RATED DOOR AND FRAME INCLUDING HARDWARE	24	LEAF	\$1,489.06		\$35,737	2005	35
C1020	INTERIOR DOOR HARDWARE	320	EA	\$423.04		\$135,374	1960	15
C1020	INTERIOR DOOR HARDWARE	24	EA	\$423.04		\$10,153	2005	15
C3010	STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.)	246,270	SF	\$0.80		\$197,272	2000	10
C3020	CARPET	17,900	SF	\$8.75		\$156,562	2000	10
C3020	VINYL FLOOR TILE	50,130	SF	\$6.59		\$330,250	2000	15
C3020	CERAMIC FLOOR TILE	3,580	SF	\$17.36		\$62,157	2005	20
C3030	ACOUSTICAL TILE CEILING SYSTEM	14,320	SF	\$4.99		\$71,500	2000	15
C3030	PAINTED CEILING FINISH APPLICATION	57,290	SF	\$0.80		\$45,892	2000	15
D2010	PLUMBING FIXTURES - DORMITORY / APARTMENTS	89,516	SF	\$4.99		\$446,444	1960	35
D2020	WATER PIPING - DORMITORY / APARTMENTS	89,516	SF	\$3.55		\$317,897	1960	35
D2020	WATER HEATER, SHELL AND TUBE HEAT EXCHANGER	140	GPM	\$355.69		\$49,797	1999	24
D2030	DRAIN PIPING - DORMITORY / APARTMENTS	89,516	SF	\$5.40		\$483,488	1960	40
D3040	CONDENSATE RECEIVER	1	SYS	\$9,504.01		\$9,504	1960	15
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	4	EA	\$2,768.62		\$11,074	1990	20
D3040	HVAC SYSTEM - DORMITORY / APARTMENTS	89,516	SF	\$19.20		\$1,718,611	1960	25
D3050	SPLIT DX SYSTEM	2	TON	\$2,143.89		\$4,288	1994	15
D3050	SPLIT DX SYSTEM	4	TON	\$2,143.89		\$8,576	2004	15
D3050	SPLIT DX SYSTEM	10	TON	\$2,143.89		\$21,439	2002	15
D3050	SPLIT DX SYSTEM	9	TON	\$2,143.89		\$19,295	2009	15
D3050	THRU-WALL AC UNIT	175	TON	\$1,528.27		\$267,448	2004	10
D4010	FIRE SPRINKLER SYSTEM	89,516	SF	\$6.86		\$614,177	2004	80
D4010	FIRE SPRINKLER HEADS	89,516	SF	\$0.38		\$33,761	2004	20
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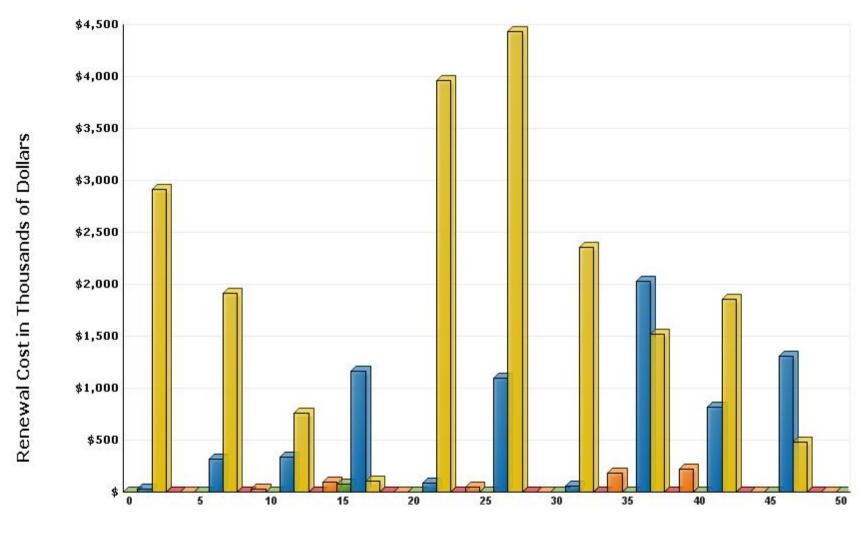
### Life Cycle Model

### **Building Component Summary**

Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
D5010	ELECTRICAL SYSTEM - DORMITORY / APARTMENTS	89,516	SF	\$7.21		\$645,183	1960	50
D5010	ELECTRICAL SWITCHGEAR 120/208V	2,000	AMP	\$32.96		\$65,927	2002	20
D5020	EXIT SIGNS (CENTRAL POWER)	50	EA	\$163.78		\$8,189	2004	20
D5020	EXTERIOR LIGHT (HID)	6	EA	\$689.58		\$4,138	2004	20
D5020	LIGHTING - DORMITORY / APARTMENTS	89,516	SF	\$4.30		\$384,943	2004	20
D5030	FIRE ALARM SYSTEM, POINT ADDRESSABLE	89,516	SF	\$2.61		\$234,048	2004	15
D5040	GENERATOR, DIESEL (UP TO 50 KW)	40	KW	\$1,123.84	_	\$44,953	2004	25
						\$8,066,171		

# **Life Cycle Model Expenditure Projections**

**AYCO: AYCOCK RESIDENCE HALL** 



**Future Year** 

**Average Annual Renewal Cost Per SqFt \$3.23** 

## **FACILITY CONDITION ANALYSIS**

SECTION 6

## PHOTOGRAPHIC LOG

### Photo Log - Facility Condition Analysis

Photo ID No	Description	Location	Date
AYCO001a	Roof detail	Roof	9/8/2009
AYCO001e	Exhaust fans	Roof	9/8/2009
AYCO002a	Roof detail	Roof	9/8/2009
AYCO002e	Emergency generator	Site	9/8/2009
AYCO003a	Roof detail	Roof	9/8/2009
AYCO003e	Lavatories	Fourth floor, restroom 422	9/8/2009
AYCO004a	Stairwell detail	Fourth floor	9/8/2009
AYCO004e	Urinals and radiator	Fourth floor, restroom 422	9/8/2009
AYCO005a	Window detail	Fourth floor	9/8/2009
AYCO005e	Shower components	Fourth floor, restroom 422	9/8/2009
AYCO006a	Interior corridor finishes	Fourth floor	9/8/2009
AYCO006e	Drain piping	Fourth floor, restroom 422	9/8/2009
AYCO007a	Door hardware and signage	Fourth floor	9/8/2009
AYCO007e	Sprinkler head	Fourth floor, restroom 422	9/8/2009
AYCO008a	Single level drinking fountain	Fourth floor	9/8/2009
AYCO008e	Interior lighting	Fourth floor, restroom 422	9/8/2009
AYCO009a	Step into bathroom	Fourth floor	9/8/2009
AYCO009e	Service sink and lavatory	Fourth floor, room 402	9/8/2009
AYCO010a	Interior corridor finishes	Third floor	9/8/2009
AYCO010e	Water closet	Fourth floor, room 402	9/8/2009
AYCO011a	Interior corridor finishes	Third floor	9/8/2009
AYCO011e	Interior lighting	Fourth floor, room 402	9/8/2009
AYCO012a	Firestop in telecom room	Third floor	9/8/2009
AYCO012e	Air conditioning unit and radiator	Fourth floor, room 437	9/8/2009
AYCO013a	Dorm room finishes	First floor	9/8/2009
AYCO013e	Exit signage and fire alarm devices	Fourth floor, corridor	9/8/2009
AYCO014a	Ceiling finishes in dorm room	First floor	9/8/2009
AYCO014e	Exit signage and fire alarm devices	Fourth floor, corridor	9/8/2009
AYCO015a	Lobby finishes	First floor	9/8/2009
AYCO015e	Exit signage and fire alarm devices	Third floor, corridor	9/8/2009
AYCO016a	Interior corridor finishes	Basement	9/8/2009
AYCO016e	Piping	Third floor, room 368	9/8/2009
AYCO017a	Dual level drinking fountain	Basement	9/8/2009

### Photo Log - Facility Condition Analysis

Photo ID No	Description	Location	Date
AYCO017e	Electrical receptacle	Third floor, corridor	9/8/2009
AYCO018a	Computer lab	Basement	9/8/2009
AYCO018e	Fire alarm panels	First floor, corridor	9/8/2009
AYCO019a	Interior corridor finishes	Basement	9/8/2009
AYCO019e	Electrical receptacle	Basement, room 10	9/8/2009
AYCO020a	Laundry room	Basement	9/8/2009
AYCO020e	Main incoming electrical	Basement, electrical room	9/8/2009
AYCO021a	North facade	Exterior elevation	9/8/2009
AYCO021e	Furnace	Basement, mechanical room 11A	9/8/2009
AYCO022a	North facade	Exterior elevation	9/8/2009
AYCO022e	Water heater	Basement, mechanical room 13	9/8/2009
AYCO023a	North facade	Exterior elevation	9/8/2009
AYCO023e	Heat exchanger	Basement, mechanical room 13	9/8/2009
AYCO024a	North facade	Exterior elevation	9/8/2009
AYCO024e	Heat exchanger	Basement, mechanical room 13	9/8/2009
AYCO025a	West facade	Exterior elevation	9/8/2009
AYCO025e	Condensate return system	Basement, mechanical room 13	9/8/2009
AYCO026a	West facade	Exterior elevation	9/8/2009
AYCO026e	HVAC controls	Basement, mechanical room 13	9/8/2009
AYCO027a	West facade	Exterior elevation	9/8/2009
AYCO027e	Secondary electrical panel	Basement, mechanical room 13	9/8/2009
AYCO028a	South facade	Exterior elevation	9/8/2009
AYCO028e	Drain piping	Crawlspace	9/8/2009
AYCO029a	Ramp to basement	Exterior elevation	9/8/2009
AYCO029e	Gas regulator	Site	9/8/2009
AYCO030a	East facade	Exterior elevation	9/8/2009
AYCO030e	Exterior lighting	Exterior	9/8/2009
AYCO031a	East facade	Exterior elevation	9/8/2009
AYCO031e	Air conditioning devices	Exterior	9/8/2009
AYCO032a	East facade	Exterior elevation	9/8/2009

### Facility Condition Analysis - Photo Log









AYCO004E.jpg

AYCO002E.jpg







AYCO006A.jpg

AYCO004A.jpg

AYCO002A.jpg



AYCO006E.jpg



AYCO005A.jpg



AYCO007E.jpg





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AYCO018A.jpg

AYCO018E.jpg











AYCO019A.jpg

AYCO019E.jpg

AYCO020E.jpg

### Facility Condition Analysis - Photo Log



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AYCO021E.jpg



AYCO022A.jpg



AYCO022E.jpg



AYCO023A.jpg



AYCO023E.jpg



AYCO024A.jpg



AYCO024E.jpg



AYCO025A.jpg



AYCO025E.jpg



AYCO026A.jpg



AYCO026E.jpg



AYCO027A.jpg



AYCO027E.jpg



AYCO028A.jpg



AYCO028E.jpg



AYCO029A.jpg



AYCO029E.jpg



AYCO030A.jpg



AYCO030E.jpg

### Facility Condition Analysis - Photo Log







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AYCO031E.jpg

AYCO032A.jpg