EAST CAROLINA UNIVERSITY

UMSTEAD RESIDENCE HALL

ASSET CODE: UMST

FACILITY CONDITION ANALYSIS

DECEMBER 16, 2009

ISES CORPORATION

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FACILITY CONDITION ANALYSIS

SECTION 1

GENERAL ASSET INFORMATION

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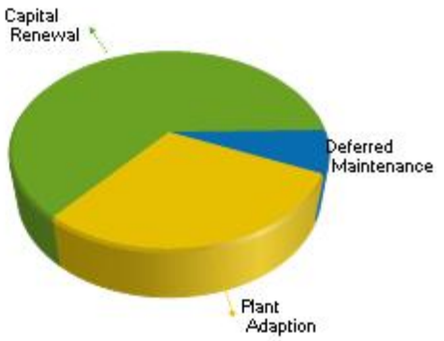
PROJECT COSTS BY CLASSIFICATION

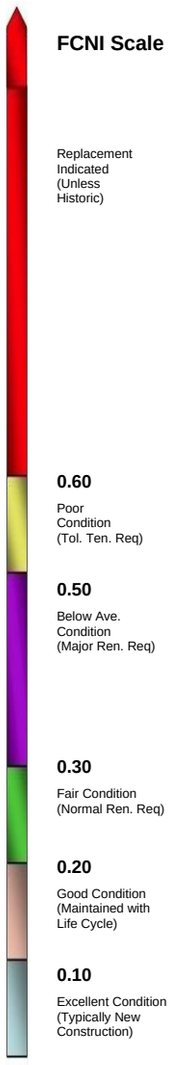


Building Code:	UMST
Building Name:	UMSTEAD RESIDENCE HALL
Year Built:	1955
Building Use:	Dormitory / Apartments
Square Feet:	48,512

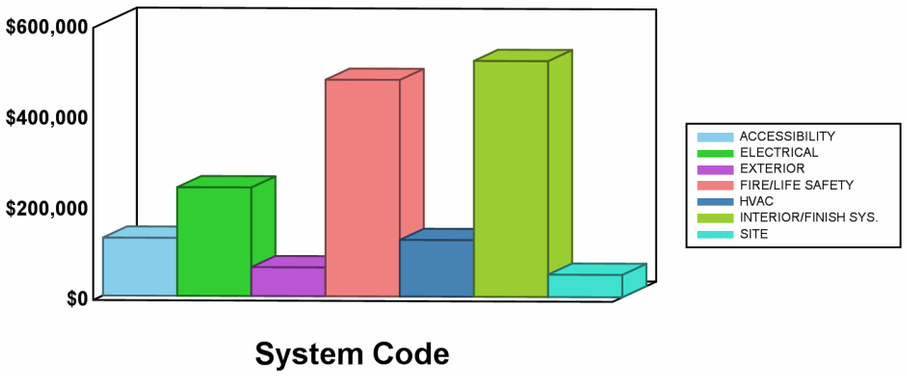
Project Costs by Priority

Priority 1:	$4,811	
Priority 2:	$340,046	
Priority 3:	$723,475	
Priority 4:	$534,466	
Total Project Costs:		**$1,602,797**
Facility Replacement Cost:		**$15,068,000**
Facility Condition Needs Index (FCNI):		**0.11**

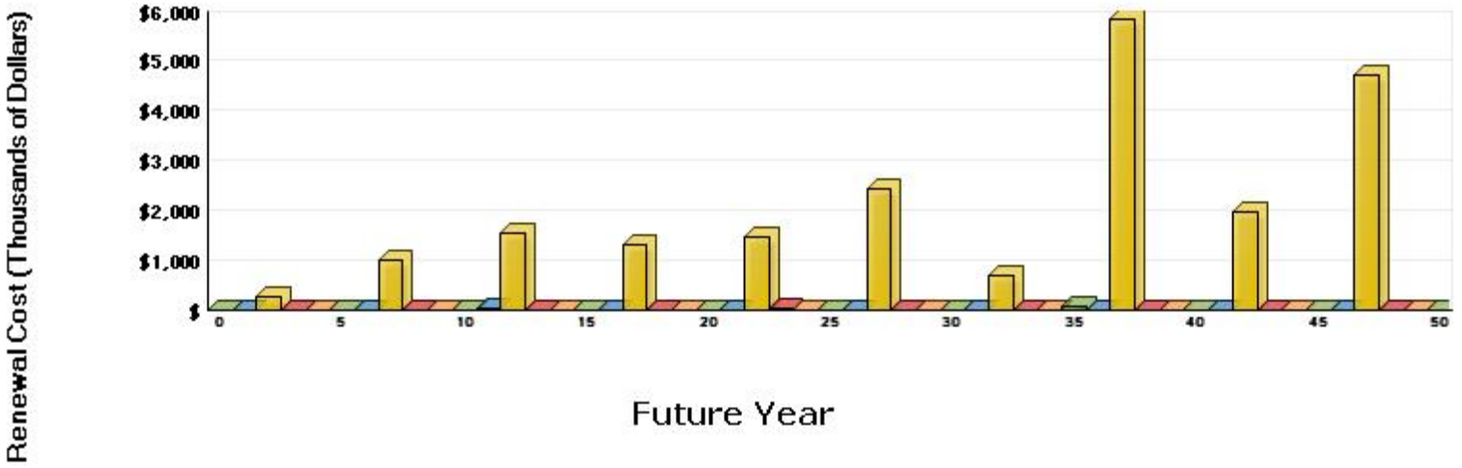
(Project Costs / Replacement Cost)



PROJECT COSTS BY SYSTEM CODE



LIFE CYCLE MODEL EXPENDITURE PROJECTIONS



Average Annual Renewal Cost Per SqFt $3.67

B. ASSET SUMMARY

Built in 1955, Umstead Residence Hall is a three-story dormitory, with a partial mechanical basement. In 1995, the building underwent a major renovation, including roof, windows, exterior doors, elevator, interior finishes, and accessible restroom and interior amenities. The first floor was also converted to office space. The building is a concrete structure on a concrete vault basement. The exterior finishes consist of brick facades and a built-up and single-ply roof system. The building is E shaped, with double occupancy rooms on the second and third floors and offices on the first floor. Umstead Residence Hall totals 48,512 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 10, 2009.

SITE

Landscaping around the building consists of grassy lawns, ornamental shrubs, and some mature trees. Landscaping is in average condition, but should last the ten-year scope of this report with routine maintenance.

Pedestrian paving systems are in overall good condition, but will need replacement in the next ten years. New systems, including excavation, grading, base compaction, and paving, are recommended. Vehicular paving systems are in fair condition and will need moderate upgrades.

EXTERIOR STRUCTURE

Brick veneer is the primary exterior finish. While the brick is fundamentally sound, exposure to the elements have 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.

The main upper built-up roof was installed in 2005 and has several years of remaining life. The single-ply membrane roofing system over the south lobby was installed in 1995 and 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.

Replacements are recommended for the exterior door systems. This project includes only the primary entrance doors. The replacement units should maintain the architectural design aspects of this facility and be modern, energy-efficient applications that will protect the interior of the building from the elements. Exterior windows were replaced in 1995, with dual-pane glazing in metal frames. The windows are in good condition and should last the ten-year scope of this report.

INTERIOR FINISHES / SYSTEMS

Interior floor finishes include carpet, vinyl tile, and ceramic tile. These 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.

Interior wall finishes include painted plaster and concrete walls, with painted plaster ceilings. These applications vary in age and condition from area to area. Wall and ceiling finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts. Interior doors were found in good condition during this inspection. Doors are equipped with lever hardware and Braille signage. No interior door replacements should be needed in the next ten years.

ACCESSIBILITY

Access to the building is provided by wheelchair ramps on the north and south facades. Once inside, a single, passenger elevator provides access to each floor. Restrooms were remodeled in 1995 and meet modern requirements. Interior doors are equipped with lever hardware and Braille signage. A few accessible modifications are still needed to enhance accessibility in the dormitory.

Present accessibility legislation requires that building amenities be generally accessible to all persons. The configuration of select drinking fountains is a barrier to accessibility. All single-level, refrigerated drinking fountains should be replaced with dual-level units.

Present legislation regarding building accessibility by the handicapped 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.

HEALTH

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

FIRE / LIFE SAFETY

The paths of egress in this building are adequate regarding fire rating. Structural fire separations are not maintained according to code requirements for new construction in select areas of this facility. Primarily, data cabling has been routed with little regard for fire-rated separations. Intumescent passive firestopping and some minor structural separation repairs should be accomplished promptly.

This facility is protected by a central fire alarm system. The point addressable panel was manufactured by Simplex and is located on the first floor. The devices that serve this system include manual pull

stations, audible / visible devices, and smoke detectors. The fire alarm system is approaching the end of its intended life cycle. It should be anticipated that it will require replacement within the scope of this analysis.

This facility incorporates manual chemical-type fire extinguishers and standpipe cabinets for fire suppression. It is recommended by the NFPA that buildings contain fire sprinkler systems. Light hazard, wet-pipe fire suppression should be installed throughout the structure, including piping, sprinkler heads (as required by code), and pipe bracing. Install flow switches and sensors that interface with the present fire alarm system. This installation will reduce overall liability and risk of loss.

The exit signs in this facility are LED-illuminated and are connected to the emergency power network. Emergency lighting is available through standard interior light fixtures with battery backup ballasts. Replace the existing exit signage throughout the building. Install new exit signs as needed. The new units should be connected to the proposed emergency power network. LED-type exit signs are recommended because they are energy-efficient and require minimal maintenance.

HVAC

The facility utilizes hot water and chilled water to supply HVAC equipment within the facility. The hot and chilled water are both considered to be fed from Slay Residence Hall. Pump equipment located in the basement facilitate the movement of the media. These units were installed in 1995 and are beginning to show some signs of age.

This facility is served by a forced air HVAC system with multi-zone air handling units. The HVAC system serving the functional spaces is a four-pipe fan coil unit network. The air handling units have hot water heating coils and chilled water cooling coils. The air distribution network furnishes constant volume air to the occupied spaces. The controls for this system are a hybrid configuration, with pneumatic temperature controls and direct digital utility modulation and monitoring. The direct digital controls (DDC) were manufactured by Siemens.

The HVAC system is an adequate application for this facility. However, it should be expected that some of the associated components will require replacement within the purview of this analysis. It is recommended that the exhaust fans be replaced due to life cycle depletion. Select pumps are recommended for replacement.

ELECTRICAL

Power is supplied to the facility at a rate of 480/277 volts from an oil-filled transformer located on site. The unit is rated at 750 kVA. A main disconnect panel receives the power for distribution within the facility. The panel was manufactured by Square D with a 400 amp electrical service. The main incoming electrical equipment was installed in 1995 and appears to be in good condition. All of the main electrical distribution system components are serviceable and will likely remain so throughout the scope of this report.

The secondary electrical consists of a dry-type transformer and panelboards located in the basement. Power is either fed directly from the main disconnect panel or stepped down to 120/208 volts for distribution through secondary panelboards. The electrical equipment provides service for mechanical,

lighting, and general purpose loads. The system was installed in 1995 and appears to be in good condition. Panelboards were noted to be properly encased, while directories appeared in order. Wiring or conduit that could be seen appeared to be properly enclosed or supported. GFCI receptacles were observed in wet locations. It should be anticipated that the electrical distribution network will require minor repairs within the scope of this report. Such remedies include, but are not limited to, installing additional circuits, replacing worn switches and receptacles, replacing circuit breakers, and updating panel directories.

Interior lighting consists of surface-mounted fixtures that contain T8 or T12 fluorescent fixtures, with some wall-mounted compact fluorescent lamps. Light levels in corridors and office rooms are generally adequate, but fixtures are aged despite recent retrofits with fluorescent lamps. The interior lighting should be upgraded throughout the building. Replace existing applications with modern fixtures and install additional fixtures as needed to provide adequate light levels. Install occupancy sensors in appropriate areas as needed to conserve energy.

The exterior lighting consists of wall-mounted HID light fixtures placed at all entrances. Additional lighting is provided by pole-mounted light fixtures located on the site. While the inspection was performed during daylight hours, the lighting scheme appears to provide adequate coverage for the facility.

Emergency power for this facility is produced by a diesel-fired emergency generator located on site. The unit was manufactured by Detroit Diesel in 1995. The generator provides 480/277 volt power, with a capacity of 150 kW. Overall, the unit appears to be in good condition, while be properly enclosed. This generator should remain a reliable source of stand-by power throughout scope of this report.

PLUMBING

The domestic water supply is fed to the facility on the basement level. A backflow preventer is present to protect the supply from cross-contamination. Copper piping is then utilized to distribute water throughout the facility. The domestic water supply system appears to be in good condition at this time, with renovation work that was completed in 1995.

Sanitary waste and stormwater piping consists mainly of cast-iron, no-hub piping, with some plastic piping applications. The system appears to be in good condition and no deterioration or leaks were observed or noted during the inspection. No projects are recommended for the sanitary waste and stormwater piping network within the scope of this report.

The plumbing fixtures consist of ceramic construction. The units appear to be in good condition, with no observed deterioration. The plumbing fixtures should continue to provide sufficient service within this report. No projects are recommended.

The domestic hot water is either fed to the facility from Slay Residence Hall or is fed from an electric water heater located on the first floor. The unit was installed in 2008 with a capacity of 80 gallons. The water heater appears to be in good condition with no projects to recommend.

VERTICAL TRANSPORTATION

The University commissioned an outside contractor to perform an elevator condition study in 2009. The aforementioned study did not identify any deficiencies requiring capital funding.

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 10, 2009

INSPECTION TEAM PERSONNEL:

NAME	POSITION	SPECIALTY
Thomas Ferguson, AIA, LEED® 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:

Report Development by:
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Suite N
Stone Mountain, GA 30087

Contact:
Kyle Thompson, Project Manager
770-879-7376

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.

$$FCNI = \frac{\text{Deferred Maintenance / Modernization + Capital Renewal + Plant Adaption}}{\text{Plant / Facility Replacement Cost}}$$

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. Plant / Program Adaption: 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. Deferred Maintenance: 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. Capital Renewal: 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. Energy Conservation: 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 CLASS 1

CODE	PROJECT NO.	PRIORITY SEQUENCE
HV2C	0001HV04	01
PL1D	0001PL02	02

PRIORITY CLASS 2

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:	51.3 %	of National Average
Local Materials Index:	100.7 %	of National average
General Contractor Markup:	20.0 %	Contractor profit & overhead, bonds & insurance
Professional Fees:	16.0 %	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
04	-	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.

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

CATEGORY 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 DESCRIPTION: 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 DESCRIPTION: 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 DESCRIPTION: 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 freestanding boiler stacks.
SYSTEM DESCRIPTION: FIRE / LIFE SAFETY			
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 DESCRIPTION: 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 DESCRIPTION: 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 DESCRIPTION: INTERIOR FINISHES / 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 DESCRIPTION: 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 DESCRIPTION: VERTICAL TRANSPORTATION			
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.

FACILITY CONDITION ANALYSIS

SECTION 2

DETAILED PROJECT SUMMARIES AND TOTALS

Detailed Project Totals

Facility Condition Analysis

System Code by Priority Class

UMST : UMSTEAD RESIDENCE HALL

System Code	System Description	Priority Classes 1	2	3	4	Subtotal
AC	ACCESSIBILITY	0	0	0	127,807	127,807
EL	ELECTRICAL	0	0	26,392	212,998	239,391
ES	EXTERIOR	0	0	46,909	16,801	63,710
FS	FIRE/LIFE SAFETY	4,811	340,046	130,114	2,508	477,479
HV	HVAC	0	0	0	124,886	124,886
IS	INTERIOR/FINISH SYS.	0	0	520,060	0	520,060
SI	SITE	0	0	0	49,466	49,466
	TOTALS	4,811	340,046	723,475	534,466	1,602,797

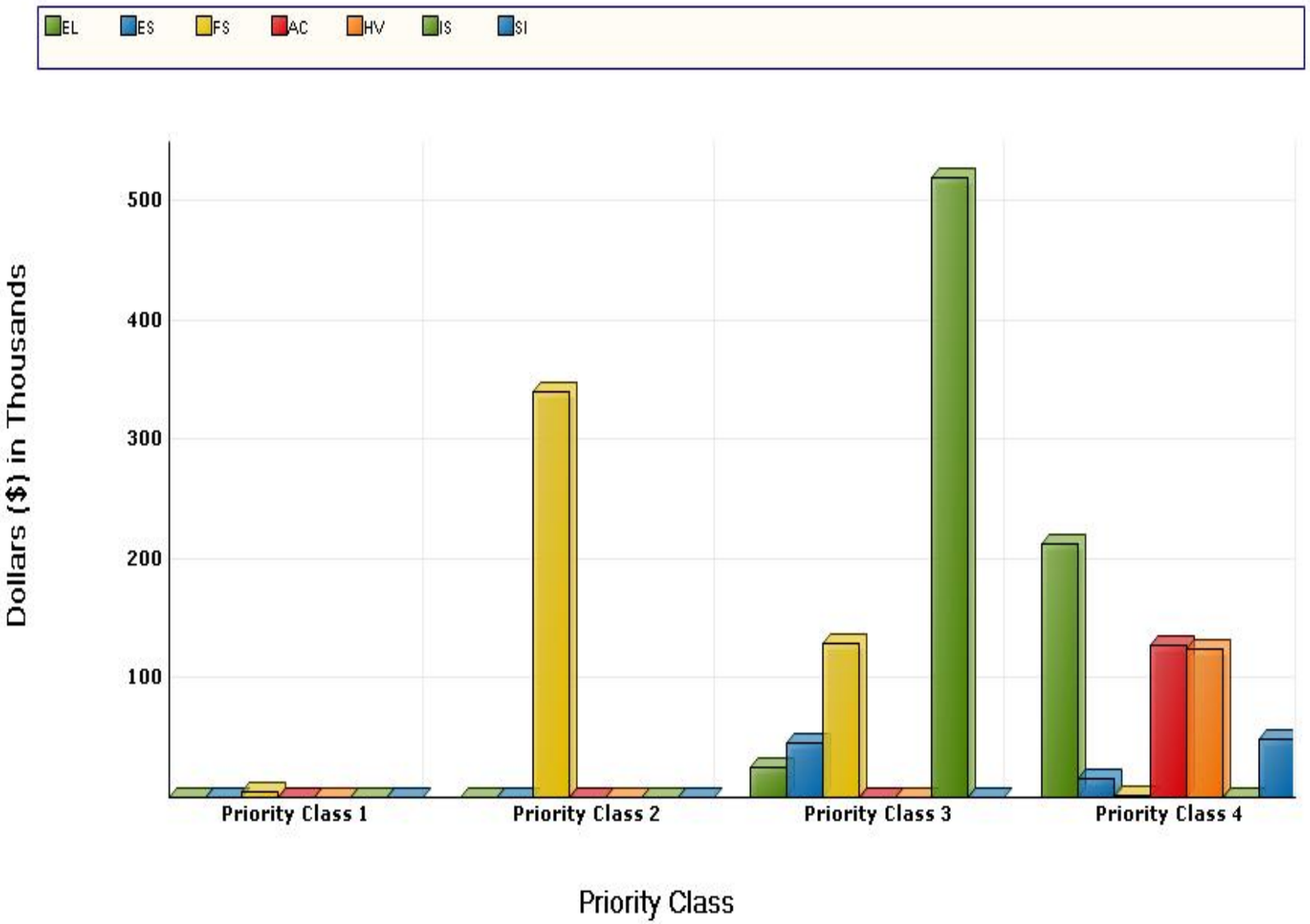
Facility Replacement Cost	$15,068,000
Facility Condition Needs Index	0.11

Gross Square Feet	48,512	**Total Cost Per Square Foot**	$33.04

FACILITY CONDITION ANALYSIS

System Code by Priority Class

UMST : UMSTEAD RESIDENCE HALL



Detailed Project Totals

Facility Condition Analysis

System Code by Project Class

UMST : UMSTEAD RESIDENCE HALL

System Code	System Description	Project Classes: Captial Renewal	Deferred Maintenance	Plant Adaption	Subtotal
AC	ACCESSIBILITY	0	0	127,807	127,807
EL	ELECTRICAL	239,391	0	0	239,391
ES	EXTERIOR	63,710	0	0	63,710
FS	FIRE/LIFE SAFETY	132,622	0	344,857	477,479
HV	HVAC	124,886	0	0	124,886
IS	INTERIOR/FINISH SYS.	408,570	111,490	0	520,060
SI	SITE	49,466	0	0	49,466
	TOTALS	1,018,643	111,490	472,664	1,602,797

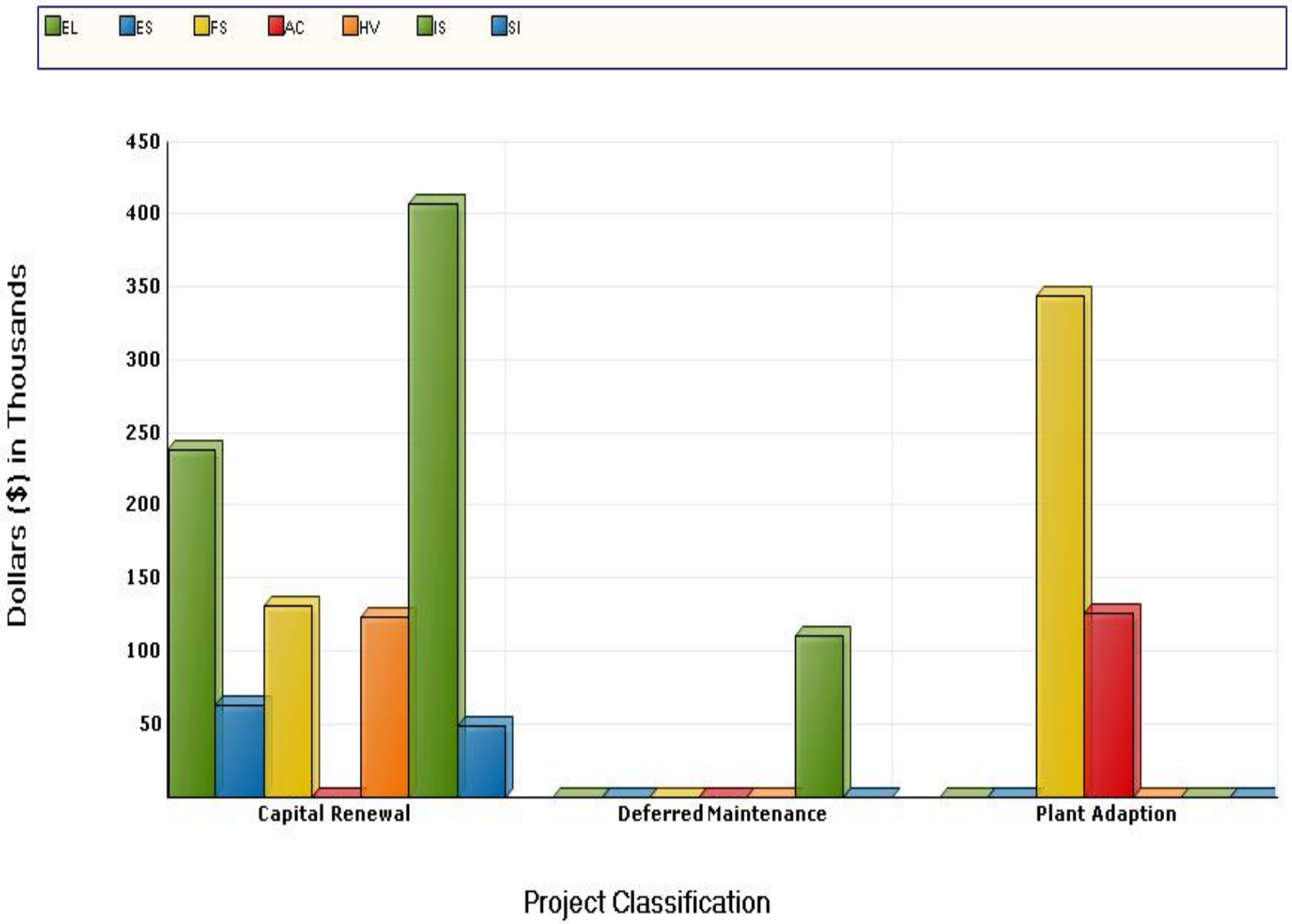
Facility Replacement Cost	$15,068,000
Facility Condition Needs Index	0.11

Gross Square Feet	48,512	**Total Cost Per Square Foot**	$33.04

FACILITY CONDITION ANALYSIS

System Code by Project Class

UMST : UMSTEAD RESIDENCE HALL



Detailed Project Summary
Facility Condition Analysis
Project Class by Priority Class
UMST : UMSTEAD RESIDENCE HALL

	Priority Classes				
Project Class	**1**	**2**	**3**	**4**	**Subtotal**
Capital Renewal	0	0	611,985	406,659	1,018,643
Deferred Maintenance	0	0	111,490	0	111,490
Plant Adaption	4,811	340,046	0	127,807	472,664
TOTALS	4,811	340,046	723,475	534,466	1,602,797

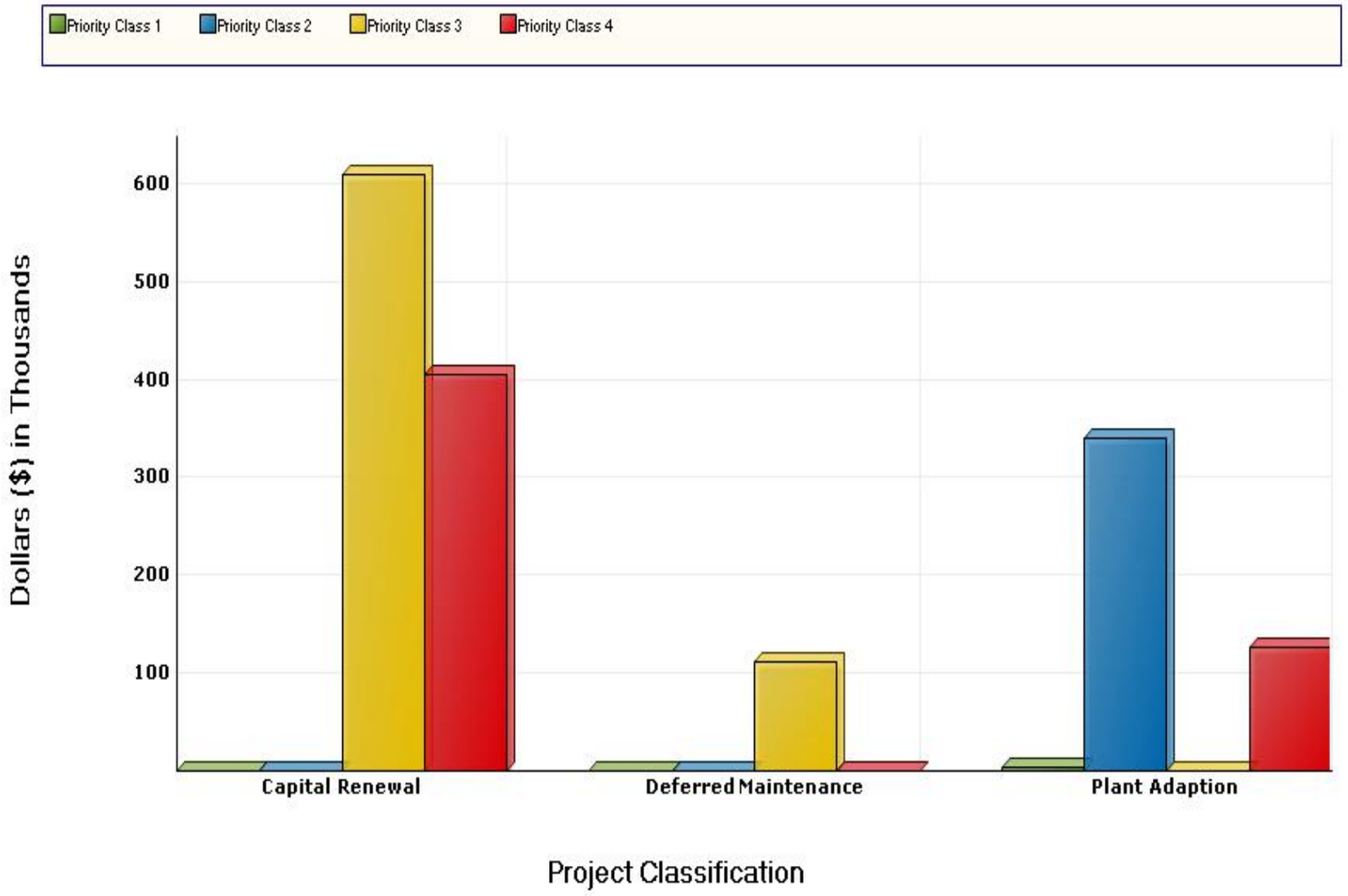
Facility Replacement Cost	$15,068,000
Facility Condition Needs Index	0.11

Gross Square Feet	48,512	**Total Cost Per Square Foot**	$33.04

FACILITY CONDITION ANALYSIS

Project Class by Priority Class

UMST : UMSTEAD RESIDENCE HALL



Detailed Project Summary

Facility Condition Analysis

Priority Class - Priority Sequence

UMST : UMSTEAD RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5C	UMSTFS04	1	1	ELIMINATE FIRE RATING COMPROMISES	4,148	664	4,811
				Totals for Priority Class 1	**4,148**	**664**	**4,811**
FS3A	UMSTFS02	2	2	FIRE SPRINKLER SYSTEM INSTALLATION	293,143	46,903	340,046
				Totals for Priority Class 2	**293,143**	**46,903**	**340,046**
FS2A	UMSTFS01	3	3	FIRE ALARM SYSTEM REPLACEMENT	112,167	17,947	130,114
ES4B	UMSTES03	3	4	MEMBRANE ROOF REPLACEMENT	4,572	732	5,304
ES2B	UMSTES01	3	5	RESTORE BRICK VENEER	35,866	5,739	41,605
EL3B	UMSTEL02	3	6	ELECTRICAL SYSTEM REPAIRS	22,752	3,640	26,392
IS2B	UMSTIS02	3	7	REFINISH WALLS	96,112	15,378	111,490
IS1A	UMSTIS01	3	8	REFINISH FLOORING	324,891	51,983	376,873
IS3B	UMSTIS03	3	9	REFINISH CEILINGS	27,325	4,372	31,697
				Totals for Priority Class 3	**623,685**	**99,790**	**723,475**
FS1A	UMSTFS03	4	10	REPLACE EXIT SIGNS	2,162	346	2,508
AC4A	UMSTAC01	4	11	INTERIOR AMENITY ACCESSIBILITY UPGRADES	30,378	4,860	35,238
AC3B	UMSTAC02	4	12	STAIR SAFETY UPGRADES	79,801	12,768	92,569
ES5A	UMSTES02	4	13	EXTERIOR DOOR REPLACEMENT	14,483	2,317	16,801
HV4B	UMSTHV01	4	14	EXHAUST FAN REPLACEMENT	35,818	5,731	41,549
HV5B	UMSTHV02	4	15	PUMP REPLACEMENT	71,842	11,495	83,337
EL4B	UMSTEL01	4	16	INTERIOR LIGHTING UPGRADE	183,619	29,379	212,998
SI1B	UMSTSI01	4	17	SITE PAVING UPGRADES	42,643	6,823	49,466
				Totals for Priority Class 4	**460,747**	**73,719**	**534,466**
				Grand Total:	**1,381,722**	**221,076**	**1,602,797**

Detailed Project Summary

Facility Condition Analysis

Project Cost Range

UMST : UMSTEAD RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5C	UMSTFS04	1	1	ELIMINATE FIRE RATING COMPROMISES	4,148	664	4,811
				Totals for Priority Class 1	**4,148**	**664**	**4,811**
EL3B	UMSTEL02	3	6	ELECTRICAL SYSTEM REPAIRS	22,752	3,640	26,392
ES2B	UMSTES01	3	5	RESTORE BRICK VENEER	35,866	5,739	41,605
ES4B	UMSTES03	3	4	MEMBRANE ROOF REPLACEMENT	4,572	732	5,304
IS3B	UMSTIS03	3	9	REFINISH CEILINGS	27,325	4,372	31,697
				Totals for Priority Class 3	**90,515**	**14,482**	**104,998**
FS1A	UMSTFS03	4	10	REPLACE EXIT SIGNS	2,162	346	2,508
HV4B	UMSTHV01	4	14	EXHAUST FAN REPLACEMENT	35,818	5,731	41,549
HV5B	UMSTHV02	4	15	PUMP REPLACEMENT	71,842	11,495	83,337
AC4A	UMSTAC01	4	11	INTERIOR AMENITY ACCESSIBILITY UPGRADES	30,378	4,860	35,238
ES5A	UMSTES02	4	13	EXTERIOR DOOR REPLACEMENT	14,483	2,317	16,801
AC3B	UMSTAC02	4	12	STAIR SAFETY UPGRADES	79,801	12,768	92,569
SI1B	UMSTSI01	4	17	SITE PAVING UPGRADES	42,643	6,823	49,466
				Totals for Priority Class 4	**277,127**	**44,340**	**321,468**
				Grand Totals for Projects < 100,000	**371,790**	**59,486**	**431,277**

Detailed Project Summary

Facility Condition Analysis

Project Cost Range

UMST : UMSTEAD RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS3A	UMSTFS02	2	2	FIRE SPRINKLER SYSTEM INSTALLATION	293,143	46,903	340,046
				Totals for Priority Class 2	**293,143**	**46,903**	**340,046**
FS2A	UMSTFS01	3	3	FIRE ALARM SYSTEM REPLACEMENT	112,167	17,947	130,114
IS1A	UMSTIS01	3	8	REFINISH FLOORING	324,891	51,983	376,873
IS2B	UMSTIS02	3	7	REFINISH WALLS	96,112	15,378	111,490
				Totals for Priority Class 3	**533,169**	**85,307**	**618,477**
EL4B	UMSTEL01	4	16	INTERIOR LIGHTING UPGRADE	183,619	29,379	212,998
				Totals for Priority Class 4	**183,619**	**29,379**	**212,998**
				Grand Totals for Projects >= 100,000 and < 500,000	**1,009,931**	**161,589**	**1,171,520**
				Grand Totals For All Projects:	**1,381,722**	**221,076**	**1,602,797**

Detailed Project Summary

Facility Condition Analysis

Project Classification

UMST : UMSTEAD RESIDENCE HALL

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
FS2A	UMSTFS01	3	Capital Renewal	3	FIRE ALARM SYSTEM REPLACEMENT	130,114
ES4B	UMSTES03	4	Capital Renewal	3	MEMBRANE ROOF REPLACEMENT	5,304
ES2B	UMSTES01	5	Capital Renewal	3	RESTORE BRICK VENEER	41,605
EL3B	UMSTEL02	6	Capital Renewal	3	ELECTRICAL SYSTEM REPAIRS	26,392
IS1A	UMSTIS01	8	Capital Renewal	3	REFINISH FLOORING	376,873
IS3B	UMSTIS03	9	Capital Renewal	3	REFINISH CEILINGS	31,697
FS1A	UMSTFS03	10	Capital Renewal	4	REPLACE EXIT SIGNS	2,508
ES5A	UMSTES02	13	Capital Renewal	4	EXTERIOR DOOR REPLACEMENT	16,801
HV4B	UMSTHV01	14	Capital Renewal	4	EXHAUST FAN REPLACEMENT	41,549
HV5B	UMSTHV02	15	Capital Renewal	4	PUMP REPLACEMENT	83,337
EL4B	UMSTEL01	16	Capital Renewal	4	INTERIOR LIGHTING UPGRADE	212,998
SI1B	UMSTSI01	17	Capital Renewal	4	SITE PAVING UPGRADES	49,466
					Totals for Capital Renewal	**1,018,643**
IS2B	UMSTIS02	7	Deferred Maintenance	3	REFINISH WALLS	111,490
					Totals for Deferred Maintenance	**111,490**
FS5C	UMSTFS04	1	Plant Adaption	1	ELIMINATE FIRE RATING COMPROMISES	4,811
FS3A	UMSTFS02	2	Plant Adaption	2	FIRE SPRINKLER SYSTEM INSTALLATION	340,046
AC4A	UMSTAC01	11	Plant Adaption	4	INTERIOR AMENITY ACCESSIBILITY UPGRADES	35,238
AC3B	UMSTAC02	12	Plant Adaption	4	STAIR SAFETY UPGRADES	92,569
					Totals for Plant Adaption	**472,664**
					Grand Total:	**1,602,797**

Detailed Project Summary

Facility Condition Analysis

Energy Conservation

UMST : UMSTEAD RESIDENCE HALL

Cat Code	Project Number	Pri Cls	Pri Seq	Project Title	Total Cost	Annual Savings	Simple Payback
ES4B	UMSTES03	3	4	MEMBRANE ROOF REPLACEMENT	5,304	100	53.04
				Totals for Priority Class 3	**5,304**	**100**	**53.04**
FS1A	UMSTFS03	4	10	REPLACE EXIT SIGNS	2,508	10	250.85
EL4B	UMSTEL01	4	16	INTERIOR LIGHTING UPGRADE	212,998	7,420	28.71
				Totals for Priority Class 4	**215,507**	**7,430**	**29**
				Grand Total:	**220,811**	**7,530**	**29.32**

Detailed Project Summary

Facility Condition Analysis

Category/System Code

UMST : UMSTEAD RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC4A	UMSTAC01	4	11	INTERIOR AMENITY ACCESSIBILITY UPGRADES	30,378	4,860	35,238
AC3B	UMSTAC02	4	12	STAIR SAFETY UPGRADES	79,801	12,768	92,569
				Totals for System Code: ACCESSIBILITY	**110,179**	**17,629**	**127,807**
EL3B	UMSTEL02	3	6	ELECTRICAL SYSTEM REPAIRS	22,752	3,640	26,392
EL4B	UMSTEL01	4	16	INTERIOR LIGHTING UPGRADE	183,619	29,379	212,998
				Totals for System Code: ELECTRICAL	**206,371**	**33,019**	**239,391**
ES4B	UMSTES03	3	4	MEMBRANE ROOF REPLACEMENT	4,572	732	5,304
ES2B	UMSTES01	3	5	RESTORE BRICK VENEER	35,866	5,739	41,605
ES5A	UMSTES02	4	13	EXTERIOR DOOR REPLACEMENT	14,483	2,317	16,801
				Totals for System Code: EXTERIOR	**54,922**	**8,788**	**63,710**
FS5C	UMSTFS04	1	1	ELIMINATE FIRE RATING COMPROMISES	4,148	664	4,811
FS3A	UMSTFS02	2	2	FIRE SPRINKLER SYSTEM INSTALLATION	293,143	46,903	340,046
FS2A	UMSTFS01	3	3	FIRE ALARM SYSTEM REPLACEMENT	112,167	17,947	130,114
FS1A	UMSTFS03	4	10	REPLACE EXIT SIGNS	2,162	346	2,508
				Totals for System Code: FIRE/LIFE SAFETY	**411,620**	**65,859**	**477,479**
HV4B	UMSTHV01	4	14	EXHAUST FAN REPLACEMENT	35,818	5,731	41,549
HV5B	UMSTHV02	4	15	PUMP REPLACEMENT	71,842	11,495	83,337
				Totals for System Code: HVAC	**107,660**	**17,226**	**124,886**
IS2B	UMSTIS02	3	7	REFINISH WALLS	96,112	15,378	111,490
IS1A	UMSTIS01	3	8	REFINISH FLOORING	324,891	51,983	376,873
IS3B	UMSTIS03	3	9	REFINISH CEILINGS	27,325	4,372	31,697
				Totals for System Code: INTERIOR/FINISH SYS.	**448,327**	**71,732**	**520,060**
SI1B	UMSTSI01	4	17	SITE PAVING UPGRADES	42,643	6,823	49,466
				Totals for System Code: SITE	**42,643**	**6,823**	**49,466**
				Grand Total:	**1,381,722**	**221,076**	**1,602,797**

FACILITY CONDITION ANALYSIS

SECTION 3

SPECIFIC PROJECT DETAILS ILLUSTRATING DESCRIPTION / COST

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Description

Project Number:	UMSTFS04	**Title:**	ELIMINATE FIRE RATING COMPROMISES
Priority Sequence:	1		
Priority Class:	1		
Category Code:	FS5C	**System:**	FIRE/LIFE SAFETY
		Component:	EGRESS PATH
		Element:	SEPARATION RATING
Building Code:	UMST		
Building Name:	UMSTEAD RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	IBC 711.3		
Project Class:	Plant Adaption		
Project Date:	10/16/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3		

Project Description

Structural fire separations are not maintained according to code requirements for new construction in select areas of this facility. Primarily, data cabling has been routed with little regard for fire-rated separations. Intumescent passive firestopping and some minor structural separation repairs should be accomplished promptly.

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Cost

Project Number: UMSTFS04

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Minor passive firestopping efforts	SF	48,510	$0.03	$1,455	$0.08	$3,881	$5,336
Project Totals:				**$1,455**		**$3,881**	**$5,336**

Material/Labor Cost		$5,336
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$3,456
General Contractor Mark Up at 20.0%	+	$691
Construction Cost		$4,148
Professional Fees at 16.0%	+	$664
Total Project Cost		**$4,811**

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Description

Project Number:	UMSTFS02	**Title:**	FIRE SPRINKLER SYSTEM INSTALLATION
Priority Sequence:	2		
Priority Class:	2		
Category Code:	FS3A	**System:**	FIRE/LIFE SAFETY
		Component:	SUPPRESSION
		Element:	SPRINKLERS
Building Code:	UMST		
Building Name:	UMSTEAD RESIDENCE HALL		
Subclass/Savings:	Not Applicable		

Code Application: NFPA 1, 13, 13R, 101

Project Class: Plant Adaption

Project Date: 10/14/2009

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

Project Description

Install an automatic fire sprinkler system in unprotected areas throughout the facility. This includes piping, valves, sprinkler heads, and piping supports. Install flow switches and sensors to interface with the fire alarm system.

Project Cost

Project Number: UMSTFS02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Install a wet-pipe sprinkler system, including valves, piping, sprinkler heads, piping supports, etc.	SF	48,512	$3.08	$149,417	$3.77	$182,890	$332,307
Project Totals:				**$149,417**		**$182,890**	**$332,307**

Material/Labor Cost		$332,307
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$244,286
General Contractor Mark Up at 20.0%	+	$48,857
Construction Cost		$293,143
Professional Fees at 16.0%	+	$46,903
Total Project Cost		**$340,046**

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Description

Project Number:	UMSTFS01	**Title:**	FIRE ALARM SYSTEM REPLACEMENT
Priority Sequence:	3		
Priority Class:	3		
Category Code:	FS2A	**System:**	FIRE/LIFE SAFETY
		Component:	DETECTION ALARM
		Element:	GENERAL
Building Code:	UMST		
Building Name:	UMSTEAD RESIDENCE HALL		
Subclass/Savings:	Not Applicable		

Code Application:	ADAAG	702.1
	NFPA	1, 101

Project Class:	Capital Renewal
Project Date:	10/14/2009
Project Location:	Floor-wide: Floor(s) 1, 2, 3, B

Project Description

Upgrade the existing fire alarm system with a modern application. Specify a point addressable supervised main fire alarm panel with an annunciator. This work includes pull stations, audible and visible alarms, smoke and heat detectors, and wiring network. Install all devices in accordance with current NFPA and ADA requirements. The system should be monitored to report activation or trouble to an applicable receiving station.

Project Cost

Project Number: UMSTFS01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Fire alarm control panel(s), annunciator, smoke and heat detectors, manual pull stations, audible and visual alarms, wiring, raceways, cut and patching materials	SF	48,512	$1.46	$70,828	$0.89	$43,176	$114,003
Project Totals:				**$70,828**		**$43,176**	**$114,003**

Material/Labor Cost		$114,003
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$93,472
General Contractor Mark Up at 20.0%	+	$18,694
Construction Cost		$112,167
Professional Fees at 16.0%	+	$17,947
Total Project Cost		**$130,114**

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Description

Project Number:	UMSTES03	**Title:**	MEMBRANE ROOF REPLACEMENT
Priority Sequence:	4		
Priority Class:	3		
Category Code:	ES4B	**System:**	EXTERIOR
		Component:	ROOF
		Element:	REPLACEMENT
Building Code:	UMST		
Building Name:	UMSTEAD RESIDENCE HALL		
Subclass/Savings:	Energy Conservation $100		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/16/2009		
Project Location:	Floor-wide: Floor(s) R		

Project Description

The main upper built-up roof was installed in 2005 and has several years of remaining life. The single-ply membrane roofing system over the south lobby was installed in 1995 and 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.

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Cost

Project Number: UMSTES03

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Membrane roof	SF	810	$3.79	$3,070	$1.73	$1,401	$4,471
Project Totals:				**$3,070**		**$1,401**	**$4,471**

Material/Labor Cost		$4,471
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$3,810
General Contractor Mark Up at 20.0%	+	$762
Construction Cost		$4,572
Professional Fees at 16.0%	+	$732
Total Project Cost		**$5,304**

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Description

Project Number:	UMSTES01	**Title:**	RESTORE BRICK VENEER
Priority Sequence:	5		
Priority Class:	3		
Category Code:	ES2B	**System:**	EXTERIOR
		Component:	COLUMNS/BEAMS/WALLS
		Element:	FINISH
Building Code:	UMST		
Building Name:	UMSTEAD 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.

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Cost

Project Number: UMSTES01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Cleaning and surface preparation	SF	21,840	$0.11	$2,402	$0.22	$4,805	$7,207
Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope)	LF	2,184	$2.45	$5,351	$4.99	$10,898	$16,249
Applied finish or sealant	SF	21,840	$0.22	$4,805	$0.82	$17,909	$22,714
Project Totals:				**$12,558**		**$33,612**	**$46,170**

Material/Labor Cost		$46,170
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$29,889
General Contractor Mark Up at 20.0%	+	$5,978
Construction Cost		$35,866
Professional Fees at 16.0%	+	$5,739
Total Project Cost		**$41,605**

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Description

Project Number:	UMSTEL02	**Title:**	ELECTRICAL SYSTEM REPAIRS
Priority Sequence:	6		
Priority Class:	3		
Category Code:	EL3B	**System:**	ELECTRICAL
		Component:	SECONDARY DISTRIBUTION
		Element:	DISTRIBUTION NETWORK
Building Code:	UMST		
Building Name:	UMSTEAD RESIDENCE HALL		
Subclass/Savings:	Not Applicable		

Code Application: NEC Articles 100, 210, 410

Project Class: Capital Renewal

Project Date: 10/14/2009

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

Project Description

Aging devices, including wall switches and receptacles, are potential shock and fire hazards. Replace all worn or damaged switches, receptacles, and cover plates. Install GFCI receptacles where required by code. Test power panels for proper operation, replacing faulty breakers as needed. Update power panel directories for circuit identification.

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Cost

Project Number: UMSTEL02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Switches, receptacles, cover plates, breakers, and miscellaneous materials	SF	48,512	$0.22	$10,673	$0.33	$16,009	$26,682
Project Totals:				**$10,673**		**$16,009**	**$26,682**

Material/Labor Cost		$26,682
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$18,960
General Contractor Mark Up at 20.0%	+	$3,792
Construction Cost		$22,752
Professional Fees at 16.0%	+	$3,640
Total Project Cost		**$26,392**

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Description

Project Number:	UMSTIS02	**Title:**	REFINISH WALLS
Priority Sequence:	7		
Priority Class:	3		
Category Code:	IS2B	**System:**	INTERIOR/FINISH SYS.
		Component:	PARTITIONS
		Element:	FINISHES
Building Code:	UMST		
Building Name:	UMSTEAD 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		

Project Description

Interior wall finishes include painted plaster and concrete walls. 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.

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Cost

Project Number: UMSTIS02

Task Cost Estimate

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	136,510	$0.17	$23,207	$0.81	$110,573	$133,780
Project Totals:				**$23,207**		**$110,573**	**$133,780**

Material/Labor Cost		$133,780
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$80,093
General Contractor Mark Up at 20.0%	+	$16,019
Construction Cost		$96,112
Professional Fees at 16.0%	+	$15,378
Total Project Cost		**$111,490**

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Description

Project Number:	UMSTIS01	**Title:**	REFINISH FLOORING
Priority Sequence:	8		
Priority Class:	3		
Category Code:	IS1A	**System:**	INTERIOR/FINISH SYS.
		Component:	FLOOR
		Element:	FINISHES-DRY
Building Code:	UMST		
Building Name:	UMSTEAD 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		

Project Description

Interior floor finishes include carpet, 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.

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Cost

Project Number: UMSTIS01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Carpet	SF	32,990	$5.36	$176,826	$2.00	$65,980	$242,806
Vinyl floor tile	SF	1,940	$3.53	$6,848	$2.50	$4,850	$11,698
Ceramic tile	SF	3,880	$7.24	$28,091	$10.63	$41,244	$69,336
Project Totals:				**$211,766**		**$112,074**	**$323,840**

Material/Labor Cost		$323,840
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$270,742
General Contractor Mark Up at 20.0%	+	$54,148
Construction Cost		$324,891
Professional Fees at 16.0%	+	$51,983
Total Project Cost		**$376,873**

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Description

Project Number:	UMSTIS03	**Title:**	REFINISH CEILINGS
Priority Sequence:	9		
Priority Class:	3		
Category Code:	IS3B	**System:**	INTERIOR/FINISH SYS.
		Component:	CEILINGS
		Element:	REPLACEMENT
Building Code:	UMST		
Building Name:	UMSTEAD 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		

Project Description

Ceiling finishes consist of 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
UMST : UMSTEAD RESIDENCE HALL

Project Cost

Project Number: UMSTIS03

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Painted ceiling finish application	SF	38,810	$0.17	$6,598	$0.81	$31,436	$38,034
Project Totals:				**$6,598**		**$31,436**	**$38,034**

Material/Labor Cost		$38,034
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$22,771
General Contractor Mark Up at 20.0%	+	$4,554
Construction Cost		$27,325
Professional Fees at 16.0%	+	$4,372
Total Project Cost		**$31,697**

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Description

Project Number:	UMSTFS03	**Title:**	REPLACE EXIT SIGNS
Priority Sequence:	10		
Priority Class:	4		
Category Code:	FS1A	**System:**	FIRE/LIFE SAFETY
		Component:	LIGHTING
		Element:	EGRESS LTG./EXIT SIGNAGE

Building Code:	UMST	
Building Name:	UMSTEAD RESIDENCE HALL	
Subclass/Savings:	Energy Conservation	$10

Code Application:	NFPA	101-47
	IBC	1011

Project Class:	Capital Renewal
Project Date:	10/14/2009
Project Location:	Floor-wide: Floor(s) 1, 2, 3, B

Project Description

Replace the existing exit signage throughout the building. Install new exit signs as needed. The new units should be connected to the emergency power network. LED-type exit signs are recommended because they are energy-efficient and require minimal maintenance.

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Cost

Project Number: UMSTFS03

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Replacement of existing exit signs with LED units	EA	15	$76.00	$1,140	$85.00	$1,275	$2,415
Project Totals:				**$1,140**		**$1,275**	**$2,415**

Material/Labor Cost		$2,415
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$1,802
General Contractor Mark Up at 20.0%	+	$360
Construction Cost		$2,162
Professional Fees at 16.0%	+	$346
Total Project Cost		**$2,508**

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Description

Project Number:	UMSTAC01	**Title:**	INTERIOR AMENITY ACCESSIBILITY UPGRADES
Priority Sequence:	11		
Priority Class:	4		
Category Code:	AC4A	**System:**	ACCESSIBILITY
		Component:	GENERAL
		Element:	FUNCTIONAL SPACE MOD.
Building Code:	UMST		
Building Name:	UMSTEAD RESIDENCE HALL		
Subclass/Savings:	Not Applicable		

Code Application:	ADAAG	211, 602

Project Class:	Plant Adaption
Project Date:	10/16/2009
Project Location:	Floor-wide: Floor(s) 1, 2, 3

Project Description

Present accessibility legislation requires that building amenities be generally accessible to all persons. The configuration of select drinking fountains are barriers to accessibility. All single-level refrigerated drinking fountains should be replaced with dual-level units.

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Cost

Project Number: UMSTAC01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Dual-level drinking fountain	EA	6	$1,216	$7,296	$374	$2,244	$9,540
Alcove construction including finishes	EA	6	$877	$5,262	$3,742	$22,452	$27,714
Project Totals:				**$12,558**		**$24,696**	**$37,254**

Material/Labor Cost		$37,254
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$25,315
General Contractor Mark Up at 20.0%	+	$5,063
Construction Cost		$30,378
Professional Fees at 16.0%	+	$4,860
Total Project Cost		**$35,238**

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Description

Project Number:	UMSTAC02	**Title:**	STAIR SAFETY UPGRADES
Priority Sequence:	12		
Priority Class:	4		
Category Code:	AC3B	**System:**	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	STAIRS AND RAILINGS
Building Code:	UMST		
Building Name:	UMSTEAD 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

Project Description

Present legislation regarding building accessibility by the handicapped 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.

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Cost

Project Number: UMSTAC02

Task Cost Estimate

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	15	$573	$8,595	$521	$7,815	$16,410
Center handrail / guardrail system per floor	FLR	15	$1,297	$19,455	$833	$12,495	$31,950
Stair tread and landing finish upgrades per floor	FLR	15	$1,449	$21,735	$773	$11,595	$33,330
Project Totals:				**$49,785**		**$31,905**	**$81,690**

Material/Labor Cost		$81,690
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$66,501
General Contractor Mark Up at 20.0%	+	$13,300
Construction Cost		$79,801
Professional Fees at 16.0%	+	$12,768
Total Project Cost		**$92,569**

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Description

Project Number:	UMSTES02	**Title:**	EXTERIOR DOOR REPLACEMENT
Priority Sequence:	13		
Priority Class:	4		
Category Code:	ES5A	**System:**	EXTERIOR
		Component:	FENESTRATIONS
		Element:	DOORS
Building Code:	UMST		
Building Name:	UMSTEAD 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

Replacements are recommended for the exterior door systems. This project includes only the primary entrance doors. The replacement units should maintain the architectural design aspects of this facility and be modern, energy-efficient applications that will protect the interior of the building from the elements.

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Cost

Project Number: UMSTES02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
High traffic door system	LEAF	4	$1,978	$7,912	$1,999	$7,996	$15,908
Project Totals:				**$7,912**		**$7,996**	**$15,908**

Material/Labor Cost		$15,908
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$12,069
General Contractor Mark Up at 20.0%	+	$2,414
Construction Cost		$14,483
Professional Fees at 16.0%	+	$2,317
Total Project Cost		**$16,801**

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Description

Project Number:	UMSTHV01	**Title:**	EXHAUST FAN REPLACEMENT
Priority Sequence:	14		
Priority Class:	4		
Category Code:	HV4B	**System:**	HVAC
		Component:	AIR MOVING/VENTILATION
		Element:	EXHAUST FANS
Building Code:	UMST		
Building Name:	UMSTEAD RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	ASHRAE 62-2004		
Project Class:	Capital Renewal		
Project Date:	10/14/2009		
Project Location:	Floor-wide: Floor(s) R		

Project Description

The exhaust fans are recommended for replacement. The statistical life cycle for an exhaust fan is approximately twenty years. At or beyond this time, exhaust fans can incur high maintenance costs that justify replacement. Replace the existing fans with new units to include all electrical connections. Modify existing ductwork, as necessary, to accommodate the new fans.

Project Cost

Project Number: UMSTHV01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Replace centrifugal roof exhauster (MEDIUM SIZE, belt-driven)	EA	5	$1,350	$6,750	$1,300	$6,500	$13,250
Replace propeller exhaust fan (MEDIUM SIZE, belt-driven)	EA	2	$810	$1,620	$350	$700	$2,320
Replace exhaust system ductwork	CFM	7,000	$2.26	$15,820	$0.50	$3,500	$19,320
Project Totals:				**$24,190**		**$10,700**	**$34,890**

Material/Labor Cost		$34,890
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$29,848
General Contractor Mark Up at 20.0%	+	$5,970
Construction Cost		$35,818
Professional Fees at 16.0%	+	$5,731
Total Project Cost		**$41,549**

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Description

Project Number:	UMSTHV02	**Title:**	PUMP REPLACEMENT
Priority Sequence:	15		
Priority Class:	4		
Category Code:	HV5B	**System:**	HVAC
		Component:	STEAM/HYDRONIC DISTRIB.
		Element:	PUMPS
Building Code:	UMST		
Building Name:	UMSTEAD RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/14/2009		
Project Location:	Item Only: Floor(s) B		

Project Description

Replace pumps that have reached or are approaching the ends of their expected life cycle. Remove the existing pumps. Install new pump assemblies, including pump and motor, piping and electrical connections, strainer, valves, expansion joints, mounting, and hardware.

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Cost

Project Number: UMSTHV02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Replace base-mounted pump assembly (<15 HP)	HP	23	$1,779	$40,917	$1,052	$24,196	$65,113
Variable Frequency Drives (<10 hp)	HP	23	$234	$5,389	$70.00	$1,610	$6,999
Project Totals:				**$46,306**		**$25,806**	**$72,112**

Material/Labor Cost		$72,112
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$59,868
General Contractor Mark Up at 20.0%	+	$11,974
Construction Cost		$71,842
Professional Fees at 16.0%	+	$11,495
Total Project Cost		**$83,337**

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Description

Project Number:	UMSTEL01	**Title:**	INTERIOR LIGHTING UPGRADE
Priority Sequence:	16		
Priority Class:	4		
Category Code:	EL4B	**System:**	ELECTRICAL
		Component:	DEVICES AND FIXTURES
		Element:	INTERIOR LIGHTING
Building Code:	UMST		
Building Name:	UMSTEAD RESIDENCE HALL		
Subclass/Savings:	Energy Conservation $7,420		
Code Application:	NEC Articles 210, 410		
Project Class:	Capital Renewal		
Project Date:	10/14/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, B		

Project Description

An interior lighting upgrade is recommended. Replace existing aged and / or inefficient light fixtures with modern fixtures of the latest energy-efficient design. Select lamps with the same color temperatures and rendering indexes for lighting uniformity. Install occupancy sensors in select areas for additional energy conservation.

Project Cost

Project Number: UMSTEL01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
High efficiency fluorescent fixtures, occupancy sensors, and demolition of existing lighting	SF	48,512	$1.93	$93,628	$2.36	$114,488	$208,116
Project Totals:				**$93,628**		**$114,488**	**$208,116**

Material/Labor Cost		$208,116
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$153,016
General Contractor Mark Up at 20.0%	+	$30,603
Construction Cost		$183,619
Professional Fees at 16.0%	+	$29,379
Total Project Cost		**$212,998**

Specific Project Details

Facility Condition Analysis
Section Three
UMST : UMSTEAD RESIDENCE HALL

Project Description

Project Number:	UMSTSI01	**Title:**	SITE PAVING UPGRADES
Priority Sequence:	17		
Priority Class:	4		
Category Code:	SI1B	**System:**	SITE
		Component:	ACCESS
		Element:	VEHICULAR
Building Code:	UMST		
Building Name:	UMSTEAD RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG 502		
Project Class:	Capital Renewal		
Project Date:	10/16/2009		
Project Location:	Undefined: Floor(s) 1		

Project Description

Pedestrian paving systems are in overall good condition, but will need replacement in the next ten years. New systems, including excavation, grading, base compaction, and paving, are recommended. Vehicular paving systems are in fair condition and will need moderate upgrades.

Project Cost

Project Number: UMSTSI01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Concrete pedestrian paving (1000 sf minimum)	SF	4,000	$2.97	$11,880	$3.64	$14,560	$26,440
Vehicular paving wear course rehabilitation, sealcoat and striping allowance	SY	1,625	$7.91	$12,854	$3.79	$6,159	$19,013
Project Totals:				**$24,734**		**$20,719**	**$45,453**

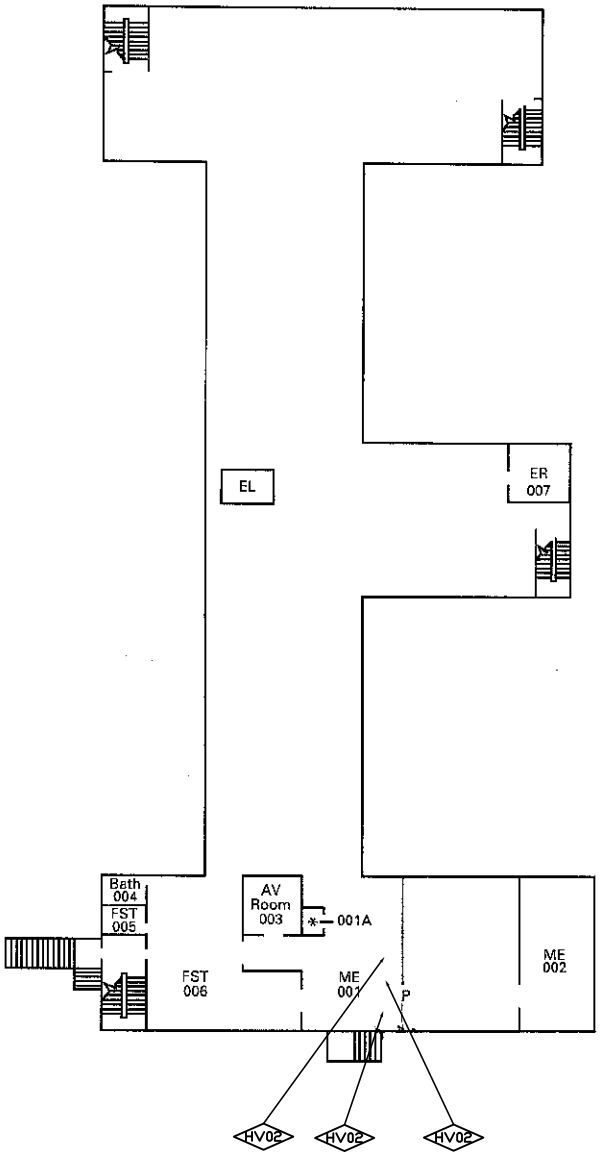
Material/Labor Cost		$45,453
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$35,536
General Contractor Mark Up at 20.0%	+	$7,107
Construction Cost		$42,643
Professional Fees at 16.0%	+	$6,823
Total Project Cost		**$49,466**

FACILITY CONDITION ANALYSIS

SECTION 4

DRAWINGS AND PROJECT LOCATIONS

EAST CAROLINA UNIVERSITY



EL01 EL02 FS01 FS02 FS03

UMSTEAD
RESIDENCE HALL

BLDG NO. UMST

ISES 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

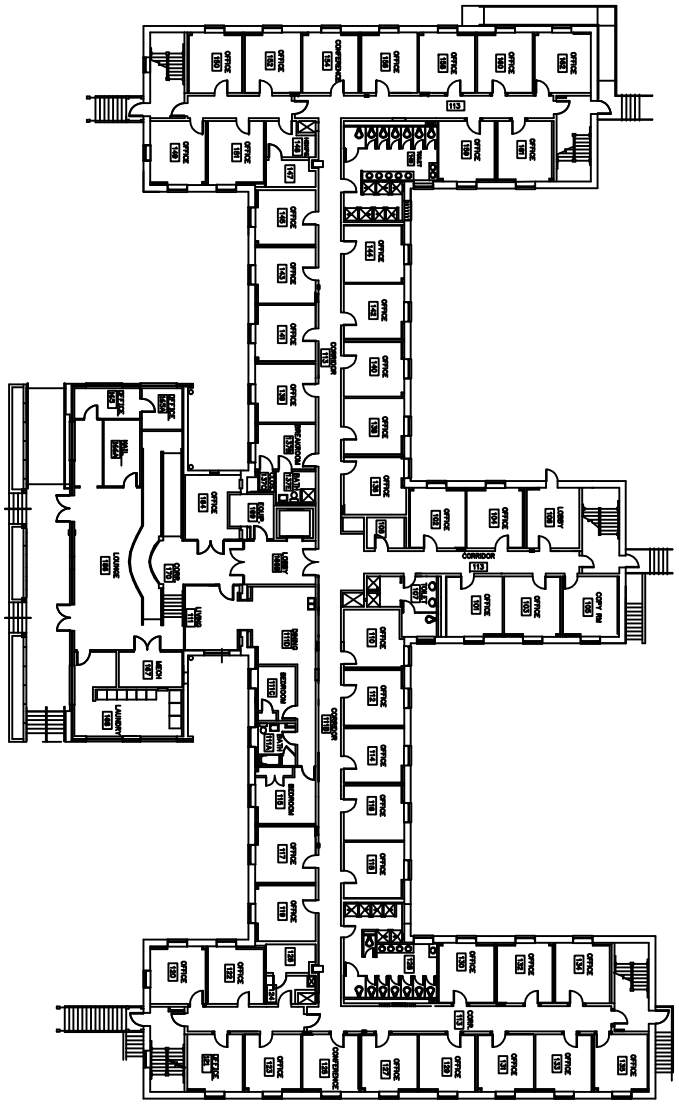
PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 12/15/09
Drawn by: J.T.V.
Project No. 09-041

BASEMENT
FLOOR
PLAN

Sheet No.
1 of 4

EAST CAROLINA UNIVERSITY



SI01 ES01 ES02

AC01 AC02 EL01 EL02 FS01 FS02

FS03 FS04 IS01 IS02 IS03

UMSTEAD
RESIDENCE HALL

BLDG NO. UMST

ISES 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

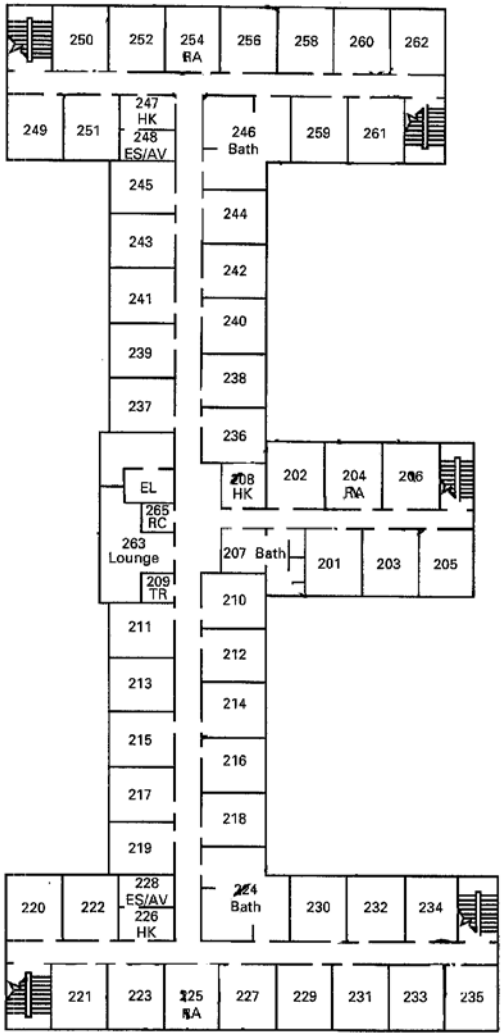
PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 12/15/09
Drawn by: J.T.V.
Project No. 09-041

FIRST
FLOOR
PLAN

Sheet No.
2 of 4

EAST CAROLINA UNIVERSITY



AC01 AC02 EL01 EL02 FS01 FS02

FS03 FS04 IS01 IS02 IS03

N

UMSTEAD
RESIDENCE HALL

BLDG NO. UMST

ISES 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

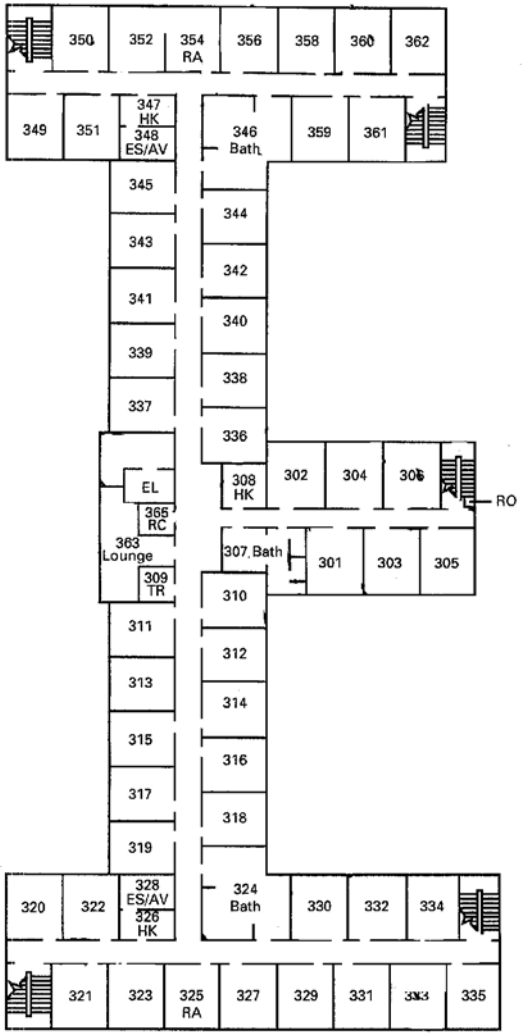
Date: 12/15/09
Drawn by: J.T.V.
Project No. 09-041

SECOND FLOOR PLAN

Sheet No.
3 of 4

EAST CAROLINA UNIVERSITY

ROOF
ES03 HV01



AC01 AC02 EL01 EL02 FS01 FS02
FS03 FS04 IS01 IS02 IS03

UMSTEAD
RESIDENCE HALL

BLDG NO. UMST

ISES 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: 12/15/09
Drawn by: J.T.V.
Project No. 09-041

THIRD FLOOR PLAN

Sheet No.
4 of 4

FACILITY CONDITION ANALYSIS

SECTION 5

LIFE CYCLE MODEL SUMMARY AND PROJECTIONS

Life Cycle Model

Building Component Summary

UMST : UMSTEAD RESIDENCE HALL

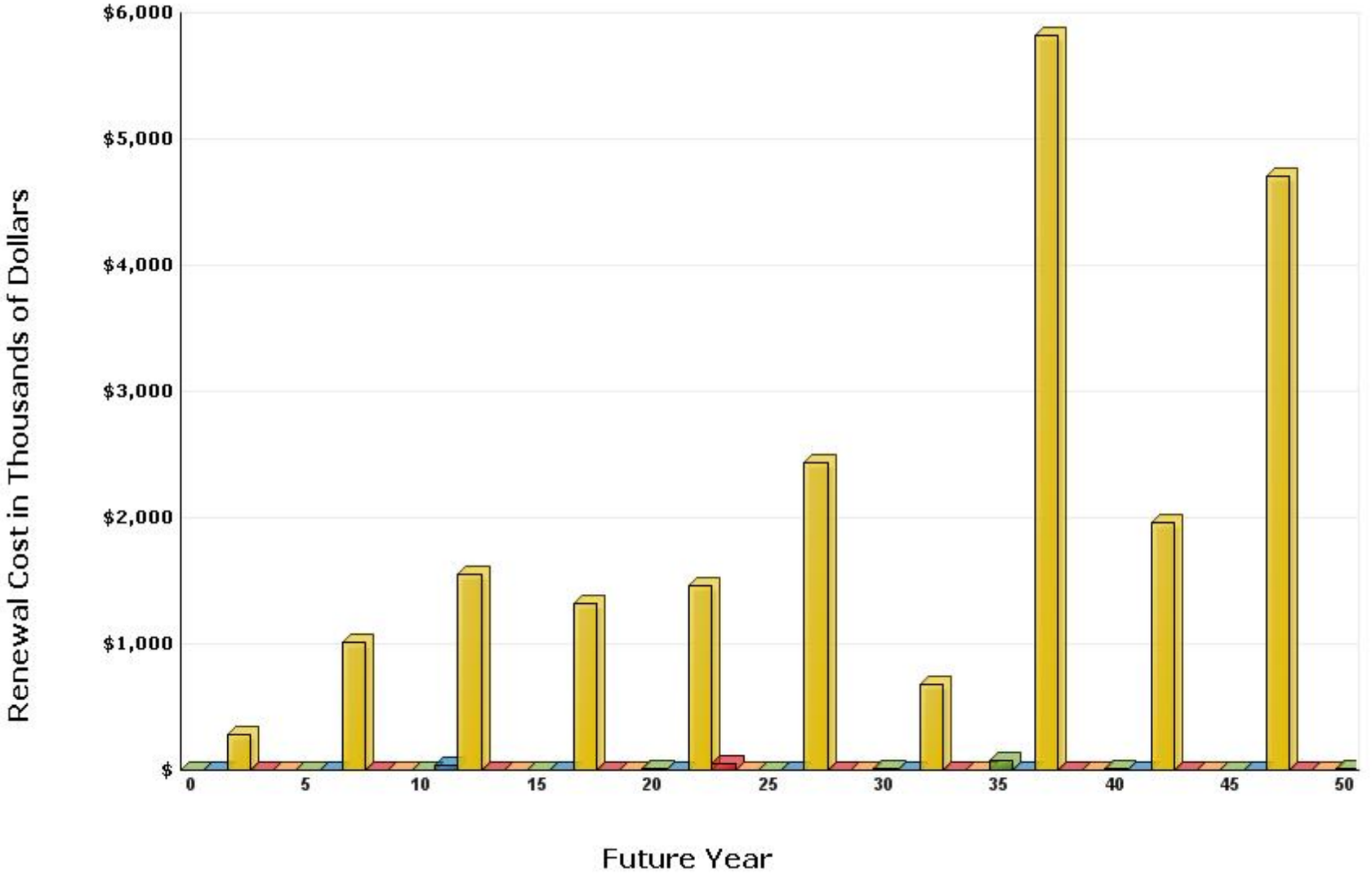
Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
B2010	EXTERIOR FINISH RENEWAL	21,840	SF	$1.30	.31	$8,826	1955	10
B2020	STANDARD GLAZING AND CURTAIN WALL	5,460	SF	$104.04		$568,040	1995	55
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	4	LEAF	$4,311.24		$17,245	1995	20
B2030	LOW TRAFFIC EXTERIOR DOOR SYSTEM	5	LEAF	$2,863.29		$14,316	1995	40
B3010	BUILT-UP ROOF	15,360	SF	$6.70		$102,952	2005	20
B3010	MEMBRANE ROOF	810	SF	$6.41		$5,190	1995	15
C1020	RATED DOOR AND FRAME INCLUDING HARDWARE	210	LEAF	$1,489.06		$312,703	1995	35
C1020	INTERIOR DOOR HARDWARE	210	EA	$423.04		$88,839	1995	15
C3010	STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.)	136,510	SF	$0.80		$109,350	1995	10
C3020	CARPET	32,990	SF	$8.75		$288,546	1995	10
C3020	VINYL FLOOR TILE	1,940	SF	$6.59		$12,780	1995	15
C3020	CERAMIC FLOOR TILE	3,880	SF	$17.36		$67,366	1995	20
C3030	PAINTED CEILING FINISH APPLICATION	38,810	SF	$0.80		$31,088	1995	15
D1010	ELEVATOR MODERNIZATION - HYDRAULIC	1	EA	$158,628.64		$158,629	1995	25
D1010	ELEVATOR CAB RENOVATION - PASSENGER	1	EA	$26,616.80		$26,617	1995	12
D2010	PLUMBING FIXTURES - DORMITORY / APARTMENTS	48,512	SF	$4.99		$241,944	1995	35
D2020	WATER PIPING - DORMITORY / APARTMENTS	48,512	SF	$3.55		$172,280	1995	35
D2020	WATER HEATER (RES., ELEC.)	80	GAL	$47.95		$3,836	2008	10
D2030	DRAIN PIPING - DORMITORY / APARTMENTS	48,512	SF	$5.40		$262,020	1995	40
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	5	EA	$2,768.62		$13,843	1995	20
D3040	EXHAUST FAN - PROPELLER TYPE OR SIMILAR	2	EA	$1,357.34		$2,715	1995	20
D3040	HVAC SYSTEM - DORMITORY / APARTMENTS	48,512	SF	$19.20		$931,378	1995	25
D3040	BASE MTD. PUMP - UP TO 15 HP	22	HP	$3,175.77		$69,867	1995	20
D5010	ELECTRICAL SYSTEM - DORMITORY / APARTMENTS	48,512	SF	$7.21		$349,648	1995	50
D5010	ELECTRICAL SWITCHGEAR 277/480V	800	AMP	$39.56		$31,651	1995	20
D5010	TRANSFORMER, DRY, 480-208V (30-150 KVA)	262	KVA	$96.00		$25,151	1995	30
D5020	EXIT SIGNS (CENTRAL POWER)	15	EA	$163.78		$2,457	1995	20
D5020	EXIT SIGNS (CENTRAL POWER)	15	EA	$163.78		$2,457	2005	20
D5020	LIGHTING - DORMITORY / APARTMENTS	48,512	SF	$4.30		$208,615	1995	20
D5030	FIRE ALARM SYSTEM, POINT ADDRESSABLE	48,512	SF	$2.61		$126,839	1995	15

Life Cycle Model
Building Component Summary
UMST : UMSTEAD RESIDENCE HALL

Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
D5040	GENERATOR, DIESEL (100-200 KW)	150	KW	$493.93	.5	$37,045	1955	25
						$4,294,231		

Life Cycle Model Expenditure Projections

UMST : UMSTEAD RESIDENCE HALL



Average Annual Renewal Cost Per SqFt $3.67

FACILITY CONDITION ANALYSIS

SECTION 6

PHOTOGRAPHIC LOG

Photo Log - Facility Condition Analysis

UMST : UMSTEAD RESIDENCE HALL

Photo ID No	Description	Location	Date
UMST001a	Roof detail	Roof	9/10/2009
UMST001e	Air handling equipment	Roof	9/10/2009
UMST002a	Roof detail	Roof	9/10/2009
UMST002e	Exhaust fan	Roof	9/10/2009
UMST003a	Roof detail	Roof	9/10/2009
UMST003e	Exhaust fan	Roof	9/10/2009
UMST004a	Lower roof	Roof	9/10/2009
UMST004e	Exhaust fans and air handling equipment	Roof	9/10/2009
UMST005a	Stairwell design	Third floor	9/10/2009
UMST005e	Interior lighting and fire alarm devices	Third floor, corridor	9/10/2009
UMST006a	Stairwell design	Third floor	9/10/2009
UMST006e	Water closet	Third floor, restroom	9/10/2009
UMST007a	Window detail	Third floor	9/10/2009
UMST007e	Lavatories	Third floor, restroom	9/10/2009
UMST008a	Door hardware and signage	Third floor	9/10/2009
UMST008e	Shower components	Third floor, restroom	9/10/2009
UMST009a	Interior corridor finishes	Third floor	9/10/2009
UMST009e	Interior lighting and fire alarm devices	Third floor, room 363	9/10/2009
UMST010a	Window detail	Third floor	9/10/2009
UMST010e	Secondary electrical panel	Second floor, corridor	9/10/2009
UMST011a	Single-level drinking fountain	Third floor	9/10/2009
UMST011e	Electrical outlet	Second floor, corridor	9/10/2009
UMST012a	Interior corridor finishes	Second floor	9/10/2009
UMST012e	Fan coil unit	Second floor, room 263	9/10/2009
UMST013a	Interior corridor finishes	First floor	9/10/2009
UMST013e	Service sink	Second floor, janitor's closet	9/10/2009
UMST014a	Interior corridor finishes	First floor	9/10/2009
UMST014e	Air handling equipment	First floor, room 167	9/10/2009
UMST015a	North facade	Exterior elevation	9/10/2009
UMST015e	Air handling equipment	First floor, room 164	9/10/2009
UMST016a	North facade	Exterior elevation	9/10/2009
UMST016e	Water heater	First floor, room 164	9/10/2009
UMST017a	North facade	Exterior elevation	9/10/2009

Photo Log - Facility Condition Analysis

UMST : UMSTEAD RESIDENCE HALL

Photo ID No	Description	Location	Date
UMST017e	Interior lighting	First floor, room 166	9/10/2009
UMST018a	North facade	Exterior elevation	9/10/2009
UMST018e	Fire alarm panel	First floor, room 165	9/10/2009
UMST019a	North facade	Exterior elevation	9/10/2009
UMST019e	Electrical wiring	First floor, room 128	9/10/2009
UMST020a	North facade	Exterior elevation	9/10/2009
UMST020e	Drain piping	Crawlspace	9/10/2009
UMST021a	West facade	Exterior elevation	9/10/2009
UMST021e	Pump equipment	Basement, mechanical room	9/10/2009
UMST022a	South facade	Exterior elevation	9/10/2009
UMST022e	Pump equipment	Basement, mechanical room	9/10/2009
UMST023a	South facade	Exterior elevation	9/10/2009
UMST023e	Exhaust fan	Basement, mechanical room	9/10/2009
UMST024a	South facade	Exterior elevation	9/10/2009
UMST024e	HVAC controls	Basement, mechanical room	9/10/2009
UMST025a	South patio handrails	Exterior elevation	9/10/2009
UMST025e	Drain piping	Tunnel	9/10/2009
UMST026a	South facade	Exterior elevation	9/10/2009
UMST026e	Main incoming electrical equipment	Basement, mechanical room	9/10/2009
UMST027a	South facade	Exterior elevation	9/10/2009
UMST027e	Exhaust fan	Basement, mechanical room	9/10/2009
UMST028a	East facade	Exterior elevation	9/10/2009
UMST028e	Transformers	Basement, mechanical room	9/10/2009
UMST029e	Exterior lighting	Exterior	9/10/2009
UMST030e	Exterior lighting	Exterior	9/10/2009

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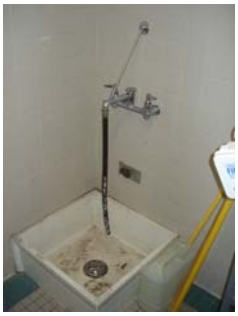
UMST013A.jpg



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UMST029E.jpg

UMST030E.jpg