

# EAST CAROLINA UNIVERSITY

## TYLER RESIDENCE HALL

ASSET CODE: TYLE

FACILITY CONDITION ANALYSIS

DECEMBER 18, 2009





EAST CAROLINA UNIVERSITY  
Facility Condition Analysis

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# FACILITY CONDITION ANALYSIS

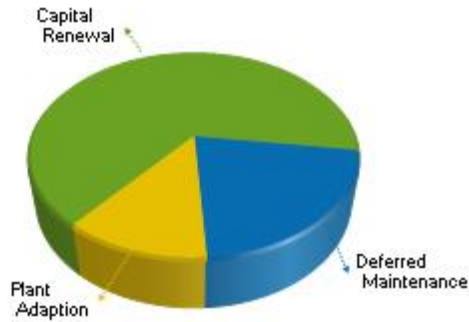
## SECTION 1

### GENERAL ASSET INFORMATION



## EXECUTIVE SUMMARY - TYLER RESIDENCE HALL

### PROJECT COSTS BY CLASSIFICATION



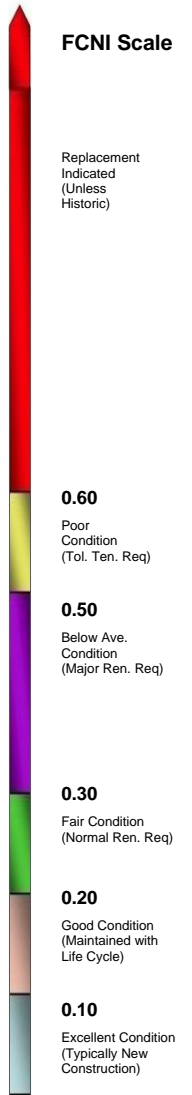
**Building Code:** TYLE  
**Building Name:** TYLER RESIDENCE HALL  
**Year Built:** 1969  
**Building Use:** Dormitory / Apartments  
**Square Feet:** 96,105

### Project Costs by Priority

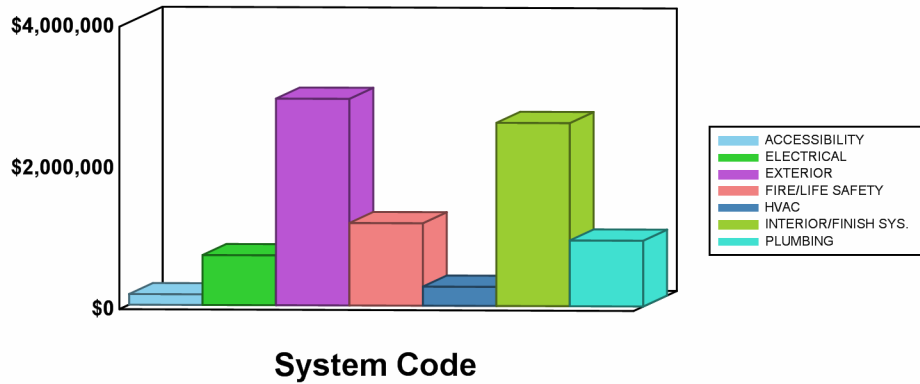
**Priority 1:** \$0  
**Priority 2:** \$839,995  
**Priority 3:** \$6,898,727  
**Priority 4:** \$1,012,855  
**Total Project Costs:** **\$8,751,577**

**Facility Replacement Cost:** **\$29,851,000**

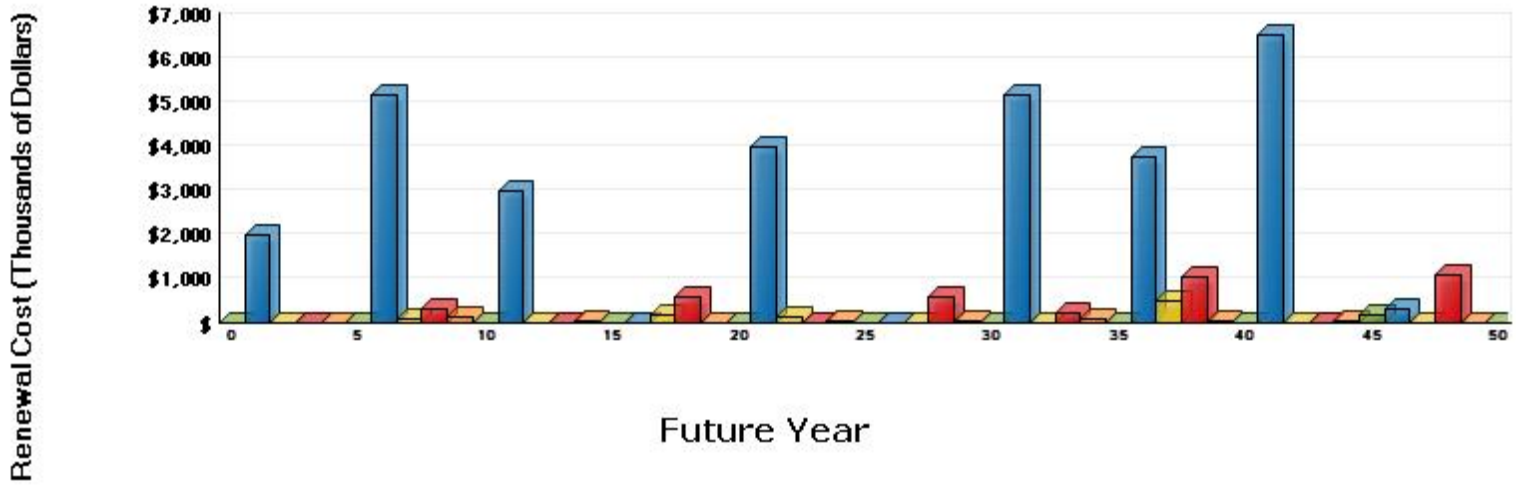
**Facility Condition Needs Index (FCNI):** **0.29**  
 (Project Costs / Replacement Cost)



### PROJECT COSTS BY SYSTEM CODE



### LIFE CYCLE MODEL EXPENDITURE PROJECTIONS



**Average Annual Renewal Cost Per SqFt \$3.78**





## B. ASSET SUMMARY

The Tyler Residence Hall building, located on the central portion of the main campus of the East Carolina University in Greenville, North Carolina, is reported to have been originally constructed in 1969, with multiple renovations over the ensuing years. The last major refurbishment / renovation was reportedly completed more than fifteen years ago, and the facility staff report that the building is scheduled for significant upgrades over the next two years. This building contains 96,105 square feet of area and ten levels of dormitory and communal space. There are nine levels above grade with a partial area basement level that is primarily utilized as a common area lounge and for storage and mechanical equipment. The reinforced cast-in-place concrete foundation supports an exposed cast-in-place concrete structural frame and architectural precast panel facade.

Information for this report was gathered during a site inspection that concluded on September 17, 2009.

### SITE

This residential building is sited on a relatively flat parcel of land in the central campus area adjacent to the Todd Dining Hall and other residential buildings. Portions of the general site area around this building are reasonably well landscaped, appear to be adequately maintained, and are in overall good condition. It is predominantly planted with turf grasses, ornamental shrubbery, accent planting beds, and a few specimen trees. Irrigation systems are noted to serve the landscaped areas, and there is evidence that they are operating effectively due to the corresponding good condition of the plant materials.

Storm water drainage systems around the building include graded swales, diversion curbs, underground collection and piping systems, and controlled surface run-off, that all appear to adequately divert water away from the structure. No significant storm water issues that appear to have negatively impacted the building were observed during the on-site review. There are some low areas around the southwest building corner due to recent excavation efforts.

There is no on-site vehicular parking located at the building site other than a limited number of ADA and service vehicle parking spaces on the western end of the site. A very small designated service vehicle and loading area is located in the rear of the building at the west elevation of the building, and it appears to be barely adequate for the service needs of the facility.

Pedestrian access to the facility is supported by concrete sidewalk systems in the immediate area of the facility providing ADA-compliant access to and from adjacent buildings and parking areas. These pedestrian pavements are generally in good condition, with no immediate repairs necessary.

### EXTERIOR STRUCTURE

The building structure is apparently supported by soil bearing spread and deep foundation footings that shows no visible evidence of displacement or structural distress. The primary building structural frame is reinforced concrete. The architectural exposed concrete frame, exterior components and precast

architectural panels have become visibly soiled and the construction joints are failing. Cleaning, surface preparation, selective repairs, and applied finish upgrades are recommended to restore the aesthetics and integrity of the building envelope.

The low roof overhangs have a stucco finish. The substrate is sound, but exposure to the elements has deteriorated the troweled stucco finish. There are numerous cracks and substantial color variation. Selective substrate repairs, surface preparation, troweled finish application, and painting are recommended to restore the aesthetics and integrity of the building envelope.

It is recommended that the aged and inefficient exterior door systems be replaced. This effort includes the primary and secondary entrance and service doors. The replacement units should maintain the architectural design aspects of this facility. They should be modern, energy-efficient applications that will protect the interior of the building from the elements.

The aluminum-framed windows and the composite panel window wall system dates from original construction and are recommended for replacement. The new window wall system should retain the architectural aesthetic of the building and incorporate modern energy-efficient features such as thermal panes. Replacement of windowsills and trim may also necessary as part of the overall effort.

The flat roof includes a single primary level with a multi-ply built-up membrane roofing system that is currently in relatively good condition and expected to perform consistently with its life cycle performance through the end of the current review period. Interim inspections and routine maintenance of flashings, parapets, sealants, and other components will be required to achieve the full effective useful life of the roofing system.

The roofing area associated drainage inlets, guttering and downspout systems appear to be adequately channeling rainwater from the flat membrane roof to ground level storm water collection systems via an internal piping system. No upgrades are necessary in this area.

## INTERIOR FINISHES / SYSTEMS

The predominant ceiling systems in the building include non standard sized suspended, acoustical tile ceilings in the main dormitory floor corridors. There are limited areas of standardized suspended, acoustical tile ceilings in the main floor common areas. The dormitory rooms, shared restrooms, and other service areas have painted plaster ceiling systems. The back of house service areas, mechanical and electrical rooms, and unoccupied storage areas have exposed open structure ceilings and painted gypsum board or plaster ceilings.

The interior partitions are typically painted concrete unit masonry (CMU) and framed stud and trowel applied cementitious plaster walls, and assemblies with a painted and tiled applied finish. The predominant flooring finishes in this building include carpeting the corridors, dormitory rooms, and common lobby areas. Much of the carpeting was installed over older vinyl composition tiles (VCT) finishes. There is VCT in the service areas and some storage areas, and ceramic flooring tiles in the shared common restrooms and showers. The back of house service areas, mechanical and electrical rooms, and unoccupied storage areas typically have either VCT or natural sealed concrete flooring surfaces.

While some areas of the existing ceilings, wall partitions, and flooring finish systems in most areas of the building, particularly in recently renovated areas, are well maintained and acceptable in appearance, routine

and periodic refinishing and selective replacements are required to maintain quality institutional appearances. There are other areas in the building where these finish systems have exceeded their effective useful life cycles and are in poor condition with appearances that detract from the overall quality of the facility. Near term upgrades, repairs and renovations, and finish system replacements should be undertaken to maintain quality institutional appearances.

The condition of the interior door systems is such that door system replacements are recommended as part of a comprehensive renovation effort. Complete demolition of the existing door systems and replacement according to a code-compliant plan to properly protect egress passages is recommended. The in-place doors typically date from original construction and are only 32 inches in width.

The shared restrooms on each floor have fixtures and finishes that are mostly original to the year of construction and some partial subsequent renovations. The fixtures are sound but aged and inefficient. The finishes are outdated and deteriorating in some areas. A comprehensive restroom renovation, including new fixtures, finishes, partitions, accessories, and associated common corridor dual-level drinking fountains, is recommended. All future renovations should be upgraded to provide full compliance with ADA accessibility guidelines.

## ACCESSIBILITY

The primary building entrance provides compliant grade-level access to the building's main floor lobby area. Some of the secondary entrances incorporate ramps and steps. Current legislation related to accessibility requires that building entrances and egress routes be ADA accessible. To comply with the intent of this legislation, it is recommended that compliant painted metal handrails be installed at all entrances as required. Remove and replace the existing non-compliant railings, and add railings at site steps as required to meet guidelines. In addition, add an auto door operator at the main entry to facilitate building entry by the disabled.

Present accessibility legislation requires that building amenities be generally accessible to all persons. The configuration of common area, shared kitchen on the first floor presents barriers to accessibility. The installation of wheelchair-accessible kitchenette cabinetry and associated amenities is recommended where applicable.

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, guards 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 guard design relative to current standards. Future renovation efforts should include comprehensive stair railing and finish upgrades.

The building interior accessible routes generally have wall-mounted informational and directional signage designed for compliance with ADA accessibility standards. No upgrades are necessary for the signage during the timeframe covered by this report.

The antiquated drinking fountains located throughout the building are generally non-compliant with ADA accessibility standards providing single height fountains for public use. These older drinking fountains should be replaced with dual height units to provide ADA compliant fountains. The adjacent corridor walls at

the newly installed fountains may require new alcove construction to provide adequate floor area access. This work is included in the proposed restroom upgrade detailed in the Interior Finishes section of this report.

## HEALTH

No health related issues were observed or reported by facility personnel at the time of the on-site review for this building. Therefore, no Health category recommendations or assessment comments are included in this report.

Based on the availability of construction materials at the time the building structure was erected, it is possible that asbestos containing materials (ACM), lead based paints, and other environmentally negative components may have been used in the original construction of the building. It is recommended that suspected items be tested and, if found to contain asbestos, abated and disposed of according to all applicable national, state, and local regulations. Based on the lack of reliable data provided by the university, any prior completed or future abatement upgrades are not included in the scope of this report.

## FIRE / LIFE SAFETY

The present floor plan arrangement has the elevator lobbies opening into the existing hall corridors. IBC 2000 states that elevators opening into a fire resistant corridor shall be provided with an elevator lobby at each floor containing such a corridor. The lobby should completely separate the elevators from the corridor with rated partitions. The elevator lobbies need to have at least one means of egress and contain smoke detectors. This upgrade recommends the construction of fire resistant barriers with automatically closing fire doors between the elevator lobbies and the corridors to provide the required separation and protection.

This building appears to have adequate and reasonable egress paths consistent with the age and compliance with building codes at the time of construction / renovation. No apparent building egress deficiencies, obstructed egress pathways or visible compromises to fire rated assemblies in the egress corridors were observed during the limited on-site review of the building.

This facility is protected by a central fire alarm system. The point addressable panel was manufactured by Notifier and is located in basement room ME 002. The devices that serve this system include manual pull stations, audible / visible devices, and smoke detectors. The fire alarm system will reach the end of its expected service life within the term of this analysis. A proposed upgrade provides for life cycle replacement and update of this system.

This building is not protected by an automatic fire suppression system. Manual, dry chemical fire extinguishers are available. However, it is recommended that an automatic fire suppression system be installed throughout the facility. This effort will reduce overall liability and potential for loss. This upgrade includes installation of a fire pump.

The exit signs in this facility are LED-illuminated and connected to the emergency power network. Standard interior light fixtures connected to the emergency power network provide egress lighting. All emergency lighting systems are adequate and in good condition. There are no proposed upgrades to these systems.

## HVAC

This facility is on the campus steam loop. Shell-and-tube heat exchangers use steam to produce heating hot water for the radiant heating units throughout the building. Split system air conditioners and a DX air handling unit on the roof serve the common areas. These systems are of relatively recent manufacture and should remain adequate with limited selective component replacements through the next ten years. No capital upgrades are proposed for these systems at this time.

Cooling and ventilation for individual dormitory rooms are provided by window air conditioning units. These units are rated 8,400 BTUH and are in good working order. However, it should be anticipated that they will require normal life cycle replacement within the coverage of this report.

## ELECTRICAL

The recently installed main distribution panel for the electrical system is rated for 2,000 amp service and supplies 120/208 volt power to the distribution system. The panel was installed to provide additional capacity for the building's air conditioning systems and relieves the previous 800 amp main panel of selected other loads as well. The old main panel, manufactured by GE, remains in service, supplying feeders to other original subpanels throughout the building. These aging panels were also predominantly manufactured by General Electric and, as with other original circuit devices and equipment in the building, show expected wear. Over time, physical wear, electrical stresses, and metal fatigue degrade electrical contact surfaces and sensitive trip mechanisms, rendering older circuit breakers and devices more prone to failure and increase the risk of fire or losses. A proposed upgrade of the secondary distribution system addresses these concerns.

The interior spaces of this facility are illuminated by fixtures that utilize T8 fluorescent lamps. The fluorescent fixtures are predominantly lay-in applications with acrylic lenses. Some areas have surface-mounted fixtures with wrap-around prismatic lenses. These fixtures are in good condition overall, with attractive new types in the lobby and other common areas. No major upgrades are proposed at this time.

Exterior lighting is provided by fixtures that are located in the surrounding site. These applications are sufficient. There are no recommended exterior lighting improvements needed during the timeframe covered by this assessment.

Emergency power is provided at 120/208 volts by a 200 kW, diesel generator located outside of the building. Manufactured in 2004 by Caterpillar Olympian, this unit should remain a reliable source of power well beyond the period of this report.

## PLUMBING

Potable water for the building is distributed through a copper piping network. Sanitary waste and storm water piping is of cast-iron, bell-and-spigot construction. The supply and drain piping networks have depleted their expected service lives. Replacement of these networks is recommended. This work should be coordinated to the extent possible with other major renovations, such as the proposed sprinkler system installation and any major plumbing renovations.

Domestic water for this facility is heated using steam and a shell-and-tube heat exchanger. This unit has served beyond its expected service life and is recommended for replacement within the timeframe covered by this assessment.

A packaged booster pump system with two 10 HP pumps provides the needed domestic water pressure for the building. This system is aged and should be replaced to insure continued reliable water service throughout the building.

#### 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 17, 2009

**INSPECTION TEAM PERSONNEL:**

<u>NAME</u>	<u>POSITION</u>	<u>SPECIALTY</u>
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:**

<u>NAME</u>	<u>POSITION</u>
William Bagwell	Associate Vice Chancellor, Campus Operations

**REPORT DEVELOPMENT:**

Report Development by: ISES Corporation  
2165 West Park Court  
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.

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

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:

	<u>PRIORITY CLASS 1</u>	
CODE	PROJECT NO.	PRIORITY SEQUENCE
HV2C	0001HV04	01
PL1D	0001PL02	02

	<u>PRIORITY CLASS 2</u>	
CODE	PROJECT NO.	PRIORITY SEQUENCE
IS1E	0001IS06	03
EL4C	0001EL03	04

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

### PRIORITY 1 - Currently Critical (Immediate)

Projects in this category require immediate action to:

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

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

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

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

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

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

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

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

## 6. COST SUMMARIES AND TOTALS

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

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

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

#### Global Markup Percentages

#### R.S. MEANS

Local Labor Index:	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

<u>Building Number</u>	<u>Photo Sequence</u>	<u>Arch / Eng / VT</u>
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**

AC1A - AC4B  
EL1A - EL8A  
ES1A - ES6E  
FS1A - FS6A  
HE1A - HE7A  
HV1A - HV8B  
IS1A - IS6D  
PL1A - PL5A  
SI1A - SI4A  
SS1A - SS7A  
VT1A - VT7A

**SYSTEM DESCRIPTION**

ACCESSIBILITY  
ELECTRICAL  
EXTERIOR STRUCTURE  
FIRE / LIFE SAFETY  
HEALTH  
HVAC  
INTERIOR FINISHES / SYSTEMS  
PLUMBING  
SITE  
SECURITY SYSTEMS  
VERTICAL TRANSPORTATION

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
<b>SYSTEM DESCRIPTION: ACCESSIBILITY</b>			
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.
<b>SYSTEM DESCRIPTION: ELECTRICAL</b>			
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.
<b>SYSTEM DESCRIPTION: EXTERIOR</b>			
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	DAMP/PROOFING/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.
<b>SYSTEM DESCRIPTION: FIRE / LIFE SAFETY</b>			
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.
<b>SYSTEM DESCRIPTION: HEALTH</b>			
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.
HE6A	HAZARDOUS MATERIAL	STRUCTURAL ASBESTOS	Testing, abatement and disposal of structural and building finish materials containing asbestos.

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
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.
<b>SYSTEM DESCRIPTION: HVAC</b>			
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 UPGRADE	Replacement of HVAC control systems.



CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
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.
<b>SYSTEM DESCRIPTION: INTERIOR FINISHES / SYSTEMS</b>			
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 covers, phone booths, interior light wells, etc.
<b>SYSTEM DESCRIPTION: PLUMBING</b>			
PL1A	DOMESTIC WATER	PIPING NETWORK	Repair or replacement of domestic water supply piping network, insulation, hangers, etc.

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
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.
<b>SYSTEM DESCRIPTION: SITE</b>			
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.
<b>SYSTEM DESCRIPTION: SECURITY SYSTEMS</b>			
SS1A	LIGHTING	EXTERIOR	Fixtures, stanchions, foliage interference, cleanliness, locations, etc.
SS2A	SITE	FENCING	Perimeter campus fencing, individual building fencing, includes both pedestrian and vehicular control fences.

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
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  
 TYLE : TYLER RESIDENCE HALL**

System Code	System Description	Priority Classes				Subtotal
		1	2	3	4	
AC	ACCESSIBILITY	0	0	10,555	140,472	151,027
EL	ELECTRICAL	0	0	707,531	0	707,531
ES	EXTERIOR	0	0	2,926,710	0	2,926,710
FS	FIRE/LIFE SAFETY	0	839,995	257,762	70,781	1,168,538
HV	HVAC	0	0	0	271,589	271,589
IS	INTERIOR/FINISH SYS.	0	0	2,593,980	0	2,593,980
PL	PLUMBING	0	0	402,189	530,013	932,202
	<b>TOTALS</b>	0	839,995	6,898,727	1,012,855	8,751,577

<b>Facility Replacement Cost</b>	<b>\$29,851,000</b>
<b>Facility Condition Needs Index</b>	<b>0.29</b>

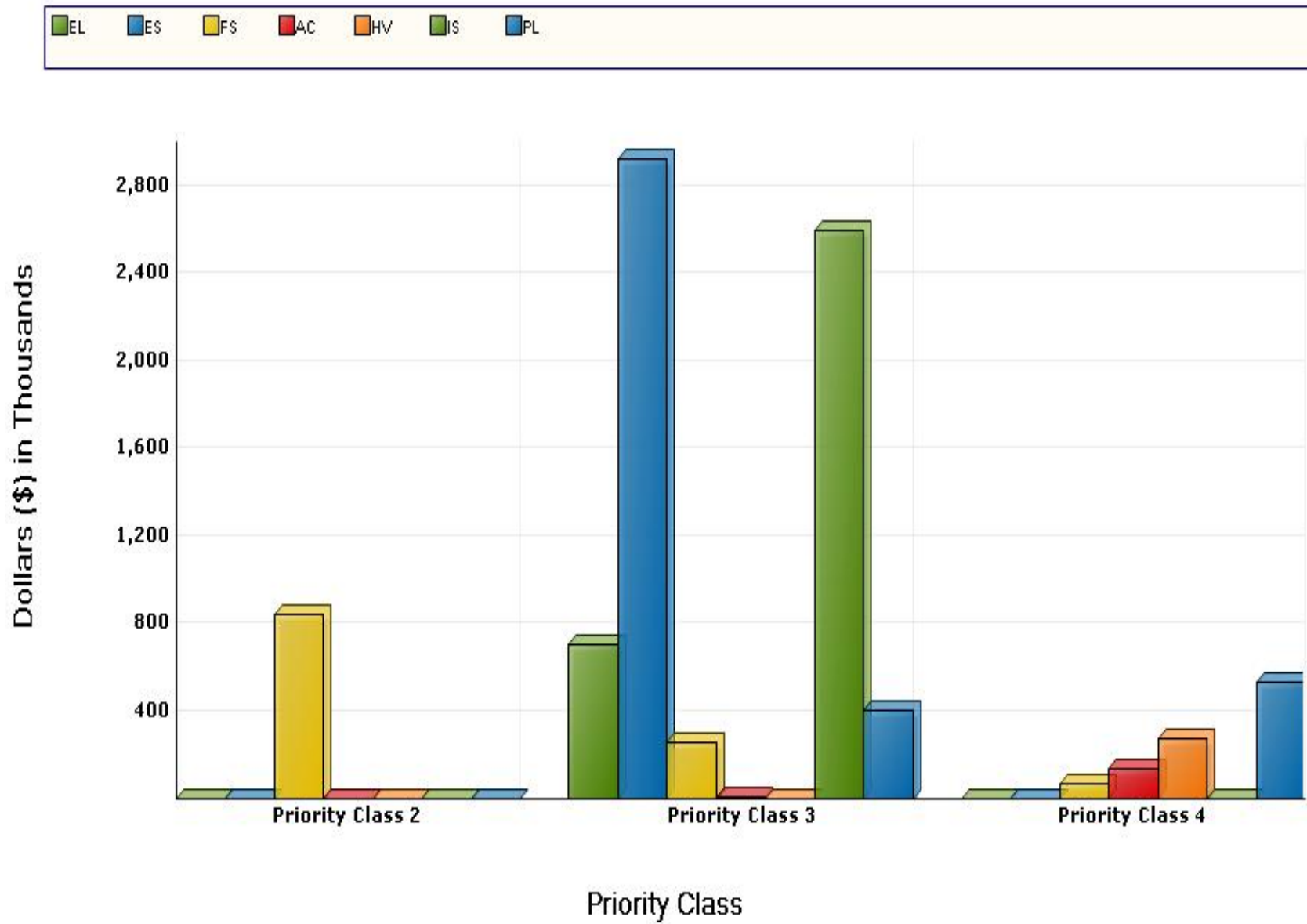
<b>Gross Square Feet</b>	<b>96,105</b>
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<b>Total Cost Per Square Foot</b>	<b>\$91.06</b>
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# FACILITY CONDITION ANALYSIS

## System Code by Priority Class

TYLE : TYLER RESIDENCE HALL



**Detailed Project Totals  
 Facility Condition Analysis  
 System Code by Project Class  
 TYLE : TYLER RESIDENCE HALL**

System Code	System Description	Project Classes			Subtotal
		Capitla Renewal	Deferred Maintenance	Plant Adaption	
AC	ACCESSIBILITY	0	0	151,027	151,027
EL	ELECTRICAL	707,531	0	0	707,531
ES	EXTERIOR	2,839,881	86,829	0	2,926,710
FS	FIRE/LIFE SAFETY	257,762	0	910,775	1,168,538
HV	HVAC	271,589	0	0	271,589
IS	INTERIOR/FINISH SYS.	1,174,565	1,419,415	0	2,593,980
PL	PLUMBING	530,013	402,189	0	932,202
	<b>TOTALS</b>	5,781,341	1,908,433	1,061,802	8,751,577

<b>Facility Replacement Cost</b>	<b>\$29,851,000</b>
<b>Facility Condition Needs Index</b>	<b>0.29</b>

<b>Gross Square Feet</b>	<b>96,105</b>
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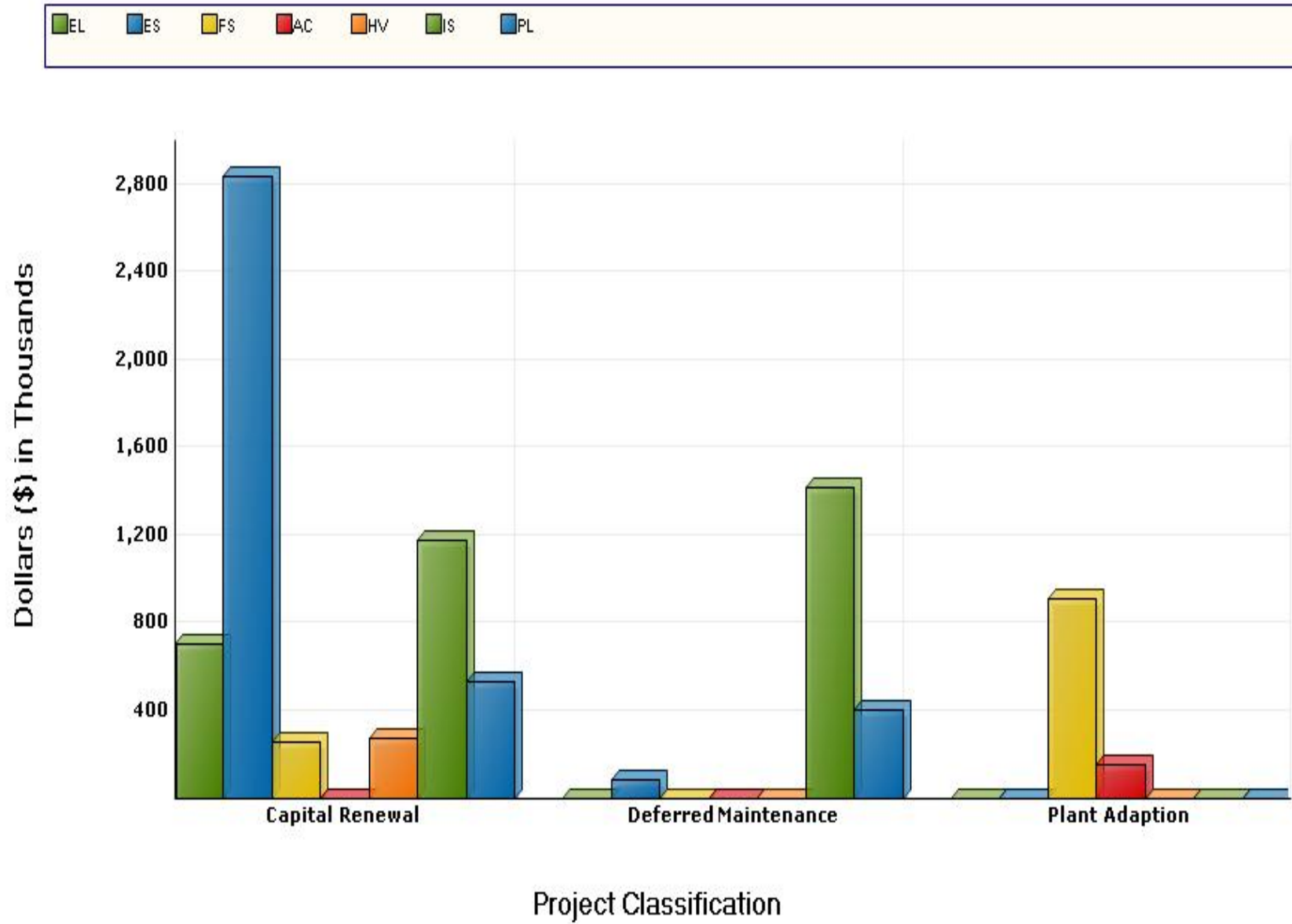
<b>Total Cost Per Square Foot</b>	<b>\$91.06</b>
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# FACILITY CONDITION ANALYSIS

## System Code by Project Class

TYLE : TYLER RESIDENCE HALL



**Detailed Project Summary**  
**Facility Condition Analysis**  
**Project Class by Priority Class**  
**TYLE : TYLER RESIDENCE HALL**

Project Class	Priority Classes				Subtotal
	1	2	3	4	
Capital Renewal	0	0	4,979,739	801,602	5,781,341
Deferred Maintenance	0	0	1,908,433	0	1,908,433
Plant Adaption	0	839,995	10,555	211,253	1,061,802
<b>TOTALS</b>	0	839,995	6,898,727	1,012,855	8,751,577

Facility Replacement Cost	\$29,851,000
Facility Condition Needs Index	0.29

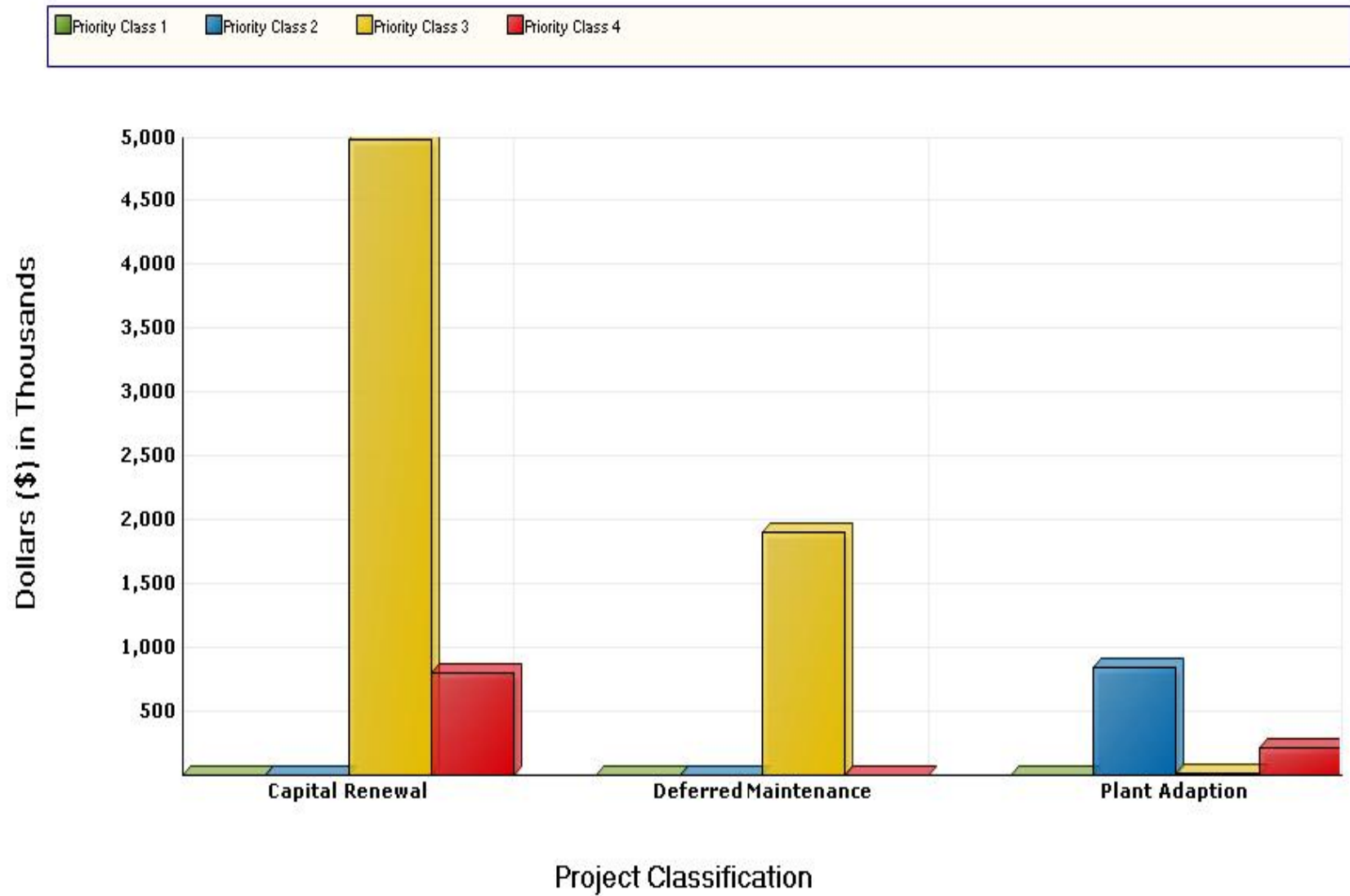
Gross Square Feet	96,105
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Total Cost Per Square Foot	\$91.06
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# FACILITY CONDITION ANALYSIS

## Project Class by Priority Class

TYLE : TYLER RESIDENCE HALL



Detailed Project Summary  
Facility Condition Analysis  
**Priority Class - Priority Sequence**  
TYLE : TYLER RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS3A	TYLEFS02	2	1	FIRE SPRINKLER SYSTEM INSTALLATION	724,133	115,861	839,995
<b>Totals for Priority Class 2</b>					<b>724,133</b>	<b>115,861</b>	<b>839,995</b>
FS2A	TYLEFS01	3	2	FIRE ALARM SYSTEM REPLACEMENT	222,209	35,553	257,762
AC2A	TYLEAC01	3	3	BUILDING ENTRY ACCESSIBILITY UPGRADES	9,099	1,456	10,555
ES5A	TYLEES03	3	4	EXTERIOR DOOR REPLACEMENT	31,802	5,088	36,890
ES2B	TYLEES02	3	5	STUCCO SOFFIT FINISH UPGRADES	2,980	477	3,457
ES2B	TYLEES01	3	6	RESTORE EXPOSED CONCRETE FINISH	40,071	6,411	46,482
ES5B	TYLEES04	3	7	PANELIZED WINDOW WALL REPLACEMENT	2,448,173	391,708	2,839,881
EL3B	TYLEEL01	3	8	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	609,941	97,591	707,531
IS4A	TYLEIS04	3	9	REPLACE INTERIOR DOORS	423,025	67,684	490,709
IS6D	TYLEIS05	3	10	MAJOR UPGRADE AND RESTROOM RENOVATIONS	800,609	128,097	928,706
IS1A	TYLEIS01	3	11	REFINISH FLOORING	687,308	109,969	797,278
IS2B	TYLEIS02	3	12	REFINISH WALLS	242,719	38,835	281,554
IS3B	TYLEIS03	3	13	REFINISH CEILINGS	82,529	13,205	95,733
PL1A	TYLEPL02	3	14	WATER SUPPLY PIPING REPLACEMENT	301,004	48,161	349,165
PL1E	TYLEPL01	3	15	DOMESTIC HOT WATER HEAT EXCHANGER REPLACEMENT	30,077	4,812	34,889
PL1B	TYLEPL04	3	16	DOMESTIC WATER BOOSTER PUMP REPLACEMENT	15,634	2,501	18,135
<b>Totals for Priority Class 3</b>					<b>5,947,179</b>	<b>951,549</b>	<b>6,898,727</b>
FS5C	TYLEFS03	4	17	ELEVATOR LOBBY CORRECTIONS	61,018	9,763	70,781
AC4A	TYLEAC02	4	18	KITCHENETTE ACCESSIBILITY UPGRADES	8,216	1,314	9,530
AC3B	TYLEAC03	4	19	STAIR SAFETY UPGRADES	112,881	18,061	130,942
HV3C	TYLEHV01	4	20	REPLACE WINDOW AIR CONDITIONERS	234,128	37,461	271,589
PL2A	TYLEPL03	4	21	DRAIN PIPING REPLACEMENT	456,908	73,105	530,013
<b>Totals for Priority Class 4</b>					<b>873,151</b>	<b>139,704</b>	<b>1,012,855</b>
<b>Grand Total:</b>					<b>7,544,463</b>	<b>1,207,114</b>	<b>8,751,577</b>

**Detailed Project Summary**  
**Facility Condition Analysis**  
**Project Cost Range**  
 TYLE : TYLER RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC2A	TYLEAC01	3	3	BUILDING ENTRY ACCESSIBILITY UPGRADES	9,099	1,456	10,555
ES2B	TYLEES01	3	6	RESTORE EXPOSED CONCRETE FINISH	40,071	6,411	46,482
ES2B	TYLEES02	3	5	STUCCO SOFFIT FINISH UPGRADES	2,980	477	3,457
ES5A	TYLEES03	3	4	EXTERIOR DOOR REPLACEMENT	31,802	5,088	36,890
IS3B	TYLEIS03	3	13	REFINISH CEILINGS	82,529	13,205	95,733
PL1E	TYLEPL01	3	15	DOMESTIC HOT WATER HEAT EXCHANGER REPLACEMENT	30,077	4,812	34,889
PL1B	TYLEPL04	3	16	DOMESTIC WATER BOOSTER PUMP REPLACEMENT	15,634	2,501	18,135
<b>Totals for Priority Class 3</b>					<b>212,191</b>	<b>33,951</b>	<b>246,141</b>
AC4A	TYLEAC02	4	18	KITCHENETTE ACCESSIBILITY UPGRADES	8,216	1,314	9,530
FS5C	TYLEFS03	4	17	ELEVATOR LOBBY CORRECTIONS	61,018	9,763	70,781
<b>Totals for Priority Class 4</b>					<b>69,233</b>	<b>11,077</b>	<b>80,311</b>
<b>Grand Totals for Projects &lt; 100,000</b>					<b>281,424</b>	<b>45,028</b>	<b>326,452</b>

**Detailed Project Summary**  
**Facility Condition Analysis**  
**Project Cost Range**  
 TYLE : TYLER RESIDENCE HALL

<b>Cat. Code</b>	<b>Project Number</b>	<b>Pri Cls</b>	<b>Pri Seq</b>	<b>Project Title</b>	<b>Construction Cost</b>	<b>Professional Fee</b>	<b>Total Cost</b>
IS2B	TYLEIS02	3	12	REFINISH WALLS	242,719	38,835	281,554
IS4A	TYLEIS04	3	9	REPLACE INTERIOR DOORS	423,025	67,684	490,709
FS2A	TYLEFS01	3	2	FIRE ALARM SYSTEM REPLACEMENT	222,209	35,553	257,762
PL1A	TYLEPL02	3	14	WATER SUPPLY PIPING REPLACEMENT	301,004	48,161	349,165
<b>Totals for Priority Class 3</b>					<b>1,188,957</b>	<b>190,233</b>	<b>1,379,190</b>
AC3B	TYLEAC03	4	19	STAIR SAFETY UPGRADES	112,881	18,061	130,942
HV3C	TYLEHV01	4	20	REPLACE WINDOW AIR CONDITIONERS	234,128	37,461	271,589
<b>Totals for Priority Class 4</b>					<b>347,009</b>	<b>55,522</b>	<b>402,531</b>
<b>Grand Totals for Projects &gt;= 100,000 and &lt; 500,000</b>					<b>1,535,967</b>	<b>245,755</b>	<b>1,781,721</b>

**Detailed Project Summary**  
**Facility Condition Analysis**  
**Project Cost Range**  
 TYLE : TYLER RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS3A	TYLEFS02	2	1	FIRE SPRINKLER SYSTEM INSTALLATION	724,133	115,861	839,995
<b>Totals for Priority Class 2</b>					<b>724,133</b>	<b>115,861</b>	<b>839,995</b>
ES5B	TYLEES04	3	7	PANELIZED WINDOW WALL REPLACEMENT	2,448,173	391,708	2,839,881
IS1A	TYLEIS01	3	11	REFINISH FLOORING	687,308	109,969	797,278
IS6D	TYLEIS05	3	10	MAJOR UPGRADE AND RESTROOM RENOVATIONS	800,609	128,097	928,706
EL3B	TYLEEL01	3	8	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	609,941	97,591	707,531
<b>Totals for Priority Class 3</b>					<b>4,546,031</b>	<b>727,365</b>	<b>5,273,396</b>
PL2A	TYLEPL03	4	21	DRAIN PIPING REPLACEMENT	456,908	73,105	530,013
<b>Totals for Priority Class 4</b>					<b>456,908</b>	<b>73,105</b>	<b>530,013</b>
<b>Grand Totals for Projects &gt;= 500,000</b>					<b>5,727,072</b>	<b>916,332</b>	<b>6,643,404</b>
<b>Grand Totals For All Projects:</b>					<b>7,544,463</b>	<b>1,207,114</b>	<b>8,751,577</b>

**Detailed Project Summary**  
**Facility Condition Analysis**  
**Project Classification**  
TYLE : TYLER RESIDENCE HALL

<b>Cat Code</b>	<b>Project Number</b>	<b>Pri. Seq.</b>	<b>Project Classification</b>	<b>Pri. Cls</b>	<b>Project Title</b>	<b>Total Cost</b>
FS2A	TYLEFS01	2	Capital Renewal	3	FIRE ALARM SYSTEM REPLACEMENT	257,762
ES5B	TYLEES04	7	Capital Renewal	3	PANELIZED WINDOW WALL REPLACEMENT	2,839,881
EL3B	TYLEEL01	8	Capital Renewal	3	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	707,531
IS1A	TYLEIS01	11	Capital Renewal	3	REFINISH FLOORING	797,278
IS2B	TYLEIS02	12	Capital Renewal	3	REFINISH WALLS	281,554
IS3B	TYLEIS03	13	Capital Renewal	3	REFINISH CEILINGS	95,733
HV3C	TYLEHV01	20	Capital Renewal	4	REPLACE WINDOW AIR CONDITIONERS	271,589
PL2A	TYLEPL03	21	Capital Renewal	4	DRAIN PIPING REPLACEMENT	530,013
<b>Totals for Capital Renewal</b>						<b>5,781,341</b>
ES5A	TYLEES03	4	Deferred Maintenance	3	EXTERIOR DOOR REPLACEMENT	36,890
ES2B	TYLEES02	5	Deferred Maintenance	3	STUCCO SOFFIT FINISH UPGRADES	3,457
ES2B	TYLEES01	6	Deferred Maintenance	3	RESTORE EXPOSED CONCRETE FINISH	46,482
IS4A	TYLEIS04	9	Deferred Maintenance	3	REPLACE INTERIOR DOORS	490,709
IS6D	TYLEIS05	10	Deferred Maintenance	3	MAJOR UPGRADE AND RESTROOM RENOVATIONS	928,706
PL1A	TYLEPL02	14	Deferred Maintenance	3	WATER SUPPLY PIPING REPLACEMENT	349,165
PL1E	TYLEPL01	15	Deferred Maintenance	3	DOMESTIC HOT WATER HEAT EXCHANGER REPLACEMENT	34,889
PL1B	TYLEPL04	16	Deferred Maintenance	3	DOMESTIC WATER BOOSTER PUMP REPLACEMENT	18,135
<b>Totals for Deferred Maintenance</b>						<b>1,908,433</b>
FS3A	TYLEFS02	1	Plant Adaption	2	FIRE SPRINKLER SYSTEM INSTALLATION	839,995
AC2A	TYLEAC01	3	Plant Adaption	3	BUILDING ENTRY ACCESSIBILITY UPGRADES	10,555
FS5C	TYLEFS03	17	Plant Adaption	4	ELEVATOR LOBBY CORRECTIONS	70,781
AC4A	TYLEAC02	18	Plant Adaption	4	KITCHENETTE ACCESSIBILITY UPGRADES	9,530
AC3B	TYLEAC03	19	Plant Adaption	4	STAIR SAFETY UPGRADES	130,942
<b>Totals for Plant Adaption</b>						<b>1,061,802</b>
<b>Grand Total:</b>						<b>8,751,577</b>



**Detailed Project Summary**  
**Facility Condition Analysis**  
**Energy Conservation**  
 TYLE : TYLER RESIDENCE HALL

<b>Cat Code</b>	<b>Project Number</b>	<b>Pri Cls</b>	<b>Pri Seq</b>	<b>Project Title</b>	<b>Total Cost</b>	<b>Annual Savings</b>	<b>Simple Payback</b>
ES5B	TYLEES04	3	7	PANELIZED WINDOW WALL REPLACEMENT	2,839,881	4,400	645.43
<b>Totals for Priority Class 3</b>					<b>2,839,881</b>	<b>4,400</b>	<b>645.43</b>
<b>Grand Total:</b>					<b>2,839,881</b>	<b>4,400</b>	<b>645.43</b>

Detailed Project Summary  
Facility Condition Analysis  
Category/System Code  
TYLE : TYLER RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC2A	TYLEAC01	3	3	BUILDING ENTRY ACCESSIBILITY UPGRADES	9,099	1,456	10,555
AC4A	TYLEAC02	4	18	KITCHENETTE ACCESSIBILITY UPGRADES	8,216	1,314	9,530
AC3B	TYLEAC03	4	19	STAIR SAFETY UPGRADES	112,881	18,061	130,942
<b>Totals for System Code: ACCESSIBILITY</b>					<b>130,196</b>	<b>20,831</b>	<b>151,027</b>
EL3B	TYLEEL01	3	8	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	609,941	97,591	707,531
<b>Totals for System Code: ELECTRICAL</b>					<b>609,941</b>	<b>97,591</b>	<b>707,531</b>
ES5A	TYLEES03	3	4	EXTERIOR DOOR REPLACEMENT	31,802	5,088	36,890
ES2B	TYLEES02	3	5	STUCCO SOFFIT FINISH UPGRADES	2,980	477	3,457
ES2B	TYLEES01	3	6	RESTORE EXPOSED CONCRETE FINISH	40,071	6,411	46,482
ES5B	TYLEES04	3	7	PANELIZED WINDOW WALL REPLACEMENT	2,448,173	391,708	2,839,881
<b>Totals for System Code: EXTERIOR</b>					<b>2,523,025</b>	<b>403,684</b>	<b>2,926,710</b>
FS3A	TYLEFS02	2	1	FIRE SPRINKLER SYSTEM INSTALLATION	724,133	115,861	839,995
FS2A	TYLEFS01	3	2	FIRE ALARM SYSTEM REPLACEMENT	222,209	35,553	257,762
FS5C	TYLEFS03	4	17	ELEVATOR LOBBY CORRECTIONS	61,018	9,763	70,781
<b>Totals for System Code: FIRE/LIFE SAFETY</b>					<b>1,007,360</b>	<b>161,178</b>	<b>1,168,538</b>
HV3C	TYLEHV01	4	20	REPLACE WINDOW AIR CONDITIONERS	234,128	37,461	271,589
<b>Totals for System Code: HVAC</b>					<b>234,128</b>	<b>37,461</b>	<b>271,589</b>
IS4A	TYLEIS04	3	9	REPLACE INTERIOR DOORS	423,025	67,684	490,709
IS6D	TYLEIS05	3	10	MAJOR UPGRADE AND RESTROOM RENOVATIONS	800,609	128,097	928,706
IS1A	TYLEIS01	3	11	REFINISH FLOORING	687,308	109,969	797,278
IS2B	TYLEIS02	3	12	REFINISH WALLS	242,719	38,835	281,554
IS3B	TYLEIS03	3	13	REFINISH CEILINGS	82,529	13,205	95,733
<b>Totals for System Code: INTERIOR/FINISH SYS.</b>					<b>2,236,190</b>	<b>357,790</b>	<b>2,593,980</b>
PL1A	TYLEPL02	3	14	WATER SUPPLY PIPING REPLACEMENT	301,004	48,161	349,165
PL1E	TYLEPL01	3	15	DOMESTIC HOT WATER HEAT EXCHANGER REPLACEMENT	30,077	4,812	34,889
PL1B	TYLEPL04	3	16	DOMESTIC WATER BOOSTER PUMP REPLACEMENT	15,634	2,501	18,135
PL2A	TYLEPL03	4	21	DRAIN PIPING REPLACEMENT	456,908	73,105	530,013
<b>Totals for System Code: PLUMBING</b>					<b>803,623</b>	<b>128,580</b>	<b>932,202</b>
<b>Grand Total:</b>					<b>7,544,463</b>	<b>1,207,114</b>	<b>8,751,577</b>

FACILITY CONDITION ANALYSIS

**SECTION 3**

SPECIFIC PROJECT DETAILS  
ILLUSTRATING DESCRIPTION / COST

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEFS02	<b>Title:</b>	FIRE SPRINKLER SYSTEM INSTALLATION
<b>Priority Sequence:</b>	1		
<b>Priority Class:</b>	2		
<b>Category Code:</b>	FS3A	<b>System:</b>	FIRE/LIFE SAFETY
		<b>Component:</b>	SUPPRESSION
		<b>Element:</b>	SPRINKLERS
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	NFPA	1, 13, 13R, 101	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) B,1,2,3,4,5,6,7,8,9		

**Project Description**

Install an automatic fire sprinkler system throughout the facility. Include piping, valves, sprinkler heads, and piping supports. Install flow switches and sensors to interface with the fire alarm system. Cost has been included in this project for the installation of a fire pump.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEFS02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Install a wet-pipe sprinkler system, including valves, piping, sprinkler heads, piping supports, fire pump and controls, etc.	SF	96,105	\$3.08	\$296,003	\$3.77	\$362,316	\$658,319
Fire pump, controls, piping, valves, and connections	GPM	1,000	\$115	\$115,410	\$6.40	\$6,400	\$121,810
<b>Project Totals:</b>				<b>\$411,413</b>		<b>\$368,716</b>	<b>\$780,129</b>

<b>Material/Labor Cost</b>		<b>\$780,294</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$603,445</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$120,689</b>
<b>Construction Cost</b>		<b>\$724,133</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$115,861</b>
<b>Total Project Cost</b>		<b>\$839,995</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEFS01	<b>Title:</b>	FIRE ALARM SYSTEM REPLACEMENT
<b>Priority Sequence:</b>	2		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	FS2A	<b>System:</b>	FIRE/LIFE SAFETY
		<b>Component:</b>	DETECTION ALARM
		<b>Element:</b>	GENERAL
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ADAAG	702.1	
	NFPA	1, 101	
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 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 a 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.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEFS01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Fire alarm control panel(s), annunciator, smoke and heat detectors, manual pull stations, audible and visual alarms, wiring, raceways, and cut and patching materials	SF	96,105	\$1.46	\$140,313	\$0.89	\$85,533	\$225,847
<b>Project Totals:</b>				<b>\$140,313</b>		<b>\$85,533</b>	<b>\$225,847</b>

<b>Material/Labor Cost</b>		\$225,847
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		\$185,174
<b>General Contractor Mark Up at 20.0%</b>	+	\$37,035
<b>Construction Cost</b>		\$222,209
<b>Professional Fees at 16.0%</b>	+	\$35,553
<b>Total Project Cost</b>		<b>\$257,762</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEAC01	<b>Title:</b>	BUILDING ENTRY ACCESSIBILITY UPGRADES
<b>Priority Sequence:</b>	3		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	AC2A	<b>System:</b>	ACCESSIBILITY
		<b>Component:</b>	BUILDING ENTRY
		<b>Element:</b>	GENERAL
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ADAAG	703.1, 309, 403.6, 505	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1		

**Project Description**

Current legislation related to accessibility requires that building entrances be wheelchair accessible. To comply with the intent of this legislation, it is recommended that powered door operators be installed at all entrances as required. Compliant painted metal handrails should also be installed.



**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEAC01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Door operator, signage, and controls at lobby entry	SYS	1	\$2,830	\$2,830	\$1,333	\$1,333	\$4,163
Freestanding handrail system, painted (15 feet minimum)	LF	24	\$91.11	\$2,187	\$150	\$3,600	\$5,787
<b>Project Totals:</b>				<b>\$5,017</b>		<b>\$4,933</b>	<b>\$9,950</b>

<b>Material/Labor Cost</b>		<b>\$9,950</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<u>\$7,582</u>
<b>General Contractor Mark Up at 20.0%</b>	+	<u>\$1,516</u>
<b>Construction Cost</b>		<u>\$9,099</u>
<b>Professional Fees at 16.0%</b>	+	<u>\$1,456</u>
<b>Total Project Cost</b>		<u><b>\$10,555</b></u>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEES03	<b>Title:</b>	EXTERIOR DOOR REPLACEMENT
<b>Priority Sequence:</b>	4		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	ES5A	<b>System:</b>	EXTERIOR
		<b>Component:</b>	FENESTRATIONS
		<b>Element:</b>	DOORS
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	Not Applicable		
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Building-wide: Floor(s) 1		

**Project Description**

It is recommended that aged and inefficient exterior door systems be replaced. This project includes the primary and secondary entrance and service doors. The replacement units should maintain the architectural design aspects of this facility. They should be modern, energy-efficient applications that will protect the interior of the building from the elements.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEES03

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
High traffic door system	LEAF	6	\$1,978	\$11,868	\$1,999	\$11,994	\$23,862
Low traffic door system	LEAF	5	\$1,031	\$5,155	\$1,250	\$6,250	\$11,405
<b>Project Totals:</b>				<b>\$17,023</b>		<b>\$18,244</b>	<b>\$35,267</b>

<b>Material/Labor Cost</b>		<b>\$35,267</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<u>\$26,501</u>
<b>General Contractor Mark Up at 20.0%</b>	+	<u>\$5,300</u>
<b>Construction Cost</b>		<u>\$31,802</u>
<b>Professional Fees at 16.0%</b>	+	<u>\$5,088</u>
<b>Total Project Cost</b>		<u><b>\$36,890</b></u>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEES02	<b>Title:</b>	STUCCO SOFFIT FINISH UPGRADES
<b>Priority Sequence:</b>	5		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	ES2B	<b>System:</b>	EXTERIOR
		<b>Component:</b>	COLUMNS/BEAMS/WALLS
		<b>Element:</b>	FINISH
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	IBC	IRC- Part III, Ch. R7, 703.9	
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Building-wide: Floor(s) 1		

**Project Description**

The low roof overhangs have a stucco finish. The substrate is sound, but exposure to the elements has deteriorated the troweled stucco finish. There are numerous cracks and substantial color variation. Selective substrate repairs, surface preparation, troweled finish application, and painting are recommended to restore the aesthetics and integrity of the building envelope.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEES02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Lime based, aggregate, surface stucco finish	SF	750	\$1.16	\$870	\$2.49	\$1,868	\$2,738
Surface preparation	SF	750	\$0.11	\$83	\$0.22	\$165	\$248
Paint	SF	750	\$0.22	\$165	\$0.82	\$615	\$780
<b>Project Totals:</b>				<b>\$1,118</b>		<b>\$2,648</b>	<b>\$3,765</b>

<b>Material/Labor Cost</b>		<b>\$3,765</b>
<b>Material Index</b>		<b>100.7%</b>
<b>Labor Index</b>		<b>51.3%</b>
<b>Material/Labor Indexed Cost</b>		<b>\$2,483</b>
<b>General Contractor Mark Up at 20.0%</b>	<b>+</b>	<b>\$497</b>
<b>Construction Cost</b>		<b>\$2,980</b>
<b>Professional Fees at 16.0%</b>	<b>+</b>	<b>\$477</b>
<b>Total Project Cost</b>		<b>\$3,457</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEES01	<b>Title:</b>	RESTORE EXPOSED CONCRETE FINISH
<b>Priority Sequence:</b>	6		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	ES2B	<b>System:</b>	EXTERIOR
		<b>Component:</b>	COLUMNS/BEAMS/WALLS
		<b>Element:</b>	FINISH
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	Not Applicable		
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Building-wide: Floor(s) 1		

**Project Description**

The architectural exposed concrete frame exterior components and precast panels have become visibly soiled and the construction joints are failing. Cleaning, surface preparation, selective repairs, and applied finish upgrades are recommended to restore the aesthetics and integrity of the building envelope.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEES01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Cleaning and surface preparation	SF	24,400	\$0.11	\$2,684	\$0.22	\$5,368	\$8,052
Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope)	LF	2,440	\$2.45	\$5,978	\$4.99	\$12,176	\$18,154
Applied finish or sealant	SF	24,400	\$0.22	\$5,368	\$0.82	\$20,008	\$25,376
<b>Project Totals:</b>				<b>\$14,030</b>		<b>\$37,552</b>	<b>\$51,582</b>

<b>Material/Labor Cost</b>		<b>\$51,679</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$33,392</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$6,678</b>
<b>Construction Cost</b>		<b>\$40,071</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$6,411</b>
<b>Total Project Cost</b>		<b>\$46,482</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEES04	<b>Title:</b>	PANELIZED WINDOW WALL REPLACEMENT
<b>Priority Sequence:</b>	7		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	ES5B	<b>System:</b>	EXTERIOR
		<b>Component:</b>	FENESTRATIONS
		<b>Element:</b>	WINDOWS
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Energy Conservation	\$4,400	
<b>Code Application:</b>	Not Applicable		
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Building-wide: Floor(s) 1		

**Project Description**

The aluminum-framed windows and the composite panel window wall system dates from original construction and are recommended for replacement. The new window wall system should retain the architectural aesthetic of the building and incorporate modern energy-efficient features such as thermal panes. Replacement of windowsills and trim may also necessary as part of the overall effort.



**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEES04

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Panelized window wall and glazing system applications	SF	20,550	\$74.45	\$1,529,948	\$47.38	\$973,659	\$2,503,607
<b>Project Totals:</b>				<b>\$1,529,948</b>		<b>\$973,659</b>	<b>\$2,503,607</b>

<b>Material/Labor Cost</b>		\$2,503,607
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<u>\$2,040,144</u>
<b>General Contractor Mark Up at 20.0%</b>	+	<u>\$408,029</u>
<b>Construction Cost</b>		<u>\$2,448,173</u>
<b>Professional Fees at 16.0%</b>	+	<u>\$391,708</u>
<b>Total Project Cost</b>		<u><b>\$2,839,881</b></u>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEEL01	<b>Title:</b>	UPGRADE ELECTRICAL DISTRIBUTION NETWORK
<b>Priority Sequence:</b>	8		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	EL3B	<b>System:</b>	ELECTRICAL
		<b>Component:</b>	SECONDARY DISTRIBUTION
		<b>Element:</b>	DISTRIBUTION NETWORK
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	NEC	Articles 110, 210, 220, 230	
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, B		

**Project Description**

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

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEEL01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Power panels, conductors, raceways, devices, demolition, and cut and patching materials	SF	96,105	\$2.98	\$286,393	\$4.46	\$428,628	\$715,021
<b>Project Totals:</b>				<b>\$286,393</b>		<b>\$428,628</b>	<b>\$715,021</b>

<b>Material/Labor Cost</b>		<b>\$715,021</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$508,284</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$101,657</b>
<b>Construction Cost</b>		<b>\$609,941</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$97,591</b>
<b>Total Project Cost</b>		<b>\$707,531</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEIS04	<b>Title:</b>	REPLACE INTERIOR DOORS
<b>Priority Sequence:</b>	9		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	IS4A	<b>System:</b>	INTERIOR/FINISH SYS.
		<b>Component:</b>	DOORS
		<b>Element:</b>	GENERAL
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ADAAG	309.4, 404, 703.1	
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, B		

**Project Description**

The condition of the interior door systems is such that door system replacements are recommended as part of a comprehensive renovation effort. Complete demolition of existing door systems and replacement according to a code compliant plan to properly protect egress passages is recommended. The in-place doors typically date from original construction and are 32 inches in width.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEIS04

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Interior door and frame installation with all hardware and accessible signage	EA	92	\$370	\$34,040	\$396	\$36,432	\$70,472
Rated door and rated metal frame, including all hardware and accessible signage	EA	274	\$672	\$184,128	\$812	\$222,488	\$406,616
<b>Project Totals:</b>				<b>\$218,168</b>		<b>\$258,920</b>	<b>\$477,088</b>

<b>Material/Labor Cost</b>		<b>\$477,088</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$352,521</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$70,504</b>
<b>Construction Cost</b>		<b>\$423,025</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$67,684</b>
<b>Total Project Cost</b>		<b>\$490,709</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEIS05	<b>Title:</b>	MAJOR UPGRADE AND RESTROOM RENOVATIONS
<b>Priority Sequence:</b>	10		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	IS6D	<b>System:</b>	INTERIOR/FINISH SYS.
		<b>Component:</b>	GENERAL
		<b>Element:</b>	OTHER
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ADAAG	211, 602, 604, 605, 606	
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, B		

**Project Description**

The shared restrooms on each floor have fixtures and finishes that are mostly original to the year of construction and some partial subsequent renovations. The fixtures are sound but aged and inefficient. The finishes are outdated and deteriorating in some areas. A comprehensive restroom renovation including new fixtures, finishes, partitions, accessories, and associated common corridor dual-level drinking fountains is recommended. All future renovations should be upgraded to provide full compliance with ADA accessibility guidelines.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEIS05

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Major restroom renovation, including fixtures, finishes, partitions, accessories, and expansion if necessary (assumes 55 square feet of restroom area per fixture)	FIXT	216	\$1,969	\$425,304	\$1,699	\$366,984	\$792,288
Dual-level drinking fountain	EA	12	\$1,216	\$14,592	\$374	\$4,488	\$19,080
Alcove construction	EA	12	\$877	\$10,524	\$3,742	\$44,904	\$55,428
<b>Project Totals:</b>				<b>\$450,420</b>		<b>\$416,376</b>	<b>\$866,796</b>

<b>Material/Labor Cost</b>		<b>\$866,796</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$667,174</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$133,435</b>
<b>Construction Cost</b>		<b>\$800,609</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$128,097</b>
<b>Total Project Cost</b>		<b>\$928,706</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEIS01	<b>Title:</b>	REFINISH FLOORING
<b>Priority Sequence:</b>	11		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	IS1A	<b>System:</b>	INTERIOR/FINISH SYS.
		<b>Component:</b>	FLOOR
		<b>Element:</b>	FINISHES-DRY
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	Not Applicable		
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) B,1,2,3,4,5,6,7,8,9		

**Project Description**

Interior floor finish applications vary in age, type, and condition. 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**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEIS01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Carpet	SF	49,970	\$5.36	\$267,839	\$2.00	\$99,940	\$367,779
Vinyl floor tile	SF	11,530	\$3.53	\$40,701	\$2.50	\$28,825	\$69,526
Ceramic tile	SF	15,380	\$7.24	\$111,351	\$10.63	\$163,489	\$274,841
<b>Project Totals:</b>				<b>\$419,891</b>		<b>\$292,254</b>	<b>\$712,146</b>

<b>Material/Labor Cost</b>		<b>\$712,215</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<u>\$572,757</u>
<b>General Contractor Mark Up at 20.0%</b>	+	<u>\$114,551</u>
<b>Construction Cost</b>		<u>\$687,308</u>
<b>Professional Fees at 16.0%</b>	+	<u>\$109,969</u>
<b>Total Project Cost</b>		<u><u><b>\$797,278</b></u></u>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEIS02	<b>Title:</b>	REFINISH WALLS
<b>Priority Sequence:</b>	12		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	IS2B	<b>System:</b>	INTERIOR/FINISH SYS.
		<b>Component:</b>	PARTITIONS
		<b>Element:</b>	FINISHES

<b>Building Code:</b>	TYLE
<b>Building Name:</b>	TYLER RESIDENCE HALL
<b>Subclass/Savings:</b>	Not Applicable

**Code Application:** Not Applicable

<b>Project Class:</b>	Capital Renewal
<b>Project Date:</b>	10/14/2009

<b>Project Location:</b>	Floor-wide: Floor(s) B,1,2,3,4,5,6,7,8,9
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**Project Description**

Interior wall finish applications vary in age, type, and condition. 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**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEIS02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Standard wall finish (paint, wall covering, etc.)	SF	248,650	\$0.17	\$42,271	\$0.81	\$201,407	\$243,677
Premium wall finish (epoxy, tile, wood panel, etc.)	SF	13,090	\$2.28	\$29,845	\$3.92	\$51,313	\$81,158
<b>Project Totals:</b>				<b>\$72,116</b>		<b>\$252,719</b>	<b>\$324,835</b>

<b>Material/Labor Cost</b>		<b>\$324,486</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$202,266</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$40,453</b>
<b>Construction Cost</b>		<b>\$242,719</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$38,835</b>
<b>Total Project Cost</b>		<b>\$281,554</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEIS03	<b>Title:</b>	REFINISH CEILINGS
<b>Priority Sequence:</b>	13		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	IS3B	<b>System:</b>	INTERIOR/FINISH SYS.
		<b>Component:</b>	CEILINGS
		<b>Element:</b>	REPLACEMENT
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	Not Applicable		
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) B,1,2,3,4,5,6,7,8,9		

**Project Description**

Ceiling finish applications vary in age, type, and condition. 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**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEIS03

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Acoustical tile ceiling system	SF	7,690	\$2.12	\$16,303	\$2.98	\$22,916	\$39,219
Painted ceiling finish application	SF	69,200	\$0.17	\$11,764	\$0.81	\$56,052	\$67,816
<b>Project Totals:</b>				<b>\$28,067</b>		<b>\$78,968</b>	<b>\$107,035</b>

<b>Material/Labor Cost</b>		<b>\$106,972</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$68,774</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$13,755</b>
<b>Construction Cost</b>		<b>\$82,529</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$13,205</b>
<b>Total Project Cost</b>		<b>\$95,733</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEPL02	<b>Title:</b>	WATER SUPPLY PIPING REPLACEMENT
<b>Priority Sequence:</b>	14		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	PL1A	<b>System:</b>	PLUMBING
		<b>Component:</b>	DOMESTIC WATER
		<b>Element:</b>	PIPING NETWORK
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	IPC	Chapter 6	
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) B,1,2,3,4,5,6,7,8,9		

**Project Description**

Life cycle replacement of the aging water piping network is recommended. Coordinate work with related invasive work such as sprinkler system installation or major restroom renovations to the extent possible to minimize costs and disruptions. Remove the existing water supply network. Install new copper water supply piping with fiberglass insulation. Install isolation valves, pressure regulators, shock absorbers, backflow preventers, and vacuum breakers as needed.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEPL02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Copper pipe and fittings, valves, backflow prevention devices, insulation, hangers, demolition, and cut and patching materials	SF	96,105	\$1.14	\$109,560	\$2.85	\$273,899	\$383,459
<b>Project Totals:</b>				<b>\$109,560</b>		<b>\$273,899</b>	<b>\$383,459</b>

<b>Material/Labor Cost</b>		<b>\$383,246</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$250,837</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$50,167</b>
<b>Construction Cost</b>		<b>\$301,004</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$48,161</b>
<b>Total Project Cost</b>		<b>\$349,165</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEPL01	<b>Title:</b>	DOMESTIC HOT WATER HEAT EXCHANGER REPLACEMENT
<b>Priority Sequence:</b>	15		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	PL1E	<b>System:</b>	PLUMBING
		<b>Component:</b>	DOMESTIC WATER
		<b>Element:</b>	HEATING
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	Not Applicable		
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Item Only: Floor(s) B		

**Project Description**

Replacement of the domestic hot water converter is recommended. With age, heat exchanger efficiency is reduced by internal tube scaling. Internal wear will eventually lead to failure, allowing contaminants to enter the water system. Remove the existing system. Install a new heat exchanger, pumps, piping, and controls as needed.



**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEPL01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Heat exchanger, pumps, piping, valves, controls, insulation, and demolition	GPM	96	\$183	\$17,578	\$150	\$14,354	\$31,932
<b>Project Totals:</b>				<b>\$17,578</b>		<b>\$14,354</b>	<b>\$31,932</b>

<b>Material/Labor Cost</b>		\$31,932
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<u>\$25,064</u>
<b>General Contractor Mark Up at 20.0%</b>	+	<u>\$5,013</u>
<b>Construction Cost</b>		<u>\$30,077</u>
<b>Professional Fees at 16.0%</b>	+	<u>\$4,812</u>
<b>Total Project Cost</b>		<u><b>\$34,889</b></u>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEPL04	<b>Title:</b>	DOMESTIC WATER BOOSTER PUMP REPLACEMENT
<b>Priority Sequence:</b>	16		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	PL1B	<b>System:</b>	PLUMBING
		<b>Component:</b>	DOMESTIC WATER
		<b>Element:</b>	PUMPS
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	Not Applicable		
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Item Only: Floor(s) B		

**Project Description**

The domestic water booster pump system is projected to require replacement within the scope of this analysis. Replace pumps, motors, controllers, and connections. Specify a high efficiency system and incorporate variable frequency drives, if possible. Coordinate with the proposed fire sprinkler system installation.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEPL04

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Domestic water booster pump system, includes demolition of existing equipment	SYS	2	\$5,730	\$11,460	\$1,450	\$2,900	\$14,360
<b>Project Totals:</b>				<b>\$11,460</b>		<b>\$2,900</b>	<b>\$14,360</b>

<b>Material/Labor Cost</b>		<b>\$14,360</b>
<b>Material Index</b>		<b>100.7%</b>
<b>Labor Index</b>		<b>51.3%</b>
<b>Material/Labor Indexed Cost</b>		<b>\$13,028</b>
<b>General Contractor Mark Up at 20.0%</b>	<b>+</b>	<b>\$2,606</b>
<b>Construction Cost</b>		<b>\$15,634</b>
<b>Professional Fees at 16.0%</b>	<b>+</b>	<b>\$2,501</b>
<b>Total Project Cost</b>		<b>\$18,135</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEFS03	<b>Title:</b>	ELEVATOR LOBBY CORRECTIONS
<b>Priority Sequence:</b>	17		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	FS5C	<b>System:</b>	FIRE/LIFE SAFETY
		<b>Component:</b>	EGRESS PATH
		<b>Element:</b>	SEPARATION RATING
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	IBC	713	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	9/17/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, B		

**Project Description**

The present floor plan arrangement has the elevator lobbies opening into the existing hall corridors. IBC 2000 states that elevators opening into a fire resistant corridor shall be provided with an elevator lobby at each floor containing such a corridor. The lobby should completely separate the elevators from the corridor with rated partitions. Elevator lobbies need to have at least one means of egress and contain smoke detectors. This project recommends the construction of fire resistant barriers with automatically closing fire doors between the elevator lobbies and the corridors to provide the required separation and protection.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEFS03

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Rated partition, door assemblies, panic hardware, hold backs, closers, and smoke detector (assumes 120 square feet of rated partition per assembly)	SYS	10	\$3,269	\$32,690	\$3,495	\$34,950	\$67,640
<b>Project Totals:</b>				<b>\$32,690</b>		<b>\$34,950</b>	<b>\$67,640</b>

<b>Material/Labor Cost</b>		\$67,640
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		\$50,848
<b>General Contractor Mark Up at 20.0%</b>	+	\$10,170
<b>Construction Cost</b>		\$61,018
<b>Professional Fees at 16.0%</b>	+	\$9,763
<b>Total Project Cost</b>		<b>\$70,781</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEAC02	<b>Title:</b>	KITCHENETTE ACCESSIBILITY UPGRADES
<b>Priority Sequence:</b>	18		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	AC4A	<b>System:</b>	ACCESSIBILITY
		<b>Component:</b>	GENERAL
		<b>Element:</b>	FUNCTIONAL SPACE MOD.
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ADAAG	804	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1		

**Project Description**

Present accessibility legislation requires that building amenities be generally accessible to all persons. The configuration of the common area, shared kitchen on the first floor presents barriers to accessibility. The installation of wheelchair-accessible kitchenette cabinetry and associated amenities is recommended where applicable.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEAC02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
ADA-compliant kitchenette unit with base cabinetry, overhead cabinetry, and amenities	SYS	1	\$5,628	\$5,628	\$2,298	\$2,298	\$7,926
<b>Project Totals:</b>				<b>\$5,628</b>		<b>\$2,298</b>	<b>\$7,926</b>

<b>Material/Labor Cost</b>		<b>\$7,926</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$6,846</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$1,369</b>
<b>Construction Cost</b>		<b>\$8,216</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$1,314</b>
<b>Total Project Cost</b>		<b>\$9,530</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEAC03	<b>Title:</b>	STAIR SAFETY UPGRADES
<b>Priority Sequence:</b>	19		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	AC3B	<b>System:</b>	ACCESSIBILITY
		<b>Component:</b>	INTERIOR PATH OF TRAVEL
		<b>Element:</b>	STAIRS AND RAILINGS
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	IBC	1003.3	
	ADAAG	505	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, B		

**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, guards 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 guard design relative to current standards. Future renovation efforts should include comprehensive stair railing and finish upgrades.



**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEAC03

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Wall-mounted handrail system per floor	FLR	22	\$573	\$12,606	\$521	\$11,462	\$24,068
Center handrail / guardrail system per floor	FLR	20	\$1,297	\$25,940	\$833	\$16,660	\$42,600
Stair tread and landing finish upgrades per floor	FLR	22	\$1,449	\$31,878	\$773	\$17,006	\$48,884
<b>Project Totals:</b>				<b>\$70,424</b>		<b>\$45,128</b>	<b>\$115,552</b>

<b>Material/Labor Cost</b>		<b>\$115,552</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<u>\$94,068</u>
<b>General Contractor Mark Up at 20.0%</b>	+	<u>\$18,814</u>
<b>Construction Cost</b>		<u>\$112,881</u>
<b>Professional Fees at 16.0%</b>	+	<u>\$18,061</u>
<b>Total Project Cost</b>		<u><b>\$130,942</b></u>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEHV01	<b>Title:</b>	REPLACE WINDOW AIR CONDITIONERS
<b>Priority Sequence:</b>	20		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	HV3C	<b>System:</b>	HVAC
		<b>Component:</b>	HEATING/COOLING
		<b>Element:</b>	PKG./SELF CONTAINED UNITS
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	Not Applicable		
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	12/17/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, 8, 9		

**Project Description**

Occupant rooms are equipped with window air conditioners, each of which is rated 8,400 BTUH. These units are in good working order but will reach the end of their expected service lives during the period of this report and will require replacement.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEHV01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Replace window air conditioners	TON	174	\$843	\$146,682	\$531	\$92,394	\$239,076
<b>Project Totals:</b>				<b>\$146,682</b>		<b>\$92,394</b>	<b>\$239,076</b>

<b>Material/Labor Cost</b>		<b>\$239,076</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$195,107</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$39,021</b>
<b>Construction Cost</b>		<b>\$234,128</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$37,461</b>
<b>Total Project Cost</b>		<b>\$271,589</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Description**

<b>Project Number:</b>	TYLEPL03	<b>Title:</b>	DRAIN PIPING REPLACEMENT
<b>Priority Sequence:</b>	21		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	PL2A	<b>System:</b>	PLUMBING
		<b>Component:</b>	WASTEWATER
		<b>Element:</b>	PIPING NETWORK
<b>Building Code:</b>	TYLE		
<b>Building Name:</b>	TYLER RESIDENCE HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	IPC	Chapters 7-11	
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) B,1,2,3,4,5,6,7,8,9		

**Project Description**

Life cycle replacement of the aging drain piping throughout the facility is recommended. Failure to replace the old piping can result in frequent leaks, collateral damage, and escalating maintenance costs. Remove sanitary and storm drain piping as needed. Install new cast-iron drain piping networks with copper run-outs to the fixtures. Install new floor drains, roof drains, and traps. To minimize cost and disruptions, coordinate with other major renovation work involving significant demolition activity.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
TYLE : TYLER RESIDENCE HALL

**Project Cost**

**Project Number:** TYLEPL03

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Cast-iron drain piping and fittings, copper pipe and fittings, floor / roof drains, traps, hangers, demolition, and cut and patching materials	SF	96,105	\$1.81	\$173,950	\$4.17	\$400,758	\$574,708
<b>Project Totals:</b>				<b>\$173,950</b>		<b>\$400,758</b>	<b>\$574,708</b>

<b>Material/Labor Cost</b>		<b>\$574,869</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$380,756</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$76,151</b>
<b>Construction Cost</b>		<b>\$456,908</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$73,105</b>
<b>Total Project Cost</b>		<b>\$530,013</b>



FACILITY CONDITION ANALYSIS

**SECTION 4**

**DRAWINGS  
AND PROJECT LOCATIONS**

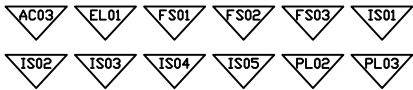
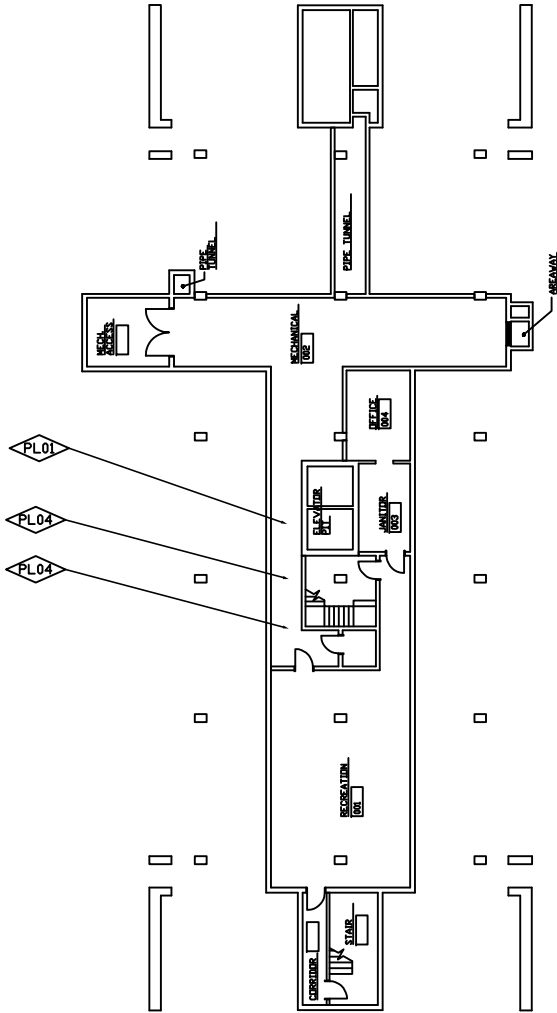






FACILITY  
CONDITION  
ANALYSIS

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

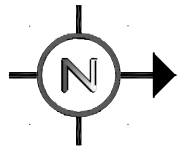
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PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS

PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 12/14/09  
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Project No. 09-041

BASEMENT  
FLOOR  
PLAN





FACILITY  
CONDITION  
ANALYSIS

2165 West Park Court  
Suite N  
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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

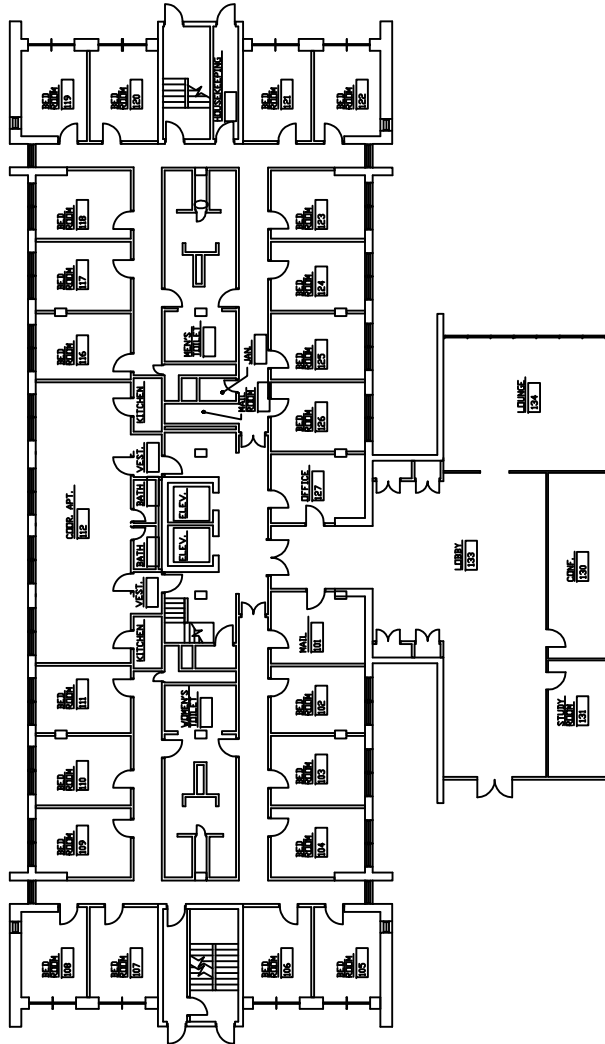
Date: 12/14/09

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Project No. 09-041

FIRST  
FLOOR  
PLAN

Sheet No.  
2 of 10

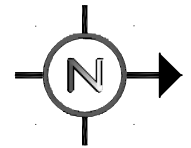


ES01 ES02 ES03 ES04

AC01 AC02 AC03 EL01 FS01 FS02

FS03 IS01 IS02 IS03 IS04 IS05

PL02 PL03





FACILITY  
CONDITION  
ANALYSIS

2165 West Park Court  
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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

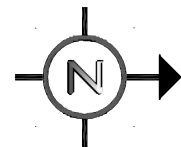
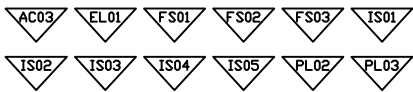
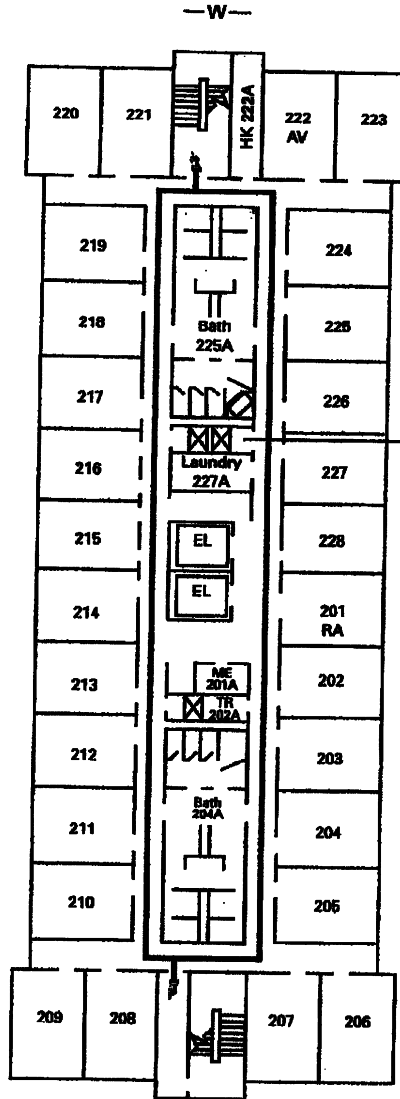
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APPLIES TO A SITUATION  
OF UNDEFINED EXTENTS

PROJECT NUMBER  
APPLIES TO AREA  
AS NOTED

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Project No. 09-041

SECOND  
FLOOR  
PLAN

Sheet No.  
3 of 10





FACILITY  
CONDITION  
ANALYSIS

2165 West Park Court  
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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

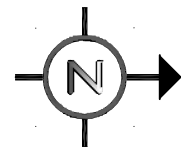
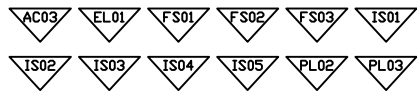
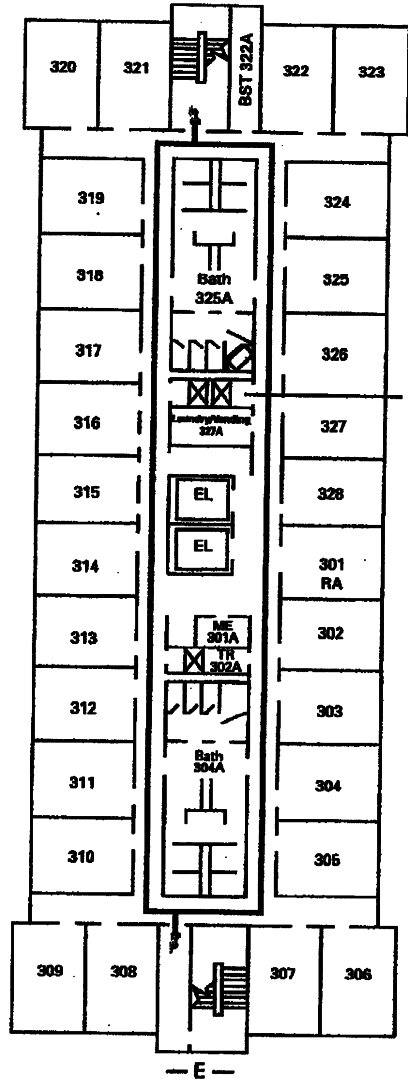
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Project No. 09-041

THIRD  
FLOOR  
PLAN

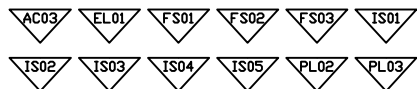
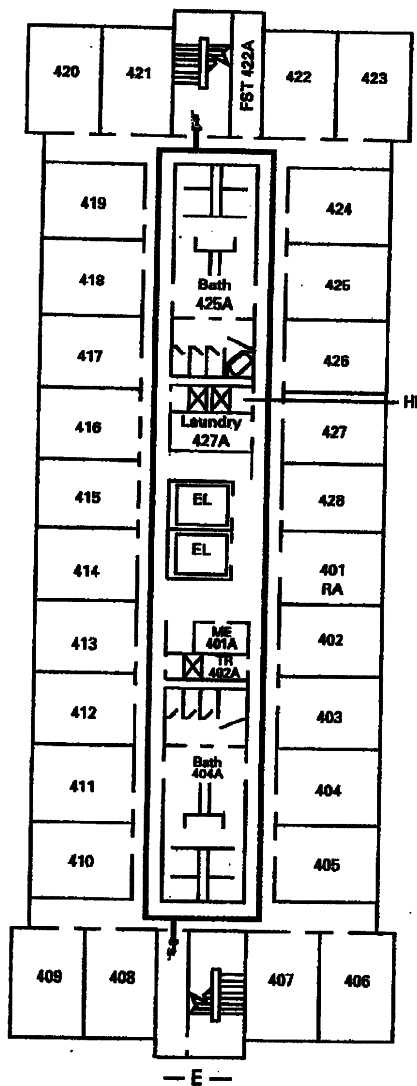
Sheet No.  
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FACILITY  
CONDITION  
ANALYSIS

2165 West Park Court  
Suite N  
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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: 12/14/09

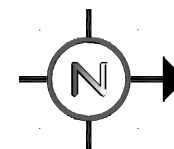
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Project No. 09-041

FOURTH  
FLOOR  
PLAN

Sheet No.

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FACILITY  
CONDITION  
ANALYSIS

2165 West Park Court  
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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

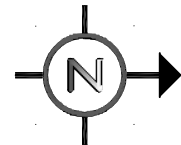
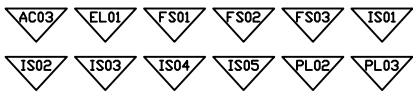
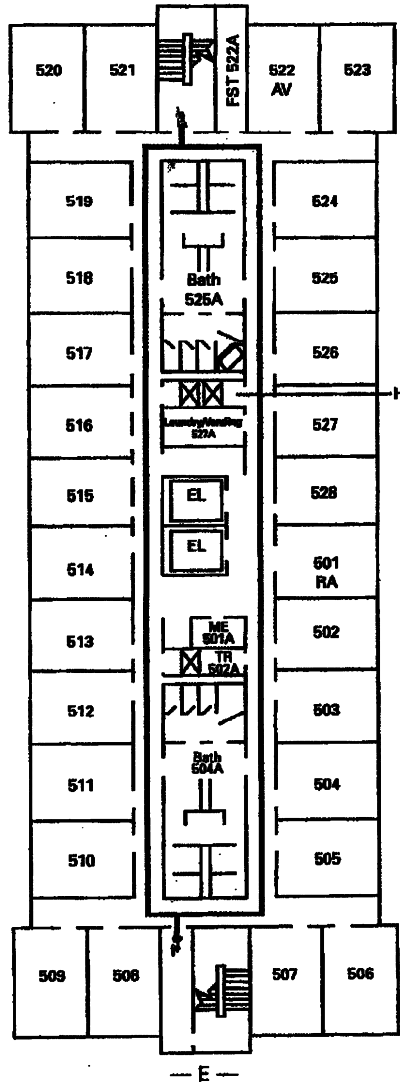
Date: 12/14/09

Drawn by: J.T.V.

Project No. 09-041

FIFTH  
FLOOR  
PLAN

Sheet No.  
6 of 10





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: 12/14/09

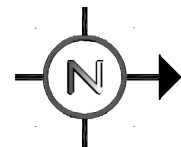
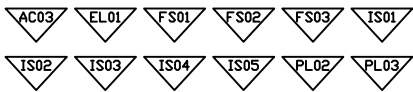
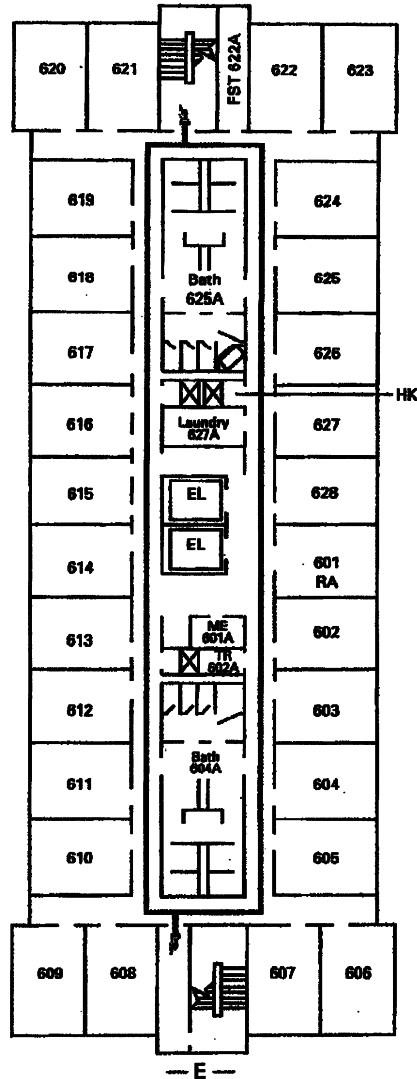
Drawn by: J.T.V.

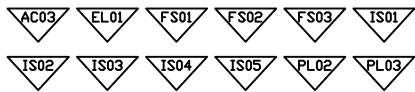
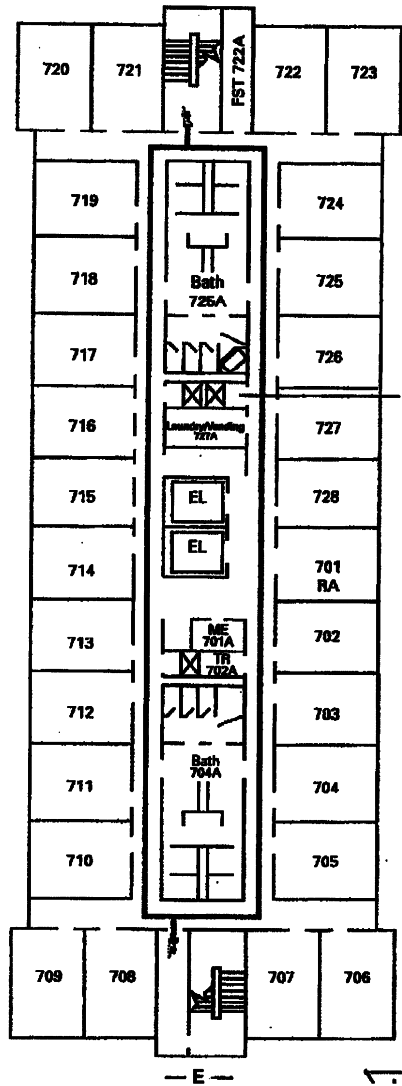
Project No. 09-041

SIXTH  
FLOOR  
PLAN

Sheet No.

7 of 10





TYLER  
RESIDENCE HALL

BLDG NO. TYLE



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: 12/14/09

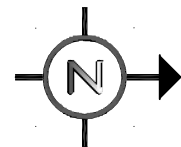
Drawn by: J.T.V.

Project No. 09-041

SEVENTH  
FLOOR  
PLAN

Sheet No.

8 of 10







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

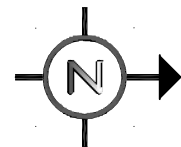
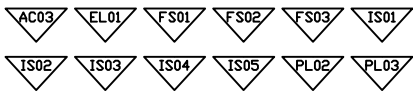
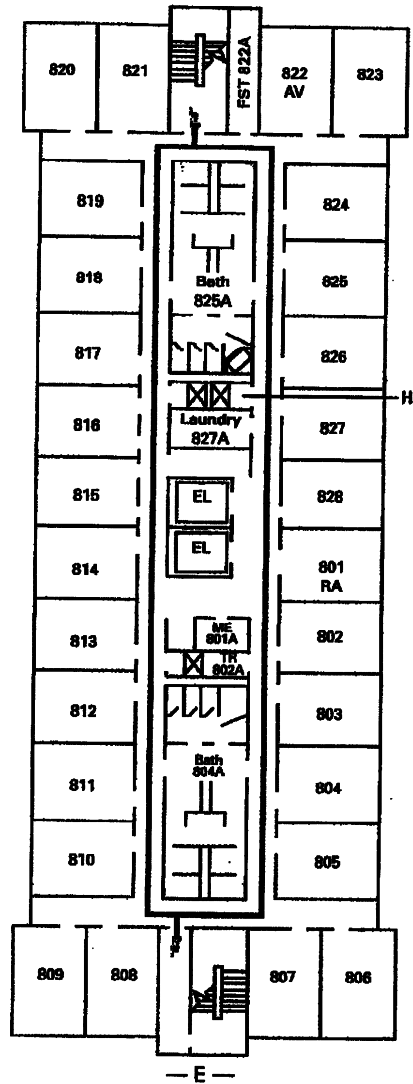
Date: 12/14/09

Drawn by: J.T.V.

Project No. 09-041

EIGHTH  
FLOOR  
PLAN

Sheet No.  
9 of 10





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

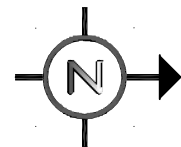
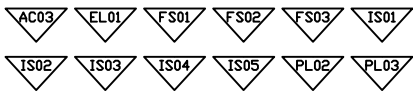
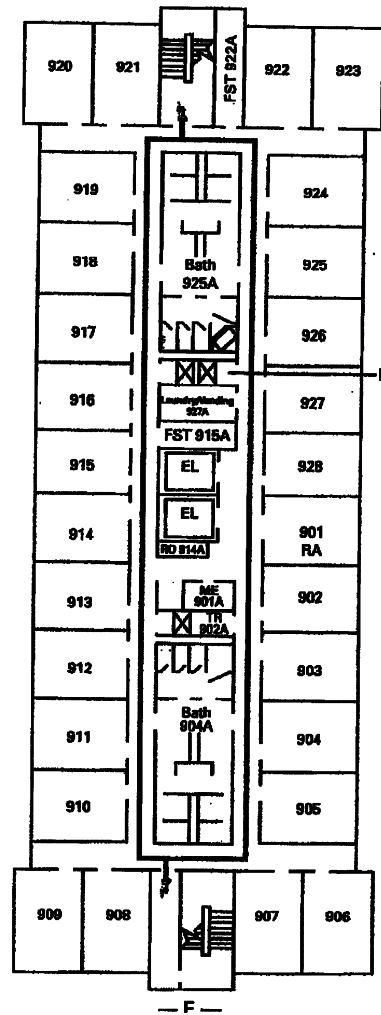
PROJECT NUMBER  
APPLIES TO  
ENTIRE FLOOR

PROJECT NUMBER  
APPLIES TO A SITUATION  
OF UNDEFINED EXTENTS

PROJECT NUMBER  
APPLIES TO AREA  
AS NOTED

Date: 12/14/09  
Drawn by: J.T.V.  
Project No. 09-041

NINTH  
FLOOR  
PLAN



FACILITY CONDITION ANALYSIS

**SECTION 5**

LIFE CYCLE MODEL SUMMARY  
AND PROJECTIONS



**Life Cycle Model**  
**Building Component Summary**  
**TYLE : TYLER RESIDENCE HALL**

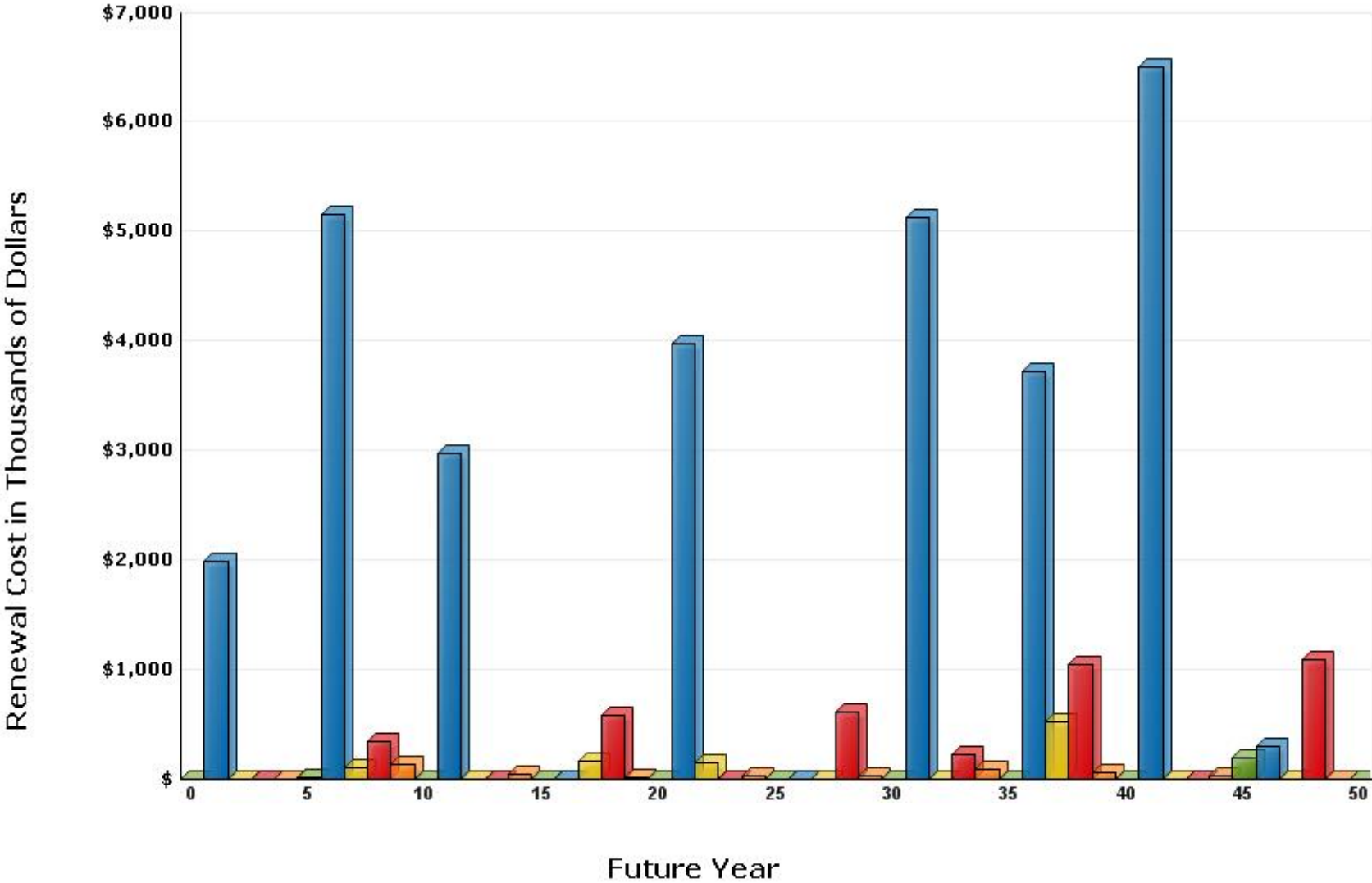
<b>Unifomat Code</b>	<b>Component Description</b>	<b>Qty</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Complex Adj</b>	<b>Total Cost</b>	<b>Install Date</b>	<b>Life Exp</b>
B2010	EXTERIOR FINISH RENEWAL	24,400	SF	\$1.30		\$31,808	1969	10
B2010	STUCCO FINISH RENEWAL	750	SF	\$3.33		\$2,498	1969	30
B2020	STANDARD GLAZING AND CURTAIN WALL	20,550	SF	\$104.04	1.75	\$3,741,416	1969	55
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	6	LEAF	\$4,311.24		\$25,867	1989	20
B2030	LOW TRAFFIC EXTERIOR DOOR SYSTEM	5	LEAF	\$2,863.29		\$14,316	1989	40
B3010	BUILT-UP ROOF	13,800	SF	\$6.70		\$92,496	2005	20
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	92	LEAF	\$783.68		\$72,098	1969	35
C1020	RATED DOOR AND FRAME INCLUDING HARDWARE	274	LEAF	\$1,489.06		\$408,002	1969	35
C1020	INTERIOR DOOR HARDWARE	274	EA	\$423.04		\$115,914	1969	15
C1020	INTERIOR DOOR HARDWARE	92	EA	\$423.04		\$38,920	1969	15
C3010	STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.)	248,650	SF	\$0.80		\$199,179	1999	10
C3010	PREMIUM WALL FINISH (EPOXY, TILE, WOOD PANEL, ETC.)	13,090	SF	\$5.87		\$76,787	1999	20
C3020	CARPET	49,970	SF	\$8.75		\$437,061	1999	10
C3020	VINYL FLOOR TILE	11,530	SF	\$6.59		\$75,958	1999	15
C3020	CERAMIC FLOOR TILE	15,380	SF	\$17.36		\$267,034	1969	20
C3030	ACOUSTICAL TILE CEILING SYSTEM	7,690	SF	\$4.99		\$38,396	1999	15
C3030	PAINTED CEILING FINISH APPLICATION	69,200	SF	\$0.80		\$55,432	1999	15
D1010	ELEVATOR CAB RENOVATION - PASSENGER	2	EA	\$26,616.80		\$53,234	1969	12
D2010	PLUMBING FIXTURES - DORMITORY / APARTMENTS	96,105	SF	\$4.99		\$479,305	1969	35
D2020	WATER PIPING - DORMITORY / APARTMENTS	96,105	SF	\$3.55		\$341,297	1969	35
D2020	DOMESTIC WATER PRESSURE BOOSTER SYSTEM	2	SYS	\$8,868.58		\$17,737	1969	20
D2020	WATER HEATER, SHELL AND TUBE HEAT EXCHANGER	96	GPM	\$355.69		\$34,146	1969	24
D2030	DRAIN PIPING - DORMITORY / APARTMENTS	96,105	SF	\$5.40		\$519,076	1969	40
D2050	AIR COMPRESSOR PACKAGE (AVERAGE SIZE)	1	SYS	\$6,456.49		\$6,456	2002	25
D3020	HEATING SYSTEM, STEAM OR HYDRONIC	96,105	SF	\$7.30		\$701,748	1969	25
D3040	CONDENSATE RECEIVER	1	SYS	\$9,504.01		\$9,504	1969	15
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	3	EA	\$2,768.62		\$8,306	2006	20
D3040	BASE MTD. PUMP - UP TO 15 HP	10	HP	\$3,175.77		\$31,758	2002	20

**Life Cycle Model**  
**Building Component Summary**  
**TYLE : TYLER RESIDENCE HALL**

<b>Unifomat Code</b>	<b>Component Description</b>	<b>Qty</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Complex Adj</b>	<b>Total Cost</b>	<b>Install Date</b>	<b>Life Exp</b>
D3050	SPLIT DX SYSTEM	20	TON	\$2,143.89		\$42,878	2000	15
D3050	SPLIT DX SYSTEM	6	TON	\$2,143.89		\$12,863	2000	15
D3050	SPLIT DX SYSTEM	8	TON	\$2,143.89		\$17,151	2000	15
D3050	SPLIT DX SYSTEM	8	TON	\$2,143.89		\$17,151	2002	15
D3050	SPLIT DX SYSTEM	4	TON	\$2,143.89		\$8,576	2000	15
D3050	THRU-WALL AC UNIT	174	TON	\$1,528.27		\$265,920	2006	10
D5010	ELECTRICAL SYSTEM - DORMITORY / APARTMENTS	96,105	SF	\$7.21		\$692,673	1969	50
D5010	ELECTRICAL SWITCHGEAR 120/208V	2,000	AMP	\$32.96		\$65,927	2006	20
D5010	VARIABLE FREQUENCY DRIVE (UP TO 10 HP)	10	HP	\$1,020.08		\$10,201	2001	12
D5020	EXIT SIGNS (CENTRAL POWER)	104	EA	\$163.78		\$17,033	1969	20
D5020	LIGHTING - DORMITORY / APARTMENTS	96,105	SF	\$4.30		\$413,277	1969	20
D5030	FIRE ALARM SYSTEM, POINT ADDRESSABLE	96,105	SF	\$2.61		\$251,275	1999	15
D5040	GENERATOR, DIESEL (200-500 KW)	200	KW	\$377.78		\$75,557	2004	25
E2010	KITCHENETTE UNIT WITH CABINETRY AND AMENITIES	1	LOT	\$5,940.22		<u>\$5,940</u>	1999	20
						<b>\$9,792,170</b>		

# Life Cycle Model Expenditure Projections

TYLE : TYLER RESIDENCE HALL



Average Annual Renewal Cost Per SqFt \$3.78





FACILITY CONDITION ANALYSIS

**SECTION 6**

PHOTOGRAPHIC LOG



**Photo Log - Facility Condition  
Analysis  
TYLE : TYLER RESIDENCE HALL**

<b>Photo ID No</b>	<b>Description</b>	<b>Location</b>	<b>Date</b>
TYLE001a	Building facade	East elevation	9/17/2009
TYLE001e	Desert Aire air handling unit	Roof	9/17/2009
TYLE002a	Building facade	South elevation	9/17/2009
TYLE002e	Desert Aire, four-fan condensing unit	Roof	9/17/2009
TYLE003a	Building facade	Southeast, building corner	9/17/2009
TYLE003e	View of the Desert Aire equipment	Roof	9/17/2009
TYLE004a	Building facade	East elevation	9/17/2009
TYLE004e	Two fan-powered ventilators	Roof	9/17/2009
TYLE005a	Building facade	East elevation	9/17/2009
TYLE005e	Elevator #2 motor	Elevator penthouse	9/17/2009
TYLE006a	Main tower building entry	East elevation	9/17/2009
TYLE006e	Elevator #1 motor	Elevator penthouse	9/17/2009
TYLE007a	Building facade	East elevation	9/17/2009
TYLE007e	Original GE electrical panel	Ninth floor, across from room 916	9/17/2009
TYLE008a	Main lobby entry	East elevation	9/17/2009
TYLE008e	Lay-in fluorescent light fixtures, smoke detector, exit sign, horn strobe, and pull station	Eighth floor, west end, cross hallway	9/17/2009
TYLE009a	Stained and discolored concrete panels	West elevation	9/17/2009
TYLE009e	Lay-in fluorescent light fixtures	Eighth floor, north side, hallway	9/17/2009
TYLE010a	Architectural concrete panels	North elevation, TV room	9/17/2009
TYLE010e	Typical radiant unit heater	First floor, kitchen 111	9/17/2009
TYLE011a	Stained and discolored stucco soffits	Lobby, annex	9/17/2009
TYLE011e	Notifier fire alarm control panel	Basement, mechanical room 002	9/17/2009
TYLE012a	Stained and discolored concrete panels	West elevation	9/17/2009
TYLE013a	Stained and discolored concrete panels	West elevation	9/17/2009
TYLE014a	Unenclosed trash dumpsters	Northwest, building corner	9/17/2009
TYLE015a	Stairwell egress doors	West elevation	9/17/2009
TYLE016a	Emergency generator screen wall	Southwest, building corner	9/17/2009
TYLE017a	Deteriorating service door	Main roof level	9/17/2009
TYLE018a	Typical panelized window wall system	West elevation	9/17/2009
TYLE019a	Typical panelized window wall system	West elevation	9/17/2009
TYLE020a	TV room egress doorway	West elevation	9/17/2009

**Photo Log - Facility Condition  
Analysis  
TYLE : TYLER RESIDENCE HALL**

<b>Photo ID No</b>	<b>Description</b>	<b>Location</b>	<b>Date</b>
TYLE021a	Built-up roof membrane system	Main roof level	9/17/2009
TYLE022a	Built-up roof membrane system	Main roof level	9/17/2009
TYLE023a	Built-up roof membrane system	Main roof level	9/17/2009
TYLE024a	Built-up roof membrane system	Main roof level	9/17/2009
TYLE025a	Built-up roof membrane system	Main roof level	9/17/2009
TYLE026a	Lobby	Building interior	9/17/2009
TYLE027a	Typical main corridor	Ninth floor	9/17/2009
TYLE028a	Typical main corridor	Ninth floor	9/17/2009
TYLE029a	Typical main corridor	Eighth floor	9/17/2009
TYLE030a	Typical main corridor	Second floor	9/17/2009
TYLE031a	Excessive travel distance, dead end corridor	First floor	9/17/2009
TYLE032a	Excessive travel distance, dead end corridor	First floor	9/17/2009
TYLE033a	Laundry room	First floor	9/17/2009
TYLE034a	Exposed exterior wall panel	Eighth floor, inside IT room	9/17/2009
TYLE035a	Exposed piping	Basement, common areas	9/17/2009
TYLE036a	Exposed piping	Basement, common areas	9/17/2009
TYLE037a	Improperly propped open fire separation door	Basement, common areas	9/17/2009
TYLE038a	Suspected ACM materials	Pipe chase	9/17/2009
TYLE039a	Non-compliant handrailing	Tower egress doors, east	9/17/2009
TYLE040a	Differential floor levels at lobby and tower	Lobby 133	9/17/2009
TYLE041a	Non-compliant railing systems	West, egress stairway	9/17/2009
TYLE042a	Non-compliant railing systems	West, egress stairway	9/17/2009
TYLE043a	Non-compliant drinking fountain	Main corridor	9/17/2009

Facility Condition Analysis - Photo Log



TYLE001A.jpg



TYLE001E.jpg



TYLE002A.jpg



TYLE002E.jpg



TYLE003A.jpg



TYLE003E.jpg



TYLE004A.jpg



TYLE004E.jpg



TYLE005A.jpg



TYLE005E.jpg



TYLE006A.jpg



TYLE006E.jpg



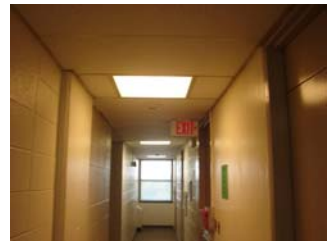
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TYLE007E.jpg



TYLE008A.jpg



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TYLE009A.jpg



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TYLE010A.jpg



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Facility Condition Analysis - Photo Log



TYLE011A.jpg



TYLE011E.jpg



TYLE012A.jpg



TYLE013A.jpg



TYLE014A.jpg



TYLE015A.jpg



TYLE016A.jpg



TYLE017A.jpg



TYLE018A.jpg



TYLE019A.jpg



TYLE020A.jpg



TYLE021A.jpg



TYLE022A.jpg



TYLE023A.jpg



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TYLE025A.jpg



TYLE026A.jpg



TYLE027A.jpg



TYLE028A.jpg



TYLE029A.jpg



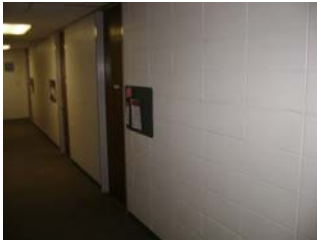
Facility Condition Analysis - Photo Log



TYLE030A.jpg



TYLE031A.jpg



TYLE032A.jpg



TYLE033A.jpg



TYLE034A.jpg



TYLE035A.jpg



TYLE036A.jpg



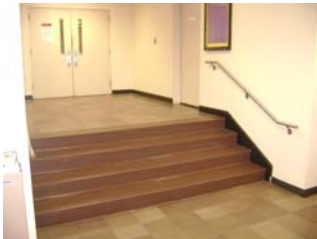
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TYLE039A.jpg



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TYLE041A.jpg



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TYLE043A.jpg

