

EAST CAROLINA UNIVERSITY

JOYNER EAST

ASSET CODE: JOYE

FACILITY CONDITION ANALYSIS

DECEMBER 22, 2009



EAST CAROLINA UNIVERSITY
Facility Condition Analysis

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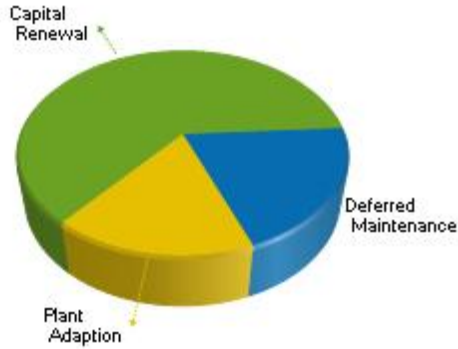
FACILITY CONDITION ANALYSIS

SECTION 1

GENERAL ASSET INFORMATION

EXECUTIVE SUMMARY - JOYNER EAST

PROJECT COSTS BY CLASSIFICATION



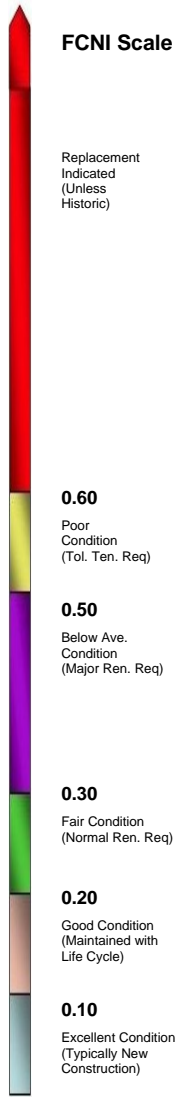
Building Code: JOYE
Building Name: JOYNER EAST
Year Built: 1975
Building Use: Classroom / Academic
Square Feet: 30,118

Project Costs by Priority

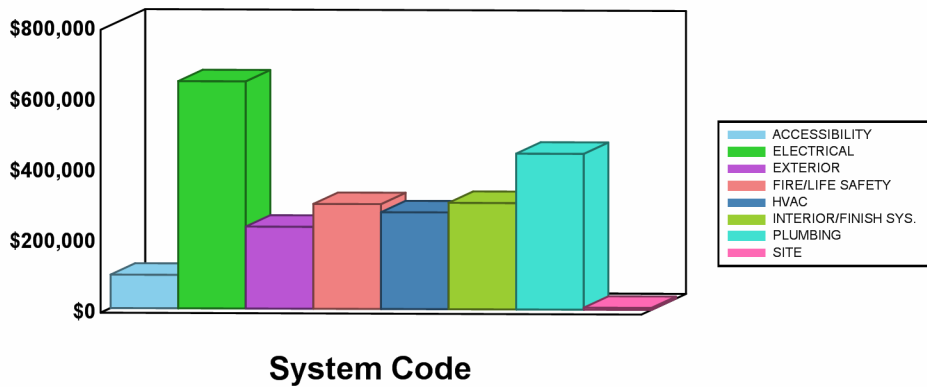
Priority 1: \$2,316
Priority 2: \$291,892
Priority 3: \$558,595
Priority 4: \$1,432,010
Total Project Costs: \$2,284,812

Facility Replacement Cost: \$8,593,000

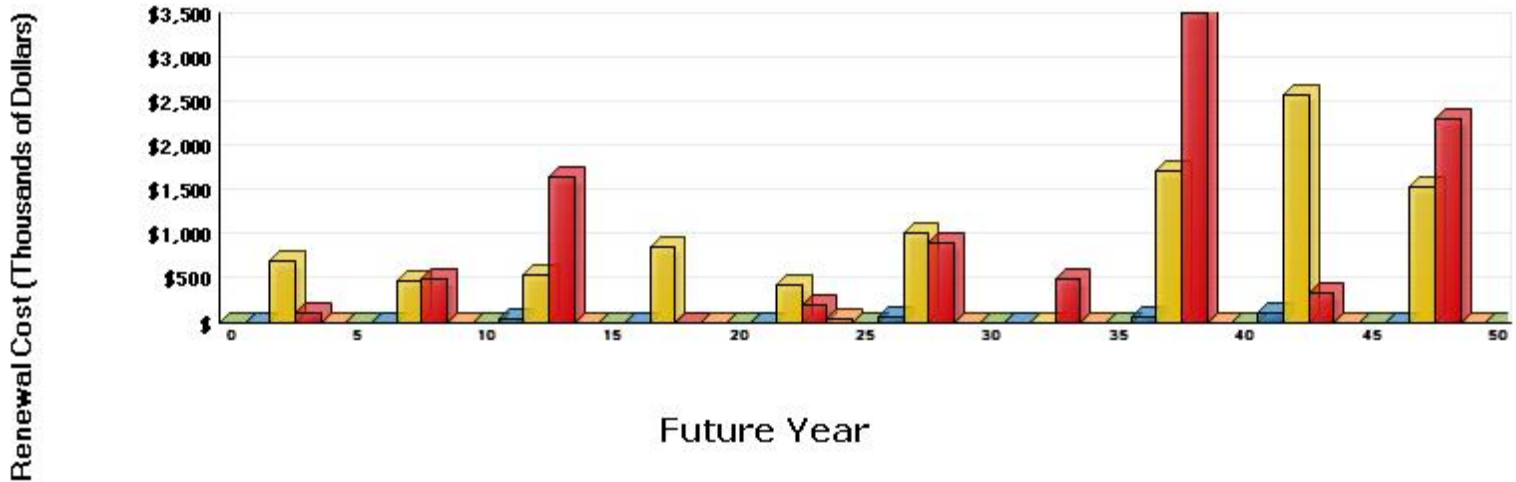
Facility Condition Needs Index (FCNI): 0.27
 (Project Costs / Replacement Cost)



PROJECT COSTS BY SYSTEM CODE



LIFE CYCLE MODEL EXPENDITURE PROJECTIONS



Average Annual Renewal Cost Per SqFt \$5.68

B. ASSET SUMMARY

Constructed in phases from the 1950s through the 1990s, Joyner East is a two-story classroom structure with a small basement housing the campus telecommunication space. Nominally listed as being “built” in 1975, this steel and concrete-framed building is on the east side of the Sonic Plaza pedestrian walkway near the middle of the northern portion of the East Carolina University campus in Greenville, North Carolina. It has a listed area of 30,118 gross square feet.

The information for this report was gathered during an inspection conducted on September 4, 2009.

SITE

The minimal landscaping on this relatively small, slightly sloping site consists of some turf, a few shrubs, specimen trees, and foundation planting, all in overall good condition. The condition of the site is such that a modest landscaping project is warranted. The majority of the landscaping in the Sonic Plaza is funded from sources separate from this building. The paved loading area is in overall good condition, with no upgrades recommended.

EXTERIOR STRUCTURE

The original east wing of the Joyner Library was an L-shaped structure, apparently constructed in the mid-1950s. Some of the northern portion of this wing was razed during a multi-phase construction project in the mid to late-1990s, creating a pedestrian walkway between what became the east facade of the remaining library building and the west facade of a now freestanding classroom structure. The northern half of this new classroom building then had a concrete frame, while the southern half retained its original steel structure. This building has a brick veneer that also incorporates a motion-activated waterfall fountain art panel at the south end of the west facade. This stone-veneered wall is actually just a screenwall that hides the south facade loading dock area, and extends from the southwest corner of this building to the north corner of the square glockenspiel clock tower 60 feet to the south. Except for the glass and aluminum entry doors, the few other exterior doors are painted metal. No exterior door upgrades are proposed.

The few punched windows at the north half of the building are fixed, insulating units in overall good condition. The few punched windows at the south half of the building are operable, non-insulating units in overall poor condition. It is recommended that the south facade single-pane, metal-framed windows be upgraded to fixed, thermal-pane glazing systems, which will reduce the energy required to operate the building. Repair or replacement of the windowsills and trim may also be necessary.

The flat, multi-level built-up roofing is in overall good condition. However, experience indicates that all of this roofing will need to be replaced near the end of the next ten years. Replace this roof with a similar application.

INTERIOR FINISHES / SYSTEMS

The interior of the entry floor has an F-shaped double-loaded central corridor. There is an L-shaped double-loaded central corridor on the upper floor, with classrooms and offices on both sides. Most of the walls are floor-to-ceiling and painted, with some ceramic tile in the restrooms. Ceilings in most spaces are lay-in, acoustical tile, with some painted ceilings. Some of the offices and the auditorium are carpeted, but most spaces have vinyl tile flooring. Carpeting, wall finish, and ceiling upgrades are recommended within the next ten years.

The auditorium seating is in overall good condition. However, experience indicates that a portion of this seating will need to be replaced over the next ten years. Also, the public men's and women's restroom finishes, accessories, and partitions are dated and should be renewed within the next ten years.

ACCESSIBILITY

There is handicapped accessibility into and through this building. There is a wheelchair ramp at the northwest entrance, wheelchair accessible restrooms, a good deal of lever door hardware, ADA signage throughout much of the building, and an ADA compliant elevator. However, several upgrades are recommended to enhance building accessibility.

ADA legislation requires that stairs have graspable handrails on both sides, that the rails have a specific end geometry, and that the handrails continue horizontally at the landings. The end geometry of the handrails at the middle exit stair and the south exit stair do not comply with this legislation, and the south stair lacks wall handrails. Add painted metal wall handrails and handrail extensions on the end of the existing handrails. Also, there are no handrails at the site steps at the north end of the Sonic Plaza or at the motion-activated musical waterwall fountain art steps. Painted metal handrails should be added at these steps

ADA legislation also requires that door hardware be designed for operation by those with little or no ability to grasp objects with their hands. Although most of the doors in this building have lever hardware, it is recommended that lever handle door hardware be installed on all remaining doors that currently still have knob hardware.

Places of assembly are required to be accessible to the handicapped. Auditorium 201 has a sloped floor but still has some barriers to accessibility. Install transmitter and headphone receiver sets to accommodate individuals who require audible assistance. Also, the teaching dais is inaccessible by wheelchair. To provide adequate access, it is recommended that a shallow ramp be installed at the dais.

The two drinking fountains on the upper floor are mounted at two different heights, but the entry floor drinking fountain has a single level configuration, which is not wheelchair accessible. The installation of a dual level, refrigerated drinking fountain is recommended to replace the existing entry floor fountain.

ADA legislation has established signage requirements for all permanent spaces in buildings. Compliant signage should meet specific size, graphical, Braille, height, and location requirements. To comply with the intent of this legislation, it is recommended that all non-compliant signage be upgraded to conform to appropriate accessibility standards. The project scope includes directional signage.

HEALTH

No information was provided by the University regarding asbestos-containing materials (ACMs) within this building. With the relatively young age of the building and recent renovations, the presence of ACMs is unlikely. Therefore, no ACM abatement is proposed. There was no evidence of infestations by vermin or insects in this building.

FIRE / LIFE SAFETY

Code requires that there be a guardrail where there is a change in floor level in excess of 36 inches, and that these guardrails be a minimum of 42 inches high. The guardrails must also prevent the passage of a specific diameter sphere. The painted metal guardrails at the south exit stairs are too low and lack sufficient infill, and the northwest corner fire escape has an open side that has a handrail but lacks a guardrail. A painted metal rail should be added above and parallel to the existing south stair guardrails and the northwest corner fire escape handrails. The application of a galvanized, expanded metal grillage to the existing guardrails at the south exit stair is the most cost-effective method of complying with the sphere test.

This building appears to have been constructed in substantial compliance with building codes. The exits seem to be sufficient in number and location. Therefore, no exit projects are proposed. This facility is protected by a central fire alarm system. The devices for this system include manual pull stations, audible / visible devices, and smoke detectors. The fire alarm panel was manufactured by Simplex and is located in mechanical room B01. The fire alarm system is inadequate compared to the current campus standard and should be replaced within the next year.

This facility is not protected by any form of automatic fire suppression. Manual, dry chemical fire extinguishers are available; however, it is recommended that an automatic fire suppression system be retrofitted. To reduce overall liability and potential for loss, install an automatic fire sprinkler system in unprotected areas throughout the facility.

Exit signs are illuminated with fluorescent lamps and are connected to the emergency power network. Emergency lighting is available through standard interior light fixtures connected to the emergency power network. Replace the existing exit signage throughout the building, and install new exit signs as needed. The new units should be connected to the emergency power network. LED type exit signs are recommended, because they are energy efficient and require minimal maintenance.

HVAC

This facility is on the campus steam loop. Hot water is circulated as the heating medium. Two water-cooled chillers located in Joyner Library generate chilled water for building cooling. Two cooling towers, CT-1 and CT-2, facilitate heat rejection for those chillers. The cooling towers have a capacity of 200 and 400 ton, respectively, and were manufactured by Evapco. They are approaching the end of their expected life cycle and are recommended for replacement.

Approximately 15 percent of this facility is served by an aging forced-air HVAC system with original multizone air handling units that have hot water heating coils and chilled water cooling coils. The ventilation system delivers 100 percent outside air to specific interior spaces. The air distribution network

furnishes constant volume air to the occupied spaces. The controls for this system were upgraded in 1996 and are a hybrid configuration with pneumatic temperature controls and direct digital utility modulation and monitoring. The direct digital controls were manufactured by CB Environment. The components of this system have aged beyond their statistical life cycles, and the system is inefficient compared to modern standards. It is recommended that this system be upgraded.

The remaining portion of the facility is served by a 1996 vintage forced-air HVAC system with multizone air handling units that have hot water heating coils and chilled water cooling coils. The ventilation system delivers 100 percent outside air to specific interior spaces. The air distribution network furnishes constant volume air to the occupied spaces. The controls for this system are a hybrid configuration with pneumatic temperature controls and direct digital utility modulation and monitoring. The direct digital controls were manufactured by CB Environment. The components of this portion of the HVAC system are in good condition. With diligent maintenance, they will outlast the scope of this report.

Supplemental HVAC is provided by split systems that utilize DX cooling and heat and are controlled with electronic thermostats. In conjunction with the proposed HVAC system upgrade, it is recommended that these systems be removed and that the areas that they serve be included with the central HVAC system.

ELECTRICAL

An oil-filled, S&C brand transformer rated for 300 kVA service steps the incoming 12,470 volt power down to 277/480 volts, which is distributed by an 800 amp Square D switchgear. A second oil-filled, S&C, 300 kVA transformer steps the 12,470 volt power down to 120/208 volts, which is distributed by a 600 amp Square D switchgear. All of the main electrical distribution system components are serviceable and will likely remain so throughout the scope of this report.

The original 1975 vintage electrical distribution network is a dual voltage configuration and supplies approximately 50 percent of this facility. The lighting and major mechanical systems are supported by the 277/480 volt circuit. The panels were manufactured predominantly by Square D. The electrical devices in this portion of the facility are aged and visibly worn, and the system is undersized to support the current needs of the occupants. It should be anticipated that this portion of the electrical distribution network will no longer be able to support normal loads and expansion. Replace this network within the scope of this analysis.

The remaining electrical distribution network was upgraded in 1996 and is a dual voltage configuration. The lighting and major mechanical systems are supported by the 277/480 volt circuit. The panels were manufactured predominantly by Square D. It should be anticipated that this portion of the electrical distribution network will require comprehensive, minor repairs within the scope of this report. Such remedies include, but are not limited to, installing additional circuits, replacing worn switches and receptacles, replacing circuit breakers, and updating panel directories.

Interior spaces are illuminated by fixtures that utilize compact and T8 fluorescent lamps. Most of the fluorescent fixtures are recessed, compact applications. Energy-efficient ballasts and lamps were retrofitted into the fixtures, although there are still some T12 fluorescent and incandescent lamps in service. The lenses are aged and present a dim aesthetic, and some lenses are worn or missing. The lighting system is currently sufficient, but it should be anticipated that it will require replacement within the scope of this analysis. Specify energy-efficient fixtures, and install occupancy sensors where possible.

The exterior areas adjacent to the building are illuminated by building-mounted HID, compact fluorescent, and stanchion-mounted fixtures that are currently in good condition. However, their replacement should be scheduled within the outlook of this report due to predictable wear. Install new energy-efficient fixtures, and place them on photocell activation.

Emergency power for this facility and the adjacent Joyner Library is produced by a local diesel-fired emergency generator. This unit has a capacity of 400 kW, generates 277/480 volt power, and was manufactured by Caterpillar. It has served beyond its intended life cycle and should be replaced to provide reliable emergency power to the critical systems in this facility.

PLUMBING

Potable water is distributed throughout this facility via a copper piping network. Sanitary waste and stormwater piping is of cast-iron, bell-and-spigot construction with copper run-outs. The supply and drain piping networks are aged and should be replaced. Failure to undertake such upgrades will likely lead to leaks, drainage issues, and other problems that will require costly maintenance. The plumbing fixtures are also recommended for replacement. This action is detailed in the proposed restroom renovation. Domestic water is heated by an electric, residential-grade water heater that has served beyond its expected life cycle. In order to provide a reliable source of hot water, it is recommended that this unit be replaced.

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 4, 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
SYSTEM DESCRIPTION: ACCESSIBILITY			
AC1A	SITE	STAIR AND RAILINGS	Includes exterior stairs and railings which are not part of the building entrance points.
AC1B	SITE	RAMPS AND WALKS	Includes sidewalks, grade change ramps (except for a building entrance), curb ramps, etc.
AC1C	SITE	PARKING	Designated parking spaces including striping, signage, access aisles and ramps, etc.
AC1D	SITE	TACTILE WARNINGS	Raised tactile warnings located at traffic crossing and elevation changes.
AC2A	BUILDING ENTRY	GENERAL	Covers all aspects of entry into the building itself including ramps, lifts, doors and hardware, power operators, etc.
AC3A	INTERIOR PATH OF TRAVEL	LIFTS/RAMPS/ELEVATORS	Interior lifts, ramps and elevators designed to accommodate level changes inside a building. Includes both installation and retrofitting.
AC3B	INTERIOR PATH OF TRAVEL	STAIRS AND RAILINGS	Upgrades to interior stairs and handrails for accessibility reasons.
AC3C	INTERIOR PATH OF TRAVEL	DOORS AND HARDWARE	Accessibility upgrades to the interior doors including widening, replacing hardware power, assisted operators, etc.
AC3D	INTERIOR PATH OF TRAVEL	SIGNAGE	Interior building signage upgrades for compliance with ADA.
AC3E	INTERIOR PATH OF TRAVEL	RESTROOMS/BATHROOMS	Modifications to and installation of accessible public restrooms and bathrooms. Bathrooms, which are an integral part of residential suites, are catalogued under HC4A.
AC3F	INTERIOR PATH OF TRAVEL	DRINKING FOUNTAINS	Upgrading/replacing drinking fountains for reasons of accessibility.
AC3G	INTERIOR PATH OF TRAVEL	PHONES	Replacement/modification of public access telephones.
AC4A	GENERAL	FUNCTIONAL SPACE MODIFICATIONS	This category covers all necessary interior modifications necessary to make the services and functions of a building accessible. It includes installation of assistive listening systems, modification of living quarters, modifications to laboratory workstations, etc. Bathrooms, which are integral to efficiency suites, are catalogued here.
AC4B	GENERAL	OTHER	All accessibility issues not catalogued elsewhere.
SYSTEM DESCRIPTION: ELECTRICAL			
EL1A	INCOMING SERVICE	TRANSFORMER	Main building service transformer.
EL1B	INCOMING SERVICE	DISCONNECTS	Main building disconnect and switchgear.
EL1C	INCOMING SERVICE	FEEDERS	Incoming service feeders. Complete incoming service upgrades, including transformers, feeders, and main distribution panels are catalogued here.
EL1D	INCOMING SERVICE	METERING	Installation of meters to record consumption and/or demand.
EL2A	MAIN DISTRIBUTION PANELS	CONDITION UPGRADE	Main distribution upgrade due to deficiencies in condition.
EL2B	MAIN DISTRIBUTION PANELS	CAPACITY UPGRADE	Main distribution upgrades due to inadequate capacity.
EL3A	SECONDARY DISTRIBUTION	STEP DOWN TRANSFORMERS	Secondary distribution stepdown and isolation transformers.
EL3B	SECONDARY DISTRIBUTION	DISTRIBUTION NETWORK	Includes conduit, conductors, sub-distribution panels, switches, outlets, etc. Complete interior rewiring of a facility is catalogued here.
EL3C	SECONDARY DISTRIBUTION	MOTOR CONTROLLERS	Mechanical equipment motor starters and control centers.
EL4A	DEVICES AND FIXTURES	EXTERIOR LIGHTING	Exterior building lighting fixtures including supply conductors and conduit.
EL4B	DEVICES AND FIXTURES	INTERIOR LIGHTING	Interior lighting fixtures (also system wide emergency lighting) including supply conductors and conduits.
EL4C	DEVICES AND FIXTURES	LIGHTING CONTROLLERS	Motion sensors, photocell controllers, lighting contactors, etc.

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

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

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

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

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

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

FACILITY CONDITION ANALYSIS

SECTION 2

**DETAILED PROJECT SUMMARIES
AND TOTALS**

**Detailed Project Totals
 Facility Condition Analysis
 System Code by Priority Class
 JOYE : JOYNER EAST**

System Code	System Description	Priority Classes				Subtotal
		1	2	3	4	
AC	ACCESSIBILITY	0	0	0	94,611	94,611
EL	ELECTRICAL	0	0	154,456	488,042	642,498
ES	EXTERIOR	0	0	140,325	91,460	231,785
FS	FIRE/LIFE SAFETY	2,316	291,892	2,341	0	296,549
HV	HVAC	0	0	160,405	113,299	273,704
IS	INTERIOR/FINISH SYS.	0	0	95,250	205,726	300,975
PL	PLUMBING	0	0	1,960	438,873	440,833
SI	SITE	0	0	3,858	0	3,858
	TOTALS	2,316	291,892	558,595	1,432,010	2,284,812

Facility Replacement Cost	\$8,593,000
Facility Condition Needs Index	0.27

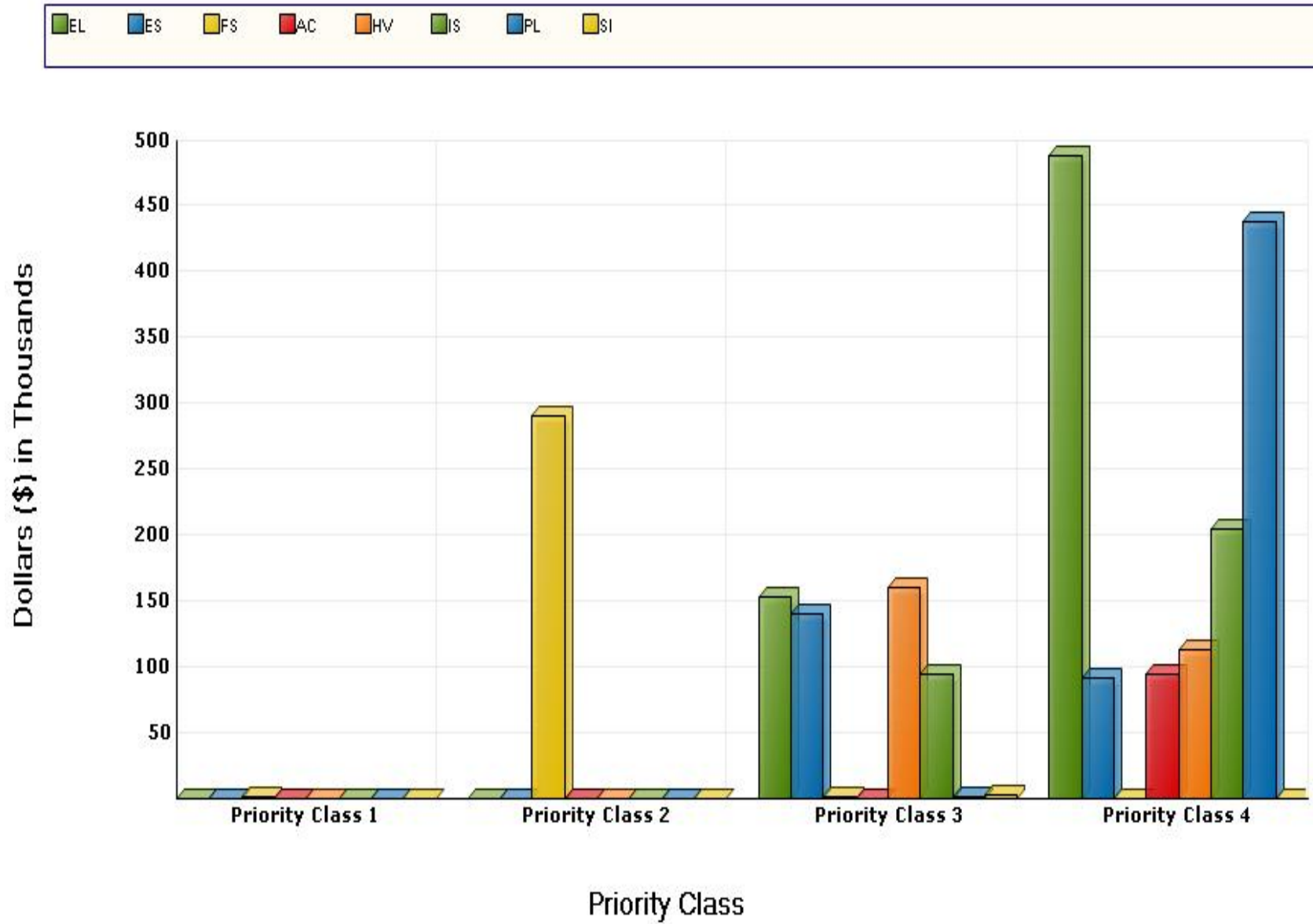
Gross Square Feet	30,118
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Total Cost Per Square Foot	\$75.86
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FACILITY CONDITION ANALYSIS

System Code by Priority Class

JOYE : JOYNER EAST



**Detailed Project Totals
 Facility Condition Analysis
 System Code by Project Class
 JOYE : JOYNER EAST**

System Code	System Description	Project Classes			Subtotal
		Capital Renewal	Deferred Maintenance	Plant Adaption	
AC	ACCESSIBILITY	0	0	94,611	94,611
EL	ELECTRICAL	488,042	154,456	0	642,498
ES	EXTERIOR	91,460	140,325	0	231,785
FS	FIRE/LIFE SAFETY	0	2,341	294,208	296,549
HV	HVAC	113,299	160,405	0	273,704
IS	INTERIOR/FINISH SYS.	300,975	0	0	300,975
PL	PLUMBING	438,873	1,960	0	440,833
SI	SITE	3,858	0	0	3,858
	TOTALS	1,436,506	459,487	388,818	2,284,812

Facility Replacement Cost	\$8,593,000
Facility Condition Needs Index	0.27

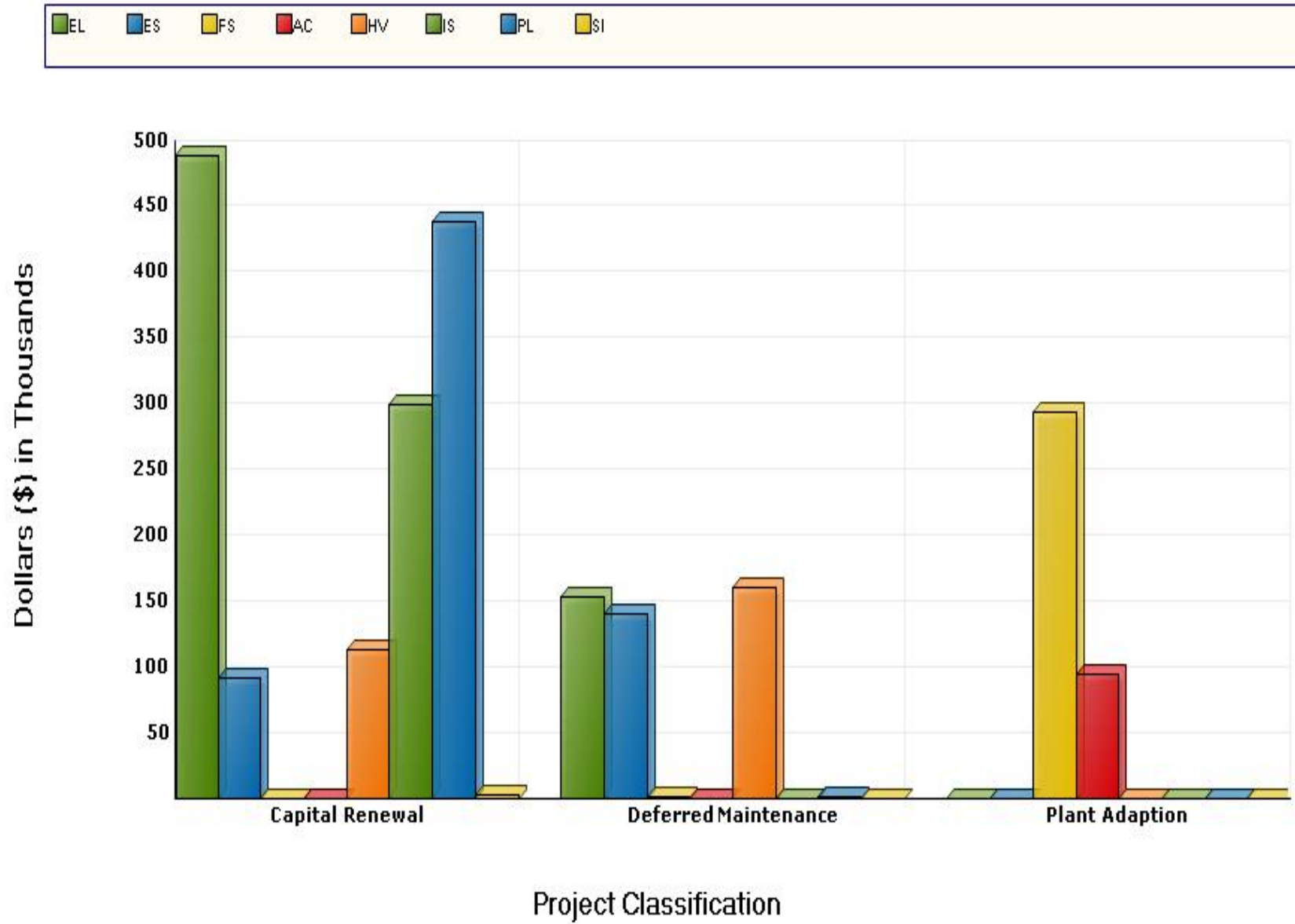
Gross Square Feet	30,118
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Total Cost Per Square Foot	\$75.86
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FACILITY CONDITION ANALYSIS

System Code by Project Class

JOYE : JOYNER EAST



Detailed Project Summary
Facility Condition Analysis
Project Class by Priority Class
JOYE : JOYNER EAST

Project Class	Priority Classes				Subtotal
	1	2	3	4	
Capital Renewal	0	0	99,107	1,337,399	1,436,506
Deferred Maintenance	0	0	459,487	0	459,487
Plant Adaption	2,316	291,892	0	94,611	388,818
TOTALS	2,316	291,892	558,595	1,432,010	2,284,812

Facility Replacement Cost	\$8,593,000
Facility Condition Needs Index	0.27

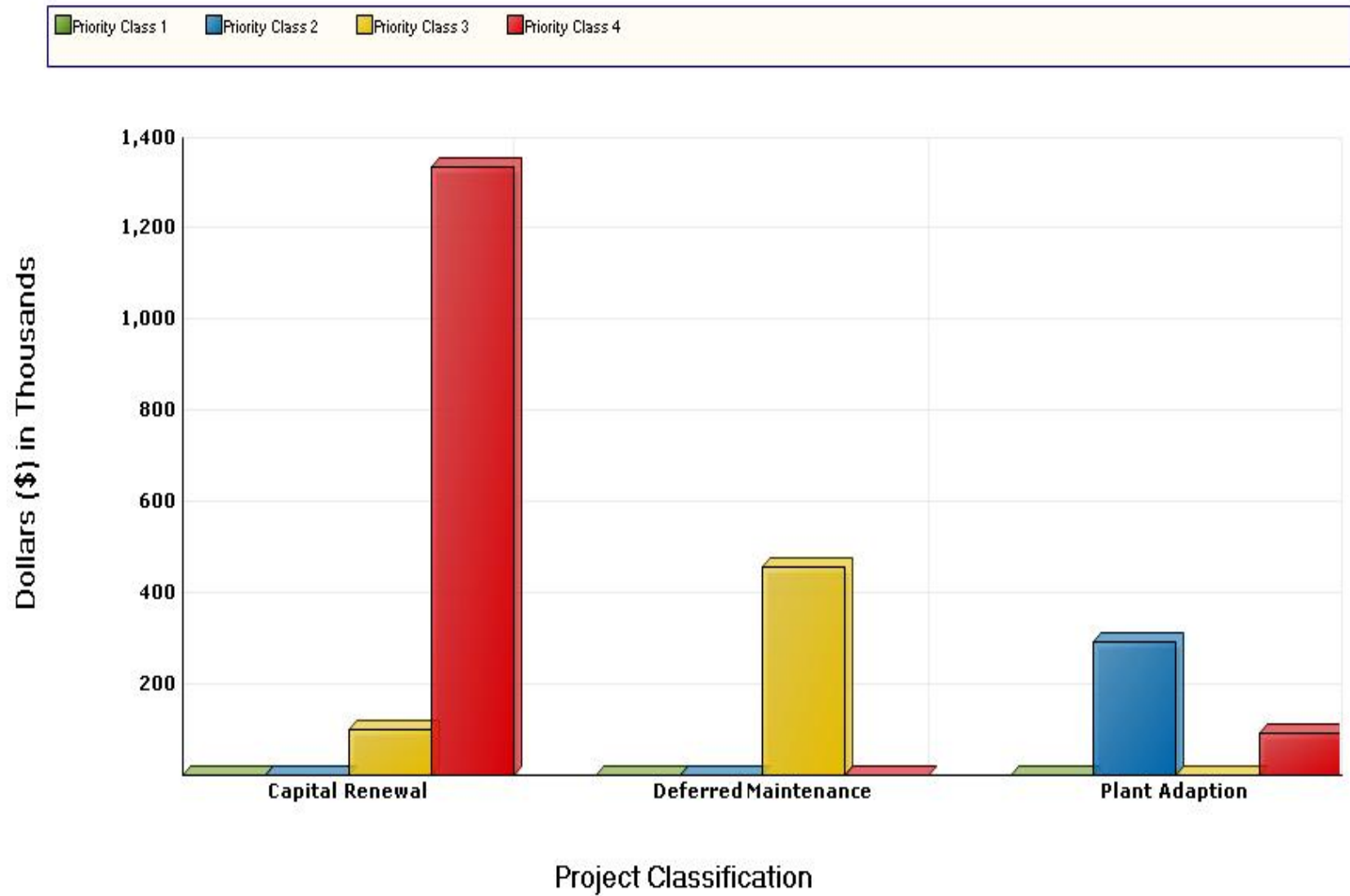
Gross Square Feet	30,118
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Total Cost Per Square Foot	\$75.86
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FACILITY CONDITION ANALYSIS

Project Class by Priority Class

JOYE : JOYNER EAST



Detailed Project Summary
Facility Condition Analysis
Priority Class - Priority Sequence
JOYE : JOYNER EAST

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5E	JOYEFS01	1	1	STAIR GUARDRAIL UPGRADES	1,996	319	2,316
Totals for Priority Class 1					1,996	319	2,316
FS2A	JOYEFS02	2	2	FIRE ALARM SYSTEM REPLACEMENT	69,637	11,142	80,779
FS3A	JOYEFS03	2	3	FIRE SPRINKLER SYSTEM INSTALLATION	181,994	29,119	211,113
Totals for Priority Class 2					251,631	40,261	291,892
FS1A	JOYEFS04	3	4	REPLACE EXIT SIGNS	2,018	323	2,341
ES5B	JOYEES01	3	5	WINDOW REPLACEMENT	120,970	19,355	140,325
HV3A	JOYEHV01	3	6	HVAC SYSTEM REPLACEMENT	138,280	22,125	160,405
EL5A	JOYEEL01	3	7	REPLACE EMERGENCY GENERATOR	133,152	21,304	154,456
IS2B	JOYEIS01	3	8	APPLIED INTERIOR WALL FINISH RENEWAL	29,388	4,702	34,090
IS1A	JOYEIS02	3	9	CARPETING UPGRADE	52,724	8,436	61,160
PL1E	JOYEPL01	3	10	DOMESTIC WATER HEATER REPLACEMENT	1,689	270	1,960
SI2A	JOYESI01	3	11	LANDSCAPING UPGRADE	3,326	532	3,858
Totals for Priority Class 3					481,547	77,048	558,595
AC1A	JOYEAC01	4	12	UPGRADE SITE HANDRAILS	4,387	702	5,089
AC3C	JOYEAC02	4	13	INSTALL LEVER ACTION DOOR HARDWARE	65,993	10,559	76,552
AC3B	JOYEAC03	4	14	STAIR HANDRAIL UPGRADES	2,574	412	2,986
AC4A	JOYEAC04	4	15	AUDITORIUM ACCESSIBILITY UPGRADES	3,808	609	4,417
AC3F	JOYEAC05	4	16	DUAL LEVEL DRINKING FOUNTAIN INSTALLATION	1,700	272	1,972
AC3D	JOYEAC06	4	17	SIGNAGE PACKAGE UPGRADE	3,099	496	3,595
ES4B	JOYEES02	4	18	BUILT-UP ROOF REPLACEMENT	78,845	12,615	91,460
HV2B	JOYEHV02	4	19	COOLING TOWER REPLACEMENT	97,671	15,627	113,299
EL3B	JOYEEL03	4	20	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	193,797	31,008	224,805
EL4B	JOYEEL02	4	21	INTERIOR LIGHTING UPGRADE	166,049	26,568	192,616
EL4A	JOYEEL04	4	22	EXTERIOR LIGHTING REPLACEMENT	60,880	9,741	70,621
IS6D	JOYEIS03	4	23	AUDITORIUM SEATING UPGRADES	13,003	2,080	15,083
IS6D	JOYEIS04	4	24	RESTROOM FINISH RENOVATIONS	83,218	13,315	96,533
IS3B	JOYEIS05	4	25	REFINISH CEILINGS	81,129	12,981	94,109
PL1A	JOYEPL02	4	26	WATER SUPPLY PIPING REPLACEMENT	150,049	24,008	174,057

Detailed Project Summary
Facility Condition Analysis
Priority Class - Priority Sequence
 JOYE : JOYNER EAST

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
PL2A	JOYEPL03	4	27	DRAIN PIPING REPLACEMENT	228,290	36,526	264,817
Totals for Priority Class 4					1,234,491	197,519	1,432,010
Grand Total:					1,969,666	315,147	2,284,812

Detailed Project Summary
Facility Condition Analysis
Project Cost Range
 JOYE : JOYNER EAST

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5E	JOYEFS01	1	1	STAIR GUARDRAIL UPGRADES	1,996	319	2,316
Totals for Priority Class 1					1,996	319	2,316
FS2A	JOYEFS02	2	2	FIRE ALARM SYSTEM REPLACEMENT	69,637	11,142	80,779
Totals for Priority Class 2					69,637	11,142	80,779
SI2A	JOYESI01	3	11	LANDSCAPING UPGRADE	3,326	532	3,858
IS2B	JOYEIS01	3	8	APPLIED INTERIOR WALL FINISH RENEWAL	29,388	4,702	34,090
IS1A	JOYEIS02	3	9	CARPETING UPGRADE	52,724	8,436	61,160
FS1A	JOYEFS04	3	4	REPLACE EXIT SIGNS	2,018	323	2,341
PL1E	JOYEPL01	3	10	DOMESTIC WATER HEATER REPLACEMENT	1,689	270	1,960
Totals for Priority Class 3					89,145	14,263	103,408
AC1A	JOYEAC01	4	12	UPGRADE SITE HANDRAILS	4,387	702	5,089
AC3C	JOYEAC02	4	13	INSTALL LEVER ACTION DOOR HARDWARE	65,993	10,559	76,552
AC3B	JOYEAC03	4	14	STAIR HANDRAIL UPGRADES	2,574	412	2,986
AC4A	JOYEAC04	4	15	AUDITORIUM ACCESSIBILITY UPGRADES	3,808	609	4,417
AC3F	JOYEAC05	4	16	DUAL LEVEL DRINKING FOUNTAIN INSTALLATION	1,700	272	1,972
AC3D	JOYEAC06	4	17	SIGNAGE PACKAGE UPGRADE	3,099	496	3,595
IS6D	JOYEIS03	4	23	AUDITORIUM SEATING UPGRADES	13,003	2,080	15,083
ES4B	JOYEES02	4	18	BUILT-UP ROOF REPLACEMENT	78,845	12,615	91,460
IS6D	JOYEIS04	4	24	RESTROOM FINISH RENOVATIONS	83,218	13,315	96,533
IS3B	JOYEIS05	4	25	REFINISH CEILINGS	81,129	12,981	94,109
EL4A	JOYEEL04	4	22	EXTERIOR LIGHTING REPLACEMENT	60,880	9,741	70,621
Totals for Priority Class 4					398,635	63,782	462,417
Grand Totals for Projects < 100,000					559,414	89,506	648,920

Detailed Project Summary
Facility Condition Analysis
Project Cost Range
 JOYE : JOYNER EAST

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS3A	JOYEFS03	2	3	FIRE SPRINKLER SYSTEM INSTALLATION	181,994	29,119	211,113
Totals for Priority Class 2					181,994	29,119	211,113
ES5B	JOYEES01	3	5	WINDOW REPLACEMENT	120,970	19,355	140,325
HV3A	JOYEHV01	3	6	HVAC SYSTEM REPLACEMENT	138,280	22,125	160,405
EL5A	JOYEEL01	3	7	REPLACE EMERGENCY GENERATOR	133,152	21,304	154,456
Totals for Priority Class 3					392,402	62,784	455,186
HV2B	JOYEHV02	4	19	COOLING TOWER REPLACEMENT	97,671	15,627	113,299
EL4B	JOYEEL02	4	21	INTERIOR LIGHTING UPGRADE	166,049	26,568	192,616
EL3B	JOYEEL03	4	20	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	193,797	31,008	224,805
PL1A	JOYEPL02	4	26	WATER SUPPLY PIPING REPLACEMENT	150,049	24,008	174,057
PL2A	JOYEPL03	4	27	DRAIN PIPING REPLACEMENT	228,290	36,526	264,817
Totals for Priority Class 4					835,856	133,737	969,593
Grand Totals for Projects >= 100,000 and < 500,000					1,410,252	225,640	1,635,892
Grand Totals For All Projects:					1,969,666	315,147	2,284,812

Detailed Project Summary
Facility Condition Analysis
Project Classification
JOYE : JOYNER EAST

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
IS2B	JOYEIS01	8	Capital Renewal	3	APPLIED INTERIOR WALL FINISH RENEWAL	34,090
IS1A	JOYEIS02	9	Capital Renewal	3	CARPETING UPGRADE	61,160
SI2A	JOYESI01	11	Capital Renewal	3	LANDSCAPING UPGRADE	3,858
ES4B	JOYEES02	18	Capital Renewal	4	BUILT-UP ROOF REPLACEMENT	91,460
HV2B	JOYEHV02	19	Capital Renewal	4	COOLING TOWER REPLACEMENT	113,299
EL3B	JOYEEL03	20	Capital Renewal	4	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	224,805
EL4B	JOYEEL02	21	Capital Renewal	4	INTERIOR LIGHTING UPGRADE	192,616
EL4A	JOYEEL04	22	Capital Renewal	4	EXTERIOR LIGHTING REPLACEMENT	70,621
IS6D	JOYEIS03	23	Capital Renewal	4	AUDITORIUM SEATING UPGRADES	15,083
IS6D	JOYEIS04	24	Capital Renewal	4	RESTROOM FINISH RENOVATIONS	96,533
IS3B	JOYEIS05	25	Capital Renewal	4	REFINISH CEILINGS	94,109
PL1A	JOYEPL02	26	Capital Renewal	4	WATER SUPPLY PIPING REPLACEMENT	174,057
PL2A	JOYEPL03	27	Capital Renewal	4	DRAIN PIPING REPLACEMENT	264,817
Totals for Capital Renewal						1,436,506
FS1A	JOYEFS04	4	Deferred Maintenance	3	REPLACE EXIT SIGNS	2,341
ES5B	JOYEES01	5	Deferred Maintenance	3	WINDOW REPLACEMENT	140,325
HV3A	JOYEHV01	6	Deferred Maintenance	3	HVAC SYSTEM REPLACEMENT	160,405
EL5A	JOYEEL01	7	Deferred Maintenance	3	REPLACE EMERGENCY GENERATOR	154,456
PL1E	JOYEPL01	10	Deferred Maintenance	3	DOMESTIC WATER HEATER REPLACEMENT	1,960
Totals for Deferred Maintenance						459,487
FS5E	JOYEFS01	1	Plant Adaption	1	STAIR GUARDRAIL UPGRADES	2,316
FS2A	JOYEFS02	2	Plant Adaption	2	FIRE ALARM SYSTEM REPLACEMENT	80,779
FS3A	JOYEFS03	3	Plant Adaption	2	FIRE SPRINKLER SYSTEM INSTALLATION	211,113
AC1A	JOYEAC01	12	Plant Adaption	4	UPGRADE SITE HANDRAILS	5,089
AC3C	JOYEAC02	13	Plant Adaption	4	INSTALL LEVER ACTION DOOR HARDWARE	76,552
AC3B	JOYEAC03	14	Plant Adaption	4	STAIR HANDRAIL UPGRADES	2,986
AC4A	JOYEAC04	15	Plant Adaption	4	AUDITORIUM ACCESSIBILITY UPGRADES	4,417
AC3F	JOYEAC05	16	Plant Adaption	4	DUAL LEVEL DRINKING FOUNTAIN INSTALLATION	1,972

Detailed Project Summary
Facility Condition Analysis
Project Classification
 JOYE : JOYNER EAST

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
AC3D	JOYEAC06	17	Plant Adaption	4	SIGNAGE PACKAGE UPGRADE	3,595
Totals for Plant Adaption						388,818
Grand Total:						2,284,812

Detailed Project Summary
Facility Condition Analysis
Energy Conservation
 JOYE : JOYNER EAST

Cat Code	Project Number	Pri Cls	Pri Seq	Project Title	Total Cost	Annual Savings	Simple Payback
FS1A	JOYEFS04	3	4	REPLACE EXIT SIGNS	2,341	120	19.51
ES5B	JOYEES01	3	5	WINDOW REPLACEMENT	140,325	300	467.75
HV3A	JOYEHV01	3	6	HVAC SYSTEM REPLACEMENT	160,405	2,900	55.31
Totals for Priority Class 3					303,071	3,320	91.29
ES4B	JOYEES02	4	18	BUILT-UP ROOF REPLACEMENT	91,460	1,200	76.22
EL4B	JOYEEL02	4	21	INTERIOR LIGHTING UPGRADE	192,616	9,220	20.89
EL4A	JOYEEL04	4	22	EXTERIOR LIGHTING REPLACEMENT	70,621	720	98.08
Totals for Priority Class 4					354,697	11,140	31.84
Grand Total:					657,768	14,460	45.49

Detailed Project Summary
Facility Condition Analysis
Category/System Code
JOYE : JOYNER EAST

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC1A	JOYEAC01	4	12	UPGRADE SITE HANDRAILS	4,387	702	5,089
AC3C	JOYEAC02	4	13	INSTALL LEVER ACTION DOOR HARDWARE	65,993	10,559	76,552
AC3B	JOYEAC03	4	14	STAIR HANDRAIL UPGRADES	2,574	412	2,986
AC4A	JOYEAC04	4	15	AUDITORIUM ACCESSIBILITY UPGRADES	3,808	609	4,417
AC3F	JOYEAC05	4	16	DUAL LEVEL DRINKING FOUNTAIN INSTALLATION	1,700	272	1,972
AC3D	JOYEAC06	4	17	SIGNAGE PACKAGE UPGRADE	3,099	496	3,595
Totals for System Code: ACCESSIBILITY					81,561	13,050	94,611
EL5A	JOYEEL01	3	7	REPLACE EMERGENCY GENERATOR	133,152	21,304	154,456
EL3B	JOYEEL03	4	20	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	193,797	31,008	224,805
EL4B	JOYEEL02	4	21	INTERIOR LIGHTING UPGRADE	166,049	26,568	192,616
EL4A	JOYEEL04	4	22	EXTERIOR LIGHTING REPLACEMENT	60,880	9,741	70,621
Totals for System Code: ELECTRICAL					553,877	88,620	642,498
ES5B	JOYEES01	3	5	WINDOW REPLACEMENT	120,970	19,355	140,325
ES4B	JOYEES02	4	18	BUILT-UP ROOF REPLACEMENT	78,845	12,615	91,460
Totals for System Code: EXTERIOR					199,814	31,970	231,785
FS5E	JOYEFS01	1	1	STAIR GUARDRAIL UPGRADES	1,996	319	2,316
FS2A	JOYEFS02	2	2	FIRE ALARM SYSTEM REPLACEMENT	69,637	11,142	80,779
FS3A	JOYEFS03	2	3	FIRE SPRINKLER SYSTEM INSTALLATION	181,994	29,119	211,113
FS1A	JOYEFS04	3	4	REPLACE EXIT SIGNS	2,018	323	2,341
Totals for System Code: FIRE/LIFE SAFETY					255,646	40,903	296,549
HV3A	JOYEHV01	3	6	HVAC SYSTEM REPLACEMENT	138,280	22,125	160,405
HV2B	JOYEHV02	4	19	COOLING TOWER REPLACEMENT	97,671	15,627	113,299
Totals for System Code: HVAC					235,952	37,752	273,704
IS2B	JOYEIS01	3	8	APPLIED INTERIOR WALL FINISH RENEWAL	29,388	4,702	34,090
IS1A	JOYEIS02	3	9	CARPETING UPGRADE	52,724	8,436	61,160
IS6D	JOYEIS03	4	23	AUDITORIUM SEATING UPGRADES	13,003	2,080	15,083
IS6D	JOYEIS04	4	24	RESTROOM FINISH RENOVATIONS	83,218	13,315	96,533
IS3B	JOYEIS05	4	25	REFINISH CEILINGS	81,129	12,981	94,109
Totals for System Code: INTERIOR/FINISH SYS.					259,462	41,514	300,975
PL1E	JOYEPL01	3	10	DOMESTIC WATER HEATER REPLACEMENT	1,689	270	1,960
PL1A	JOYEPL02	4	26	WATER SUPPLY PIPING REPLACEMENT	150,049	24,008	174,057

Detailed Project Summary
Facility Condition Analysis
Category/System Code
 JOYE : JOYNER EAST

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
PL2A	JOYEPL03	4	27	DRAIN PIPING REPLACEMENT	228,290	36,526	264,817
Totals for System Code: PLUMBING					380,028	60,805	440,833
SI2A	JOYESI01	3	11	LANDSCAPING UPGRADE	3,326	532	3,858
Totals for System Code: SITE					3,326	532	3,858
Grand Total:					1,969,666	315,147	2,284,812

FACILITY CONDITION ANALYSIS

SECTION 3

SPECIFIC PROJECT DETAILS
ILLUSTRATING DESCRIPTION / COST

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEFS01	Title:	STAIR GUARDRAIL UPGRADES
Priority Sequence:	1		
Priority Class:	1		
Category Code:	FS5E	System:	FIRE/LIFE SAFETY
		Component:	EGRESS PATH
		Element:	STAIRS AND RAILING
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	IBC	1003.3	
Project Class:	Plant Adaption		
Project Date:	10/21/2009		
Project Location:	Item Only: Floor(s) 1, 2		

Project Description

Code requires that there be a guardrail where there is a change in floor level in excess of 36 inches, and that these guardrails be a minimum of 42 inches high. The guardrails must also prevent the passage of a specific diameter sphere. The painted metal guardrails at the south exit stairs are too low and lack sufficient infill, and the northwest corner fire escape has an open side that has a handrail but lacks a guardrail. A painted metal rail should be added above and parallel to the existing south stair guardrails and the northwest corner fire escape handrails. The application of a galvanized, expanded metal grillage to the existing guardrails at the south exit stair is the most cost-effective method of complying with the sphere test.

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEFS01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Metal rail, galvanized expanded metal grillage, equipment rental, supplies, paint (2 coats)	LOT	1	\$1,000	\$1,000	\$1,280	\$1,280	\$2,280
Project Totals:				\$1,000		\$1,280	\$2,280

Material/Labor Cost		\$2,280
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$1,664
General Contractor Mark Up at 20.0%	+	\$333
Construction Cost		\$1,996
Professional Fees at 16.0%	+	\$319
Total Project Cost		\$2,316

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEFS02	Title:	FIRE ALARM SYSTEM REPLACEMENT
Priority Sequence:	2		
Priority Class:	2		
Category Code:	FS2A	System:	FIRE/LIFE SAFETY
		Component:	DETECTION ALARM
		Element:	GENERAL
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	702.1	
	NFPA	1, 101	
Project Class:	Plant Adaption		
Project Date:	11/2/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, G		

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
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEFS02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Fire alarm control panel(s), annunciator, smoke and heat detectors, manual pull stations, audible and visual alarms, wiring, raceways, cut and patching materials	SF	30,118	\$1.46	\$43,972	\$0.89	\$26,805	\$70,777
Project Totals:				\$43,972		\$26,805	\$70,777

Material/Labor Cost		\$70,777
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$58,031</u>
General Contractor Mark Up at 20.0%	+	<u>\$11,606</u>
Construction Cost		<u>\$69,637</u>
Professional Fees at 16.0%	+	<u>\$11,142</u>
Total Project Cost		<u>\$80,779</u>

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEFS03	Title:	FIRE SPRINKLER SYSTEM INSTALLATION
Priority Sequence:	3		
Priority Class:	2		
Category Code:	FS3A	System:	FIRE/LIFE SAFETY
		Component:	SUPPRESSION
		Element:	SPRINKLERS
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	NFPA	1, 13, 13R, 101	
Project Class:	Plant Adaption		
Project Date:	11/2/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, G		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEFS03

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Install a wet-pipe sprinkler system, including valves, piping, sprinkler heads, piping supports, etc.	SF	30,118	\$3.08	\$92,763	\$3.77	\$113,545	\$206,308
Project Totals:				\$92,763		\$113,545	\$206,308

Material/Labor Cost		\$206,308
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$151,661
General Contractor Mark Up at 20.0%	+	\$30,332
Construction Cost		\$181,994
Professional Fees at 16.0%	+	\$29,119
Total Project Cost		\$211,113

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEFS04	Title:	REPLACE EXIT SIGNS
Priority Sequence:	4		
Priority Class:	3		
Category Code:	FS1A	System:	FIRE/LIFE SAFETY
		Component:	LIGHTING
		Element:	EGRESS LTG./EXIT SIGNAGE
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Energy Conservation	\$120	
Code Application:	NFPA	101-47	
	IBC	1011	
Project Class:	Deferred Maintenance		
Project Date:	11/2/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, G		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEFS04

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Replacement of existing exit signs with LED units	EA	14	\$76.00	\$1,064	\$85.00	\$1,190	\$2,254
Project Totals:				\$1,064		\$1,190	\$2,254

Material/Labor Cost		\$2,254
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$1,682
General Contractor Mark Up at 20.0%	+	\$336
Construction Cost		\$2,018
Professional Fees at 16.0%	+	\$323
Total Project Cost		\$2,341

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEES01	Title:	WINDOW REPLACEMENT
Priority Sequence:	5		
Priority Class:	3		
Category Code:	ES5B	System:	EXTERIOR
		Component:	FENESTRATIONS
		Element:	WINDOWS
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Energy Conservation	\$300	
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/21/2009		
Project Location:	Building-wide: Floor(s) 1		

Project Description

The few punched windows at the north half of the building are fixed, insulating units in overall good condition. The few punched windows at the south half of the building are operable, non-insulating units in overall poor condition. It is recommended that the south facade single-pane, metal-framed windows be upgraded to fixed, thermal-pane glazing systems, which will reduce the energy required to operate the building. Repair or replacement of the windowsills and trim may also be necessary.

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEES01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Typical standard glazing applications	SF	1,320	\$57.27	\$75,596	\$36.45	\$48,114	\$123,710
Project Totals:				\$75,596		\$48,114	\$123,710

Material/Labor Cost		\$123,710
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$100,808
General Contractor Mark Up at 20.0%	+	\$20,162
Construction Cost		\$120,970
Professional Fees at 16.0%	+	\$19,355
Total Project Cost		\$140,325

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEHV01	Title:	HVAC SYSTEM REPLACEMENT
Priority Sequence:	6		
Priority Class:	3		
Category Code:	HV3A	System:	HVAC
		Component:	HEATING/COOLING
		Element:	SYSTEM RETROFIT/REPLACE
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Energy Conservation	\$2,900	
Code Application:	ASHRAE	62-2004	
Project Class:	Deferred Maintenance		
Project Date:	11/2/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, G, R		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEHV01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Air handlers, exhaust fans, ductwork, VAVs, VFDs, DDCs, heat exchangers, pumps, piping, electrical connections, and demolition of existing equipment	SF	5,118	\$13.78	\$70,526	\$16.84	\$86,187	\$156,713
Project Totals:				\$70,526		\$86,187	\$156,713

Material/Labor Cost		\$156,713
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$115,234
General Contractor Mark Up at 20.0%	+	\$23,047
Construction Cost		\$138,280
Professional Fees at 16.0%	+	\$22,125
Total Project Cost		\$160,405

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEEL01	Title:	REPLACE EMERGENCY GENERATOR
Priority Sequence:	7		
Priority Class:	3		
Category Code:	EL5A	System:	ELECTRICAL
		Component:	EMERGENCY POWER SYSTEM
		Element:	GENERATION/DISTRIBUTION
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	NEC	Article 700	
Project Class:	Deferred Maintenance		
Project Date:	11/2/2009		
Project Location:	Item Only: Floor(s) G		

Project Description

Replace the existing emergency generator set with an appropriately sized unit based on current facility requirements. Replacement costs include demolition of the existing equipment and installation of a new generator, automatic transfer switches (ATS), diesel fuel tank, battery and charger, exhaust system, and necessary electrical connections. Specify a diesel-fired unit unless otherwise directed by local standards.

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEEL01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Diesel generator set, including fuel tank, battery, charger, exhaust, automatic transfer switches	KW	400	\$250	\$100,000	\$50.00	\$20,000	\$120,000
Project Totals:				\$100,000		\$20,000	\$120,000

Material/Labor Cost		\$120,000
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$110,960
General Contractor Mark Up at 20.0%	+	\$22,192
Construction Cost		\$133,152
Professional Fees at 16.0%	+	\$21,304
Total Project Cost		\$154,456

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEIS01	Title:	APPLIED INTERIOR WALL FINISH RENEWAL
Priority Sequence:	8		
Priority Class:	3		
Category Code:	IS2B	System:	INTERIOR/FINISH SYS.
		Component:	PARTITIONS
		Element:	FINISHES
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/21/2009		
Project Location:	Floor-wide: Floor(s) 1, 2		

Project Description

Interior wall finish are mostly painted and in overall fair 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
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEIS01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Standard wall finish (paint, wall covering, etc.)	SF	41,740	\$0.17	\$7,096	\$0.81	\$33,809	\$40,905
Project Totals:				\$7,096		\$33,809	\$40,905

Material/Labor Cost		\$40,905
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$24,490
General Contractor Mark Up at 20.0%	+	\$4,898
Construction Cost		\$29,388
Professional Fees at 16.0%	+	\$4,702
Total Project Cost		\$34,090

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEIS02	Title:	CARPETING UPGRADE
Priority Sequence:	9		
Priority Class:	3		
Category Code:	IS1A	System:	INTERIOR/FINISH SYS.
		Component:	FLOOR
		Element:	FINISHES-DRY
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/21/2009		
Project Location:	Undefined: Floor(s) 1, 2		

Project Description

Interior floor finish applications vary in age, type, and condition. Some of the offices and the auditorium are carpeted, but most spaces have vinyl tile flooring. These floor finishes are in overall fair condition. Carpet upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEIS02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Carpet	SF	6,840	\$5.36	\$36,662	\$2.00	\$13,680	\$50,342
Project Totals:				\$36,662		\$13,680	\$50,342

Material/Labor Cost		\$50,342
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$43,937</u>
General Contractor Mark Up at 20.0%	+	<u>\$8,787</u>
Construction Cost		<u>\$52,724</u>
Professional Fees at 16.0%	+	<u>\$8,436</u>
Total Project Cost		<u>\$61,160</u>

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEPL01	Title:	DOMESTIC WATER HEATER REPLACEMENT
Priority Sequence:	10		
Priority Class:	3		
Category Code:	PL1E	System:	PLUMBING
		Component:	DOMESTIC WATER
		Element:	HEATING
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	IPC	Chapters 5, 607	
Project Class:	Deferred Maintenance		
Project Date:	11/2/2009		
Project Location:	Item Only: Floor(s) G		

Project Description

Replacement of the domestic water heating equipment is recommended to maintain a reliable supply of domestic hot water. Remove old water heating equipment and related piping. Install new water heating equipment to meet the present needs of this facility.

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEPL01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Electric, residential-grade water heater replacement, including demolition	GAL	40	\$22.87	\$915	\$23.71	\$948	\$1,863
Project Totals:				\$915		\$948	\$1,863

Material/Labor Cost		\$1,863
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$1,408
General Contractor Mark Up at 20.0%	+	\$282
Construction Cost		\$1,689
Professional Fees at 16.0%	+	\$270
Total Project Cost		\$1,960

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYESI01	Title:	LANDSCAPING UPGRADE
Priority Sequence:	11		
Priority Class:	3		
Category Code:	SI2A	System:	SITE
		Component:	LANDSCAPE
		Element:	GRADE/FLORA
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/21/2009		
Project Location:	Undefined: Floor(s) 1		

Project Description

The minimal landscaping on this relatively small, slightly sloping site consists of some turf, a few shrubs, specimen trees, and foundation planting, all in overall good condition. The condition of the site is such that a modest landscaping project is warranted. The majority of the landscaping in the Sonic Plaza is funded from sources separate from this building.

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYESI01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Trees, shrubs, planting soil, amendments, sand, fill, and sod	SF	1,500	\$1.04	\$1,560	\$1.56	\$2,340	\$3,900
Project Totals:				\$1,560		\$2,340	\$3,900

Material/Labor Cost		\$3,900
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$2,771
General Contractor Mark Up at 20.0%	+	\$554
Construction Cost		\$3,326
Professional Fees at 16.0%	+	\$532
Total Project Cost		\$3,858

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEAC01	Title:	UPGRADE SITE HANDRAILS
Priority Sequence:	12		
Priority Class:	4		
Category Code:	AC1A	System:	ACCESSIBILITY
		Component:	SITE
		Element:	STAIR AND RAILINGS
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	403.6, 505	
Project Class:	Plant Adaption		
Project Date:	10/21/2009		
Project Location:	Undefined: Floor(s) 1		

Project Description

ADA legislation requires that site steps have graspable handrails on both sides, that the rails have a specific end geometry, and that the handrails continue horizontally at the landings. There are no handrails at the steps at the north end of the Sonic Plaza or at the motion-activated musical waterwall fountain art steps. Painted metal handrails should be added to these steps.

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEAC01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Galvanized metal rails, equipment rental, supplies, paint (2 coats)	LOT	1	\$2,000	\$2,000	\$3,200	\$3,200	\$5,200
Project Totals:				\$2,000		\$3,200	\$5,200

Material/Labor Cost		\$5,200
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$3,656</u>
General Contractor Mark Up at 20.0%	+	<u>\$731</u>
Construction Cost		<u>\$4,387</u>
Professional Fees at 16.0%	+	<u>\$702</u>
Total Project Cost		<u>\$5,089</u>

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEAC02	Title:	INSTALL LEVER ACTION DOOR HARDWARE
Priority Sequence:	13		
Priority Class:	4		
Category Code:	AC3C	System:	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	DOORS AND HARDWARE
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	309.4	
Project Class:	Plant Adaption		
Project Date:	10/21/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, G		

Project Description

ADA legislation requires that door hardware be designed for operation by those with little or no ability to grasp objects with their hands. Although most of the doors in this building have lever hardware, it is recommended that lever handle door hardware be installed on all remaining doors that currently still have knob hardware.

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEAC02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Lever actuated door hardware	EA	177	\$273	\$48,321	\$69.77	\$12,349	\$60,670
Project Totals:				\$48,321		\$12,349	\$60,670

Material/Labor Cost		\$60,670
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$54,994</u>
General Contractor Mark Up at 20.0%	+	<u>\$10,999</u>
Construction Cost		<u>\$65,993</u>
Professional Fees at 16.0%	+	<u>\$10,559</u>
Total Project Cost		<u>\$76,552</u>

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEAC03	Title:	STAIR HANDRAIL UPGRADES
Priority Sequence:	14		
Priority Class:	4		
Category Code:	AC3B	System:	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	STAIRS AND RAILINGS
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	505	
Project Class:	Plant Adaption		
Project Date:	10/21/2009		
Project Location:	Item Only: Floor(s) 1, 2, G		

Project Description

ADA legislation requires that stairs have graspable handrails on both sides, that the rails have a specific end geometry, and that the handrails continue horizontally at the landings. The end geometry of the handrails at the middle exit stair and the south exit stair do not comply with this legislation, and the south stair lacks wall handrails. Add painted metal wall handrails and handrail extensions on the end of the existing handrails.

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEAC03

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Metal rails, handrail extensions, tools, equipment rental, supplies, paint (2 coats)	LOT	1	\$500	\$500	\$3,200	\$3,200	\$3,700
Project Totals:				\$500		\$3,200	\$3,700

Material/Labor Cost		\$3,700
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$2,145
General Contractor Mark Up at 20.0%	+	\$429
Construction Cost		\$2,574
Professional Fees at 16.0%	+	\$412
Total Project Cost		\$2,986

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEAC04	Title:	AUDITORIUM ACCESSIBILITY UPGRADES
Priority Sequence:	15		
Priority Class:	4		
Category Code:	AC4A	System:	ACCESSIBILITY
		Component:	GENERAL
		Element:	FUNCTIONAL SPACE MOD.
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	219.3, 706.1, 505	
Project Class:	Plant Adaption		
Project Date:	10/21/2009		
Project Location:	Room Only: Floor(s) 2		

Project Description

Places of assembly are required to be accessible to the handicapped. Auditorium 201 has a sloped floor but still has some barriers to accessibility. Install transmitter and headphone receiver sets to accommodate individuals who require audible assistance. Also, the teaching dais is inaccessible by wheelchair. To provide adequate access, it is recommended that a shallow ramp be installed at the dais.

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Cost

Project Number: JOYEAC04

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Framing, lumber, fastener, and finishes allowance	LOT	1	\$300	\$300	\$1,280	\$1,280	\$1,580
Infrared transmitter and headphone receiver sets	SYS	1	\$1,520	\$1,520	\$1,333	\$1,333	\$2,853
Project Totals:				\$1,820		\$2,613	\$4,433

Material/Labor Cost		\$4,433
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$3,173
General Contractor Mark Up at 20.0%	+	\$635
Construction Cost		\$3,808
Professional Fees at 16.0%	+	\$609
Total Project Cost		\$4,417

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEAC05	Title:	DUAL LEVEL DRINKING FOUNTAIN INSTALLATION
Priority Sequence:	16		
Priority Class:	4		
Category Code:	AC3F	System:	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	DRINKING FOUNTAINS
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	211, 602	
Project Class:	Plant Adaption		
Project Date:	10/21/2009		
Project Location:	Item Only: Floor(s) 1		

Project Description

ADA legislation requires that building amenities such as the drinking fountains be generally accessible to all persons. The two drinking fountains on the upper floor are mounted at two different heights, but the entry floor drinking fountain has a single level configuration, which is not wheelchair accessible. The installation of a dual level, refrigerated drinking fountain is recommended to replace the existing entry floor fountain.

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEAC05

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Dual level drinking fountain	EA	1	\$1,216	\$1,216	\$374	\$374	\$1,590
Project Totals:				\$1,216		\$374	\$1,590

Material/Labor Cost		\$1,590
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$1,416
General Contractor Mark Up at 20.0%	+	\$283
Construction Cost		\$1,700
Professional Fees at 16.0%	+	\$272
Total Project Cost		\$1,972

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEAC06	Title:	SIGNAGE PACKAGE UPGRADE
Priority Sequence:	17		
Priority Class:	4		
Category Code:	AC3D	System:	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	SIGNAGE
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Plant Adaption		
Project Date:	10/21/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, G		

Project Description

ADA legislation has established signage requirements for all permanent spaces in buildings. Compliant signage should meet specific size, graphical, Braille, height, and location requirements. To comply with the intent of this legislation, it is recommended that all non-compliant signage be upgraded to conform to appropriate accessibility standards. The project scope includes directional signage.

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEAC06

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
ADA compliant signage	EA	42	\$53.11	\$2,231	\$15.62	\$656	\$2,887
Project Totals:				\$2,231		\$656	\$2,887

Material/Labor Cost		\$2,887
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$2,583
General Contractor Mark Up at 20.0%	+	\$517
Construction Cost		\$3,099
Professional Fees at 16.0%	+	\$496
Total Project Cost		\$3,595

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEES02	Title:	BUILT-UP ROOF REPLACEMENT
Priority Sequence:	18		
Priority Class:	4		
Category Code:	ES4B	System:	EXTERIOR
		Component:	ROOF
		Element:	REPLACEMENT
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Energy Conservation	\$1,200	
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/21/2009		
Project Location:	Floor-wide: Floor(s) R		

Project Description

The flat, multi-level built-up roofing is in overall good condition. However, experience indicates that all of this roofing will need to be replaced near the end of the next ten years. Replace this roof with a similar application.

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEES02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Built-up roof	SF	13,360	\$3.06	\$40,882	\$3.58	\$47,829	\$88,710
Project Totals:				\$40,882		\$47,829	\$88,710

Material/Labor Cost		\$88,710
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$65,704</u>
General Contractor Mark Up at 20.0%	+	<u>\$13,141</u>
Construction Cost		<u>\$78,845</u>
Professional Fees at 16.0%	+	<u>\$12,615</u>
Total Project Cost		<u>\$91,460</u>

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEHV02	Title:	COOLING TOWER REPLACEMENT
Priority Sequence:	19		
Priority Class:	4		
Category Code:	HV2B	System:	HVAC
		Component:	COOLING
		Element:	HEAT REJECTION
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	11/2/2009		
Project Location:	Item Only: Floor(s) 1		

Project Description

The existing cooling towers are recommended for replacement. Install a new cooling tower, including piping, balancing valves, controls, programming, and start-up.

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEHV02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Replace cooling tower to include demolition of existing unit	TON	600	\$104	\$62,304	\$60.60	\$36,360	\$98,664
Project Totals:				\$62,304		\$36,360	\$98,664

Material/Labor Cost		\$98,664
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$81,393
General Contractor Mark Up at 20.0%	+	\$16,279
Construction Cost		\$97,671
Professional Fees at 16.0%	+	\$15,627
Total Project Cost		\$113,299

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEEL03	Title:	UPGRADE ELECTRICAL DISTRIBUTION NETWORK
Priority Sequence:	20		
Priority Class:	4		
Category Code:	EL3B	System:	ELECTRICAL
		Component:	SECONDARY DISTRIBUTION
		Element:	DISTRIBUTION NETWORK
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	NEC	Articles 110, 210, 220, 230	
Project Class:	Capital Renewal		
Project Date:	11/2/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, G		

Project Description

An upgrade of the older portions of the building electrical system is recommended. Aging components, such as the circuit breakers, could serve as fire hazards if they fail to open a circuit in an overload or short circuit condition. Remove existing aged electrical components and branch circuitry. Install new power panels, switches, raceways, conductors, and devices. Provide molded case thermal magnetic circuit breakers and HACR circuit breakers for HVAC equipment. Redistribute the electrical loads to the appropriate areas to ensure safe and reliable power to building occupants. Provide ground fault circuit interrupter (GFCI) protection where required, and clearly label all panels for circuit identification. Also, it should be anticipated that the newer portion of the electrical distribution network will require comprehensive, minor repairs within the scope of this report. Such remedies include, but are not limited to, installing additional circuits, replacing worn switches and receptacles, replacing circuit breakers, and updating panel directories.

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Cost

Project Number: JOYEEL03

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Power panels, conductors, raceways, devices, demolition, and cut and patching materials	SF	15,118	\$5.52	\$83,451	\$8.27	\$125,026	\$208,477
Switches, receptacles, cover plates, breakers, miscellaneous materials	SF	15,000	\$0.50	\$7,500	\$0.75	\$11,250	\$18,750
Project Totals:				\$90,951		\$136,276	\$227,227

Material/Labor Cost		\$227,227
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$161,498
General Contractor Mark Up at 20.0%	+	\$32,300
Construction Cost		\$193,797
Professional Fees at 16.0%	+	\$31,008
Total Project Cost		\$224,805

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEEL02	Title:	INTERIOR LIGHTING UPGRADE
Priority Sequence:	21		
Priority Class:	4		
Category Code:	EL4B	System:	ELECTRICAL
		Component:	DEVICES AND FIXTURES
		Element:	INTERIOR LIGHTING
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Energy Conservation	\$9,220	
Code Application:	NEC	Articles 210, 410	
Project Class:	Capital Renewal		
Project Date:	11/2/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, G		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEEL02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
High efficiency fluorescent fixtures, occupancy sensors, and demolition of existing lighting	SF	30,118	\$2.81	\$84,632	\$3.44	\$103,606	\$188,238
Project Totals:				\$84,632		\$103,606	\$188,238

Material/Labor Cost		\$188,238
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$138,374
General Contractor Mark Up at 20.0%	+	\$27,675
Construction Cost		\$166,049
Professional Fees at 16.0%	+	\$26,568
Total Project Cost		\$192,616

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEEL04	Title:	EXTERIOR LIGHTING REPLACEMENT
Priority Sequence:	22		
Priority Class:	4		
Category Code:	EL4A	System:	ELECTRICAL
		Component:	DEVICES AND FIXTURES
		Element:	EXTERIOR LIGHTING
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Energy Conservation	\$720	
Code Application:	NEC	410	
Project Class:	Capital Renewal		
Project Date:	11/2/2009		
Project Location:	Building-wide: Floor(s) 1, 2, G, R		

Project Description

Emergency power for this facility and the adjacent Joyner Library is produced by a local diesel-fired emergency generator. This unit has a capacity of 400 kW, generates 277/480 volt power, and was manufactured by Caterpillar. It has served beyond its intended life cycle and should be replaced to provide reliable emergency power to the critical systems in this facility.

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Cost

Project Number: JOYEEL04

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
HID wall-mount fixture and demolition of existing fixture	EA	11	\$406	\$4,466	\$190	\$2,090	\$6,556
Compact fluorescent, recessed exterior light and demolition of existing light	EA	28	\$143	\$4,004	\$100	\$2,800	\$6,804
Replace lighting stanchion, including fixture, 30 foot	EA	7	\$2,662	\$18,634	\$1,996	\$13,972	\$32,606
Replace lighting stanchion, including fixture, 12 foot	EA	7	\$1,331	\$9,317	\$1,220	\$8,540	\$17,857
Project Totals:				\$36,421		\$27,402	\$63,823

Material/Labor Cost		\$63,823
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$50,733
General Contractor Mark Up at 20.0%	+	\$10,147
Construction Cost		\$60,880
Professional Fees at 16.0%	+	\$9,741
Total Project Cost		\$70,621

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEIS03	Title:	AUDITORIUM SEATING UPGRADES
Priority Sequence:	23		
Priority Class:	4		
Category Code:	IS6D	System:	INTERIOR/FINISH SYS.
		Component:	GENERAL
		Element:	OTHER
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/21/2009		
Project Location:	Room Only: Floor(s) 2		

Project Description

The auditorium seating is in overall good condition. However, experience indicates that a portion of this seating will need to be replaced over the next ten years.

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEIS03

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Premium, theater style seating upgrade allowance	LOT	1	\$7,500	\$7,500	\$6,400	\$6,400	\$13,900
Project Totals:				\$7,500		\$6,400	\$13,900

Material/Labor Cost		\$13,900
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$10,836
General Contractor Mark Up at 20.0%	+	\$2,167
Construction Cost		\$13,003
Professional Fees at 16.0%	+	\$2,080
Total Project Cost		\$15,083

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEIS04	Title:	RESTROOM FINISH RENOVATIONS
Priority Sequence:	24		
Priority Class:	4		
Category Code:	IS6D	System:	INTERIOR/FINISH SYS.
		Component:	GENERAL
		Element:	OTHER
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/21/2009		
Project Location:	Room Only: Floor(s) 1,2		

Project Description

The public men's restroom and public women's restroom finishes, accessories, and partitions are dated. These finishes, accessories, and partitions should be renewed within the next ten years.

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEIS04

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Major restroom renovation, including finishes, partitions, and accessories	FIXT	32	\$1,500	\$48,000	\$1,280	\$40,960	\$88,960
Project Totals:				\$48,000		\$40,960	\$88,960

Material/Labor Cost		\$88,960
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$69,348</u>
General Contractor Mark Up at 20.0%	+	<u>\$13,870</u>
Construction Cost		<u>\$83,218</u>
Professional Fees at 16.0%	+	<u>\$13,315</u>
Total Project Cost		<u>\$96,533</u>

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEIS05	Title:	REFINISH CEILINGS
Priority Sequence:	25		
Priority Class:	4		
Category Code:	IS3B	System:	INTERIOR/FINISH SYS.
		Component:	CEILINGS
		Element:	REPLACEMENT
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/21/2009		
Project Location:	Floor-wide: Floor(s) 1, 2		

Project Description

Ceiling finish applications vary in age, type, and condition, but consist primarily of acoustical tile, with some painted ceilings. 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
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEIS05

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Acoustical tile ceiling system	SF	18,180	\$2.12	\$38,542	\$2.98	\$54,176	\$92,718
Painted ceiling finish application	SF	1,710	\$0.17	\$291	\$0.81	\$1,385	\$1,676
Project Totals:				\$38,832		\$55,562	\$94,394

Material/Labor Cost		\$94,394
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$67,607</u>
General Contractor Mark Up at 20.0%	+	<u>\$13,521</u>
Construction Cost		<u>\$81,129</u>
Professional Fees at 16.0%	+	<u>\$12,981</u>
Total Project Cost		<u>\$94,109</u>

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEPL02	Title:	WATER SUPPLY PIPING REPLACEMENT
Priority Sequence:	26		
Priority Class:	4		
Category Code:	PL1A	System:	PLUMBING
		Component:	DOMESTIC WATER
		Element:	PIPING NETWORK
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	IPC	Chapter 6	
Project Class:	Capital Renewal		
Project Date:	11/2/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, G		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEPL02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Copper pipe and fittings, valves, backflow prevention devices, insulation, hangers, demolition, and cut and patching materials	SF	30,118	\$1.81	\$54,514	\$4.54	\$136,736	\$191,249
Project Totals:				\$54,514		\$136,736	\$191,249

Material/Labor Cost		\$191,249
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$125,041
General Contractor Mark Up at 20.0%	+	\$25,008
Construction Cost		\$150,049
Professional Fees at 16.0%	+	\$24,008
Total Project Cost		\$174,057

Specific Project Details
Facility Condition Analysis
Section Three
JOYE : JOYNER EAST

Project Description

Project Number:	JOYEPL03	Title:	DRAIN PIPING REPLACEMENT
Priority Sequence:	27		
Priority Class:	4		
Category Code:	PL2A	System:	PLUMBING
		Component:	WASTEWATER
		Element:	PIPING NETWORK
Building Code:	JOYE		
Building Name:	JOYNER EAST		
Subclass/Savings:	Not Applicable		
Code Application:	IPC	Chapters 7-11	
Project Class:	Capital Renewal		
Project Date:	11/2/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, G		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
 JOYE : JOYNER EAST

Project Cost

Project Number: JOYEPL03

Task Cost Estimate

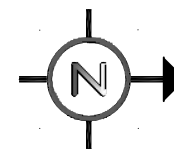
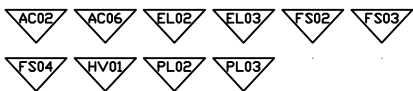
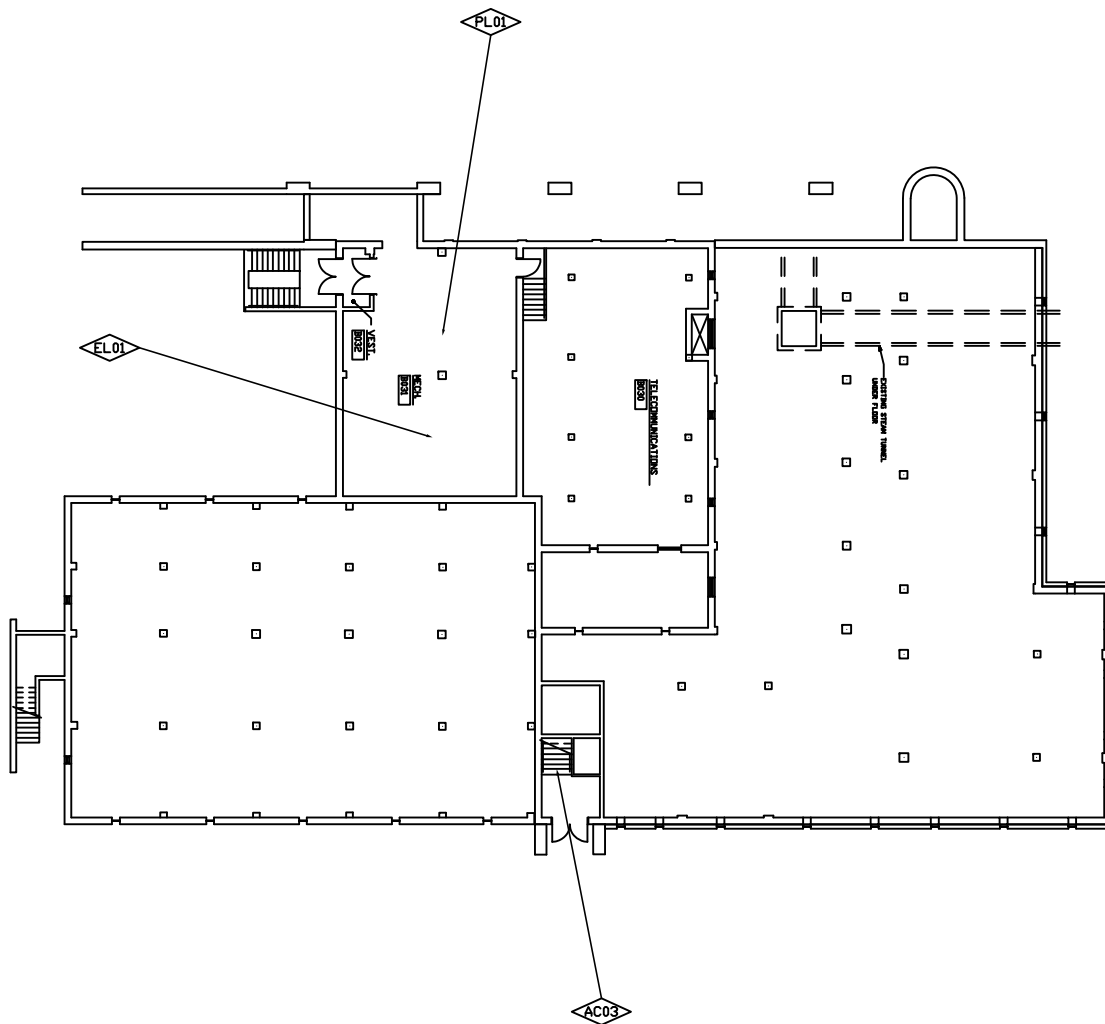
Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Cast-iron drain piping and fittings, copper pipe and fittings, floor / roof drains, traps, hangers, demolition, and cut and patching materials	SF	30,118	\$2.89	\$87,041	\$6.64	\$199,984	\$287,025
Project Totals:				\$87,041		\$199,984	\$287,025

Material/Labor Cost		\$287,025
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$190,242
General Contractor Mark Up at 20.0%	+	\$38,048
Construction Cost		\$228,290
Professional Fees at 16.0%	+	\$36,526
Total Project Cost		\$264,817

FACILITY CONDITION ANALYSIS

SECTION 4

**DRAWINGS
AND PROJECT LOCATIONS**



JOYNER
EAST

BLDG NO. JOYE



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: 11/04/09

Drawn by: J.T.V.

Project No. 09-041

GROUND
FLOOR
PLAN

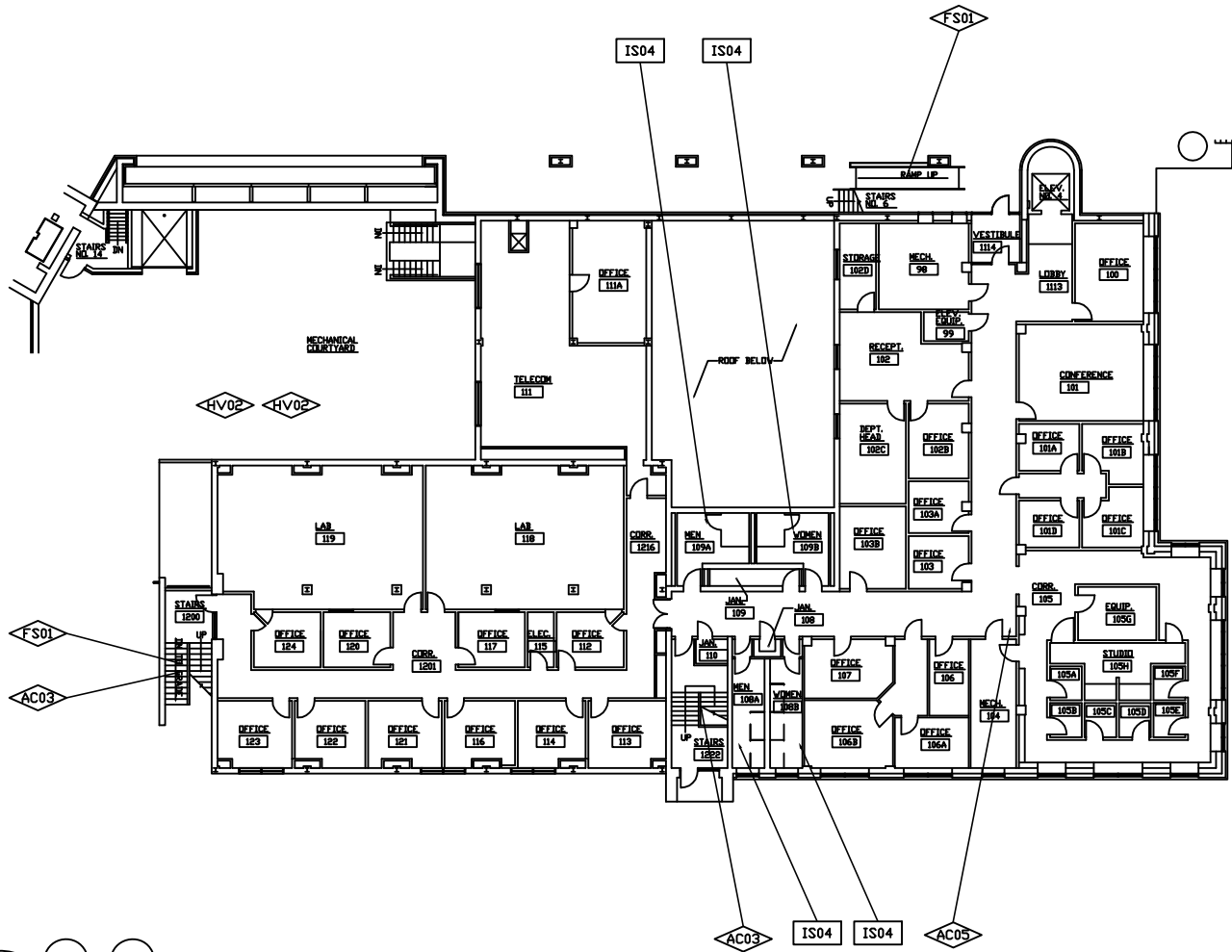
Sheet No.

1 of 3



FACILITY
CONDITION
ANALYSIS

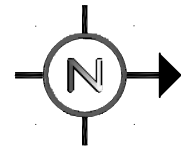
2165 West Park Court
Suite N
Stone Mountain GA 30087
770.879.7376



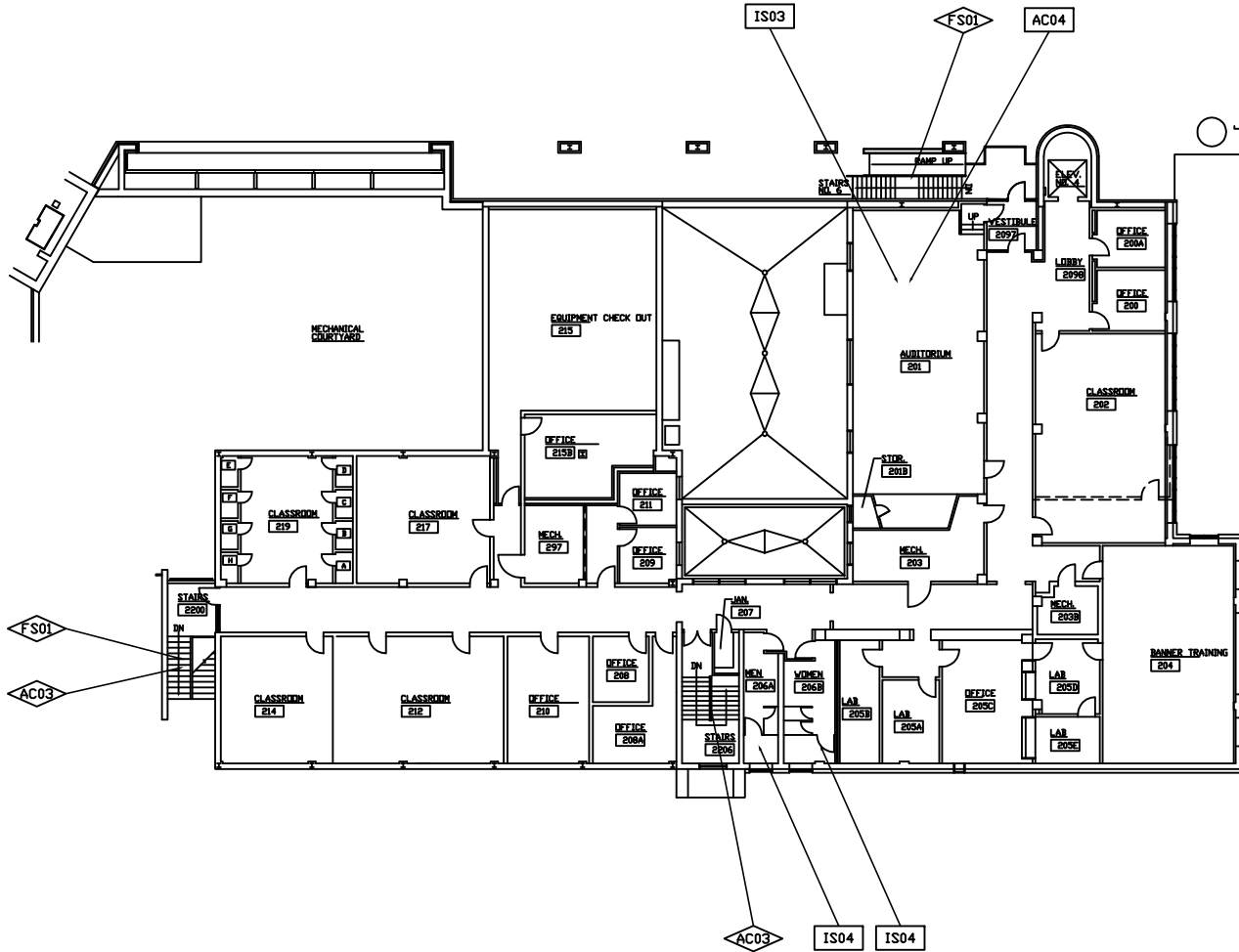
- PROJECT NUMBER APPLIES TO ONE ROOM ONLY
- PROJECT NUMBER APPLIES TO ONE ITEM ONLY
- PROJECT NUMBER APPLIES TO ENTIRE BUILDING
- PROJECT NUMBER APPLIES TO ENTIRE FLOOR
- PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS
- PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 11/04/09
 Drawn by: J.T.V.
 Project No. 09-041

FIRST
FLOOR
PLAN



ROOF
 ES02 HV01



IS02

- AC02
- AC06
- EL02
- EL03
- FS02
- FS03
- FS04
- HV01
- IS01
- IS05
- PL02
- PL03

JOYNER
EAST

BLDG NO. JOYE



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: 11/04/09

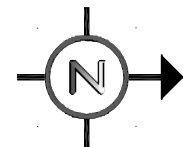
Drawn by: J.T.V.

Project No. 09-041

SECOND
FLOOR
PLAN

Sheet No.

3 of 3



FACILITY CONDITION ANALYSIS

SECTION 5

LIFE CYCLE MODEL SUMMARY
AND PROJECTIONS

Life Cycle Model
Building Component Summary
JOYE : JOYNER EAST

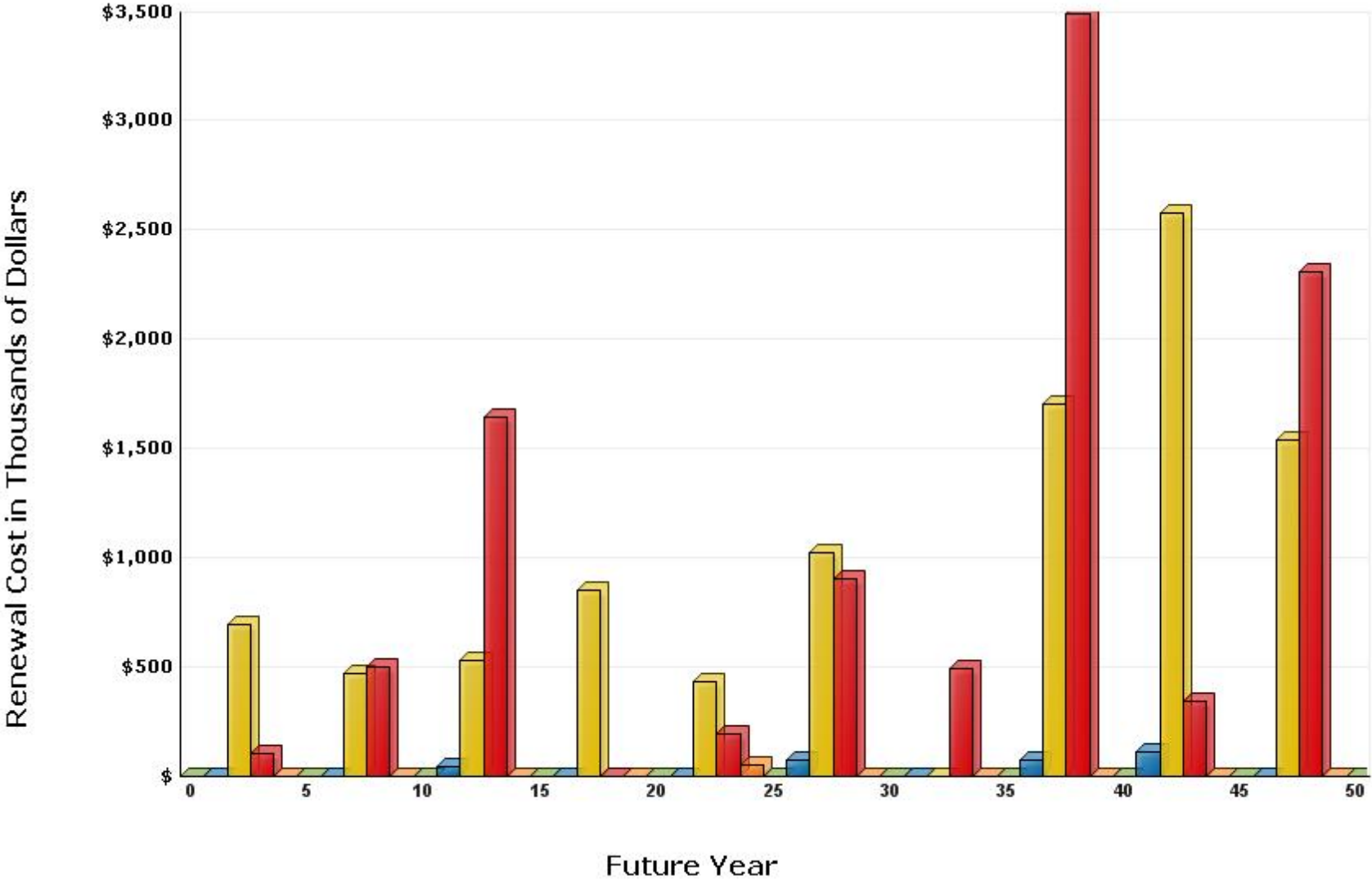
Unifomat Code	Component Description	Qty	Units	Unit Cost	Complex Adj	Total Cost	Install Date	Life Exp
B2010	EXTERIOR FINISH RENEWAL	1,500	SF	\$1.30		\$1,955	1975	10
B2010	EXTERIOR FINISH RENEWAL	6,730	SF	\$1.30	.31	\$2,720	1975	10
B2010	EXTERIOR FINISH RENEWAL	6,730	SF	\$1.30	.31	\$2,720	2001	10
B2020	STANDARD GLAZING AND CURTAIN WALL	1,320	SF	\$104.04		\$137,328	1975	55
B2020	STANDARD GLAZING AND CURTAIN WALL	1,320	SF	\$104.04		\$137,328	2001	55
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	5	LEAF	\$4,311.24		\$21,556	1975	20
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	1	LEAF	\$4,311.24		\$4,311	1975	20
B2030	LOW TRAFFIC EXTERIOR DOOR SYSTEM	4	LEAF	\$2,863.29		\$11,453	1975	40
B3010	BUILT-UP ROOF	13,360	SF	\$6.70		\$89,547	1990	20
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	200	LEAF	\$783.68		\$156,736	1975	35
C1020	INTERIOR DOOR HARDWARE	200	EA	\$423.04		\$84,608	1975	15
C3010	STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.)	41,740	SF	\$0.80		\$33,435	2001	10
C3020	CARPET	6,840	SF	\$8.75		\$59,826	2001	10
C3020	VINYL FLOOR TILE	12,830	SF	\$6.59		\$84,522	1975	15
C3020	CERAMIC FLOOR TILE	1,710	SF	\$17.36		\$29,690	1975	20
C3030	ACOUSTICAL TILE CEILING SYSTEM	18,180	SF	\$4.99		\$90,773	1990	15
C3030	PAINTED CEILING FINISH APPLICATION	1,710	SF	\$0.80		\$1,370	2001	15
D1010	ELEVATOR MODERNIZATION - HYDRAULIC	1	EA	\$158,628.64		\$158,629	1996	25
D1010	ELEVATOR CAB RENOVATION - PASSENGER	1	EA	\$26,616.80		\$26,617	1996	12
D2010	PLUMBING FIXTURES - CLASSROOM / ACADEMIC	30,118	SF	\$7.96		\$239,661	1975	35
D2020	WATER PIPING - CLASSROOM / ACADEMIC	30,118	SF	\$5.66		\$170,551	1975	35
D2020	WATER HEATER (RES., ELEC.)	40	GAL	\$47.95		\$1,918	1996	10
D2030	DRAIN PIPING - CLASSROOM / ACADEMIC	30,118	SF	\$8.60		\$258,865	1975	40
D2050	AIR COMPRESSOR PACKAGE (AVERAGE SIZE)	1	SYS	\$6,456.49		\$6,456	1996	25
D3030	COOLING TOWER (UP TO 300 TONS)	200	TON	\$342.33		\$68,465	1996	20
D3030	COOLING TOWER (OVER 300 TONS)	400	TON	\$184.81		\$73,925	1996	20
D3040	CONDENSATE RECEIVER	1	SYS	\$9,504.01		\$9,504	1975	15
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	1	EA	\$2,768.62		\$2,769	1996	20
D3040	HVAC SYSTEM - CLASSROOM / ACADEMIC	5,118	SF	\$30.67		\$156,967	1975	25

**Life Cycle Model
Building Component Summary
JOYE : JOYNER EAST**

Unifomat Code	Component Description	Qty	Units	Unit Cost	Complex Adj	Total Cost	Install Date	Life Exp
D3040	HVAC SYSTEM - CLASSROOM / ACADEMIC	25,000	SF	\$30.67		\$766,740	1996	25
D3040	BASE MTD. PUMP - UP TO 15 HP	8	HP	\$3,175.77		\$25,406	1975	20
D3040	BASE MTD. PUMP - UP TO 15 HP	8	HP	\$3,175.77		\$25,406	1975	20
D3050	SPLIT DX SYSTEM	8	TON	\$2,143.89		\$17,151	2004	15
D3050	SPLIT DX SYSTEM	8	TON	\$2,143.89		\$17,151	2004	15
D5010	ELECTRICAL SYSTEM - CLASSROOM / ACADEMIC	15,118	SF	\$13.35		\$201,813	1975	50
D5010	ELECTRICAL SYSTEM - CLASSROOM / ACADEMIC	15,000	SF	\$13.35		\$200,238	1996	50
D5010	ELECTRICAL SWITCHGEAR 120/208V	600	AMP	\$32.96		\$19,778	1996	20
D5010	ELECTRICAL SWITCHGEAR 277/480V	800	AMP	\$39.56		\$31,651	1996	20
D5020	EXIT SIGNS (CENTRAL POWER)	14	EA	\$163.78		\$2,293	1975	20
D5020	EXTERIOR LIGHT (HID)	11	EA	\$689.58		\$7,585	1996	20
D5020	LIGHTING - CLASSROOM / ACADEMIC	30,118	SF	\$6.26		\$188,468	1996	20
D5030	FIRE ALARM SYSTEM, POINT ADDRESSABLE	30,118	SF	\$2.61		\$78,746	1975	15
D5040	GENERATOR, DIESEL (200-500 KW)	400	KW	\$377.78		\$151,113	1975	25
E2010	PREMIUM FOLDING FIXED SEATING	116	EA	\$781.63		<u>\$90,669</u>	2001	20
						\$3,948,416		

Life Cycle Model Expenditure Projections

JOYE : JOYNER EAST



Average Annual Renewal Cost Per SqFt \$5.68

FACILITY CONDITION ANALYSIS

SECTION 6

PHOTOGRAPHIC LOG

**Photo Log - Facility Condition
Analysis**

JOYE : JOYNER EAST

Photo ID No	Description	Location	Date
JOYE001a	View looking northeast across roof	Roof	9/4/2009
JOYE001e	Emergency generator	Southeast side of building	9/4/2009
JOYE002a	West facade, clock tower	Exterior elevation	9/4/2009
JOYE002e	Simplex fire alarm control panel	Mechanical room B01	9/4/2009
JOYE003a	View looking northeast along west facade showing motion-activated, musical waterwall fountain art in foreground	Exterior elevation	9/4/2009
JOYE003e	Evapco cooling tower CT-1	Southeast side of building	9/4/2009
JOYE004a	South facade, clock tower	Exterior elevation	9/4/2009
JOYE004e	Evapco cooling tower CT-2	Southeast side of building	9/4/2009
JOYE005a	Northwest corner fire escape lacking guardrail and having inadequate headroom beneath outside stringer	Exterior detail	9/4/2009
JOYE005e	Trane air-cooled condenser CU-1	Southeast side of building	9/4/2009
JOYE006a	View looking southeast along north facade	Exterior elevation	9/4/2009
JOYE006e	McQuay air handler	Mechanical room B01	9/4/2009
JOYE007a	View looking southwest across east facade	Exterior elevation	9/4/2009
JOYE007e	Trane air handler AHU-16	Mechanical room B01	9/4/2009
JOYE008a	South facade exit stair with open risers and painted metal guardrail that lacks sufficient infill	Exterior detail	9/4/2009
JOYE008e	Chilled water circulation pump	Mechanical room B01	9/4/2009
JOYE009a	View of east corner, clock tower	Exterior elevation	9/4/2009
JOYE009e	Hot water circulation pump	Mechanical room B01	9/4/2009
JOYE010a	View looking northwest at equipment yard cooling towers	Exterior elevation	9/4/2009
JOYE010e	Incoming steam, heat exchanger, and hot water tank	Mechanical room B01	9/4/2009
JOYE011a	View looking up the painted metal stair leading to the top of the clock tower	Clock tower	9/4/2009
JOYE011e	Duplex condensate receiver	Mechanical room B01	9/4/2009
JOYE012a	View of southeast corner	Exterior elevation	9/4/2009
JOYE012e	Reciprocating air compressor with dryer	Mechanical room B01	9/4/2009
JOYE013a	Face of glockenspiel at face of south facade, clock tower	Exterior detail	9/4/2009
JOYE013e	Carrier air-cooled condenser	Northeast side of building	9/4/2009
JOYE014a	View of typical theater style seating	Second floor, auditorium 201	9/4/2009
JOYE014e	Trane air handler AHU-19	Mechanical room 203B	9/4/2009
JOYE015a	Raised teaching area lacking wheelchair access and knob hardware on door	Second floor, auditorium 201	9/4/2009
JOYE015e	McQuay air handler AHU-20	Mechanical room 203	9/4/2009

**Photo Log - Facility Condition
Analysis**

JOYE : JOYNER EAST

Photo ID No	Description	Location	Date
JOYE016a	Single level drinking fountains mounted at two different heights	Second floor, corridor intersection	9/4/2009
JOYE016e	McQuay air handler AHU-18	Mechanical room 203	9/4/2009
JOYE017a	Painted metal handrails lacking recommended end geometry	Second floor, stair 2206	9/4/2009
JOYE017e	McQuay air handler AHU-17	Mechanical room 297	9/4/2009
JOYE018a	Painted metal guardrail that is high enough but lacks sufficient infill and lack of wall handrail	Second floor, south breezeway exit stair	9/4/2009
JOYE018e	Trane air handler AHU-15	Mechanical room 98	9/4/2009
JOYE019a	View looking southeast along west facade motion-activated, waterwall fountain art	Exterior detail	9/4/2009
JOYE019e	Transformers	Southeast side of building	9/4/2009
JOYE020e	Motor control center MCC-2	Mechanical room B01	9/4/2009
JOYE021e	HID pole-mounted light fixture	East side of building	9/4/2009
JOYE022e	Transformer	Northeast side of building	9/4/2009
JOYE023e	HID converted pole-mounted light fixture	North side of building	9/4/2009
JOYE024e	Architectural 'Cloud' hardscape equipment	South side of building	9/4/2009
JOYE025e	Architectural waterwall equipment	Southwest side of building	9/4/2009
JOYE026e	Backflow preventer for waterwall	Southwest side of building	9/4/2009
JOYE027e	Freestanding water fountain in recessed alcove	Second floor, hallway	9/4/2009

Facility Condition Analysis - Photo Log



JOYE001A.jpg



JOYE001E.jpg



JOYE002A.jpg



JOYE002E.jpg



JOYE003A.jpg



JOYE003E.jpg



JOYE004A.jpg



JOYE004E.jpg



JOYE005A.jpg



JOYE005E.jpg



JOYE006A.jpg



JOYE006E.jpg



JOYE007A.jpg



JOYE007E.jpg



JOYE008A.jpg



JOYE008E.jpg



JOYE009A.jpg



JOYE009E.jpg



JOYE010A.jpg



JOYE010E.jpg

Facility Condition Analysis - Photo Log



JOYE011A.jpg



JOYE011E.jpg



JOYE012A.jpg



JOYE012E.jpg



JOYE013A.jpg



JOYE013E.jpg



JOYE014A.jpg



JOYE014E.jpg



JOYE015A.jpg



JOYE015E.jpg



JOYE016A.jpg



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JOYE017A.jpg



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JOYE018A.jpg



JOYE018E.jpg



JOYE019A.jpg



JOYE019E.jpg



JOYE020E.jpg



JOYE021E.jpg

Facility Condition Analysis - Photo Log



JOYE022E.jpg



JOYE023E.jpg



JOYE024E.jpg



JOYE025E.jpg



JOYE026E.jpg



JOYE027E.jpg