

EAST CAROLINA UNIVERSITY

MESSICK THEATRE ARTS COMPLEX

ASSET CODE: MESS

FACILITY CONDITION ANALYSIS

DECEMBER 30, 2009



EAST CAROLINA UNIVERSITY
Facility Condition Analysis

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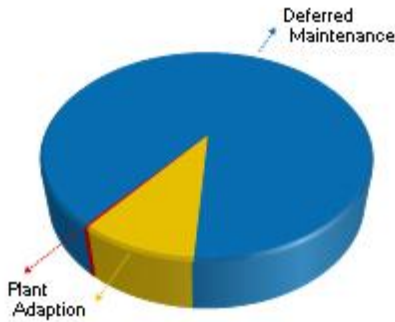
FACILITY CONDITION ANALYSIS

SECTION 1

GENERAL ASSET INFORMATION

EXECUTIVE SUMMARY - MESSICK THEATRE ARTS COMPLEX

PROJECT COSTS BY CLASSIFICATION



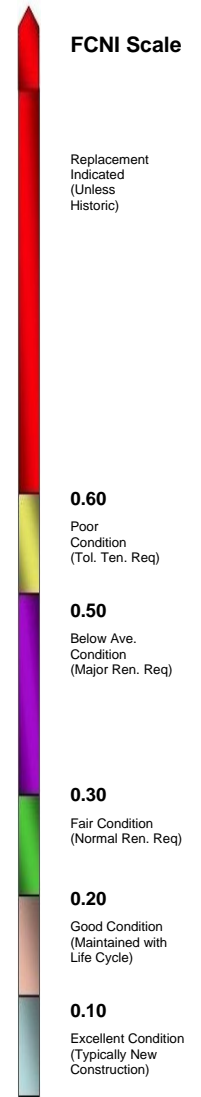
Building Code: MESS
Building Name: MESSICK THEATRE ARTS COMPLEX
Year Built: 1927
Building Use: Classroom / Academic
Square Feet: 35,038

Project Costs by Priority

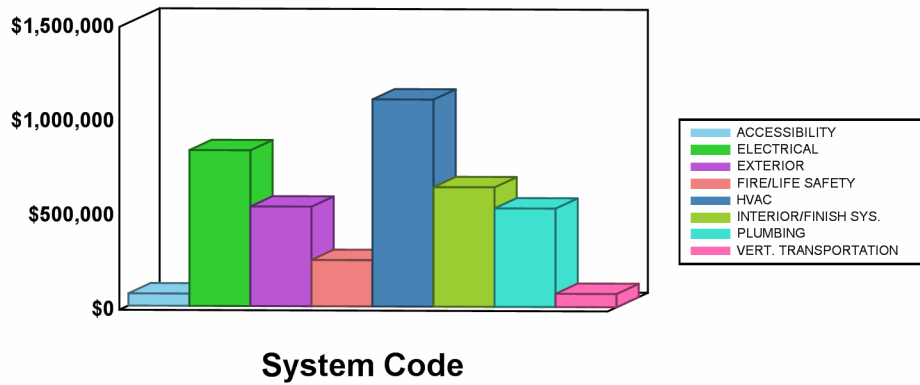
Priority 1: \$0
Priority 2: \$321,331
Priority 3: \$3,591,405
Priority 4: \$77,049
Total Project Costs: **\$3,989,785**

Facility Replacement Cost: **\$9,997,000**

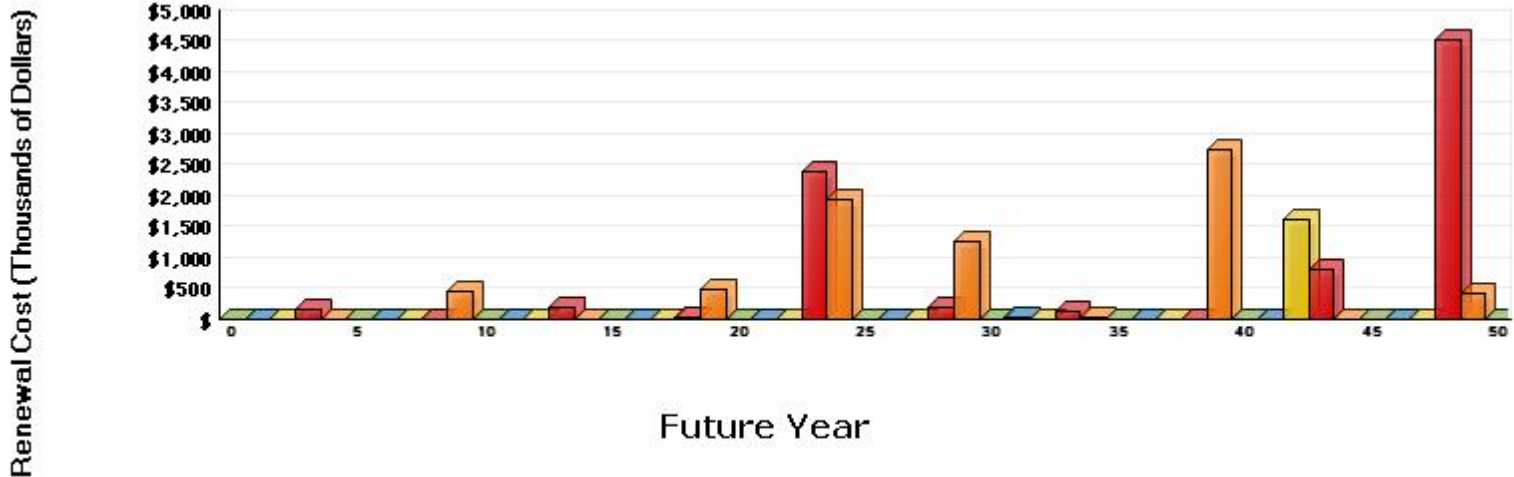
Facility Condition Needs Index (FCNI): 0.40
 (Project Costs / Replacement Cost)



PROJECT COSTS BY SYSTEM CODE



LIFE CYCLE MODEL EXPENDITURE PROJECTIONS



Average Annual Renewal Cost Per SqFt \$3.72

B. ASSET SUMMARY

The Messick Theatre Arts Center is located on the campus of East Carolina University in Greenville, North Carolina. Constructed in 1927, this Italian Renaissance style facility includes two stories above grade and a single-level full basement. This T-shaped facility is supported by a reinforced concrete basement foundation. Totalling 35,038 gross square feet, the facility is predominately utilized as studio theater space, with other use types that include classrooms and offices.

Information for this report was gathered during a site inspection that concluded on September 9, 2009.

SITE

This building sits on a flat parcel of land. The landscaping consists of ornamental planting beds, shrubbery, specimen trees, and areas of turf. Vehicular access is from the south via Student Plaza. The building is served by a parking lot east of the structure that leads to a sidewalk system that serves all the entrances. The site is in overall good condition and does not require anything more than routine maintenance.

EXTERIOR STRUCTURE

The gabled roof is covered with mission tiles. The mission tile is in good condition and is expected to exceed the scope of this inspection. There is a small section of roof that joins the three wings that is covered with a built-up application. It is recommended that the built-up roofing system be replaced. The existing stress conditions around the seams and at the perimeter flashing will lead to failure if left unattended. Replace the stressed roof and flashing with a similar application.

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

The metal frame window systems have single pane glazing. It is recommended that the single-pane metal frame window applications be upgraded to thermal-pane systems. Such double-pane systems will reduce the energy required to operate the building. Repair or replacement of the windowsills and trim may also be necessary.

The main entrance of the building has metal-framed, glazed door units, and the secondary entrances have hollow metal service doors. There is also an overhead door located at the loading dock. It is recommended that aged and inefficient exterior door systems be replaced. This effort includes all primary and secondary entrance, service, and overhead roll-up doors. The replacement units should maintain the architectural design aspects of this facility. They should be modern, energy-efficient applications that will protect the interior of the building from the elements.

INTERIOR FINISHES / SYSTEMS

The wall finishes are generally finished with painted sheetrock. The interior walls were found to be in fair condition, with minor damage and finish discoloration. The ceiling systems consist of a combination of painted sheetrock and suspended, acoustical tile systems. The ceilings are in fair condition with minor damaged tile and discoloration. The floor finishes are typically carpet, vinyl tile, or ceramic tile. The materials used are not expected to outlast the scope of this assessment. Wall, ceiling, and floor finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

The condition of the interior door systems is such that door replacements are recommended as part of a comprehensive renovation effort. Complete demolition of the existing door systems and replacement according to a code-compliant plan to properly protect egress passages is recommended.

There are men's and women's restrooms on each floor that are partially compliant. The restroom fixtures and finishes are mostly original to the year of construction. The fixtures are sound but aged and inefficient. The finishes are outdated. A comprehensive restroom renovation, including new fixtures, finishes, partitions, and accessories, is recommended.

ACCESSIBILITY

Compliant parking spaces in the east lot lead to curb cuts and a sidewalk system that provides access to all entrances. The north entrance is wheelchair accessible and leads to a compliant elevator system that serves all floors. The doors are equipped with levered hardware and the appropriate pictorial and Braille signage.

There are five single-level drinking fountains located throughout the building. Present accessibility legislation requires that building amenities be generally accessible to all persons. The current configurations of the drinking fountains are barriers to accessibility. All the single-level, refrigerated drinking fountains should be replaced with dual-level units.

There are men's and women's restrooms on each floor that are partially compliant. A comprehensive restroom renovation, including new fixtures, finishes, partitions, and accessories, is detailed in the Interior Finishes section of this report.

There are four sets of stairs that serve all floors of the building. Present legislation regarding building accessibility by the handicapped requires that stairs have graspable handrails on both sides, that the rails have a specific end geometry, and that the handrails continue horizontally at the landings. In addition, guards must prevent the passage of a 4 inch diameter sphere (6 inches in the triangle formed by the lower rail and tread / riser angle). Although the stairs are compliant with the code enforced at the time of construction until a major renovation occurs, they are deficient in handrail and guard design relative to current standards. Future renovation efforts should include comprehensive stair railing upgrades.

HEALTH

Based on the age of this facility, it is likely that lead paint or asbestos containing materials were used in the original construction. No physical testing or sampling was performed, and no lead paint or suspected

asbestos was observed during the inspection of this building. The lead paint and asbestos health risks are extremely minimal, but workers during any and all remodeling should be made aware of the potential hazards of working with such materials. There were no reports or evidence of pest or insect infestations.

FIRE / LIFE SAFETY

The path of egress is adequate with regards to the fire rating of corridor wall assemblies, floor slab assemblies, door assemblies, elevator lobbies, stair location, quantity and design. No fire or life safety issues related to the architectural features were observed during the inspection of this facility.

This facility is protected by a central fire alarm system. The point addressable fire alarm control panel was manufactured by Simplex and is located in mechanical room 123. The devices that serve this system include manual pull stations, audible / visible devices, and smoke detectors. The fire alarm system is adequate and in good condition. With proper testing and maintenance, it will outlast the purview of this analysis.

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

The exit signs in this facility are LED-illuminated and have battery backup power. Emergency lighting is available through unitary fixtures with battery back-up power. All the egress lighting systems are adequate and in good condition. There are no related upgrades to recommend at this time.

HVAC

This facility is on the campus steam loop. Hot water is circulated as the heating medium. The cooling medium is supplied by the campus chilled water loop. This facility is served by a forced-air HVAC system with single-zone air handling units. The air handling units 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 pneumatic and were manufactured by Contro-Systems Corp. The components of the HVAC system have aged beyond their statistical life cycles. The system is inefficient compared to modern standards. It is recommended that the existing HVAC system be renovated.

ELECTRICAL

A dry-type transformer that is rated for 300 kVA service steps the incoming power down from 12,470 volts to 120/208 volts for building distribution. It is then distributed by a Westinghouse switchgear that is estimated to be rated for 1,200 amp service. The electrical switchgear was not accessible at the time of the inspection, and the assumptions were made based on interviews and electrical equipment that was accessible. The 120/208 volt main distribution panel and switchgear are very old and recommended for replacement.

The electrical distribution network in this facility supplies 120/208 volt power throughout. The panels were predominantly manufactured by Westinghouse. The electrical devices in this facility are aged and visibly worn. The system is undersized to support the current needs of the occupants. In order to maintain reliable service throughout the facility, it is recommended that the electrical distribution network be upgraded.

Over half of the interior spaces of this facility are illuminated by fixtures that utilize compact and T8 fluorescent lamps. Most of the fluorescent lighting fixtures are recessed, compact applications. Energy-efficient ballasts and lamps were retrofitted into the light fixtures. However, there are still some T12 fluorescent lamps in service, and some fixtures are still fitted with inefficient, incandescent lamps. The lenses on the light fixtures are aged and present a dim aesthetic. Some lenses are worn or missing. The interior lighting has generally served beyond its expected life cycle and is recommended for replacement. Specify energy-efficient light fixtures for the new interior lighting systems, and install occupancy sensors where possible. It is recommended that the unitary emergency lighting fixtures be removed and their functionality incorporated into the new interior lighting systems.

The remaining interior spaces of this facility are illuminated by fixtures that utilize T12 fluorescent lamps. The fluorescent fixtures are predominantly surface-mounted applications with acrylic lenses. Some fixtures are still fitted with inefficient, incandescent lamps. The lenses on the light fixtures are aged and present a dim aesthetic. Some lenses are worn or missing. The interior lighting has generally served beyond its expected life cycle and is recommended for replacement. Specify energy-efficient light fixtures for the new interior lighting systems, 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. These exterior lighting systems are aged and weathered. It is recommended that they be replaced within the scope of this analysis. Install new energy-efficient fixtures, and place them on photocell activation.

There is no central emergency power available in this facility. The installation of an appropriately-sized emergency, diesel-fired generator and associated emergency distribution network is recommended. This system should be sized to support all life safety and specific non-essential loads.

PLUMBING

Potable water is distributed throughout this facility via a galvanized steel piping network. Sanitary waste and storm water piping is of cast-iron, bell-and-spigot construction with galvanized steel 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 recommended for replacement. This action is addressed in the proposed restroom renovation detailed in the Interior Finishes section of this report. Domestic water for this facility is heated by an electric, commercial-grade water heater. This unit is approaching the end of its expected life cycle. It should be anticipated that it will require replacement within the scope of this analysis.

VERTICAL TRANSPORTATION

The university commissioned an outside contractor to perform an elevator condition study in 2009. The capital project recommendations from this study have been included as projects in the ISES database.

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

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

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

| CATEGORY CODE REPORT | | | |
|---|-----------------------|------------------------------|---|
| CODE | COMPONENT DESCRIPTION | ELEMENT DESCRIPTION | DEFINITION |
| ES6E | GENERAL | OTHER | Any exterior work not specifically categorized elsewhere including finish and structural work on freestanding boiler stacks. |
| 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. |
| HE6A | HAZARDOUS MATERIAL | STRUCTURAL ASBESTOS | Testing, abatement and disposal of structural and building finish materials containing asbestos. |

| CATEGORY CODE REPORT | | | |
|---------------------------------|--------------------------------|---------------------------------|--|
| CODE | COMPONENT DESCRIPTION | ELEMENT DESCRIPTION | DEFINITION |
| HE6B | HAZARDOUS MATERIAL | MECHANICAL ASBESTOS | Testing, abatement and disposal of mechanical insulation materials containing asbestos. |
| HE6C | HAZARDOUS MATERIAL | PCBs | Includes testing, demolition, disposal and cleanup of PCB contaminated substances. |
| HE6D | HAZARDOUS MATERIAL | FUEL STORAGE | Includes monitoring, removal and replacement of above and below ground fuel storage and distribution systems. Also includes testing and disposal of contaminated soils. |
| HE6E | HAZARDOUS MATERIAL | LEAD PAINT | Testing, removal and disposal of lead-based paint systems. |
| HE6F | HAZARDOUS MATERIAL | OTHER | Handling, storage, and disposal of other hazardous materials. |
| HE7A | GENERAL | OTHER | Health related issues not catalogued elsewhere. |
| 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 UPGRADE | Replacement of HVAC control systems. |

| CATEGORY CODE REPORT | | | |
|--|-----------------------|------------------------------|--|
| CODE | COMPONENT DESCRIPTION | ELEMENT DESCRIPTION | DEFINITION |
| HV6B | CONTROLS | MODIFICATIONS/ REPAIRS | Repair or modification of HVAC control system. |
| HV6C | CONTROLS | AIR COMPRESSORS/ DRYERS | Repair or modification of control air compressors and dryers. |
| HV7A | INFRASTRUCTURE | STEAM/HOT WATER GENERATION | Generation of central steam and/or hot water including boilers and related components. |
| HV7B | INFRASTRUCTURE | STEAM/HOT WATER DISTRIBUTION | Distribution system for central hot water and/or steam. |
| HV7C | INFRASTRUCTURE | CHILLED WATER GENERATION | Generation of central chilled water including chillers and related components. |
| HV7D | INFRASTRUCTURE | CHILLED WATER DISTRIBUTION | Distribution system for central chilled water. |
| HV7E | INFRASTRUCTURE | TUNNELS/ MANHOLES/ TRENCHES | Repairs, installation, replacement of utility system access chambers. |
| HV7F | INFRASTRUCTURE | OTHER | HVAC infrastructure issues not specifically categorized elsewhere. |
| HV8A | GENERAL | CFC COMPLIANCE | Chiller conversions/replacements for CFC regulatory compliance, monitoring, etc. |
| HV8B | GENERAL | OTHER | HVAC issues not catalogued elsewhere. |
| 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 | CABINETS | R & R work to interior casework systems including cabinets, countertops, wardrobes, lockers, mail boxes, built-in bookcases, lab/work benches, reagent shelving, etc. (except as required for access by the disabled). |
| IS6C | GENERAL | SCREENING | Work on temporary or partial height partitioning systems including toilet partitions, urinal/vanity screens, etc. |
| IS6D | GENERAL | OTHER | Any work on interior elements not logically or specifically categorized elsewhere including light covers, phone booths, interior light wells, etc. |
| SYSTEM DESCRIPTION: PLUMBING | | | |
| PL1A | DOMESTIC WATER | PIPING NETWORK | Repair or replacement of domestic water supply piping network, insulation, hangers, etc. |

| CATEGORY CODE REPORT | | | |
|---|-----------------------|--|---|
| CODE | COMPONENT DESCRIPTION | ELEMENT DESCRIPTION | DEFINITION |
| PL1B | DOMESTIC WATER | PUMPS | Domestic water booster pumps, circulating pumps, related controls, etc. |
| PL1C | DOMESTIC WATER | STORAGE/ TREATMENT | Equipment or vessels for storage or treatment of domestic water. |
| PL1D | DOMESTIC WATER | METERING | Installation, repair, or replacement of water meters. |
| PL1E | DOMESTIC WATER | HEATING | Domestic water heaters including gas, oil, and electric water heaters, shell and tube heat exchangers, tank type and instantaneous. |
| PL1F | DOMESTIC WATER | COOLING | Central systems for cooling and distributing drinking water. |
| PL1G | DOMESTIC WATER | FIXTURES | Plumbing fixtures including sinks, drinking fountains, water closets, urinals, etc. |
| PL1H | DOMESTIC WATER | CONSERVATION | Alternations made to the water distribution system to conserve water. |
| PL1I | DOMESTIC WATER | BACKFLOW PROTECTION | Backflow protection devices including backflow preventers, vacuum breakers, etc. |
| PL2A | WASTEWATER | PIPING NETWORK | Repair or replacement of building wastewater piping network. |
| PL2B | WASTEWATER | PUMPS | Pump systems used to lift wastewater including sewage ejectors and other sump systems. |
| PL3A | SPECIAL SYSTEMS | PROCESS GAS/FLUIDS | Generation and/or distribution of process steam, compressed air, natural and LP gas, process water, vacuum, etc. |
| PL4A | INFRASTRUCTURE | POTABLE WATER STORAGE/ TREATMENT | Storage and treatment of potable water for distribution. |
| PL4B | INFRASTRUCTURE | INDUSTRIAL WATER DISTRIBUTION/ TREATMENT | Storage and treatment of industrial water for distribution. |
| PL4C | INFRASTRUCTURE | SANITARY WATER COLLECTION | Sanitary water collection systems, sanitary sewer systems; including combined systems. |
| PL4D | INFRASTRUCTURE | STORM WATER COLLECTION | Storm water collection systems, storm sewer systems; storm water only. |
| PL4E | INFRASTRUCTURE | POTABLE WATER DISTRIBUTION | Potable water distribution network. |
| PL4F | INFRASTRUCTURE | WASTEWATER TREATMENT | Wastewater treatment plants, associated equipment, etc. |
| PL5A | GENERAL | OTHER | Plumbing issues not categorized elsewhere. |
| 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. |
| SS2A | SITE | FENCING | Perimeter campus fencing, individual building fencing, includes both pedestrian and vehicular control fences. |

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

FACILITY CONDITION ANALYSIS

SECTION 2

**DETAILED PROJECT SUMMARIES
AND TOTALS**

**Detailed Project Totals
 Facility Condition Analysis
 System Code by Priority Class
 MESS : MESSICK THEATRE ARTS COMPLEX**

| System Code | System Description | Priority Classes | | | | Subtotal |
|-------------|----------------------|------------------|---------|-----------|--------|-----------|
| | | 1 | 2 | 3 | 4 | |
| AC | ACCESSIBILITY | 0 | 0 | 0 | 65,247 | 65,247 |
| EL | ELECTRICAL | 0 | 75,731 | 750,157 | 0 | 825,888 |
| ES | EXTERIOR | 0 | 0 | 528,127 | 0 | 528,127 |
| FS | FIRE/LIFE SAFETY | 0 | 245,599 | 0 | 0 | 245,599 |
| HV | HVAC | 0 | 0 | 1,098,140 | 0 | 1,098,140 |
| IS | INTERIOR/FINISH SYS. | 0 | 0 | 633,924 | 0 | 633,924 |
| PL | PLUMBING | 0 | 0 | 510,566 | 11,803 | 522,369 |
| VT | VERT. TRANSPORTATION | 0 | 0 | 70,490 | 0 | 70,490 |
| | TOTALS | 0 | 321,331 | 3,591,405 | 77,049 | 3,989,785 |

| | |
|---------------------------------------|--------------------|
| Facility Replacement Cost | \$9,997,000 |
| Facility Condition Needs Index | 0.40 |

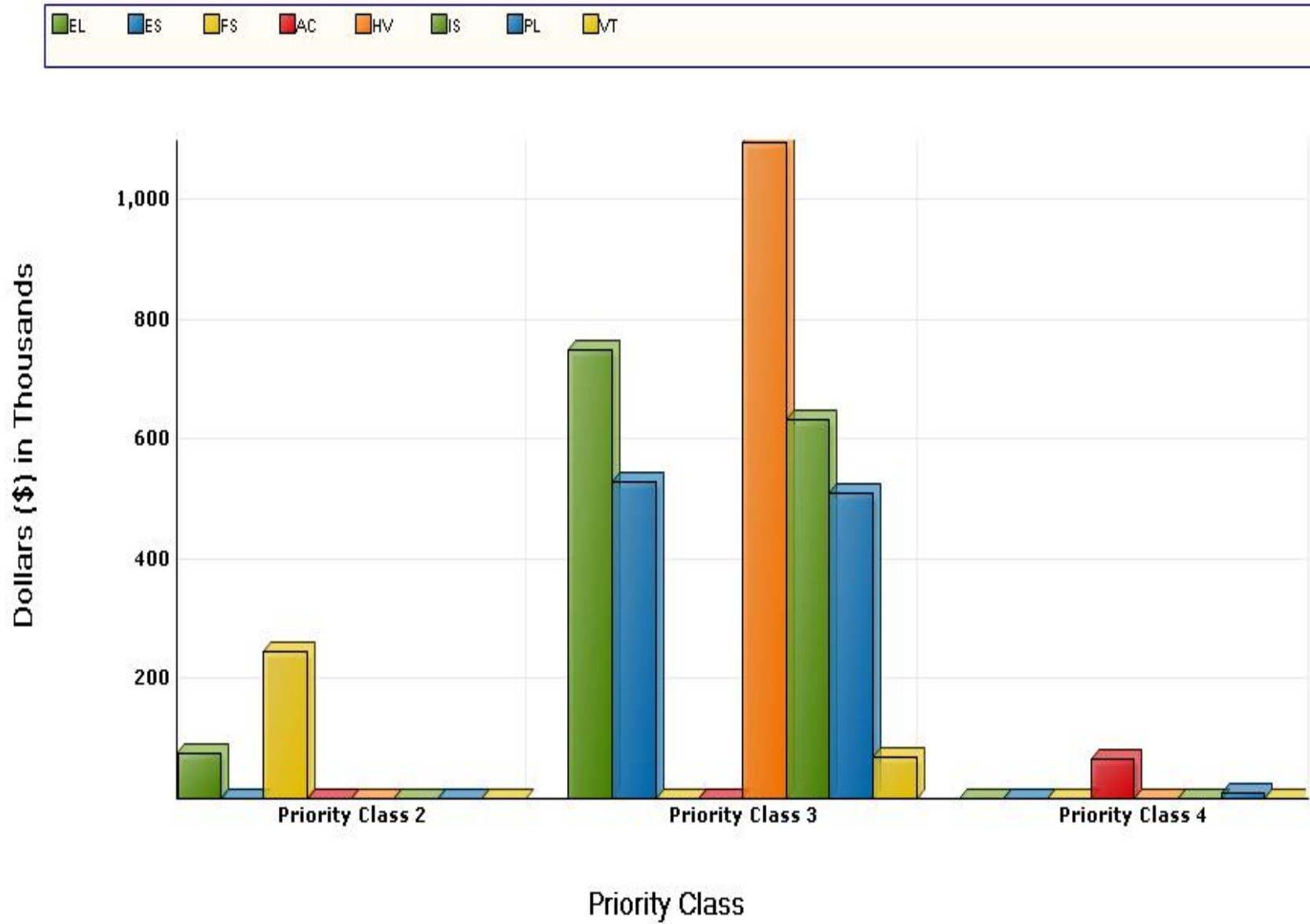
| | |
|--------------------------|---------------|
| Gross Square Feet | 35,038 |
|--------------------------|---------------|

| | |
|-----------------------------------|-----------------|
| Total Cost Per Square Foot | \$113.87 |
|-----------------------------------|-----------------|

FACILITY CONDITION ANALYSIS

System Code by Priority Class

MESS : MESSICK THEATRE ARTS COMPLEX



**Detailed Project Totals
 Facility Condition Analysis
 System Code by Project Class
 MESS : MESSICK THEATRE ARTS COMPLEX**

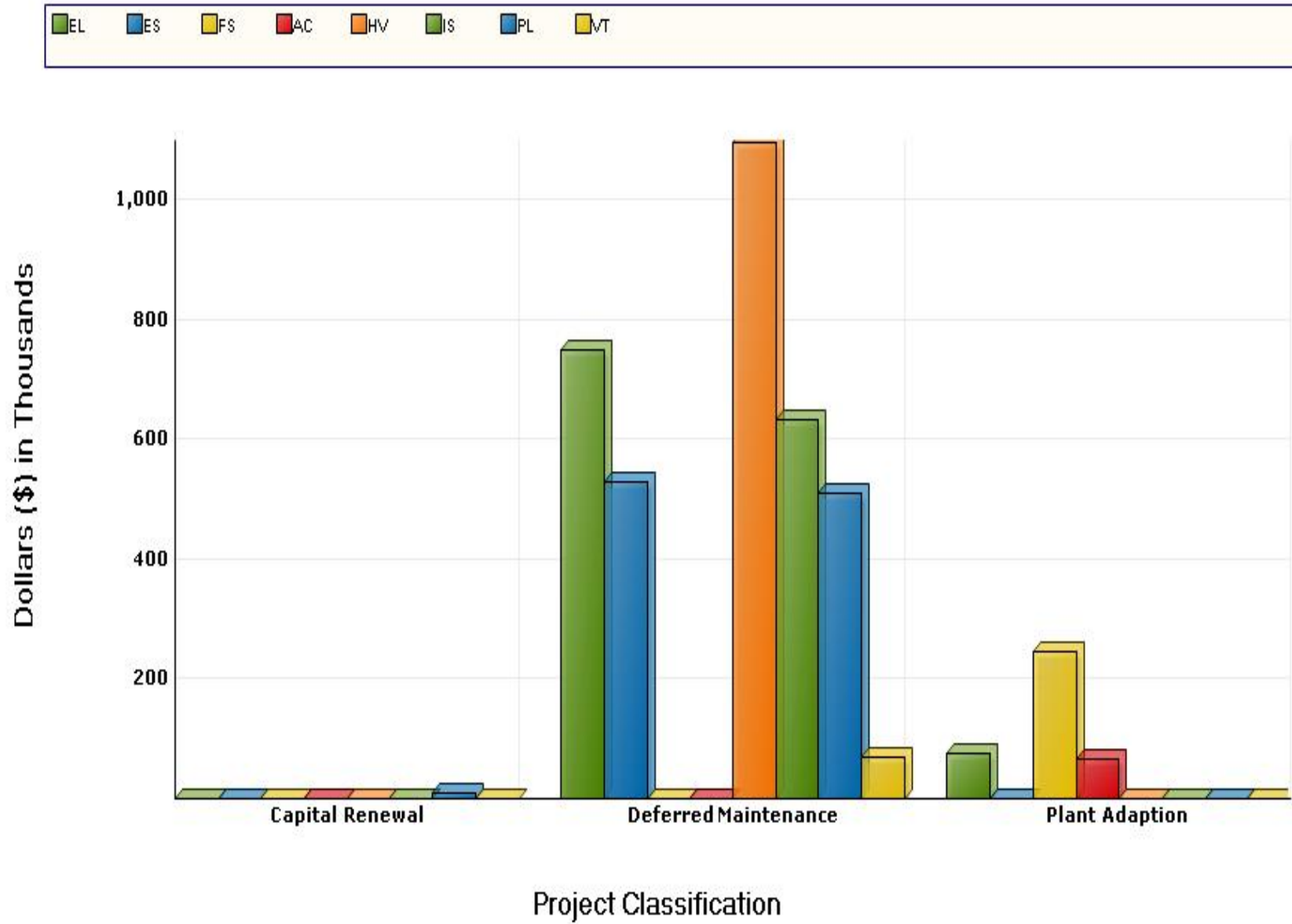
| System Code | System Description | Project Classes | | | Subtotal |
|-------------|----------------------|-----------------|----------------------|----------------|-----------|
| | | Capital Renewal | Deferred Maintenance | Plant Adaption | |
| AC | ACCESSIBILITY | 0 | 0 | 65,247 | 65,247 |
| EL | ELECTRICAL | 0 | 750,157 | 75,731 | 825,888 |
| ES | EXTERIOR | 0 | 528,127 | 0 | 528,127 |
| FS | FIRE/LIFE SAFETY | 0 | 0 | 245,599 | 245,599 |
| HV | HVAC | 0 | 1,098,140 | 0 | 1,098,140 |
| IS | INTERIOR/FINISH SYS. | 0 | 633,924 | 0 | 633,924 |
| PL | PLUMBING | 11,803 | 510,566 | 0 | 522,369 |
| VT | VERT. TRANSPORTATION | 0 | 70,490 | 0 | 70,490 |
| | TOTALS | 11,803 | 3,591,405 | 386,577 | 3,989,785 |

| | |
|---------------------------------------|--------------------|
| Facility Replacement Cost | \$9,997,000 |
| Facility Condition Needs Index | 0.40 |

| | |
|--------------------------|---------------|
| Gross Square Feet | 35,038 |
|--------------------------|---------------|

| | |
|-----------------------------------|-----------------|
| Total Cost Per Square Foot | \$113.87 |
|-----------------------------------|-----------------|

FACILITY CONDITION ANALYSIS
System Code by Project Class
MESS : MESSICK THEATRE ARTS COMPLEX



Detailed Project Summary
Facility Condition Analysis
Project Class by Priority Class
MESS : MESSICK THEATRE ARTS COMPLEX

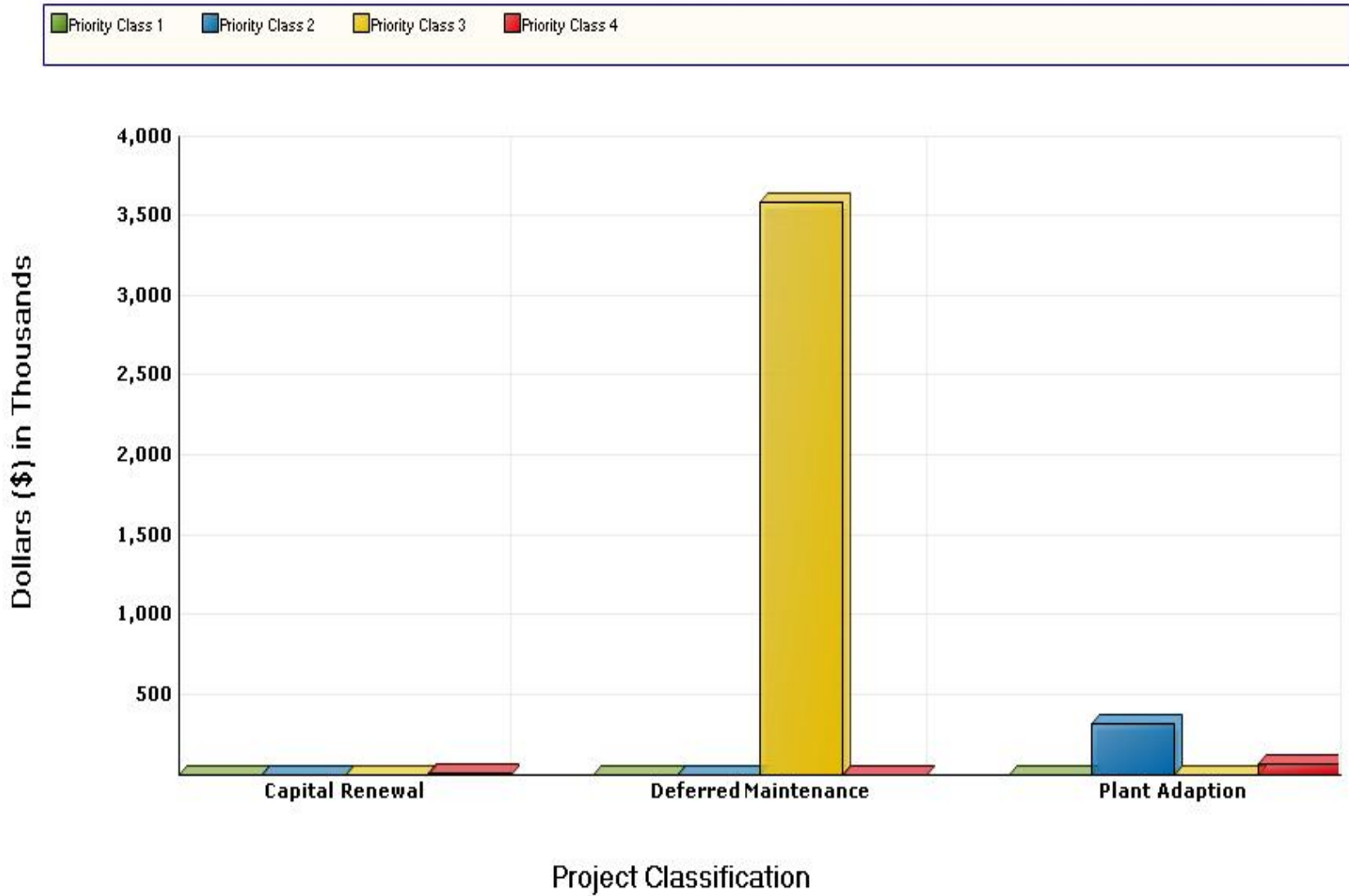
| Project Class | Priority Classes | | | | Subtotal |
|----------------------|------------------|---------|-----------|--------|-----------|
| | 1 | 2 | 3 | 4 | |
| Capital Renewal | 0 | 0 | 0 | 11,803 | 11,803 |
| Deferred Maintenance | 0 | 0 | 3,591,405 | 0 | 3,591,405 |
| Plant Adaption | 0 | 321,331 | 0 | 65,247 | 386,577 |
| TOTALS | 0 | 321,331 | 3,591,405 | 77,049 | 3,989,785 |

| | |
|--------------------------------|-------------|
| Facility Replacement Cost | \$9,997,000 |
| Facility Condition Needs Index | 0.40 |

| | |
|-------------------|--------|
| Gross Square Feet | 35,038 |
|-------------------|--------|

| | |
|----------------------------|----------|
| Total Cost Per Square Foot | \$113.87 |
|----------------------------|----------|

FACILITY CONDITION ANALYSIS
Project Class by Priority Class
MESS : MESSICK THEATRE ARTS COMPLEX



Detailed Project Summary
Facility Condition Analysis
Priority Class - Priority Sequence
MESS : MESSICK THEATRE ARTS COMPLEX

| Cat. Code | Project Number | Pri Cls | Pri Seq | Project Title | Construction Cost | Professional Fee | Total Cost |
|------------------------------------|-----------------------|----------------|----------------|---|--------------------------|-------------------------|-------------------|
| FS3A | MESSFS01 | 2 | 1 | FIRE SPRINKLER SYSTEM INSTALLATION | 211,724 | 33,876 | 245,599 |
| EL5A | MESSEL01 | 2 | 2 | INSTALL EMERGENCY GENERATOR AND POWER NETWORK | 65,286 | 10,446 | 75,731 |
| Totals for Priority Class 2 | | | | | 277,009 | 44,321 | 321,331 |
| ES4B | MESSES04 | 3 | 3 | BUILT-UP ROOF REPLACEMENT | 14,754 | 2,361 | 17,115 |
| ES5B | MESSES03 | 3 | 4 | WINDOW REPLACEMENT | 383,071 | 61,291 | 444,362 |
| ES5A | MESSES02 | 3 | 5 | EXTERIOR DOOR REPLACEMENT | 44,714 | 7,154 | 51,868 |
| ES2B | MESSES01 | 3 | 6 | RESTORE BRICK VENEER | 12,744 | 2,039 | 14,783 |
| HV3A | MESSHV01 | 3 | 7 | HVAC SYSTEM REPLACEMENT | 946,673 | 151,468 | 1,098,140 |
| EL2A | MESSEL02 | 3 | 8 | REPLACE 120/208 VOLT SWITCHGEAR | 32,116 | 5,139 | 37,255 |
| EL3B | MESSEL04 | 3 | 9 | UPGRADE ELECTRICAL DISTRIBUTION NETWORK | 412,095 | 65,935 | 478,030 |
| EL4B | MESSEL03 | 3 | 10 | INTERIOR LIGHTING UPGRADE | 193,174 | 30,908 | 224,082 |
| EL4A | MESSEL05 | 3 | 11 | EXTERIOR LIGHTING REPLACEMENT | 9,302 | 1,488 | 10,791 |
| IS1A | MESSIS01 | 3 | 12 | REFINISH FLOORING | 110,211 | 17,634 | 127,844 |
| IS2B | MESSIS02 | 3 | 13 | REFINISH WALLS | 36,611 | 5,858 | 42,469 |
| IS3B | MESSIS03 | 3 | 14 | REFINISH CEILINGS | 100,186 | 16,030 | 116,216 |
| IS4A | MESSIS04 | 3 | 15 | REPLACE INTERIOR DOORS | 203,571 | 32,571 | 236,143 |
| IS6D | MESSIS05 | 3 | 16 | RESTROOM RENOVATION | 95,907 | 15,345 | 111,252 |
| PL1A | MESSPL02 | 3 | 17 | WATER SUPPLY PIPING REPLACEMENT | 174,560 | 27,930 | 202,490 |
| PL2A | MESSPL03 | 3 | 18 | DRAIN PIPING REPLACEMENT | 265,583 | 42,493 | 308,076 |
| VT7A | MESSVT01 | 3 | 19 | UPGRADE ELEVATOR NO. 1 | 70,490 | 0 | 70,490 |
| Totals for Priority Class 3 | | | | | 3,105,762 | 485,643 | 3,591,405 |
| AC3F | MESSAC01 | 4 | 20 | DRINKING FOUNTAIN ACCESSIBILITY UPGRADES | 25,315 | 4,050 | 29,365 |
| AC3B | MESSAC02 | 4 | 21 | STAIR SAFETY UPGRADES | 30,932 | 4,949 | 35,881 |
| PL1E | MESSPL01 | 4 | 22 | DOMESTIC WATER HEATER REPLACEMENT | 10,175 | 1,628 | 11,803 |
| Totals for Priority Class 4 | | | | | 66,422 | 10,628 | 77,049 |
| Grand Total: | | | | | 3,449,193 | 540,592 | 3,989,785 |

Detailed Project Summary
Facility Condition Analysis
Project Cost Range
MESS : MESSICK THEATRE ARTS COMPLEX

| Cat. Code | Project Number | Pri Cls | Pri Seq | Project Title | Construction Cost | Professional Fee | Total Cost |
|---|-----------------------|----------------|----------------|---|--------------------------|-------------------------|-------------------|
| EL5A | MESSEL01 | 2 | 2 | INSTALL EMERGENCY GENERATOR AND POWER NETWORK | 65,286 | 10,446 | 75,731 |
| Totals for Priority Class 2 | | | | | 65,286 | 10,446 | 75,731 |
| VT7A | MESSVT01 | 3 | 19 | UPGRADE ELEVATOR NO. 1 | 70,490 | 0 | 70,490 |
| EL2A | MESSEL02 | 3 | 8 | REPLACE 120/208 VOLT SWITCHGEAR | 32,116 | 5,139 | 37,255 |
| EL4A | MESSEL05 | 3 | 11 | EXTERIOR LIGHTING REPLACEMENT | 9,302 | 1,488 | 10,791 |
| ES2B | MESSES01 | 3 | 6 | RESTORE BRICK VENEER | 12,744 | 2,039 | 14,783 |
| ES5A | MESSES02 | 3 | 5 | EXTERIOR DOOR REPLACEMENT | 44,714 | 7,154 | 51,868 |
| ES4B | MESSES04 | 3 | 3 | BUILT-UP ROOF REPLACEMENT | 14,754 | 2,361 | 17,115 |
| IS2B | MESSIS02 | 3 | 13 | REFINISH WALLS | 36,611 | 5,858 | 42,469 |
| Totals for Priority Class 3 | | | | | 220,731 | 24,039 | 244,769 |
| PL1E | MESSPL01 | 4 | 22 | DOMESTIC WATER HEATER REPLACEMENT | 10,175 | 1,628 | 11,803 |
| AC3F | MESSAC01 | 4 | 20 | DRINKING FOUNTAIN ACCESSIBILITY UPGRADES | 25,315 | 4,050 | 29,365 |
| AC3B | MESSAC02 | 4 | 21 | STAIR SAFETY UPGRADES | 30,932 | 4,949 | 35,881 |
| Totals for Priority Class 4 | | | | | 66,422 | 10,628 | 77,049 |
| Grand Totals for Projects < 100,000 | | | | | 352,438 | 45,112 | 397,550 |

Detailed Project Summary
Facility Condition Analysis
Project Cost Range
MESS : MESSICK THEATRE ARTS COMPLEX

| Cat. Code | Project Number | Pri Cls | Pri Seq | Project Title | Construction Cost | Professional Fee | Total Cost |
|---|-----------------------|----------------|----------------|---|--------------------------|-------------------------|-------------------|
| FS3A | MESSFS01 | 2 | 1 | FIRE SPRINKLER SYSTEM INSTALLATION | 211,724 | 33,876 | 245,599 |
| Totals for Priority Class 2 | | | | | 211,724 | 33,876 | 245,599 |
| EL4B | MESSEL03 | 3 | 10 | INTERIOR LIGHTING UPGRADE | 193,174 | 30,908 | 224,082 |
| EL3B | MESSEL04 | 3 | 9 | UPGRADE ELECTRICAL DISTRIBUTION NETWORK | 412,095 | 65,935 | 478,030 |
| PL1A | MESSPL02 | 3 | 17 | WATER SUPPLY PIPING REPLACEMENT | 174,560 | 27,930 | 202,490 |
| PL2A | MESSPL03 | 3 | 18 | DRAIN PIPING REPLACEMENT | 265,583 | 42,493 | 308,076 |
| ES5B | MESSES03 | 3 | 4 | WINDOW REPLACEMENT | 383,071 | 61,291 | 444,362 |
| IS1A | MESSIS01 | 3 | 12 | REFINISH FLOORING | 110,211 | 17,634 | 127,844 |
| IS3B | MESSIS03 | 3 | 14 | REFINISH CEILINGS | 100,186 | 16,030 | 116,216 |
| IS4A | MESSIS04 | 3 | 15 | REPLACE INTERIOR DOORS | 203,571 | 32,571 | 236,143 |
| IS6D | MESSIS05 | 3 | 16 | RESTROOM RENOVATION | 95,907 | 15,345 | 111,252 |
| Totals for Priority Class 3 | | | | | 1,938,358 | 310,137 | 2,248,496 |
| Grand Totals for Projects >= 100,000 and < 500,000 | | | | | 2,150,082 | 344,013 | 2,494,095 |

Detailed Project Summary
Facility Condition Analysis
Project Cost Range
 MESS : MESSICK THEATRE ARTS COMPLEX

| Cat. Code | Project Number | Pri Cls | Pri Seq | Project Title | Construction Cost | Professional Fee | Total Cost |
|-----------|----------------|---------|---------|--|-------------------|------------------|------------------|
| HV3A | MESSHV01 | 3 | 7 | HVAC SYSTEM REPLACEMENT | 946,673 | 151,468 | 1,098,140 |
| | | | | Totals for Priority Class 3 | 946,673 | 151,468 | 1,098,140 |
| | | | | Grand Totals for Projects >= 500,000 | 946,673 | 151,468 | 1,098,140 |
| | | | | Grand Totals For All Projects: | 3,449,193 | 540,592 | 3,989,785 |

Detailed Project Summary
Facility Condition Analysis
Project Classification
MESS : MESSICK THEATRE ARTS COMPLEX

| Cat Code | Project Number | Pri. Seq. | Project Classification | Pri. Cls | Project Title | Total Cost |
|--|----------------|-----------|------------------------|----------|---|------------------|
| PL1E | MESSPL01 | 22 | Capital Renewal | 4 | DOMESTIC WATER HEATER REPLACEMENT | 11,803 |
| Totals for Capital Renewal | | | | | | 11,803 |
| ES4B | MESSES04 | 3 | Deferred Maintenance | 3 | BUILT-UP ROOF REPLACEMENT | 17,115 |
| ES5B | MESSES03 | 4 | Deferred Maintenance | 3 | WINDOW REPLACEMENT | 444,362 |
| ES5A | MESSES02 | 5 | Deferred Maintenance | 3 | EXTERIOR DOOR REPLACEMENT | 51,868 |
| ES2B | MESSES01 | 6 | Deferred Maintenance | 3 | RESTORE BRICK VENEER | 14,783 |
| HV3A | MESSHV01 | 7 | Deferred Maintenance | 3 | HVAC SYSTEM REPLACEMENT | 1,098,140 |
| EL2A | MESSEL02 | 8 | Deferred Maintenance | 3 | REPLACE 120/208 VOLT SWITCHGEAR | 37,255 |
| EL3B | MESSEL04 | 9 | Deferred Maintenance | 3 | UPGRADE ELECTRICAL DISTRIBUTION NETWORK | 478,030 |
| EL4B | MESSEL03 | 10 | Deferred Maintenance | 3 | INTERIOR LIGHTING UPGRADE | 224,082 |
| EL4A | MESSEL05 | 11 | Deferred Maintenance | 3 | EXTERIOR LIGHTING REPLACEMENT | 10,791 |
| IS1A | MESSIS01 | 12 | Deferred Maintenance | 3 | REFINISH FLOORING | 127,844 |
| IS2B | MESSIS02 | 13 | Deferred Maintenance | 3 | REFINISH WALLS | 42,469 |
| IS3B | MESSIS03 | 14 | Deferred Maintenance | 3 | REFINISH CEILINGS | 116,216 |
| IS4A | MESSIS04 | 15 | Deferred Maintenance | 3 | REPLACE INTERIOR DOORS | 236,143 |
| IS6D | MESSIS05 | 16 | Deferred Maintenance | 3 | RESTROOM RENOVATION | 111,252 |
| PL1A | MESSPL02 | 17 | Deferred Maintenance | 3 | WATER SUPPLY PIPING REPLACEMENT | 202,490 |
| PL2A | MESSPL03 | 18 | Deferred Maintenance | 3 | DRAIN PIPING REPLACEMENT | 308,076 |
| VT7A | MESSVT01 | 19 | Deferred Maintenance | 3 | UPGRADE ELEVATOR NO. 1 | 70,490 |
| Totals for Deferred Maintenance | | | | | | 3,591,405 |
| FS3A | MESSFS01 | 1 | Plant Adaption | 2 | FIRE SPRINKLER SYSTEM INSTALLATION | 245,599 |
| EL5A | MESSEL01 | 2 | Plant Adaption | 2 | INSTALL EMERGENCY GENERATOR AND POWER NETWORK | 75,731 |
| AC3F | MESSAC01 | 20 | Plant Adaption | 4 | DRINKING FOUNTAIN ACCESSIBILITY UPGRADES | 29,365 |
| AC3B | MESSAC02 | 21 | Plant Adaption | 4 | STAIR SAFETY UPGRADES | 35,881 |
| Totals for Plant Adaption | | | | | | 386,577 |
| Grand Total: | | | | | | 3,989,785 |

Detailed Project Summary
Facility Condition Analysis
Energy Conservation
 MESS : MESSICK THEATRE ARTS COMPLEX

| Cat Code | Project Number | Pri Cls | Pri Seq | Project Title | Total Cost | Annual Savings | Simple Payback |
|------------------------------------|-----------------------|----------------|----------------|-------------------------------|-------------------|-----------------------|-----------------------|
| ES4B | MESES04 | 3 | 3 | BUILT-UP ROOF REPLACEMENT | 17,115 | 200 | 85.57 |
| ES5B | MESES03 | 3 | 4 | WINDOW REPLACEMENT | 444,362 | 900 | 493.74 |
| HV3A | MESSHV01 | 3 | 7 | HVAC SYSTEM REPLACEMENT | 1,098,140 | 19,840 | 55.35 |
| EL4B | MESSEL03 | 3 | 10 | INTERIOR LIGHTING UPGRADE | 224,082 | 10,720 | 20.9 |
| EL4A | MESSEL05 | 3 | 11 | EXTERIOR LIGHTING REPLACEMENT | 10,791 | 260 | 41.5 |
| Totals for Priority Class 3 | | | | | 1,794,489 | 31,920 | 56.22 |
| Grand Total: | | | | | 1,794,489 | 31,920 | 56.22 |

Detailed Project Summary
Facility Condition Analysis
Category/System Code
MESS : MESSICK THEATRE ARTS COMPLEX

| Cat. Code | Project Number | Pri Cls | Pri Seq | Project Title | Construction Cost | Professional Fee | Total Cost |
|---|----------------|---------|---------|---|-------------------|------------------|------------------|
| AC3F | MESSAC01 | 4 | 20 | DRINKING FOUNTAIN ACCESSIBILITY UPGRADES | 25,315 | 4,050 | 29,365 |
| AC3B | MESSAC02 | 4 | 21 | STAIR SAFETY UPGRADES | 30,932 | 4,949 | 35,881 |
| Totals for System Code: ACCESSIBILITY | | | | | 56,247 | 9,000 | 65,247 |
| EL5A | MESSEL01 | 2 | 2 | INSTALL EMERGENCY GENERATOR AND POWER NETWORK | 65,286 | 10,446 | 75,731 |
| EL2A | MESSEL02 | 3 | 8 | REPLACE 120/208 VOLT SWITCHGEAR | 32,116 | 5,139 | 37,255 |
| EL3B | MESSEL04 | 3 | 9 | UPGRADE ELECTRICAL DISTRIBUTION NETWORK | 412,095 | 65,935 | 478,030 |
| EL4B | MESSEL03 | 3 | 10 | INTERIOR LIGHTING UPGRADE | 193,174 | 30,908 | 224,082 |
| EL4A | MESSEL05 | 3 | 11 | EXTERIOR LIGHTING REPLACEMENT | 9,302 | 1,488 | 10,791 |
| Totals for System Code: ELECTRICAL | | | | | 711,973 | 113,916 | 825,889 |
| ES4B | MESSES04 | 3 | 3 | BUILT-UP ROOF REPLACEMENT | 14,754 | 2,361 | 17,115 |
| ES5B | MESSES03 | 3 | 4 | WINDOW REPLACEMENT | 383,071 | 61,291 | 444,362 |
| ES5A | MESSES02 | 3 | 5 | EXTERIOR DOOR REPLACEMENT | 44,714 | 7,154 | 51,868 |
| ES2B | MESSES01 | 3 | 6 | RESTORE BRICK VENEER | 12,744 | 2,039 | 14,783 |
| Totals for System Code: EXTERIOR | | | | | 455,282 | 72,845 | 528,127 |
| FS3A | MESSFS01 | 2 | 1 | FIRE SPRINKLER SYSTEM INSTALLATION | 211,724 | 33,876 | 245,599 |
| Totals for System Code: FIRE/LIFE SAFETY | | | | | 211,724 | 33,876 | 245,599 |
| HV3A | MESSHV01 | 3 | 7 | HVAC SYSTEM REPLACEMENT | 946,673 | 151,468 | 1,098,140 |
| Totals for System Code: HVAC | | | | | 946,673 | 151,468 | 1,098,140 |
| IS1A | MESSIS01 | 3 | 12 | REFINISH FLOORING | 110,211 | 17,634 | 127,844 |
| IS2B | MESSIS02 | 3 | 13 | REFINISH WALLS | 36,611 | 5,858 | 42,469 |
| IS3B | MESSIS03 | 3 | 14 | REFINISH CEILINGS | 100,186 | 16,030 | 116,216 |
| IS4A | MESSIS04 | 3 | 15 | REPLACE INTERIOR DOORS | 203,571 | 32,571 | 236,143 |
| IS6D | MESSIS05 | 3 | 16 | RESTROOM RENOVATION | 95,907 | 15,345 | 111,252 |
| Totals for System Code: INTERIOR/FINISH SYS. | | | | | 546,486 | 87,438 | 633,924 |
| PL1A | MESSPL02 | 3 | 17 | WATER SUPPLY PIPING REPLACEMENT | 174,560 | 27,930 | 202,490 |
| PL2A | MESSPL03 | 3 | 18 | DRAIN PIPING REPLACEMENT | 265,583 | 42,493 | 308,076 |
| PL1E | MESSPL01 | 4 | 22 | DOMESTIC WATER HEATER REPLACEMENT | 10,175 | 1,628 | 11,803 |
| Totals for System Code: PLUMBING | | | | | 450,318 | 72,051 | 522,369 |
| VT7A | MESSVT01 | 3 | 19 | UPGRADE ELEVATOR NO. 1 | 70,490 | 0 | 70,490 |
| Totals for System Code: VERT. TRANSPORTATION | | | | | 70,490 | | 70,490 |
| Grand Total: | | | | | 3,449,193 | 540,592 | 3,989,785 |

FACILITY CONDITION ANALYSIS

SECTION 3

SPECIFIC PROJECT DETAILS
ILLUSTRATING DESCRIPTION / COST

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|------------------------------|-------------------|------------------------------------|
| Project Number: | MESSFS01 | Title: | FIRE SPRINKLER SYSTEM INSTALLATION |
| Priority Sequence: | 1 | | |
| Priority Class: | 2 | | |
| Category Code: | FS3A | System: | FIRE/LIFE SAFETY |
| | | Component: | SUPPRESSION |
| | | Element: | SPRINKLERS |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Not Applicable | | |
| Code Application: | NFPA | 1, 13, 13R, 101 | |
| Project Class: | Plant Adaption | | |
| Project Date: | 10/16/2009 | | |
| Project Location: | Floor-wide: Floor(s) B,1,2 | | |

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
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSFS01

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 | 35,038 | \$3.08 | \$107,917 | \$3.77 | \$132,093 | \$240,010 |
| Project Totals: | | | | \$107,917 | | \$132,093 | \$240,010 |

| | | |
|--|---|------------------|
| Material/Labor Cost | | \$240,072 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | \$176,436 |
| General Contractor Mark Up at 20.0% | + | \$35,287 |
| Construction Cost | | \$211,724 |
| Professional Fees at 16.0% | + | \$33,876 |
| Total Project Cost | | \$245,599 |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|------------------------------|-------------------|---|
| Project Number: | MESSEL01 | Title: | INSTALL EMERGENCY GENERATOR AND POWER NETWORK |
| Priority Sequence: | 2 | | |
| Priority Class: | 2 | | |
| Category Code: | EL5A | System: | ELECTRICAL |
| | | Component: | EMERGENCY POWER SYSTEM |
| | | Element: | GENERATION/DISTRIBUTION |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Not Applicable | | |
| Code Application: | NEC | 700, 701, 702 | |
| Project Class: | Plant Adaption | | |
| Project Date: | 10/16/2009 | | |
| Project Location: | Floor-wide: Floor(s) 1, 2, B | | |

Project Description

The installation of an appropriately-sized emergency, diesel-fired generator, associated automatic transfer switches (ATS), and an emergency distribution network is recommended in order to provide emergency power for the life safety and specific non-essential loads. Loads considered as life safety include egress lighting, exit signs, elevators, and fire alarm systems. Non-essential loads include HVAC equipment, refrigeration equipment, computer equipment, etc.

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSEL01

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, and automatic transfer switches | KW | 50 | \$724 | \$36,200 | \$187 | \$9,350 | \$45,550 |
| Emergency power network to include power panels, raceways, and all connections and terminations | SF | 35,038 | \$0.22 | \$7,708 | \$0.30 | \$10,511 | \$18,220 |
| Project Totals: | | | | \$43,908 | | \$19,861 | \$63,770 |

| | | |
|--|---|-----------------|
| Material/Labor Cost | | \$63,770 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | \$54,405 |
| General Contractor Mark Up at 20.0% | + | \$10,881 |
| Construction Cost | | \$65,286 |
| Professional Fees at 16.0% | + | \$10,446 |
| Total Project Cost | | \$75,731 |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|------------------------------|-------------------|---------------------------|
| Project Number: | MESSES04 | Title: | BUILT-UP ROOF REPLACEMENT |
| Priority Sequence: | 3 | | |
| Priority Class: | 3 | | |
| Category Code: | ES4B | System: | EXTERIOR |
| | | Component: | ROOF |
| | | Element: | REPLACEMENT |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Energy Conservation | \$200 | |
| Code Application: | Not Applicable | | |
| Project Class: | Deferred Maintenance | | |
| Project Date: | 11/11/2009 | | |
| Project Location: | Floor-wide: Floor(s) R | | |

Project Description

It is recommended that the built-up roofing system be replaced. The existing stress conditions around the seams and at the perimeter flashing will lead to failure if left unattended. Replace the stressed roof and flashing with a similar application.

Specific Project Details
Facility Condition Analysis
Section Three
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSES04

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 | 2,500 | \$3.06 | \$7,650 | \$3.58 | \$8,950 | \$16,600 |
| Project Totals: | | | | \$7,650 | | \$8,950 | \$16,600 |

| | | |
|--|----------|-----------------|
| Material/Labor Cost | | \$16,609 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | \$12,295 |
| General Contractor Mark Up at 20.0% | + | \$2,459 |
| Construction Cost | | \$14,754 |
| Professional Fees at 16.0% | + | \$2,361 |
| Total Project Cost | | \$17,115 |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|------------------------------|-------------------|--------------------|
| Project Number: | MESSES03 | Title: | WINDOW REPLACEMENT |
| Priority Sequence: | 4 | | |
| Priority Class: | 3 | | |
| Category Code: | ES5B | System: | EXTERIOR |
| | | Component: | FENESTRATIONS |
| | | Element: | WINDOWS |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Energy Conservation | \$900 | |
| Code Application: | Not Applicable | | |
| Project Class: | Deferred Maintenance | | |
| Project Date: | 11/11/2009 | | |
| Project Location: | Building-wide: Floor(s) 1 | | |

Project Description

It is recommended that the single-pane, wood-framed window applications be upgraded to thermal-pane systems. Such double-pane systems 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
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSES03

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 | 4,180 | \$57.27 | \$239,389 | \$36.45 | \$152,361 | \$391,750 |
| Project Totals: | | | | \$239,389 | | \$152,361 | \$391,750 |

| | | |
|--|---|------------------|
| Material/Labor Cost | | \$391,750 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | \$319,226 |
| General Contractor Mark Up at 20.0% | + | \$63,845 |
| Construction Cost | | \$383,071 |
| Professional Fees at 16.0% | + | \$61,291 |
| Total Project Cost | | \$444,362 |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|------------------------------|-------------------|---------------------------|
| Project Number: | MESSES02 | Title: | EXTERIOR DOOR REPLACEMENT |
| Priority Sequence: | 5 | | |
| Priority Class: | 3 | | |
| Category Code: | ES5A | System: | EXTERIOR |
| | | Component: | FENESTRATIONS |
| | | Element: | DOORS |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Not Applicable | | |
| Code Application: | Not Applicable | | |
| Project Class: | Deferred Maintenance | | |
| Project Date: | 11/11/2009 | | |
| Project Location: | Building-wide: Floor(s) 1 | | |

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSES02

Task Cost Estimate

| Task Description | Unit | Qty | Material Unit Cost | Total Material Cost | Labor Unit Cost | Total Labor Cost | Total Cost |
|--------------------------|-------------|------------|---------------------------|----------------------------|------------------------|-------------------------|-------------------|
| High traffic door system | LEAF | 4 | \$1,978 | \$7,912 | \$1,999 | \$7,996 | \$15,908 |
| Low traffic door system | LEAF | 15 | \$1,031 | \$15,465 | \$1,250 | \$18,750 | \$34,215 |
| Project Totals: | | | | \$23,377 | | \$26,746 | \$50,123 |

| | | |
|--|---|------------------------|
| Material/Labor Cost | | \$50,123 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | <u>\$37,261</u> |
| General Contractor Mark Up at 20.0% | + | <u>\$7,452</u> |
| Construction Cost | | <u>\$44,714</u> |
| Professional Fees at 16.0% | + | <u>\$7,154</u> |
| Total Project Cost | | <u>\$51,868</u> |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|------------------------------|-------------------|----------------------|
| Project Number: | MESSES01 | Title: | RESTORE BRICK VENEER |
| Priority Sequence: | 6 | | |
| Priority Class: | 3 | | |
| Category Code: | ES2B | System: | EXTERIOR |
| | | Component: | COLUMNS/BEAMS/WALLS |
| | | Element: | FINISH |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Not Applicable | | |
| Code Application: | Not Applicable | | |
| Project Class: | Deferred Maintenance | | |
| Project Date: | 11/11/2009 | | |
| Project Location: | Building-wide: Floor(s) 1 | | |

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSES01

Task Cost Estimate

| Task Description | Unit | Qty | Material Unit Cost | Total Material Cost | Labor Unit Cost | Total Labor Cost | Total Cost |
|---|-------------|------------|---------------------------|----------------------------|------------------------|-------------------------|-------------------|
| Cleaning and surface preparation | SF | 7,760 | \$0.11 | \$854 | \$0.22 | \$1,707 | \$2,561 |
| Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope) | LF | 776 | \$2.45 | \$1,901 | \$4.99 | \$3,872 | \$5,773 |
| Applied finish or sealant | SF | 7,760 | \$0.22 | \$1,707 | \$0.82 | \$6,363 | \$8,070 |
| Project Totals: | | | | \$4,462 | | \$11,943 | \$16,405 |

| | | |
|--|---|-----------------|
| Material/Labor Cost | | \$16,436 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | \$10,620 |
| General Contractor Mark Up at 20.0% | + | \$2,124 |
| Construction Cost | | \$12,744 |
| Professional Fees at 16.0% | + | \$2,039 |
| Total Project Cost | | \$14,783 |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|---------------------------------|-------------------|-------------------------|
| Project Number: | MESSHV01 | Title: | HVAC SYSTEM REPLACEMENT |
| Priority Sequence: | 7 | | |
| Priority Class: | 3 | | |
| Category Code: | HV3A | System: | HVAC |
| | | Component: | HEATING/COOLING |
| | | Element: | SYSTEM RETROFIT/REPLACE |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Energy Conservation | \$19,840 | |
| Code Application: | ASHRAE | 62-2004 | |
| Project Class: | Deferred Maintenance | | |
| Project Date: | 10/16/2009 | | |
| Project Location: | Floor-wide: Floor(s) 1, 2, B, R | | |

Project Description

A complete redesign and replacement of the HVAC system is recommended. Demolish and dispose of existing equipment. Install a new modern HVAC system with variable air volume (VAV) 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 (DDCs) for the new equipment. Incorporate variable frequency drives (VFDs) into the new HVAC design as applicable.

Specific Project Details
Facility Condition Analysis
Section Three
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSHV01

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 | 35,038 | \$13.78 | \$482,824 | \$16.84 | \$590,040 | \$1,072,864 |
| Project Totals: | | | | \$482,824 | | \$590,040 | \$1,072,864 |

| | | |
|--|---|--------------------|
| Material/Labor Cost | | \$1,072,864 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | \$788,894 |
| General Contractor Mark Up at 20.0% | + | \$157,779 |
| Construction Cost | | \$946,673 |
| Professional Fees at 16.0% | + | \$151,468 |
| Total Project Cost | | \$1,098,140 |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|------------------------------|-------------------|---------------------------------|
| Project Number: | MESSEL02 | Title: | REPLACE 120/208 VOLT SWITCHGEAR |
| Priority Sequence: | 8 | | |
| Priority Class: | 3 | | |
| Category Code: | EL2A | System: | ELECTRICAL |
| | | Component: | MAIN DISTRIBUTION PANELS |
| | | Element: | CONDITION UPGRADE |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Not Applicable | | |
| Code Application: | NEC | Article 230 | |
| Project Class: | Deferred Maintenance | | |
| Project Date: | 10/16/2009 | | |
| Project Location: | Item Only: Floor(s) 1 | | |

Project Description

The 120/208 volt switchgear is recommended for replacement. The existing aged circuit breakers could serve as fire hazards should they fail to interrupt a circuit in an overload or short circuit condition. The existing switchgear should be replaced in its entirety. New switchgear components should include a ground fault main circuit breaker, digital metering for remote control / monitoring, and transient surge protection.

Specific Project Details
Facility Condition Analysis
Section Three
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSEL02

Task Cost Estimate

| Task Description | Unit | Qty | Material Unit Cost | Total Material Cost | Labor Unit Cost | Total Labor Cost | Total Cost |
|---|-------------|------------|---------------------------|----------------------------|------------------------|-------------------------|-------------------|
| 120/208 volt switchgear, includes switchboard, circuit breakers, feeders, digital metering, transient surge protector, and demolition of existing equipment | AMP | 1,200 | \$15.52 | \$18,624 | \$13.01 | \$15,612 | \$34,236 |
| Project Totals: | | | | \$18,624 | | \$15,612 | \$34,236 |

| | | |
|--|---|-----------------|
| Material/Labor Cost | | \$34,236 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | \$26,763 |
| General Contractor Mark Up at 20.0% | + | \$5,353 |
| Construction Cost | | \$32,116 |
| Professional Fees at 16.0% | + | \$5,139 |
| Total Project Cost | | \$37,255 |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|------------------------------|-----------------------------|---|
| Project Number: | MESSEL04 | Title: | UPGRADE ELECTRICAL DISTRIBUTION NETWORK |
| Priority Sequence: | 9 | | |
| Priority Class: | 3 | | |
| Category Code: | EL3B | System: | ELECTRICAL |
| | | Component: | SECONDARY DISTRIBUTION |
| | | Element: | DISTRIBUTION NETWORK |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Not Applicable | | |
| Code Application: | NEC | Articles 110, 210, 220, 230 | |
| Project Class: | Deferred Maintenance | | |
| Project Date: | 10/16/2009 | | |
| Project Location: | Floor-wide: Floor(s) 1, 2, B | | |

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSELO4

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 | 35,038 | \$5.52 | \$193,410 | \$8.27 | \$289,764 | \$483,174 |
| Project Totals: | | | | \$193,410 | | \$289,764 | \$483,174 |

| | | |
|--|---|------------------|
| Material/Labor Cost | | \$483,174 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | \$343,413 |
| General Contractor Mark Up at 20.0% | + | \$68,683 |
| Construction Cost | | \$412,095 |
| Professional Fees at 16.0% | + | \$65,935 |
| Total Project Cost | | \$478,030 |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|------------------------------|-------------------|---------------------------|
| Project Number: | MESSEL03 | Title: | INTERIOR LIGHTING UPGRADE |
| Priority Sequence: | 10 | | |
| Priority Class: | 3 | | |
| Category Code: | EL4B | System: | ELECTRICAL |
| | | Component: | DEVICES AND FIXTURES |
| | | Element: | INTERIOR LIGHTING |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Energy Conservation | \$10,720 | |
| Code Application: | NEC | Articles 210, 410 | |
| Project Class: | Deferred Maintenance | | |
| Project Date: | 10/16/2009 | | |
| Project Location: | Floor-wide: Floor(s) B,1,2 | | |

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
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSEL03

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 | 35,038 | \$2.81 | \$98,457 | \$3.44 | \$120,531 | \$218,988 |
| Project Totals: | | | | \$98,457 | | \$120,531 | \$218,988 |

| | | |
|--|---|------------------|
| Material/Labor Cost | | \$218,910 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | \$160,978 |
| General Contractor Mark Up at 20.0% | + | \$32,196 |
| Construction Cost | | \$193,174 |
| Professional Fees at 16.0% | + | \$30,908 |
| Total Project Cost | | \$224,082 |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|---------------------------------|-------------------|-------------------------------|
| Project Number: | MESSEL05 | Title: | EXTERIOR LIGHTING REPLACEMENT |
| Priority Sequence: | 11 | | |
| Priority Class: | 3 | | |
| Category Code: | EL4A | System: | ELECTRICAL |
| | | Component: | DEVICES AND FIXTURES |
| | | Element: | EXTERIOR LIGHTING |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Energy Conservation | \$260 | |
| Code Application: | NEC | 410 | |
| Project Class: | Deferred Maintenance | | |
| Project Date: | 10/16/2009 | | |
| Project Location: | Building-wide: Floor(s) B,1,2,R | | |

Project Description

Exterior lighting upgrades are recommended. Replace exterior light fixtures as needed. Specify high efficiency fixtures with photocells for lighting control.

Specific Project Details
Facility Condition Analysis
Section Three
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSEL05

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 | 4 | \$406 | \$1,624 | \$190 | \$760 | \$2,384 |
| Compact fluorescent, wall-mount exterior light and demolition of existing light | EA | 10 | \$131 | \$1,310 | \$137 | \$1,370 | \$2,680 |
| Replace lighting stanchion, including fixture, 30 foot | EA | 1 | \$2,662 | \$2,662 | \$1,996 | \$1,996 | \$4,658 |
| Project Totals: | | | | \$5,596 | | \$4,126 | \$9,722 |

| | | |
|--|---|-----------------|
| Material/Labor Cost | | \$9,722 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | \$7,752 |
| General Contractor Mark Up at 20.0% | + | \$1,550 |
| Construction Cost | | \$9,302 |
| Professional Fees at 16.0% | + | \$1,488 |
| Total Project Cost | | \$10,791 |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|----------|-------------------|----------------------|
| Project Number: | MESSIS01 | Title: | REFINISH FLOORING |
| Priority Sequence: | 12 | | |
| Priority Class: | 3 | | |
| Category Code: | IS1A | System: | INTERIOR/FINISH SYS. |
| | | Component: | FLOOR |
| | | Element: | FINISHES-DRY |

| | |
|--------------------------|------------------------------|
| Building Code: | MESS |
| Building Name: | MESSICK THEATRE ARTS COMPLEX |
| Subclass/Savings: | Not Applicable |

Code Application: Not Applicable

| | |
|-----------------------|----------------------|
| Project Class: | Deferred Maintenance |
| Project Date: | 11/11/2009 |

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

Project Description

Floor finishes are typically carpet, vinyl tile, or ceramic tile. The materials used are not expected to outlast the scope of this assessment. Floor finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

Specific Project Details
Facility Condition Analysis
Section Three
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSIS01

Task Cost Estimate

| Task Description | Unit | Qty | Material Unit Cost | Total Material Cost | Labor Unit Cost | Total Labor Cost | Total Cost |
|-------------------------|-------------|------------|---------------------------|----------------------------|------------------------|-------------------------|-------------------|
| Carpet | SF | 6,220 | \$5.36 | \$33,339 | \$2.00 | \$12,440 | \$45,779 |
| Vinyl floor tile | SF | 7,460 | \$3.53 | \$26,334 | \$2.50 | \$18,650 | \$44,984 |
| Ceramic tile | SF | 1,240 | \$7.24 | \$8,978 | \$10.63 | \$13,181 | \$22,159 |
| Project Totals: | | | | \$68,651 | | \$44,271 | \$112,922 |

| | | |
|--|---|-------------------------|
| Material/Labor Cost | | \$112,922 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | <u>\$91,842</u> |
| General Contractor Mark Up at 20.0% | + | <u>\$18,368</u> |
| Construction Cost | | <u>\$110,211</u> |
| Professional Fees at 16.0% | + | <u>\$17,634</u> |
| Total Project Cost | | <u>\$127,844</u> |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|----------|-------------------|----------------------|
| Project Number: | MESSIS02 | Title: | REFINISH WALLS |
| Priority Sequence: | 13 | | |
| Priority Class: | 3 | | |
| Category Code: | IS2B | System: | INTERIOR/FINISH SYS. |
| | | Component: | PARTITIONS |
| | | Element: | FINISHES |

| | |
|--------------------------|------------------------------|
| Building Code: | MESS |
| Building Name: | MESSICK THEATRE ARTS COMPLEX |
| Subclass/Savings: | Not Applicable |

Code Application: Not Applicable

| | |
|-----------------------|----------------------|
| Project Class: | Deferred Maintenance |
| Project Date: | 11/11/2009 |

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

Project Description

The wall finishes are generally finished with painted sheetrock. The interior walls were found to be in fair condition, with minor damage and finish discoloration. 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
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSIS02

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 | 52,000 | \$0.17 | \$8,840 | \$0.81 | \$42,120 | \$50,960 |
| Project Totals: | | | | \$8,840 | | \$42,120 | \$50,960 |

| | | |
|--|----------|-----------------|
| Material/Labor Cost | | \$50,960 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | \$30,509 |
| General Contractor Mark Up at 20.0% | + | \$6,102 |
| Construction Cost | | \$36,611 |
| Professional Fees at 16.0% | + | \$5,858 |
| Total Project Cost | | \$42,469 |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|----------|-------------------|----------------------|
| Project Number: | MESSIS03 | Title: | REFINISH CEILINGS |
| Priority Sequence: | 14 | | |
| Priority Class: | 3 | | |
| Category Code: | IS3B | System: | INTERIOR/FINISH SYS. |
| | | Component: | CEILINGS |
| | | Element: | REPLACEMENT |

| | |
|--------------------------|------------------------------|
| Building Code: | MESS |
| Building Name: | MESSICK THEATRE ARTS COMPLEX |
| Subclass/Savings: | Not Applicable |

Code Application: Not Applicable

| | |
|-----------------------|----------------------|
| Project Class: | Deferred Maintenance |
| Project Date: | 11/11/2009 |

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

Project Description

The ceiling systems consist of a combination of painted sheetrock and suspended, acoustical tile systems. The ceilings were found to be in fair condition, with minor damaged tile and discoloration. 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
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSIS03

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 | 22,390 | \$2.12 | \$47,467 | \$2.98 | \$66,722 | \$114,189 |
| Painted ceiling finish application | SF | 2,490 | \$0.17 | \$423 | \$0.81 | \$2,017 | \$2,440 |
| Project Totals: | | | | \$47,890 | | \$68,739 | \$116,629 |

| | | |
|--|---|-------------------------|
| Material/Labor Cost | | \$116,629 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | <u>\$83,488</u> |
| General Contractor Mark Up at 20.0% | + | <u>\$16,698</u> |
| Construction Cost | | <u>\$100,186</u> |
| Professional Fees at 16.0% | + | <u>\$16,030</u> |
| Total Project Cost | | <u>\$116,216</u> |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|------------------------------|-------------------|------------------------|
| Project Number: | MESSIS04 | Title: | REPLACE INTERIOR DOORS |
| Priority Sequence: | 15 | | |
| Priority Class: | 3 | | |
| Category Code: | IS4A | System: | INTERIOR/FINISH SYS. |
| | | Component: | DOORS |
| | | Element: | GENERAL |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Not Applicable | | |
| Code Application: | ADAAG | 309.4, 703.1 | |
| Project Class: | Deferred Maintenance | | |
| Project Date: | 11/11/2009 | | |
| Project Location: | Floor-wide: Floor(s) 1, 2, B | | |

Project Description

The condition of the interior door systems is such that door system replacements are recommended as part of a comprehensive renovation effort. Complete demolition of existing door systems and replacement according to a code compliant plan to properly protect egress passages is recommended.

Specific Project Details
Facility Condition Analysis
Section Three
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSIS04

Task Cost Estimate

| Task Description | Unit | Qty | Material Unit Cost | Total Material Cost | Labor Unit Cost | Total Labor Cost | Total Cost |
|---|-------------|------------|---------------------------|----------------------------|------------------------|-------------------------|-------------------|
| Interior door and frame installation with all hardware and accessible signage | EA | 44 | \$370 | \$16,280 | \$396 | \$17,424 | \$33,704 |
| Rated door and rated metal frame, including all hardware and accessible signage | EA | 132 | \$672 | \$88,704 | \$812 | \$107,184 | \$195,888 |
| Project Totals: | | | | \$104,984 | | \$124,608 | \$229,592 |

| | | |
|--|---|------------------|
| Material/Labor Cost | | \$229,592 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | \$169,643 |
| General Contractor Mark Up at 20.0% | + | \$33,929 |
| Construction Cost | | \$203,571 |
| Professional Fees at 16.0% | + | \$32,571 |
| Total Project Cost | | \$236,143 |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|------------------------------|-------------------|----------------------|
| Project Number: | MESSIS05 | Title: | RESTROOM RENOVATION |
| Priority Sequence: | 16 | | |
| Priority Class: | 3 | | |
| Category Code: | IS6D | System: | INTERIOR/FINISH SYS. |
| | | Component: | GENERAL |
| | | Element: | OTHER |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Not Applicable | | |
| Code Application: | ADAAG | 604, 605, 606 | |
| Project Class: | Deferred Maintenance | | |
| Project Date: | 11/11/2009 | | |
| Project Location: | Floor-wide: Floor(s) 1, 2 | | |

Project Description

The restroom fixtures and finishes are mostly original to the year of construction. The fixtures are sound but aged and inefficient. The finishes are outdated. A comprehensive restroom renovation including new fixtures, finishes, partitions, accessories, and dual level drinking fountains is recommended.

Specific Project Details
Facility Condition Analysis
Section Three
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSIS05

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 fixtures, finishes, partitions, accessories, and expansion if necessary (assumes 55 square feet of restroom area per fixture) | FIXT | 28 | \$1,969 | \$55,132 | \$1,699 | \$47,572 | \$102,704 |
| Project Totals: | | | | \$55,132 | | \$47,572 | \$102,704 |

| | | |
|--|---|------------------|
| Material/Labor Cost | | \$102,704 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | \$79,922 |
| General Contractor Mark Up at 20.0% | + | \$15,984 |
| Construction Cost | | \$95,907 |
| Professional Fees at 16.0% | + | \$15,345 |
| Total Project Cost | | \$111,252 |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|------------------------------|-------------------|---------------------------------|
| Project Number: | MESSPL02 | Title: | WATER SUPPLY PIPING REPLACEMENT |
| Priority Sequence: | 17 | | |
| Priority Class: | 3 | | |
| Category Code: | PL1A | System: | PLUMBING |
| | | Component: | DOMESTIC WATER |
| | | Element: | PIPING NETWORK |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Not Applicable | | |
| Code Application: | IPC | Chapter 6 | |
| Project Class: | Deferred Maintenance | | |
| Project Date: | 10/16/2009 | | |
| Project Location: | Floor-wide: Floor(s) B,1,2 | | |

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
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSPL02

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 | 35,038 | \$1.81 | \$63,419 | \$4.54 | \$159,073 | \$222,491 |
| Project Totals: | | | | \$63,419 | | \$159,073 | \$222,491 |

| | | |
|--|---|------------------|
| Material/Labor Cost | | \$222,544 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | \$145,467 |
| General Contractor Mark Up at 20.0% | + | \$29,093 |
| Construction Cost | | \$174,560 |
| Professional Fees at 16.0% | + | \$27,930 |
| Total Project Cost | | \$202,490 |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|------------------------------|-------------------|--------------------------|
| Project Number: | MESSPL03 | Title: | DRAIN PIPING REPLACEMENT |
| Priority Sequence: | 18 | | |
| Priority Class: | 3 | | |
| Category Code: | PL2A | System: | PLUMBING |
| | | Component: | WASTEWATER |
| | | Element: | PIPING NETWORK |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Not Applicable | | |
| Code Application: | IPC | Chapters 7-11 | |
| Project Class: | Deferred Maintenance | | |
| Project Date: | 10/16/2009 | | |
| Project Location: | Floor-wide: Floor(s) B,1,2 | | |

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
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSPL03

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 | 35,038 | \$2.89 | \$101,260 | \$6.64 | \$232,652 | \$333,912 |
| Project Totals: | | | | \$101,260 | | \$232,652 | \$333,912 |

| | | |
|--|---|------------------|
| Material/Labor Cost | | \$333,816 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | \$221,319 |
| General Contractor Mark Up at 20.0% | + | \$44,264 |
| Construction Cost | | \$265,583 |
| Professional Fees at 16.0% | + | \$42,493 |
| Total Project Cost | | \$308,076 |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|------------------------------|-------------------|------------------------|
| Project Number: | MESSVT01 | Title: | UPGRADE ELEVATOR NO. 1 |
| Priority Sequence: | 19 | | |
| Priority Class: | 3 | | |
| Category Code: | VT7A | System: | VERT. TRANSPORTATION |
| | | Component: | GENERAL |
| | | Element: | OTHER |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Not Applicable | | |
| Code Application: | Not Applicable | | |

| | |
|--------------------------|-----------------------|
| Project Class: | Deferred Maintenance |
| Project Date: | 10/12/2009 |
| Project Location: | Item Only: Floor(s) 1 |

Project Description

Replace pumping unit complete, motor, pump, valve, controller, and door locks. Refurbish the car interior.

Work by Others:

1. HVAC in machine room.
2. Provide new main line feeders with a "Green" ground wire.

Specific Project Details
Facility Condition Analysis
Section Three
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSVT01

Task Cost Estimate

| Task Description | Unit | Qty | Material Unit Cost | Total Material Cost | Labor Unit Cost | Total Labor Cost | Total Cost |
|--|-------------|------------|---------------------------|----------------------------|------------------------|-------------------------|-------------------|
| Client-reported cost to upgrade elevator | EA | 1 | \$70,000 | \$70,000 | \$0.00 | \$ | \$70,000 |
| Project Totals: | | | | \$70,000 | | \$ | \$70,000 |

| | |
|--------------------------------------|------------------------|
| Material/Labor Cost | \$70,000 |
| Material Index | 100.7% |
| Labor Index | 51.3% |
| Material/Labor Indexed Cost | <u>\$70,490</u> |
| No GCM Required | |
| Construction Cost | <u>\$70,490</u> |
| No Professional Fees Required | |
| Total Project Cost | <u>\$70,490</u> |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|------------------------------|-------------------|--|
| Project Number: | MESSAC01 | Title: | DRINKING FOUNTAIN ACCESSIBILITY UPGRADES |
| Priority Sequence: | 20 | | |
| Priority Class: | 4 | | |
| Category Code: | AC3F | System: | ACCESSIBILITY |
| | | Component: | INTERIOR PATH OF TRAVEL |
| | | Element: | DRINKING FOUNTAINS |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Not Applicable | | |
| Code Application: | ADAAG | 211, 602 | |
| Project Class: | Plant Adaption | | |
| Project Date: | 11/11/2009 | | |
| Project Location: | Floor-wide: Floor(s) 1, 2 | | |

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSAC01

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 | 5 | \$1,216 | \$6,080 | \$374 | \$1,870 | \$7,950 |
| Alcove construction including finishes | EA | 5 | \$877 | \$4,385 | \$3,742 | \$18,710 | \$23,095 |
| Project Totals: | | | | \$10,465 | | \$20,580 | \$31,045 |

| | | |
|--|---|------------------------|
| Material/Labor Cost | | \$31,045 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | <u>\$21,096</u> |
| General Contractor Mark Up at 20.0% | + | <u>\$4,219</u> |
| Construction Cost | | <u>\$25,315</u> |
| Professional Fees at 16.0% | + | <u>\$4,050</u> |
| Total Project Cost | | <u>\$29,365</u> |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|------------------------------|-------------------|-------------------------|
| Project Number: | MESSAC02 | Title: | STAIR SAFETY UPGRADES |
| Priority Sequence: | 21 | | |
| Priority Class: | 4 | | |
| Category Code: | AC3B | System: | ACCESSIBILITY |
| | | Component: | INTERIOR PATH OF TRAVEL |
| | | Element: | STAIRS AND RAILINGS |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Not Applicable | | |
| Code Application: | IBC | 1003.3 | |
| | ADAAG | 505 | |
| Project Class: | Plant Adaption | | |
| Project Date: | 11/11/2009 | | |
| Project Location: | Floor-wide: Floor(s) 1, 2, B | | |

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSAC02

Task Cost Estimate

| Task Description | Unit | Qty | Material Unit Cost | Total Material Cost | Labor Unit Cost | Total Labor Cost | Total Cost |
|--|-------------|------------|---------------------------|----------------------------|------------------------|-------------------------|-------------------|
| Wall-mounted handrail system per floor | FLR | 10 | \$573 | \$5,730 | \$521 | \$5,210 | \$10,940 |
| Center handrail / guardrail system per floor | FLR | 10 | \$1,297 | \$12,970 | \$833 | \$8,330 | \$21,300 |
| Project Totals: | | | | \$18,700 | | \$13,540 | \$32,240 |

| | | |
|--|---|------------------------|
| Material/Labor Cost | | \$32,240 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | <u>\$25,777</u> |
| General Contractor Mark Up at 20.0% | + | <u>\$5,155</u> |
| Construction Cost | | <u>\$30,932</u> |
| Professional Fees at 16.0% | + | <u>\$4,949</u> |
| Total Project Cost | | <u>\$35,881</u> |

Specific Project Details
Facility Condition Analysis
Section Three
MESS : MESSICK THEATRE ARTS COMPLEX

Project Description

| | | | |
|---------------------------|------------------------------|-------------------|-----------------------------------|
| Project Number: | MESSPL01 | Title: | DOMESTIC WATER HEATER REPLACEMENT |
| Priority Sequence: | 22 | | |
| Priority Class: | 4 | | |
| Category Code: | PL1E | System: | PLUMBING |
| | | Component: | DOMESTIC WATER |
| | | Element: | HEATING |
| Building Code: | MESS | | |
| Building Name: | MESSICK THEATRE ARTS COMPLEX | | |
| Subclass/Savings: | Not Applicable | | |
| Code Application: | IPC | Chapters 5, 607 | |
| Project Class: | Capital Renewal | | |
| Project Date: | 10/16/2009 | | |
| Project Location: | Item Only: Floor(s) 1 | | |

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
 MESS : MESSICK THEATRE ARTS COMPLEX

Project Cost

Project Number: MESSPL01

Task Cost Estimate

| Task Description | Unit | Qty | Material Unit Cost | Total Material Cost | Labor Unit Cost | Total Labor Cost | Total Cost |
|---|-------------|------------|---------------------------|----------------------------|------------------------|-------------------------|-------------------|
| Electric, commercial-grade water heater replacement, including demolition | GAL | 80 | \$100 | \$8,034 | \$9.46 | \$757 | \$8,791 |
| Project Totals: | | | | \$8,034 | | \$757 | \$8,791 |

| | | |
|--|---|-----------------|
| Material/Labor Cost | | \$8,791 |
| Material Index | | 100.7% |
| Labor Index | | 51.3% |
| Material/Labor Indexed Cost | | \$8,479 |
| General Contractor Mark Up at 20.0% | + | \$1,696 |
| Construction Cost | | \$10,175 |
| Professional Fees at 16.0% | + | \$1,628 |
| Total Project Cost | | \$11,803 |

FACILITY CONDITION ANALYSIS

SECTION 4

**DRAWINGS
AND PROJECT LOCATIONS**



FACILITY
CONDITION
ANALYSIS

2165 West Park Court
Suite N
Stone Mountain GA 30087
770.879.7376

PROJECT NUMBER
APPLIES TO
ONE ROOM ONLY

PROJECT NUMBER
APPLIES TO
ONE ITEM ONLY

PROJECT NUMBER
APPLIES TO
ENTIRE BUILDING

PROJECT NUMBER
APPLIES TO
ENTIRE FLOOR

PROJECT NUMBER
APPLIES TO A SITUATION
OF UNDEFINED EXTENTS

PROJECT NUMBER
APPLIES TO AREA
AS NOTED

Date: 12/11/09

Drawn by: J.T.V.

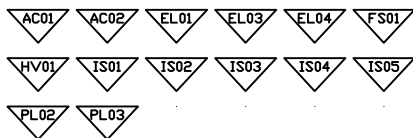
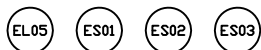
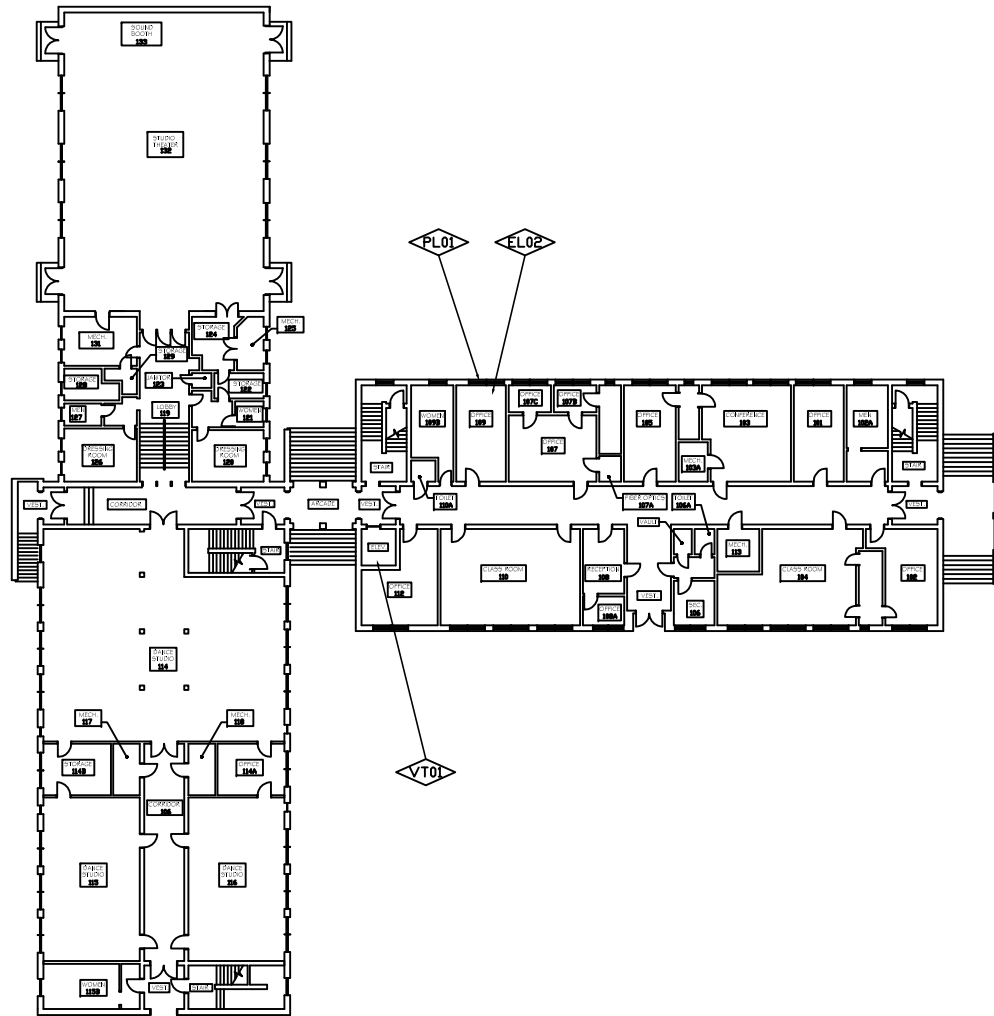
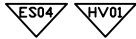
Project No. 09-041

FIRST
FLOOR
PLAN

Sheet No.

1 of 1

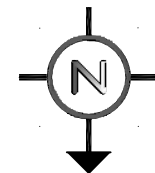
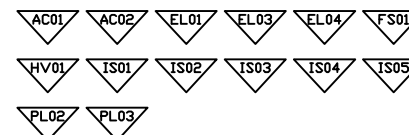
ROOF



BASEMENT



SECOND



FACILITY CONDITION ANALYSIS

SECTION 5

LIFE CYCLE MODEL SUMMARY
AND PROJECTIONS

Life Cycle Model
Building Component Summary
MESS : MESSICK THEATRE ARTS COMPLEX

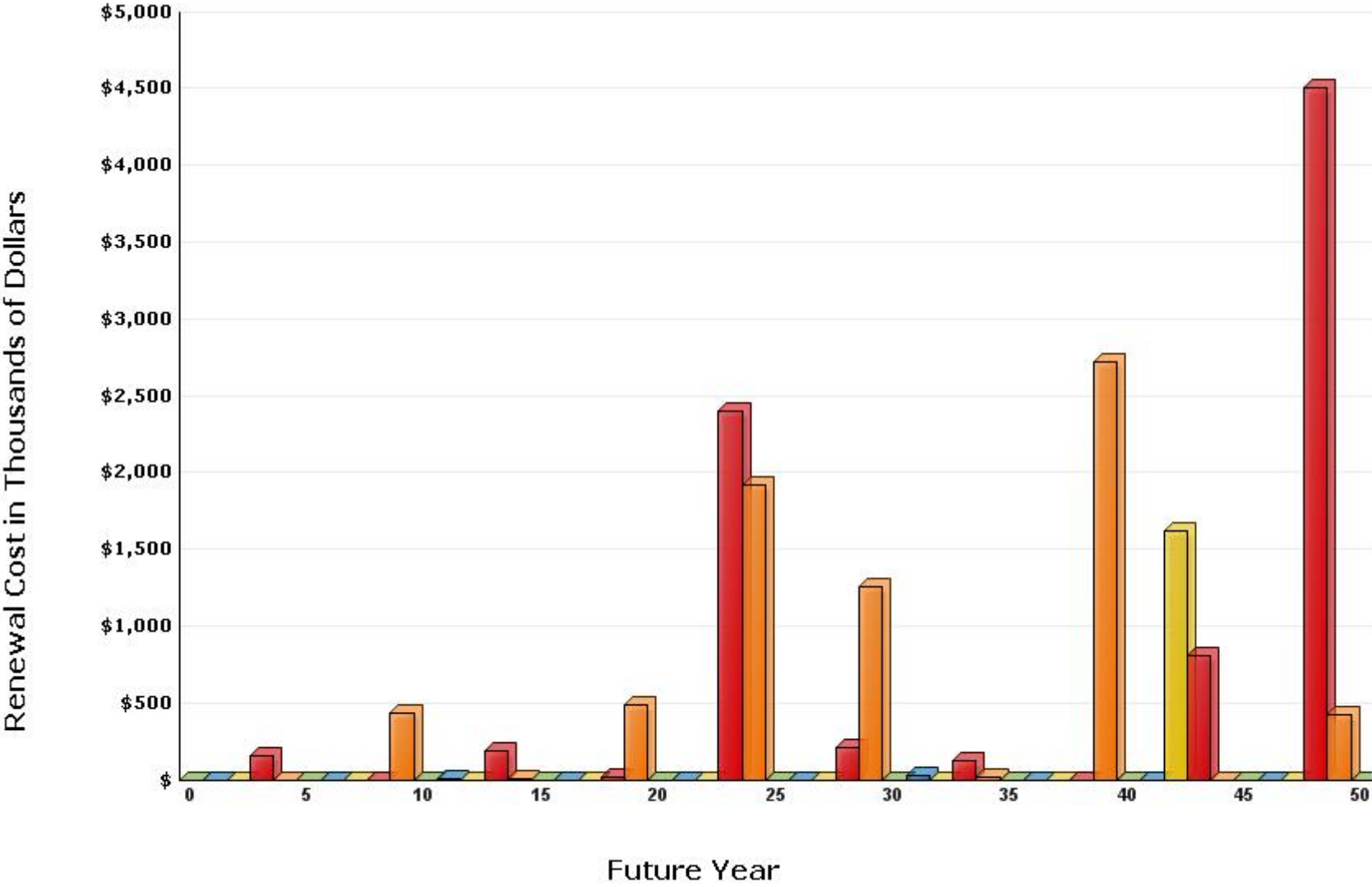
| Unifomat Code | Component Description | Qty | Units | Unit Cost | Complex Adj | Total Cost | Install Date | Life Exp |
|----------------------|---|------------|--------------|------------------|--------------------|-------------------|---------------------|-----------------|
| B2010 | EXTERIOR FINISH RENEWAL | 7,760 | SF | \$1.30 | .31 | \$3,136 | 1927 | 10 |
| B2020 | STANDARD GLAZING AND CURTAIN WALL | 4,180 | SF | \$104.04 | | \$434,873 | 1927 | 55 |
| B2030 | HIGH TRAFFIC EXTERIOR DOOR SYSTEM | 4 | LEAF | \$4,311.24 | | \$17,245 | 1927 | 20 |
| B2030 | LOW TRAFFIC EXTERIOR DOOR SYSTEM | 15 | LEAF | \$2,863.29 | | \$42,949 | 1927 | 40 |
| B3010 | BUILT-UP ROOF | 2,500 | SF | \$6.70 | | \$16,757 | 1927 | 20 |
| B3010 | TILE ROOF | 14,180 | SF | \$19.15 | | \$271,495 | 1994 | 70 |
| C1020 | STANDARD DOOR AND FRAME INCLUDING HARDWARE | 44 | LEAF | \$783.68 | | \$34,482 | 1927 | 35 |
| C1020 | RATED DOOR AND FRAME INCLUDING HARDWARE | 132 | LEAF | \$1,489.06 | | \$196,556 | 1927 | 35 |
| C1020 | INTERIOR DOOR HARDWARE | 132 | EA | \$423.04 | | \$55,842 | 1927 | 15 |
| C1020 | INTERIOR DOOR HARDWARE | 44 | EA | \$423.04 | | \$18,614 | 1927 | 15 |
| C3010 | STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.) | 52,000 | SF | \$0.80 | | \$41,654 | 1927 | 10 |
| C3020 | CARPET | 6,220 | SF | \$8.75 | | \$54,403 | 1927 | 10 |
| C3020 | VINYL FLOOR TILE | 7,460 | SF | \$6.59 | | \$49,146 | 1927 | 15 |
| C3020 | CERAMIC FLOOR TILE | 1,240 | SF | \$17.36 | | \$21,529 | 1927 | 20 |
| C3030 | ACOUSTICAL TILE CEILING SYSTEM | 22,390 | SF | \$4.99 | | \$111,793 | 1927 | 15 |
| C3030 | PAINTED CEILING FINISH APPLICATION | 2,490 | SF | \$0.80 | | \$1,995 | 1927 | 15 |
| D2010 | PLUMBING FIXTURES - CLASSROOM / ACADEMIC | 35,038 | SF | \$7.96 | | \$278,811 | 1927 | 35 |
| D2020 | WATER PIPING - CLASSROOM / ACADEMIC | 35,038 | SF | \$5.66 | | \$198,412 | 1927 | 35 |
| D2020 | WATER HEATER (COMMERCIAL, ELECTRIC) | 80 | GAL | \$144.38 | | \$11,550 | 1999 | 20 |
| D2030 | DRAIN PIPING - CLASSROOM / ACADEMIC | 35,038 | SF | \$8.60 | | \$301,153 | 1927 | 40 |
| D2050 | AIR COMPRESSOR PACKAGE (AVERAGE SIZE) | 1 | SYS | \$6,456.49 | | \$6,456 | 1981 | 25 |
| D3040 | CONDENSATE RECEIVER | 1 | SYS | \$9,504.01 | | \$9,504 | 1981 | 15 |
| D3040 | EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR | 2 | EA | \$2,768.62 | | \$5,537 | 1981 | 20 |
| D3040 | HVAC SYSTEM - CLASSROOM / ACADEMIC | 35,038 | SF | \$30.67 | | \$1,074,602 | 1981 | 25 |
| D3040 | BASE MTD. PUMP - UP TO 15 HP | 5 | HP | \$3,175.77 | | \$15,879 | 1981 | 20 |
| D3040 | BASE MTD. PUMP - UP TO 15 HP | 5 | HP | \$3,175.77 | | \$15,879 | 1981 | 20 |
| D5010 | ELECTRICAL SYSTEM - CLASSROOM / ACADEMIC | 35,038 | SF | \$13.35 | | \$467,730 | 1950 | 50 |
| D5010 | ELECTRICAL SWITCHGEAR 120/208V | 1,200 | AMP | \$32.96 | | \$39,556 | 1951 | 20 |
| D5020 | EMERGENCY LIGHT (BATTERY) | 5 | EA | \$283.62 | | \$1,418 | 2002 | 20 |

**Life Cycle Model
Building Component Summary
MESS : MESSICK THEATRE ARTS COMPLEX**

| Unifomat Code | Component Description | Qty | Units | Unit Cost | Complex Adj | Total Cost | Install Date | Life Exp |
|----------------------|--------------------------------------|------------|--------------|------------------|--------------------|--------------------|---------------------|-----------------|
| D5020 | EXIT SIGNS (BATTERY) | 16 | EA | \$280.76 | | \$4,492 | 2002 | 20 |
| D5020 | EXTERIOR LIGHT (HID) | 4 | EA | \$689.58 | | \$2,758 | 1951 | 20 |
| D5020 | LIGHTING - CLASSROOM / ACADEMIC | 20,038 | SF | \$6.26 | | \$125,391 | 1927 | 20 |
| D5020 | LIGHTING - CLASSROOM / ACADEMIC | 15,000 | SF | \$6.26 | | \$93,865 | 1951 | 20 |
| D5030 | FIRE ALARM SYSTEM, POINT ADDRESSABLE | 35,038 | SF | \$2.61 | | <u>\$91,610</u> | 2006 | 15 |
| | | | | | | \$4,117,070 | | |

Life Cycle Model Expenditure Projections

MESS : MESSICK THEATRE ARTS COMPLEX



Average Annual Renewal Cost Per SqFt \$3.72

FACILITY CONDITION ANALYSIS

SECTION 6

PHOTOGRAPHIC LOG

**Photo Log - Facility Condition
Analysis
MESS : MESSICK THEATRE ARTS COMPLEX**

| Photo ID No | Description | Location | Date |
|--------------------|---|---|-------------|
| MESS001a | Painted concrete block guardrail that is too low and painted wood handrail lacking the recommended end geometry | Southwest, stair tower | 9/1/2009 |
| MESS001e | LED exit signage with battery backup | Typical for all exits | 9/1/2009 |
| MESS002a | Single-level drinking fountain | Second floor, east wing, corridor | 9/1/2009 |
| MESS002e | Horn strobe and smoke detection devices | Typical for hallways | 9/1/2009 |
| MESS003a | Roof finishes | Roof | 9/1/2009 |
| MESS003e | Simplex fire alarm control panel | Mechanical room 123 | 9/1/2009 |
| MESS004a | Roof finishes and exterior finishes | Roof | 9/1/2009 |
| MESS004e | Roof-mounted turbine and centrifugal exhausters | Roof, south end | 9/1/2009 |
| MESS005a | Lack of wheelchair access to north entrance interior steps and one wood handrail lacking recommended end geometry | First floor, east wing | 9/1/2009 |
| MESS005e | Air handler AHU - 011, chill / hot water coils | Mechanical room 217 | 9/1/2009 |
| MESS006a | Typically steep, short ramp up into dance studio | First floor, dance studio 116 | 9/1/2009 |
| MESS006e | Air handler AHU - 010, chill / hot water coils | Mechanical room 218 | 9/1/2009 |
| MESS007a | Exterior elevation | Southeast wing | 9/1/2009 |
| MESS007e | Air handler AHU - 008, chill / hot water coils | Mechanical room 219 | 9/1/2009 |
| MESS008a | Exterior elevation | Southeast wing | 9/1/2009 |
| MESS008e | Incoming steam with steam-to-water heat exchanger | Mechanical room 111 | 9/1/2009 |
| MESS009a | Exterior elevation | Northeast wing | 9/1/2009 |
| MESS009e | Five hp hot water circulation pump | Mechanical room 111 | 9/1/2009 |
| MESS010a | Typically aging wood windows | East facade, northeast wing | 9/1/2009 |
| MESS010e | HVAC pneumatic controls by Contro-Systems Corp | Mechanical room 111 | 9/1/2009 |
| MESS011a | Exterior elevation showing painted metal handrails that lack recommended end geometry | Northeast corner, northeast wing | 9/1/2009 |
| MESS011e | Incoming copper water service | Mechanical room 111 | 9/1/2009 |
| MESS012a | Exterior elevation | Northwest corner, northeast wing | 9/1/2009 |
| MESS012e | Hot water, fractional hp circulation pumps | Mechanical room 111 | 9/1/2009 |
| MESS013a | Exterior elevation | Southwest, across north facade, west wing | 9/1/2009 |
| MESS013e | Cast-iron, bell-and-spigot drain piping | Crawl space, mechanical room 111 | 9/1/2009 |
| MESS014a | Exterior elevation | Northwest corner, west wing | 9/1/2009 |
| MESS014e | Hot water cartridge filter system | Mechanical room 111 | 9/1/2009 |

**Photo Log - Facility Condition
Analysis
MESS : MESSICK THEATRE ARTS COMPLEX**

| Photo ID No | Description | Location | Date |
|--------------------|---|--|-------------|
| MESS015a | Exterior elevation | Northeast, along south facade, west wing | 9/1/2009 |
| MESS015e | Air handler AHU - 008, chill / hot water coils | Mechanical room 123 | 9/1/2009 |
| MESS016a | Roof finishes | Roof | 9/1/2009 |
| MESS016e | Air handler AHU - 003, chill / hot water coils | Mechanical room off of office 103 | 9/1/2009 |
| MESS017e | Air handler AHU - 007, chill / hot water coils | Mechanical room 118 | 9/1/2009 |
| MESS018e | Air handler AHU - 005, chill / hot water coils | Mechanical room 117 | 9/1/2009 |
| MESS019e | Air handler AHU - 006, chill / hot water coils | Mechanical room 117 | 9/1/2009 |
| MESS020e | Air handler, Trane Climate Changer, chill / hot water coils | Mechanical room 125 | 9/1/2009 |
| MESS021e | Air handler AHU - 013, chill / hot water coils | Mechanical room 131 | 9/1/2009 |
| MESS022e | Air handler AHU - 014, chill / hot water coils | Mechanical room 131 | 9/1/2009 |
| MESS023e | Fluorescent, 48 inch, two tube, T12 light fixtures | Second floor, hallway connector | 9/1/2009 |
| MESS024e | Westinghouse Panel 2LPZ2 distribution panel | Second floor, hallway | 9/1/2009 |
| MESS025e | Conduit over 10 feet without support between wings | Entering east wing at north entrance | 9/1/2009 |
| MESS026e | Surface-mounted, incandescent light fixture | Typical at all building entrances | 9/1/2009 |
| MESS027e | Wall-mounted HPS wallpacks | Typical at all building elevations | 9/1/2009 |
| MESS028e | Twenty foot pole-mounted light fixture | North side of building | 9/1/2009 |
| MESS029e | Urinals | Men's restroom, room 215A | 9/1/2009 |
| MESS030e | Water closet | Men's restroom, room 215A | 9/1/2009 |
| MESS031e | Vanity lavatories | Men's restroom, room 215A | 9/1/2009 |
| MESS032e | Electric, 82 gallon hot water heater | Mechanical room 111 | 9/1/2009 |
| MESS033e | Mop sink with original equipment | North wing, west corner | 9/1/2009 |

Facility Condition Analysis - Photo Log



MESS001A.jpg



MESS001E.jpg



MESS002A.jpg



MESS002E.jpg



MESS003A.jpg



MESS003E.jpg



MESS004A.jpg



MESS004E.jpg



MESS005A.jpg



MESS005E.jpg



MESS006A.jpg



MESS006E.jpg



MESS007A.jpg



MESS007E.jpg



MESS008A.jpg



MESS008E.jpg



MESS009A.jpg



MESS009E.jpg



MESS010A.jpg



MESS010E.jpg

Facility Condition Analysis - Photo Log



MESS011A.jpg



MESS011E.jpg



MESS012A.jpg



MESS012E.jpg



MESS013A.jpg



MESS013E.jpg



MESS014A.jpg



MESS014E.jpg



MESS015A.jpg



MESS015E.jpg



MESS016A.jpg



MESS016E.jpg



MESS017E.jpg



MESS018E.jpg



MESS019E.jpg



MESS020E.jpg



MESS021E.jpg



MESS022E.jpg



MESS023E.jpg



MESS024E.jpg

Facility Condition Analysis - Photo Log



MESS025E.jpg



MESS026E.jpg



MESS027E.jpg



MESS028E.jpg



MESS029E.jpg



MESS030E.jpg



MESS031E.jpg



MESS032E.jpg



MESS033E.jpg

