EAST CAROLINA UNIVERSITY

McGINNIS SCENE SHOP

ASSET CODE: MCSS

FACILITY CONDITION ANALYSIS

DECEMBER 30, 2009

ISES CORPORATION

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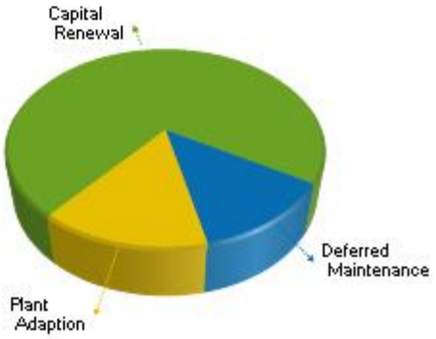
PROJECT COSTS BY CLASSIFICATION



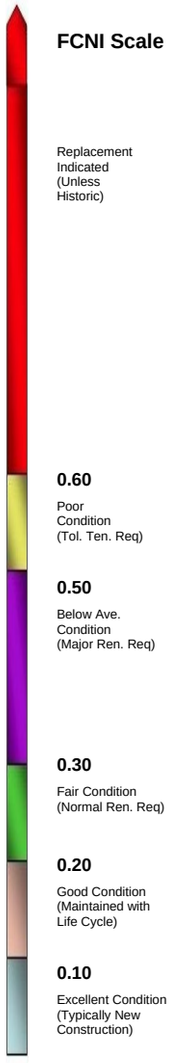
Building Code: MCSS
Building Name: MCGINNIS SCENE SHOP
Year Built: 1982
Building Use: Warehouse/Storage/Utility
Square Feet: 9,600

Project Costs by Priority

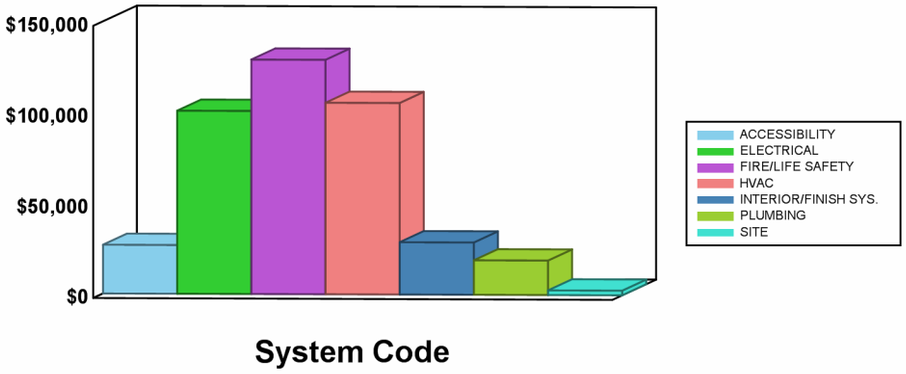
Priority 1:	$32,753
Priority 2:	$41,696
Priority 3:	$295,572
Priority 4:	$42,989
Total Project Costs:	**$413,011**

Facility Replacement Cost: **$1,235,000**

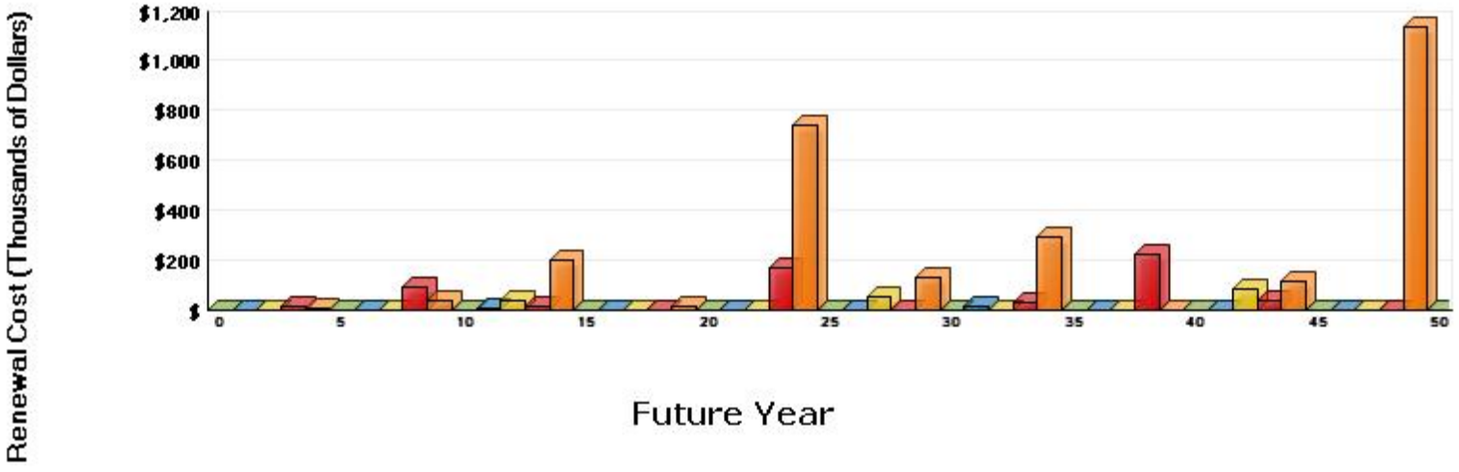
Facility Condition Needs Index (FCNI): **0.33**
(Project Costs / Replacement Cost)



PROJECT COSTS BY SYSTEM CODE



LIFE CYCLE MODEL EXPENDITURE PROJECTIONS



Average Annual Renewal Cost Per SqFt $2.87

B. ASSET SUMMARY

Constructed in 1982, the McGinnis Scene Shop is a two-story, rectangular workshop, with a very small mezzanine level in one corner of the top floor. This steel-framed structure is located near the east end of the northern portion of the East Carolina University campus in Greenville, North Carolina. It has a listed area of 9,600 gross square feet.

The information for this report was gathered during an inspection conducted on September 2, 2009.

SITE

The landscaping on the small, flat site of this facility consists mostly of turf, shrubs, specimen trees, and foundation planting, all in overall fair condition. The condition of the site is such that a moderate landscaping upgrade is warranted. The few areas of concrete sidewalks and minimal paving are in overall good condition, and no associated upgrade recommendations are made.

EXTERIOR STRUCTURE

This essentially windowless, steel-framed building has a brick veneer with no adornment. The flat roof is an unballasted, single-ply membrane. This roofing is in overall good condition. The few exterior doors are painted metal. No exterior facade, roof, window or door upgrades are proposed, beyond repainting the metal doors as part of routine maintenance.

INTERIOR FINISHES / SYSTEMS

The interior of this structure is essentially two large open rooms, one on each of the two floors. Walls are mostly painted, and ceilings are lay-in, acoustical tile, in overall good condition. Floors consist primarily of paint-splattered vinyl floor tile. These finishes are utilitarian and in need of a few upgrades, including repainting the walls and replacing a percentage of the lay-in, acoustical ceiling tiles. Considering the use of this building, floor finish upgrades would serve no useful purpose. Interior doors are in overall good condition, with no proposed upgrades.

ACCESSIBILITY

There is some handicapped accessibility into and through this building. There are a few at-grade entrances and there is a freight elevator. Some additional accessibility upgrades are recommended to improve accessibility in this building.

Legislation requires that door hardware be designed for operation by people with little or no ability to grasp objects with their hands. To comply with the intent of this legislation, it is recommended that lever handle door hardware be installed on all doors that currently still have knobs.

Goods and services offered in buildings are also required to be generally available to all persons. The elevator control systems lack accessible features. It is recommended that the elevator controls be upgraded with a package consisting of a hands-free, two-way telephone, Braille signage, audible signals, and self-closing doors. Similarly, the single-level configuration of the drinking fountain in this building is a barrier to accessibility. The installation of a dual-level, refrigerated drinking fountain is recommended to replace the existing fountain.

The fixtures and finishes in the single-user restroom appear to be original to the year of construction. The fixtures are sound but dated, and are spaced such that clearances are not ADA compliant. A comprehensive restroom renovation, including the installation of new fixtures, finishes, and accessories, is recommended.

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

HEALTH

No information was provided by the University as to the presence of asbestos-containing materials (ACMs) within this building. Therefore, no ACM abated is proposed. There was no evidence of a presence of infestations by vermin or insects in this building.

FIRE / LIFE SAFETY

This building appears to have been constructed in substantial compliance with building codes, and the exits seem to be sufficient in number and location. Therefore, no exit upgrades are proposed. Code requires that there be a guardrail where there is a change in floor level in excess of 36 inches and that these guardrails be a minimum of 42 inches high. The guardrails must also prevent the passage of a specific diameter sphere. The metal guardrails at the top of the two fire exit stairs are too low and lack sufficient infill, and the open side of both fire stairs creates a guardrail condition down the length of both of these stairs. A painted metal rail should be added above and parallel to the existing guardrail and to the handrails along the open side to create a guardrail that is compliant with current code. The application of a galvanized, expanded metal lath to the existing guardrails and open sides of the two stairs is the most cost-effective method of complying with the sphere test.

The vertical roof access ladders at the upper floor lack a safety cage and platform. The installation of a ladder cage, platform, and telescoping hand-hold mast is recommended to promote user safety and help limit University liability.

There are times when spray painting takes place in this scene shop, and there is no safe, ventilated enclosure within which to accomplish this task. The installation of a prefabricated paint spray booth is proposed.

This facility is protected by a central fire alarm system. The devices for this system include manual pull stations, audible / visible devices, and smoke detectors. The fire alarm panel was manufactured by Simplex and is located on the north wall, first floor. There are no fire safety devices mounted in the restrooms. The fire alarm system is inadequate compared to the current campus standard. It is recommended that this system be replaced within the next year.

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 work will reduce overall liability and potential for loss.

The exit signs in this facility are illuminated with fluorescent lamps and have battery back-up power. Emergency lighting is available through standard interior light fixtures that are connected to the emergency power network. Replace the existing exit signage throughout the building. Install new exit signs as needed. The new units should have individual battery packs for backup power. LED exit signs are recommended because they are energy efficient and require minimal maintenance.

HVAC

This facility is on the campus steam loop. Hot water is circulated as the heating medium. The hot water heating system is served by a heat exchanger that is approaching the end of its expected life cycle. Such systems become increasingly maintenance-intensive and problematic after twenty years of service. Scheduled replacement of this critical system is recommended. 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 Johnson Controls.

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

The main distribution panel for the electrical distribution system is rated for 500 amp service. The electrical distribution network in this facility supplies 120/208 volt power throughout. It should be anticipated that the 120/208 volt main distribution panel and switchgear will require replacement within the outlook of this report. It is also recommended that minor deficiencies in the electrical distribution network be rectified. Such remedies include, but are not limited to, installing additional circuits, replacing worn switches and receptacles, replacing circuit breakers, and updating panel directories.

The interior spaces of this facility are illuminated by fixtures that utilize T12 fluorescent lamps. Most of the fluorescent lighting fixtures are recessed applications. Some fixtures are still fitted with inefficient, incandescent lamps. The lenses on the light fixtures are aged and dim. Some lenses are worn or

missing. The interior lighting system 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 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.

PLUMBING

Potable water is distributed throughout this facility via a copper piping network. Sanitary waste and storm water piping is of cast-iron, bell-and-spigot construction with copper run-outs. The drain piping network is adequate and does not currently require any upgrades. The supply piping network will require replacement within the scope of this analysis. The plumbing fixtures are recommended for replacement. This action is detailed in the proposed restroom renovation.

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 aforementioned study did not identify any deficiencies requiring capital funding.

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

C. INSPECTION TEAM DATA

DATE OF INSPECTION: September 2, 2009

INSPECTION TEAM PERSONNEL:

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

FACILITY CONTACTS:

NAME	POSITION
William Bagwell	Associate Vice Chancellor, Campus Operations

REPORT DEVELOPMENT:

Report Development by: 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.

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

Section 3: Specific Project Details Illustrating Description / Cost

Section 4: Drawings with Iconography

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

Section 5: Life Cycle Model Summary and Projections

Section 6: Photographic Log

2. PROJECT CLASSIFICATION

A. Plant / Program Adaption: Expenditures required to adapt the physical plant to the evolving needs of the institution and to changing codes or standards. These are expenditures beyond normal maintenance. Examples include compliance with changing codes (e.g. accessibility), facility alterations required by changed teaching or research methods, and improvements occasioned by the adoption of modern technology (e.g., the use of personal computer networks).

B. Deferred Maintenance: Refers to expenditures for repairs which were not accomplished as a part of normal maintenance or capital repair which have accumulated to the point that facility deterioration is evident and could impair the proper functioning of the facility. Costs estimated for deferred maintenance projects should include compliance with applicable codes, even if such compliance requires expenditures beyond those essential to affect the needed repairs. Deferred maintenance projects represent catch up expenses.

C. Capital Renewal: A subset of regular or normal facility maintenance which refers to major repairs or the replacement / rebuilding of major facility components (e.g., roof replacement at the end of its normal useful life is capital repair; roof replacement several years after its normal useful life is deferred maintenance).

3. PROJECT SUBCLASS TYPE

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

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

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

Example:

PRIORITY CLASS 1

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

PRIORITY CLASS 2

CODE	PROJECT NO.	PRIORITY SEQUENCE
IS1E	0001IS06	03
EL4C	0001EL03	04

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

PRIORITY 1 - Currently Critical (Immediate)

Projects in this category require immediate action to:
a. return a facility to normal operation
b. stop accelerated deterioration
c. correct a cited safety hazard

PRIORITY 2 - Potentially Critical (Year One)

Projects in this category, if not corrected expeditiously, will become critical within a year. Situations in this category include:
a. intermittent interruptions
b. rapid deterioration
c. potential safety hazards

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

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

PRIORITY 4 - Recommended (Years Six to Ten)

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

6. COST SUMMARIES AND TOTALS

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

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

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

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

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

Example:

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

0001	-	Building Identification Number
EL	-	System Code, EL represents Electrical
04	-	Sequential Assignment Project Number by Category / System

8. PHOTO NUMBER (Shown in Section 6)

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

Example: 0001006e

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

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

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

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

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

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

Refer to the following Category Code Report.

Example: Category Code = EL5A

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

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

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

CATEGORY CODE REPORT			
CODE	**COMPONENT DESCRIPTION**	**ELEMENT DESCRIPTION**	**DEFINITION**
EL4C	DEVICES AND FIXTURES	LIGHTING CONTROLLERS	Motion sensors, photocell controllers, lighting contactors, etc.
EL4D	DEVICES AND FIXTURES	GFCI PROTECTION	Ground fault protection including GFCI receptacles and breakers.
EL4E	DEVICES AND FIXTURES	LIGHTNING PROTECTION	Lightning arrestation systems including air terminals and grounding conductors.
EL5A	EMERGENCY POWER SYSTEM	GENERATION/ DISTRIBUTION	Includes generators, central battery banks, transfer switches, emergency power grid, etc.
EL6A	SYSTEMS	UPS/DC POWER SUPPLY	Uninterruptible power supply systems and DC motor-generator sets and distribution systems.
EL7A	INFRASTRUCTURE	ABOVE GROUND TRANSMISSION	Includes poles, towers, conductors, insulators, fuses, disconnects, etc.
EL7B	INFRASTRUCTURE	UNDERGROUND TRANSMISSION	Includes direct buried feeders, ductbanks, conduit, manholes, feeders, switches, disconnects, etc.
EL7C	INFRASTRUCTURE	SUBSTATIONS	Includes incoming feeders, breakers, buses, switchgear, meters, CTs, PTs, battery systems, capacitor banks, and all associated auxiliary equipment.
EL7D	INFRASTRUCTURE	DISTRIBUTION SWITCHGEAR	Stand-alone sectionalizing switches, distribution switchboards, etc.
EL7F	INFRASTRUCTURE	AREA AND STREET LIGHTING	Area and street lighting systems including stanchions, fixtures, feeders, etc.
EL8A	GENERAL	OTHER	Electrical system components not catalogued elsewhere.
SYSTEM DESCRIPTION: EXTERIOR			
ES1A	FOUNDATION/FOOTING	STRUCTURE	Structural foundation improvements involving structural work on foundation wall/footing, piers, caissons, piles including crack repairs, shoring & pointing
ES1B	FOUNDATION/FOOTING	DAMPPROOFING/ DEWATERING	Foundation/footing waterproofing work including, damp proofing, dewatering, insulation, etc.
ES2A	COLUMNS/BEAMS/ WALLS	STRUCTURE	Structural work to primary load-bearing structural components aside from floors including columns, beams, bearing walls, lintels, arches, etc.
ES2B	COLUMNS/BEAMS/ WALLS	FINISH	Work involving restoration of the appearance and weatherproof integrity of exterior wall/structural envelope components including masonry/pointing, expansion joints, efflorescence & stain removal, grouting, surfacing, chimney repairs, etc.
ES3A	FLOOR	STRUCTURE	Work concerning the structural integrity of the load supporting floors both exposed and unexposed including deformation, delamination, spalling, shoring, crack repair, etc.
ES4A	ROOF	REPAIR	Work on waterproof horizontal finish (roof) involving repair and/or limited replacement (<40% total) including membrane patching, flashing repair, coping caulk/resetting, PPT wall parging/coating, walkpad installation, skylight and roof hatch R&R, etc.
ES4B	ROOF	REPLACEMENT	Work involving total refurbishment of roofing system including related component rehab.
ES5A	FENESTRATIONS	DOORS	Work on exterior exit/access door including storefronts, airlocks, air curtains, vinyl slat doors, all power/manual operating hardware (except handicapped), etc.
ES5B	FENESTRATIONS	WINDOWS	Work on exterior fenestration closure & related components including glass/metal/wood curtain walls, fixed or operable window sashes, glazing, frames, sills, casings, stools, seats, coatings, treatments, screens, storm windows, etc.
ES6A	GENERAL	ATTACHED STRUCTURE	Work on attached exterior structure components not normally considered in above categories including porches, stoops, decks, monumental entrance stairs, cupolas, tower, etc.
ES6B	GENERAL	AREAWAYS	Work on attached grade level or below structural features including subterranean light wells, areaways, basement access stairs, etc.
ES6C	GENERAL	TRIM	Work on ornamental exterior (generally non-structural) elements including beltlines, quoins, porticos, soffits, cornices, moldings, trim, etc.

CATEGORY CODE REPORT			
CODE	**COMPONENT DESCRIPTION**	**ELEMENT DESCRIPTION**	**DEFINITION**
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.
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.

CATEGORY CODE REPORT			
CODE	**COMPONENT DESCRIPTION**	**ELEMENT DESCRIPTION**	**DEFINITION**
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.
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.

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

CATEGORY CODE REPORT			
CODE	**COMPONENT DESCRIPTION**	**ELEMENT DESCRIPTION**	**DEFINITION**
IS6D	GENERAL	OTHER	Any work on interior elements not logically or specifically categorized elsewhere including light coves, phone booths, interior light wells, etc.
SYSTEM DESCRIPTION: PLUMBING			
PL1A	DOMESTIC WATER	PIPING NETWORK	Repair or replacement of domestic water supply piping network, insulation, hangers, etc.
PL1B	DOMESTIC WATER	PUMPS	Domestic water booster pumps, circulating pumps, related controls, etc.
PL1C	DOMESTIC WATER	STORAGE/ TREATMENT	Equipment or vessels for storage or treatment of domestic water.
PL1D	DOMESTIC WATER	METERING	Installation, repair, or replacement of water meters.
PL1E	DOMESTIC WATER	HEATING	Domestic water heaters including gas, oil, and electric water heaters, shell and tube heat exchangers, tank type and instantaneous.
PL1F	DOMESTIC WATER	COOLING	Central systems for cooling and distributing drinking water.
PL1G	DOMESTIC WATER	FIXTURES	Plumbing fixtures including sinks, drinking fountains, water closets, urinals, etc.
PL1H	DOMESTIC WATER	CONSERVATION	Alternations made to the water distribution system to conserve water.
PL1I	DOMESTIC WATER	BACKFLOW PROTECTION	Backflow protection devices including backflow preventers, vacuum breakers, etc.
PL2A	WASTEWATER	PIPING NETWORK	Repair or replacement of building wastewater piping network.
PL2B	WASTEWATER	PUMPS	Pump systems used to lift wastewater including sewage ejectors and other sump systems.
PL3A	SPECIAL SYSTEMS	PROCESS GAS/FLUIDS	Generation and/or distribution of process steam, compressed air, natural and LP gas, process water, vacuum, etc.
PL4A	INFRASTRUCTURE	POTABLE WATER STORAGE/ TREATMENT	Storage and treatment of potable water for distribution.
PL4B	INFRASTRUCTURE	INDUSTRIAL WATER DISTRIBUTION/ TREATMENT	Storage and treatment of industrial water for distribution.
PL4C	INFRASTRUCTURE	SANITARY WATER COLLECTION	Sanitary water collection systems, sanitary sewer systems; including combined systems.
PL4D	INFRASTRUCTURE	STORM WATER COLLECTION	Storm water collection systems, storm sewer systems; storm water only.
PL4E	INFRASTRUCTURE	POTABLE WATER DISTRIBUTION	Potable water distribution network.
PL4F	INFRASTRUCTURE	WASTEWATER TREATMENT	Wastewater treatment plants, associated equipment, etc.
PL5A	GENERAL	OTHER	Plumbing issues not categorized elsewhere.
SYSTEM DESCRIPTION: SITE			
SI1A	ACCESS	PEDESTRIAN	Paved pedestrian surfaces including walks, site stairs, step ramps, paths, pedestrian signage, sidewalk bridges/canopies, pedestrian plaza/mall areas, etc.
SI1B	ACCESS	VEHICULAR	Paved vehicular surfaces including roads, paths, curbs, guards, bollards, bridges, skyways, joints, shoulder work, culverts, ditches, vehicular signage, etc.
SI2A	LANDSCAPE	GRADE/FLORA	Landscape related work including new grass/turf refurbishment, grade improvements, catch basins, swales, berms, pruning, new ornamental flora, etc.
SI3A	HARDSCAPE	STRUCTURE	Permanent hard site features, predominantly ornamental, including terraces, fences, statues, freestanding signage, fountains, benches, etc.
SI4A	GENERAL	OTHER	Other site work not specifically categorized elsewhere.

CATEGORY CODE REPORT			
CODE	**COMPONENT DESCRIPTION**	**ELEMENT DESCRIPTION**	**DEFINITION**
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.
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

MCSS : MCGINNIS SCENE SHOP

System Code	System Description	Priority Classes 1	2	3	4	Subtotal
AC	ACCESSIBILITY	0	15,948	9,918	1,018	26,884
EL	ELECTRICAL	0	0	100,901	0	100,901
FS	FIRE/LIFE SAFETY	32,753	25,748	70,729	0	129,230
HV	HVAC	0	0	105,563	0	105,563
IS	INTERIOR/FINISH SYS.	0	0	5,889	22,949	28,837
PL	PLUMBING	0	0	0	19,023	19,023
SI	SITE	0	0	2,572	0	2,572
	TOTALS	32,753	41,696	295,572	42,989	413,011

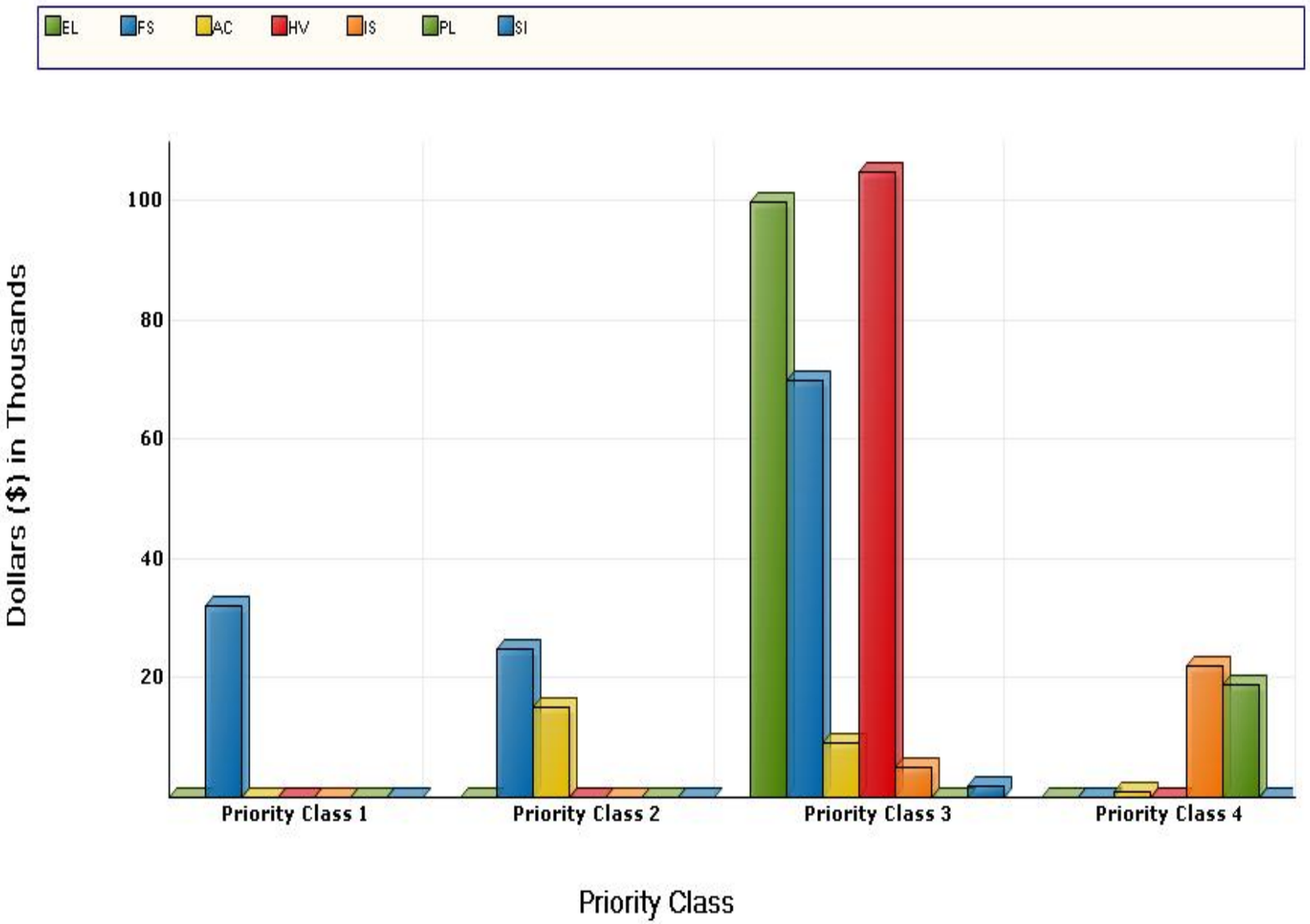
Facility Replacement Cost	$1,235,000
Facility Condition Needs Index	0.33

Gross Square Feet	9,600	**Total Cost Per Square Foot**	$43.02

FACILITY CONDITION ANALYSIS

System Code by Priority Class

MCSS : MCGINNIS SCENE SHOP



Detailed Project Totals
Facility Condition Analysis
System Code by Project Class
MCSS : MCGINNIS SCENE SHOP

System Code	System Description	Project Classes: Captial Renewal	Deferred Maintenance	Plant Adaption	Subtotal
AC	ACCESSIBILITY	0	0	26,884	26,884
EL	ELECTRICAL	67,990	32,911	0	100,901
FS	FIRE/LIFE SAFETY	92,004	3,437	33,788	129,230
HV	HVAC	94,329	11,234	0	105,563
IS	INTERIOR/FINISH SYS.	22,949	5,889	0	28,837
PL	PLUMBING	19,023	0	0	19,023
SI	SITE	2,572	0	0	2,572
	TOTALS	298,867	53,471	60,672	413,011

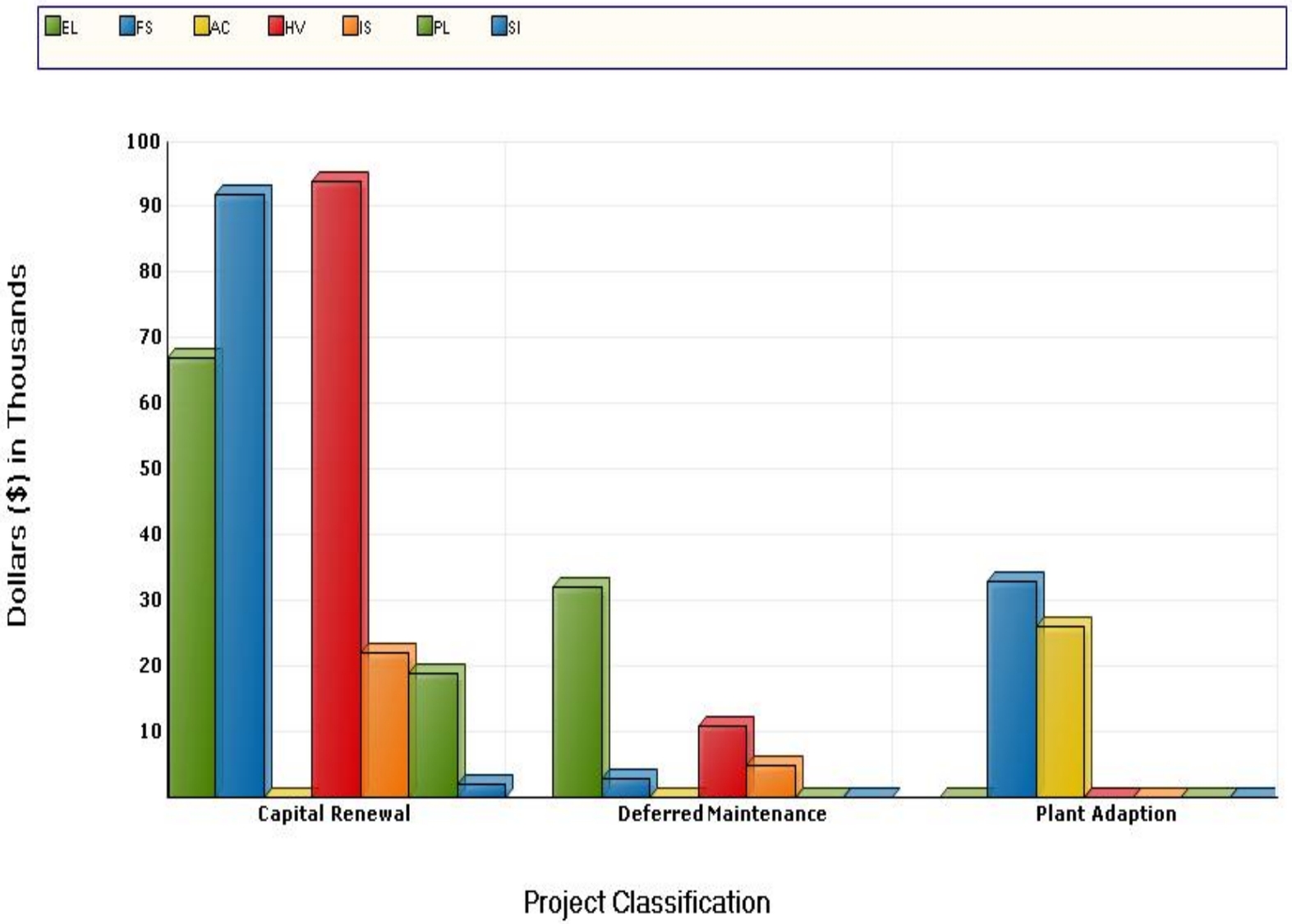
Facility Replacement Cost	$1,235,000
Facility Condition Needs Index	0.33

Gross Square Feet	9,600	**Total Cost Per Square Foot**	$43.02

FACILITY CONDITION ANALYSIS

System Code by Project Class

MCSS : MCGINNIS SCENE SHOP



Detailed Project Summary
Facility Condition Analysis
Project Class by Priority Class
MCSS : MCGINNIS SCENE SHOP

	Priority Classes				
Project Class	**1**	**2**	**3**	**4**	**Subtotal**
Capital Renewal	24,713	0	232,182	41,972	298,867
Deferred Maintenance	0	0	53,471	0	53,471
Plant Adaption	8,040	41,696	9,918	1,018	60,672
TOTALS	32,753	41,696	295,572	42,989	413,011

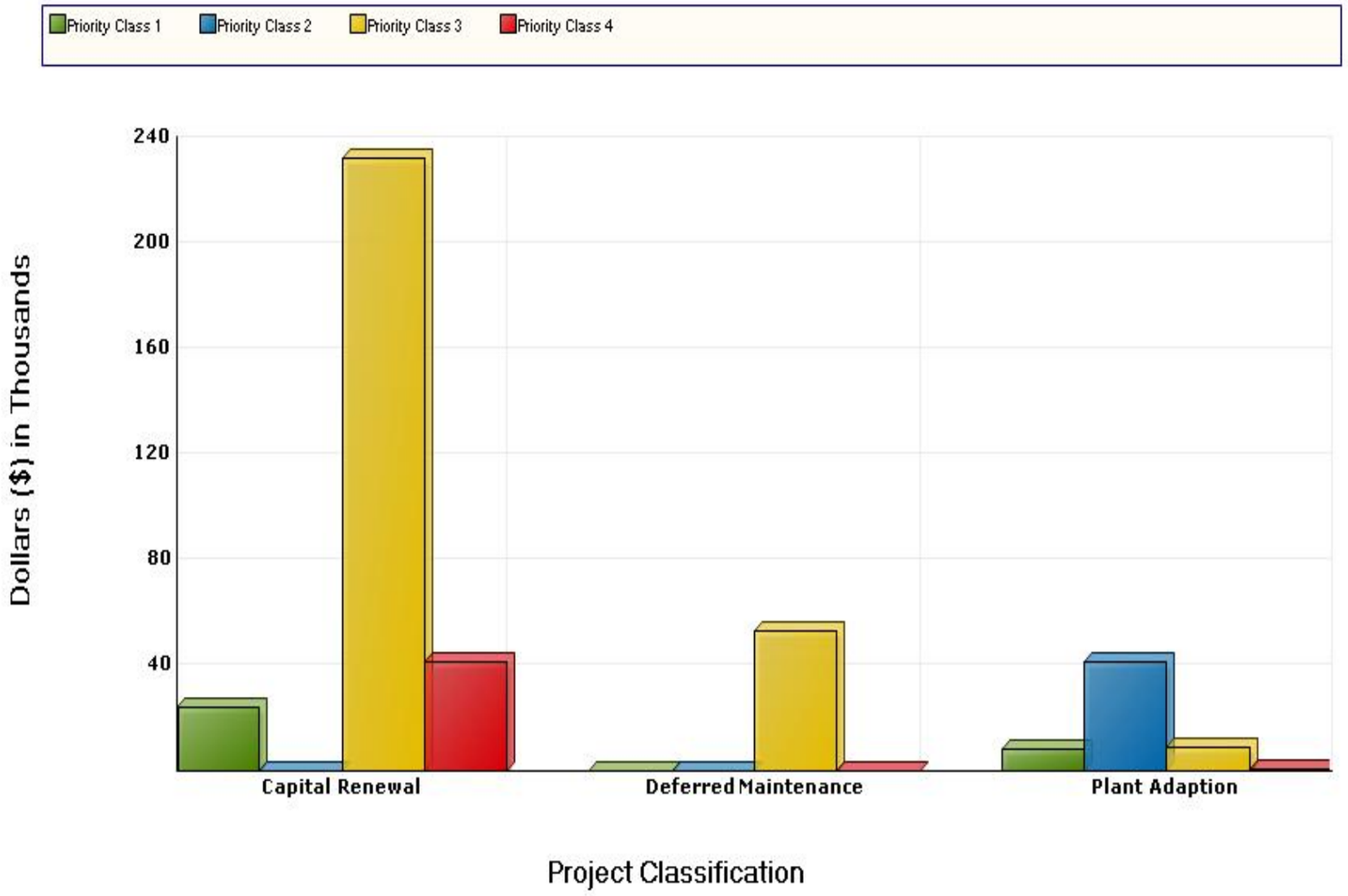
Facility Replacement Cost	$1,235,000
Facility Condition Needs Index	0.33

Gross Square Feet	9,600	**Total Cost Per Square Foot**	$43.02

FACILITY CONDITION ANALYSIS

Project Class by Priority Class

MCSS : MCGINNIS SCENE SHOP



Detailed Project Summary

Facility Condition Analysis

Priority Class - Priority Sequence

MCSS : MCGINNIS SCENE SHOP

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5E	MCSSFS01	1	1	STAIR GUARDRAIL UPGRADES	3,241	519	3,760
FS5A	MCSSFS02	1	2	INSTALL COMPLIANT LADDER WITH SAFETY CAGE	3,690	590	4,280
FS4B	MCSSFS03	1	3	CONSTRUCT PAINT SPRAY BOOTH	21,304	3,409	24,713
				Totals for Priority Class 1	**28,236**	**4,518**	**32,753**
FS2A	MCSSFS04	2	4	FIRE ALARM SYSTEM REPLACEMENT	22,197	3,551	25,748
AC3C	MCSSAC01	2	5	INSTALL LEVER-ACTION DOOR HARDWARE	746	119	865
AC4B	MCSSAC02	2	6	ELEVATOR ACCESSIBILITY UPGRADES	13,003	2,080	15,083
				Totals for Priority Class 2	**35,945**	**5,751**	**41,696**
FS1A	MCSSFS06	3	7	REPLACE EXIT SIGNS	2,963	474	3,437
FS3A	MCSSFS05	3	8	FIRE SPRINKLER SYSTEM REPLACEMENT	58,010	9,282	67,291
AC3E	MCSSAC03	3	9	RESTROOM RENOVATION	6,850	1,096	7,947
AC3F	MCSSAC04	3	10	DUAL-LEVEL DRINKING FOUNTAIN INSTALLATION	1,700	272	1,972
HV5A	MCSSHV02	3	11	HEAT EXCHANGER REPLACEMENT	9,685	1,550	11,234
HV3A	MCSSHV01	3	12	HVAC SYSTEM REPLACEMENT	81,318	13,011	94,329
EL3B	MCSSEL03	3	13	ELECTRICAL SYSTEM REPAIRS	3,509	561	4,070
EL4B	MCSSEL02	3	14	INTERIOR LIGHTING UPGRADE	22,433	3,589	26,022
EL4A	MCSSEL04	3	15	EXTERIOR LIGHTING REPLACEMENT	2,430	389	2,819
EL1A	MCSSEL01	3	16	UPGRADE ELECTRICAL SERVICE	58,612	9,378	67,990
IS2B	MCSSIS01	3	17	REFINISH WALLS	5,076	812	5,889
SI2A	MCSSSI01	3	18	LANDSCAPING UPGRADE	2,217	355	2,572
				Totals for Priority Class 3	**254,803**	**40,769**	**295,572**
AC3D	MCSSAC05	4	19	BUILDING SIGNAGE PACKAGE UPGRADE	877	140	1,018
IS3B	MCSSIS02	4	20	REFINISH CEILINGS	19,783	3,165	22,949
PL1A	MCSSPL02	4	21	WATER SUPPLY PIPING REPLACEMENT	11,312	1,810	13,122
PL1E	MCSSPL01	4	22	DOMESTIC WATER HEATER REPLACEMENT	5,087	814	5,901
				Totals for Priority Class 4	**37,060**	**5,930**	**42,989**
				Grand Total:	**356,044**	**56,967**	**413,011**

Detailed Project Summary

Facility Condition Analysis

Project Cost Range

MCSS : MCGINNIS SCENE SHOP

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5E	MCSSFS01	1	1	STAIR GUARDRAIL UPGRADES	3,241	519	3,760
FS5A	MCSSFS02	1	2	INSTALL COMPLIANT LADDER WITH SAFETY CAGE	3,690	590	4,280
FS4B	MCSSFS03	1	3	CONSTRUCT PAINT SPRAY BOOTH	21,304	3,409	24,713
				Totals for Priority Class 1	**28,236**	**4,518**	**32,753**
AC3C	MCSSAC01	2	5	INSTALL LEVER-ACTION DOOR HARDWARE	746	119	865
AC4B	MCSSAC02	2	6	ELEVATOR ACCESSIBILITY UPGRADES	13,003	2,080	15,083
FS2A	MCSSFS04	2	4	FIRE ALARM SYSTEM REPLACEMENT	22,197	3,551	25,748
				Totals for Priority Class 2	**35,945**	**5,751**	**41,696**
AC3E	MCSSAC03	3	9	RESTROOM RENOVATION	6,850	1,096	7,947
AC3F	MCSSAC04	3	10	DUAL-LEVEL DRINKING FOUNTAIN INSTALLATION	1,700	272	1,972
IS2B	MCSSIS01	3	17	REFINISH WALLS	5,076	812	5,889
SI2A	MCSSSI01	3	18	LANDSCAPING UPGRADE	2,217	355	2,572
FS3A	MCSSFS05	3	8	FIRE SPRINKLER SYSTEM REPLACEMENT	58,010	9,282	67,291
FS1A	MCSSFS06	3	7	REPLACE EXIT SIGNS	2,963	474	3,437
HV3A	MCSSHV01	3	12	HVAC SYSTEM REPLACEMENT	81,318	13,011	94,329
HV5A	MCSSHV02	3	11	HEAT EXCHANGER REPLACEMENT	9,685	1,550	11,234
EL1A	MCSSEL01	3	16	UPGRADE ELECTRICAL SERVICE	58,612	9,378	67,990
EL4B	MCSSEL02	3	14	INTERIOR LIGHTING UPGRADE	22,433	3,589	26,022
EL3B	MCSSEL03	3	13	ELECTRICAL SYSTEM REPAIRS	3,509	561	4,070
EL4A	MCSSEL04	3	15	EXTERIOR LIGHTING REPLACEMENT	2,430	389	2,819
				Totals for Priority Class 3	**254,803**	**40,769**	**295,572**
AC3D	MCSSAC05	4	19	BUILDING SIGNAGE PACKAGE UPGRADE	877	140	1,018
IS3B	MCSSIS02	4	20	REFINISH CEILINGS	19,783	3,165	22,949
PL1E	MCSSPL01	4	22	DOMESTIC WATER HEATER REPLACEMENT	5,087	814	5,901
PL1A	MCSSPL02	4	21	WATER SUPPLY PIPING REPLACEMENT	11,312	1,810	13,122
				Totals for Priority Class 4	**37,060**	**5,930**	**42,989**
				Grand Totals for Projects < 100,000	**356,044**	**56,967**	**413,011**
				Grand Totals For All Projects:	**356,044**	**56,967**	**413,011**

Detailed Project Summary

Facility Condition Analysis

Project Classification

MCSS : MCGINNIS SCENE SHOP

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
FS4B	MCSSFS03	3	Capital Renewal	1	CONSTRUCT PAINT SPRAY BOOTH	24,713
FS3A	MCSSFS05	8	Capital Renewal	3	FIRE SPRINKLER SYSTEM REPLACEMENT	67,291
HV3A	MCSSHV01	12	Capital Renewal	3	HVAC SYSTEM REPLACEMENT	94,329
EL1A	MCSSEL01	16	Capital Renewal	3	UPGRADE ELECTRICAL SERVICE	67,990
SI2A	MCSSSI01	18	Capital Renewal	3	LANDSCAPING UPGRADE	2,572
IS3B	MCSSIS02	20	Capital Renewal	4	REFINISH CEILINGS	22,949
PL1A	MCSSPL02	21	Capital Renewal	4	WATER SUPPLY PIPING REPLACEMENT	13,122
PL1E	MCSSPL01	22	Capital Renewal	4	DOMESTIC WATER HEATER REPLACEMENT	5,901
					Totals for Capital Renewal	**298,867**
FS1A	MCSSFS06	7	Deferred Maintenance	3	REPLACE EXIT SIGNS	3,437
HV5A	MCSSHV02	11	Deferred Maintenance	3	HEAT EXCHANGER REPLACEMENT	11,234
EL3B	MCSSEL03	13	Deferred Maintenance	3	ELECTRICAL SYSTEM REPAIRS	4,070
EL4B	MCSSEL02	14	Deferred Maintenance	3	INTERIOR LIGHTING UPGRADE	26,022
EL4A	MCSSEL04	15	Deferred Maintenance	3	EXTERIOR LIGHTING REPLACEMENT	2,819
IS2B	MCSSIS01	17	Deferred Maintenance	3	REFINISH WALLS	5,889
					Totals for Deferred Maintenance	**53,471**
FS5E	MCSSFS01	1	Plant Adaption	1	STAIR GUARDRAIL UPGRADES	3,760
FS5A	MCSSFS02	2	Plant Adaption	1	INSTALL COMPLIANT LADDER WITH SAFETY CAGE	4,280
FS2A	MCSSFS04	4	Plant Adaption	2	FIRE ALARM SYSTEM REPLACEMENT	25,748
AC3C	MCSSAC01	5	Plant Adaption	2	INSTALL LEVER-ACTION DOOR HARDWARE	865
AC4B	MCSSAC02	6	Plant Adaption	2	ELEVATOR ACCESSIBILITY UPGRADES	15,083
AC3E	MCSSAC03	9	Plant Adaption	3	RESTROOM RENOVATION	7,947
AC3F	MCSSAC04	10	Plant Adaption	3	DUAL-LEVEL DRINKING FOUNTAIN INSTALLATION	1,972
AC3D	MCSSAC05	19	Plant Adaption	4	BUILDING SIGNAGE PACKAGE UPGRADE	1,018
					Totals for Plant Adaption	**60,672**
					Grand Total:	**413,011**

Detailed Project Summary

Facility Condition Analysis

Energy Conservation

MCSS : MCGINNIS SCENE SHOP

Cat Code	Project Number	Pri Cls	Pri Seq	Project Title	Total Cost	Annual Savings	Simple Payback
FS1A	MCSSFS06	3	7	REPLACE EXIT SIGNS	3,437	100	34.37
EL4B	MCSSEL02	3	14	INTERIOR LIGHTING UPGRADE	26,022	980	26.55
EL4A	MCSSEL04	3	15	EXTERIOR LIGHTING REPLACEMENT	2,819	260	10.84
				Totals for Priority Class 3	**32,279**	**1,340**	**24.09**
				Grand Total:	**32,279**	**1,340**	**24.09**

Detailed Project Summary

Facility Condition Analysis

Category/System Code

MCSS : MCGINNIS SCENE SHOP

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC3C	MCSSAC01	2	5	INSTALL LEVER-ACTION DOOR HARDWARE	746	119	865
AC4B	MCSSAC02	2	6	ELEVATOR ACCESSIBILITY UPGRADES	13,003	2,080	15,083
AC3E	MCSSAC03	3	9	RESTROOM RENOVATION	6,850	1,096	7,947
AC3F	MCSSAC04	3	10	DUAL-LEVEL DRINKING FOUNTAIN INSTALLATION	1,700	272	1,972
AC3D	MCSSAC05	4	19	BUILDING SIGNAGE PACKAGE UPGRADE	877	140	1,018
				Totals for System Code: ACCESSIBILITY	**23,176**	**3,708**	**26,884**
EL3B	MCSSEL03	3	13	ELECTRICAL SYSTEM REPAIRS	3,509	561	4,070
EL4B	MCSSEL02	3	14	INTERIOR LIGHTING UPGRADE	22,433	3,589	26,022
EL4A	MCSSEL04	3	15	EXTERIOR LIGHTING REPLACEMENT	2,430	389	2,819
EL1A	MCSSEL01	3	16	UPGRADE ELECTRICAL SERVICE	58,612	9,378	67,990
				Totals for System Code: ELECTRICAL	**86,984**	**13,917**	**100,901**
FS5E	MCSSFS01	1	1	STAIR GUARDRAIL UPGRADES	3,241	519	3,760
FS5A	MCSSFS02	1	2	INSTALL COMPLIANT LADDER WITH SAFETY CAGE	3,690	590	4,280
FS4B	MCSSFS03	1	3	CONSTRUCT PAINT SPRAY BOOTH	21,304	3,409	24,713
FS2A	MCSSFS04	2	4	FIRE ALARM SYSTEM REPLACEMENT	22,197	3,551	25,748
FS1A	MCSSFS06	3	7	REPLACE EXIT SIGNS	2,963	474	3,437
FS3A	MCSSFS05	3	8	FIRE SPRINKLER SYSTEM REPLACEMENT	58,010	9,282	67,291
				Totals for System Code: FIRE/LIFE SAFETY	**111,405**	**17,825**	**129,230**
HV5A	MCSSHV02	3	11	HEAT EXCHANGER REPLACEMENT	9,685	1,550	11,234
HV3A	MCSSHV01	3	12	HVAC SYSTEM REPLACEMENT	81,318	13,011	94,329
				Totals for System Code: HVAC	**91,003**	**14,560**	**105,563**
IS2B	MCSSIS01	3	17	REFINISH WALLS	5,076	812	5,889
IS3B	MCSSIS02	4	20	REFINISH CEILINGS	19,783	3,165	22,949
				Totals for System Code: INTERIOR/FINISH SYS.	**24,860**	**3,978**	**28,837**
PL1A	MCSSPL02	4	21	WATER SUPPLY PIPING REPLACEMENT	11,312	1,810	13,122
PL1E	MCSSPL01	4	22	DOMESTIC WATER HEATER REPLACEMENT	5,087	814	5,901
				Totals for System Code: PLUMBING	**16,399**	**2,624**	**19,023**
SI2A	MCSSSI01	3	18	LANDSCAPING UPGRADE	2,217	355	2,572
				Totals for System Code: SITE	**2,217**	**355**	**2,572**
				Grand Total:	**356,044**	**56,967**	**413,011**

FACILITY CONDITION ANALYSIS

SECTION 3

SPECIFIC PROJECT DETAILS ILLUSTRATING DESCRIPTION / COST

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSFS01	**Title:**	STAIR GUARDRAIL UPGRADES
Priority Sequence:	1		
Priority Class:	1		
Category Code:	FS5E	**System:**	FIRE/LIFE SAFETY
		Component:	EGRESS PATH
		Element:	STAIRS AND RAILING
Building Code:	MCSS		
Building Name:	MCGINNIS SCENE SHOP		
Subclass/Savings:	Not Applicable		
Code Application:	IBC 1003.3		
Project Class:	Plant Adaption		
Project Date:	10/12/2009		
Project Location:	Item Only: Floor(s) 1, 2		

Project Description

Code requires that there be a guardrail where there is a change in floor level in excess of thirty-six inches, and that these guardrails be a minimum of forty-two inches high. The guardrails must also prevent the passage of a specific diameter sphere. The metal guardrails at the top of the two fire exit stairs are too low and lack sufficient infill, and the open side of both fire stairs creates a guardrail condition down the length of both of these stairs. A painted metal rail should be added above and parallel to the existing guardrail and the handrails along the open side, to create a legal guardrail. The application of a galvanized, expanded metal lath to the existing guardrails and open sides of the two stairs is the most cost-effective method of complying with the sphere test.

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Cost

Project Number: MCSSFS01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Rail, fasteners, paint (2 coats)	LOT	1	$200	$200	$3,200	$3,200	$3,400
Equipment rental, expanded metal grillage, paint (2 coats)	LOT	1	$200	$200	$1,280	$1,280	$1,480
Project Totals:				**$400**		**$4,480**	**$4,880**

Material/Labor Cost		$4,880
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$2,701
General Contractor Mark Up at 20.0%	+	$540
Construction Cost		$3,241
Professional Fees at 16.0%	+	$519
Total Project Cost		**$3,760**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSFS02	**Title:**	INSTALL COMPLIANT LADDER WITH SAFETY CAGE
Priority Sequence:	2		
Priority Class:	1		
Category Code:	FS5A	**System:**	FIRE/LIFE SAFETY
		Component:	EGRESS PATH
		Element:	DESIGNATION
Building Code:	MCSS		
Building Name:	MCGINNIS SCENE SHOP		
Subclass/Savings:	Not Applicable		
Code Application:	OSHA 1910.27		
Project Class:	Plant Adaption		
Project Date:	10/12/2009		
Project Location:	Item Only: Floor(s) 2, M, R		

Project Description

The vertical roof access ladders at the mezzanine lack a safety cage and platform. The installation of a ladder cage and platform, and a telescoping hand-hold mast, is recommended to promote user safety and help limit University liability.

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Cost

Project Number: MCSSFS02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Vertical ladder cage, equipment rental, tools, supplies	EA	2	$1,200	$2,400	$640	$1,280	$3,680
Telescoping hand-held mast	LOT	1	$1.00	$1	$1.00	$1	$2
Project Totals:				**$2,401**		**$1,281**	**$3,682**

Material/Labor Cost		$3,682
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$3,075
General Contractor Mark Up at 20.0%	+	$615
Construction Cost		$3,690
Professional Fees at 16.0%	+	$590
Total Project Cost		**$4,280**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSFS03	**Title:**	CONSTRUCT PAINT SPRAY BOOTH
Priority Sequence:	3		
Priority Class:	1		
Category Code:	FS4B	**System:**	FIRE/LIFE SAFETY
		Component:	HAZARDOUS MATERIALS
		Element:	USER SAFETY
Building Code:	MCSS		
Building Name:	MCGINNIS SCENE SHOP		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/12/2009		
Project Location:	Undefined: Floor(s) 1		

Project Description

There are times when spray painting takes place in this scene shop, and there is no safe, ventilated enclosure within which to accomplish this task. The installation of a prefabricated paint spray booth is proposed.

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Cost

Project Number: MCSSFS03

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Prefabricated paint spray booth allowance	LOT	1	$16,000	$16,000	$3,200	$3,200	$19,200
Project Totals:				**$16,000**		**$3,200**	**$19,200**

Material/Labor Cost		$19,200
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$17,754
General Contractor Mark Up at 20.0%	+	$3,551
Construction Cost		$21,304
Professional Fees at 16.0%	+	$3,409
Total Project Cost		**$24,713**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSFS04	**Title:**	FIRE ALARM SYSTEM REPLACEMENT
Priority Sequence:	4		
Priority Class:	2		
Category Code:	FS2A	**System:**	FIRE/LIFE SAFETY
		Component:	DETECTION ALARM
		Element:	GENERAL

Building Code:	MCSS	
Building Name:	MCGINNIS SCENE SHOP	
Subclass/Savings:	Not Applicable	
Code Application:	ADAAG	702.1
	NFPA	1, 101
Project Class:	Plant Adaption	
Project Date:	10/16/2009	
Project Location:	Floor-wide: Floor(s) 1, 2	

Project Description

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

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Cost

Project Number: MCSSFS04

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Fire alarm control panel(s), annunciator, smoke and heat detectors, manual pull stations, audible and visual alarms, wiring, raceways, and cut and patching materials	SF	9,600	$1.46	$14,016	$0.89	$8,544	$22,560
Project Totals:				**$14,016**		**$8,544**	**$22,560**

Material/Labor Cost		$22,560
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$18,497
General Contractor Mark Up at 20.0%	+	$3,699
Construction Cost		$22,197
Professional Fees at 16.0%	+	$3,551
Total Project Cost		**$25,748**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSAC01	**Title:**	INSTALL LEVER-ACTION DOOR HARDWARE
Priority Sequence:	5		
Priority Class:	2		
Category Code:	AC3C	**System:**	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	DOORS AND HARDWARE
Building Code:	MCSS		
Building Name:	MCGINNIS SCENE SHOP		
Subclass/Savings:	Not Applicable		

Code Application: ADAAG 309.4

Project Class: Plant Adaption

Project Date: 10/12/2009

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

Project Description

Legislation requires that door hardware be designed for operation by people with little or no ability to grasp objects with their hands. To comply with this legislation, it is recommended that lever-handle door hardware be installed on all doors that currently still have knobs.

Project Cost

Project Number: MCSSAC01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Lever-actuated door hardware	EA	2	$273	$546	$69.77	$140	$686
Project Totals:				**$546**		**$140**	**$686**

Material/Labor Cost		$686
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$621
General Contractor Mark Up at 20.0%	+	$124
Construction Cost		$746
Professional Fees at 16.0%	+	$119
Total Project Cost		**$865**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSAC02	**Title:**	ELEVATOR ACCESSIBILITY UPGRADES
Priority Sequence:	6		
Priority Class:	2		
Category Code:	AC4B	**System:**	ACCESSIBILITY
		Component:	GENERAL
		Element:	OTHER
Building Code:	MCSS		
Building Name:	MCGINNIS SCENE SHOP		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG 407		
Project Class:	Plant Adaption		
Project Date:	10/12/2009		
Project Location:	Item Only: Floor(s) 1, 2		

Project Description

Present legislation pertaining to handicapped access within buildings requires that goods, and services offered in buildings be generally available to all persons. The elevator control systems are devoid of accessible features. It is recommended that the elevator controls be upgraded with a package consisting of a hands-free two-way telephone, Braille signage, audible signals, and self-closing doors.

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Cost

Project Number: MCSSAC02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Elevator accessibility package	LOT	1	$7,500	$7,500	$6,400	$6,400	$13,900
Project Totals:				**$7,500**		**$6,400**	**$13,900**

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

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSFS06	**Title:**	REPLACE EXIT SIGNS
Priority Sequence:	7		
Priority Class:	3		
Category Code:	FS1A	**System:**	FIRE/LIFE SAFETY
		Component:	LIGHTING
		Element:	EGRESS LTG./EXIT SIGNAGE

Building Code:	MCSS	
Building Name:	MCGINNIS SCENE SHOP	
Subclass/Savings:	Energy Conservation	$100

Code Application:	NFPA	101-47
	IBC	1011

Project Class:	Deferred Maintenance
Project Date:	10/16/2009
Project Location:	Floor-wide: Floor(s) 1, 2

Project Description

Replace the existing exit signage throughout the building. Install new exit signs as needed. The new units should have individual battery packs for backup power. LED exit signs are recommended because they are energy efficient and require minimal maintenance.

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Cost

Project Number: MCSSFS06

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Replacement of existing exit signs with new battery pack LED exit signs	EA	12	$132	$1,584	$142	$1,704	$3,288
Project Totals:				**$1,584**		**$1,704**	**$3,288**

Material/Labor Cost		$3,288
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$2,469
General Contractor Mark Up at 20.0%	+	$494
Construction Cost		$2,963
Professional Fees at 16.0%	+	$474
Total Project Cost		**$3,437**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSFS05	**Title:**	FIRE SPRINKLER SYSTEM REPLACEMENT
Priority Sequence:	8		
Priority Class:	3		
Category Code:	FS3A	**System:**	FIRE/LIFE SAFETY
		Component:	SUPPRESSION
		Element:	SPRINKLERS
Building Code:	MCSS		
Building Name:	MCGINNIS SCENE SHOP		
Subclass/Savings:	Not Applicable		

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

Project Class: Capital Renewal

Project Date: 10/16/2009

Project Location: Floor-wide: Floor(s) 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
MCSS : MCGINNIS SCENE SHOP

Project Cost

Project Number: MCSSFS05

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Install a wet-pipe sprinkler system, including valves, piping, sprinkler heads, piping supports, etc.	SF	9,600	$3.08	$29,568	$3.77	$36,192	$65,760
Project Totals:				**$29,568**		**$36,192**	**$65,760**

Material/Labor Cost		$65,760
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$48,341
General Contractor Mark Up at 20.0%	+	$9,668
Construction Cost		$58,010
Professional Fees at 16.0%	+	$9,282
Total Project Cost		**$67,291**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSAC03	**Title:**	RESTROOM RENOVATION
Priority Sequence:	9		
Priority Class:	3		
Category Code:	AC3E	**System:**	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	RESTROOMS/BATHROOMS
Building Code:	MCSS		
Building Name:	MCGINNIS SCENE SHOP		
Subclass/Savings:	Not Applicable		

Code Application:	ADAAG	604, 605, 606, 607

Project Class:	Plant Adaption
Project Date:	10/12/2009
Project Location:	Room Only: Floor(s) 2

Project Description

The fixtures and finishes in the single-user restroom in this building appear to be original to the year of construction. The fixtures are sound but dated, and are spaced such that clearances are not ADA compliant. A comprehensive restroom renovation, including the installation of new fixtures, finishes, and accessories, is recommended.

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Cost

Project Number: MCSSAC03

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Restroom renovation, including fixtures, finishes, and accessories	FIXT	2	$1,969	$3,938	$1,699	$3,398	$7,336
Project Totals:				**$3,938**		**$3,398**	**$7,336**

Material/Labor Cost		$7,336
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$5,709
General Contractor Mark Up at 20.0%	+	$1,142
Construction Cost		$6,850
Professional Fees at 16.0%	+	$1,096
Total Project Cost		**$7,947**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSAC04	**Title:**	DUAL-LEVEL DRINKING FOUNTAIN INSTALLATION
Priority Sequence:	10		
Priority Class:	3		
Category Code:	AC3F	**System:**	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	DRINKING FOUNTAINS
Building Code:	MCSS		
Building Name:	MCGINNIS SCENE SHOP		
Subclass/Savings:	Not Applicable		

Code Application:	ADAAG	211, 602

Project Class:	Plant Adaption
Project Date:	10/12/2009
Project Location:	Item Only: Floor(s) 1

Project Description

Accessibility legislation requires that building amenities such as drinking fountains be generally available to all persons. The single-level configuration of the drinking fountain in this building is a barrier to accessibility. The installation of a dual-level, refrigerated drinking fountain is recommended to replace the existing fountain.

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Cost

Project Number: MCSSAC04

Task Cost Estimate

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

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

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSHV02	**Title:**	HEAT EXCHANGER REPLACEMENT
Priority Sequence:	11		
Priority Class:	3		
Category Code:	HV5A	**System:**	HVAC
		Component:	STEAM/HYDRONIC DISTRIB.
		Element:	PIPING NETWORK
Building Code:	MCSS		
Building Name:	MCGINNIS SCENE SHOP		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/16/2009		
Project Location:	Room Only: Floor(s) 1		

Project Description

The hot water heating system is served by a heat exchanger that is approaching the end of its expected life cycle. Such systems become increasingly maintenance intensive and problematic after twenty years of service. Scheduled replacement of this critical system is recommended.

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Cost

Project Number: MCSSHV02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Heating water converter (60 gpm for each HP of circulating pump capacity)	GPM	120	$60.74	$7,289	$11.87	$1,424	$8,713
Project Totals:				**$7,289**		**$1,424**	**$8,713**

Material/Labor Cost		$8,713
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$8,071
General Contractor Mark Up at 20.0%	+	$1,614
Construction Cost		$9,685
Professional Fees at 16.0%	+	$1,550
Total Project Cost		**$11,234**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSHV01	**Title:**	HVAC SYSTEM REPLACEMENT
Priority Sequence:	12		
Priority Class:	3		
Category Code:	HV3A	**System:**	HVAC
		Component:	HEATING/COOLING
		Element:	SYSTEM RETROFIT/REPLACE
Building Code:	MCSS		
Building Name:	MCGINNIS SCENE SHOP		
Subclass/Savings:	Energy Conservation		
Code Application:	ASHRAE 62-2004		
Project Class:	Capital Renewal		
Project Date:	10/16/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, R		

Project Description

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

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Cost

Project Number: MCSSHV01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Air handlers, exhaust fans, ductwork, VAVs, VFDs, DDCs, heat exchangers, pumps, piping, electrical connections, and demolition of existing equipment	SF	9,600	$4.32	$41,472	$5.28	$50,688	$92,160
Project Totals:				**$41,472**		**$50,688**	**$92,160**

Material/Labor Cost		$92,160
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$67,765
General Contractor Mark Up at 20.0%	+	$13,553
Construction Cost		$81,318
Professional Fees at 16.0%	+	$13,011
Total Project Cost		**$94,329**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSEL03	**Title:**	ELECTRICAL SYSTEM REPAIRS
Priority Sequence:	13		
Priority Class:	3		
Category Code:	EL3B	**System:**	ELECTRICAL
		Component:	SECONDARY DISTRIBUTION
		Element:	DISTRIBUTION NETWORK
Building Code:	MCSS		
Building Name:	MCGINNIS SCENE SHOP		
Subclass/Savings:	Not Applicable		

Code Application: NEC Articles 100, 210, 410

Project Class: Deferred Maintenance

Project Date: 10/16/2009

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

Project Description

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

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Cost

Project Number: MCSSEL03

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Switches, receptacles, cover plates, breakers, miscellaneous materials	SF	9,600	$0.17	$1,632	$0.26	$2,496	$4,128
Project Totals:				**$1,632**		**$2,496**	**$4,128**

Material/Labor Cost		$4,128
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$2,924
General Contractor Mark Up at 20.0%	+	$585
Construction Cost		$3,509
Professional Fees at 16.0%	+	$561
Total Project Cost		**$4,070**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSEL02	**Title:**	INTERIOR LIGHTING UPGRADE
Priority Sequence:	14		
Priority Class:	3		
Category Code:	EL4B	**System:**	ELECTRICAL
		Component:	DEVICES AND FIXTURES
		Element:	INTERIOR LIGHTING

Building Code:	MCSS	
Building Name:	MCGINNIS SCENE SHOP	
Subclass/Savings:	Energy Conservation	$980

Code Application:	NEC	Articles 210, 410

Project Class:	Deferred Maintenance
Project Date:	10/16/2009
Project Location:	Floor-wide: Floor(s) 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
MCSS : MCGINNIS SCENE SHOP

Project Cost

Project Number: MCSSEL02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
High efficiency fluorescent fixtures, occupancy sensors, and demolition of existing lighting	SF	9,600	$1.19	$11,424	$1.46	$14,016	$25,440
Project Totals:				**$11,424**		**$14,016**	**$25,440**

Material/Labor Cost		$25,440
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$18,694
General Contractor Mark Up at 20.0%	+	$3,739
Construction Cost		$22,433
Professional Fees at 16.0%	+	$3,589
Total Project Cost		**$26,022**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSEL04	**Title:**	EXTERIOR LIGHTING REPLACEMENT
Priority Sequence:	15		
Priority Class:	3		
Category Code:	EL4A	**System:**	ELECTRICAL
		Component:	DEVICES AND FIXTURES
		Element:	EXTERIOR LIGHTING

Building Code:	MCSS	
Building Name:	MCGINNIS SCENE SHOP	
Subclass/Savings:	Energy Conservation	$260

Code Application:	NEC	410

Project Class:	Deferred Maintenance
Project Date:	10/16/2009
Project Location:	Building-wide: Floor(s) 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.

Project Cost

Project Number: MCSSEL04

Task Cost Estimate

Task Description	Unit	Qnty	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
Project Totals:				**$1,624**		**$760**	**$2,384**

Material/Labor Cost		$2,384
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$2,025
General Contractor Mark Up at 20.0%	+	$405
Construction Cost		$2,430
Professional Fees at 16.0%	+	$389
Total Project Cost		**$2,819**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSEL01	**Title:**	UPGRADE ELECTRICAL SERVICE
Priority Sequence:	16		
Priority Class:	3		
Category Code:	EL1A	**System:**	ELECTRICAL
		Component:	INCOMING SERVICE
		Element:	TRANSFORMER
Building Code:	MCSS		
Building Name:	MCGINNIS SCENE SHOP		
Subclass/Savings:	Not Applicable		

Code Application: NEC Articles 230 and 450

Project Class:	Capital Renewal
Project Date:	10/16/2009
Project Location:	Room Only: Floor(s) 1

Project Description

An upgrade to the electrical service is recommended. Remove existing electric service equipment. Install new transformers, switchgear, conductors, connections, and terminations. The new service should provide 277/480 volt power for lighting and mechanical equipment and 120/208 volt power for receptacles and other power needs. Main switchgear components should include a ground fault main circuit breaker, digital metering for remote control / monitoring, and transient surge protection.

Project Cost

Project Number: MCSSEL01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
480 V service transformer, switchgear, and all connections and terminations	AMP	400	$50.00	$20,000	$29.00	$11,600	$31,600
120/208 V step-down transformer, main distribution, and all connections and terminations	AMP	500	$35.00	$17,500	$20.00	$10,000	$27,500
Project Totals:				**$37,500**		**$21,600**	**$59,100**

Material/Labor Cost		$59,100
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$48,843
General Contractor Mark Up at 20.0%	+	$9,769
Construction Cost		$58,612
Professional Fees at 16.0%	+	$9,378
Total Project Cost		**$67,990**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSIS01	**Title:**	REFINISH WALLS
Priority Sequence:	17		
Priority Class:	3		
Category Code:	IS2B	**System:**	INTERIOR/FINISH SYS.
		Component:	PARTITIONS
		Element:	FINISHES
Building Code:	MCSS		
Building Name:	MCGINNIS SCENE SHOP		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/12/2009		
Project Location:	Floor-wide: Floor(s) 1, 2		

Project Description

The interior wall finish is paint and varies in condition. Wall finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

Project Cost

Project Number: MCSSIS01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Standard wall finish (paint, wall covering, etc.)	SF	7,210	$0.17	$1,226	$0.81	$5,840	$7,066
Project Totals:				**$1,226**		**$5,840**	**$7,066**

Material/Labor Cost		$7,066
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$4,230
General Contractor Mark Up at 20.0%	+	$846
Construction Cost		$5,076
Professional Fees at 16.0%	+	$812
Total Project Cost		**$5,889**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSSI01	**Title:**	LANDSCAPING UPGRADE
Priority Sequence:	18		
Priority Class:	3		
Category Code:	SI2A	**System:**	SITE
		Component:	LANDSCAPE
		Element:	GRADE/FLORA
Building Code:	MCSS		
Building Name:	MCGINNIS SCENE SHOP		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/12/2009		
Project Location:	Undefined: Floor(s) 1		

Project Description

The landscaping on this small, flat site consists mostly of turf, shrubs, specimen trees, and foundation planting, all in overall fair condition. The overall condition of the site is such that a moderate landscaping project is warranted.

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Cost

Project Number: MCSSSI01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Trees, shrubs, planting soil, amendments, sand, fill, and sod	SF	1,000	$1.04	$1,040	$1.56	$1,560	$2,600
Project Totals:				**$1,040**		**$1,560**	**$2,600**

Material/Labor Cost		$2,600
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$1,848
General Contractor Mark Up at 20.0%	+	$370
Construction Cost		$2,217
Professional Fees at 16.0%	+	$355
Total Project Cost		**$2,572**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSAC05	**Title:**	BUILDING SIGNAGE PACKAGE UPGRADE
Priority Sequence:	19		
Priority Class:	4		
Category Code:	AC3D	**System:**	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	SIGNAGE
Building Code:	MCSS		
Building Name:	MCGINNIS SCENE SHOP		
Subclass/Savings:	Not Applicable		

Code Application:	ADAAG	703.1

Project Class:	Plant Adaption
Project Date:	10/12/2009
Project Location:	Floor-wide: Floor(s) 1, 2

Project Description

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

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Cost

Project Number: MCSSAC05

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
ADA compliant signage	LOT	1	$400	$400	$640	$640	$1,040
Project Totals:				**$400**		**$640**	**$1,040**

Material/Labor Cost		$1,040
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$731
General Contractor Mark Up at 20.0%	+	$146
Construction Cost		$877
Professional Fees at 16.0%	+	$140
Total Project Cost		**$1,018**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSIS02	**Title:**	REFINISH CEILINGS
Priority Sequence:	20		
Priority Class:	4		
Category Code:	IS3B	**System:**	INTERIOR/FINISH SYS.
		Component:	CEILINGS
		Element:	REPLACEMENT
Building Code:	MCSS		
Building Name:	MCGINNIS SCENE SHOP		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/12/2009		
Project Location:	Floor-wide: Floor(s) 1, 2		

Project Description

The ceiling finish consists of lay-in acoustical tiles, in overall good condition. Experience indicates that a percentage of these tiles will need to be replaced over the next ten years. 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
MCSS : MCGINNIS SCENE SHOP

Project Cost

Project Number: MCSSIS02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Acoustical tile ceiling system	SF	4,500	$2.12	$9,540	$2.98	$13,410	$22,950
Project Totals:				**$9,540**		**$13,410**	**$22,950**

Material/Labor Cost		$22,950
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$16,486
General Contractor Mark Up at 20.0%	+	$3,297
Construction Cost		$19,783
Professional Fees at 16.0%	+	$3,165
Total Project Cost		**$22,949**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSPL02	**Title:**	WATER SUPPLY PIPING REPLACEMENT
Priority Sequence:	21		
Priority Class:	4		
Category Code:	PL1A	**System:**	PLUMBING
		Component:	DOMESTIC WATER
		Element:	PIPING NETWORK
Building Code:	MCSS		
Building Name:	MCGINNIS SCENE SHOP		
Subclass/Savings:	Not Applicable		
Code Application:	IPC Chapter 6		
Project Class:	Capital Renewal		
Project Date:	10/16/2009		
Project Location:	Floor-wide: Floor(s) 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.

Project Cost

Project Number: MCSSPL02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Copper pipe and fittings, valves, backflow prevention devices, insulation, hangers, demolition, and cut and patching materials	SF	9,600	$0.43	$4,128	$1.07	$10,272	$14,400
Project Totals:				**$4,128**		**$10,272**	**$14,400**

Material/Labor Cost		$14,400
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$9,426
General Contractor Mark Up at 20.0%	+	$1,885
Construction Cost		$11,312
Professional Fees at 16.0%	+	$1,810
Total Project Cost		**$13,122**

Specific Project Details

Facility Condition Analysis
Section Three
MCSS : MCGINNIS SCENE SHOP

Project Description

Project Number:	MCSSPL01	**Title:**	DOMESTIC WATER HEATER REPLACEMENT
Priority Sequence:	22		
Priority Class:	4		
Category Code:	PL1E	**System:**	PLUMBING
		Component:	DOMESTIC WATER
		Element:	HEATING
Building Code:	MCSS		
Building Name:	MCGINNIS SCENE SHOP		
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.

Project Cost

Project Number: MCSSPL01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Electric commercial-grade water heater replacement, including demolition	GAL	40	$100	$4,017	$9.46	$378	$4,396
Project Totals:				**$4,017**		**$378**	**$4,396**

Material/Labor Cost		$4,396
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$4,239
General Contractor Mark Up at 20.0%	+	$848
Construction Cost		$5,087
Professional Fees at 16.0%	+	$814
Total Project Cost		**$5,901**

FACILITY CONDITION ANALYSIS

SECTION 4

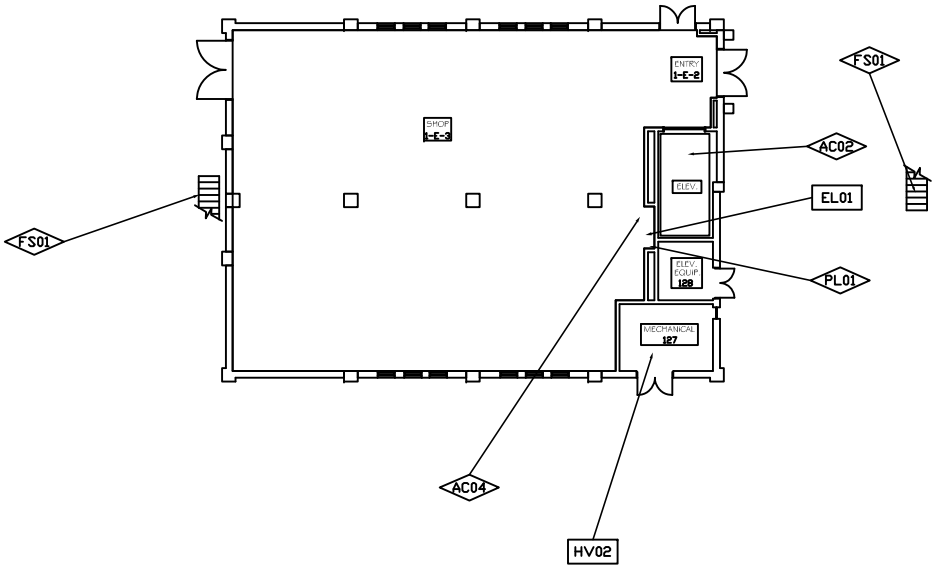
DRAWINGS AND PROJECT LOCATIONS

EAST CAROLINA UNIVERSITY

ROOF

HV01

FS02



FS03 SI01 EL04

AC01 AC05 EL02 EL03 FS04 FS05

FS06 HV01 IS01 IS02 PL02

SECOND

AC01 AC05 EL02 EL03 FS04 FS05

FS06 HV01 IS01 IS02 PL02

AC02 FS01 FS02 AC03

MEZZANINE

FS02

MCGINNIS
SCENE SHOP

BLDG NO. MCSS

ISES CORPORATION

FACILITY
CONDITION
ANALYSIS

2165 West Park Court
Suite N
Stone Mountain GA 30087
770.879.7376

PROJECT NUMBER APPLIES TO ONE ROOM ONLY

PROJECT NUMBER APPLIES TO ONE ITEM ONLY

PROJECT NUMBER APPLIES TO ENTIRE BUILDING

PROJECT NUMBER APPLIES TO ENTIRE FLOOR

PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS

PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 12/11/09
Drawn by: J.T.V.
Project No. 09-041

FIRST FLOOR PLAN

Sheet No.
1 of 1

FACILITY CONDITION ANALYSIS

SECTION 5

LIFE CYCLE MODEL SUMMARY AND PROJECTIONS

Life Cycle Model

Building Component Summary

MCSS : MCGINNIS SCENE SHOP

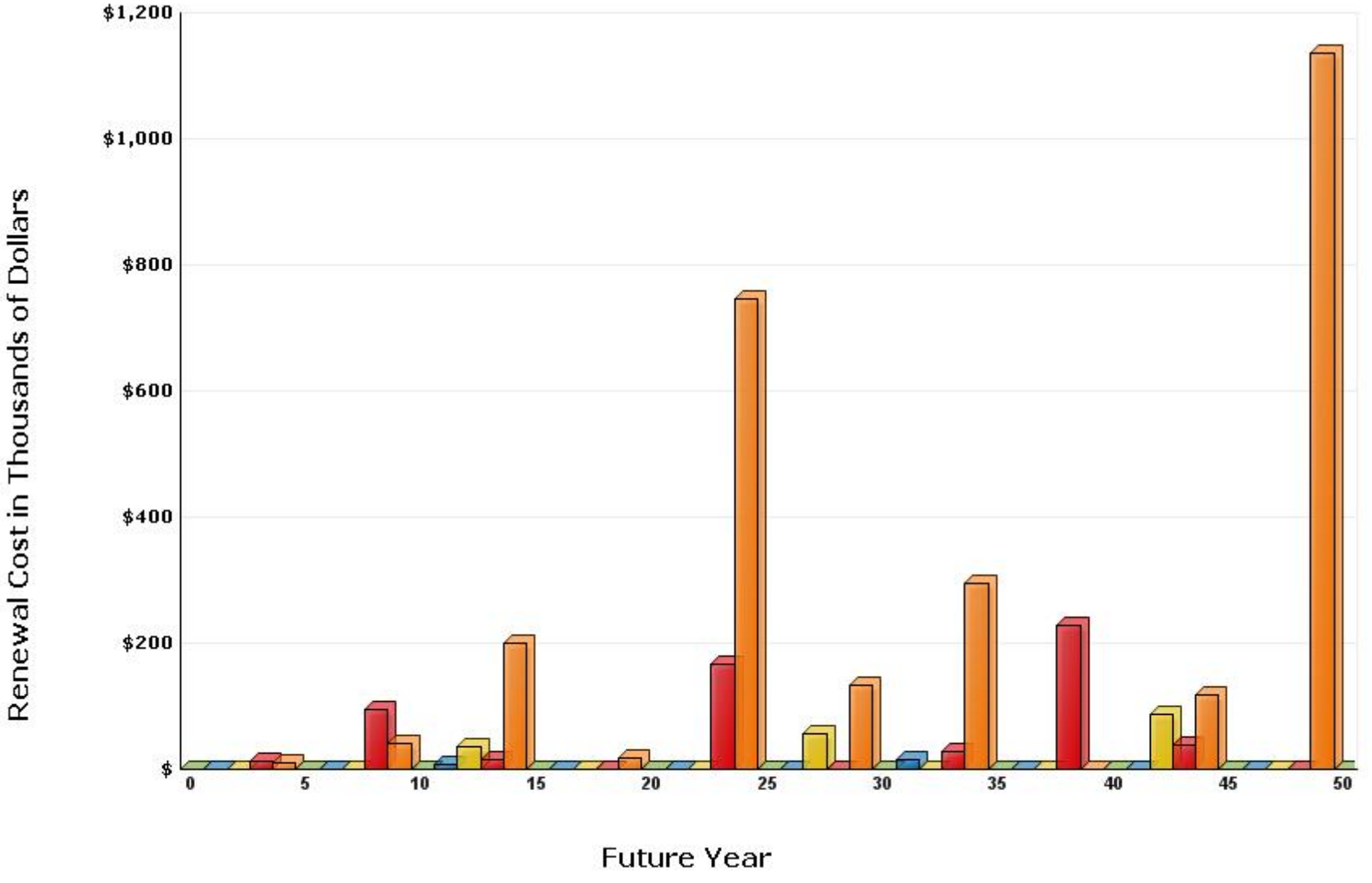
Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
B2010	EXTERIOR FINISH RENEWAL	13,030	SF	$1.30	.31	$5,266	2001	10
B2020	STANDARD GLAZING AND CURTAIN WALL	540	SF	$104.04		$56,180	1982	55
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	8	LEAF	$4,311.24		$34,490	1982	20
B2030	LOW TRAFFIC EXTERIOR DOOR SYSTEM	5	LEAF	$2,863.29		$14,316	1982	40
B3010	MEMBRANE ROOF	4,800	SF	$6.41		$30,753	2001	15
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	2	LEAF	$783.68		$1,567	1982	35
C3010	STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.)	7,210	SF	$0.80		$5,775	2001	10
C3020	CERAMIC FLOOR TILE	40	SF	$17.36		$694	1982	20
C3020	RESURFACE AND SEAL CONCRETE OR TERRAZZO	9,480	SF	$5.85		$55,427	1982	50
C3030	ACOUSTICAL TILE CEILING SYSTEM	8,640	SF	$4.99		$43,140	2001	15
C3030	PAINTED CEILING FINISH APPLICATION	40	SF	$0.80		$32	2001	15
D1010	ELEVATOR MODERNIZATION - HYDRAULIC	1	EA	$158,628.64		$158,629	1982	25
D2010	PLUMBING FIXTURES - WAREHOUSE / STORAGE / UTILITY	9,600	SF	$1.88		$18,003	1982	35
D2020	WATER PIPING - WAREHOUSE / STORAGE / UTILITY	9,600	SF	$1.33		$12,797	1982	35
D2020	WATER HEATER (COMMERCIAL, ELECTRIC)	40	GAL	$144.38		$5,775	1999	20
D2030	DRAIN PIPING - WAREHOUSE / STORAGE / UTILITY	9,600	SF	$2.03		$19,530	1982	40
D2050	AIR COMPRESSOR PACKAGE (AVERAGE SIZE)	1	SYS	$6,456.49		$6,456	1982	25
D3040	CONDENSATE RECEIVER	1	SYS	$9,504.01		$9,504	1982	15
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	1	EA	$2,768.62		$2,769	1982	20
D3040	HVAC SYSTEM - WAREHOUSE / STORAGE / UTILITY	9,600	SF	$9.62		$92,398	1982	25
D3040	BASE MTD. PUMP - UP TO 15 HP	2	HP	$3,175.77		$6,352	1982	20
D3040	BASE MTD. PUMP - UP TO 15 HP	2	HP	$3,175.77		$6,352	1982	20
D5010	ELECTRICAL SYSTEM - WAREHOUSE / STORAGE / UTILITY	9,600	SF	$5.60		$53,795	1982	50
D5010	ELECTRICAL SWITCHGEAR 120/208V	500	AMP	$32.96		$16,482	1982	20
D5020	EXIT SIGNS (BATTERY)	12	EA	$280.76		$3,369	1982	20
D5020	EXTERIOR LIGHT (HID)	4	EA	$689.58		$2,758	1982	20
D5020	LIGHTING - WAREHOUSE / STORAGE / UTILITY	9,600	SF	$2.66		$25,558	1982	20

Life Cycle Model
Building Component Summary
MCSS : MCGINNIS SCENE SHOP

Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
D5030	FIRE ALARM SYSTEM, POINT ADDRESSABLE	9,600	SF	$2.61		$25,100	1990	15
						$713,266		

Life Cycle Model Expenditure Projections

MCSS : MCGINNIS SCENE SHOP



Average Annual Renewal Cost Per SqFt $2.87

FACILITY CONDITION ANALYSIS

SECTION 6

PHOTOGRAPHIC LOG

Photo Log - Facility Condition Analysis

MCSS : MCGINNIS SCENE SHOP

Photo ID No	Description	Location	Date
MCSS001a	View looking southeast onto second floor work area	Second floor, work room	9/2/2009
MCSS001e	Centrifugal roof exhauster	Northeast corner of roof	9/2/2009
MCSS002a	View looking southeast across roof	Roof	9/2/2009
MCSS002e	Air handler AHU016, chill / hot water coils	Mechanical Room 127	9/2/2009
MCSS003a	View looking southwest across roof showing exterior wall of theater beyond	Roof	9/2/2009
MCSS003e	Air handler AHU015, chill / hot water coils	Mechanical Room 127	9/2/2009
MCSS004a	Dangerous roof access combination ladder and lack of guardrail at mezzanine	Second floor, main room	9/2/2009
MCSS004e	Reciprocating air compressor, HVAC controls	Mechanical Room 127	9/2/2009
MCSS005a	Guardrail lacking sufficient infill and handrails on metal stair beyond trying to act as guardrail	Second floor, west facade breezeway	9/2/2009
MCSS005e	2 x 4 fluorescent, T12 lamps	Second floor	9/2/2009
MCSS006a	Single-level drinking fountain	First floor, shop	9/2/2009
MCSS006e	500 amp, 120/208V, three-phase main distribution panel	First floor, west wall	9/2/2009
MCSS007a	View looking southeast across north facade	Exterior elevation	9/2/2009
MCSS007e	50 watt HPS wallpack	Second floor, south exit	9/2/2009
MCSS008a	Guardrail lacking sufficient infill at upper landing, lack of guardrail on stairs, and lack of headroom beneath stair stringer after debris removal	East facade	9/2/2009
MCSS008e	Simplex fire alarm control panel	First floor, west wall	9/2/2009
MCSS009a	View looking northwest across south facade	Exterior elevation	9/2/2009
MCSS009e	Audible / visible fire alarm devices	First floor, south wall	9/2/2009
MCSS010a	View looking northeast along south facade	Exterior elevation	9/2/2009
MCSS010e	40 gallon electric water heater	First floor, west wall	9/2/2009
MCSS011a	View looking southeast along west facade	Exterior elevation	9/2/2009
MCSS011e	Water cooler	First floor, west wall	9/2/2009
MCSS012e	Commercial sink	First floor, west wall	9/2/2009
MCSS013e	Water closet and wall hung lavatory	Second floor, northwest corner	9/2/2009
MCSS014e	Water cooler	Second floor, northwest corner	9/2/2009
MCSS015e	Commercial sink	Second floor, northwest corner	9/2/2009
MCSS016e	Internal roof drains	Roof	9/2/2009
MCSS017e	Cast-iron bell-and-spigot drain piping	First floor, southwest corner	9/2/2009

MCSS001A.jpg

MCSS001E.jpg

MCSS002A.jpg

MCSS002E.jpg

MCSS003A.jpg

MCSS003E.jpg

MCSS004A.jpg

MCSS004E.jpg

MCSS005A.jpg

MCSS005E.jpg

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MCSS017E.jpg