

# EAST CAROLINA UNIVERSITY

## WHICHARD BUILDING

ASSET CODE: WHIC

FACILITY CONDITION ANALYSIS

AUGUST 25, 2010





EAST CAROLINA UNIVERSITY  
Facility Condition Analysis

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# FACILITY CONDITION ANALYSIS

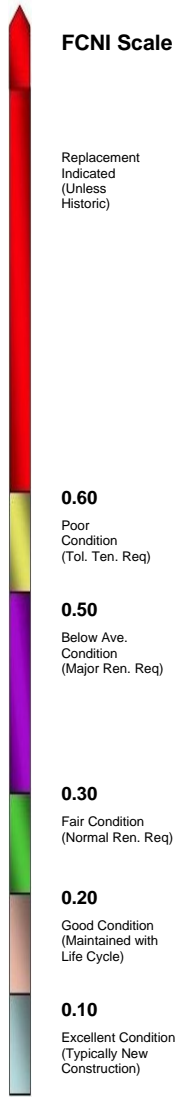
## SECTION 1

### GENERAL ASSET INFORMATION

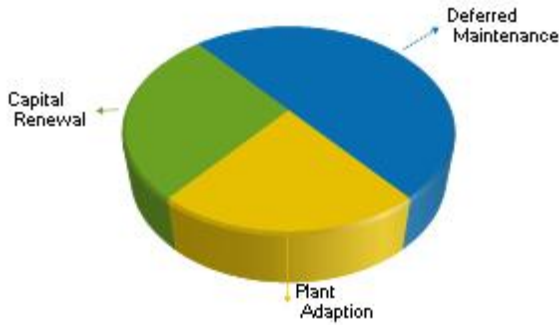


### EXECUTIVE SUMMARY - WHICHARD BUILDING

**Building Code:** WHIC  
**Building Name:** WHICHARD BUILDING  
**Year Built:** 1923  
**Building Use:** Office / Administrative  
**Square Feet:** 23,470



#### PROJECT COSTS BY CLASSIFICATION

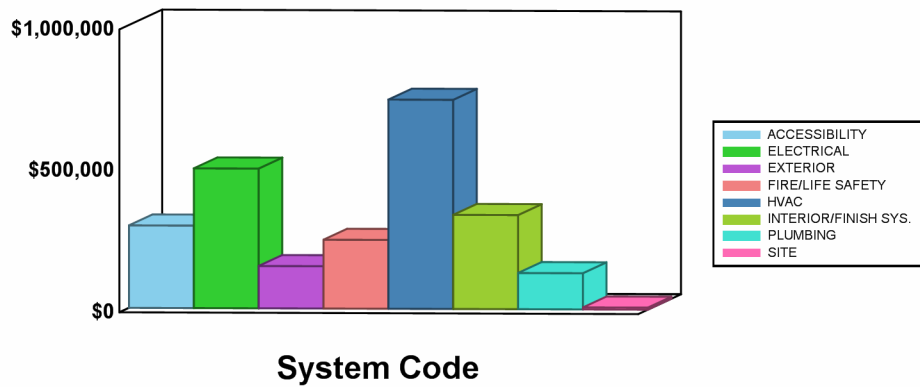


#### Project Costs by Priority

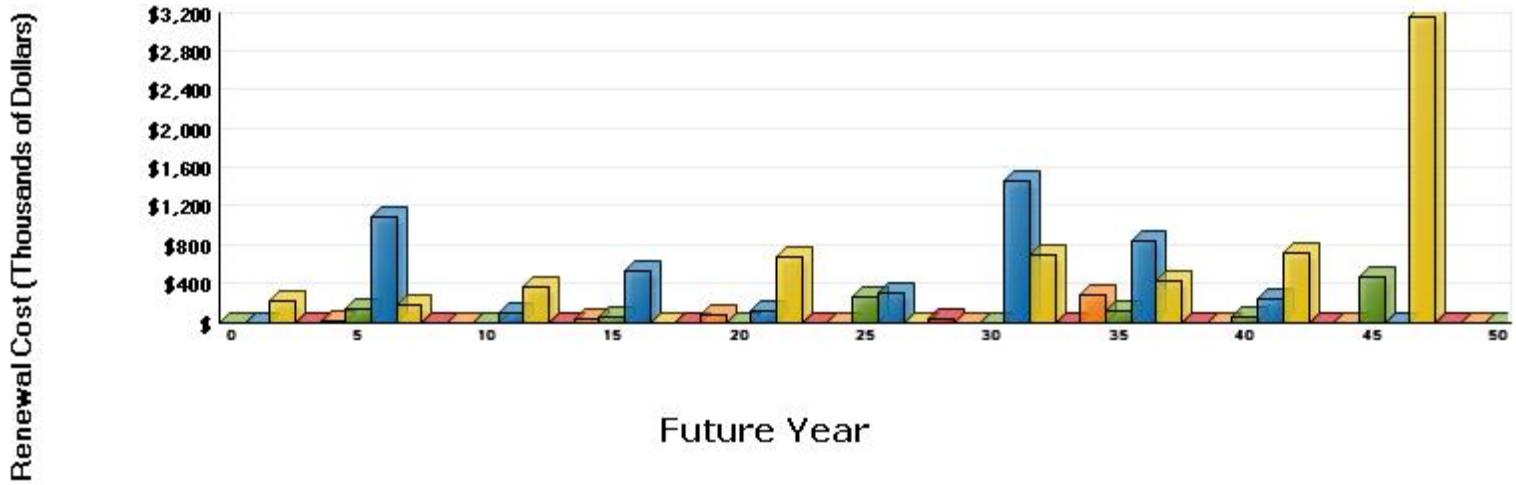
Priority 1:	\$5,248
Priority 2:	\$281,051
Priority 3:	\$1,566,573
Priority 4:	\$530,507
<b>Total Project Costs:</b>	<b>\$2,383,379</b>
<b>Facility Replacement Cost:</b>	<b>\$6,429,124</b>

**Facility Condition Needs Index (FCNI): 0.37**  
 (Project Costs / Replacement Cost)

#### PROJECT COSTS BY SYSTEM CODE



#### LIFE CYCLE MODEL EXPENDITURE PROJECTIONS



Average Annual Renewal Cost Per SqFt \$4.76





## B. ASSET SUMMARY

Constructed in 1923, the Whichard Building is a two-story, rectangular, office building with a brick veneer and a gabled, clay tile roof. Two wings were added to the main building mass considerably after the initial construction. The relatively small, square, east wing is a brick-veneered, flat-roofed, one-story space with offices, a file room, and a mechanical room, all located several feet below the floor level of the main building, and accessed from the exterior or by means of a set of interior steps. The north wing, known as the Annex, is a two-story, rectangular structure located at forty-five degrees to the main building, with a flat roof, and separated from the main building by a breezeway. The breezeway has a painted metal set of exterior steps that serve both it and the north end of the main building. This wood and concrete-framed structure is located near the middle of the northern edge of the northern portion of the East Carolina University campus in Greenville, North Carolina. It has a listed area of 23,470 gross square feet.

Information for this report was gathered during a site inspection that concluded on September 3, 2009.

### SITE

The landscaping on this large, flat site consists of turf, shrubs, specimen trees, and foundation planting; all in overall good condition. The overall condition of the site is such that a moderate landscaping upgrade is warranted. There are tree branches overhanging the northeast corner of the Annex roof that should be pruned back away from the roof.

### EXTERIOR STRUCTURE

The brick exterior is in overall good condition, but the painted wood trim and door finishes will need to be renewed again within the next five years. The flat, single-ply membrane roofing system on the Annex and on the east wing is not expected to outlast the scope of this analysis. Future budget modeling should include a provision for the replacement of all failing roofing systems. Replace this roof with a similar application.

The punched windows were upgraded within the last few years. They are operable, metal-framed units with insulating glass. The exterior doors are painted metal, in overall good condition. No window or exterior door upgrades are proposed. The University requested a project to replace the existing metal stair in the breezeway. An allowance should be set aside to replace this stairway.

### INTERIOR FINISHES / SYSTEMS

The interior of the Annex has a double-loaded, central corridor on both floors, with offices on both sides. The east wing has a reception area, then a series of offices and service spaces that one walks through to access each of the adjacent spaces. The main building has a two-story, central atrium that was once the main library space for the campus but now acts as the main reception area for this building. The upper floor of the main building has a single-loaded corridor that surrounds the four sides of the central atrium. The

overlook down into the atrium is glazed with wire glass. Virtually all of this building is office space, with floor-to-ceiling painted walls; lay-in, acoustical tile ceilings, with some painted ceilings; and carpeted floors. The interior doors are in overall good condition, with no recommended upgrades needed.

The interior wall finish applications consist primarily of paint that is in overall fair condition. Wall finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

The interior floor finish applications consist almost entirely of carpet that is in overall good condition. Experience indicates that all of the carpeting will be at or near the end of its useful service life within the next five to seven years and should then be replaced, in kind, within the next five years.

The ceiling finish applications consist almost equally of ceiling tile and paint. Ceiling finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

The entry floor men's and women's restroom fixtures and finishes have been upgraded recently and meet accessibility guidelines. The fixtures and finishes in these two restrooms are sound, but the finishes in both restrooms will need to be renewed within the next ten years. The remaining restrooms are addressed in the Accessibility section of this report.

## ACCESSIBILITY

There are few handicapped accessibility upgrades into and within this facility. Most entrances, other than the main entrance, are at-grade. There is a wheelchair ramp at the elbow between the north facade of the main building and the south facade of the Annex. The entry floor restrooms are wheelchair accessible. Many other accessibility upgrades are still recommended.

ADA 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 have knob hardware.

This legislation also requires that stairs have graspable handrails on both sides, that the rails have a specific end geometry, and that the handrails continue horizontally at the landings. The end geometry of the existing interior stair handrails does not comply with the present legislation regarding handicapped accessibility within buildings. Painted metal handrail extensions need to be added to the ends of all of the interior handrails. The breezeway stair risers are open and present a trip hazard to anyone who has difficulty bending their leg while ascending a flight of stairs. Painted metal closure plates should be applied to the breezeway stair risers.

Present accessibility legislation further requires wheelchair access to all floors in a building over two stories in height. There is no wheelchair access to the upper floors of this building. To comply with the intent of the current accessibility legislation, the installation of an interior hydraulic elevator is proposed.

The current legislation pertaining to handicapped access within buildings requires that goods, and services offered in buildings be generally accessible to all persons. There is no apparent way to navigate the split level change in the corridor of the Annex, or between the main wing of this building and the east wing,

without exiting the building first. It is recommended that a wheelchair lift or stair climber be installed at both of these locations. An exterior wheelchair lift or stair climber is also recommended to be installed at the south entrance to the main wing, due to the entry steps.

The restroom fixtures and finishes are mostly original to the year of construction or latest major renovation. Except for the accessible men's and women's restrooms on the entry floor, the remaining restrooms in this building have aging fixtures and finishes and are not wheelchair accessible. A comprehensive renovation of the upper floor restrooms, including new fixtures, finishes, and accessories, is recommended. Restroom expansion may be necessary in order to meet modern minimum fixture counts and accessibility legislation.

Accessibility legislation requires that building amenities such as the drinking fountains be generally accessible to all persons. The single-level configuration of the two upper floor drinking fountains is a barrier to wheelchair accessibility. The installation of a dual-level, refrigerated drinking fountain is recommended to replace these two existing fountains.

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

## HEALTH

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

## FIRE / LIFE SAFETY

Code requires that there be a guardrail where there is a change in floor level in excess of 36 inches, and that these guardrails be a minimum of 42 inches high. The guardrails must also prevent the passage of a specific diameter sphere. The metal guardrails at the top of the fire exit stairs have sufficient infill but are too low, and the open design of the Annex exit stair and the breezeway stair creates a guardrail condition down the length of both. A painted metal rail should be added above and parallel to all of these existing guardrails.

This building appears to have been constructed in substantial compliance with building codes. The exits seem to be sufficient in number and location. No exit improvements are proposed for the timeframe covered by this assessment.

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 first floor in the south hallway. 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. Although manual, dry chemical fire extinguishers are available, it is recommended that an automatic fire suppression system be retrofitted. Install an automatic fire sprinkler system in unprotected areas throughout the facility. This effort will reduce overall liability and potential for loss.

The exit signs in this facility are illuminated with fluorescent lamps and have battery back-up power. Emergency lighting is available through unitary fixtures with battery back-up power. Replace the existing exit signage throughout the building, and 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. Remove the existing unitary emergency lights and incorporate this functionality into the standard lighting systems. This can be accomplished in conjunction with the proposed interior lighting upgrade.

## HVAC

This facility is on the campus steam loop. Hot water is circulated as the heating medium. A local, air-cooled chiller generates chilled water for building cooling. This McQuay brand unit is of 95 tons capacity, has served beyond its intended life cycle, and is recommended for replacement.

This facility is served by a forced-air HVAC system with multi-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. Air is returned through the open hallways. The controls for this system are pneumatic and were manufactured by Honeywell.

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 within the purview of this report.

## ELECTRICAL

An oil-filled transformer that is rated for 225 kVA service steps the incoming power down from 12,470 volts to 277/480 volts. This transformer was manufactured by S & C. The 277/480 volt power is distributed by a switchgear that is rated for 1,000 amp service and was manufactured by Square D.

It should be anticipated that the 277/480 volt main distribution panel and switchgear will require replacement within the outlook of this report. The secondary transformer and the 120/208 volt main distribution panel and switchgear are in good working order. It is improbable that they will require scheduled replacement within the scope of this analysis.

The electrical distribution network in this facility is a dual voltage configuration. The 277/480 volt power is distributed to branch transformers that step the power down to 120/208 volt power. The lighting and major mechanical systems are supported by the 277/480 volt circuit. The panels were manufactured predominantly by Square D. The electrical devices in this facility are aged and visibly worn. The system is undersized to support the current needs of the occupants. In order to maintain reliable service throughout the facility, it is recommended that the electrical distribution network be upgraded.

A portion of the interior spaces of this facility were upgraded in 2004 and are illuminated by fixtures that utilize compact and T8 fluorescent lamps. Most of the fluorescent lighting fixtures are recessed, compact applications. The interior lighting is in good condition, and with proper care, it will outlast the purview of this report.

The remaining interior spaces of this facility were upgraded in the 1990s and are illuminated by fixtures that utilize compact and T8 fluorescent lamps. The fluorescent fixtures are predominantly surface-mounted applications with acrylic lenses. Some fixtures are still fitted with inefficient, incandescent lamps. The lenses on the light fixtures are aged and present a dim aesthetic. Some lenses are worn or missing. The lighting system is currently sufficient. However, it should be anticipated that it will require replacement within the scope of this analysis. Specify energy-efficient light fixtures for the new interior lighting systems, and install occupancy sensors where possible. It is recommended that the unitary emergency lighting fixtures are removed and that their functionality is incorporated into the new interior lighting systems.

The exterior areas adjacent to the building are illuminated by compact fluorescent and stanchion-mounted fixtures. These exterior lighting systems are aged and weathered. It is recommended that they be replaced within the scope of this analysis. Install new, energy-efficient fixtures, and place them on photocell activation.

## PLUMBING

Potable water is distributed throughout this facility via a galvanized steel piping network. Sanitary waste and storm water piping is of cast-iron, bell-and-spigot construction with copper run-outs. The supply and drain piping networks are aged and should be replaced. Failure to undertake such upgrades will likely lead to leaks, drainage issues, and other problems that will require costly maintenance. The plumbing fixtures are recommended for replacement. This action is detailed in the proposed restroom renovation.

Domestic water for this facility is heated by an electric, residential-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. However, no upgrade has been prescribed due to insignificant cost.

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

### C. INSPECTION TEAM DATA

**DATE OF INSPECTION:** September 4, 2009

**INSPECTION TEAM PERSONNEL:**

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

**FACILITY CONTACTS:**

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

**REPORT DEVELOPMENT:**

Report Development by: ISES Corporation  
2165 West Park Court  
Suite N  
Stone Mountain, GA 30087

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

## D. FACILITY CONDITION ANALYSIS - DEFINITIONS

The following information is a clarification of Asset Report Sections using example definitions.

### 1. REPORT DESCRIPTION

Section 1: Asset Executive Summary, Asset Summary, and General Report Information

Section 2: Detailed Project Summaries and Totals

- A. Detailed Project Totals – Matrix with FCNI Data and Associated Charts
- B. Detailed Projects by Priority Class / Priority Sequence
- C. Detailed Projects by Cost within range [ \$0 - < \$100,000 ]
- D. Detailed Projects by Cost within range [ ≥ \$100,000 - < \$500,000 ]
- E. Detailed Projects by Cost within range [ ≥ \$500,000 ]
- F. Detailed Projects by Project Classification
- G. Detailed Projects by Project Rating Type - Energy Conservation
- H. Detailed Projects by Category / System Code

FCNI = Facility Condition Needs Index, Total Cost vs. Replacement Cost. The FCNI provides a life cycle cost comparison. Facility replacement cost is based on replacement with current construction standards for facility use type, and not original design parameters. This index gives the University a comparison within all buildings for identifying worst case / best case building conditions.

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

Section 3: Specific Project Details Illustrating Description / Cost

Section 4: Drawings with Iconography

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

Section 5: Life Cycle Model Summary and Projections

Section 6: Photographic Log

## 2. PROJECT CLASSIFICATION

- A. Plant / Program Adaption: Expenditures required to adapt the physical plant to the evolving needs of the institution and to changing codes or standards. These are expenditures beyond normal maintenance. Examples include compliance with changing codes (e.g. accessibility), facility alterations required by changed teaching or research methods, and improvements occasioned by the adoption of modern technology (e.g., the use of personal computer networks).
- B. Deferred Maintenance: Refers to expenditures for repairs which were not accomplished as a part of normal maintenance or capital repair which have accumulated to the point that facility deterioration is evident and could impair the proper functioning of the facility. Costs estimated for deferred maintenance projects should include compliance with applicable codes, even if such compliance requires expenditures beyond those essential to affect the needed repairs. Deferred maintenance projects represent catch up expenses.
- C. Capital Renewal: A subset of regular or normal facility maintenance which refers to major repairs or the replacement / rebuilding of major facility components (e.g., roof replacement at the end of its normal useful life is capital repair; roof replacement several years after its normal useful life is deferred maintenance).

## 3. PROJECT SUBCLASS TYPE

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

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

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

Example:

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

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



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

### PRIORITY 1 - Currently Critical (Immediate)

Projects in this category require immediate action to:

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

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

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

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

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

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

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

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

## 6. COST SUMMARIES AND TOTALS

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

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

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

#### Global Markup Percentages

#### R.S. MEANS

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

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

Example:

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

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

**8. PHOTO NUMBER** (Shown in Section 6)

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

Example: 0001006e

<u>Building Number</u>	<u>Photo Sequence</u>	<u>Arch / Eng / VT</u>
0001	006	e

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

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

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

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

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

Refer to the following Category Code Report.

Example: Category Code = EL5A

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

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

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

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
ES6E	GENERAL	OTHER	Any exterior work not specifically categorized elsewhere including finish and structural work on freestanding boiler stacks.
<b>SYSTEM DESCRIPTION: FIRE / LIFE SAFETY</b>			
FS1A	LIGHTING	EGRESS LIGHTING/EXIT SIGNAGE	R & R work on exit signage and packaged AC/DC emergency lighting.
FS2A	DETECTION/ALARM	GENERAL	Repair or replacement of fire alarm/detection system/components including alarms, pull boxes, smoke/heat detectors, annunciator panels, central fire control stations, remote dialers, fire station communications, etc.
FS3A	SUPPRESSION	SPRINKLERS	Repair or installation of water sprinklers type automatic fire suppressions including wet pipe & dry pipe systems, heads, piping, deflectors, valves, monitors, associated fire pump, etc.
FS3B	SUPPRESSION	STANDPIPE/HOSE	Repair or installation of standpipe system or components including hardware, hoses, cabinets, nozzles, necessary fire pumping system, etc.
FS3C	SUPPRESSION	EXTINGUISHERS	Repairs or upgrades to F.E. cabinets/wall fastenings and handheld extinguisher testing/replacement.
FS3D	SUPPRESSION	OTHER	Other fire suppression items not specifically categorized elsewhere including fire blankets, carbon dioxide automatic systems, Halon systems, dry chemical systems, etc.
FS4A	HAZARDOUS MATERIALS	STORAGE ENVIRONMENT	Installation or repair of special storage environment for the safe holding of flammable or otherwise dangerous materials/supplies including vented flammables storage cabinets, holding pens/rooms, cages, fire safe chemical storage rooms, etc.
FS4B	HAZARDOUS MATERIALS	USER SAFETY	Improvements, repairs, installation, or testing of user safety equipment including emergency eyewashes, safety showers, emergency panic/shut-down system, etc.
FS5A	EGRESS PATH	DESIGNATION	Installation, relocation or repair of posted diagrammatic emergency evacuation routes.
FS5B	EGRESS PATH	DISTANCE/GEOMETRY	Work involving remediation of egress routing problems including elimination of dead end corridors, excessive egress distance modifications and egress routing inadequacies.
FS5C	EGRESS PATH	SEPARATION RATING	Restoration of required fire protective barriers including wall rating compromises, fire rated construction, structural fire proofing, wind/safety glazing, transom retrofitting, etc.
FS5D	EGRESS PATH	OBSTRUCTION	Clearance of items restricting the required egress routes.
FS5E	EGRESS PATH	STAIRS RAILING	Retrofit of stair/landing configurations/structure, railing heights/geometries, etc.
FS5F	EGRESS PATH	FIRE DOORS/HARDWARE	Installation/replacement/repair of fire doors and hardware including labeled fire doors, fire shutters, closers, magnetic holders, panic hardware, etc.
FS5G	EGRESS PATH	FINISH/FURNITURE RATINGS	Remediation of improper fire/smoke ratings of finishes and furniture along egress routes.
FS6A	GENERAL	OTHER	Life/fire safety items not specifically categorized elsewhere.
<b>SYSTEM DESCRIPTION: HEALTH</b>			
HE1A	ENVIRONMENTAL CONTROL	EQUIPMENT AND ENCLOSURES	Temperature control chambers (both hot and cold) for non-food storage. Includes both chamber and all associated mechanical equipment.
HE1B	ENVIRONMENTAL CONTROL	OTHER	General environmental control problems not catalogued elsewhere.
HE2A	PEST CONTROL	GENERAL	Includes all measures necessary to control and destroy insects, rodents and other pests.
HE3A	REFUSE	GENERAL	Issues related to the collection, handling and disposal of refuse.
HE4A	SANITATION EQUIPMENT	LABORATORY AND PROCESS	Includes autoclaves, cage washers, steam cleaners, etc.
HE5A	FOOD SERVICE	KITCHEN EQUIPMENT	Includes ranges, grilles, cookers, sculleries, etc.
HE5B	FOOD SERVICE	COLD STORAGE	Includes the cold storage room and all associated refrigeration equipment.
HE6A	HAZARDOUS MATERIAL	STRUCTURAL ASBESTOS	Testing, abatement and disposal of structural and building finish materials containing asbestos.

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

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
HV6B	CONTROLS	MODIFICATIONS/ REPAIRS	Repair or modification of HVAC control system.
HV6C	CONTROLS	AIR COMPRESSORS/ DRYERS	Repair or modification of control air compressors and dryers.
HV7A	INFRASTRUCTURE	STEAM/HOT WATER GENERATION	Generation of central steam and/or hot water including boilers and related components.
HV7B	INFRASTRUCTURE	STEAM/HOT WATER DISTRIBUTION	Distribution system for central hot water and/or steam.
HV7C	INFRASTRUCTURE	CHILLED WATER GENERATION	Generation of central chilled water including chillers and related components.
HV7D	INFRASTRUCTURE	CHILLED WATER DISTRIBUTION	Distribution system for central chilled water.
HV7E	INFRASTRUCTURE	TUNNELS/ MANHOLES/ TRENCHES	Repairs, installation, replacement of utility system access chambers.
HV7F	INFRASTRUCTURE	OTHER	HVAC infrastructure issues not specifically categorized elsewhere.
HV8A	GENERAL	CFC COMPLIANCE	Chiller conversions/replacements for CFC regulatory compliance, monitoring, etc.
HV8B	GENERAL	OTHER	HVAC issues not catalogued elsewhere.
<b>SYSTEM DESCRIPTION: INTERIOR FINISHES / SYSTEMS</b>			
IS1A	FLOOR	FINISHES-DRY	R & R of carpet, hardwood strip flooring, concrete coating, vinyl linoleum & tile, marble, terrazzo, rubber flooring, underlayment in predominantly dry areas ("dry" includes non-commercial kitchens)
IS1B	FLOOR	FINISHES-WET	Flooring finish/underlayment work in predominantly "wet" areas including work with linoleum, rubber, terrazzo, concrete coating, quarry tile, ceramic tile, epoxy aggregate, etc.
IS2A	PARTITIONS	STRUCTURE	Structural work on full height permanent interior partitions including wood/metal stud & drywall systems, CMU systems, structural brick, tile, glass block, etc.
IS2B	PARTITIONS	FINISHES	Work on full height permanent interior partitions including R & R to gypsum board, plaster, lath, wood paneling, acoustical panels, wall coverings, column coverings, tile, paint, etc.
IS3A	CEILINGS	REPAIR	Repair of interior ceilings (<40% of total) including tiles, gypsum board, plaster, paint, etc.
IS3B	CEILINGS	REPLACEMENT	Major refurbishments (>40% of total) to interior ceiling systems including grid system replacements, structural framing, new suspended systems, paint, plastering, etc.
IS4A	DOORS	GENERAL	Any work on interior non-fire rated doors, roll-up counter doors, mechanical/plumbing access doors, and all door hardware (except for reasons of access improvement).
IS5A	STAIRS	FINISH	Any finish restorative work to stair tower walking surfaces including replacement of rubber treads, safety grips, nosings, etc. (except as required to accommodate disabled persons).
IS6A	GENERAL	MOLDING	R & R to interior trim/molding systems including rubber/vinyl/wood base, crown/chair/ornamental moldings, cased openings, etc.
IS6B	GENERAL	CABINETRY	R & R work to interior casework systems including cabinets, countertops, wardrobes, lockers, mail boxes, built-in bookcases, lab/work benches, reagent shelving, etc. (except as required for access by the disabled).
IS6C	GENERAL	SCREENING	Work on temporary or partial height partitioning systems including toilet partitions, urinal/vanity screens, etc.
IS6D	GENERAL	OTHER	Any work on interior elements not logically or specifically categorized elsewhere including light covers, phone booths, interior light wells, etc.
<b>SYSTEM DESCRIPTION: PLUMBING</b>			
PL1A	DOMESTIC WATER	PIPING NETWORK	Repair or replacement of domestic water supply piping network, insulation, hangers, etc.



CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
PL1B	DOMESTIC WATER	PUMPS	Domestic water booster pumps, circulating pumps, related controls, etc.
PL1C	DOMESTIC WATER	STORAGE/ TREATMENT	Equipment or vessels for storage or treatment of domestic water.
PL1D	DOMESTIC WATER	METERING	Installation, repair, or replacement of water meters.
PL1E	DOMESTIC WATER	HEATING	Domestic water heaters including gas, oil, and electric water heaters, shell and tube heat exchangers, tank type and instantaneous.
PL1F	DOMESTIC WATER	COOLING	Central systems for cooling and distributing drinking water.
PL1G	DOMESTIC WATER	FIXTURES	Plumbing fixtures including sinks, drinking fountains, water closets, urinals, etc.
PL1H	DOMESTIC WATER	CONSERVATION	Alternations made to the water distribution system to conserve water.
PL1I	DOMESTIC WATER	BACKFLOW PROTECTION	Backflow protection devices including backflow preventers, vacuum breakers, etc.
PL2A	WASTEWATER	PIPING NETWORK	Repair or replacement of building wastewater piping network.
PL2B	WASTEWATER	PUMPS	Pump systems used to lift wastewater including sewage ejectors and other sump systems.
PL3A	SPECIAL SYSTEMS	PROCESS GAS/FLUIDS	Generation and/or distribution of process steam, compressed air, natural and LP gas, process water, vacuum, etc.
PL4A	INFRASTRUCTURE	POTABLE WATER STORAGE/ TREATMENT	Storage and treatment of potable water for distribution.
PL4B	INFRASTRUCTURE	INDUSTRIAL WATER DISTRIBUTION/ TREATMENT	Storage and treatment of industrial water for distribution.
PL4C	INFRASTRUCTURE	SANITARY WATER COLLECTION	Sanitary water collection systems, sanitary sewer systems; including combined systems.
PL4D	INFRASTRUCTURE	STORM WATER COLLECTION	Storm water collection systems, storm sewer systems; storm water only.
PL4E	INFRASTRUCTURE	POTABLE WATER DISTRIBUTION	Potable water distribution network.
PL4F	INFRASTRUCTURE	WASTEWATER TREATMENT	Wastewater treatment plants, associated equipment, etc.
PL5A	GENERAL	OTHER	Plumbing issues not categorized elsewhere.
<b>SYSTEM DESCRIPTION: SITE</b>			
SI1A	ACCESS	PEDESTRIAN	Paved pedestrian surfaces including walks, site stairs, step ramps, paths, pedestrian signage, sidewalk bridges/canopies, pedestrian plaza/mall areas, etc.
SI1B	ACCESS	VEHICULAR	Paved vehicular surfaces including roads, paths, curbs, guards, bollards, bridges, skyways, joints, shoulder work, culverts, ditches, vehicular signage, etc.
SI2A	LANDSCAPE	GRADE/FLORA	Landscape related work including new grass/turf refurbishment, grade improvements, catch basins, swales, berms, pruning, new ornamental flora, etc.
SI3A	HARDSCAPE	STRUCTURE	Permanent hard site features, predominantly ornamental, including terraces, fences, statues, freestanding signage, fountains, benches, etc.
SI4A	GENERAL	OTHER	Other site work not specifically categorized elsewhere.
<b>SYSTEM DESCRIPTION: SECURITY SYSTEMS</b>			
SS1A	LIGHTING	EXTERIOR	Fixtures, stanchions, foliage interference, cleanliness, locations, etc.
SS2A	SITE	FENCING	Perimeter campus fencing, individual building fencing, includes both pedestrian and vehicular control fences.

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

FACILITY CONDITION ANALYSIS

**SECTION 2**

**DETAILED PROJECT SUMMARIES  
AND TOTALS**

**Detailed Project Totals  
 Facility Condition Analysis  
 System Code by Priority Class  
 WHIC : WHICHARD BUILDING**

System Code	System Description	Priority Classes				Subtotal
		1	2	3	4	
AC	ACCESSIBILITY	0	0	0	291,678	291,678
EL	ELECTRICAL	0	0	455,631	38,413	494,044
ES	EXTERIOR	0	46,469	14,604	88,666	149,739
FS	FIRE/LIFE SAFETY	5,248	234,582	3,545	0	243,374
HV	HVAC	0	0	739,573	0	739,573
IS	INTERIOR/FINISH SYS.	0	0	221,084	111,750	332,833
PL	PLUMBING	0	0	128,159	0	128,159
SI	SITE	0	0	3,978	0	3,978
	<b>TOTALS</b>	5,248	281,051	1,566,573	530,507	2,383,379

<b>Facility Replacement Cost</b>	<b>\$6,429,124</b>
<b>Facility Condition Needs Index</b>	<b>0.37</b>

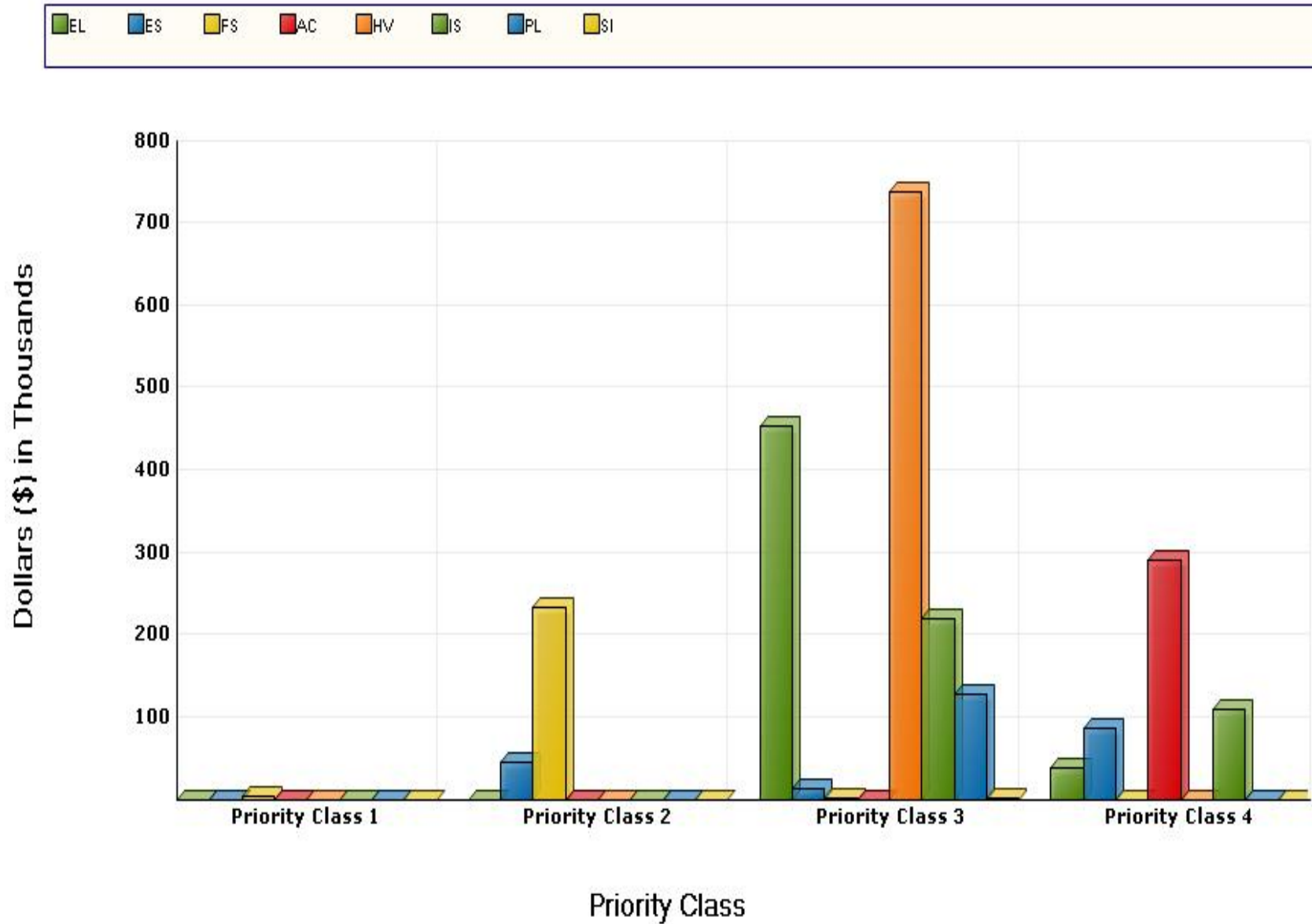
<b>Gross Square Feet</b>	<b>23,470</b>
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<b>Total Cost Per Square Foot</b>	<b>\$101.55</b>
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# FACILITY CONDITION ANALYSIS

## System Code by Priority Class

WHIC : WHICHARD BUILDING



**Detailed Project Totals  
 Facility Condition Analysis  
 System Code by Project Class  
 WHIC : WHICHARD BUILDING**

System Code	System Description	Project Classes			Subtotal
		Capital Renewal	Deferred Maintenance	Plant Adaption	
AC	ACCESSIBILITY	0	0	291,678	291,678
EL	ELECTRICAL	172,583	321,462	0	494,044
ES	EXTERIOR	149,739	0	0	149,739
FS	FIRE/LIFE SAFETY	0	3,545	239,829	243,374
HV	HVAC	0	739,573	0	739,573
IS	INTERIOR/FINISH SYS.	332,833	0	0	332,833
PL	PLUMBING	2,021	126,138	0	128,159
SI	SITE	3,978	0	0	3,978
	<b>TOTALS</b>	661,154	1,190,717	531,508	2,383,379

<b>Facility Replacement Cost</b>	<b>\$6,429,124</b>
<b>Facility Condition Needs Index</b>	<b>0.37</b>

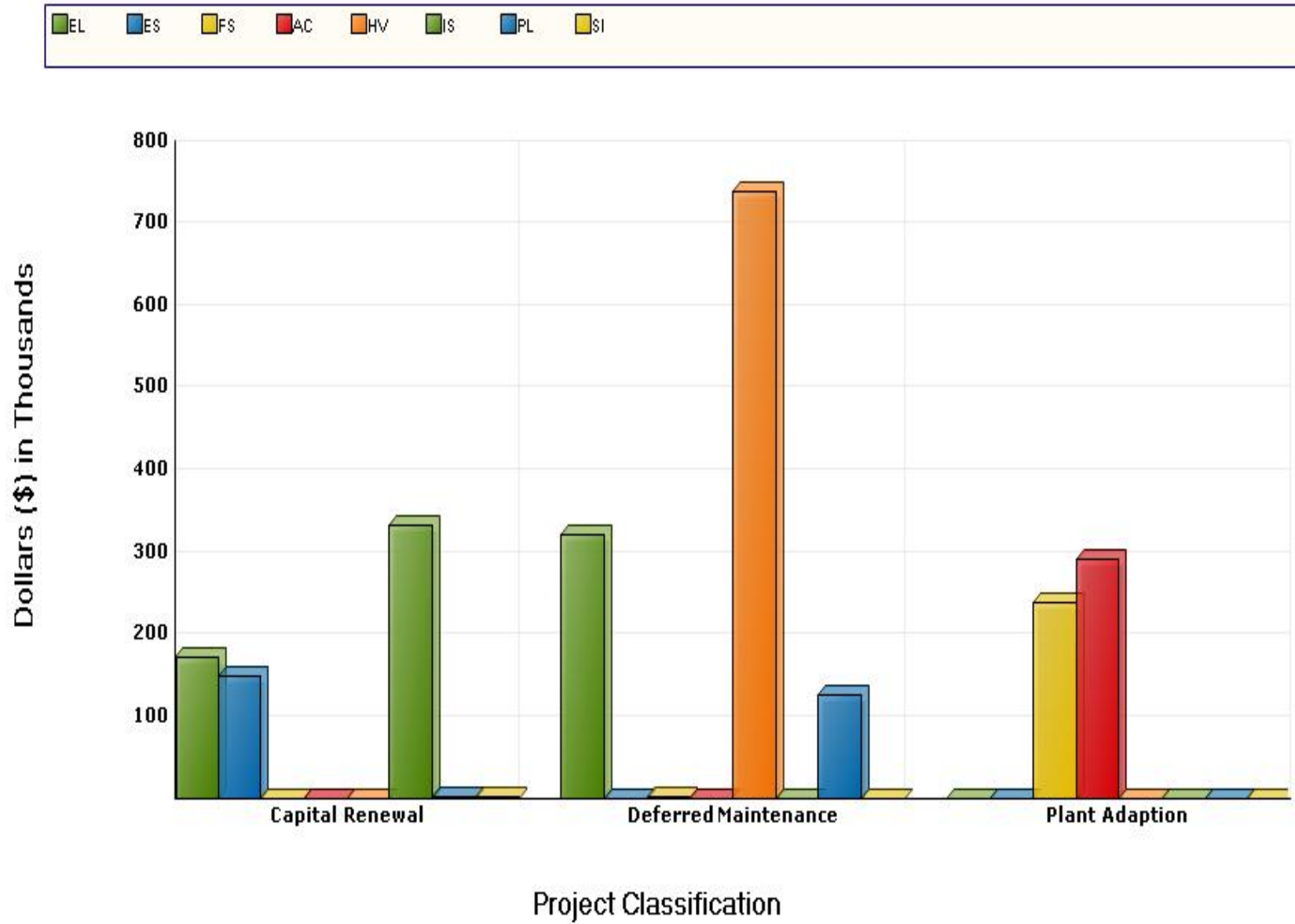
<b>Gross Square Feet</b>	<b>23,470</b>
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<b>Total Cost Per Square Foot</b>	<b>\$101.55</b>
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# FACILITY CONDITION ANALYSIS

## System Code by Project Class

WHIC : WHICHARD BUILDING



**Detailed Project Summary**  
**Facility Condition Analysis**  
**Project Class by Priority Class**  
**WHIC : WHICHARD BUILDING**

Project Class	Priority Classes				Subtotal
	1	2	3	4	
Capital Renewal	0	46,469	375,856	238,829	661,154
Deferred Maintenance	0	0	1,190,717	0	1,190,717
Plant Adaption	5,248	234,582	0	291,678	531,508
<b>TOTALS</b>	5,248	281,051	1,566,573	530,507	2,383,379

Facility Replacement Cost	\$6,429,124
Facility Condition Needs Index	0.37

Gross Square Feet	23,470
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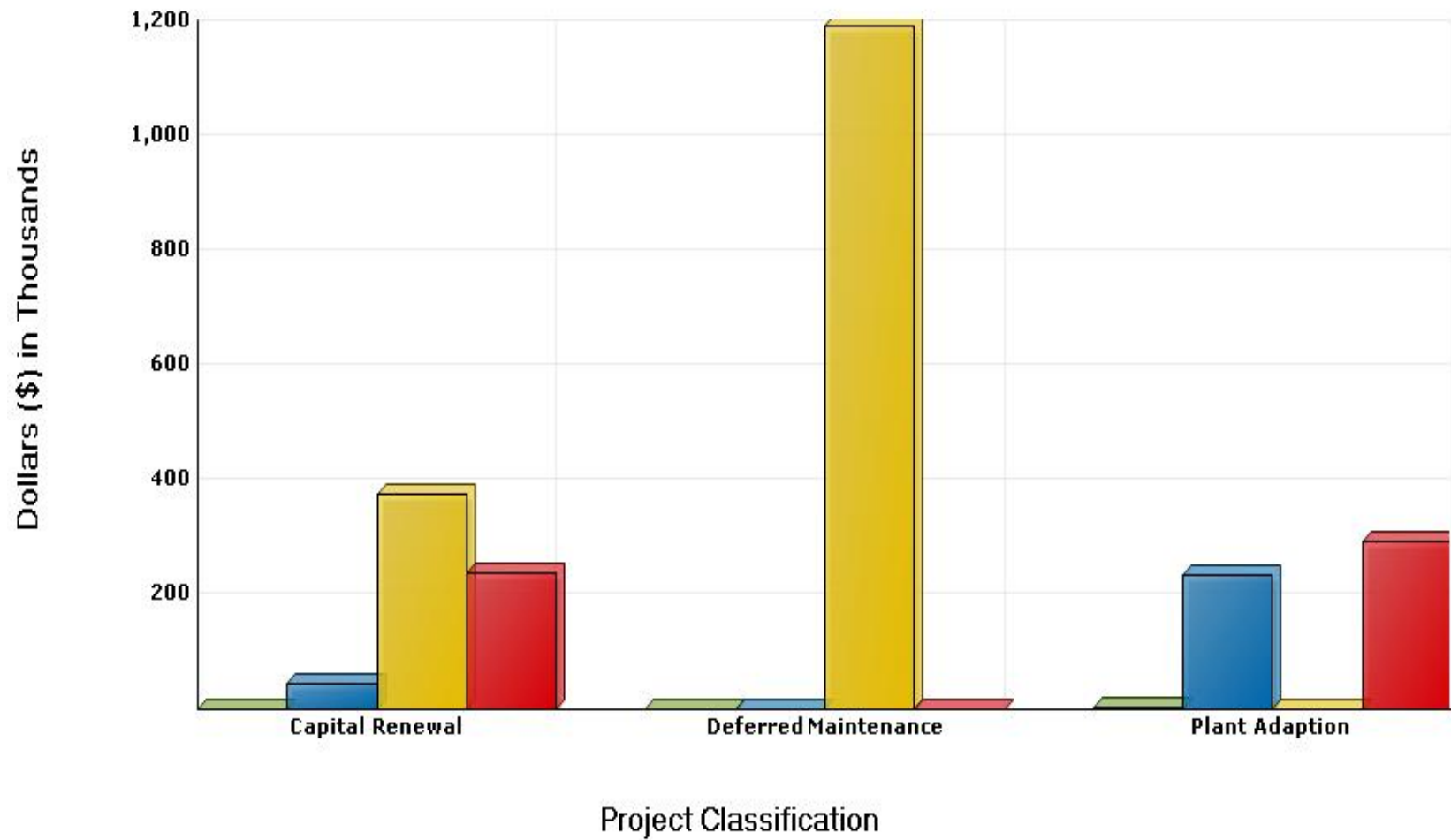
Total Cost Per Square Foot	\$101.55
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# FACILITY CONDITION ANALYSIS

## Project Class by Priority Class

### WHIC : WHICHARD BUILDING



Detailed Project Summary  
Facility Condition Analysis  
**Priority Class - Priority Sequence**  
WHIC : WHICHARD BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5E	WHICFS04	1	1	STAIR GUARDRAIL UPGRADES	4,524	724	5,248
<b>Totals for Priority Class 1</b>					<b>4,524</b>	<b>724</b>	<b>5,248</b>
FS2A	WHICFS01	2	2	FIRE ALARM SYSTEM REPLACEMENT	55,965	8,954	64,919
FS3A	WHICFS02	2	3	FIRE SPRINKLER SYSTEM INSTALLATION	146,261	23,402	169,663
ES6E	WHICES03	2	4	REPLACE BREEZEWAY STAIR	40,060	6,410	46,469
<b>Totals for Priority Class 2</b>					<b>242,285</b>	<b>38,766</b>	<b>281,051</b>
FS1A	WHICFS03	3	5	REPLACE EXIT SIGNS	3,056	489	3,545
ES6C	WHICES01	3	6	EXTERIOR FINISH UPGRADES	12,589	2,014	14,604
HV3A	WHICHV01	3	7	HVAC SYSTEM REPLACEMENT	528,775	84,604	613,379
HV2A	WHICHV02	3	8	REPLACE AIR-COOLED CHILLER	108,788	17,406	126,194
EL3B	WHICEL03	3	9	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	251,805	40,289	292,094
EL4A	WHICEL04	3	10	EXTERIOR LIGHTING UPGRADE	25,317	4,051	29,368
EL4B	WHICEL02	3	11	INTERIOR LIGHTING UPGRADE	115,663	18,506	134,169
IS2B	WHICIS01	3	12	INTERIOR WALL FINISH RENEWAL	36,131	5,781	41,912
IS1A	WHICIS02	3	13	CARPETING UPGRADES	154,459	24,713	179,172
PL1A	WHICPL02	3	14	WATER SUPPLY PIPING REPLACEMENT	43,150	6,904	50,054
PL2A	WHICPL03	3	15	DRAIN PIPING REPLACEMENT	65,589	10,494	76,083
PL1E	WHICPL01	3	16	DOMESTIC WATER HEATER REPLACEMENT	1,742	279	2,021
SI2A	WHICSI01	3	17	LANDSCAPING UPGRADE	3,430	549	3,978
<b>Totals for Priority Class 3</b>					<b>1,350,494</b>	<b>216,079</b>	<b>1,566,573</b>
AC3C	WHICAC01	4	18	INSTALL LEVER-ACTION DOOR HARDWARE	45,757	7,321	53,078
AC3B	WHICAC02	4	19	STAIR HANDRAIL UPGRADES	10,249	1,640	11,889
AC3A	WHICAC03	4	20	ELEVATOR INSTALLATION	124,172	19,867	144,039
AC3A	WHICAC04	4	21	INSTALL INTERIOR STAIR CLIMBERS	17,943	2,871	20,814
AC3E	WHICAC05	4	22	UPPER FLOOR RESTROOM RENOVATIONS	31,792	5,087	36,879
AC3F	WHICAC06	4	23	DUAL-LEVEL DRINKING FOUNTAIN INSTALLATION	3,506	561	4,067
AC3D	WHICAC07	4	24	SIGNAGE PACKAGE UPGRADE	9,056	1,449	10,505
AC2A	WHICAC08	4	25	EXTERIOR WHEELCHAIR STAIR CLIMBER INSTALLATION	8,972	1,435	10,407
ES4B	WHICES02	4	26	MEMBRANE ROOF REPLACEMENT	76,436	12,230	88,666

**Detailed Project Summary**  
**Facility Condition Analysis**  
**Priority Class - Priority Sequence**  
 WHIC : WHICHARD BUILDING

<b>Cat. Code</b>	<b>Project Number</b>	<b>Pri Cls</b>	<b>Pri Seq</b>	<b>Project Title</b>	<b>Construction Cost</b>	<b>Professional Fee</b>	<b>Total Cost</b>
EL2A	WHICEL01	4	27	REPLACE 277/480 VOLT SWITCHGEAR	33,115	5,298	38,413
IS3B	WHICIS03	4	28	REFINISH CEILINGS	53,946	8,631	62,578
IS6D	WHICIS04	4	29	ENTRY RESTROOM FINISH UPGRADES	42,389	6,782	49,172
<b>Totals for Priority Class 4</b>					<b>457,334</b>	<b>73,173</b>	<b>530,507</b>
<b>Grand Total:</b>					<b>2,054,637</b>	<b>328,742</b>	<b>2,383,379</b>

**Detailed Project Summary**  
**Facility Condition Analysis**  
**Project Cost Range**  
WHIC : WHICHARD BUILDING

<b>Cat. Code</b>	<b>Project Number</b>	<b>Pri Cls</b>	<b>Pri Seq</b>	<b>Project Title</b>	<b>Construction Cost</b>	<b>Professional Fee</b>	<b>Total Cost</b>
FS5E	WHICFS04	1	1	STAIR GUARDRAIL UPGRADES	4,524	724	5,248
<b>Totals for Priority Class 1</b>					<b>4,524</b>	<b>724</b>	<b>5,248</b>
FS2A	WHICFS01	2	2	FIRE ALARM SYSTEM REPLACEMENT	55,965	8,954	64,919
ES6E	WHICES03	2	4	REPLACE BREEZEWAY STAIR	40,060	6,410	46,469
<b>Totals for Priority Class 2</b>					<b>96,024</b>	<b>15,364</b>	<b>111,388</b>
FS1A	WHICFS03	3	5	REPLACE EXIT SIGNS	3,056	489	3,545
EL4A	WHICEL04	3	10	EXTERIOR LIGHTING UPGRADE	25,317	4,051	29,368
PL1E	WHICPL01	3	16	DOMESTIC WATER HEATER REPLACEMENT	1,742	279	2,021
PL1A	WHICPL02	3	14	WATER SUPPLY PIPING REPLACEMENT	43,150	6,904	50,054
PL2A	WHICPL03	3	15	DRAIN PIPING REPLACEMENT	65,589	10,494	76,083
IS2B	WHICIS01	3	12	INTERIOR WALL FINISH RENEWAL	36,131	5,781	41,912
ES6C	WHICES01	3	6	EXTERIOR FINISH UPGRADES	12,589	2,014	14,604
SI2A	WHICSI01	3	17	LANDSCAPING UPGRADE	3,430	549	3,978
<b>Totals for Priority Class 3</b>					<b>191,005</b>	<b>30,561</b>	<b>221,565</b>
EL2A	WHICEL01	4	27	REPLACE 277/480 VOLT SWITCHGEAR	33,115	5,298	38,413
AC3C	WHICAC01	4	18	INSTALL LEVER-ACTION DOOR HARDWARE	45,757	7,321	53,078
AC3B	WHICAC02	4	19	STAIR HANDRAIL UPGRADES	10,249	1,640	11,889
AC3A	WHICAC04	4	21	INSTALL INTERIOR STAIR CLIMBERS	17,943	2,871	20,814
AC3E	WHICAC05	4	22	UPPER FLOOR RESTROOM RENOVATIONS	31,792	5,087	36,879
AC3F	WHICAC06	4	23	DUAL-LEVEL DRINKING FOUNTAIN INSTALLATION	3,506	561	4,067
AC3D	WHICAC07	4	24	SIGNAGE PACKAGE UPGRADE	9,056	1,449	10,505
IS3B	WHICIS03	4	28	REFINISH CEILINGS	53,946	8,631	62,578
ES4B	WHICES02	4	26	MEMBRANE ROOF REPLACEMENT	76,436	12,230	88,666
IS6D	WHICIS04	4	29	ENTRY RESTROOM FINISH UPGRADES	42,389	6,782	49,172
AC2A	WHICAC08	4	25	EXTERIOR WHEELCHAIR STAIR CLIMBER INSTALLATION	8,972	1,435	10,407
<b>Totals for Priority Class 4</b>					<b>333,162</b>	<b>53,306</b>	<b>386,468</b>
<b>Grand Totals for Projects &lt; 100,000</b>					<b>624,715</b>	<b>99,954</b>	<b>724,670</b>

**Detailed Project Summary**  
**Facility Condition Analysis**  
**Project Cost Range**  
 WHIC : WHICHARD BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS3A	WHICFS02	2	3	FIRE SPRINKLER SYSTEM INSTALLATION	146,261	23,402	169,663
<b>Totals for Priority Class 2</b>					<b>146,261</b>	<b>23,402</b>	<b>169,663</b>
HV2A	WHICHV02	3	8	REPLACE AIR-COOLED CHILLER	108,788	17,406	126,194
EL4B	WHICEL02	3	11	INTERIOR LIGHTING UPGRADE	115,663	18,506	134,169
EL3B	WHICEL03	3	9	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	251,805	40,289	292,094
IS1A	WHICIS02	3	13	CARPETING UPGRADES	154,459	24,713	179,172
<b>Totals for Priority Class 3</b>					<b>630,715</b>	<b>100,914</b>	<b>731,629</b>
AC3A	WHICAC03	4	20	ELEVATOR INSTALLATION	124,172	19,867	144,039
<b>Totals for Priority Class 4</b>					<b>124,172</b>	<b>19,867</b>	<b>144,039</b>
<b>Grand Totals for Projects &gt;= 100,000 and &lt; 500,000</b>					<b>901,147</b>	<b>144,184</b>	<b>1,045,331</b>

**Detailed Project Summary**  
**Facility Condition Analysis**  
**Project Cost Range**  
 WHIC : WHICHARD BUILDING

<b>Cat. Code</b>	<b>Project Number</b>	<b>Pri Cls</b>	<b>Pri Seq</b>	<b>Project Title</b>	<b>Construction Cost</b>	<b>Professional Fee</b>	<b>Total Cost</b>
HV3A	WHICHV01	3	7	HVAC SYSTEM REPLACEMENT	528,775	84,604	613,379
				<b>Totals for Priority Class 3</b>	<b>528,775</b>	<b>84,604</b>	<b>613,379</b>
				<b>Grand Totals for Projects &gt;= 500,000</b>	<b>528,775</b>	<b>84,604</b>	<b>613,379</b>
				<b>Grand Totals For All Projects:</b>	<b>2,054,637</b>	<b>328,742</b>	<b>2,383,379</b>

**Detailed Project Summary**  
**Facility Condition Analysis**  
**Project Classification**  
WHIC : WHICHARD BUILDING

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
ES6E	WHICES03	4	Capital Renewal	2	REPLACE BREEZEWAY STAIR	46,469
ES6C	WHICES01	6	Capital Renewal	3	EXTERIOR FINISH UPGRADES	14,604
EL4B	WHICEL02	11	Capital Renewal	3	INTERIOR LIGHTING UPGRADE	134,169
IS2B	WHICIS01	12	Capital Renewal	3	INTERIOR WALL FINISH RENEWAL	41,912
IS1A	WHICIS02	13	Capital Renewal	3	CARPETING UPGRADES	179,172
PL1E	WHICPL01	16	Capital Renewal	3	DOMESTIC WATER HEATER REPLACEMENT	2,021
SI2A	WHICSI01	17	Capital Renewal	3	LANDSCAPING UPGRADE	3,978
ES4B	WHICES02	26	Capital Renewal	4	MEMBRANE ROOF REPLACEMENT	88,666
EL2A	WHICEL01	27	Capital Renewal	4	REPLACE 277/480 VOLT SWITCHGEAR	38,413
IS3B	WHICIS03	28	Capital Renewal	4	REFINISH CEILINGS	62,578
IS6D	WHICIS04	29	Capital Renewal	4	ENTRY RESTROOM FINISH UPGRADES	49,172
<b>Totals for Capital Renewal</b>						<b>661,154</b>
FS1A	WHICFS03	5	Deferred Maintenance	3	REPLACE EXIT SIGNS	3,545
HV3A	WHICHV01	7	Deferred Maintenance	3	HVAC SYSTEM REPLACEMENT	613,379
HV2A	WHICHV02	8	Deferred Maintenance	3	REPLACE AIR-COOLED CHILLER	126,194
EL3B	WHICEL03	9	Deferred Maintenance	3	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	292,094
EL4A	WHICEL04	10	Deferred Maintenance	3	EXTERIOR LIGHTING UPGRADE	29,368
PL1A	WHICPL02	14	Deferred Maintenance	3	WATER SUPPLY PIPING REPLACEMENT	50,054
PL2A	WHICPL03	15	Deferred Maintenance	3	DRAIN PIPING REPLACEMENT	76,083
<b>Totals for Deferred Maintenance</b>						<b>1,190,717</b>
FS5E	WHICFS04	1	Plant Adaption	1	STAIR GUARDRAIL UPGRADES	5,248
FS2A	WHICFS01	2	Plant Adaption	2	FIRE ALARM SYSTEM REPLACEMENT	64,919
FS3A	WHICFS02	3	Plant Adaption	2	FIRE SPRINKLER SYSTEM INSTALLATION	169,663
AC3C	WHICAC01	18	Plant Adaption	4	INSTALL LEVER-ACTION DOOR HARDWARE	53,078
AC3B	WHICAC02	19	Plant Adaption	4	STAIR HANDRAIL UPGRADES	11,889
AC3A	WHICAC03	20	Plant Adaption	4	ELEVATOR INSTALLATION	144,039
AC3A	WHICAC04	21	Plant Adaption	4	INSTALL INTERIOR STAIR CLIMBERS	20,814
AC3E	WHICAC05	22	Plant Adaption	4	UPPER FLOOR RESTROOM RENOVATIONS	36,879
AC3F	WHICAC06	23	Plant Adaption	4	DUAL-LEVEL DRINKING FOUNTAIN INSTALLATION	4,067

**Detailed Project Summary**  
**Facility Condition Analysis**  
**Project Classification**  
 WHIC : WHICHARD BUILDING

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
AC3D	WHICAC07	24	Plant Adaption	4	SIGNAGE PACKAGE UPGRADE	10,505
AC2A	WHICAC08	25	Plant Adaption	4	EXTERIOR WHEELCHAIR STAIR CLIMBER INSTALLATION	10,407
<b>Totals for Plant Adaption</b>						<b>531,508</b>
<b>Grand Total:</b>						<b>2,383,379</b>



**Detailed Project Summary**  
**Facility Condition Analysis**  
**Energy Conservation**  
 WHIC : WHICHARD BUILDING

<b>Cat Code</b>	<b>Project Number</b>	<b>Pri Cls</b>	<b>Pri Seq</b>	<b>Project Title</b>	<b>Total Cost</b>	<b>Annual Savings</b>	<b>Simple Payback</b>
FS1A	WHICFS03	3	5	REPLACE EXIT SIGNS	3,545	100	35.45
HV3A	WHICHV01	3	7	HVAC SYSTEM REPLACEMENT	613,379	13,290	46.15
EL4B	WHICEL02	3	11	INTERIOR LIGHTING UPGRADE	134,169	5,390	24.89
<b>Totals for Priority Class 3</b>					<b>751,093</b>	<b>18,780</b>	<b>39.99</b>
ES4B	WHICES02	4	26	MEMBRANE ROOF REPLACEMENT	88,666	1,100	80.61
<b>Totals for Priority Class 4</b>					<b>88,666</b>	<b>1,100</b>	<b>80.61</b>
<b>Grand Total:</b>					<b>839,759</b>	<b>19,880</b>	<b>42.24</b>

Detailed Project Summary  
Facility Condition Analysis  
Category/System Code  
WHIC : WHICHARD BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC3C	WHICAC01	4	18	INSTALL LEVER-ACTION DOOR HARDWARE	45,757	7,321	53,078
AC3B	WHICAC02	4	19	STAIR HANDRAIL UPGRADES	10,249	1,640	11,889
AC3A	WHICAC03	4	20	ELEVATOR INSTALLATION	124,172	19,867	144,039
AC3A	WHICAC04	4	21	INSTALL INTERIOR STAIR CLIMBERS	17,943	2,871	20,814
AC3E	WHICAC05	4	22	UPPER FLOOR RESTROOM RENOVATIONS	31,792	5,087	36,879
AC3F	WHICAC06	4	23	DUAL-LEVEL DRINKING FOUNTAIN INSTALLATION	3,506	561	4,067
AC3D	WHICAC07	4	24	SIGNAGE PACKAGE UPGRADE	9,056	1,449	10,505
AC2A	WHICAC08	4	25	EXTERIOR WHEELCHAIR STAIR CLIMBER INSTALLATION	8,972	1,435	10,407
<b>Totals for System Code: ACCESSIBILITY</b>					<b>251,447</b>	<b>40,231</b>	<b>291,678</b>
EL3B	WHICEL03	3	9	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	251,805	40,289	292,094
EL4A	WHICEL04	3	10	EXTERIOR LIGHTING UPGRADE	25,317	4,051	29,368
EL4B	WHICEL02	3	11	INTERIOR LIGHTING UPGRADE	115,663	18,506	134,169
EL2A	WHICEL01	4	27	REPLACE 277/480 VOLT SWITCHGEAR	33,115	5,298	38,413
<b>Totals for System Code: ELECTRICAL</b>					<b>425,900</b>	<b>68,144</b>	<b>494,044</b>
ES6E	WHICES03	2	4	REPLACE BREEZEWAY STAIR	40,060	6,410	46,469
ES6C	WHICES01	3	6	EXTERIOR FINISH UPGRADES	12,589	2,014	14,604
ES4B	WHICES02	4	26	MEMBRANE ROOF REPLACEMENT	76,436	12,230	88,666
<b>Totals for System Code: EXTERIOR</b>					<b>129,085</b>	<b>20,654</b>	<b>149,739</b>
FS5E	WHICFS04	1	1	STAIR GUARDRAIL UPGRADES	4,524	724	5,248
FS2A	WHICFS01	2	2	FIRE ALARM SYSTEM REPLACEMENT	55,965	8,954	64,919
FS3A	WHICFS02	2	3	FIRE SPRINKLER SYSTEM INSTALLATION	146,261	23,402	169,663
FS1A	WHICFS03	3	5	REPLACE EXIT SIGNS	3,056	489	3,545
<b>Totals for System Code: FIRE/LIFE SAFETY</b>					<b>209,805</b>	<b>33,569</b>	<b>243,374</b>
HV3A	WHICHV01	3	7	HVAC SYSTEM REPLACEMENT	528,775	84,604	613,379
HV2A	WHICHV02	3	8	REPLACE AIR-COOLED CHILLER	108,788	17,406	126,194
<b>Totals for System Code: HVAC</b>					<b>637,563</b>	<b>102,010</b>	<b>739,573</b>
IS2B	WHICIS01	3	12	INTERIOR WALL FINISH RENEWAL	36,131	5,781	41,912
IS1A	WHICIS02	3	13	CARPETING UPGRADES	154,459	24,713	179,172
IS3B	WHICIS03	4	28	REFINISH CEILINGS	53,946	8,631	62,578
IS6D	WHICIS04	4	29	ENTRY RESTROOM FINISH UPGRADES	42,389	6,782	49,172
<b>Totals for System Code: INTERIOR/FINISH SYS.</b>					<b>286,925</b>	<b>45,908</b>	<b>332,833</b>
PL1A	WHICPL02	3	14	WATER SUPPLY PIPING REPLACEMENT	43,150	6,904	50,054

**Detailed Project Summary**  
**Facility Condition Analysis**  
**Category/System Code**  
 WHIC : WHICHARD BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
PL2A	WHICPL03	3	15	DRAIN PIPING REPLACEMENT	65,589	10,494	76,083
PL1E	WHICPL01	3	16	DOMESTIC WATER HEATER REPLACEMENT	1,742	279	2,021
<b>Totals for System Code: PLUMBING</b>					<b>110,482</b>	<b>17,677</b>	<b>128,159</b>
SI2A	WHICSI01	3	17	LANDSCAPING UPGRADE	3,430	549	3,978
<b>Totals for System Code: SITE</b>					<b>3,430</b>	<b>549</b>	<b>3,978</b>
<b>Grand Total:</b>					<b>2,054,637</b>	<b>328,742</b>	<b>2,383,379</b>



FACILITY CONDITION ANALYSIS

**SECTION 3**

SPECIFIC PROJECT DETAILS  
ILLUSTRATING DESCRIPTION / COST

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICFS04	<b>Title:</b>	STAIR GUARDRAIL UPGRADES
<b>Priority Sequence:</b>	1		
<b>Priority Class:</b>	1		
<b>Category Code:</b>	FS5E	<b>System:</b>	FIRE/LIFE SAFETY
		<b>Component:</b>	EGRESS PATH
		<b>Element:</b>	STAIRS AND RAILING
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	IBC	1003.3	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/28/2009		
<b>Project Location:</b>	Item Only: Floor(s) 1, 2		

**Project Description**

Code requires that there be a guardrail where there is a change in floor level in excess of 36 inches, and that these guardrails be a minimum of 42 inches high. The guardrails must also prevent the passage of a specific diameter sphere. The metal guardrails at the top of the fire exit stairs have sufficient infill but are too low, and the open design of the Annex exit stair and the breezeway stair create a guardrail condition down the length of both. A painted metal rail should be added above and parallel to all of these existing guardrails.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICFS04

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Metal rail, galvanized expanded metal grillage, equipment rental, supplies, and paint (2 coats)	LOT	1	\$2,000	\$2,000	\$3,200	\$3,200	\$5,200
<b>Project Totals:</b>				<b>\$2,000</b>		<b>\$3,200</b>	<b>\$5,200</b>

<b>Material/Labor Cost</b>		<b>\$5,200</b>
<b>Material Index</b>		<b>100.7%</b>
<b>Labor Index</b>		<b>51.3%</b>
<b>Material/Labor Indexed Cost</b>		<b>\$3,656</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$731</b>
<b>Inflation</b>	+	<b>\$137</b>
<b>Construction Cost</b>		<b>\$4,524</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$724</b>
<b>Total Project Cost</b>		<b>\$5,248</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICFS01	<b>Title:</b>	FIRE ALARM SYSTEM REPLACEMENT
<b>Priority Sequence:</b>	2		
<b>Priority Class:</b>	2		
<b>Category Code:</b>	FS2A	<b>System:</b>	FIRE/LIFE SAFETY
		<b>Component:</b>	DETECTION ALARM
		<b>Element:</b>	GENERAL
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ADAAG	702.1	
	NFPA	1, 101	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	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 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**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICFS01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Fire alarm control panel(s), annunciator, smoke and heat detectors, manual pull stations, audible and visual alarms, wiring, raceways, and cut and patching materials	SF	23,470	\$1.46	\$34,266	\$0.89	\$20,888	\$55,155
<b>Project Totals:</b>				<b>\$34,266</b>		<b>\$20,888</b>	<b>\$55,155</b>

<b>Material/Labor Cost</b>		\$55,155
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<u>\$45,222</u>
<b>General Contractor Mark Up at 20.0%</b>	+	<u>\$9,044</u>
<b>Inflation</b>	+	<u>\$1,699</u>
<b>Construction Cost</b>		<u>\$55,965</u>
<b>Professional Fees at 16.0%</b>	+	<u>\$8,954</u>
<b>Total Project Cost</b>		<u><b>\$64,919</b></u>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICFS02	<b>Title:</b>	FIRE SPRINKLER SYSTEM INSTALLATION
<b>Priority Sequence:</b>	3		
<b>Priority Class:</b>	2		
<b>Category Code:</b>	FS3A	<b>System:</b>	FIRE/LIFE SAFETY
		<b>Component:</b>	SUPPRESSION
		<b>Element:</b>	SPRINKLERS
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	NFPA	1, 13, 13R, 101	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 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**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICFS02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Install a wet-pipe sprinkler system, including valves, piping, sprinkler heads, piping supports, etc.	SF	23,470	\$3.08	\$72,288	\$3.77	\$88,482	\$160,770
<b>Project Totals:</b>				<b>\$72,288</b>		<b>\$88,482</b>	<b>\$160,770</b>

<b>Material/Labor Cost</b>		<b>\$160,811</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$118,185</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$23,637</b>
<b>Inflation</b>	+	<b>\$4,439</b>
<b>Construction Cost</b>		<b>\$146,261</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$23,402</b>
<b>Total Project Cost</b>		<b>\$169,663</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICES03	<b>Title:</b>	REPLACE BREEZEWAY STAIR
<b>Priority Sequence:</b>	4		
<b>Priority Class:</b>	2		
<b>Category Code:</b>	ES6E	<b>System:</b>	EXTERIOR
		<b>Component:</b>	GENERAL
		<b>Element:</b>	OTHER
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	Not Applicable		
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	8/27/2010		
<b>Project Location:</b>	Undefined: Floor(s) 1, 2		

**Project Description**

The University requested a project to replace the existing metal stair in the breezeway. An allowance should be set aside to replace this stairway.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICES03

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Metal stair allowance, and demolition and disposal fee	LOT	1	\$25,000	\$25,000	\$16,000	\$16,000	\$41,000
<b>Project Totals:</b>				<b>\$25,000</b>		<b>\$16,000</b>	<b>\$41,000</b>

<b>Material/Labor Cost</b>		<b>\$41,000</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<u>\$33,383</u>
<b>General Contractor Mark Up at 20.0%</b>	+	<u>\$6,677</u>
<b>Construction Cost</b>		<u>\$40,060</u>
<b>Professional Fees at 16.0%</b>	+	<u>\$6,410</u>
<b>Total Project Cost</b>		<u><b>\$46,469</b></u>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICFS03	<b>Title:</b>	REPLACE EXIT SIGNS
<b>Priority Sequence:</b>	5		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	FS1A	<b>System:</b>	FIRE/LIFE SAFETY
		<b>Component:</b>	LIGHTING
		<b>Element:</b>	EGRESS LTG./EXIT SIGNAGE
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Energy Conservation	\$100	
<b>Code Application:</b>	NFPA	101-47	
	IBC	1011	
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	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. Remove the existing unitary emergency lights and incorporate this functionality into the standard lighting systems. This can be accomplished in conjunction with the proposed interior lighting upgrade.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICFS03

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Replacement of existing exit signs with new battery pack LED exit signs	EA	12	\$132	\$1,584	\$142	\$1,704	\$3,288
<b>Project Totals:</b>				<b>\$1,584</b>		<b>\$1,704</b>	<b>\$3,288</b>

<b>Material/Labor Cost</b>		<b>\$3,288</b>
<b>Material Index</b>		<b>100.7%</b>
<b>Labor Index</b>		<b>51.3%</b>
<b>Material/Labor Indexed Cost</b>		<b>\$2,469</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$494</b>
<b>Inflation</b>	+	<b>\$93</b>
<b>Construction Cost</b>		<b>\$3,056</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$489</b>
<b>Total Project Cost</b>		<b>\$3,545</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICES01	<b>Title:</b>	EXTERIOR FINISH UPGRADES
<b>Priority Sequence:</b>	6		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	ES6C	<b>System:</b>	EXTERIOR
		<b>Component:</b>	GENERAL
		<b>Element:</b>	TRIM
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	Not Applicable		
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/28/2009		
<b>Project Location:</b>	Building-wide: Floor(s) 1		

**Project Description**

The brick exterior is in overall good condition, but the painted wood trim and door finishes will need to be renewed again within the next five years.



**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICES01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Cleaning and surface preparation	SF	5,130	\$0.11	\$564	\$0.22	\$1,129	\$1,693
Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope)	LF	513	\$2.45	\$1,257	\$4.99	\$2,560	\$3,817
Applied finish or sealant	SF	5,130	\$0.22	\$1,129	\$0.82	\$4,207	\$5,335
Paint (2 coats), supplies, tools	LOT	1	\$1,500	\$1,500	\$3,200	\$3,200	\$4,700
<b>Project Totals:</b>				<b>\$4,450</b>		<b>\$11,095</b>	<b>\$15,545</b>

<b>Material/Labor Cost</b>		<b>\$15,545</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$10,173</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$2,035</b>
<b>Inflation</b>	+	<b>\$382</b>
<b>Construction Cost</b>		<b>\$12,589</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$2,014</b>
<b>Total Project Cost</b>		<b>\$14,604</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICHV01	<b>Title:</b>	HVAC SYSTEM REPLACEMENT
<b>Priority Sequence:</b>	7		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	HV3A	<b>System:</b>	HVAC
		<b>Component:</b>	HEATING/COOLING
		<b>Element:</b>	SYSTEM RETROFIT/REPLACE
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Energy Conservation	\$13,290	
<b>Code Application:</b>	ASHRAE	62-2004	
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	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 (VAV) and constant volume air distribution as needed. This includes new air handlers, exhaust fans, ductwork, terminal units, heat exchangers, pumps, piping, controls, and related electrical components. Specify direct digital controls (DDCs) for the new equipment. Incorporate variable frequency drives (VFDs) into the new HVAC design as applicable.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICHV01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Air handlers, exhaust fans, ductwork, VAVs, VFDs, DDCs, heat exchangers, pumps, piping, electrical connections, and demolition of existing equipment	SF	23,470	\$11.14	\$261,456	\$13.62	\$319,661	\$581,117
<b>Project Totals:</b>				<b>\$261,456</b>		<b>\$319,661</b>	<b>\$581,117</b>

<b>Material/Labor Cost</b>		<b>\$581,117</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$427,272</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$85,454</b>
<b>Inflation</b>	+	<b>\$16,048</b>
<b>Construction Cost</b>		<b>\$528,775</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$84,604</b>
<b>Total Project Cost</b>		<b>\$613,379</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICHV02	<b>Title:</b>	REPLACE AIR-COOLED CHILLER
<b>Priority Sequence:</b>	8		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	HV2A	<b>System:</b>	HVAC
		<b>Component:</b>	COOLING
		<b>Element:</b>	CHILLERS/CONTROLS
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ASHRAE	15-2004	
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Item Only: Floor(s) 1		

**Project Description**

The existing air-cooled chiller is recommended for replacement. Remove the existing chiller. Install a new chiller, along with electrical connections and related controls and programming. Specify an energy-efficient replacement system that utilizes a non-CFC refrigerant.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICHV02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Air-cooled chiller replacement and removal of existing unit	TON	95	\$797	\$75,756	\$238	\$22,649	\$98,405
<b>Project Totals:</b>				<b>\$75,756</b>		<b>\$22,649</b>	<b>\$98,405</b>

<b>Material/Labor Cost</b>		<b>\$98,405</b>
<b>Material Index</b>		<b>100.7%</b>
<b>Labor Index</b>		<b>51.3%</b>
<b>Material/Labor Indexed Cost</b>		<b>\$87,905</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$17,581</b>
<b>Inflation</b>	+	<b>\$3,302</b>
<b>Construction Cost</b>		<b>\$108,788</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$17,406</b>
<b>Total Project Cost</b>		<b>\$126,194</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICEL03	<b>Title:</b>	UPGRADE ELECTRICAL DISTRIBUTION NETWORK
<b>Priority Sequence:</b>	9		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	EL3B	<b>System:</b>	ELECTRICAL
		<b>Component:</b>	SECONDARY DISTRIBUTION
		<b>Element:</b>	DISTRIBUTION NETWORK
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	NEC	Articles 110, 210, 220, 230	
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2		

**Project Description**

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

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICEL03

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Power panels, conductors, raceways, devices, demolition, and cut and patching materials	SF	23,470	\$4.88	\$114,534	\$7.32	\$171,800	\$286,334
<b>Project Totals:</b>				<b>\$114,534</b>		<b>\$171,800</b>	<b>\$286,334</b>

<b>Material/Labor Cost</b>		<b>\$286,334</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$203,469</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$40,694</b>
<b>Inflation</b>	+	<b>\$7,642</b>
<b>Construction Cost</b>		<b>\$251,805</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$40,289</b>
<b>Total Project Cost</b>		<b>\$292,094</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICEL04	<b>Title:</b>	EXTERIOR LIGHTING UPGRADE
<b>Priority Sequence:</b>	10		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	EL4A	<b>System:</b>	ELECTRICAL
		<b>Component:</b>	DEVICES AND FIXTURES
		<b>Element:</b>	EXTERIOR LIGHTING
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	NEC	410	
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	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.



**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICEL04

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Compact fluorescent, recessed exterior light and demolition of existing light	EA	10	\$143	\$1,430	\$100	\$1,000	\$2,430
Compact fluorescent, wall-mount exterior light and demolition of existing light	EA	4	\$131	\$524	\$137	\$548	\$1,072
Replace lighting stanchion, including fixture, 12 foot	EA	9	\$1,331	\$11,979	\$1,220	\$10,980	\$22,959
<b>Project Totals:</b>				<b>\$13,933</b>		<b>\$12,528</b>	<b>\$26,461</b>

<b>Material/Labor Cost</b>		<b>\$26,461</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$20,457</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$4,091</b>
<b>Inflation</b>	+	<b>\$768</b>
<b>Construction Cost</b>		<b>\$25,317</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$4,051</b>
<b>Total Project Cost</b>		<b>\$29,368</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICEL02	<b>Title:</b>	INTERIOR LIGHTING UPGRADE
<b>Priority Sequence:</b>	11		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	EL4B	<b>System:</b>	ELECTRICAL
		<b>Component:</b>	DEVICES AND FIXTURES
		<b>Element:</b>	INTERIOR LIGHTING
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Energy Conservation	\$5,390	
<b>Code Application:</b>	NEC	Articles 210, 410	
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	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**  
 WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICEL02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
High efficiency fluorescent fixtures, occupancy sensors, and demolition of existing lighting	SF	17,603	\$3.25	\$57,210	\$3.97	\$69,884	\$127,094
<b>Project Totals:</b>				<b>\$57,210</b>		<b>\$69,884</b>	<b>\$127,094</b>

<b>Material/Labor Cost</b>		<b>\$127,164</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$93,461</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$18,692</b>
<b>Inflation</b>	+	<b>\$3,510</b>
<b>Construction Cost</b>		<b>\$115,663</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$18,506</b>
<b>Total Project Cost</b>		<b>\$134,169</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICIS01	<b>Title:</b>	INTERIOR WALL FINISH RENEWAL
<b>Priority Sequence:</b>	12		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	IS2B	<b>System:</b>	INTERIOR/FINISH SYS.
		<b>Component:</b>	PARTITIONS
		<b>Element:</b>	FINISHES
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	Not Applicable		
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/28/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1,2		

**Project Description**

Interior wall finish applications consist primarily of paint, in overall fair condition. Wall finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICIS01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Standard wall finish (paint, wall covering, etc.)	SF	49,760	\$0.17	\$8,459	\$0.81	\$40,306	\$48,765
<b>Project Totals:</b>				<b>\$8,459</b>		<b>\$40,306</b>	<b>\$48,765</b>

<b>Material/Labor Cost</b>		<b>\$48,706</b>
<b>Material Index</b>		<b>100.7%</b>
<b>Labor Index</b>		<b>51.3%</b>
<b>Material/Labor Indexed Cost</b>		<b>\$29,195</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$5,839</b>
<b>Inflation</b>	+	<b>\$1,097</b>
<b>Construction Cost</b>		<b>\$36,131</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$5,781</b>
<b>Total Project Cost</b>		<b>\$41,912</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICIS02	<b>Title:</b>	CARPETING UPGRADES
<b>Priority Sequence:</b>	13		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	IS1A	<b>System:</b>	INTERIOR/FINISH SYS.
		<b>Component:</b>	FLOOR
		<b>Element:</b>	FINISHES-DRY

<b>Building Code:</b>	WHIC
<b>Building Name:</b>	WHICHARD BUILDING
<b>Subclass/Savings:</b>	Not Applicable

**Code Application:** Not Applicable

<b>Project Class:</b>	Capital Renewal
<b>Project Date:</b>	10/28/2009

<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2
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**Project Description**

The interior floor finish applications consist almost entirely of carpet, in overall good condition. Experience indicates that all of the carpeting will be at or near the end of its useful service life within the next five to seven years. It should be replaced, in kind, within the next five years.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICIS02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Carpet	SF	19,430	\$5.36	\$104,145	\$2.00	\$38,860	\$143,005
<b>Project Totals:</b>				<b>\$104,145</b>		<b>\$38,860</b>	<b>\$143,005</b>

<b>Material/Labor Cost</b>		<b>\$143,005</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$124,809</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$24,962</b>
<b>Inflation</b>	+	<b>\$4,688</b>
<b>Construction Cost</b>		<b>\$154,459</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$24,713</b>
<b>Total Project Cost</b>		<b>\$179,172</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICPL02	<b>Title:</b>	WATER SUPPLY PIPING REPLACEMENT
<b>Priority Sequence:</b>	14		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	PL1A	<b>System:</b>	PLUMBING
		<b>Component:</b>	DOMESTIC WATER
		<b>Element:</b>	PIPING NETWORK
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	IPC	Chapter 6	
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1,2		

**Project Description**

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



**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICPL02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Copper pipe and fittings, valves, backflow prevention devices, insulation, hangers, demolition, and cut and patching materials	SF	23,470	\$0.65	\$15,256	\$1.62	\$38,021	\$53,277
<b>Project Totals:</b>				<b>\$15,256</b>		<b>\$38,021</b>	<b>\$53,277</b>

<b>Material/Labor Cost</b>		<b>\$53,375</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$34,867</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$6,973</b>
<b>Inflation</b>	+	<b>\$1,310</b>
<b>Construction Cost</b>		<b>\$43,150</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$6,904</b>
<b>Total Project Cost</b>		<b>\$50,054</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICPL03	<b>Title:</b>	DRAIN PIPING REPLACEMENT
<b>Priority Sequence:</b>	15		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	PL2A	<b>System:</b>	PLUMBING
		<b>Component:</b>	WASTEWATER
		<b>Element:</b>	PIPING NETWORK
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	IPC	Chapters 7-11	
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1,2		

**Project Description**

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

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICPL03

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Cast-iron drain piping and fittings, copper pipe and fittings, floor / roof drains, traps, hangers, demolition, and cut and patching materials	SF	23,470	\$1.03	\$24,174	\$2.38	\$55,859	\$80,033
<b>Project Totals:</b>				<b>\$24,174</b>		<b>\$55,859</b>	<b>\$80,033</b>

<b>Material/Labor Cost</b>		<b>\$80,063</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$52,999</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$10,600</b>
<b>Inflation</b>	+	<b>\$1,991</b>
<b>Construction Cost</b>		<b>\$65,589</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$10,494</b>
<b>Total Project Cost</b>		<b>\$76,083</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICPL01	<b>Title:</b>	DOMESTIC WATER HEATER REPLACEMENT
<b>Priority Sequence:</b>	16		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	PL1E	<b>System:</b>	PLUMBING
		<b>Component:</b>	DOMESTIC WATER
		<b>Element:</b>	HEATING
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	IPC	Chapters 5, 607	
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Item Only: Floor(s) 1		

**Project Description**

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

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICPL01

**Task Cost Estimate**

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

<b>Material/Labor Cost</b>		<b>\$1,863</b>
<b>Material Index</b>		<b>100.7%</b>
<b>Labor Index</b>		<b>51.3%</b>
<b>Material/Labor Indexed Cost</b>		<b>\$1,408</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$282</b>
<b>Inflation</b>	+	<b>\$53</b>
<b>Construction Cost</b>		<b>\$1,742</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$279</b>
<b>Total Project Cost</b>		<b>\$2,021</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICSI01	<b>Title:</b>	LANDSCAPING UPGRADE
<b>Priority Sequence:</b>	17		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	SI2A	<b>System:</b>	SITE
		<b>Component:</b>	LANDSCAPE
		<b>Element:</b>	GRADE/FLORA
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	Not Applicable		
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/28/2009		
<b>Project Location:</b>	Undefined: Floor(s) 1		

**Project Description**

The landscaping on this large, flat site consists of turf, shrubs, specimen trees, and foundation planting; all in overall good condition. The overall condition of the site is such that a moderate landscaping project is warranted. There are tree branches overhanging the northeast corner of the Annex roof that should be pruned back away from the roof.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICSI01

**Task Cost Estimate**

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

<b>Material/Labor Cost</b>		<b>\$3,900</b>
<b>Material Index</b>		<b>100.7%</b>
<b>Labor Index</b>		<b>51.3%</b>
<b>Material/Labor Indexed Cost</b>		<b>\$2,771</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$554</b>
<b>Inflation</b>	+	<b>\$104</b>
<b>Construction Cost</b>		<b>\$3,430</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$549</b>
<b>Total Project Cost</b>		<b>\$3,978</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICAC01	<b>Title:</b>	INSTALL LEVER-ACTION DOOR HARDWARE
<b>Priority Sequence:</b>	18		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	AC3C	<b>System:</b>	ACCESSIBILITY
		<b>Component:</b>	INTERIOR PATH OF TRAVEL
		<b>Element:</b>	DOORS AND HARDWARE
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ADAAG	309.4	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/28/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2		

**Project Description**

Accessibility 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 have knob hardware.



**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

Project Number: WHICAC01

**Task Cost Estimate**

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Lever actuated door hardware	EA	119	\$273	\$32,487	\$69.77	\$8,303	\$40,790
<b>Project Totals:</b>				<b>\$32,487</b>		<b>\$8,303</b>	<b>\$40,790</b>

<b>Material/Labor Cost</b>		<b>\$40,790</b>
Material Index		100.7%
Labor Index		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$36,974</b>
General Contractor Mark Up at 20.0%	+	\$7,395
Inflation	+	\$1,389
<b>Construction Cost</b>		<b>\$45,757</b>
Professional Fees at 16.0%	+	\$7,321
<b>Total Project Cost</b>		<b>\$53,078</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICAC02	<b>Title:</b>	STAIR HANDRAIL UPGRADES
<b>Priority Sequence:</b>	19		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	AC3B	<b>System:</b>	ACCESSIBILITY
		<b>Component:</b>	INTERIOR PATH OF TRAVEL
		<b>Element:</b>	STAIRS AND RAILINGS
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	IBC	1003.3	
	ADAAG	505	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/28/2009		
<b>Project Location:</b>	Item Only: Floor(s) 1, 2		

**Project Description**

Legislation regarding building accessibility by the handicapped requires that stairs have graspable handrails on both sides, that the rails have a specific end geometry, and that the handrails continue horizontally at the landings. The end geometry of the existing interior stair handrails does not comply with the present legislation regarding handicapped accessibility within buildings. Painted metal handrail extensions need to be added to the ends of all of the interior handrails. The breezeway stair risers are open and present a trip hazard to anyone who has difficulty bending their leg while ascending a flight of stairs. Painted metal closure plates should be applied to the breezeway stair risers.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICAC02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Handrail extensions, equipment rental, paint (2 coats), supplies, and tools	LF	120	\$50.50	\$6,060	\$35.40	\$4,248	\$10,308
<b>Project Totals:</b>				<b>\$6,060</b>		<b>\$4,248</b>	<b>\$10,308</b>

<b>Material/Labor Cost</b>		\$10,308
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		\$8,282
<b>General Contractor Mark Up at 20.0%</b>	+	\$1,656
<b>Inflation</b>	+	\$311
<b>Construction Cost</b>		\$10,249
<b>Professional Fees at 16.0%</b>	+	\$1,640
<b>Total Project Cost</b>		<b>\$11,889</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICAC03	<b>Title:</b>	ELEVATOR INSTALLATION
<b>Priority Sequence:</b>	20		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	AC3A	<b>System:</b>	ACCESSIBILITY
		<b>Component:</b>	INTERIOR PATH OF TRAVEL
		<b>Element:</b>	LIFTS/RAMPS/ELEVATORS
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ASME	A17.1	
	ADAAG	407	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/28/2009		
<b>Project Location:</b>	Undefined: Floor(s) 1		

**Project Description**

The current accessibility legislation requires wheelchair access to all floors in a building over two stories in height. There is no wheelchair access to the upper floors of this building. To comply with the intent of the current accessibility legislation, the installation of an interior hydraulic elevator is proposed.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICAC03

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Elevator installation within the current building footprint (two stops)	SYS	1	\$72,266	\$72,266	\$53,731	\$53,731	\$125,997
<b>Project Totals:</b>				<b>\$72,266</b>		<b>\$53,731</b>	<b>\$125,997</b>

<b>Material/Labor Cost</b>		\$125,997
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<u>\$100,336</u>
<b>General Contractor Mark Up at 20.0%</b>	+	<u>\$20,067</u>
<b>Inflation</b>	+	<u>\$3,769</u>
<b>Construction Cost</b>		<u>\$124,172</u>
<b>Professional Fees at 16.0%</b>	+	<u>\$19,867</u>
<b>Total Project Cost</b>		<u><b>\$144,039</b></u>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICAC04	<b>Title:</b>	INSTALL INTERIOR STAIR CLIMBERS
<b>Priority Sequence:</b>	21		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	AC3A	<b>System:</b>	ACCESSIBILITY
		<b>Component:</b>	INTERIOR PATH OF TRAVEL
		<b>Element:</b>	LIFTS/RAMPS/ELEVATORS
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ADAAG	410	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/28/2009		
<b>Project Location:</b>	Item Only: Floor(s) 1		

**Project Description**

Present legislation pertaining to handicapped access within buildings requires that goods, and services offered in buildings be generally accessible to all persons. There is no apparent way to navigate the split level change in the corridor of the Annex, or between the main wing of this building and the east wing, without exiting the building first. It is recommended that a wheelchair lift or stair climber be installed at both of these locations.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICAC04

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Wheelchair lift / stair climber, conduit, wiring, tools, and supplies	EA	2	\$6,520	\$13,040	\$1,333	\$2,666	\$15,706
<b>Project Totals:</b>				<b>\$13,040</b>		<b>\$2,666</b>	<b>\$15,706</b>

<b>Material/Labor Cost</b>		\$15,706
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		\$14,499
<b>General Contractor Mark Up at 20.0%</b>	+	\$2,900
<b>Inflation</b>	+	\$545
<b>Construction Cost</b>		\$17,943
<b>Professional Fees at 16.0%</b>	+	\$2,871
<b>Total Project Cost</b>		<b>\$20,814</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICAC05	<b>Title:</b>	UPPER FLOOR RESTROOM RENOVATIONS
<b>Priority Sequence:</b>	22		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	AC3E	<b>System:</b>	ACCESSIBILITY
		<b>Component:</b>	INTERIOR PATH OF TRAVEL
		<b>Element:</b>	RESTROOMS/BATHROOMS
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ADAAG	604, 605, 606, 607, 608	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/28/2009		
<b>Project Location:</b>	Room Only: Floor(s) 2		

**Project Description**

The restroom fixtures and finishes are mostly original to the year of construction or latest major renovation. Except for the accessible men's and women's restrooms on the entry floor, the remaining restrooms in this building have aging fixtures and finishes and are not wheelchair accessible. A comprehensive renovation of the upper floor restrooms, including new fixtures, finishes, and accessories, is recommended. Restroom expansion may be necessary in order to meet modern minimum fixture counts and accessibility legislation.



**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICAC05

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Major restroom renovation, including fixtures, finishes, partitions, accessories, and expansion if necessary	FIXT	9	\$1,969	\$17,721	\$1,699	\$15,291	\$33,012
<b>Project Totals:</b>				<b>\$17,721</b>		<b>\$15,291</b>	<b>\$33,012</b>

<b>Material/Labor Cost</b>		\$33,012
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		\$25,689
<b>General Contractor Mark Up at 20.0%</b>	+	\$5,138
<b>Inflation</b>	+	\$965
<b>Construction Cost</b>		\$31,792
<b>Professional Fees at 16.0%</b>	+	\$5,087
<b>Total Project Cost</b>		<b>\$36,879</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICAC06	<b>Title:</b>	DUAL-LEVEL DRINKING FOUNTAIN INSTALLATION
<b>Priority Sequence:</b>	23		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	AC3F	<b>System:</b>	ACCESSIBILITY
		<b>Component:</b>	INTERIOR PATH OF TRAVEL
		<b>Element:</b>	DRINKING FOUNTAINS
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ADAAG	211, 602	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/28/2009		
<b>Project Location:</b>	Item Only: Floor(s) 2		

**Project Description**

ADA legislation requires that building amenities such as the drinking fountains be generally accessible to all persons. The single-level configuration of the two upper floor drinking fountains is a barrier to wheelchair accessibility. The installation of a dual-level, refrigerated drinking fountain is recommended to replace these two existing fountains.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICAC06

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Dual-level drinking fountain	EA	2	\$1,216	\$2,432	\$374	\$748	\$3,180
<b>Project Totals:</b>				<b>\$2,432</b>		<b>\$748</b>	<b>\$3,180</b>

<b>Material/Labor Cost</b>		<b>\$3,180</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<u>\$2,833</u>
<b>General Contractor Mark Up at 20.0%</b>	+	<u>\$567</u>
<b>Inflation</b>	+	<u>\$106</u>
<b>Construction Cost</b>		<u>\$3,506</u>
<b>Professional Fees at 16.0%</b>	+	<u>\$561</u>
<b>Total Project Cost</b>		<u><b>\$4,067</b></u>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICAC07	<b>Title:</b>	SIGNAGE PACKAGE UPGRADE
<b>Priority Sequence:</b>	24		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	AC3D	<b>System:</b>	ACCESSIBILITY
		<b>Component:</b>	INTERIOR PATH OF TRAVEL
		<b>Element:</b>	SIGNAGE
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ADAAG	703.1	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/28/2009		
<b>Project Location:</b>	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 the intent of this legislation, it is recommended that all non-compliant signage be upgraded to conform to appropriate accessibility standards. The project scope includes directional signage.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICAC07

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
ADA-compliant signage	EA	119	\$53.11	\$6,320	\$15.62	\$1,859	\$8,179
<b>Project Totals:</b>				<b>\$6,320</b>		<b>\$1,859</b>	<b>\$8,179</b>

<b>Material/Labor Cost</b>		<b>\$8,179</b>
<b>Material Index</b>		<b>100.7%</b>
<b>Labor Index</b>		<b>51.3%</b>
<b>Material/Labor Indexed Cost</b>		<b>\$7,318</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$1,464</b>
<b>Inflation</b>	+	<b>\$275</b>
<b>Construction Cost</b>		<b>\$9,056</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$1,449</b>
<b>Total Project Cost</b>		<b>\$10,505</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICAC08	<b>Title:</b>	EXTERIOR WHEELCHAIR STAIR CLIMBER INSTALLATION
<b>Priority Sequence:</b>	25		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	AC2A	<b>System:</b>	ACCESSIBILITY
		<b>Component:</b>	BUILDING ENTRY
		<b>Element:</b>	GENERAL
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ADAAG	410	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/28/2009		
<b>Project Location:</b>	Item Only: Floor(s) 1		

**Project Description**

Accessibility legislation pertaining to handicapped access into buildings requires that the main entrances to a buildings be generally accessible to all persons. There is no apparent way for a wheelchair user to enter this building at the south entrance to the main wing, due to the entry steps. It is recommended that a wheelchair lift or stair climber be installed at this location.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICAC08

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Wheelchair lift / stair climber, conduit, wiring, tools, and supplies	EA	1	\$6,520	\$6,520	\$1,333	\$1,333	\$7,853
<b>Project Totals:</b>				<b>\$6,520</b>		<b>\$1,333</b>	<b>\$7,853</b>

<b>Material/Labor Cost</b>		\$7,853
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		\$7,249
<b>General Contractor Mark Up at 20.0%</b>	+	\$1,450
<b>Inflation</b>	+	\$272
<b>Construction Cost</b>		\$8,972
<b>Professional Fees at 16.0%</b>	+	\$1,435
<b>Total Project Cost</b>		<b>\$10,407</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICES02	<b>Title:</b>	MEMBRANE ROOF REPLACEMENT
<b>Priority Sequence:</b>	26		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	ES4B	<b>System:</b>	EXTERIOR
		<b>Component:</b>	ROOF
		<b>Element:</b>	REPLACEMENT
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Energy Conservation	\$1,100	
<b>Code Application:</b>	Not Applicable		
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/28/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) R		

**Project Description**

The single-ply membrane roofing system is not expected to outlast the scope of this analysis. Future budget modeling should include a provision for the replacement of all failing roofing systems. Replace this roof with a similar application.



**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICES02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Membrane roof	SF	13,130	\$3.79	\$49,763	\$1.73	\$22,715	\$72,478
<b>Project Totals:</b>				<b>\$49,763</b>		<b>\$22,715</b>	<b>\$72,478</b>

<b>Material/Labor Cost</b>		<b>\$72,463</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$61,764</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$12,353</b>
<b>Inflation</b>	+	<b>\$2,320</b>
<b>Construction Cost</b>		<b>\$76,436</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$12,230</b>
<b>Total Project Cost</b>		<b>\$88,666</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICEL01	<b>Title:</b>	REPLACE 277/480 VOLT SWITCHGEAR
<b>Priority Sequence:</b>	27		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	EL2A	<b>System:</b>	ELECTRICAL
		<b>Component:</b>	MAIN DISTRIBUTION PANELS
		<b>Element:</b>	CONDITION UPGRADE
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	NEC	Article 230	
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Item Only: Floor(s) 1		

**Project Description**

The 277/480 volt switchgear is recommended for replacement. The existing aged circuit breakers could serve as fire hazards should they fail to interrupt a circuit in an overload or short circuit condition. The existing switchgear should be replaced in its entirety. New switchgear components should include a ground fault main circuit breaker, digital metering for remote control / monitoring, and transient surge protection.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICEL01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
277/480 volt switchgear, includes switchboard, circuit breakers, feeders, digital metering, transient surge protector, and demolition of existing equipment	AMP	1,000	\$18.62	\$18,620	\$15.61	\$15,610	\$34,230
<b>Project Totals:</b>				<b>\$18,620</b>		<b>\$15,610</b>	<b>\$34,230</b>

<b>Material/Labor Cost</b>		\$34,230
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		\$26,758
<b>General Contractor Mark Up at 20.0%</b>	+	\$5,352
<b>Inflation</b>	+	\$1,005
<b>Construction Cost</b>		\$33,115
<b>Professional Fees at 16.0%</b>	+	\$5,298
<b>Total Project Cost</b>		<b>\$38,413</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICIS03	<b>Title:</b>	REFINISH CEILINGS
<b>Priority Sequence:</b>	28		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	IS3B	<b>System:</b>	INTERIOR/FINISH SYS.
		<b>Component:</b>	CEILINGS
		<b>Element:</b>	REPLACEMENT

<b>Building Code:</b>	WHIC
<b>Building Name:</b>	WHICHARD BUILDING
<b>Subclass/Savings:</b>	Not Applicable

**Code Application:** Not Applicable

<b>Project Class:</b>	Capital Renewal
<b>Project Date:</b>	10/28/2009

<b>Project Location:</b>	Floor-wide: Floor(s) 1,2
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**Project Description**

Ceiling finish applications consist almost equally of ceiling tile and paint. 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**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICIS03

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Acoustical tile ceiling system	SF	10,140	\$2.12	\$21,497	\$2.98	\$30,217	\$51,714
Painted ceiling finish application	SF	10,980	\$0.17	\$1,867	\$0.81	\$8,894	\$10,760
<b>Project Totals:</b>				<b>\$23,363</b>		<b>\$39,111</b>	<b>\$62,474</b>

<b>Material/Labor Cost</b>		<b>\$62,486</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$43,591</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$8,718</b>
<b>Inflation</b>	+	<b>\$1,637</b>
<b>Construction Cost</b>		<b>\$53,946</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$8,631</b>
<b>Total Project Cost</b>		<b>\$62,578</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Description**

<b>Project Number:</b>	WHICIS04	<b>Title:</b>	ENTRY RESTROOM FINISH UPGRADES
<b>Priority Sequence:</b>	29		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	IS6D	<b>System:</b>	INTERIOR/FINISH SYS.
		<b>Component:</b>	GENERAL
		<b>Element:</b>	OTHER
<b>Building Code:</b>	WHIC		
<b>Building Name:</b>	WHICHARD BUILDING		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	Not Applicable		
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/28/2009		
<b>Project Location:</b>	Room Only: Floor(s) 1		

**Project Description**

The entry floor men's and women's restroom fixtures and finishes have been upgraded recently and are accessible to persons with disabilities. The fixtures and finishes in these two restrooms are sound, but the finishes in both restrooms will need to be renewed within the next ten years.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
WHIC : WHICHARD BUILDING

**Project Cost**

**Project Number:** WHICIS04

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Major restroom renovation, including finishes, partitions, and accessories	FIXT	12	\$1,969	\$23,628	\$1,699	\$20,388	\$44,016
<b>Project Totals:</b>				<b>\$23,628</b>		<b>\$20,388</b>	<b>\$44,016</b>

<b>Material/Labor Cost</b>		<b>\$44,016</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$34,252</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$6,850</b>
<b>Inflation</b>	+	<b>\$1,287</b>
<b>Construction Cost</b>		<b>\$42,389</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$6,782</b>
<b>Total Project Cost</b>		<b>\$49,172</b>



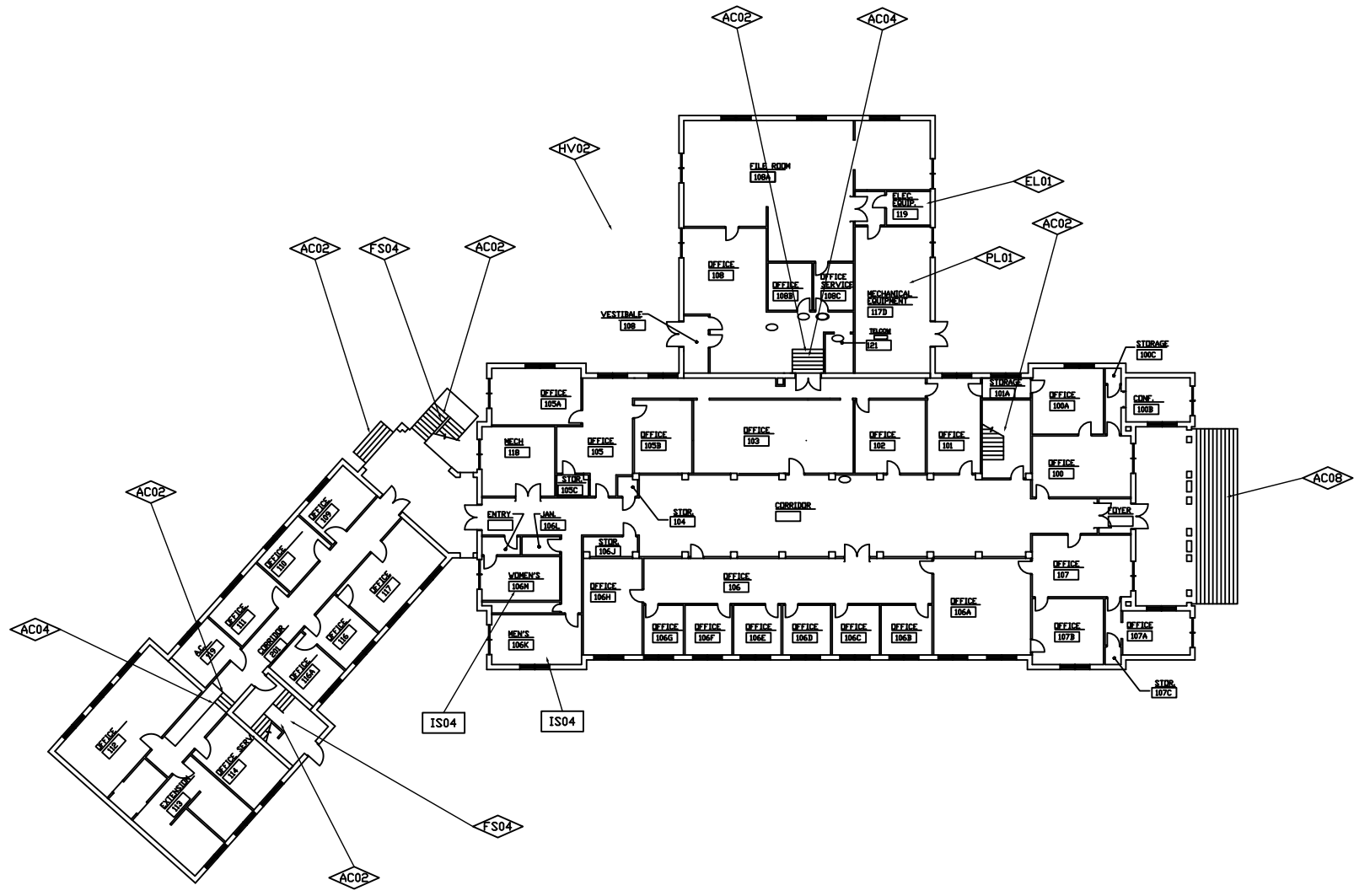


FACILITY CONDITION ANALYSIS

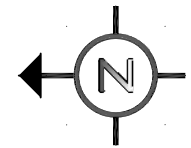
**SECTION 4**

**DRAWINGS  
AND PROJECT LOCATIONS**





- AC03   S101   ES03   EL04   ES01
- AC01   AC07   EL02   EL03   FS01   FS02
- FS03   HV01   IS01   IS02   IS03   PL02
- PL03




WHICHARD  
BUILDING

BLDG NO. WHIC



FACILITY  
CONDITION  
ANALYSIS


2165 West Park Court  
Suite N  
Stone Mountain GA 30087  
770.879.7376

 PROJECT NUMBER APPLIES TO ONE ROOM ONLY

 PROJECT NUMBER APPLIES TO ONE ITEM ONLY

 PROJECT NUMBER APPLIES TO ENTIRE BUILDING

 PROJECT NUMBER APPLIES TO ENTIRE FLOOR

 PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS

 PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 11/04/09

Drawn by: J.T.V.

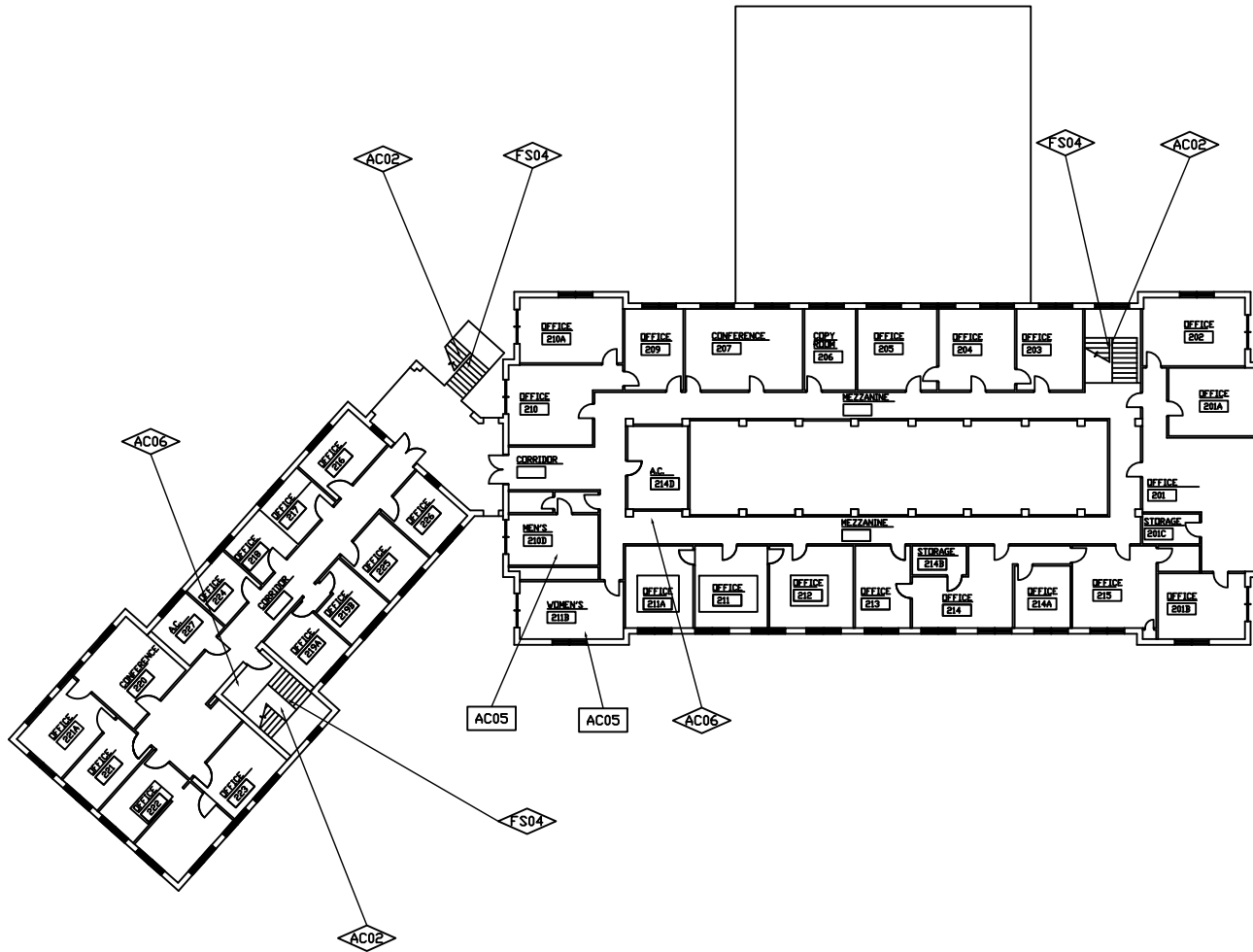
Project No. 09-041

FIRST  
FLOOR  
PLAN

Sheet No.

1 of 2

ROOF  
 ES02 HV01



ES03

- AC01
- AC07
- EL02
- EL03
- FS01
- FS02
- FS03
- HV01
- IS01
- IS02
- IS03
- PL02
- PL03

WHICHARD  
 BUILDING

BLDG NO. WHIC



FACILITY  
 CONDITION  
 ANALYSIS

2165 West Park Court  
 Suite N  
 Stone Mountain GA 30087  
 770.879.7376

PROJECT NUMBER  
 APPLIES TO  
 ONE ROOM ONLY

PROJECT NUMBER  
 APPLIES TO  
 ONE ITEM ONLY

PROJECT NUMBER  
 APPLIES TO  
 ENTIRE BUILDING

PROJECT NUMBER  
 APPLIES TO  
 ENTIRE FLOOR

PROJECT NUMBER  
 APPLIES TO A SITUATION  
 OF UNDEFINED EXTENTS

PROJECT NUMBER  
 APPLIES TO AREA  
 AS NOTED

Date: 11/04/09

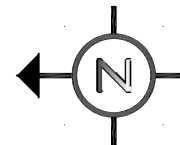
Drawn by: J.T.V.

Project No. 09-041

SECOND  
 FLOOR  
 PLAN

Sheet No.

2 of 2



FACILITY CONDITION ANALYSIS

**SECTION 5**

LIFE CYCLE MODEL SUMMARY  
AND PROJECTIONS



**Life Cycle Model  
Building Component Summary  
WHIC : WHICHARD BUILDING**

<b>Unifomat Code</b>	<b>Component Description</b>	<b>Qty</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Complex Adj</b>	<b>Total Cost</b>	<b>Install Date</b>	<b>Life Exp</b>
B2010	EXTERIOR FINISH RENEWAL	5,130	SF	\$1.30	.31	\$2,073	1923	10
B2020	STANDARD GLAZING AND CURTAIN WALL	2,470	SF	\$104.04		\$256,970	2001	55
B2020	CUSTOM AND HISTORICAL GLAZING	3,700	SF	\$143.39		\$530,551	2001	55
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	12	LEAF	\$4,311.24		\$51,735	2001	20
B2030	LOW TRAFFIC EXTERIOR DOOR SYSTEM	3	LEAF	\$2,863.29		\$8,590	2001	40
B3010	MEMBRANE ROOF	13,130	SF	\$6.41		\$84,121	2001	15
B3010	TILE ROOF	6,180	SF	\$19.15		\$118,324	1923	70
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	119	LEAF	\$783.68		\$93,258	1990	35
C1020	INTERIOR DOOR HARDWARE	119	EA	\$423.04		\$50,342	1990	15
C3010	STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.)	49,760	SF	\$0.80		\$39,860	2001	10
C3020	CARPET	19,430	SF	\$8.75		\$169,944	2001	10
C3020	CERAMIC FLOOR TILE	1,690	SF	\$17.36		\$29,342	1923	20
C3030	ACOUSTICAL TILE CEILING SYSTEM	10,140	SF	\$4.99		\$50,629	2001	15
C3030	PAINTED CEILING FINISH APPLICATION	10,980	SF	\$0.80		\$8,795	2001	15
D2010	PLUMBING FIXTURES - OFFICE / ADMINISTRATION	23,470	SF	\$2.85		\$66,970	1965	35
D2020	WATER PIPING - OFFICE / ADMINISTRATION	23,470	SF	\$2.03		\$47,643	1923	35
D2020	WATER HEATER (RES., ELEC.)	40	GAL	\$47.95		\$1,918	2000	10
D2030	DRAIN PIPING - OFFICE / ADMINISTRATION	23,470	SF	\$3.08		\$72,334	1923	40
D2050	AIR COMPRESSOR PACKAGE (AVERAGE SIZE)	1	SYS	\$6,456.49		\$6,456	1985	25
D3030	CHILLER - AIR COOLED (60-100 TONS)	95	TON	\$1,260.62		\$119,759	1985	20
D3040	CONDENSATE RECEIVER	2	SYS	\$9,504.01		\$19,008	1990	15
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	2	EA	\$2,768.62		\$5,537	1985	20
D3040	HVAC SYSTEM - OFFICE / ADMINISTRATION	23,470	SF	\$24.80		\$582,113	1965	25
D3040	BASE MTD. PUMP - UP TO 15 HP	8	HP	\$3,175.77		\$25,406	1965	20
D3040	BASE MTD. PUMP - UP TO 15 HP	10	HP	\$3,175.77		\$31,758	1965	20
D5010	ELECTRICAL SYSTEM - OFFICE / ADMINISTRATION	23,470	SF	\$11.82		\$277,328	1965	50
D5010	ELECTRICAL SWITCHGEAR 277/480V	1,000	AMP	\$39.56		\$39,564	1985	20
D5010	VARIABLE FREQUENCY DRIVE (UP TO 10 HP)	18	HP	\$1,020.08		\$18,361	1965	12
D5020	EMERGENCY LIGHT (BATTERY)	10	EA	\$283.62		\$2,836	1985	20

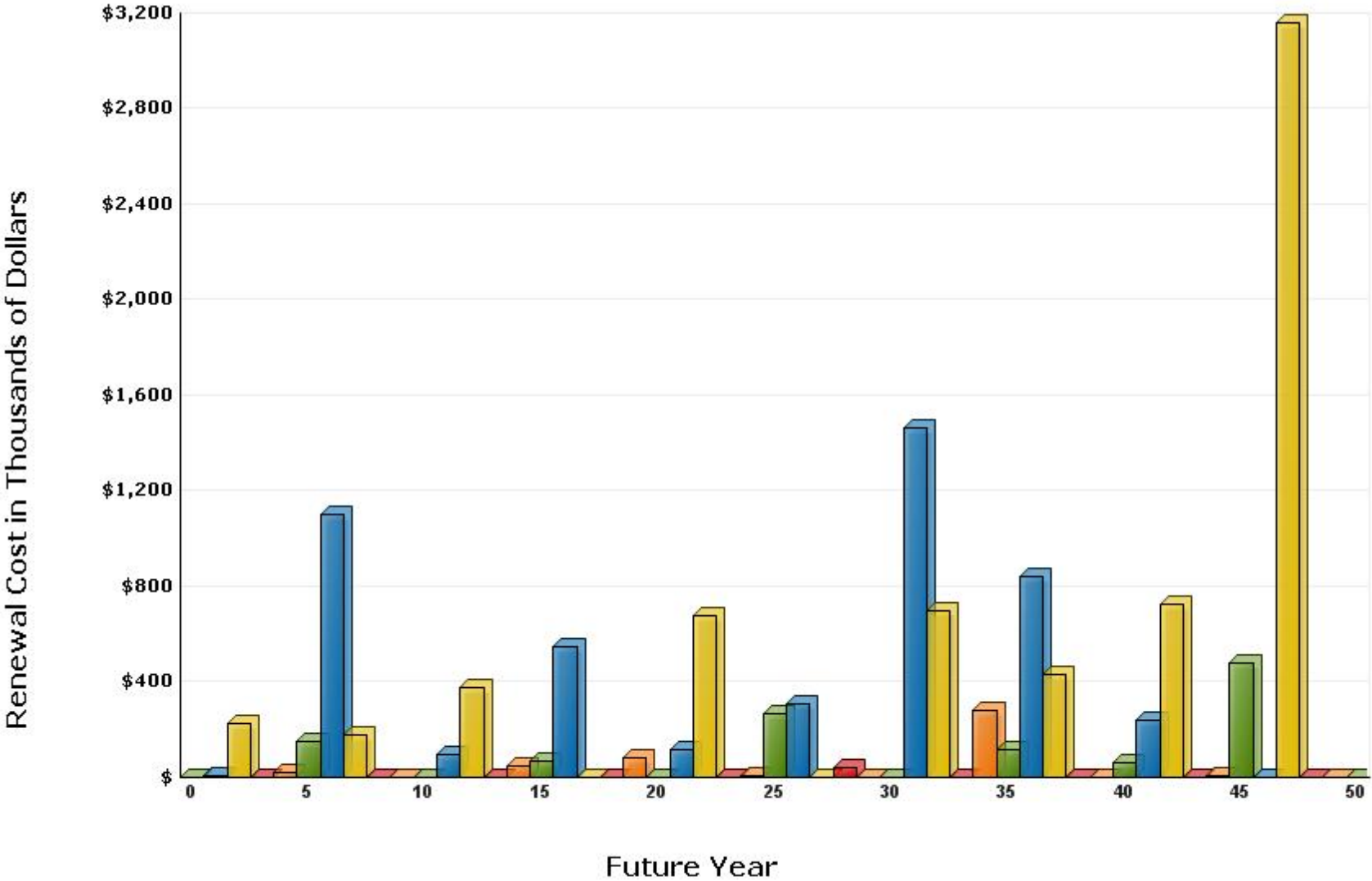
**Life Cycle Model  
Building Component Summary  
WHIC : WHICHARD BUILDING**

<b>Unifomat Code</b>	<b>Component Description</b>	<b>Qty</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Complex Adj</b>	<b>Total Cost</b>	<b>Install Date</b>	<b>Life Exp</b>
D5020	EXIT SIGNS (BATTERY)	12	EA	\$280.76		\$3,369	1985	20
D5020	LIGHTING - OFFICE / ADMINISTRATION	17,603	SF	\$7.24		\$127,381	1994	20
D5020	LIGHTING - OFFICE / ADMINISTRATION	5,867	SF	\$7.24		\$42,456	2004	20
D5030	FIRE ALARM SYSTEM, POINT ADDRESSABLE	23,470	SF	\$2.61		<u>\$61,364</u>	1985	15
						<b>\$3,046,096</b>		



# Life Cycle Model Expenditure Projections

WHIC : WHICHARD BUILDING



Average Annual Renewal Cost Per SqFt \$4.76



FACILITY CONDITION ANALYSIS

**SECTION 6**

PHOTOGRAPHIC LOG



**Photo Log - Facility Condition  
Analysis**

**WHIC : WHICHARD BUILDING**

<b>Photo ID No</b>	<b>Description</b>	<b>Location</b>	<b>Date</b>
WHIC001a	Painted metal guardrail that is too low and lacks sufficient infill and painted metal handrails lacking recommended end geometry	Second floor, south stair, main building	9/3/2009
WHIC001e	Simplex fire alarm control panel	First floor, south end	9/3/2009
WHIC002a	Single-level drinking fountain	Second floor, west corridor, main building	9/3/2009
WHIC002e	Horn strobe and pull down device	Second floor, hallway	9/3/2009
WHIC003a	View looking south across main building roof	Roof	9/3/2009
WHIC003e	Exit signage with battery backup	Second floor, hallway	9/3/2009
WHIC004a	View looking north across north Annex roof	Roof	9/3/2009
WHIC004e	Fire alarm system electrical power switchgear	Electric room 119	9/3/2009
WHIC005a	View looking northeast across north Annex roof showing overhanging tree limbs	Roof	9/3/2009
WHIC005e	McQuay air-cooled chiller	Southwest exterior of building	9/3/2009
WHIC006a	Step access between two levels of north Annex showing one wood wall handrail that lacks recommended end geometry	First floor	9/3/2009
WHIC006e	Multizone air handler with chill / hot water coils	Mechanical room 117D	9/3/2009
WHIC007a	Lack of wheelchair access between floor levels, painted metal handrails lacking the recommended end geometry, and side handrails that do not extend to the top riser	First floor, east wing, main building	9/3/2009
WHIC007e	Air handler, supply fan VFD	Mechanical room 117D	9/3/2009
WHIC008a	View of exterior elevation	Northeast corner, main building	9/3/2009
WHIC008e	7 1/2 HP hot water circulation pump	Mechanical room 117D	9/3/2009
WHIC009a	Exterior elevation	North facade, east wing, main building	9/3/2009
WHIC009e	3 HP hot water circulation pump	Mechanical room 117D	9/3/2009
WHIC010a	Exterior elevation	East facade, east wing, main building	9/3/2009
WHIC010e	Reciprocating air compressor and refrigerated dryer	Mechanical room 117D	9/3/2009
WHIC011a	View of exterior elevation	Southeast corner, main building	9/3/2009
WHIC011e	Duplex condensate receiver	Mechanical room 117D	9/3/2009
WHIC012a	Exterior elevation	South facade, main building	9/3/2009
WHIC012e	Air handler AHU-4 and chill / hot water coils	Mechanical room 214D	9/3/2009
WHIC013a	View of exterior elevation	Southwest corner, main building	9/3/2009
WHIC013e	Air handler, AHU-5 and chill / hot water coils	Mechanical room 214D	9/3/2009
WHIC014a	Exterior elevation	West facade, north Annex	9/3/2009

**Photo Log - Facility Condition  
Analysis**

**WHIC : WHICHARD BUILDING**

<b>Photo ID No</b>	<b>Description</b>	<b>Location</b>	<b>Date</b>
WHIC014e	Air handler, AHU-2 with chill / hot water coils	Mechanical room 227	9/3/2009
WHIC015a	View of exterior elevation	Northwest corner, north Annex	9/3/2009
WHIC015e	Centrifugal roof exhauster	Roof, northeast corner	9/3/2009
WHIC016a	View looking southwest	East facade, north Annex	9/3/2009
WHIC016e	Air handler, AHU-1, and chill / hot water coils	Mechanical room 119	9/3/2009
WHIC017a	View looking northwest	East facade, north Annex	9/3/2009
WHIC017e	Air handler, AHU-3, and chill / hot water coils	Mechanical room 118	9/3/2009
WHIC018a	View of southeast corner	South facade breezeway, north Annex	9/3/2009
WHIC018e	Incoming steam service / steam-water heat exchanger	Mechanical room 117D	9/3/2009
WHIC019a	Painted metal handrails lacking recommended end geometry and painted metal fire escape handrails that lacks guardrail height	South facade, breezeway	9/3/2009
WHIC019e	Pneumatic controls for HVAC equipment	Mechanical room 117D	9/3/2009
WHIC020e	Turbine roof vents	Roof, west side	9/3/2009
WHIC021e	Turbine roof vents	Roof, south side	9/3/2009
WHIC022e	Chiller disconnect and 400 amp, Nema 3R disconnect	Southwest side of building	9/3/2009
WHIC023e	Square D distribution panel with exposed buss	Mechanical room 117D	9/3/2009
WHIC024e	Outside lighting, 50 watt HID wall washers	East side of building	9/3/2009
WHIC025e	Square D distribution panels	Mechanical room 117D	9/3/2009
WHIC026e	Incandescent / fluorescent main area lighting	First floor, main area	9/3/2009
WHIC027e	Transformer	Northwest	9/3/2009
WHIC028e	Square D 1,000 amp, 277/480 volt, three-phase MDP	Electric room 119	9/3/2009
WHIC029e	Fluorescent, 2 x 4 foot, T-8, recess lighting	First floor, hallway, Annex	9/3/2009
WHIC030e	Fluorescent, 2 x 4 foot, T-8, surface-mount lighting	Second floor, hallway, Annex	9/3/2009

Facility Condition Analysis - Photo Log



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WHIC001E.jpg



WHIC002A.jpg



WHIC002E.jpg



WHIC003A.jpg



WHIC003E.jpg



WHIC004A.jpg



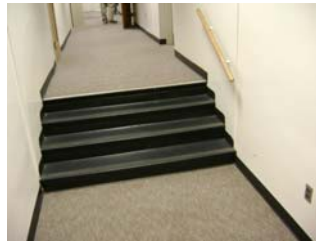
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Facility Condition Analysis - Photo Log



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Facility Condition Analysis - Photo Log



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