# **EAST CAROLINA UNIVERSITY**

## **WRIGHT ANNEX**

ASSET CODE: WRIA

**FACILITY CONDITION ANALYSIS** 

**DECEMBER 17, 2009** 



# EAST CAROLINA UNIVERSITY Facility Condition Analysis

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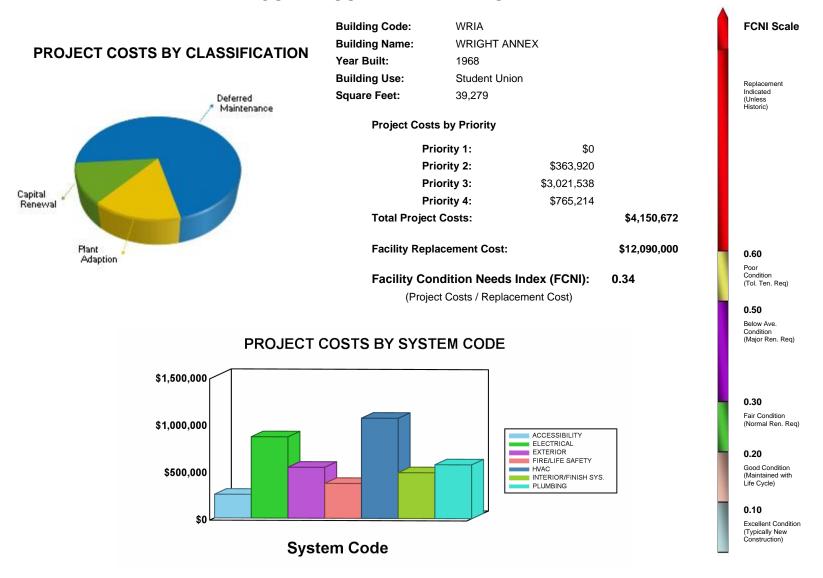
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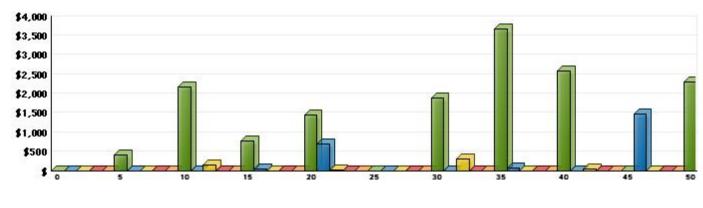
# **GENERAL ASSET INFORMATION**

Renewal Cost (Thousands of Dollars)

## **EXECUTIVE SUMMARY - WRIGHT ANNEX**



#### LIFE CYCLE MODEL EXPENDITURE PROJECTIONS



**Future Year** 

Average Annual Renewal Cost Per SqFt \$3.94

1.1.1



#### **B. ASSET SUMMARY**

Built in 1968, the Wright Annex is a three-story addition to Wright Auditorium. The building is constructed of a concrete structure on a slab-on-grade foundation. The exterior finishes consist of brick facades and built-up roof systems. The building houses offices, an ROTC center, and support areas for the auditorium. The first floor has a small dining area known as Wright Place. Aside from a few exceptions discussed below, all recommendations for Wright Place are included in a separate report for that asset. The Wright Annex totals 39,279 square feet and is located at the main campus of East Carolina University in Greenville, North Carolina.

The information in this report was gathered during a site visit that concluded on September 4, 2009.

#### SITE

Landscaping around the building consists of grassy lawns, ornamental shrubs, and some mature trees. The landscaping is in average condition but should outlast the ten-year scope of this report with routine maintenance. Pedestrian paving systems are in included in the Wright Auditorium report.

#### **EXTERIOR STRUCTURE**

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

It is recommended that the single pane, metal window applications be upgraded to thermal pane systems. Such double pane systems will reduce the energy required to operate the building. Repair or replacement of the windowsills and trim may also be necessary. The roof over the Annex is a modified bitumen system. The date of installation is not known, but the roof appears to be in good condition. No roof replacement is recommended over the next ten years.

Exterior doors consist of metal-framed glass doors at primary entrances and painted metal doors at secondary and service entrances. The doors appear to be in good condition and should not need replacement within the next ten years.

#### **INTERIOR FINISHES / SYSTEMS**

Interior floor finishes include carpet and vinyl tile. The applications vary in age and condition from area to area, and floor finish upgrades are recommended. Portions of the vinyl tile are 9 inch tile and may contain asbestos. Care should be taken prior to the removal of this material.

# EAST CAROLINA UNIVERSITY Facility Condition Analysis Section One



Interior wall finishes consist of painted or vinyl covered walls. Ceilings finishes include lay-in acoustical tile and painted ceilings. These applications also vary in age and condition. Wall and ceiling finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

The condition of the interior door systems is such that door system replacements are recommended as part of a comprehensive renovation effort. Complete demolition of existing door systems and replacement according to a code compliant plan to protect egress passages properly is recommended. Lever door hardware and Braille signage should be included in this effort.

#### **ACCESSIBILITY**

Access to the building is provided by at-grade entrances on the north and south facades. Once inside, two passenger elevators, one at the entrance to Wright Annex and one in Wright Auditorium, provide wheelchair access to each floor. Interior doors are equipped with knob hardware in most areas. Door hardware and Braille signage will be included as part of a building-wide Interior Finishes / Systems project to replace the interior doors.

Current accessibility legislation requires that building amenities be generally accessible to all persons. The configurations of the break room kitchenettes and drinking fountains are barriers to accessibility. The installation of wheelchair-accessible kitchenette cabinetry is recommended where applicable. All single level drinking fountains should be replaced with dual level, refrigerated units.

The restroom fixtures and finishes are mostly original to the year of construction or latest major renovation. The fixtures are sound but dated and are spaced such that clearances are not ADA compliant. A comprehensive restroom renovation, including new fixtures, finishes, partitions, and accessories, is recommended. Restroom expansion may be necessary in order to meet modern minimum fixture counts and accessibility legislation.

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

#### HEALTH

Several areas on the third floor have 9 inch vinyl tile. This is expected to be an asbestos containing material. A cost allocation has been added to the interior floor project to remove asbestos tile prior to replacement. No other health-related issues were noted during the inspection.

# EAST CAROLINA UNIVERSITY Facility Condition Analysis Section One



#### FIRE / LIFE SAFETY

The paths of egress in this building are adequate in regard to fire rating. No fire or life safety issues related to architectural features were observed during the inspection of this facility. Doors are recommended for replacement with proper rating in mind as part of an Interior Finishes / Systems category project.

Fire and life safety protection within the structure is provided by a relatively new addressable Simplex 4100U fire alarm panel located in the first floor lobby. However, the majority of fire alarm devices appear to have been in service for over fifteen years. Outdated smoke detectors and opaque type visual strobes were observed throughout the second floor. The third floor is lacking in smoke detectors and visual strobes. In order to comply with current fire codes, an upgrade of the fire alarm system is recommended within the next year

The second floor of the Annex is equipped with an automatic fire suppression system installed approximately in 1990. The remaining areas of the facility are unprotected. Manual, dry chemical fire extinguishers are available for immediate use. It is recommended that an automatic fire suppression system be installed throughout the unprotected areas of the facility. This project will reduce overall liability and the potential for loss. The cost includes the square footage related to Wright Place located on the first floor of the Annex. Additionally, the project estimate includes the cost for the replacement of the original fusible link sprinkler heads.

Emergency exits are indicated by 1990s vintage LED type exit signs connected to the building emergency power network. A few units were observed with battery backup power, since the generator is currently undersized. The exit signs will be approaching the end of their useful service life, and renewal is recommended within the next five years. Replace the existing exit signs with modern, efficient LED type units, and install additional units to comply with current NFPA life safety codes. The path of egress is illuminated by select interior light fixtures connected to the generator power. Based on the daytime inspection, the emergency egress illumination level was not easily identified. It is assumed that there is sufficient emergency egress lighting, since no deficiencies were reported.

#### **HVAC**

The primary heating medium is steam supplied from the central plant. Chilled water is the primary cooling medium and is supplied by a York centrifugal chiller located in the attached Wright Auditorium. Air distribution throughout the structure is provided by an antiquated heating and ventilating unit in the attic space and a relatively new multizone air handler in the third floor mechanical room. The multizone air handler is equipped with a steam hot deck and chilled water cooling deck. Variable frequency drives (VFDs) were observed on the supply and return fan of this unit. Building exhaust is provided by timeworn, centrifugal exhaust fans of various ages and conditions. Building automation is provided by an outdated, hybrid pneumatic Johnson Control System. With the exception of the new multizone air handler, the majority of the air distribution system is original. It is anticipated the HVAC system will become inefficient and maintenance intensive with age. A complete upgrade of the HVAC system is recommended. The cost estimate excludes the third floor area but includes Wright Place located on the first floor.

# EAST CAROLINA UNIVERSITY Facility Condition Analysis

Section One



#### **ELECTRICAL**

High voltage from the utility company is reduced to 277/480 volt, three-phase building service via a relatively new 300 kW liquid service entrance transformer located at the north facade. A relatively new Square D switchboard is located in the vicinity and was assessed to be approximately 600 amps. The service entrance equipment is less than five years old and should remain serviceable throughout the scope of this assessment.

However, the electrical distribution equipment has been in service for over forty years. Aging components, such as the circuit breakers, serve as potential 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. Budgetary consideration is allocated for the renewal of the building electrical system within the next five years.

Additionally, the timeworn 30 kW Onan natural gas generator is at the end of its useful service life and is currently undersized in capacity. Renewal of the generator is recommended within the next three years. The project estimate recommends replacement of the original natural gas unit with a 75 kW diesel type generator.

The current lighting configuration for this facility consists primarily of lay-in /surface-mounted, T12 fluorescent fixtures. New lighting fixtures were observed in the third floor lecture room. Based on life cycle depletion, replacement of all aged interior fixtures is recommended. Select lamps with the same color temperature and rendering index for lighting uniformity. Install occupancy sensors in select areas for additional energy conservation. The cost excludes the square footage related to the lecture room.

Nighttime illumination is provided by a few discolored HID fixtures installed approximately in the mid-1980s. Due to the daytime inspection, verification of the illumination level was not easily identified. However, based on the present location of the fixtures, there appears to be sufficient quantities.

#### **PLUMBING**

Potable water is distributed throughout this facility via a copper piping network. Sanitary waste and stormwater is conveyed by cast-iron, no-hub piping with copper runouts. 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. Domestic hot water is supplied from the attached Wright Auditorium. The plumbing fixtures are recommended for replacement. This action is detailed in the proposed restroom renovation.

#### **VERTICAL TRANSPORTATION**

The University commissioned an outside contractor to perform an elevator condition study in 2009. The aforementioned study did not identify any deficiencies requiring capital funding.

# EAST CAROLINA UNIVERSITY Facility Condition Analysis Section One



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

#### **FACILITY CONTACTS:**

NAME POSITION

William Bagwell Associate Vice Chancellor, Campus Operations

**REPORT DEVELOPMENT:** 

Report Development by: ISES Corporation

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Stone Mountain, GA 30087

Contact: Kyle Thompson, Project Manager

770-879-7376



#### D. FACILITY CONDITION ANALYSIS - DEFINITIONS

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

#### 1. REPORT DESCRIPTION

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

Section 2: Detailed Project Summaries and Totals

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

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

FCNI = Deferred Maintenance / Modernization +

<u>Capital Renewal + Plant Adaption</u>

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. <u>Plant / Program Adaption</u>: 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. <u>Deferred Maintenance</u>: 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. <u>Capital Renewal:</u> 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. <u>Energy Conservation</u>: Projects with energy conservation opportunities, based on simple payback analysis.

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

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

#### Example:

	PRIORITY CLA	SS 1
CODE	PROJECT NO.	PRIORITY SEQUENCE
HV2C	0001HV04	01
PL1D	0001PL02	02
	DDIODITY OL A	00.0
	PRIORITY CLA	<u>55 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: Local Materials Index:	51.3 % 100.7 %	of National Average of National average
General Contractor Markup: Professional Fees:	20.0 % 16.0 %	Contractor profit & overhead, bonds & insurance 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

- Sequential Assignment Project Number by Category / System

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

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

Example: 0001006e

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

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

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

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

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

## EAST CAROLINA UNIVERSITY

Facility Condition Analysis

Section One -



### 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

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



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



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



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



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



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



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



	CATEGORY CODE REPORT					
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION			
SS2A	SITE	FENCING	Perimeter campus fencing, individual building fencing, includes both pedestrian and vehicular control fences.			
SS2B	SITE	GENERAL	Hidden areas due to foliage, fencing, parking, walls, etc.			
SS3A	COMMUNICATIONS	EMERGENCY PHONES	Access, locations, visibility, function, reliability, etc.			
SS4A	ACCESS CONTROL	DOORS	Access, locks, keys, two way speakers, reliability, redundancy, etc.			
SS4B	ACCESS CONTROL	WINDOWS	Locks, screens, access, reliability, etc.			
SS4C	ACCESS CONTROL	SYSTEMS	Card key, proximity devices, data control, data use, reliability, system design, etc.			
SS5A	MONITORING	SYSTEMS	Cameras, audio communication, monitoring stations, locations, system design, etc.			
SS6A	CIRCULATION	PEDESTRIAN	On campus as well as to and from off campus housing and class locations, etc.			
SS6B	CIRCULATION	VEHICULAR	Guard gates, access, systems, data control and use, identification, etc.			
SS7A	GENERAL	OTHER	General information/projects pertaining to security issues.			
SYSTEM DE	ESCRIPTION: VERTICAL TRANS	SPORTATION				
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.			



# DETAILED PROJECT SUMMARIES AND TOTALS

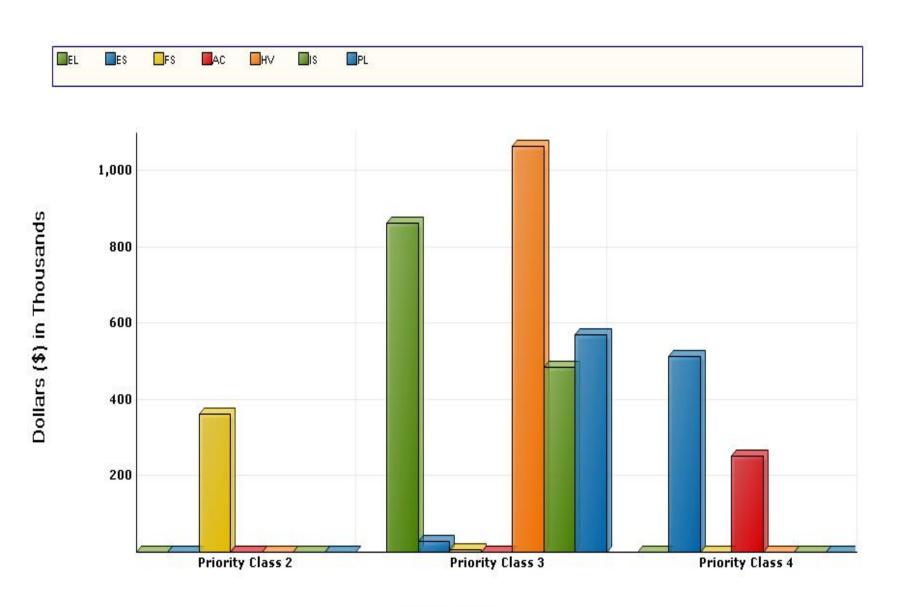
## Detailed Project Totals Facility Condition Analysis System Code by Priority Class

System	Priority Classes							
Code	System Description	1	2	3	4	Subtotal		
AC	ACCESSIBILITY	0	0	0	251,752	251,752		
EL	ELECTRICAL	0	0	863,694	0	863,694		
ES	EXTERIOR	0	0	27,603	513,461	541,065		
FS	FIRE/LIFE SAFETY	0	363,920	6,689	0	370,610		
HV	HVAC	0	0	1,064,390	0	1,064,390		
IS	INTERIOR/FINISH SYS.	0	0	486,796	0	486,796		
PL	PLUMBING	0	0	572,365	0	572,365		
	TOTALS	0	363,920	3,021,538	765,214	4,150,672		

Facility Replacement Cost	\$12,090,000
Facility Condition Needs Index	0.34

Gross Square Feet	39,279	Total Cost Per Square Foot	\$105.67
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## **System Code by Priority Class**



Priority Class

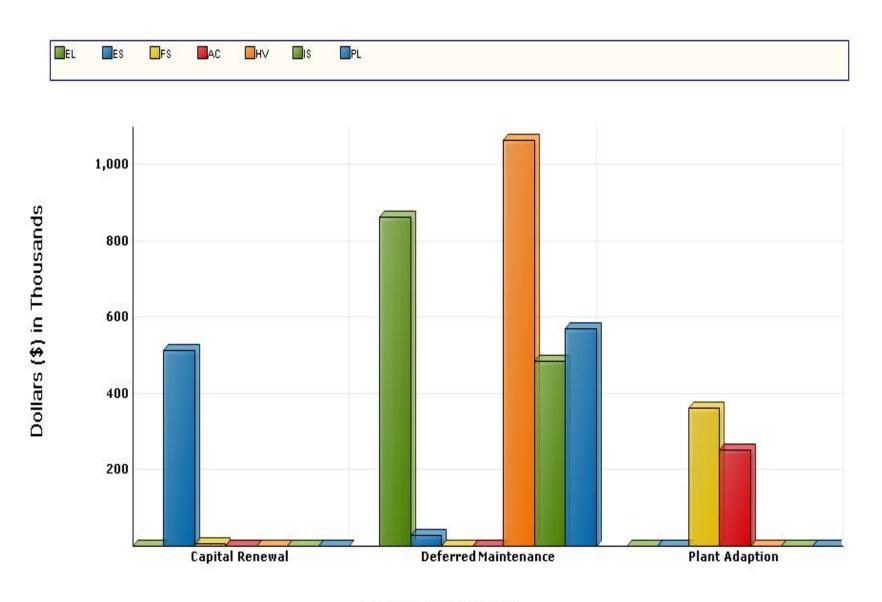
## Detailed Project Totals Facility Condition Analysis System Code by Project Class

System Code	System Description	Captial Renewal	Deferred Maintenance	Plant Adaption	Subtotal
AC	ACCESSIBILITY	0	0	251,752	251,752
EL	ELECTRICAL	0	863,694	0	863,694
ES	EXTERIOR	513,461	27,603	0	541,065
FS	FIRE/LIFE SAFETY	6,689	0	363,920	370,610
HV	HVAC	0	1,064,390	0	1,064,390
IS	INTERIOR/FINISH SYS.	0	486,796	0	486,796
PL	PLUMBING	0	572,365	0	572,365
	TOTALS	520,150	3,014,849	615,673	4,150,672

Facility Replacement Cost	\$12,090,000
Facility Condition Needs Index	0.34

Gross Square Feet	39,279	Total Cost Per Square Foot	\$105.67

## **System Code by Project Class**



**Project Classification** 

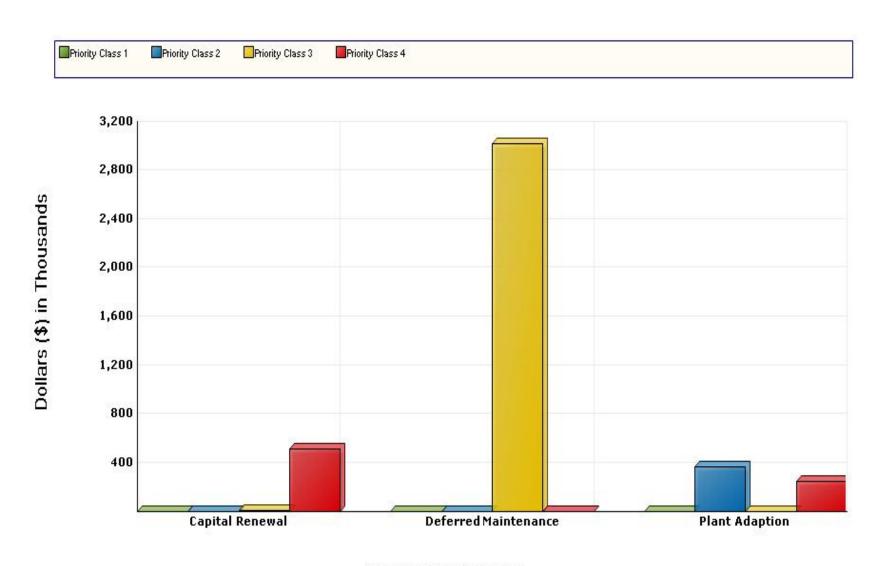
## Detailed Project Summary Facility Condition Analysis Project Class by Priority Class

	Priority Classes					
Project Class	1	2	3	4	Subtotal	
Capital Renewal	0	0	6,689	513,461	520,150	
Deferred Maintenance	0	0	3,014,849	0	3,014,849	
Plant Adaption	0	363,920	0	251,752	615,673	
TOTALS	0	363,920	3,021,538	765,214	4,150,672	

Facility Replacement Cost	\$12,090,000
Facility Condition Needs Index	0.34

Gross Square Feet 39,279	Total Cost Per Square Foot \$1	05.67
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## **Project Class by Priority Class**



**Project Classification** 

### Detailed Project Summary Facility Condition Analysis

### Priority Class - Priority Sequence WRIA: WRIGHT ANNEX

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS2A	WRIAFS01	2	1	FIRE ALARM SYSTEM REPLACEMENT	90,819	14,531	105,350
FS3A	WRIAFS02	2	2	FIRE SPRINKLER SYSTEM EXTENSION	222,906	35,665	258,570
				Totals for Priority Class 2	313,724	50,196	363,920
FS1A	WRIAFS03	3	3	REPLACE EXIT SIGNS	5,767	923	6,689
ES2B	WRIAES01	3	4	RESTORE BRICK VENEER	23,796	3,807	27,603
HV3A	WRIAHV01	3	5	HVAC SYSTEM REPLACEMENT	917,577	146,812	1,064,390
EL5A	WRIAEL01	3	6	REPLACE EMERGENCY GENERATOR	74,250	11,880	86,130
EL3B	WRIAEL03	3	7	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	442,121	70,739	512,860
EL4B	WRIAEL02	3	8	INTERIOR LIGHTING UPGRADE	228,193	36,511	264,704
IS1A	WRIAIS01	3	9	REFINISH FLOORING	203,919	32,627	236,547
IS2B	WRIAIS02	3	10	REFINISH WALLS	51,946	8,311	60,257
IS3B	WRIAIS03	3	11	REFINISH CEILINGS	98,191	15,711	113,902
IS4A	WRIAIS04	3	12	REPLACE INTERIOR DOORS	65,596	10,495	76,091
PL1A	WRIAPL01	3	13	WATER SUPPLY PIPING REPLACEMENT	195,689	31,310	226,999
PL2A	WRIAPL02	3	14	DRAIN PIPING REPLACEMENT	297,729	47,637	345,366
				Totals for Priority Class 3	2,604,774	416,764	3,021,538
AC4A	WRIAAC01	4	15	INTERIOR AMENITY ACCESSIBILITY UPGRADES	17,270	2,763	20,034
AC3E	WRIAAC02	4	16	RESTROOM RENOVATION	167,837	26,854	194,691
AC3B	WRIAAC03	4	17	STAIR SAFETY UPGRADES	31,920	5,107	37,028
ES5B	WRIAES02	4	18	WINDOW REPLACEMENT	442,639	70,822	513,461
				Totals for Priority Class 4	659,667	105,547	765,214
				Grand Total:	3,578,165	572,506	4,150,672

#### Detailed Project Summary Facility Condition Analysis Project Cost Range

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
ES2B	WRIAES01	3	4	RESTORE BRICK VENEER	23,796	3,807	27,603
IS2B	WRIAIS02	3	10	REFINISH WALLS	51,946	8,311	60,257
IS4A	WRIAIS04	3	12	REPLACE INTERIOR DOORS	65,596	10,495	76,091
FS1A	WRIAFS03	3	3	REPLACE EXIT SIGNS	5,767	923	6,689
EL5A	WRIAEL01	3	6	REPLACE EMERGENCY GENERATOR	74,250	11,880	86,130
				Totals for Priority Class 3	221,354	35,417	256,771
AC4A	WRIAAC01	4	15	INTERIOR AMENITY ACCESSIBILITY UPGRADES	17,270	2,763	20,034
AC3B	WRIAAC03	4	17	STAIR SAFETY UPGRADES	31,920	5,107	37,028
				Totals for Priority Class 4	49,191	7,871	57,061
				Grand Totals for Projects < 100,000	270,545	43,287	313,832

#### Detailed Project Summary Facility Condition Analysis Project Cost Range WRIA: WRIGHT ANNEX

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS2A	WRIAFS01	2	1	FIRE ALARM SYSTEM REPLACEMENT	90,819	14,531	105,350
FS3A	WRIAFS02	2	2	FIRE SPRINKLER SYSTEM EXTENSION	222,906	35,665	258,570
				Totals for Priority Class 2	313,724	50,196	363,920
IS1A	WRIAIS01	3	9	REFINISH FLOORING	203,919	32,627	236,547
IS3B	WRIAIS03	3	11	REFINISH CEILINGS	98,191	15,711	113,902
EL4B	WRIAEL02	3	8	INTERIOR LIGHTING UPGRADE	228,193	36,511	264,704
PL1A	WRIAPL01	3	13	WATER SUPPLY PIPING REPLACEMENT	195,689	31,310	226,999
PL2A	WRIAPL02	3	14	DRAIN PIPING REPLACEMENT	297,729	47,637	345,366
				Totals for Priority Class 3	1,023,722	163,796	1,187,518
AC3E	WRIAAC02	4	16	RESTROOM RENOVATION	167,837	26,854	194,691
				Totals for Priority Class 4	167,837	26,854	194,691
				Grand Totals for Projects >= 100,000 and < 500,000	1,505,283	240,845	1,746,129

### Detailed Project Summary Facility Condition Analysis Project Cost Range

WRIA: WRIGHT ANNEX

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
HV3A	WRIAHV01	3	5	HVAC SYSTEM REPLACEMENT	917,577	146,812	1,064,390
EL3B	WRIAEL03	3	7	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	442,121	70,739	512,860
				Totals for Priority Class 3	1,359,698	217,552	1,577,250
ES5B	WRIAES02	4	18	WINDOW REPLACEMENT	442,639	70,822	513,461
				Totals for Priority Class 4	442,639	70,822	513,461
				Grand Totals for Projects >= 500,000	1,802,337	288,374	2,090,711
				Grand Totals For All Projects:	3,578,165	572,506	4,150,672

# Detailed Project Summary Facility Condition Analysis Project Classification WRIA: WRIGHT ANNEX

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
FS1A	WRIAFS03	3	Capital Renewal	3	REPLACE EXIT SIGNS	6,689
ES5B	WRIAES02	18	Capital Renewal	4	WINDOW REPLACEMENT	513,461
					Totals for Capital Renewal	520,150
ES2B	WRIAES01	4	Deferred Maintenance	3	RESTORE BRICK VENEER	27,603
HV3A	WRIAHV01	5	Deferred Maintenance	3	HVAC SYSTEM REPLACEMENT	1,064,390
EL5A	WRIAEL01	6	Deferred Maintenance	3	REPLACE EMERGENCY GENERATOR	86,130
EL3B	WRIAEL03	7	Deferred Maintenance	3	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	512,860
EL4B	WRIAEL02	8	Deferred Maintenance	3	INTERIOR LIGHTING UPGRADE	264,704
IS1A	WRIAIS01	9	Deferred Maintenance	3	REFINISH FLOORING	236,547
IS2B	WRIAIS02	10	Deferred Maintenance	3	REFINISH WALLS	60,257
IS3B	WRIAIS03	11	Deferred Maintenance	3	REFINISH CEILINGS	113,902
IS4A	WRIAIS04	12	Deferred Maintenance	3	REPLACE INTERIOR DOORS	76,091
PL1A	WRIAPL01	13	Deferred Maintenance	3	WATER SUPPLY PIPING REPLACEMENT	226,999
PL2A	WRIAPL02	14	Deferred Maintenance	3	DRAIN PIPING REPLACEMENT	345,366
					Totals for Deferred Maintenance	3,014,849
FS2A	WRIAFS01	1	Plant Adaption	2	FIRE ALARM SYSTEM REPLACEMENT	105,350
FS3A	WRIAFS02	2	Plant Adaption	2	FIRE SPRINKLER SYSTEM EXTENSION	258,570
AC4A	WRIAAC01	15	Plant Adaption	4	INTERIOR AMENITY ACCESSIBILITY UPGRADES	20,034
AC3E	WRIAAC02	16	Plant Adaption	4	RESTROOM RENOVATION	194,691
AC3B	WRIAAC03	17	Plant Adaption	4	STAIR SAFETY UPGRADES	37,028
					Totals for Plant Adaption	615,673
					Grand Total:	4,150,672

# Detailed Project Summary Facility Condition Analysis Energy Conservation WRIA: WRIGHT ANNEX

Cat Code	Project Number	Pri Cls	Pri Seq	Project Title	Total Cost	Annual Savings	Simple Payback
FS1A	WRIAFS03	3	3	REPLACE EXIT SIGNS	6,689	20	334.46
HV3A	WRIAHV01	3	5	HVAC SYSTEM REPLACEMENT	1,064,390	16,720	63.66
EL4B	WRIAEL02	3	8	INTERIOR LIGHTING UPGRADE	264,704	7,910	33.46
				Totals for Priority Class 3	1,335,783	24,650	54.19
ES5B	WRIAES02	4	18	WINDOW REPLACEMENT	513,461	1,000	513.46
				Totals for Priority Class 4	513,461	1,000	513.46
				Grand Total:	1,849,244	25,650	72.1

# Detailed Project Summary Facility Condition Analysis Category/System Code WRIA: WRIGHT ANNEX

Cat. Code	Project Number		Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC4A	WRIAAC01	4	15	INTERIOR AMENITY ACCESSIBILITY UPGRADES	17,270	2,763	20,034
AC3E	WRIAAC02	4	16	RESTROOM RENOVATION	167,837	26,854	194,691
AC3B	WRIAAC03	4	17	STAIR SAFETY UPGRADES	31,920	5,107	37,028
				Totals for System Code: ACCESSIBILITY	217,028	34,724	251,752
EL5A	WRIAEL01	3	6	REPLACE EMERGENCY GENERATOR	74,250	11,880	86,130
EL3B	WRIAEL03	3	7	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	442,121	70,739	512,860
EL4B	WRIAEL02	3	8	INTERIOR LIGHTING UPGRADE	228,193	36,511	264,704
				Totals for System Code: ELECTRICAL	744,564	119,130	863,694
ES2B	WRIAES01	3	4	RESTORE BRICK VENEER	23,796	3,807	27,603
ES5B	WRIAES02	4	18	WINDOW REPLACEMENT	442,639	70,822	513,461
				Totals for System Code: EXTERIOR	466,435	74,630	541,065
FS2A	WRIAFS01	2	1	FIRE ALARM SYSTEM REPLACEMENT	90,819	14,531	105,350
FS3A	WRIAFS02	2	2	FIRE SPRINKLER SYSTEM EXTENSION	222,906	35,665	258,570
FS1A	WRIAFS03	3	3	REPLACE EXIT SIGNS	5,767	923	6,689
				Totals for System Code: FIRE/LIFE SAFETY	319,491	51,119	370,610
HV3A	WRIAHV01	3	5	HVAC SYSTEM REPLACEMENT	917,577	146,812	1,064,390
				Totals for System Code: HVAC	917,577	146,812	1,064,390
IS1A	WRIAIS01	3	9	REFINISH FLOORING	203,919	32,627	236,547
IS2B	WRIAIS02	3	10	REFINISH WALLS	51,946	8,311	60,257
IS3B	WRIAIS03	3	11	REFINISH CEILINGS	98,191	15,711	113,902
IS4A	WRIAIS04	3	12	REPLACE INTERIOR DOORS	65,596	10,495	76,091
				Totals for System Code: INTERIOR/FINISH SYS.	419,652	67,144	486,796
PL1A	WRIAPL01	3	13	WATER SUPPLY PIPING REPLACEMENT	195,689	31,310	226,999
PL2A	WRIAPL02	3	14	DRAIN PIPING REPLACEMENT	297,729	47,637	345,366
				Totals for System Code: PLUMBING	493,418	78,947	572,365
				Grand Total:	3,578,165	572,506	4,150,672

# **FACILITY CONDITION ANALYSIS**



# SPECIFIC PROJECT DETAILS ILLUSTRATING DESCRIPTION / COST

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

### **Project Description**

Project Number: WRIAFS01 Title: FIRE ALARM SYSTEM REPLACEMENT

Priority Sequence: 1

Priority Class: 2

Category Code: FS2A System: FIRE/LIFE SAFETY

Component: DETECTION ALARM

Element: GENERAL

Building Code: WRIA

Building Name: WRIGHT ANNEX

Subclass/Savings: Not Applicable

Code Application: ADAAG 702.1

NFPA 1, 101

Project Class: Plant Adaption

**Project Date:** 11/23/2009

Project

**Location:** Floor-wide: Floor(s) 1, 2, 3

### **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.

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

# **Project Cost**

Project Number: WRIAFS01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Fire alarm control panel(s), annunciator, smoke and heat detectors, manual pull stations, audible and visual alarms, wiring, raceways, and cut and patching materials	SF	39,279	\$1.46	\$57,347	\$0.89	\$34,958	\$92,306
Project Totals	:	_	_	\$57,347	-	\$34,958	\$92,306

Material/Labor Cost		\$92,306
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$75,682
General Contractor Mark Up at 20.0%	+	\$15,136
Construction Cost		\$90,819
Professional Fees at 16.0%	+	\$14,531
Total Project Cost		\$105,350

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

### **Project Description**

Project Number: WRIAFS02 Title: FIRE SPRINKLER SYSTEM EXTENSION

Priority Sequence: 2

Priority Class: 2

Category Code: FS3A System: FIRE/LIFE SAFETY

Component: SUPPRESSION

Element: SPRINKLERS

Building Code: WRIA

Building Name: WRIGHT ANNEX

Subclass/Savings: Not Applicable

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

Project Class: Plant Adaption

**Project Date:** 11/23/2009

**Project** 

**Location:** Floor-wide: Floor(s) 1, 2, 3

### **Project Description**

The second floor of the Annex is protected with a wet-pipe fire suppression system. However, the remaining areas of the building are unprotected. 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. Additionally, replace the sprinkler heads on the existing system. The cost includes the square footage of Wright Place located on the first floor as well as the third floor of the Annex building. Additionally, replace the 1990s vintage fire sprinkler heads per NFPA recommendations.

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

# **Project Cost**

Project Number: WRIAFS02

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Install wet-pipe sprinkler system, including valves, piping, sprinkler heads, piping supports, etc.	SF	36,186	\$3.08	\$111,453	\$3.77	\$136,421	\$247,874
Fire sprinkler head replacement	SF	13,093	\$0.09	\$1,178	\$0.35	\$4,583	\$5,761
Project Totals	 ::			\$112,631	'	\$141,004	\$253,635

Material/Labor Cost		\$253,635
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$185,755
General Contractor Mark Up at 20.0%	+	\$37,151
Construction Cost		\$222,906
Professional Fees at 16.0%	+	\$35,665
Total Project Cost		\$258,570

### Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

### **Project Description**

Project Number: WRIAFS03 Title: REPLACE EXIT SIGNS

Priority Sequence: 3

Priority Class: 3

Category Code: FS1A System: FIRE/LIFE SAFETY

Component: LIGHTING

Element: EGRESS LTG./EXIT SIGNAGE

Building Code: WRIA

Building Name: WRIGHT ANNEX

Subclass/Savings: Energy Conservation \$20

Code Application: NFPA 101-47

IBC 1011

Project Class: Capital Renewal

Project Date: 11/23/2009

**Project** 

**Location:** Floor-wide: Floor(s) 1, 2, 3

### **Project Description**

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

### Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

# **Project Cost**

Project Number: WRIAFS03

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Replacement of existing exit signs with LED units	EA	40	\$76.00	\$3,040	\$85.00	\$3,400	\$6,440
Project Totals	s:			\$3,040		\$3,400	\$6,440

Material/Labor Cost		\$6,440
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$4,805
General Contractor Mark Up at 20.0%	+	\$961
Construction Cost		\$5,767
Professional Fees at 16.0%	+	\$923
Total Project Cost		\$6,689

### Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

### **Project Description**

Project Number: WRIAES01 Title: RESTORE BRICK VENEER

Priority Sequence: 4

Priority Class: 3

Category Code: ES2B System: EXTERIOR

Component: COLUMNS/BEAMS/WALLS

Element: FINISH

Building Code: WRIA

Building Name: WRIGHT ANNEX

Subclass/Savings: Not Applicable

Code Application: Not Applicable

Project Class: Deferred Maintenance

**Project Date:** 10/8/2009

**Project** 

**Location:** Building-wide: Floor(s) 1

### **Project Description**

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

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

# **Project Cost**

Project Number: WRIAES01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Cleaning and surface preparation	SF	14,490	\$0.11	\$1,594	\$0.22	\$3,188	\$4,782
Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope)	LF	1,449	\$2.45	\$3,550	\$4.99	\$7,231	\$10,781
Applied finish or sealant	SF	14,490	\$0.22	\$3,188	\$0.82	\$11,882	\$15,070
Project Totals	s:		1	\$8,332	1	\$22,300	\$30,632

Material/Labor Cost		\$30,632
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$19,830
General Contractor Mark Up at 20.0%	+	\$3,966
Construction Cost		\$23,796
Professional Fees at 16.0%	+	\$3,807
Total Project Cost		\$27,603

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

### **Project Description**

Project Number: WRIAHV01 Title: HVAC SYSTEM REPLACEMENT

Priority Sequence: 5

Priority Class: 3

Category Code: HV3A System: HVAC

Component: HEATING/COOLING

Element: SYSTEM RETROFIT/REPLACE

Building Code: WRIA

Building Name: WRIGHT ANNEX

Subclass/Savings: Energy Conservation \$16,720

Code Application: ASHRAE 62-2004

Project Class: Deferred Maintenance

**Project Date:** 11/23/2009

Project

**Location:** Floor-wide: Floor(s) 1, 2, 3, R

### **Project Description**

Although a relatively new multizone air handler was observed in the third floor mechanical room, the majority of the HVAC equipment is outdated, late 1960s equipment. A complete redesign and replacement of the aged 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, pressure reducing valves, 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. The cost estimate excludes the third floor area but includes Wright Place located on the first floor.

### Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

# **Project Cost**

Project Number: WRIAHV01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Air handlers, exhaust fans, ductwork, VAVs, VFDs, DDCs, pressure reducing valves, pumps, piping, electrical connections, and demolition of existing equipment	SF	36,186	\$12.93	\$467,885	\$15.81	\$572,101	\$1,039,986
Project Totals	s:			\$467,885		\$572,101	\$1,039,986

Total Project Cost		\$1,064,390
Professional Fees at 16.0%	+	\$146,812
Construction Cost		\$917,577
General Contractor Mark Up at 20.0%	+	\$152,930
Material/Labor Indexed Cost		\$764,648
Labor Index		51.3%
Material Index		100.7%
Material/Labor Cost		\$1,039,986

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

### **Project Description**

Project Number: WRIAEL01 Title: REPLACE EMERGENCY GENERATOR

Priority Sequence: 6

Priority Class: 3

Category Code: EL5A System: ELECTRICAL

Component: EMERGENCY POWER SYSTEM

Element: GENERATION/DISTRIBUTION

Building Code: WRIA

Building Name: WRIGHT ANNEX

Subclass/Savings: Not Applicable

Code Application: NEC Article 700

Project Class: Deferred Maintenance

**Project Date:** 11/23/2009

Project

Location: Item Only: Floor(s) 1

### **Project Description**

The original Onan 30 kW natural gas generator is outdated and undersized for the entire Wright complex. Replace the existing emergency generator set with an appropriately sized unit based on current facility requirements. Replacement costs include the demolition of existing equipment and installation a new generator, automatic transfer switches (ATS), diesel fuel tank, battery and charger, exhaust system, and necessary electrical connections. Specify a diesel-fired unit unless otherwise directed by local standards. The emergency generator size has been increased from 30 kW to 75 kW to serve all three connected facilities.

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

# **Project Cost**

Project Number: WRIAEL01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Diesel generator set, including fuel tank, battery, charger, exhaust, and automatic transfer switches	KW	75	\$724	\$54,300	\$187	\$14,025	\$68,325
Project Totals		-		\$54,300		\$14,025	\$68,325

Material/Labor Cost		\$68,325
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$61,875
General Contractor Mark Up at 20.0%	+	\$12,375
Construction Cost		\$74,250
Professional Fees at 16.0%	+	\$11,880
Total Project Cost		\$86,130

### Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

### **Project Description**

Project Number: WRIAEL03 Title: UPGRADE ELECTRICAL DISTRIBUTION

**NETWORK** 

Priority Sequence: 7

Priority Class: 3

Category Code: EL3B System: ELECTRICAL

Component: SECONDARY DISTRIBUTION

Element: DISTRIBUTION NETWORK

Building Code: WRIA

Building Name: WRIGHT ANNEX

Subclass/Savings: Not Applicable

Code Application: NEC Articles 110, 210, 220, 230

Project Class: Deferred Maintenance

**Project Date:** 11/23/2009

Project

**Location:** Floor-wide: Floor(s) 1, 2, 3

### **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 GFCI protection where required, and clearly label all panels for circuit identification.

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

# **Project Cost**

Project Number: WRIAEL03

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Power panels, conductors, raceways, devices, demolition, and cut and patching materials	SF	39,279	\$5.28	\$207,393	\$7.92	\$311,090	\$518,483
Project Totals				\$207,393		\$311,090	\$518,483

Material/Labor Cost		\$518,483
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$368,434
General Contractor Mark Up at 20.0%	+	\$73,687
Construction Cost		\$442,121
Professional Fees at 16.0%	+	\$70,739
Total Project Cost		\$512,860

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

### **Project Description**

Project Number: WRIAEL02 Title: INTERIOR LIGHTING UPGRADE

Priority Sequence: 8

Priority Class: 3

Category Code: EL4B System: ELECTRICAL

Component: DEVICES AND FIXTURES

Element: INTERIOR LIGHTING

Building Code: WRIA

Building Name: WRIGHT ANNEX

Subclass/Savings: Energy Conservation \$7,910

Code Application: NEC Articles 210, 410

Project Class: Deferred Maintenance

**Project Date:** 11/23/2009

Project

**Location:** Floor-wide: Floor(s) 1, 2, 3

### **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. The cost estimate excludes the new lighting fixtures in the third floor lecture room.

### Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

# **Project Cost**

Project Number: WRIAEL02

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
High efficiency fluorescent fixtures, occupancy sensors, and demolition of existing lighting	SF	38,779	\$3.00	\$116,337	\$3.67	\$142,319	\$258,656
Project Tota	ls:		,	\$116.337	,	\$142,319	\$258.656

Material/Labor Cost		\$258,656
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$190,161
General Contractor Mark Up at 20.0%	+	\$38,032
Construction Cost		\$228,193
Professional Fees at 16.0%	+	\$36,511
Total Project Cost		\$264,704

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

### **Project Description**

Project Number: WRIAIS01 Title: REFINISH FLOORING

Priority Sequence: 9

Priority Class: 3

Category Code: IS1A System: INTERIOR/FINISH SYS.

Component: FLOOR

Element: FINISHES-DRY

Building Code: WRIA

Building Name: WRIGHT ANNEX

Subclass/Savings: Not Applicable

Code Application: EPA 40 CFR 61.M, 763

OSHA 29 CFR 1910.1001, 1926.1101

Project Class: Deferred Maintenance

**Project Date:** 10/8/2009

Project

**Location:** Floor-wide: Floor(s) 1, 2, 3

### **Project Description**

Interior floor finishes include carpet and vinyl tile. The applications vary in age and condition from area to area. Floor finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts. Portions of the vinyl tile are 9 inch tile and may contain asbestos. Care should be taken prior to the removal of this material.

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

# **Project Cost**

Project Number: WRIAIS01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Carpet	SF	11,940	\$5.36	\$63,998	\$2.00	\$23,880	\$87,878
Vinyl floor tile	SF	17,910	\$3.53	\$63,222	\$2.50	\$44,775	\$107,997
Allowance for abatement of suspected asbestos	SF	8,955	\$0.35	\$3,134	\$0.75	\$6,716	\$9,851
Project Total	s:			\$130,355		\$75,371	\$205,726

Material/Labor Cost		\$205,726
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$169,933
General Contractor Mark Up at 20.0%	+	\$33,987
Construction Cost		\$203,919
Professional Fees at 16.0%	+	\$32,627
Total Project Cost		\$236,547

### Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

### **Project Description**

Project Number: WRIAIS02 Title: REFINISH WALLS

Priority Sequence: 10

Priority Class: 3

Category Code: IS2B System: INTERIOR/FINISH SYS.

Component: PARTITIONS

Element: FINISHES

Building Code: WRIA

Building Name: WRIGHT ANNEX

Subclass/Savings: Not Applicable

Code Application: Not Applicable

Project Class: Deferred Maintenance

**Project Date:** 10/8/2009

Project

**Location:** Floor-wide: Floor(s) 1, 2, 3

### **Project Description**

Interior wall finishes consist of painted or vinyl covered walls. The applications vary in age and condition. Wall finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

# **Project Cost**

Project Number: WRIAIS02

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Standard wall finish (paint, wall covering, etc.)	SF	73,780	\$0.17	\$12,543	\$0.81	\$59,762	\$72,304
Project Totals				\$12.543		\$59.762	\$72.304

Material/Labor Cost		\$72,304
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$43,288
General Contractor Mark Up at 20.0%	+	\$8,658
Construction Cost		\$51,946
Professional Fees at 16.0%	+	\$8,311
Total Project Cost		\$60,257

### Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

#### **Project Description**

Project Number: WRIAIS03 Title: REFINISH CEILINGS

Priority Sequence: 11

Priority Class: 3

Category Code: IS3B System: INTERIOR/FINISH SYS.

Component: CEILINGS

Element: REPLACEMENT

Building Code: WRIA

Building Name: WRIGHT ANNEX

Subclass/Savings: Not Applicable

Code Application: Not Applicable

Project Class: Deferred Maintenance

**Project Date:** 10/8/2009

Project

**Location:** Floor-wide: Floor(s) 1, 2, 3

### **Project Description**

Ceiling finishes include lay-in acoustical tile and painted ceilings. The applications vary in age and condition from area to area. Ceiling finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

# **Project Cost**

Project Number: WRIAIS03

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Acoustical tile ceiling system	SF	20,900	\$2.12	\$44,308	\$2.98	\$62,282	\$106,590
Painted ceiling finish application	SF	8,960	\$0.17	\$1,523	\$0.81	\$7,258	\$8,781
Project To	otals:			\$45,831		\$69,540	\$115,371

Material/Labor Cost		\$115,371
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$81,826
General Contractor Mark Up at 20.0%	+	\$16,365
Construction Cost		\$98,191
Professional Fees at 16.0%	+	\$15,711
Total Project Cost		\$113,902

### Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

#### **Project Description**

Project Number: WRIAIS04 Title: REPLACE INTERIOR DOORS

Priority Sequence: 12

Priority Class: 3

Category Code: IS4A System: INTERIOR/FINISH SYS.

Component: DOORS

Element: GENERAL

Building Code: WRIA

Building Name: WRIGHT ANNEX

Subclass/Savings: Not Applicable

Code Application: Not Applicable

Project Class: Deferred Maintenance

**Project Date:** 10/8/2009

**Project** 

**Location:** Floor-wide: Floor(s) 1, 2, 3

### **Project Description**

The condition of the interior door systems is such that door system replacements are recommended as part of a comprehensive renovation effort. Complete demolition of existing door systems and replacement according to a code compliant plan to protect egress passages properly is recommended. Lever door hardware and Braille signage should be included in this effort.

### Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

# **Project Cost**

Project Number: WRIAIS04

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Rated door and rated metal frame, including all hardware and accessible signage	EA	50	\$672	\$33,600	\$812	\$40,600	\$74,200
Project Tota	ls:	-		\$33.600		\$40,600	\$74,200

Material/Labor Cost		\$74,200
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$54,663
General Contractor Mark Up at 20.0%	+	\$10,933
Construction Cost		\$65,596
Professional Fees at 16.0%	+	\$10,495
Total Project Cost		\$76,091

### Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

### **Project Description**

Project Number: WRIAPL01 Title: WATER SUPPLY PIPING REPLACEMENT

Priority Sequence: 13

Priority Class: 3

Category Code: PL1A System: PLUMBING

Component: DOMESTIC WATER

Element: PIPING NETWORK

Building Code: WRIA

Building Name: WRIGHT ANNEX

Subclass/Savings: Not Applicable

Code Application: IPC Chapter 6

Project Class: Deferred Maintenance

**Project Date:** 11/23/2009

Project

**Location:** Floor-wide: Floor(s) 1, 2, 3

### **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.

### Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

# **Project Cost**

Project Number: WRIAPL01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Copper pipe and fittings, valves, backflow prevention devices, insulation, hangers, demolition, and cut and patching materials	SF	39,279	\$1.81	\$71,095	\$4.54	\$178,327	\$249,422
Project Totals:	:		-	\$71,095		\$178,327	\$249,422

Material/Labor Cost		\$249,422
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$163,074
General Contractor Mark Up at 20.0%	+	\$32,615
Construction Cost		\$195,689
Professional Fees at 16.0%	+	\$31,310
Total Project Cost		\$226,999

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

### **Project Description**

Project Number: WRIAPL02 Title: DRAIN PIPING REPLACEMENT

Priority Sequence: 14

Priority Class: 3

Category Code: PL2A System: PLUMBING

Component: WASTEWATER

Element: PIPING NETWORK

Building Code: WRIA

Building Name: WRIGHT ANNEX

Subclass/Savings: Not Applicable

Code Application: IPC Chapters 7-11

Project Class: Deferred Maintenance

**Project Date:** 11/23/2009

Project

**Location:** Floor-wide: Floor(s) 1, 2, 3

### **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 runouts to the fixtures. Install new floor drains, roof drains, and traps.

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

# **Project Cost**

Project Number: WRIAPL02

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Cast-iron drain piping and fittings, copper pipe and fittings, floor / roof drains, traps, hangers, demolition, and cut and patching materials	SF	39,279	\$2.89	\$113,516	\$6.64	\$260,813	\$374,329
Project Totals:	:	-	-	\$113,516		\$260,813	\$374,329

Material/Labor Cost		\$374,329
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$248,108
General Contractor Mark Up at 20.0%	+	\$49,622
Construction Cost		\$297,729
Professional Fees at 16.0%	+	\$47,637
Total Project Cost		\$345,366

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

#### **Project Description**

Project Number: WRIAAC01 Title: INTERIOR AMENITY ACCESSIBILITY

**UPGRADES** 

Priority Sequence: 15

Priority Class: 4

Category Code: AC4A System: ACCESSIBILITY

Component: GENERAL

Element: FUNCTIONAL SPACE MOD.

Building Code: WRIA

Building Name: WRIGHT ANNEX

Subclass/Savings: Not Applicable

Code Application: ADAAG 211, 602, 804

Project Class: Plant Adaption

**Project Date:** 10/8/2009

Project

**Location:** Floor-wide: Floor(s) 1, 2, 3

### **Project Description**

Current accessibility legislation requires that building amenities be generally accessible to all persons. The configurations of the break room kitchenettes and drinking fountains are barriers to accessibility. The installation of wheelchair-accessible kitchenette cabinetry is recommended where applicable. All single level drinking fountains should be replaced with dual level, refrigerated units.

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

# **Project Cost**

Project Number: WRIAAC01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
ADA compliant kitchenette unit with base cabinetry, overhead cabinetry, and amenities	SYS	1	\$4,894	\$4,894	\$1,999	\$1,999	\$6,893
Dual level drinking fountain	EA	2	\$1,216	\$2,432	\$374	\$748	\$3,180
Alcove construction, including finishes	EA	2	\$877	\$1,754	\$3,742	\$7,484	\$9,238
Project Totals	:			\$9,080		\$10,231	\$19,311

Material/Labor Cost		\$19,311
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$14,392
General Contractor Mark Up at 20.0%	+	\$2,878
Construction Cost		\$17,270
Professional Fees at 16.0%	+	\$2,763
Total Project Cost		\$20,034

### Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

### **Project Description**

Project Number: WRIAAC02 Title: RESTROOM RENOVATION

Priority Sequence: 16

Priority Class: 4

Category Code: AC3E System: ACCESSIBILITY

Component: INTERIOR PATH OF TRAVEL

Element: RESTROOMS/BATHROOMS

Building Code: WRIA

Building Name: WRIGHT ANNEX

Subclass/Savings: Not Applicable

**Code Application:** ADAAG 604, 605, 606, 607, 608

Project Class: Plant Adaption

**Project Date:** 10/8/2009

**Project** 

**Location:** Floor-wide: Floor(s) 1, 2, 3

### **Project Description**

The restroom fixtures and finishes are mostly original to the year of construction or latest major renovation. The fixtures are sound but dated and are spaced such that clearances are not ADA compliant. A comprehensive restroom renovation, including new fixtures, finishes, partitions, and accessories, is recommended. Restroom expansion may be necessary in order to meet modern minimum fixture counts and accessibility legislation.

#### Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

#### **Project Cost**

Project Number: WRIAAC02

#### **Task Cost Estimate**

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Major restroom renovation, including fixtures, finishes, partitions, accessories, and expansion if necessary (assumes 55 square feet of restroom area per fixture)	FIXT	49	\$1,969	\$96,481	\$1,699	\$83,251	\$179,732
Project Totals	:			\$96,481		\$83,251	\$179,732

Material/Labor Cost		\$179,732
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$139,864
General Contractor Mark Up at 20.0%	+	\$27,973
Construction Cost		\$167,837
Professional Fees at 16.0%	+	\$26,854
Total Project Cost		\$194,691

#### Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

#### **Project Description**

Project Number: WRIAAC03 Title: STAIR SAFETY UPGRADES

Priority Sequence: 17

Priority Class: 4

Category Code: AC3B System: ACCESSIBILITY

Component: INTERIOR PATH OF TRAVEL

Element: STAIRS AND RAILINGS

Building Code: WRIA

Building Name: WRIGHT ANNEX

Subclass/Savings: Not Applicable

Code Application: IBC 1003.3

ADAAG 505

Project Class: Plant Adaption

**Project Date:** 10/8/2009

Project

**Location:** Floor-wide: Floor(s) 1, 2, 3

#### **Project Description**

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

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

#### **Project Cost**

Project Number: WRIAAC03

#### **Task Cost Estimate**

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Wall-mounted handrail system per floor	FLR	6	\$573	\$3,438	\$521	\$3,126	\$6,564
Center handrail / guardrail system per floor	FLR	6	\$1,297	\$7,782	\$833	\$4,998	\$12,780
Stair tread and landing finish upgrades per floor	FLR	6	\$1,449	\$8,694	\$773	\$4,638	\$13,332
Project Totals	s:			\$19,914		\$12,762	\$32,676

Material/Labor Cost		\$32,676
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$26,600
General Contractor Mark Up at 20.0%	+	\$5,320
Construction Cost		\$31,920
Professional Fees at 16.0%	+	\$5,107
Total Project Cost		\$37,028

#### Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

#### **Project Description**

Project Number: WRIAES02 Title: WINDOW REPLACEMENT

Priority Sequence: 18

Priority Class: 4

Category Code: ES5B System: EXTERIOR

Component: FENESTRATIONS

Element: WINDOWS

Building Code: WRIA

Building Name: WRIGHT ANNEX

Subclass/Savings: Energy Conservation \$1,000

Code Application: Not Applicable

Project Class: Capital Renewal

**Project Date:** 10/8/2009

Project

**Location:** Building-wide: Floor(s) 1

#### **Project Description**

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

# Facility Condition Analysis Section Three

WRIA: WRIGHT ANNEX

#### **Project Cost**

Project Number: WRIAES02

**Task Cost Estimate** 

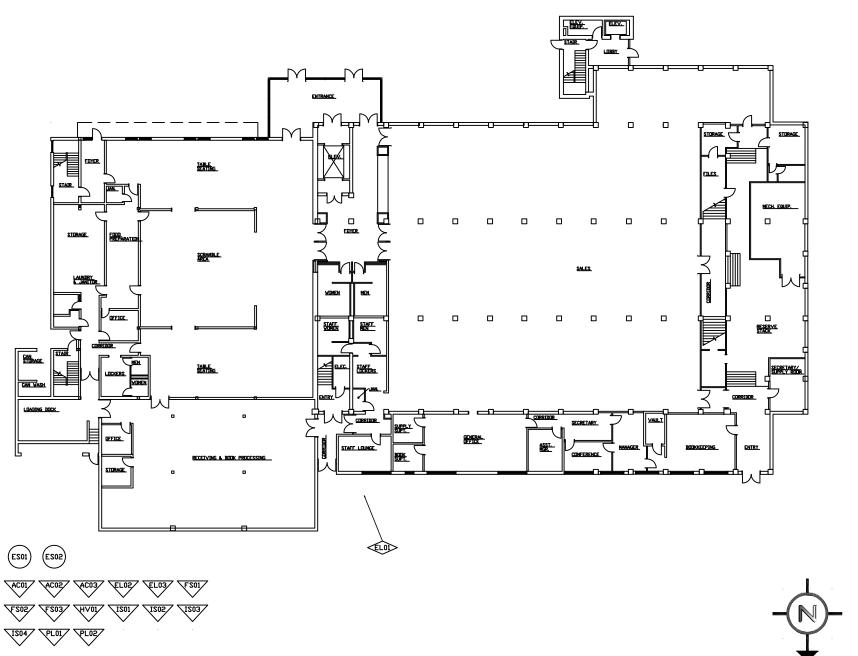
Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Typical standard glazing applications	SF	4,830	\$57.27	\$276,614	\$36.45	\$176,054	\$452,668
Project Totals:				\$276,614		\$176,054	\$452,668

Material/Labor Cost		\$452,668
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$368,866
General Contractor Mark Up at 20.0%	+	\$73,773
Construction Cost		\$442,639
Professional Fees at 16.0%	+	\$70,822
Total Project Cost		\$513,461

## **FACILITY CONDITION ANALYSIS**

SECTION 4

DRAWINGS AND PROJECT LOCATIONS



WRIGHT ANNEX

BLDG NO. WRIA

CORPORATION

FACILITY CONDITION ANALYSIS

2165 West Park Court Suite N Stone Mountain GA 30087 770.879.7376

> PROJECT NUMBER APPLIES TO

ONE ROOM ONLY

PROJECT NUMBER APPLIES TO ONE ITEM ONLY

PROJECT NUMBER APPLIES TO ENTIRE BUILDING

PROJECT NUMBER APPLIES TO ENTIRE FLOOR

PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS



PROJECT NUMBER APPLIES TO AREA AS NOTED

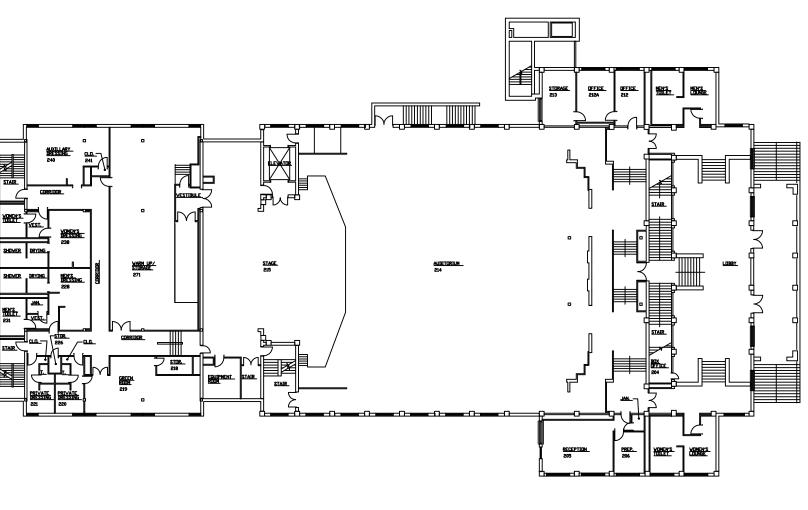
Date: 12/10/09 Drawn by: J.T.V.

Project No. 09-041

FIRST FLOOR PLAN

Sheet No.

1 of 3



WRIGHT ANNEX

BLDG NO. WRIA

CORPORATION

FACILITY CONDITION ANALYSIS

2165 West Park Court Suite N Stone Mountain GA 30087 770.879.7376

> PROJECT NUMBER APPLIES TO ONE ROOM ONLY

PROJECT NUMBER ONE ITEM ONLY

PROJECT NUMBER

ENTIRE BUILDING

PROJECT NUMBER APPLIES TO ENTIRE FLOOR

PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS

PROJECT NUMBER

APPLIES TO AREA AS NOTED

Date: 12/10/09 Drawn by: J.T.V.

Project No. 09-041

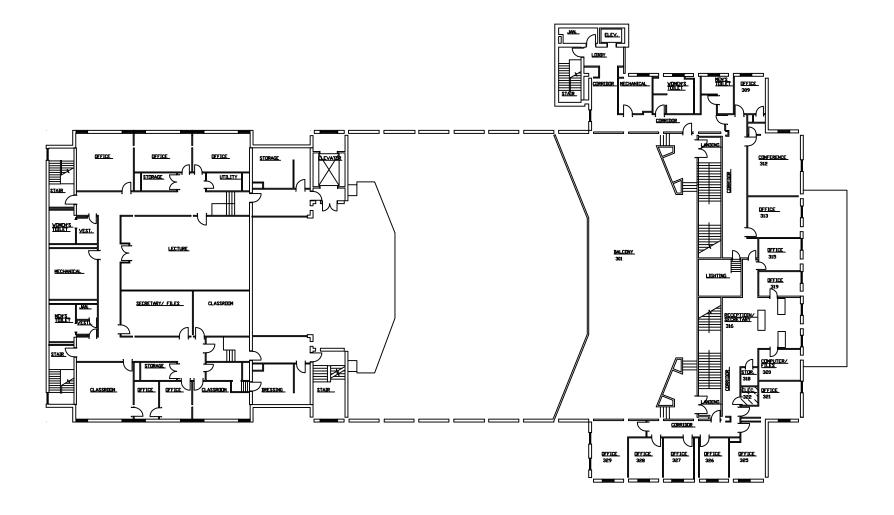
SECOND FLOOR PLAN

Sheet No.

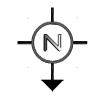
2 of 3











WRIGHT ANNEX

BLDG NO. WRIA



CORPORATION

FACILITY CONDITION ANALYSIS

2165 West Park Court Suite N Stone Mountain GA 30087 770.879.7376



ONE ROOM ONLY

PROJECT NUMBER ONE ITEM ONLY

PROJECT NUMBER ENTIRE BUILDING

PROJECT NUMBER APPLIES TO ENTIRE FLOOR

PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS



PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 12/10/09 Drawn by: J.T.V.

Project No. 09-041

THIRD FLOOR PLAN

Sheet No.

3 of 3

**FACILITY CONDITION ANALYSIS** 

SECTION 5

LIFE CYCLE MODEL SUMMARY AND PROJECTIONS

# Life Cycle Model Building Component Summary

**WRIA: WRIGHT ANNEX** 

Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
B2010	EXTERIOR FINISH RENEWAL	14,490	SF	\$1.30	.31	\$5,856	1968	10
B2020	STANDARD GLAZING AND CURTAIN WALL	4,830	SF	\$104.04		\$502,497	1968	55
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	5	LEAF	\$4,311.24		\$21,556	2000	20
B2030	LOW TRAFFIC EXTERIOR DOOR SYSTEM	5	LEAF	\$2,863.29		\$14,316	2000	40
B3010	BUILT-UP ROOF	13,090	SF	\$6.70		\$87,737	2000	20
C1020	RATED DOOR AND FRAME INCLUDING HARDWARE	50	LEAF	\$1,489.06		\$74,453	1968	35
C1020	INTERIOR DOOR HARDWARE	50	EA	\$423.04		\$21,152	1968	15
C3010	STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.)	73,780	SF	\$0.80		\$59,101	1968	10
C3020	CARPET	11,940	SF	\$8.75		\$104,433	1968	10
C3020	VINYL FLOOR TILE	8,955	SF	\$6.59		\$58,994	1968	15
C3020	VINYL FLOOR TILE	8,955	SF	\$6.59		\$58,994	1968	15
C3030	ACOUSTICAL TILE CEILING SYSTEM	20,900	SF	\$4.99		\$104,354	1968	15
C3030	PAINTED CEILING FINISH APPLICATION	8,960	SF	\$0.80		\$7,177	1968	15
D1010	ELEVATOR MODERNIZATION - HYDRAULIC	1	EA	\$158,628.64		\$158,629	1968	25
D2010	PLUMBING FIXTURES - STUDENT UNION	39,279	SF	\$7.96		\$312,558	1968	35
D2020	WATER PIPING - STUDENT UNION	39,279	SF	\$5.66		\$222,428	1968	35
D2030	DRAIN PIPING - STUDENT UNION	39,279	SF	\$8.60		\$337,604	1968	40
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	6	EA	\$2,768.62		\$16,612	1968	20
D3040	HVAC SYSTEM - STUDENT UNION	26,186	SF	\$28.79		\$753,849	1968	25
D3040	HVAC SYSTEM - STUDENT UNION	13,093	SF	\$28.79		\$376,924	2004	25
D4010	FIRE SPRINKLER SYSTEM	13,093	SF	\$6.86		\$89,832	1990	80
D4010	FIRE SPRINKLER HEADS	13,093	SF	\$0.38		\$4,938	1990	20
D5010	ELECTRICAL SYSTEM - STUDENT UNION	39,279	SF	\$12.78		\$501,813	1968	50
D5010	ELECTRICAL SWITCHGEAR 277/480V	600	AMP	\$39.56		\$23,738	2004	20
D5020	EXIT SIGNS (CENTRAL POWER)	40	EA	\$163.78		\$6,551	1990	20
D5020	EXTERIOR LIGHT (HID)	2	EA	\$689.58		\$1,379	1968	20
D5020	LIGHTING - STUDENT UNION	38,779	SF	\$6.68		\$259,184	1968	20
D5020	LIGHTING - STUDENT UNION	500	SF	\$6.68		\$3,342	2004	20
D5030	FIRE ALARM SYSTEM, POINT ADDRESSABLE	39,279	SF	\$2.61		\$102,698	1968	15
D5040	GENERATOR, DIESEL (UP TO 50 KW)	30 5.1.1	KW	\$1,123.84		\$33,715	1968	25

### **Life Cycle Model**

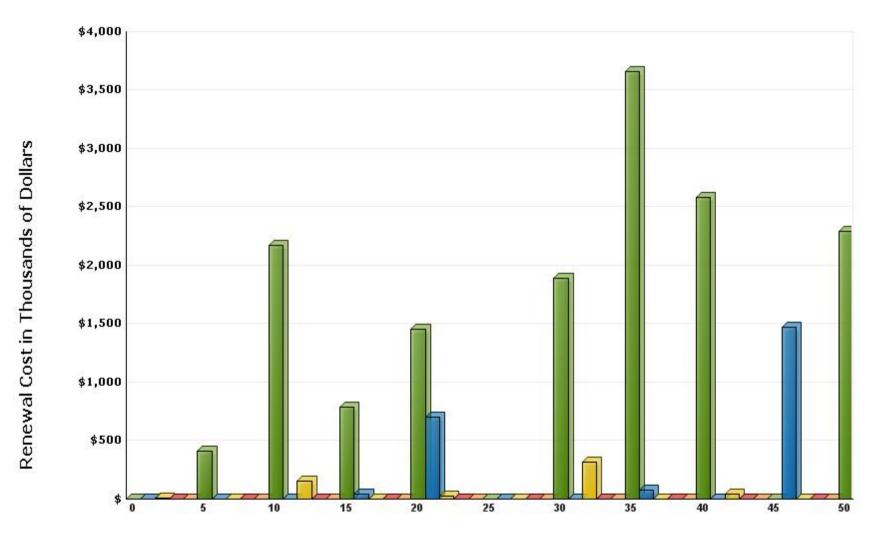
### **Building Component Summary**

**WRIA: WRIGHT ANNEX** 

Uniformat Code	Component Description	Qty Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
E2010	KITCHENETTE UNIT WITH CABINETRY AND AMENITIES	1 LOT	\$5,940.22		\$5,940	1968	20
					\$4,332,356		

# **Life Cycle Model Expenditure Projections**

**WRIA: WRIGHT ANNEX** 



**Future Year** 

Average Annual Renewal Cost Per SqFt \$3.94

## **FACILITY CONDITION ANALYSIS**

SECTION 6

# PHOTOGRAPHIC LOG

#### Photo Log - Facility Condition Analysis

#### WRIA: WRIGHT ANNEX

Photo ID No	Description	Location	Date
WRIA001a	Roof detail	Roof	9/4/2009
WRIA001e	Original air handler	Attic	9/4/2009
WRIA002a	Interior corridor finishes	Third floor	9/4/2009
WRIA002e	Original exhaust fans	Roof	9/4/2009
WRIA003a	Interior room finishes	Third floor	9/4/2009
WRIA003e	Typical exhaust fans	Roof	9/4/2009
WRIA004a	Window detail	Third floor	9/4/2009
WRIA004e	LED exit signs	Third floor, stairwell	9/4/2009
WRIA005a	Stairwell design	Third floor	9/4/2009
WRIA005e	New air handler	Third floor, mechanical room	9/4/2009
WRIA006a	Single level drinking fountain	Third floor	9/4/2009
WRIA006e	New service entrance transformer	North exterior	9/4/2009
WRIA007a	Interior room finishes	Second floor	9/4/2009
WRIA007e	Original Onan emergency generator	North exterior	9/4/2009
WRIA008a	Interior corridor finishes	Second floor	9/4/2009
WRIA008e	Square D main switchboard	North exterior	9/4/2009
WRIA009a	Typical door detail	Second floor	9/4/2009
WRIA009e	Discolored HID exterior fixture	North exterior	9/4/2009
WRIA010a	Void	Void	9/4/2009
WRIA010e	New cooling tower	East facade	9/4/2009
WRIA011a	Bookstore finishes	First floor	9/4/2009
WRIA011e	New AHU-1	East facade	9/4/2009
WRIA012a	Office finishes	First floor	9/4/2009
WRIA013a	Break room sink	First floor	9/4/2009
WRIA014a	East facade	Exterior elevation	9/4/2009
WRIA015a	North facade	Exterior elevation	9/4/2009
WRIA016a	North facade	Exterior elevation	9/4/2009
WRIA017a	North facade	Exterior elevation	9/4/2009
WRIA018a	South facade	Exterior elevation	9/4/2009

### Facility Condition Analysis - Photo Log







WRIA001E.jpg



WRIA002A.jpg



WRIA002E.jpg



WRIA003A.jpg



WRIA003E.jpg



WRIA004A.jpg



WRIA004E.jpg



WRIA005A.jpg



WRIA005E.jpg



WRIA006A.jpg



WRIA006E.jpg



WRIA007A.jpg



WRIA007E.jpg



WRIA008A.jpg



WRIA008E.jpg



WRIA009A.jpg



WRIA009E.jpg



WRIA010E.jpg



WRIA011A.jpg

## Facility Condition Analysis - Photo Log







WRIA012A.jpg



WRIA013A.jpg



WRIA014A.jpg









WRIA015A.jpg

WRIA016A.jpg

WRIA017A.jpg

WRIA018A.jpg