EAST CAROLINA UNIVERSITY

STUDENT RECREATION CENTER

ASSET CODE: SRCB

FACILITY CONDITION ANALYSIS

DECEMBER 17, 2009





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FACILITY CONDITION ANALYSIS



GENERAL ASSET INFORMATION

EXECUTIVE SUMMARY - STUDENT RECREATION CENTER



Future Year

Average Annual Renewal Cost Per SqFt \$5.33



B. ASSET SUMMARY

The Student Recreation Center was reportedly constructed in 1996 and is located in the central main campus area. The facility supports the adjacent residential dormitory buildings as well as the general campus population. The modern styled building includes a large high bay entrance atrium, natatorium, outdoor pool, weight training rooms, dance studios, racquet and ball courts, basketball and volleyball courts, locker rooms, equipment storage areas, and administrative spaces. The building exterior includes a primarily brick masonry facade with ornamental architectural concrete insets and copings. The building incorporates distinctive arches and arcades. This multi-purpose building contains approximately 150,227 square feet of area on two main floors, with mezzanine and roof level mechanical penthouses. The reinforced cast-in-place concrete foundation supports a reinforced concrete and steel structural frame that includes a long-span structural truss superstructure over column-free areas.

The information for this report was gathered during a site visit that concluded on September 16, 2009.

SITE

The landscaping on this large, relatively flat site consists of turf, shrubs, specimen trees, and foundation planting and is in overall fair to good condition, with some bare spot areas noted. The condition of the site is such that an overall landscaping renewal project is warranted over the course of the review period. The site should be resodded in high traffic areas, drainage swales re-established, and problem shrubbery and trees trimmed. Once the swale grades have been established, a new decorative landscape plan, including shrubs, annuals / perennials, and ornamental trees, should be installed. Irrigation systems were noted to serve the landscaped areas, and due to the condition of the landscaping, they appear to be operating effectively.

Pedestrian paving systems, including the outdoor pool patio area, are in overall good condition but will require periodic renewal to assure full performance and minimize liability to the owner via tripping hazards. Partial replacements, including excavation, grading, base compaction, joint sealants, grinding, and pavements, are recommended.

Vehicular parking for this building is accommodated through an adjacent parking lot located to the east and south of the building. The quantity of parking spaces associated with this facility appears to be adequate, and no vehicular parking issues were reported by on-site facility personnel. A designated service vehicle and loading area / dock is located in the rear of the building and appears to be adequate for the service needs of the facility. The parking and service area paving systems are currently in fair to good overall condition but will need minor upgrades and surface renewals during this review period.

EXTERIOR STRUCTURE

The building structure is apparently supported by soil bearing spread footings and localized deep foundations that show no visible evidence of displacement or structural distress. The primary building structural frame includes reinforced concrete, fire protected structural steel, and load bearing masonry.



The predominant building facade is comprised of brick masonry, textured and colored stucco, painted metal siding at the main roof level, an integrated glass curtainwall system at the entrance, and limited areas of architectural precast concrete ornamentation panels.

While the brick masonry is fundamentally sound, exposure to the elements has caused some deterioration of the mortar joints and expansion joints. Failed flashings and sealant joints at the outside pool enclosure arcade and screenwalls have resulted in significant efflorescence and water infiltration into the cavity. Cleaning, surface preparation, selective repairs, sealants and flashing repairs, and applied finish or penetrating sealant upgrades are recommended to restore the aesthetics and integrity of the building envelope.

The architectural concrete head and sill inserts on the building exterior have become visibly soiled, and the construction sealant joints are failing. Cleaning, surface preparation, selective repairs, and applied finish upgrades are recommended to restore the aesthetics and integrity of the building envelope.

The building window fenestration and exterior doors include metal-framed fixed windows with insulated pane glazing units, integrated metal-framed and glass storefront systems, prefinished metal and glazed entrance doors, finished metal service doors, large overhead type service access doors, and additional egress pathway exit discharge doors in the exterior building walls. In general, the fenestration and door systems are performing adequately, consistent with their in-place age and service use. No major signs of deterioration were evident. Periodic cleaning, finish renewals, and routine maintenance appropriate to the various components should assure continued life cycle performance throughout the end of the review period. However, replacements are recommended for some of the high use exterior door systems as they approach their effective life cycle limits. This project includes the primary and secondary entrance and service doors. The replacement units should maintain the architectural design aspects of this facility and be modern, energy-efficient applications.

The main roof includes both a flat, fully adhered single ply membrane system and a large, pitched standing seam metal roofing system with extensive ridged and clerestory skylighting. The single ply membrane roofing system reportedly dates from the original construction and is approaching the end of its effective life cycle. This roof system is not expected to outlast the scope of the analysis. Future budget modeling should include a provision for the replacement of all failing roofing systems. Replace this roof with a similar application.

The pitched, painted metal standing seam panels are currently in relatively good condition and expected to perform consistently with their life cycle through the end of the current review period. Interim inspections and routine maintenance of flashings, parapets, sealants, and other components will be required to achieve the full effective useful life of the roofing system.

Portions of the extensive kalwall type skylight and clerestory systems on the building will likely fail before the end of the current review period. Inspections, repairs, and partial selective area replacements in areas with high intensity exposure are recommended in order to preclude failure and to assure full life cycle performance of the entire system. Failure to replace the systems may result in leakage and other disrepair. Specify similar insulated, curb-mounted applications for the replacement skylights.

The displacement of structural systems is evident at the northeast upper corner of the main gymnasium extension above the main roof level. This structural deficiency is believed to be the result of settlement, excess loading, or restrained expansion and has resulted in significant cracks in portions of the brick



masonry at the building corner. A detailed structural analysis and selective area corrective action will be needed to restore the integrity of the structure and repair the masonry veneer in this area of the building. An order of magnitude cost estimate based on the affected building area is included in this report.

INTERIOR FINISHES / SYSTEMS

The predominant interior finishes in this building are generally in a variety of conditions ranging from fair to relatively new. Interior ceiling, wall, and floor finish applications vary in age and type. These interior finish systems include suspended acoustical tile ceilings, painted gypsum board and exposed structure ceilings, painted gypsum board and concrete masonry unit (CMU) walls, exposed brick masonry walls, ceramic tile walls and wainscoting, vinyl tile, rubberized vinyl, hardwood court flooring, ceramic / porcelain floor tiles, and carpeting. Ongoing finish renewals based on effective useful life cycles are necessary to maintain a quality institutional interior environment. Finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

The main gymnasium and racquet courts have a hardwood strip flooring play surface. Isolated water damage, use-related wear, and the frequency of major refinishing maintenance contribute to wear and damage. It is recommended that the wood surfaces undergo a major refurbishment, including full sanding and refinishing on a periodic basis and at least once within the purview of this report. The play court striping should then be reapplied to meet the current needs of the facility. Some replacement of isolated damaged areas in the strip flooring will be necessary.

Interior doors in the building are typically solid core stained and painted wood units in painted hollow metal frames. They are equipped with upgraded hardware, including ADA compliant lever action locksets, that are in good working order and have a good appearance. The main floor service and checkout counter and the storage cabinetry are in overall poor condition. New fully ADA compliant cabinetry should be considered as part of any future renovation efforts.

ACCESSIBILITY

The facility has a number of accessible features. The building has accessible parking areas and designated accessible parking spaces located adjacent to the building that are generally compliant with applicable ADA standards. The primary building entrance provides compliant, grade-level access to the main lobby area. Entry door hardware and power-assisted opening devices at the primary entrance provide suitable access to the main internal circulation lobby. The interior accessible routes generally have wall-mounted informational and directional signage designed for compliance with ADA standards. Publicly accessible restroom and locker room facilities in the building are also generally compliant with current accessibility standards and provide adequate wheelchair maneuvering areas, room layouts, and entry doors. The restroom lavatories, water closets, stalls and grab bars, toilet accessories, and other features are generally designed and installed to provide public accommodation for the disabled. A few additional recommendations are warranted, however, to improve accessibility into and within the building.

Current legislation related to accessibility requires that building entrances and egress routes be accessible to the disabled. To comply with the intent of this legislation, it is recommended that the non-compliant handrail systems at the south wall egress ramps and stairs be replaced with ADA compliant, painted metal handrail systems.



Current accessibility legislation requires that building amenities be generally accessible to all persons. The configurations of the staff break room kitchenette, main entry service counter, public telephones, and the aging single level drinking fountains are barriers to accessibility. The installation of wheelchair-accessible kitchenette cabinetry is recommended where applicable. A wheelchair-accessible section should be incorporated into the non-compliant service counter at the main entry. All of the aging single level refrigerated drinking fountains should be replaced with dual level units.

The staff and single occupancy restroom fixtures and finishes are mostly original to the year of construction or latest major renovation. The fixtures are sound, but some of the current accessibility features are not fully ADA compliant. A moderate restroom renovation, including lavatory fittings, fixtures, finishes, partitions, and accessories, is recommended to bring these restrooms up to current standards and maintain a quality appearance.

HEALTH

No health-related issues were observed or reported by facility personnel at the time of the on-site review for this building. Therefore, no recommendations or assessment comment is included in this report.

FIRE / LIFE SAFETY

The facility appears to have adequate and reasonable egress paths consistent with its age and compliance with building codes at the time of construction / renovation. No apparent building egress deficiencies or obstructed egress pathways were observed during the limited on-site review of the building.

Structural fire separations are not maintained according to code requirements for new construction in select areas of this facility. Primarily, data cabling has been routed with little regard for fire-rated separations. Intumescent passive firestopping and some minor structural separation repairs should be accomplished promptly. Fire-rated separation doors in the main mechanical rooms are improperly propped opened and should be more closely monitored.

This facility is protected by a central fire alarm system. The point addressable panel is a Notifier AM2020 and is located in mechanical room 159. The devices that serve this system include manual pull stations, audible / visible devices, and smoke detectors. The fire alarm system is approaching the end of its intended life cycle. It should be anticipated that it will require major component replacements and updates within the scope of this analysis.

The building is protected throughout by an automatic fire suppression system with wet-pipe and dry-pipe components. The statistical life cycle for a sprinkler head is approximately twenty years. During this time, scale can accumulate inside the head and cause it to malfunction when needed. It is recommended that the sprinkler heads be scheduled for replacement after twenty years of service to ensure that proper protection is available.

The exit signs in this facility are LED-illuminated and are connected to the emergency power network. Emergency lighting is available through standard interior light fixtures that are connected to the



emergency power network. Provide normal life cycle replacement of the existing exit signage throughout the building. Continued use of energy-efficient and low maintenance LED type exit signs is recommended.

HVAC

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

Two water-cooled chillers generate chilled water for building cooling. These R-123 units have 450 ton capacities and were manufactured by Trane. The chillers are in good condition and, with proper maintenance, will outlast the purview of this analysis.

A cooling tower provides heat rejection for the chillers. The tower has a 1,125 ton capacity and was manufactured by Marley. This cooling tower is in good condition but will reach its expected service life of twenty years during the period covered by this report. It is recommended that current planning include a scheduled replacement of the tower at that time.

The HVAC system serving the functional spaces employs multiple variable volume air handlers using heating hot water and chilled water heating and cooling sources. Round ducts provide air delivery and are exposed in large open areas. Some utility or isolated areas are equipped with supplemental units such as hot water unit heaters or four-pipe fan coil units. Areas above suspended ceilings typically serve as return air plenums. The system uses direct digital controls (DDCs) manufactured by Landis & Gyr.

As the age of the HVAC system approaches and surpasses twenty years during the period of this report, it should be expected that some of the associated components will require replacement. Included among these components are the shell-and-tube heat exchanger, condensate receiver and return pumps, and HVAC DDC control system components. Other equipment replacements are expected to include selected pumps and exhaust fans. Planning for replacement of these items is recommended to sustain continued reliable and efficient operation of the HVAC system.

ELECTRICAL

An external oil-filled transformer, rated 1,500 kVA, supplies incoming power to the building at 277/480 volts. Service switchgear manufactured by Siemens and located in room 159 is rated 3,000 amps. All of the main electrical distribution system components are serviceable and will likely remain so throughout the scope of this report.

The electrical distribution network in this facility is a dual voltage configuration. 277/480 volt power is distributed to branch transformers that step the power down to 120/208 volt power. The lighting and major mechanical systems are supported by the 277/480 volt circuit. The panels were manufactured predominantly by Siemens. It should be anticipated that the electrical distribution network will require comprehensive, minor repairs within the scope of this report. Such remedies include, but are not limited to, installing additional circuits, replacing worn switches and receptacles, replacing circuit breakers, and updating panel directories.



The interior spaces of this facility are illuminated by specialty fixtures of various designs and fixtures that utilize compact and T8 fluorescent lamps. The fluorescent fixtures are predominantly lay-in units with open-cell parabolic diffusers. The lighting systems are good condition with no discernible evidence of wear or deterioration, attributable, in part, to effective maintenance activities. In time, however, aging of materials, ballast and lamp changes, normal wear and tear, availability of matching parts when needed, and other issues can be expected to favor replacement over excessive maintenance costs. Based on observed condition, however, it would appear prudent to plan for fixture replacements somewhat beyond normal twenty-year expectancies but near the end of the period of this report. Continue to specify energy-efficient light fixtures for the new interior lighting systems, and install occupancy sensors where possible.

The exterior areas adjacent to the building are illuminated by building-mounted high intensity discharge (HID) and pole-mounted fixtures. These exterior light fixtures are currently in good condition, but selective replacements are likely to be required within the period of this report. Because of limited costs, however, no project is recommended.

Emergency power for this facility is produced by a local diesel-fired emergency generator. This unit has a 125 kW capacity, generates 277/480 volt power, and was manufactured by Onan. This generator is currently adequate and should remain a reliable source of stand-by power throughout the purview of this analysis.

PLUMBING

Potable water is distributed throughout this facility using a copper piping network. Sanitary waste and storm water piping is of cast-iron, no-hub construction. The supply and drain piping networks are adequate and in good condition. They are expected to provide reliable service beyond the scope of this analysis.

A large, vertical tank with an imbedded steam tube bundle produces and stores domestic hot water. This source is expected to remain reliable beyond the period of this report. The pools in this facility are served by mechanical systems that include filtration, heating, and water treatment systems, and associated circulation pumps. These systems are currently operable and in good condition. With regular maintenance, they should provide satisfactory service beyond the period of this report.

VERTICAL TRANSPORTATION

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



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



C. INSPECTION TEAM DATA

DATE OF INSPECTION:

August 16, 2009

INSPECTION TEAM PERSONNEL:

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

FACILITY CONTACTS:

NAME	POSITION	
William Bagwell	Associate Vice Chancellor, Campus Operations	
REPORT DEVELOPMENT:		
Report Development by:	ISES Corporation 2165 West Park Court Suite N Stone Mountain, GA 30087	
Contact:	Kyle Thompson, Project Manager 770-879-7376	



D. FACILITY CONDITION ANALYSIS - DEFINITIONS

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

1. REPORT DESCRIPTION

- Section 1: Asset Executive Summary, Asset Summary, and General Report Information
- Section 2: Detailed Project Summaries and Totals
 - A. Detailed Project Totals Matrix with FCNI Data and Associated Charts
 - B. Detailed Projects by Priority Class / Priority Sequence
 - C. Detailed Projects by Cost within range [\$0 < \$100,000]
 - D. Detailed Projects by Cost within range [\geq \$100,000 < \$500,000]
 - E. Detailed Projects by Cost within range [\geq \$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	<u>SS 1</u>
CODE	PROJECT NO.	PRIORITY SEQUENCE
HV2C	0001HV04	01
PL1D	0001PL02	02
	PRIORITY CLA	SS 2
CODE	PROJECT NO	PRIORITY SEQUENCE
IS1F	00011506	03
EL4C	0001EL03	04
	00012200	01



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

8. PHOTO NUMBER (Shown in Section 6)

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

Example: 0001006e

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

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

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

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

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



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

Refer to the following Category Code Report.

Example: Category Code = EL5A

- EL = System Description
- = Component Description = Element Description 5
- А

CATEGORY CODE

AC1A	-	AC4B
EL1A	-	EL8A
ES1A	-	ES6E
FS1A	-	FS6A
HE1A	-	HE7A
HV1A	-	HV8B
IS1A	-	IS6D
PL1A	-	PL5A
SI1A	-	SI4A
SS1A	-	SS7A
VT1A	-	VT7A

SYSTEM DESCRIPTION

ACCESSIBILITY ELECTRICAL EXTERIOR STRUCTURE FIRE / LIFE SAFETY HEALTH HVAC **INTERIOR FINISHES / SYSTEMS** PLUMBING SITE SECURITY SYSTEMS VERTICAL TRANSPORTATION



CATEGORY CODE REPORT				
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION	
SYSTEM D	ESCRIPTION: 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 D	ESCRIPTION: 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 D	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, bearns, bearing walls, lintels, arches, etc.	
ES2B	COLUMNS/BEAMS/ WALLS	FINISH	Work involving restoration of the appearance and weatherproof integrity of exterior wall/structural envelope components including masonry/pointing, expansion joints, efflorescence & stain removal, grouting, surfacing, chimney repairs, etc.	
ES3A	FLOOR	STRUCTURE	Work concerning the structural integrity of the load supporting floors both exposed and unexposed including deformation, delamination, spalling, shoring, crack repair, etc.	
ES4A	ROOF	REPAIR	Work on waterproof horizontal finish (roof) involving repair and/or limited replacement (<40% total) including membrane patching, flashing repair, coping caulk/resetting, PPT wall parging/coating, walkpad installation, skylight and roof hatch R&R, etc.	
ES4B	ROOF	REPLACEMENT	Work involving total refurbishment of roofing system including related component rehab.	
ES5A	FENESTRATIONS	DOORS	Work on exterior exit/access door including storefronts, airlocks, air curtains, vinyl slat doors, all power/manual operating hardware (except handicapped), etc.	
ES5B	FENESTRATIONS	WINDOWS	Work on exterior fenestration closure & related components including glass/metal/wood curtain walls, fixed or operable window sashes, glazing, frames, sills, casings, stools, seats, coatings, treatments, screens, storm windows, etc.	
ES6A	GENERAL	ATTACHED STRUCTURE	Work on attached exterior structure components not normally considered in above categories including porches, stoops, decks, monumental entrance stairs, cupolas, tower, etc.	
ES6B	GENERAL	AREAWAYS	Work on attached grade level or below structural features including subterranean light wells, areaways, basement access stairs, etc.	
ES6C	GENERAL	TRIM	Work on ornamental exterior (generally non-structural) elements including beltlines, quoins, porticos, soffits, cornices, moldings, trim, etc.	
ES6D	GENERAL	SUPERSTRUCTURE	Finish and structural work on non-standard structures with exposed load-bearing elements such as stadiums, bag houses, bleachers, freestanding towers, etc.	



	CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION	
ES6E	GENERAL	OTHER	Any exterior work not specifically categorized elsewhere including finish and structural work on freestanding boiler stacks.	
SYSTEM D	ESCRIPTION: FIRE / LIFE SAFE	ТҮ		
FS1A	LIGHTING	EGRESS LIGHTING/EXIT SIGNAGE	R & R work on exit signage and packaged AC/DC emergency lighting.	
FS2A	DETECTION/ALARM	GENERAL	Repair or replacement of fire alarm/detection system/components including alarms, pull boxes, smoke/heat detectors, annunciator panels, central fire control stations, remote dialers, fire station communications, etc.	
FS3A	SUPPRESSION	SPRINKLERS	Repair or installation of water sprinklers type automatic fire suppressions including wet pipe & dry pipe systems, heads, piping, deflectors, valves, monitors, associated fire pump, etc.	
FS3B	SUPPRESSION	STANDPIPE/HOSE	Repair or installation of standpipe system or components including hardware, hoses, cabinets, nozzles, necessary fire pumping system, etc.	
FS3C	SUPPRESSION	EXTINGUISHERS	Repairs or upgrades to F.E. cabinets/wall fastenings and handheld extinguisher testing/replacement.	
FS3D	SUPPRESSION	OTHER	Other fire suppression items not specifically categorized elsewhere including fire blankets, carbon dioxide automatic systems, Halon systems, dry chemical systems, etc.	
FS4A	HAZARDOUS MATERIALS	STORAGE ENVIRONMENT	Installation or repair of special storage environment for the safe holding of flammable or otherwise dangerous materials/supplies including vented flammables storage cabinets, holding pens/rooms, cages, fire safe chemical storage rooms, etc.	
FS4B	HAZARDOUS MATERIALS	USER SAFETY	Improvements, repairs, installation, or testing of user safety equipment including emergency eyewashes, safety showers, emergency panic/shut-down system, etc.	
FS5A	EGRESS PATH	DESIGNATION	Installation, relocation or repair of posted diagrammatic emergency evacuation routes.	
FS5B	EGRESS PATH	DISTANCE/ GEOMETRY	Work involving remediation of egress routing problems including elimination of dead end corridors, excessive egress distance modifications and egress routing inadequacies.	
FS5C	EGRESS PATH	SEPARATION RATING	Restoration of required fire protective barriers including wall rating compromises, fire rated construction, structural fire proofing, wind/safety glazing, transom retrofitting, etc.	
FS5D	EGRESS PATH	OBSTRUCTION	Clearance of items restricting the required egress routes.	
FS5E	EGRESS PATH	STAIRS RAILING	Retrofit of stair/landing configurations/structure, railing heights/geometries, etc.	
FS5F	EGRESS PATH	FIRE DOORS/ HARDWARE	Installation/replacement/repair of fire doors and hardware including labeled fire doors, fire shutters, closers, magnetic holders, panic hardware, etc.	
FS5G	EGRESS PATH	FINISH/FURNITURE RATINGS	Remediation of improper fire/smoke ratings of finishes and furniture along egress routes.	
FS6A	GENERAL	OTHER	Life/fire safety items not specifically categorized elsewhere.	
SYSTEM 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 FINISH	IES / 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	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 D	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 D	ESCRIPTION: SECURITY SYSTE	MS		
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 D	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.	

FACILITY CONDITION ANALYSIS



DETAILED PROJECT SUMMARIES AND TOTALS

Detailed Project Totals Facility Condition Analysis System Code by Priority Class SRCB : STUDENT RECREATION CENTER

System		Priority Classes				
Code	System Description	1	2	3	4	Subtotal
AC	ACCESSIBILITY	0	88,133	0	0	88,133
EL	ELECTRICAL	0	0	108,270	744,419	852,689
ES	EXTERIOR	0	50,886	817,551	472,177	1,340,614
FS	FIRE/LIFE SAFETY	223	0	402,923	81,584	484,730
нν	HVAC	0	0	457,206	626,537	1,083,744
IS	INTERIOR/FINISH SYS.	0	0	2,166,905	26,330	2,193,234
SI	SITE	0	0	0	132,762	132,762
	TOTALS	223	139,019	3,952,854	2,083,808	6,175,905

Facility Replacement Cost	\$37,161,000
Facility Condition Needs Index	0.17

Gross Square Feet 1	150,227 Total Cost Per Square Foot	\$41.11
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FACILITY CONDITION ANALYSIS System Code by Priority Class SRCB : STUDENT RECREATION CENTER



Detailed Project Totals Facility Condition Analysis System Code by Project Class SRCB : STUDENT RECREATION CENTER

		Project Classes						
System Code	System Description	Captial Renewal	Deferred Maintenance	Plant Adaption	Subtotal			
AC	ACCESSIBILITY	0	0	88,133	88,133			
EL	ELECTRICAL	852,689	0	0	852,689			
ES	EXTERIOR	1,154,552	186,062	0	1,340,614			
FS	FIRE/LIFE SAFETY	484,506	0	223	484,730			
нv	HVAC	1,083,744	0	0	1,083,744			
IS	INTERIOR/FINISH SYS.	1,392,967	800,267	0	2,193,234			
SI	SITE	132,762	0	0	132,762			
	TOTALS	5,101,220	986,329	88,357	6,175,905			

Facility Replacement Cost	\$37,161,000
Facility Condition Needs Index	0.17

Gross Square Feet 150,22	27 Total Cost Per Square Foot \$41
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FACILITY CONDITION ANALYSIS System Code by Project Class SRCB : STUDENT RECREATION CENTER



Project Classification

Detailed Project Summary Facility Condition Analysis Project Class by Priority Class SRCB : STUDENT RECREATION CENTER

	Priority Classes								
Project Class	1	2	3	4	Subtotal				
Capital Renewal	0	50,886	2,966,525	2,083,808	5,101,220				
Deferred Maintenance	0	0	986,329	0	986,329				
Plant Adaption	223	88,133	0	0	88,357				
TOTALS	223	139,019	3,952,854	2,083,808	6,175,905				

Facility Replacement Cost	\$37,161,000
Facility Condition Needs Index	0.17

GIUSS SUUALE FEEL

150,227

Total Cost Per Square Foot

\$41.11

FACILITY CONDITION ANALYSIS Project Class by Priority Class SRCB : STUDENT RECREATION CENTER



Project Classification

Detailed Project Summary Facility Condition Analysis Priority Class - Priority Sequence SRCB : STUDENT RECREATION CENTER

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5C	SRCBFS01	1	1	ELIMINATE FIRE RATING COMPROMISES	193	31	223
				Totals for Priority Class 1	193	31	223
AC2A	SRCBAC01	2	2	BUILDING ENTRY / EGRESS ACCESSIBILITY UPGRADES	24,292	3,887	28,179
AC4A	SRCBAC02	2	3	INTERIOR AMENITY ACCESSIBILITY UPGRADES	18,807	3,009	21,816
AC3E	SRCBAC03	2	4	SINGLE OCCUPANCY RESTROOM REFURBISHMENT	32,878	5,260	38,138
ES1A	SRCBES06	2	5	STRUCTURAL DEFICIENCY CORRECTION	43,867	7,019	50,886
				Totals for Priority Class 2	119,844	19,175	139,019
FS2A	SRCBFS02	3	6	FIRE ALARM SYSTEM REPLACEMENT	347,347	55,576	402,923
ES2B	SRCBES01	3	7	RESTORE BRICK MASONRY VENEER	142,334	22,773	165,107
ES2B	SRCBES02	3	8	RESTORE CONCRETE FINISH	18,065	2,890	20,955
ES4B	SRCBES04	3	9	MEMBRANE ROOF REPLACEMENT	544,387	87,102	631,489
HV6A	SRCBHV05	3	10	HVAC CONTROL SYSTEM UPGRADE	385,778	61,724	447,502
HV5B	SRCBHV06	3	11	CONDENSATE RECEIVER REPLACEMENT	8,366	1,339	9,705
EL3B	SRCBEL02	3	12	ELECTRICAL SYSTEM REPAIRS	93,336	14,934	108,270
IS2B	SRCBIS03	3	13	REFINISH WALLS	689,885	110,382	800,267
IS1A	SRCBIS01	3	14	REFINISH FLOORING	733,737	117,398	851,135
IS3B	SRCBIS04	3	15	REFINISH CEILINGS	173,699	27,792	201,490
IS1A	SRCBIS02	3	16	REFINISH ATHLETIC COURT HARDWOOD FLOORING	270,700	43,312	314,012
				Totals for Priority Class 3	3,407,633	545,221	3,952,854
FS3A	SRCBFS03	4	17	REPLACE SPRINKLER HEADS	48,706	7,793	56,499
FS1A	SRCBFS04	4	18	REPLACE EXIT SIGNS	21,625	3,460	25,085
ES4B	SRCBES05	4	19	PARTIAL REPLACEMENT AND REPAIRS TO SKYLIGHT SYSTEMS	318,920	51,027	369,947
ES5A	SRCBES03	4	20	EXTERIOR DOOR REPLACEMENT	88,129	14,101	102,230
HV2B	SRCBHV01	4	21	COOLING TOWER REPLACEMENT	183,134	29,301	212,435
HV5A	SRCBHV02	4	22	HEAT EXCHANGER REPLACEMENT	108,952	17,432	126,385
HV4B	SRCBHV03	4	23	EXHAUST FAN REPLACEMENT	16,411	2,626	19,037
HV5B	SRCBHV04	4	24	PUMP REPLACEMENT	231,621	37,059	268,680
EL4B	SRCBEL01	4	25	INTERIOR LIGHTING UPGRADE	641,741	102,679	744,419
IS6B	SRCBIS05	4	26	REPLACE STANDARD CASEWORK AND SERVICE COUNTE	22,698	3,632	26,330
Detailed Project Summary Facility Condition Analysis Priority Class - Priority Sequence SRCB : STUDENT RECREATION CENTER

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
SI2A	SRCBSI01	4	27	LANDSCAPING RENEWAL AND UPGRADE	47,538	7,606	55,144
SI4A	SRCBSI02	4	28	SITE PEDESTRIAN PAVEMENT AND VEHICULAR PAVING UPGRADES	66,912	10,706	77,618
				Totals for Priority Class 4	1,796,386	287,422	2,083,808
				Grand Total:	5,324,056	851,849	6,175,905

Detailed Project Summary Facility Condition Analysis Project Cost Range

SRCB : STUDENT	RECREATION CENTER

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5C	SRCBFS01	1	1	ELIMINATE FIRE RATING COMPROMISES	193	31	223
				Totals for Priority Class 1	193	31	223
AC2A	SRCBAC01	2	2	BUILDING ENTRY / EGRESS ACCESSIBILITY UPGRADES	24,292	3,887	28,179
AC4A	SRCBAC02	2	3	INTERIOR AMENITY ACCESSIBILITY UPGRADES	18,807	3,009	21,816
AC3E	SRCBAC03	2	4	SINGLE OCCUPANCY RESTROOM REFURBISHMENT	32,878	5,260	38,138
ES1A	SRCBES06	2	5	STRUCTURAL DEFICIENCY CORRECTION	43,867	7,019	50,886
				Totals for Priority Class 2	119,844	19,175	139,019
ES2B	SRCBES02	3	8	RESTORE CONCRETE FINISH	18,065	2,890	20,955
HV5B	SRCBHV06	3	11	CONDENSATE RECEIVER REPLACEMENT	8,366	1,339	9,705
				Totals for Priority Class 3	26,431	4,229	30,660
IS6B	SRCBIS05	4	26	REPLACE STANDARD CASEWORK AND SERVICE COUNTER	22,698	3,632	26,330
SI2A	SRCBSI01	4	27	LANDSCAPING RENEWAL AND UPGRADE	47,538	7,606	55,144
SI4A	SRCBSI02	4	28	SITE PEDESTRIAN PAVEMENT AND VEHICULAR PAVING UPGRADES	66,912	10,706	77,618
FS3A	SRCBFS03	4	17	REPLACE SPRINKLER HEADS	48,706	7,793	56,499
FS1A	SRCBFS04	4	18	REPLACE EXIT SIGNS	21,625	3,460	25,085
HV4B	SRCBHV03	4	23	EXHAUST FAN REPLACEMENT	16,411	2,626	19,037
				Totals for Priority Class 4	223,890	35,822	259,712
				Grand Totals for Projects < 100,000	370,357	59,257	429,614

Detailed Project Summary Facility Condition Analysis Project Cost Range SRCB : STUDENT RECREATION CENTER

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
ES2B	SRCBES01	3	7	RESTORE BRICK MASONRY VENEER	142,334	22,773	165,107
IS1A	SRCBIS02	3	16	REFINISH ATHLETIC COURT HARDWOOD FLOORING	270,700	43,312	314,012
IS3B	SRCBIS04	3	15	REFINISH CEILINGS	173,699	27,792	201,490
FS2A	SRCBFS02	3	6	FIRE ALARM SYSTEM REPLACEMENT	347,347	55,576	402,923
HV6A	SRCBHV05	3	10	HVAC CONTROL SYSTEM UPGRADE	385,778	61,724	447,502
EL3B	SRCBEL02	3	12	ELECTRICAL SYSTEM REPAIRS	93,336	14,934	108,270
				Totals for Priority Class 3	1,413,193	226,111	1,639,304
ES5A	SRCBES03	4	20	EXTERIOR DOOR REPLACEMENT	88,129	14,101	102,230
ES4B	SRCBES05	4	19	PARTIAL REPLACEMENT AND REPAIRS TO SKYLIGHT SYSTEMS	318,920	51,027	369,947
HV2B	SRCBHV01	4	21	COOLING TOWER REPLACEMENT	183,134	29,301	212,435
HV5A	SRCBHV02	4	22	HEAT EXCHANGER REPLACEMENT	108,952	17,432	126,385
HV5B	SRCBHV04	4	24	PUMP REPLACEMENT	231,621	37,059	268,680
				Totals for Priority Class 4	930,756	148,921	1,079,677
				Grand Totals for Projects >= 100,000 and < 500,000	2,343,949	375,032	2,718,981

Detailed Project Summary Facility Condition Analysis Project Cost Range SRCB : STUDENT RECREATION CENTER

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
ES4B	SRCBES04	3	9	MEMBRANE ROOF REPLACEMENT	544,387	87,102	631,489
IS1A	SRCBIS01	3	14	REFINISH FLOORING	733,737	117,398	851,135
IS2B	SRCBIS03	3	13	REFINISH WALLS	689,885	110,382	800,267
				Totals for Priority Class 3	1,968,009	314,881	2,282,891
EL4B	SRCBEL01	4	25	INTERIOR LIGHTING UPGRADE	641,741	102,679	744,419
				Totals for Priority Class 4	641,741	102,679	744,419
				Grand Totals for Projects >= 500,000	2,609,750	417,560	3,027,310
				Grand Totals For All Projects:	5,324,056	851,849	6,175,905

Detailed Project Summary Facility Condition Analysis Project Classification SRCB : STUDENT RECREATION CENTER

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
ES1A	SRCBES06	5	Capital Renewal	2	STRUCTURAL DEFICIENCY CORRECTION	50,886
FS2A	SRCBFS02	6	Capital Renewal	3	FIRE ALARM SYSTEM REPLACEMENT	402,923
ES4B	SRCBES04	9	Capital Renewal	3	MEMBRANE ROOF REPLACEMENT	631,489
HV6A	SRCBHV05	10	Capital Renewal	3	HVAC CONTROL SYSTEM UPGRADE	447,502
HV5B	SRCBHV06	11	Capital Renewal	3	CONDENSATE RECEIVER REPLACEMENT	9,705
EL3B	SRCBEL02	12	Capital Renewal	3	ELECTRICAL SYSTEM REPAIRS	108,270
IS1A	SRCBIS01	14	Capital Renewal	3	REFINISH FLOORING	851,135
IS3B	SRCBIS04	15	Capital Renewal	3	REFINISH CEILINGS	201,490
IS1A	SRCBIS02	16	Capital Renewal	3	REFINISH ATHLETIC COURT HARDWOOD FLOORING	314,012
FS3A	SRCBFS03	17	Capital Renewal	4	REPLACE SPRINKLER HEADS	56,499
FS1A	SRCBFS04	18	Capital Renewal	4	REPLACE EXIT SIGNS	25,085
ES4B	SRCBES05	19	Capital Renewal	4	PARTIAL REPLACEMENT AND REPAIRS TO SKYLIGHT SYSTEMS	369,947
ES5A	SRCBES03	20	Capital Renewal	4	EXTERIOR DOOR REPLACEMENT	102,230
HV2B	SRCBHV01	21	Capital Renewal	4	COOLING TOWER REPLACEMENT	212,435
HV5A	SRCBHV02	22	Capital Renewal	4	HEAT EXCHANGER REPLACEMENT	126,385
HV4B	SRCBHV03	23	Capital Renewal	4	EXHAUST FAN REPLACEMENT	19,037
HV5B	SRCBHV04	24	Capital Renewal	4	PUMP REPLACEMENT	268,680
EL4B	SRCBEL01	25	Capital Renewal	4	INTERIOR LIGHTING UPGRADE	744,419
IS6B	SRCBIS05	26	Capital Renewal	4	REPLACE STANDARD CASEWORK AND SERVICE COUNTER	26,330
SI2A	SRCBSI01	27	Capital Renewal	4	LANDSCAPING RENEWAL AND UPGRADE	55,144
SI4A	SRCBSI02	28	Capital Renewal	4	SITE PEDESTRIAN PAVEMENT AND VEHICULAR PAVING UPGRADES	77,618
					Totals for Capital Renewal	5,101,220
ES2B	SRCBES01	7	Deferred Maintenance	3	RESTORE BRICK MASONRY VENEER	165,107
ES2B	SRCBES02	8	Deferred Maintenance	3	RESTORE CONCRETE FINISH	20,955
IS2B	SRCBIS03	13	Deferred Maintenance	3	REFINISH WALLS	800,267
					Totals for Deferred Maintenance	986,329
FS5C	SRCBFS01	1	Plant Adaption	1	ELIMINATE FIRE RATING COMPROMISES	223
AC2A	SRCBAC01	2	Plant Adaption	2	BUILDING ENTRY / EGRESS ACCESSIBILITY UPGRADES	28,179

Detailed Project Summary Facility Condition Analysis Project Classification SRCB : STUDENT RECREATION CENTER

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
AC4A	SRCBAC02	3	Plant Adaption	2	INTERIOR AMENITY ACCESSIBILITY UPGRADES	21,816
AC3E	SRCBAC03	4	Plant Adaption	2	SINGLE OCCUPANCY RESTROOM REFURBISHMENT	38,138
					Totals for Plant Adaption	88,357
					Grand Total:	6,175,905

Detailed Project Summary Facility Condition Analysis Energy Conservation SRCB : STUDENT RECREATION CENTER

Cat Code	Project Number	Pri Cls	Pri Seq	Project Title	Total Cost	Annual Savings	Simple Payback
ES4B	SRCBES04	3	9	MEMBRANE ROOF REPLACEMENT	631,489	8,400	75.18
HV6A	SRCBHV05	3	10	HVAC CONTROL SYSTEM UPGRADE	447,502	95,900	4.67
				Totals for Priority Class 3	1,078,991	104,300	10.35
FS1A	SRCBFS04	4	18	REPLACE EXIT SIGNS	25,085	70	358.35
EL4B	SRCBEL01	4	25	INTERIOR LIGHTING UPGRADE	744,419	30,650	24.29
				Totals for Priority Class 4	769,504	30,720	25.05
				Grand Total:	1,848,495	135,020	13.69

Detailed Project Summary Facility Condition Analysis Category/System Code SRCB : STUDENT RECREATION CENTER

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost	
AC2A	SRCBAC01	2	2	BUILDING ENTRY / EGRESS ACCESSIBILITY UPGRADES	24,292	3,887	28,179	
AC4A	SRCBAC02	2	3	INTERIOR AMENITY ACCESSIBILITY UPGRADES	18,807	3,009	21,816	
AC3E	SRCBAC03	2	4	SINGLE OCCUPANCY RESTROOM REFURBISHMENT	32,878	5,260	38,138	
				Totals for System Code: ACCESSIBILITY	75,977	12,156	88,133	
EL3B	SRCBEL02	3	12	ELECTRICAL SYSTEM REPAIRS	93,336	14,934	108,270	
EL4B	SRCBEL01	4	25	INTERIOR LIGHTING UPGRADE	641,741	102,679	744,419	
				Totals for System Code: ELECTRICAL	735,077	117,612	852,689	
ES1A	SRCBES06	2	5	STRUCTURAL DEFICIENCY CORRECTION	43,867	7,019	50,886	
ES2B	SRCBES01	3	7	RESTORE BRICK MASONRY VENEER	142,334	22,773	165,107	
ES2B	SRCBES02	3	8	RESTORE CONCRETE FINISH	18,065	2,890	20,955	
ES4B	SRCBES04	3	9	MEMBRANE ROOF REPLACEMENT	544,387	87,102	631,489	
ES4B	SRCBES05	4	19	PARTIAL REPLACEMENT AND REPAIRS TO SKYLIGHT SYSTEMS	318,920	51,027	369,947	
ES5A	SRCBES03	4	20	EXTERIOR DOOR REPLACEMENT	88,129	14,101	102,230	
				Totals for System Code: EXTERIOR	1,155,701	184,912	1,340,614	
FS5C	SRCBFS01	1	1	ELIMINATE FIRE RATING COMPROMISES	193	31	223	
FS2A	SRCBFS02	3	6	FIRE ALARM SYSTEM REPLACEMENT	347,347	55,576	402,923	
FS3A	SRCBFS03	4	17	REPLACE SPRINKLER HEADS	48,706	7,793	56,499	
FS1A	SRCBFS04	4	18	REPLACE EXIT SIGNS	21,625	3,460	25,085	
				Totals for System Code: FIRE/LIFE SAFETY	417,870	66,859	484,730	
HV6A	SRCBHV05	3	10	HVAC CONTROL SYSTEM UPGRADE	385,778	61,724	447,502	
HV5B	SRCBHV06	3	11	CONDENSATE RECEIVER REPLACEMENT	8,366	1,339	9,705	
HV2B	SRCBHV01	4	21	COOLING TOWER REPLACEMENT	183,134	29,301	212,435	
HV5A	SRCBHV02	4	22	HEAT EXCHANGER REPLACEMENT	108,952	17,432	126,385	
HV4B	SRCBHV03	4	23	EXHAUST FAN REPLACEMENT	16,411	2,626	19,037	
HV5B	SRCBHV04	4	24	PUMP REPLACEMENT	231,621	37,059	268,680	
				Totals for System Code: HVAC	934,262	149,482	1,083,744	
IS2B	SRCBIS03	3	13	REFINISH WALLS	689,885	110,382	800,267	
IS1A	SRCBIS01	3	14	REFINISH FLOORING	733,737	117,398	851,135	
IS3B	SRCBIS04	3	15	REFINISH CEILINGS	173,699	27,792	201,490	
IS1A	SRCBIS02	3	16	REFINISH ATHLETIC COURT HARDWOOD FLOORING	270,700	43,312	314,012	

Detailed Project Summary Facility Condition Analysis Category/System Code SRCB : STUDENT RECREATION CENTER

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
IS6B	SRCBIS05	4	26	REPLACE STANDARD CASEWORK AND SERVICE COUNTER	22,698	3,632	26,330
				Totals for System Code: INTERIOR/FINISH SYS.	1,890,719	302,515	2,193,234
SI2A	SRCBSI01	4	27	LANDSCAPING RENEWAL AND UPGRADE	47,538	7,606	55,144
SI4A	SRCBSI02	4	28	SITE PEDESTRIAN PAVEMENT AND VEHICULAR PAVING UPGRADES	66,912	10,706	77,618
				Totals for System Code: SITE	114,450	18,312	132,762
				Grand Total:	5,324,056	851,849	6,175,905

FACILITY CONDITION ANALYSIS



SPECIFIC PROJECT DETAILS ILLUSTRATING DESCRIPTION / COST

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBFS01		Title:	ELIMINATE FIRE RATING COMPROMISES
Priority Sequence:	1			
Priority Class:	1			
Category Code:	FS5C		System:	FIRE/LIFE SAFETY
			Component:	EGRESS PATH
			Element:	SEPARATION RATING
Building Code:	SRCB			
Building Name:	STUDENT RECREAT	ION CENTER		
Subclass/Savings:	Not Applicable			
Code Application:	IBC	711.3		
Project Class:	Plant Adaption			
Project Date:	10/2/2009			
Project Location:	Floor-wide: Floor(s) 1	, 2		

Project Description

Structural fire separations are not maintained according to code requirements for new construction in select areas of this facility. Primarily, data cabling has been routed with little regard for fire-rated separations. Intumescent passive firestopping and some minor structural separation repairs should be accomplished promptly. Fire-rated separation doors in the main mechanical rooms are improperly propped opened and should be more closely monitored.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBFS01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Minor passive firestopping efforts	SF	2,253	\$0.03	\$68	\$0.08	\$180	\$248
Project To		\$68		\$180	\$248		

Material/Labor Cost		\$248
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$161
General Contractor Mark Up at 20.0%	+	\$32
Construction Cost		\$193
Professional Fees at 16.0%	+	\$31
Total Project Cost		\$223

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBAC01		Title:	BUILDING ENTRY / EGRESS ACCESSIBILITY UPGRADES
Priority Sequence:	2			
Priority Class:	2			
Category Code:	AC2A		System:	ACCESSIBILITY
			Component:	BUILDING ENTRY
			Element:	GENERAL
Building Code:	SRCB			
Building Name:	STUDENT RECREAT	TION CENTER		
Subclass/Savings:	Not Applicable			
Code Application:	ADAAG	403.6, 505		
Project Class:	Plant Adaption			
Project Date:	10/2/2009			
Project Location:	Undefined: Floor(s) 1			

Project Description

Current legislation related to accessibility requires that building entrances and egress routes be accessible to the disabled. To comply with the intent of this legislation, it is recommended that the non-compliant handrail systems at the south wall egress ramps and stairs be replaced with ADA compliant, painted metal handrail systems.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBAC01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Freestanding handrail system, painted (15 feet minimum)	LF	120	\$91.11	\$10,933	\$150	\$18,000	\$28,933
Project Total	s:			\$10,933		\$18,000	\$28,933

Total Project Cost		\$28,179
Professional Fees at 16.0%	+	\$3,887
Construction Cost		\$24,292
General Contractor Mark Up at 20.0%	+	\$4,049
Material/Labor Indexed Cost		\$20,244
Labor Index		51.3%
Material Index		100.7%
Material/Labor Cost		\$28,933

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBAC02		Title:	INTERIOR AMENITY ACCESSIBILITY UPGRADES
Priority Sequence:	3			
Priority Class:	2			
Category Code:	AC4A		System:	ACCESSIBILITY
			Component:	GENERAL
			Element:	FUNCTIONAL SPACE MOD.
Building Code:	SRCB			
Building Name:	STUDENT RECREAT	FION CENTER		
Subclass/Savings:	Not Applicable			
	15110			
Code Application:	ADAAG	211, 602, 804		
Project Class:	Plant Adaption			
Project Date:	10/2/2009			
Project				
Location:	Floor-wide: Floor(s) 1	, 2		

Project Description

Current accessibility legislation requires that building amenities be generally accessible to all persons. The configurations of the staff break room kitchenette, main entry service counter, public telephones, and the aging single level drinking fountains are barriers to accessibility. The installation of wheelchair-accessible kitchenette cabinetry is recommended where applicable. A wheelchairaccessible section should be incorporated into the non-compliant service counter at the main entry. All of the aging single level refrigerated drinking fountains should be replaced with dual level units.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBAC02

			Material Unit	Total Material	Labor Unit	Total Labor	Total
Task Description	Unit	Qnty	Cost	Cost	Cost	Cost	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	4	\$1,216	\$4,864	\$374	\$1,496	\$6,360
Modify public telephone(s) access and devices for accessibility	LOT	1	\$750	\$750	\$1,754	\$1,754	\$2,504
ADA compliant service counter	LF	12	\$156	\$1,872	\$83.30	\$1,000	\$2,872
Project Totals	:			\$12,380		\$6,249	\$18,629

Material/Labor Cost		\$18,629
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$15,672
General Contractor Mark Up at 20.0%	+	\$3,134
Construction Cost		\$18,807
Professional Fees at 16.0%	+	\$3,009
Total Project Cost		\$21,816

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBAC03		Title:	SINGLE OCCUPANCY RESTROOM REFURBISHMENT
Priority Sequence:	4			
Priority Class:	2			
Category Code:	AC3E		System:	ACCESSIBILITY
			Component:	INTERIOR PATH OF TRAVEL
			Element:	RESTROOMS/BATHROOMS
Building Code:	SRCB			
Building Name:	STUDENT RECREAT	FION CENTER		
Subclass/Savings:	Not Applicable			
Code Application:	ADAAG	604, 605, 606, 607, 6	08	
	Direct Adaption			
Project Class:	Plant Adaption			
Project Date:	10/2/2009			
Project Location:	Floor-wide: Floor(s) 1	, 2		

Project Description

The staff and single occupancy restroom fixtures and finishes are mostly original to the year of construction or latest major renovation. The fixtures are sound, but some of the current accessibility features are not fully ADA compliant. A moderate restroom renovation, including lavatory fittings, fixtures, finishes, partitions, and accessories, is recommended to bring these restrooms up to current standards and maintain a quality appearance.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBAC03

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Moderate restroom refurbishment, including fittings, fixtures, finishes, partitions, accessories, etc.	FIXT	12	\$1,575	\$18,900	\$1,359	\$16,308	\$35,208
Project To	tals:			\$18,900		\$16,308	\$35,208

Total Project Cost		\$38,138
Professional Fees at 16.0%	+	\$5,260
Construction Cost		\$32,878
General Contractor Mark Up at 20.0%	+	\$5,480
Material/Labor Indexed Cost		\$27,398
Labor Index		51.3%
Material Index		100.7%
Material/Labor Cost		\$35,208

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBES06	Title:	STRUCTURAL DEFICIENCY CORRECTION
Priority Sequence:	5		
Priority Class:	2		
Category Code:	ES1A	System:	EXTERIOR
		Component:	FOUNDATION/FOOTING
		Element:	STRUCTURE
Building Code:	SRCB		
Building Name:	STUDENT RECREATION CENTER		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/2/2009		
Project Location:	Floor-wide: Floor(s) R		

Project Description

The displacement of structural systems is evident at the northeast upper corner of the main gymnasium extension above the main roof level. This structural deficiency is believed to be the result of settlement, excess loading, or restrained expansion and has resulted in significant cracks in portions of the brick masonry at the building corner. A detailed structural analysis and selective area corrective action will be needed to restore the integrity of the structure and repair the masonry veneer in this area of the building. An order of magnitude cost estimate based on the affected building area is included herein.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBES06

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Structural engineering analysis, corrective action recommendations, and repair estimate	LOT	1	\$20,000	\$20,000	\$32,000	\$32,000	\$52,000
Project Totals	3:			\$20,000		\$32,000	\$52,000

Material/Labor Cost		\$52,000
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$36,556
General Contractor Mark Up at 20.0%	+	\$7,311
Construction Cost		\$43,867
Professional Fees at 16.0%	+	\$7,019
Total Project Cost		\$50,886

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBFS02		Title:	FIRE ALARM SYSTEM REPLACEMENT
Priority Sequence:	6			
Priority Class:	3			
Category Code:	FS2A		System:	FIRE/LIFE SAFETY
			Component:	DETECTION ALARM
			Element:	GENERAL
Building Code:	SRCB			
Building Name:	STUDENT RECREAT	TION CENTER		
Subclass/Savings:	Not Applicable			
Code Application:	ADAAG NFPA	702.1 1, 101		
Project Class:	Capital Renewal			
Project Date:	11/2/2009			
Project Location:	Floor-wide: Floor(s) 1	, 2		

Project Description

Upgrade the existing fire alarm system with a modern application. Specify a point addressable supervised main fire alarm panel with an annunciator. This work includes 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 SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBFS02

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	150,227	\$1.46	\$219,331	\$0.89	\$133,702	\$353,033
Project Totals	:			\$219,331		\$133,702	\$353,033

Material/Labor Cost		\$353,033
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$289,456
General Contractor Mark Up at 20.0%	+	\$57,891
Construction Cost		\$347,347
Professional Fees at 16.0%	+	\$55,576
Total Project Cost		\$402,923

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBES01	Title:	RESTORE BRICK MASONRY VENEER
Priority Sequence:	7		
Priority Class:	3		
Category Code:	ES2B	System:	EXTERIOR
		Component:	COLUMNS/BEAMS/WALLS
		Element:	FINISH
Building Code:	SRCB		
Building Name:	STUDENT RECREATION CENTER		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/2/2009		
Project Location:	Building-wide: Floor(s) 1		

Project Description

Brick masonry veneer with ornamental concrete insets make up 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. Failed flashings and sealant joints at the outside pool enclosure arcade and screenwalls have resulted in significant efflorescence and water infiltration into the cavity. Cleaning, surface preparation, selective repairs, sealants and flashing 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 SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBES01

			Material Unit	Total Material	Labor Unit	Total Labor	Total
Task Description	Unit	Qnty	Cost	Cost	Cost	Cost	Cost
Cleaning and surface preparation	SF	79,200	\$0.11	\$8,712	\$0.22	\$17,424	\$26,136
Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope)	LF	7,920	\$2.45	\$19,404	\$4.99	\$39,521	\$58,925
Applied finish or sealant	SF	79,200	\$0.22	\$17,424	\$0.82	\$64,944	\$82,368
Flashing and coping cap repairs at arcade walls	LF	400	\$12.88	\$5,152	\$24.54	\$9,816	\$14,968
Project Totals	:			\$50,692		\$131,705	\$182,397

Material/Labor Cost		\$182,397
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$118,611
General Contractor Mark Up at 20.0%	+	\$23,722
Construction Cost		\$142,334
Professional Fees at 16.0%	+	\$22,773
Total Project Cost		\$165,107

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBES02	Title:	RESTORE CONCRETE FINISH
Priority Sequence:	8		
Priority Class:	3		
Category Code:	ES2B	System:	EXTERIOR
		Component:	COLUMNS/BEAMS/WALLS
		Element:	FINISH
Building Code:	SRCB		
Building Name:	STUDENT RECREATION CENTER		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/2/2009		
Project Location:	Building-wide: Floor(s) 1		

Project Description

The architectural concrete head and sill inserts on the building exterior have become visibly soiled, and the construction sealant joints are failing. Cleaning, surface preparation, selective repairs, and applied finish upgrades are recommended to restore the aesthetics and integrity of the building envelope.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBES02

Task Description	Unit	Qntv	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Cleaning and surface preparation	SF	11,000	\$0.11	\$1,210	\$0.22	\$2,420	\$3,630
Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope)	LF	1,100	\$2.45	\$2,695	\$4.99	\$5,489	\$8,184
Applied finish or sealant	SF	11,000	\$0.22	\$2,420	\$0.82	\$9,020	\$11,440
Project Totals	:			\$6,325		\$16,929	\$23,254

Material/Labor Cost		\$23,254
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$15,054
General Contractor Mark Up at 20.0%	+	\$3,011
Construction Cost		\$18,065
Professional Fees at 16.0%	+	\$2,890
Total Project Cost		\$20,955

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBES04		Title:	MEMBRANE ROOF REPLACEMENT
Priority Sequence:	9			
Priority Class:	3			
Category Code:	ES4B		System:	EXTERIOR
			Component:	ROOF
			Element:	REPLACEMENT
Building Code:	SRCB			
Building Name:	STUDENT RECREATION CENTER	२		
Subclass/Savings:	Energy Conservation	\$8,400		
Code Application:	Not Applicable			
Project Class:	Capital Renewal			
Project Date:	10/2/2009			
Project Location:	Floor-wide: Floor(s) R			

Project Description

The single ply membrane roofing system reportedly dates from the original construction and is approaching the end of its effective life cycle. This roof system is not expected to outlast the scope of the analysis. Future budget modeling should include a provision for the replacement of all failing roofing systems. Replace this roof with a similar application.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBES04

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Membrane roof	SF	96,440	\$3.79	\$365,508	\$1.73	\$166,841	\$532,349
	Project Totals:			\$365,508		\$166,841	\$532,349

Material/Labor Cost		\$532,349
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$453,656
General Contractor Mark Up at 20.0%	+	\$90,731
Construction Cost		\$544,387
Professional Fees at 16.0%	+	\$87,102
Total Project Cost		\$631,489

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBHV05		Title:	HVAC CONTROL SYSTEM UPGRADE
Priority Sequence:	10			
Priority Class:	3			
Category Code:	HV6A		System:	HVAC
			Component:	CONTROLS
			Element:	COMPLETE SYSTEM UPGRADE
Building Code:	SRCB			
Building Name:	STUDENT RECREATION CENTER	R		
Subclass/Savings:	Energy Conservation	\$95,900		
Code Application:	Not Applicable			
Project Class:	Capital Renewal			
Project Date:	11/2/2009			
Project Location:	Floor-wide: Floor(s) 1, 2			

Project Description

Remove the existing control system and components. Install a new fully electronic DDC system utilizing the latest technology. The new system should be web-enabled and consistent with the latest campus standard. This includes building control panels, major component controllers to include variable frequency drives for fans and pumps, terminal unit controllers, all sensors, electric dampers and valve actuators, wiring, system start-up, and test and balance. Replace worn, damaged, and incompatible HVAC components as needed to accommodate the new control system.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBHV05

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
DDC panels, local controllers, electric damper and valve actuators, variable frequency drives, sensors, miscellaneous HVAC components, wiring, start-up, TAB, and demolition	SF	150,227	\$1.31	\$196,797	\$1.60	\$240,363	\$437,161
Project Totals:				\$196,797		\$240,363	\$437,161

Material/Labor Cost		\$437,161
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$321,481
General Contractor Mark Up at 20.0%	+	\$64,296
Construction Cost		\$385,778
Professional Fees at 16.0%	+	\$61,724
Total Project Cost		\$447,502

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBHV06	Title:	CONDENSATE RECEIVER REPLACEMENT
Priority Sequence:	11		
Priority Class:	3		
Category Code:	HV5B	System:	HVAC
		Component:	STEAM/HYDRONIC DISTRIB.
		Element:	PUMPS
Building Code:	SRCB		
Building Name:	STUDENT RECREATION CENTER		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	11/2/2009		
Project Location:	Room Only: Floor(s) 1		

Project Description

The condensate receiver serving the heating systems is approaching the end of its intended life cycle. It is recommended that the unit be replaced in order to preclude failure. Project cost includes the replacement of the pumps, receiver, and all connections.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBHV06

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Replace duplex condensate return receiver, including pumps and controls	SYS	1	\$6,480	\$6,480	\$870	\$870	\$7,350
Project Total	s:			\$6,480		\$870	\$7,350

Total Project Cost		\$9,705
Professional Fees at 16.0%	+	\$1,339
Construction Cost		\$8,366
General Contractor Mark Up at 20.0%	+	\$1,394
Material/Labor Indexed Cost		\$6,972
Labor Index		51.3%
Material Index		100.7%
Material/Labor Cost		\$7,350

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBEL02		Title:	ELECTRICAL SYSTEM REPAIRS
Priority Sequence:	12			
Priority Class:	3			
Category Code:	EL3B		System:	ELECTRICAL
			Component:	SECONDARY DISTRIBUTION
			Element:	DISTRIBUTION NETWORK
Building Code:	SRCB			
Building Name:	STUDENT RECREAT	TION CENTER		
Subclass/Savings:	Not Applicable			
Code Application:	NEC	Articles 100, 210, 410		
Project Class:	Capital Renewal			
Project Date:	11/2/2009			
Project Location:	Floor-wide: Floor(s) 1	, 2		

Project Description

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

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBEL02

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Switches, receptacles, cover plates, breakers, and miscellaneous materials	SF	150,227	\$0.29	\$43,566	\$0.44	\$66,100	\$109,666
Project Total	s:			\$43,566		\$66,100	\$109,666

Total Project Cost		\$108,270
Professional Fees at 16.0%	+	\$14,934
Construction Cost		\$93,336
General Contractor Mark Up at 20.0%	+	\$15,556
Material/Labor Indexed Cost		\$77,780
Labor Index		51.3%
Material Index		100.7%
Material/Labor Cost		\$109,666

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBIS03	Title:	REFINISH WALLS
Priority Sequence:	13		
Priority Class:	3		
Category Code:	IS2B	System:	INTERIOR/FINISH SYS.
		Component:	PARTITIONS
		Element:	FINISHES
Building Code:	SRCB		
Building Name:	STUDENT RECREATION CENTER		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		

Project Date: 10/2/2009

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

Project Description

Interior wall finish applications vary in age, type, 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 SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBIS03

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	423,760	\$0.17	\$72,039	\$0.81	\$343,246	\$415,285
Premium wall finish (epoxy, tile, wood panel, etc.)	SF	74,780	\$2.28	\$170,498	\$3.92	\$293,138	\$463,636
Interior partition damage repairs	LOT	1	\$2,200	\$2,200	\$3,877	\$3,877	\$6,077
Project Totals	:			\$244,738		\$640,260	\$884,998

Total Project Cost		\$800,267
Professional Fees at 16.0%	+	\$110,382
Construction Cost		\$689,885
General Contractor Mark Up at 20.0%	+	\$114,981
Material/Labor Indexed Cost		\$574,904
Labor Index		51.3%
Material Index		100.7%
Material/Labor Cost		\$884,998

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBIS01	Title:	REFINISH FLOORING
Priority Sequence:	14		
Priority Class:	3		
Category Code:	IS1A	System:	INTERIOR/FINISH SYS.
		Component:	FLOOR
		Element:	FINISHES-DRY
Building Code:	SRCB		
Building Name:	STUDENT RECREATION CENTER		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		

Project Date: 10/2/2009

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

Project Description

Interior floor finish applications vary in age, type, and condition. Floor finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBIS01

Task Description	Unit	Qntv	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Carpet	SF	7,990	\$5.36	\$42,826	\$2.00	\$15,980	\$58,806
Vinyl floor tile	SF	3,600	\$3.53	\$12,708	\$2.50	\$9,000	\$21,708
Ceramic tile	SF	34,250	\$7.24	\$247,970	\$10.63	\$364,078	\$612,048
Vinyl sheet and specialty flooring	SF	11,240	\$5.65	\$63,506	\$4.00	\$44,960	\$108,466
Epoxy floor finish application	SF	3,430	\$3.20	\$10,976	\$4.64	\$15,915	\$26,891
Project Totals:				\$377,986		\$449,933	\$827,919

Material/Labor Cost		\$827,919
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$611,448
General Contractor Mark Up at 20.0%	+	\$122,290
Construction Cost		\$733,737
Professional Fees at 16.0%	+	\$117,398
Total Project Cost		\$851,135

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBIS04	Title:	REFINISH CEILINGS
Priority Sequence:	15		
Priority Class:	3		
Category Code:	IS3B	System:	INTERIOR/FINISH SYS.
		Component:	CEILINGS
		Element:	REPLACEMENT
Puilding Code			
Building Code:	SRCB		
Building Name:	STUDENT RECREATION CENTER		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		

Project Class: Capital Renewal

Project Date: 10/2/2009

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

Project Description

Ceiling finish applications vary in age, type, and condition. Ceiling finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBIS04

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Acoustical tile ceiling system	SF	28,540	\$2.12	\$60,505	\$2.98	\$85,049	\$145,554
Painted ceiling finish application	SF	68,500	\$0.17	\$11,645	\$0.81	\$55,485	\$67,130
Project To	otals:			\$72,150		\$140,534	\$212,684

Material/Labor Cost		\$212,684
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$144,749
General Contractor Mark Up at 20.0%	+	\$28,950
Construction Cost		\$173,699
Professional Fees at 16.0%	+	\$27,792
Total Project Cost		\$201,490

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBIS02	Title:	REFINISH ATHLETIC COURT HARDWOOD FLOORING
Priority Sequence:	16		
Priority Class:	3		
Category Code:	IS1A	System:	INTERIOR/FINISH SYS.
		Component:	FLOOR
		Element:	FINISHES-DRY
Building Code:	SRCB		
Building Name:	STUDENT RECREATION CENTER		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/2/2009		
Project Location:	Floor-wide: Floor(s) 1, 2		

Project Description

The main gymnasium and racquet courts have a hardwood strip flooring play surface. Isolated water damage, use-related wear, and the frequency of major refinishing maintenance contribute to wear and damage. It is recommended that the wood surfaces undergo a major refurbishment, including full sanding and refinishing on a periodic basis and at least once within the purview of this report. The play court striping should then be reapplied to meet the current needs of the facility. Some replacement of isolated damaged areas in the strip flooring will be necessary.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBIS02

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Sand, refinish, and paint stripes	SF	53,660	\$2.84	\$152,394	\$2.62	\$140,589	\$292,984
Project To	otals:			\$152,394		\$140,589	\$292,984

Material/Labor Cost		\$292,984
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$225,583
General Contractor Mark Up at 20.0%	+	\$45,117
Construction Cost		\$270,700
Professional Fees at 16.0%	+	\$43,312
Total Project Cost		\$314,012

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBFS03		Title:	REPLACE SPRINKLER HEADS
Priority Sequence:	17			
Priority Class:	4			
Category Code:	FS3A		System:	FIRE/LIFE SAFETY
			Component:	SUPPRESSION
			Element:	SPRINKLERS
Building Code:	SRCB			
Building Name:	STUDENT RECREA	TION CENTER		
Subclass/Savings:	Not Applicable			
Code Application:	NFPA	1, 13, 13D, 101		
Project Class:	Capital Renewal			
Project Date:	11/2/2009			
Project Location:	Floor-wide: Floor(s) 1	, 2		

Project Description

The sprinkler heads are recommended for replacement. The statistical life cycle for a sprinkler head is approximately twenty years. During this time, scale can accumulate inside the head and cause it to malfunction when needed. It is recommended that the aging sprinkler heads be replaced to ensure that proper protection is available.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBFS03

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Fire sprinkler head replacement	SF	150,227	\$0.09	\$13,520	\$0.35	\$52,579	\$66,100
Project To	otals:			\$13,520		\$52,579	\$66,100

Material/Labor Cost		\$66,100
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$40,588
General Contractor Mark Up at 20.0%	+	\$8,118
Construction Cost		\$48,706
Professional Fees at 16.0%	+	\$7,793
Total Project Cost		\$56,499

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBFS04			Title:	REPLACE EXIT SIGNS
Priority Sequence:	18				
Priority Class:	4				
Category Code:	FS1A			System:	FIRE/LIFE SAFETY
				Component:	LIGHTING
				Element:	EGRESS LTG./EXIT SIGNAGE
Building Code:	SRCB				
Building Name:	STUDENT RECREAT	TION CENTE	R		
Subclass/Savings:	Energy Conservation		\$70		
Code Application:	NFPA	101-47			
	IBC	1011			
Project Class:	Capital Renewal				
Project Date:	11/2/2009				
Project Location:	Floor-wide: Floor(s) 1	, 2			

Project Description

Replace the existing exit signage throughout the building. Install new exit signs as needed. The new units should be connected to the emergency power network. Continued use of LED type replacement signs is recommended because of their energy efficiency and minimal maintenance requirements.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBFS04

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	150	\$76.00	\$11,400	\$85.00	\$12,750	\$24,150
Project Totals	s:			\$11,400		\$12,750	\$24,150

Total Project Cost		\$25,085
Professional Fees at 16.0%	+	\$3,460
Construction Cost		\$21,625
General Contractor Mark Up at 20.0%	+	\$3,604
Material/Labor Indexed Cost		\$18,021
Labor Index		51.3%
Material Index		100.7%
Material/Labor Cost		\$24,150

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBES05	Title:	PARTIAL REPLACEMENT AND REPAIRS TO SKYLIGHT SYSTEMS
Priority Sequence:	19		
Priority Class:	4		
Category Code:	ES4B	System:	EXTERIOR
		Component:	ROOF
		Element:	REPLACEMENT
Building Code:	SRCB		
Building Name:	STUDENT RECREATION CENTER		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/2/2009		
Project Location:	Floor-wide: Floor(s) R		

Project Description

Portions of the extensive kalwall type skylight and clerestory systems on the building will likely fail before the end of the current review period. Inspections, repairs, and partial selective area replacements in areas with high intensity exposure are recommended in order to preclude failure and to assure full life cycle performance of the entire system. Failure to replace the systems may result in leakage and other disrepair. Specify similar insulated, curb-mounted applications for the replacement skylights.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBES05

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Skylight repairs, renewal, and partial replacements	SF	3,480	\$57.27	\$199,300	\$36.45	\$126,846	\$326,146
Project Tota	als:			\$199,300		\$126,846	\$326,146

Total Project Cost		\$369,947
Professional Fees at 16.0%	+	\$51,027
Construction Cost		\$318,920
General Contractor Mark Up at 20.0%	+	\$53,153
Material/Labor Indexed Cost		\$265,767
Labor Index		51.3%
Material Index		100.7%
Material/Labor Cost		\$326,146

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBES03	Title:	EXTERIOR DOOR REPLACEMENT
Priority Sequence:	20		
Priority Class:	4		
Category Code:	ES5A	System:	EXTERIOR
		Component:	FENESTRATIONS
		Element:	DOORS
Building Code:	SRCB		
Building Name:	STUDENT RECREATION CENTER		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/2/2009		
Project Location:	Building-wide: Floor(s) 1		

Project Description

Replacements are recommended for some of the high use exterior door systems as they approach their effective life cycle limits. This project includes the primary and secondary entrance and service doors. The replacement units should maintain the architectural design aspects of this facility and be modern, energy-efficient applications.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBES03

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
High traffic door system	LEAF	21	\$1,978	\$41,538	\$1,999	\$41,979	\$83,517
Low traffic door system	LEAF	6	\$1,031	\$6,186	\$1,250	\$7,500	\$13,686
Proje	ct Totals:			\$47,724		\$49,479	\$97,203

Material/Labor Cost		\$97,203
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$73,441
General Contractor Mark Up at 20.0%	+	\$14,688
Construction Cost		\$88,129
Professional Fees at 16.0%	+	\$14,101
Total Project Cost		\$102,230

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBHV01	Title:	COOLING TOWER REPLACEMENT
Priority Sequence:	21		
Priority Class:	4		
Category Code:	HV2B	System:	HVAC
		Component:	COOLING
		Element:	HEAT REJECTION
Building Code:	SRCB		
Building Name:	STUDENT RECREATION CENTER		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	11/2/2009		
Project			

Location: Item Only: Floor(s) 1

Project Description

The existing cooling tower is recommended for replacement. Remove the existing cooling tower. Install a new cooling tower, including piping, valves, controls, drive, programming, and start-up.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBHV01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Replace cooling tower to include demolition of existing unit	TON	1,125	\$104	\$116,820	\$60.60	\$68,175	\$184,995
Project Totals:				\$116,820		\$68,175	\$184,995

Total Project Cost		\$212,435		
Professional Fees at 16.0%	+	\$29,301		
Construction Cost		\$183,134		
General Contractor Mark Up at 20.0%	+	\$30,522		
Material/Labor Indexed Cost		\$152,612		
Labor Index		51.3%		
Material Index		100.7%		
Material/Labor Cost		\$184,995		

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBHV02	Title:	HEAT EXCHANGER REPLACEMENT
Priority Sequence:	22		
Priority Class:	4		
Category Code:	HV5A	System:	HVAC
		Component:	STEAM/HYDRONIC DISTRIB.
		Element:	PIPING NETWORK
Building Code:	SRCB		
Building Name:	STUDENT RECREATION CENTER		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	11/2/2009		
Project Location:	Room Only: Floor(s) 1		

Project Description

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

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBHV02

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Heating water converter (60 gpm for each HP of circulating pump capacity)	n GPM	1,350	\$60.74	\$81,999	\$11.87	\$16,025	\$98,024
Project Totals	:			\$81,999		\$16,025	\$98,024

Total Project Cost		\$126,385
Professional Fees at 16.0%	+	\$17,432
Construction Cost		\$108,952
General Contractor Mark Up at 20.0%	+	\$18,159
Material/Labor Indexed Cost		\$90,794
Labor Index		51.3%
Material Index		100.7%
Material/Labor Cost		\$98,024

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBHV03		Title:	EXHAUST FAN REPLACEMENT
Priority Sequence:	23			
Priority Class:	4			
Category Code:	HV4B		System:	HVAC
			Component:	AIR MOVING/VENTILATION
			Element:	EXHAUST FANS
Building Code:	SRCB			
Building Name:	STUDENT RECREA	TION CENTER		
Subclass/Savings:	Not Applicable			
Code Application:	ASHRAE	62-2004		
Project Class:	Capital Renewal			
Project Date:	11/2/2009			
Project Location:	Floor-wide: Floor(s) F	R		

Project Description

The exhaust fans are recommended for replacement. The statistical life cycle for an exhaust fan is approximately twenty years. At or beyond this time, exhaust fans can incur high maintenance costs that justify replacement. Replace the existing fans with new units to include all electrical connections.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBHV03

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Replace centrifugal roof exhauster (medium size, belt-driven)	EA	3	\$1,350	\$4,050	\$1,300	\$3,900	\$7,950
Replace exhaust system ductwork	CFM	3,000	\$2.26	\$6,780	\$0.50	\$1,500	\$8,280
Project Totals:				\$10,830		\$5,400	\$16,230

Material/Labor Cost		\$16,230
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$13,676
General Contractor Mark Up at 20.0%	+	\$2,735
Construction Cost		\$16,411
Professional Fees at 16.0%	+	\$2,626
Total Project Cost		\$19,037

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBHV04	Title:	PUMP REPLACEMENT
Priority Sequence:	24		
Priority Class:	4		
Category Code:	HV5B	System:	HVAC
		Component:	STEAM/HYDRONIC DISTRIB.
		Element:	PUMPS
Building Code:	SRCB		
Building Name:	STUDENT RECREATION CENTER		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Bate.	11/2/2003		

Project Location: Room Only: Floor(s) 1

Project Description

Replace pumps that have reached or are approaching the ends of their expected life cycle. Remove the existing pumps. Install new pump assemblies, including pump and motor, piping and electrical connections, strainer, valves, expansion joints, mounting, and hardware.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBHV04

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Replace base-mounted pump assembly (<15 HP)	HP	28	\$1,779	\$49,812	\$1,052	\$29,456	\$79,268
Replace base-mounted pump assembly (15-50 HP)	HP	15	\$607	\$9,105	\$442	\$6,630	\$15,735
Replace base-mounted pump assembly (50-150 HP)	HP	120	\$454	\$54,480	\$230	\$27,600	\$82,080
Variable frequency drives (<10 hp)	HP	28	\$624	\$17,478	\$234	\$6,560	\$24,038
Variable frequency drives (10-50 hp)	HP	15	\$237	\$3,551	\$90.70	\$1,361	\$4,911
Variable frequency drives (>50 hp)	HP	120	\$151	\$18,088	\$43.90	\$5,268	\$23,356
Project Totals	5:			\$152,513		\$76,875	\$229,388

Material/Labor Cost		\$229,388
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$193,017
General Contractor Mark Up at 20.0%	+	\$38,603
Construction Cost		\$231,621
Professional Fees at 16.0%	+	\$37,059
Total Project Cost		\$268,680

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBEL01			Title:	INTERIOR LIGHTING UPGRADE
Priority Sequence:	25				
Priority Class:	4				
Category Code:	EL4B			System:	ELECTRICAL
				Component:	DEVICES AND FIXTURES
				Element:	INTERIOR LIGHTING
Building Code:	SRCB				
Building Name:	STUDENT RECREAT	TION CENTER	२		
Subclass/Savings:	Energy Conservation		\$30,650)	
Code Application:	NEC	Articles 210,	410		
Project Class:	Capital Renewal				
Project Date:	11/2/2009				
Project Location:	Floor-wide: Floor(s) 1	, 2			

Project Description

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

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBEL01

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	150,227	\$2.18	\$327,495	\$2.66	\$399,604	\$727,099
Project Total	s:			\$327,495		\$399,604	\$727,099

Material/Labor Cost		\$727,099
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$534,784
General Contractor Mark Up at 20.0%	+	\$106,957
Construction Cost		\$641,741
Professional Fees at 16.0%	+	\$102,679
Total Project Cost		\$744,419

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBIS05	Title:	REPLACE STANDARD CASEWORK AND SERVICE COUNTER
Priority Sequence:	26		
Priority Class:	4		
Category Code:	IS6B	System:	INTERIOR/FINISH SYS.
		Component:	GENERAL
		Element:	CABINETRY
Building Code:	SRCB		
Building Name:	STUDENT RECREATION CENTER		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/2/2009		
Project Location:	Floor-wide: Floor(s) 1		

Project Description

The main floor service and checkout counter and the storage cabinetry are in overall poor condition. New fully ADA compliant cabinetry should be considered as part of any future renovation efforts.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBIS05

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Base or wall cabinetry	LF	60	\$256	\$15,360	\$112	\$6,720	\$22,080
Proj	ect Totals:			\$15,360		\$6,720	\$22,080

Material/Labor Cost		\$22,080
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$18,915
General Contractor Mark Up at 20.0%	+	\$3,783
Construction Cost		\$22,698
Professional Fees at 16.0%	+	\$3,632
Total Project Cost		\$26,330

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBSI01	Title:	LANDSCAPING RENEWAL AND UPGRADE
Priority Sequence:	27		
Priority Class:	4		
Category Code:	SI2A	System:	SITE
		Component:	LANDSCAPE
		Element:	GRADE/FLORA
Building Code:	SRCB		
Building Name:	STUDENT RECREATION CENTER		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/2/2009		
Project Location:	Undefined: Floor(s) 1		

Project Description

The landscaping on this large, relatively flat site consists of turf, shrubs, specimen trees, and foundation planting and is in overall fair to good condition, with some bare spot areas noted. The condition of the site is such that an overall landscaping renewal project is warranted over the course of the review period. The site should be resodded in high traffic areas, drainage swales re-established, and problem shrubbery and trees trimmed. Once the swale grades have been established, a new decorative landscape plan, including shrubs, annuals / perennials, and ornamental trees, should be installed.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBSI01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Trees, shrubs, planting soil, amendments, sand, fill, and sod	LOT	1	\$21,000	\$21,000	\$36,000	\$36,000	\$57,000
Project To	otals:			\$21,000		\$36,000	\$57,000

Total Project Cost		\$55,144
Professional Fees at 16.0%	+	\$7,606
Construction Cost		\$47,538
General Contractor Mark Up at 20.0%	+	\$7,923
Material/Labor Indexed Cost		\$39,615
Labor Index		51.3%
Material Index		100.7%
Material/Labor Cost		\$57,000

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Description

Project Number:	SRCBSI02		Title:	SITE PEDESTRIAN PAVEMENT AND VEHICULAR PAVING UPGRADES
Priority Sequence:	28			
Priority Class:	4			
Category Code:	SI4A		System:	SITE
			Component:	GENERAL
			Element:	OTHER
Building Code:	SRCB			
Building Name:	STUDENT RECREAT	TION CENTER		
Subclass/Savings:	Not Applicable			
Code Application:	ADAAG	502		
Project Class:	Capital Renewal			
Project Date:	10/2/2009			
Project Location:	Undefined: Floor(s) 1			

Project Description

Pedestrian paving systems, including the outdoor pool patio area, are in overall good condition but will require periodic renewal to assure full performance and minimize liability to the owner via tripping hazards. Partial replacements, including excavation, grading, base compaction, joint sealants, grinding, and pavements, are recommended. Vehicular parking and service area paving systems are currently in fair to good overall condition but will need minor upgrades and surface renewals during this review period.

Facility Condition Analysis Section Three SRCB : STUDENT RECREATION CENTER

Project Cost

Project Number: SRCBSI02

Task Description	Unit	Ontv	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Concrete pedestrian paving repair, renewal and restorations	SF	20,000	\$1.32	\$26,400	\$2.41	\$48,200	\$74,600
Vehicular paving sealcoat and striping allowance	SY	2,700	\$0.89	\$2,403	\$1.25	\$3,375	\$5,778
Vehicular paving wear course rehabilitation, sealcoat, and striping allowance	SY	30	\$7.91	\$237	\$3.79	\$114	\$351
Project Total	s:			\$29,040		\$51,689	\$80,729

Material/Labor Cost		\$80,729
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$55,760
General Contractor Mark Up at 20.0%	+	\$11,152
Construction Cost		\$66,912
Professional Fees at 16.0%	+	\$10,706
Total Project Cost		\$77,618

DRAWINGS AND PROJECT LOCATIONS



FACILITY CONDITION ANALYSIS




LIFE CYCLE MODEL SUMMARY AND PROJECTIONS



FACILITY CONDITION ANALYSIS

Life Cycle Model Building Component Summary SRCB : STUDENT RECREATION CENTER

Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
B2010	EXTERIOR FINISH RENEWAL	11,000	SF	\$1.30		\$14,339	1996	10
B2010	EXTERIOR FINISH RENEWAL	79,200	SF	\$1.30	.31	\$32,006	1996	10
B2010	STUCCO FINISH RENEWAL	11,000	SF	\$3.33		\$36,631	1996	30
B2010	PAINTED METAL SIDING	8,800	SF	\$7.36		\$64,773	1996	35
B2020	CUSTOM AND HISTORICAL GLAZING	13,200	SF	\$143.39		\$1,892,775	1996	55
B2030	OVERHEAD GARAGE DOOR	1	EA	\$7,425.74		\$7,426	1996	30
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	21	LEAF	\$4,311.24		\$90,536	1996	20
B2030	LOW TRAFFIC EXTERIOR DOOR SYSTEM	33	LEAF	\$2,863.29		\$94,489	1996	40
B2030	LOW TRAFFIC EXTERIOR DOOR SYSTEM	6	LEAF	\$2,863.29		\$17,180	1996	40
B3010	MEMBRANE ROOF	96,440	SF	\$6.41		\$617,872	1996	15
B3010	PAINTED METAL ROOF	82,150	SF	\$7.07		\$581,011	1996	30
B3010	STANDARD METAL GUTTER SYSTEM	950	LF	\$9.80		\$9,310	1996	30
B3020	SKYLIGHT	8,120	SF	\$104.04		\$844,777	1996	30
B3020	SKYLIGHT	3,480	SF	\$104.04		\$362,047	1996	30
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	96	LEAF	\$783.68		\$75,233	1996	35
C1020	RATED DOOR AND FRAME INCLUDING HARDWARE	24	LEAF	\$1,489.06		\$35,737	1996	35
C1020	INTERIOR DOOR HARDWARE	24	EA	\$423.04		\$10,153	1996	15
C1020	INTERIOR DOOR HARDWARE	96	EA	\$423.04		\$40,612	1996	15
C3010	STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.)	423,760	SF	\$0.80		\$339,449	1996	10
C3010	PREMIUM WALL FINISH (EPOXY, TILE, WOOD PANEL, ETC.)	74,780	SF	\$5.87		\$438,664	1996	20
C3020	CARPET	7,990	SF	\$8.75		\$69,884	1996	10
C3020	VINYL FLOOR TILE	2,968	SF	\$6.59		\$19,553	1996	15
C3020	VINYL FLOOR TILE	11,872	SF	\$6.59		\$78,211	2004	15
C3020	CERAMIC FLOOR TILE	34,250	SF	\$17.36		\$594,662	1996	20
C3020	HARDWOOD REPLACEMENT	53,660	SF	\$23.94	.93	\$1,194,536	1996	50
C3020	SAND AND FINISH HARDWOOD FLOORING	53,660	SF	\$3.24	1.28	\$222,387	1996	15
C3020	EPOXY FLOOR FINISH APPLICATION	3,430	SF	\$7.64		\$26,198	1996	15
C3030	ACOUSTICAL TILE CEILING SYSTEM	28,540	SF	\$4.99		\$142,501	1996	15
C3030	PAINTED CEILING FINISH APPLICATION	68,500	SF	\$0.80		\$54,871	1996	15

Life Cycle Model Building Component Summary SRCB : STUDENT RECREATION CENTER

Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
D1010	ELEVATOR MODERNIZATION - HYDRAULIC	1	EA	\$158,628.64		\$158,629	1996	25
D1010	ELEVATOR CAB RENOVATION - PASSENGER	1	EA	\$26,616.80		\$26,617	1996	12
D2010	PLUMBING FIXTURES - STUDENT UNION	150,227	SF	\$7.96		\$1,195,415	1996	35
D2020	WATER PIPING - STUDENT UNION	150,227	SF	\$5.66		\$850,699	1996	35
D2030	DRAIN PIPING - STUDENT UNION	150,227	SF	\$8.60		\$1,291,206	1996	40
D2050	AIR COMPRESSOR PACKAGE (AVERAGE SIZE)	1	SYS	\$6,456.49		\$6,456	1996	25
D2090	POOL FILTRATION, TREATMENT, PUMPING, HEATING SYSTEMS	56	SF	\$27.28		\$1,528	1996	18
D3030	CHILLER - WATER COOLED (200-1000 TONS)	900	TON	\$686.38		\$617,744	1996	25
D3030	COOLING TOWER (OVER 300 TONS)	1,125	TON	\$184.81		\$207,915	1996	20
D3040	CONDENSATE RECEIVER	1	SYS	\$9,504.01		\$9,504	1996	15
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	3	EA	\$2,768.62		\$8,306	1996	20
D3040	HVAC SYSTEM - STUDENT UNION	150,227	SF	\$28.79		\$4,324,769	1996	25
D3040	BASE MTD. PUMP - UP TO 15 HP	20	HP	\$3,175.77		\$63,515	1996	20
D3040	BASE MTD. PUMP - UP TO 15 HP	8	HP	\$3,175.77		\$25,406	1996	20
D3040	BASE MTD. PUMP - 15 HP TO 50 HP	15	HP	\$1,142.19		\$17,133	1996	20
D3040	BASE MTD. PUMP - 50 HP TO 150 HP	120	HP	\$782.99		\$93,958	1996	25
D4010	FIRE SPRINKLER SYSTEM	150,227	SF	\$6.86		\$1,030,721	1996	80
D4010	FIRE SPRINKLER HEADS	150,227	SF	\$0.38		\$56,658	1996	20
D4020	FIRE PUMP - ELECTRIC (UP TO 750 GPM)	500	GPM	\$86.64		\$43,322	1996	25
D5010	ELECTRICAL SYSTEM - STUDENT UNION	150,227	SF	\$12.78		\$1,919,240	1996	50
D5010	ELECTRICAL SWITCHGEAR 277/480V	3,000	AMP	\$39.56		\$118,691	1996	20
D5010	TRANSFORMER, DRY, 480-208V (30-150 KVA)	788	KVA	\$96.00		\$75,644	1996	30
D5010	VARIABLE FREQUENCY DRIVE (10 - 50 HP)	20	HP	\$388.17		\$7,763	1996	12
D5010	VARIABLE FREQUENCY DRIVE (OVER 50 HP)	120	HP	\$237.46		\$28,495	1996	12
D5020	EXIT SIGNS (CENTRAL POWER)	150	EA	\$163.78		\$24,567	1996	20
D5020	EXTERIOR LIGHT (HID)	1	EA	\$689.58		\$690	1996	20
D5020	LIGHTING - STUDENT UNION	150,227	SF	\$6.68		\$1,004,062	1996	20
D5030	FIRE ALARM SYSTEM, POINT ADDRESSABLE	150,227	SF	\$2.61		\$392,782	1996	15
D5040	GENERATOR, DIESEL (100-200 KW)	125	KW	\$493.93		\$61,741	1996	25

Life Cycle Model Building Component Summary SRCB : STUDENT RECREATION CENTER

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	1996	20
E2010	STANDARD BASE OR WALL CABINETRY	60	LF	\$272.50		\$16.350	1996	20
						\$21,693,290		

Life Cycle Model Expenditure Projections

SRCB : STUDENT RECREATION CENTER



Future Year

Average Annual Renewal Cost Per SqFt \$5.33

FACILITY CONDITION ANALYSIS



PHOTOGRAPHIC LOG

Photo Log - Facility Condition Analysis SRCB : STUDENT RECREATION CENTER

Photo ID No	Description	Location	Date
SRCB001a	Main building entrance	North elevation	9/16/2009
SRCB001e	Air distribution system	Sports forum 165	9/16/2009
SRCB002a	Building facade	North elevation	9/16/2009
SRCB002e	Carrier air handler unit 1	Mechanical room 235	9/16/2009
SRCB003a	Building facade	North elevation	9/16/2009
SRCB003e	VFD for AHU1 return fan	Mechanical room 235	9/16/2009
SRCB004a	Building facade	North elevation	9/16/2009
SRCB004e	VFD for AHU1 supply fan	Mechanical room 235	9/16/2009
SRCB005a	Building facade	West elevation	9/16/2009
SRCB005e	Humidification system	Mechanical room 224	9/16/2009
SRCB006a	Building facade and mechanical louvers	South elevation	9/16/2009
SRCB006e	Three fan-powered ventilators	Roof	9/16/2009
SRCB007a	Building facade and mechanical louvers	South elevation	9/16/2009
SRCB008a	Building facade	West elevation	9/16/2009
SRCB009a	Building facade	South elevation	9/16/2009
SRCB010a	Pool enclosure wall	South elevation	9/16/2009
SRCB011a	Pool enclosure wall	South elevation	9/16/2009
SRCB012a	Pool enclosure wall	East elevation	9/16/2009
SRCB013a	Building facade	East elevation	9/16/2009
SRCB014a	Loading dock	South elevation	9/16/2009
SRCB015a	Cooling tower screenwall	East elevation	9/16/2009
SRCB016a	Poorly installed brick tie and envelope failure	South elevation	9/16/2009
SRCB017a	Typical stucco soffit	Building exterior	9/16/2009
SRCB018a	Typical multi-color sealant joints	Building facade expansion joints	9/16/2009
SRCB019a	Coping cap failures and efflorescent staining	Pool enclosure wall, south	9/16/2009
SRCB020a	Coping cap failures and efflorescent staining	Pool enclosure wall, east	9/16/2009
SRCB021a	Arcade walkway	East elevation	9/16/2009
SRCB022a	Arcade walkway	East elevation	9/16/2009
SRCB023a	Cooling tower screenwall enclosure	Screenwall interior, mansard roof framing	9/16/2009
SRCB024a	Main entry lobby clerestory pop-up	Main roof level	9/16/2009
SRCB025a	Typical exterior window wall	Building exterior	9/16/2009
SRCB026a	Missing mullion covers	Exterior window, aerobics room	9/16/2009

Photo Log - Facility Condition Analysis SRCB : STUDENT RECREATION CENTER

Photo ID No	Description	Location	Date
SRCB027a	Environmental staining on concrete windowsills	Typical exterior windows	9/16/2009
SRCB028a	Missing sealant in windowsill joints	Typical exterior windows	9/16/2009
SRCB029a	Environmental staining on concrete windowsills	Typical exterior windows	9/16/2009
SRCB030a	Poorly detailed roof flashing interfaces	Gym gable end, south elevation	9/16/2009
SRCB031a	Single ply membrane roofing system	Main roof, view to north	9/16/2009
SRCB032a	Pitched metal roofing systems	Main roof over gym	9/16/2009
SRCB033a	Kalwall clerestory window wall system	Main roof over gym	9/16/2009
SRCB034a	Typical metal roofing system	Main roof over gym	9/16/2009
SRCB035a	Valley gutters and unpainted panel ends	Main roof over gym	9/16/2009
SRCB036a	Gutter collector system	Main roof over gym	9/16/2009
SRCB037a	Low level metal mansard roofing system	Low roof, southeast	9/16/2009
SRCB038a	Failed sealants in parapet wall coping cap	Main roof, west	9/16/2009
SRCB039a	Failed sealants in parapet wall coping cap	Main roof, west	9/16/2009
SRCB040a	Failed sealants in parapet wall coping cap	Main roof, west	9/16/2009
SRCB041a	Failed sealants in parapet wall coping cap	Main roof, west	9/16/2009
SRCB042a	Structural crack in brick masonry wall	Main roof level, gym, northeast corner	9/16/2009
SRCB043a	Structural crack in brick masonry wall	Main roof level, gym, northeast corner	9/16/2009
SRCB044a	Failing paint finish and fascia board	Main roof level at clerestory pop-up	9/16/2009
SRCB045a	Overview of cooling tower enclosure	Site, southeast	9/16/2009
SRCB046a	Utility court enclosures	Site, southeast	9/16/2009
SRCB047a	Main lobby skylighting system	Main roof, interior view	9/16/2009
SRCB048a	Aerobics stairwell skylighting system	Main roof, interior view	9/16/2009
SRCB049a	Kalwall clerestory window wall system at gable	Main roof over gym	9/16/2009
SRCB050a	Kalwall skylight monitors	Main roof over pool	9/16/2009
SRCB051a	Interior pool and deck	Natatorium	9/16/2009
SRCB052a	Interior pool and skylight monitors	Natatorium	9/16/2009
SRCB053a	Exterior pool area	View from natatorium	9/16/2009
SRCB054a	Excessive dirt accumulation at return air grille	Natatorium, high west wall	9/16/2009
SRCB055a	Main gym area and basketball courts	Main gym	9/16/2009
SRCB056a	Cross court upper level track and bridge	Main gym, center	9/16/2009
SRCB057a	Main building entry lobby	Main entry, interior	9/16/2009

Photo Log - Facility Condition Analysis SRCB : STUDENT RECREATION CENTER

Photo ID No	Description	Location	Date
SRCB058a	Missing graphics and lack of ADA compliant counter	Main entry lobby	9/16/2009
SRCB059a	Weight room	Building interior	9/16/2009
SRCB060a	Cross court upper level track and bridge	Upper level, west	9/16/2009
SRCB061a	Damaged service counter	Main service desk	9/16/2009
SRCB062a	Damaged and deteriorating service counter	Main service desk	9/16/2009
SRCB063a	Damaged service counter	Main service desk	9/16/2009
SRCB064a	Severe wall damage from water	Secondary entry lobby, south	9/16/2009
SRCB065a	Deteriorating chlorine equipment and wall damage	Chlorine room 161	9/16/2009
SRCB066a	Improperly propped open fire door	Pool equipment room 154	9/16/2009
SRCB067a	Improperly propped open fire door	BF PHR room 152	9/16/2009
SRCB068a	Open vestibule	Pool equipment room 154	9/16/2009
SRCB069a	Missing fire safing installation	Main mechanical / electrical room	9/16/2009
SRCB070a	Missing fire safing installation	Main mechanical / electrical room	9/16/2009
SRCB071a	Unprotected head room clearances below stair	Stair 166 at weight room	9/16/2009
SRCB072a	Aging single level drinking fountain	Corridor 138	9/16/2009
SRCB073a	Non-accessible public pay / campus phones	Main lobby	9/16/2009
SRCB074a	Partially compliant public restroom	Staff restroom	9/16/2009
SRCB075a	Partially compliant public restroom	Staff restroom	9/16/2009
SRCB076a	Non-compliant break room kitchenette	Staff area	9/16/2009
SRCB077a	Non-compliant ramp railings	South exterior egress ramp	9/16/2009
SRCB078a	Non-compliant stair railings	South exterior egress stair	9/16/2009
SRCB079a	Egress stair	South exterior egress stair	9/16/2009
SRCB080a	Outdoor pool and deck	Outdoor pool	9/16/2009



SRCB001A.jpg



SRCB001E.jpg



SRCB002A.jpg



SRCB002E.jpg



SRCB003A.jpg



SRCB003E.jpg



SRCB004A.jpg



SRCB004E.jpg



SRCB005A.jpg



SRCB005E.jpg



SRCB006A.jpg



SRCB006E.jpg



SRCB007A.jpg



SRCB008A.jpg



SRCB009A.jpg



SRCB010A.jpg





SRCB012A.jpg



SRCB013A.jpg



SRCB014A.jpg



Facility Condition Analysis - Photo Log



SRCB051A.jpg

SRCB052A.jpg

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SRCB067A.jpg

SRCB071A.jpg





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